

The Rail Central Rail Freight Interchange

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Northampton Gateway Examination

Response to ExA's Questions (ExQ1)
on behalf of Ashfield Management
Limited and Gazeley GLP
Northampton s.a.r.l.

**Northampton Gateway PINS Reference Number
TR050006**

6 November 2018

Introduction

- 1.1 This submission is made on behalf of Ashfield Land Management Limited and Gazeley GLP Northampton s.à.r.l. (together "the Applicant for Rail Central") in response to the Examining Authority ("ExA") First Written Questions ("ExQ1") on the Application by Roxhill (Junction 15) Limited for a Development Consent Order for the Northampton Gateway Strategic Rail Freight Interchange ("Northampton Gateway").

ExQ1 Responses

- 1.2 The Applicant for Rail Central has been specifically requested to provide answers to responses ExQ1 1.3.4 and 1.4.6, which are provided within separate Appendices (1 and 2). The Applicant for Rail Central has also responded to questions directed to the Applicant for the purposes of assisting the ExA. The Applicant for Rail Central would reserve their position in that where they have not responded to all questions directed to the Applicant or other Interested Parties, they can comment on all ExQ1 responses given at Deadline 2.

Structure of Response

- 1.3 Enclosed within this document is a Schedule of Responses and the following six appendices:
- Appendix 1 – Response to Question 1.3.4
 - Appendix 2 – Response to Question 1.4.6
 - Appendix 3 – Rail Central Planning Statement
 - Appendix 4 – Rail Central Alternative Sites Assessment
 - Appendix 5 – Cumulative Assessment in the Rail Central ES (Chapter 22)
 - Appendix 6 - Conclusion Chapter in the Rail Central ES (Chapter 23)

Responses of Ashfield Land Management and Gazeley GLP Northampton s.a.r.l. to the Examining Authority's written questions (ExQ1) on the Application by Roxhill (Junction 15) Limited for a Development Consent Order (DCO) for the Northampton Gateway Strategic Rail Freight Interchange (PINS Ref. TR050006)			
ExA Reference	Question to	Question	Response on behalf of Ashfield Land and Gazeley GLP Northampton
1.0.2	The Applicant	It is not always clear from the aspect chapters in the ES how the mitigation measures relied upon in the ES have been secured. Can the Applicant provide a table including all mitigation relied upon in the Environmental Statement (ES) and the mechanism by which mitigation is secured, as recommended in Annex 1 to the Inspectorate's Advice Note 7 (Presentation of the Environmental Statement)?	The uncertainty raised is compounded by insufficient clarity on whether the mitigation relied on in the Northampton Gateway EIA is primary/secondary/ tertiary (according to the IEMA methodology) or "embedded" or "adaptive". In addition, it is often unclear that an assessment of the mitigation measures has been undertaken, rather than deferred to a later stage. The mitigation (as per IEMA's guidance on "Shaping Quality Development") requires to be delivered to address specific identified environmental effects arising from a "reasonable worst case" - in this case likely from the parameters that form the basis of the DCO application. There also needs to be confidence that the delivered mitigation will be successful and effective at doing that. Without this, and an understanding of the control mechanisms there is limited confidence in the conclusions of the ES and the certainty of the residual effects.
1.0.3	The Applicant	In some chapters of the ES a summary table is provided presenting the potential effect of the Proposed Development, the mitigation applied (if applicable) and the significance of the residual effect. Can the Applicant please provide a consolidated summary table in this format for all the ES chapters?	At present there is no identification of the key significant effects arising from the project as a whole, to allow conclusions as to the environmental effects across the entire development to be drawn. This omission adds to general concerns over the quality of the ES and how consistently the project is assessed throughout. It is often unclear what the assessment of significant environmental effects is based upon as the project description is insufficient and not consistently applied in each chapter. Specific examples are provided in response to other questions.
1.0.4	The Applicant	Within the ES Non-technical summary [APP-303] at paragraph 1.3 the Applicant lists the "key elements required" in the ES. Please will the Applicant comment on the wider requirements of Reg 14(2)(f) and Schedule 4 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 and identify how those are addressed?	We consider that several of the requirements in Schedule 4 are omitted from the NG ES, including (according to the numbering of Schedule 4): 2) a description of the reasonable alternatives studied (particularly in terms of the evolution of the design - even if alternative sites were not meaningfully studied) 3) a consideration of the evolution of the baseline in the absence of the development (the baseline itself is only described in the technical chapters and changes to this in the absence of the development are inconsistently described, and omitted from most assessments. In particular, the changes possible to the baseline as a result of climate change are not consistently described or considered in a separate chapter) 4) consideration of the of the factors specified in regulation 5(2) likely to be significantly affected by the development: especially human health and climate (for example greenhouse gas emissions, impacts relevant to adaptation). (Human Health - the approach considered is deferring to the rest of the ES, but it is not clear how health related effects have been scoped at the outset and this approach is not followed throughout the remainder of the ES. Climate Change - the approach refers to a Sustainability Statement and commitments. It is not clear how climate related effects have been scoped at the outset. There is little meaningful reference to climate change (in particular GHG) within the ES. 5) A description of the likely significant effects of the development on the environment resulting from (in particular) risks to human health, cultural heritage or the environment (for example due to accidents or disasters), the cumulation of effects with other existing and/or approved projects and the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change).

			7) A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example, it is not clear what mitigation is built into the project, or what reliance is placed on the CEMP).
			8) A description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters.
			In general, there is very little information on the approach or assessment methodology adopted across the ES, including a "reasonable worst case" in accordance with the Rochdale Envelope. The methodology for assessments throughout the ES are inconsistent, making the ES read as a series of independent assessments rather than a coherent assessment of the potential significant effects on the environment as a whole. As the methodology is not defined, it is not clear that all the assessments are giving the same "weight" to significance. In addition the following are considered omissions that make the ES deficient for the purposes of the 2017 EIA Regulations: Consideration and resolution of any coordinated approach across EIA and the Conservation of Habitats and Species Regulations, 2017; the boundaries and timeframes across which baseline data has been collected for; how mitigation has been considered within the ES (primary, secondary and tertiary); significance criteria and the approach to determining sensitivity, magnitude, duration etc.; limitations; the role of illustrative material; or EIA guidance. This has resulted in different approaches being adopted across the ES Chapters.
			The cumulative assessment is unclear, particularly in terms of the transparency and application of a consistent assessment methodology and evaluation of the sensitivity of receptors. There is no methodology documented as to how the four projects considered in the Northampton Gateway cumulative assessment were identified. This includes criteria in relation to timing; geographical boundary; scale of development and status (i.e. approved or likely to be approved prior to the determination of the DCO).

			<p>The selection of projects alludes to an identification process in 2016, which would not represent an up to date selection of projects for adequate consideration of cumulative impacts. Without a transparent methodology, or adoption of clear criteria for selection, the adequacy of the approach cannot be validated. The ES does not consistently assess the four projects. For example, Chapter 3 of the NG ES considers 10 projects and other chapters consider 1, 2 or 3, often without reasoning. The NG ES and all Chapters within it do not identify the technical information and its source associated with the four projects which has informed the Cumulative Assessment. We doubt that there been sufficient technical information sourced, reviewed and considered across the ES. It is also unclear what limitations were experienced if there was insufficient technical data. There is uncertainty whether all four projects in combination with Northampton Gateway have been assessed as a whole; instead a series of separate assessments of each of the four projects in combination with Northampton Gateway has been undertaken. For example, the matrices provided in Chapter 15 of the NG ES provide evaluation for each of the projects in isolation with Northampton Gateway. The Chapter assesses principles on the Illustrative Landscape Masterplan rather than the Parameters, therefore, the conclusions of the assessment are not based on the description of development upon which consent is sought or for which parameters will be secured. Evidence and reasoning for the conclusions made is often not provided and therefore the conclusions cannot be validated. For example: (a) it is not clear how Chapter 14 of the NG ES (Waste and Resource Management) concludes 'major cumulative impact' and then 'minor cumulative impact', when no residual effects have been identified at the project level; (b) It is not clear how Chapter 14 of the NG ES (Ecology and Nature Conservation) concludes 'negligible' effects at the project level and then undertakes a cumulative assessment which concludes effects of 'Local significance'; or (c) It is not clear how 'moderate cumulative effects' identified in Chapter 10 of the NG ES (Cultural Heritage) have informed the cumulative assessment 'as a whole'.</p>
[Blank reference]	The Applicant	In the ES Non-technical summary at paragraph 2.30 it is concluded that the Rail Central project is "materially inferior". Please will the Applicant clarify exactly where that conclusion is reached in the ES?	<p>There is no justification or evidence for the conclusion that RC is 'materially inferior'. The assessment undertaken by the RC team does not lead to this conclusion. As summarised in Chapter 23 of the RC ES (Conclusions - [Appendix 6 to this response document]), implementation of RC would result in residual significant effects in seven topic areas, of which four are positive (on socioeconomics, hydrology (flood risk/ drainage), climate (GHG emissions) and landscape character benefit as a result of the landscaping south of J15a). Residual significant adverse effects remain during operation of RC on limited receptors, as addressed in the landscape and visual, built heritage and agricultural land assessments.</p> <p>There is no simple comparison of similar residual effects for NG, though given the nature of the proposal, similar adverse effects on landscape and visual, built heritage and agricultural land are inevitable. However, uncertainty over the conclusions reached in the NG ES remain, due to a lack of clarity in the mitigation assumed, and how this will be achieved and monitored, and in the methodology used for the assessments. Similarly, the reliance that can be placed on positive effects identified by NG is unclear.</p> <p>We consider that both schemes can work together, as stated in the RC planning statement [Appendix 3 to this response document], Alternative Sites Assessment [Appendix 4 to this response document] and Cumulative Assessment in the RC ES (Chapter 22 [Appendix 5 to this response document]).</p>
1.0.5	The Applicant	Can the Applicant please explain the basis of the scheme design now providing rail connection to about 60% of the on-site warehousing? Within the Design and Access Statement [APP-379] an earlier iteration of the evolving design showed a greater percentage of warehousing being directly connected to rail but by July 2016 connection to units closest to the M1 was omitted "due to levels". Please explain.	<p>The evolution of the design, including such changes should be included within the ES in accordance with the requirements in Schedule 4 (2) of the 2017 EIA Regulations. This should include a comparison of the environmental effects where relevant. Although this is summarised in the DAS, its omission from the ES means that the comparison with earlier layouts cannot be made.</p>

1.0.10	The Applicant	The main site phasing plan (within ES Appendix 2.1) [APP-126] indicates development arisings in the second year of completed earthworks of 149,000m3. Please explain what will happen to these arisings having regard to the following: (i) How does this relate to what is stated in ES Chapter 14, paragraph 14.5.12 that there will be no requirement for the disposal of excavated material off site and paragraph 14.5.15 which states that waste will either be re-used on site or exported off site for re-use? (ii) If it is the intention that arisings are to be moved off site would this be via rail, given the stated intention to provide the rail terminal at an early stage of the development? (iii) If they are to be moved off site by road, has this been taken into account in the construction traffic impacts? And (iv) What is their likely destination?	As highlighted in relation to Question 1.0.4, this is an example of general inconsistencies in the ES, which cast doubt on the integrity of the assessment across the ES. The ES must contain information in Schedule 4 of the EIA Regulations to allow an assessment to be made, and this is not always clearly or consistently laid out in the project description (in Chapter 2 of the ES) or elsewhere. Here it is not clear what the assessments have assumed (i.e. is there or is there not off-site disposal? This will presumably potentially affect the environmental impacts on traffic (and therefore noise & air quality), waste, geology/soils (contamination?) and possibly cumulative impacts) and therefore the reliance that can be placed on conclusions of the environmental impact from the project as a whole are uncertain.
1.0.12	The Applicant	The ES does not appear to provide an estimate of the duration of the construction of the 'expansion' and 'Rapid Rail Freight' facilities as shown on the Illustrative Rail Terminal Plan [APP-060]. Can the Applicant explain what the duration of the construction of these facilities will be, and how this has been accounted for in the assessment of effects?	As highlighted in response to question 1.0.4 there is a general lack of consistency on the project description and methodology. As there is no EIA Methodology chapter (or even a standard approach outlined in each chapter), each technical chapter considers "the project" independently, and the approach to the relatively long term construction period is therefore unclear and inconsistent. It is therefore not clear how phasing will be brought forward, and how this has affected the assessments made in each of the ES chapters.
1.0.14	The Applicant	ES Chapter 2 (Description of development) [APP-078] at paragraph 2.3.5 refers to the Illustrative Rail Terminal Plan. Although illustrative the description then says it shows the stages of "how the terminal will be expanded over time". The use of the word "will" is not consistent with the document being illustrative. Please can the Applicant clarify whether the ExA is to take it that the stages are not illustrative, but definitive? Is the Illustrative Rail Terminal Plan illustrative or not?	As highlighted in response to question 1.0.3 and 1.0.4, there is a general lack of consistency on the project description in the ES, including what is assumed to be in place at first operation, and how this will expand to full capacity - including how mitigation will be implemented to take account of this expansion. Therefore it is not clear that each technical chapter is following the same approach.
1.0.15	The Applicant	There is considerable reliance on phase-specific Construction Environmental Management Plans, which are to be drafted in accordance with the principles set out in the overarching Construction Environment Management Plan. Please can the Applicant explain how this will comply with EIA law on staged approvals? Please also see questions ISH1:107A, 107B and 107C.	As highlighted in response to question 1.0.2, mitigation is poorly defined. The Rochdale Envelope approach requires a consideration of a "realistic worst case" with all foreseeable potential environmental impacts arising having been addressed, so the mitigation proposed should be based on this assessment rather than deferred to a phase-specific CEMP. The overall process for incorporation and implementation of the CEMPs should follow the practice outlined in IEMA's guidance "Delivering Quality Development".
1.0.16	The Applicant	The Guide to the Application [APP-003] discusses works to Junction 15 of the M1 and the A45 (Works No. 8), concluding that having regard to the definition of a Nationally Significant Infrastructure Project (NSIP) in s.22 of the PA2008 the works do not in themselves constitute an NSIP. The justification provided in paragraph 3.10 does not appear to accurately reflect the wording of s22. Is the Applicant's position that Works Nos 8 and 11 are not NSIPs in their own right, and can only be within the DCO if they are Associated Development?	As addressed in relation to question 1.0.4, the assessments undertaken in the ES do not consistently assess the development other than the Main Site. Therefore the environmental impact of the bypass and other highway mitigation is unclear. Other highway mitigation (including works to J15a of the M1) are addressed sparsely if at all, and are often excluded from figures. The 3 figures associated with Chapter 2 are based on the Main Site only, with the bypass and other Highway Works not included.
1.0.18	The Applicant	The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 require consideration of monitoring and remedial action – see for example Schedule 4 paragraph 7 and the Secretary of State's duties at Regulations 21(1)(d) and (3) and 30(2)(dd). Please will the Applicant explain what monitoring arrangements are proposed and what provisions in relation to remedial action are proposed?	As limited consideration of monitoring of the development is provided in the ES - either within the CEMP or having been incorporated into the ES chapters to address the "success" of the proposed mitigation - there can be limited weight given to the mitigation where it is described. In addition, until an assessment of the effects have been made, the success of the mitigation can have limited weight placed on it - especially where the mitigation measures are not defined. This is a general omission in the ES, and raises questions on the consideration with which the mitigation has been developed and how it is anticipated to avoid or reduce identified environmental effects.
1.1.	Air Quality and Emissions		

1.1.1	The Applicant	<p>Paragraph references are to those in ES Chapter 9 (Air Quality) [APP-095] unless otherwise stated. In relation to the Air Quality chapter [APP-095] as a whole the ExA would appreciate it if the Applicant could be very clear when answering in its explanation of the standards and tests how conclusions are reached. Please could the Applicant supply a glossary of all the abbreviations and acronyms used in this chapter? The UK Air Quality Strategy Paragraph 9.2.15 refers to the “UK Air Quality Strategy (UKAQS) (Ref 9.5). However, Ref 9.5 is the NPPF. It seems there is a choice of documents. Please state whether the reference is intended to be to:</p> <ul style="list-style-type: none"> · The air quality strategy for England, Scotland, Wales and Northern Ireland: Volume 1 (26 March 2011), or · Air quality: draft Clean Air Strategy 2018, 22 May 2018, · Air quality plan for nitrogen dioxide (NO2) in UK (2017), 26 July 2017, or · Defra, 2007, The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, HMSO (which is ref 9.1 in the Chapter), or some other document. 	Comments on the lack of consistency and clarity across the ES are addressed in response to questions 1.0.3 and 1.0.4.
1.1.4	The Applicant	<p>Paragraph 9.4.3 indicates the stated justification provided for only assessing PM10 and NO2 effects on the environment is due to these pollutants being “the two main UKAQS pollutants of interest” Will the Applicant please justify why only PM10 and NO2 have been included in the air quality assessment even though there is a requirement in the EU Ambient Air Quality Directive and the associated UK regulations, and the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 to assess the impact from other pollutants?</p>	Comments on the lack of consistency and clarity across the ES are addressed in response to questions 1.0.3 and 1.0.4.
1.1.10	The Applicant	<p>Paragraph 9.3.15 states an assessment of operational dust impacts will be undertaken. Why has this not been done – see especially ex parte Hardy [2001] Env L R 25; [2001] JPL 786 – which was discussed at ISH1 and which at first sight requires surveys to be carried out prior to the grant of consent? Could the Applicant please describe how the operational dust assessment will be undertaken and taken into account and whether this is consistent with the case law, particularly in the light of ex parte Hardy?</p>	Comments on the lack of an appropriate approach to assessment and mitigation are considered in the response to question 1.0. 2 and 1.0.18.
1.1.11	The Applicant	<p>Paragraph 9.3.29 states that an additional transport scenario called “J3” has been assessed that takes into account Rail Central and which assesses the NO2 and PM_{10} levels for construction and operation. No explanation has been provided why a cumulative dust assessment for both developments has not been undertaken. With reference to the potential for likely significant effects, can the Applicant explain why a cumulative dust assessment has not been undertaken?</p>	Comments on the cumulative assessment are made in the response to question 1.0.4. The cumulative assessment is not in accordance with the assessment methodology in 15.3. If other projects were scoped out of the cumulative assessment, no evidence base has been provided. Overall, the approach to cumulative assessment is inconsistent casting doubt on the conclusions reached.
1.1.25	The Applicant	<p>Paragraph 9.4.13 refers to “<i>predicted</i>” annual mean concentrations. Please state for which year they are predicted, and with or without the Proposed Development? How is the prediction made from the data in Table 9.5?</p>	Comments on the methodology followed are provided in response to question 1.0.4.
1.1.30	The Applicant	<p>Paragraph 9.5.14 states that there is a high risk of dust impacts to human receptors within 20m of the Proposed Development. The ExA notes that there are residential dwellings within 20m of the Proposed Development main site northern boundary which have not been included within the dust assessment and are therefore omitted. Could the Applicant explain why the residential dwellings adjacent to the northern boundary of the Proposed Development have not been included in the dust impact assessment?</p>	As it is not clear where the dust generating sources are, the Rochdale Envelope would require them to be placed at the boundary of the site. As addressed in response to Question 1.0.4, there is limited information provided in the project description, limiting the confidence that can be placed in the assessment.

1.1.32	The Applicant	Throughout the air quality ES chapter [APP-095], the magnitude of impacts arising from demolition work is determined to be small and the sensitivity of receptor is determined to be medium. Following the Institute of Air Quality Management (IAQM) guidance this should result in a small risk of significant effects but the ES air quality chapter states that there is a negligible risk of significant effects. No explanation for this divergence from the IAQM guidance has been provided within the ES. Could the Applicant explain why the significance of effect arising from demolition works on the main site is concluded to be 'negligible' rather than 'small' as might be expected if the IAQM guidance on the assessment of dust from construction and demolition has been followed?	The failure to follow guidance of the IAQM, and the lack of a methodology to explain any deviation from this casts doubt on the conclusions. This adds to the overall doubts of the consistency and competence of the ES as addressed in response to question 1.0.3 and 1.0.4.
1.1.33	The Applicant	The Applicant is in consultation with Northampton Borough Council regarding contributing to the delivery of new electric vehicle charging points and the potential introduction of cleaner EURO IV class buses for the dedicated bus service to the Proposed Development. The ExA notes that no draft plan detailing how and when these measures will be undertaken has been provided. Furthermore, these measures do not appear to have been secured through the DCO. (i) Could the Applicant describe the mitigation measures which have been discussed with NBC to reduce the adverse impacts on AQMA 4? (ii) How and when would these measures be delivered? (iii) How is their delivery secured through the draft DCO?	This is covered in response to question 1.0.2, addressing the inconsistency in the mitigation proposed, and the implementation of this mitigation. If the residual effects in the AQ chapter are based on the assumption that electric charging points are installed, to allow for the use of electric vehicles and therefore reduce diesel emissions arising from transport to/from NG, this needs to be secured within the DCO. As it stands it is not clear that this is deliverable, and cannot therefore be relied on as mitigation within the ES.
1.1.35	The Applicant	The ES chapter on air quality [APP-095] has not included any information regarding the potential air quality effects that the increase in the number of train movements may have on the environment. Could the Applicant explain why the assessment of local air quality effects does not include any reference to the effects from any potential increase in train movements?	This is a further example of omissions from the environmental effects addressed in the ES, as outlined in response to Question 1.0.4.
1.1.36	The Applicant	Paragraph 9.5.46 says " <i>Rathvilly and Lodge Farms are the only human receptors currently located within 350m of the Proposed Aggregate Terminal; however, the Proposed Development will introduce a number of additional human receptors within this boundary. These receptors are, however, not considered highly sensitive to nuisance dust impacts.</i> " Please explain why they are not highly sensitive. What is their sensitivity and why? The following sentence states that the human receptors have low sensitivity to dust soiling, enabling the conclusion that the overall sensitivity is considered low. Please explain how the human receptors can be said to have low sensitivity.	There is insufficient evidence provided to justify a "low" sensitivity, which casts doubt on the conclusions of the ES, as outlined in response to question 1.0.4.
1.1.37	The Applicant	Paragraph 9.5.57 refers to " <i>the following equation</i> " but does not give it. It is also used in the following paragraph. Please provide the equation. Are there other equations for this purpose? If so, please explain – if it is the case – why is this formula is to be preferred.	This highlights the lack of consideration and review in the ES as addressed in response to question 1.0.3.

1.1.42	The Applicant	<p>Local Study Area, AQMA No 4</p> <p>(i) Paragraph 9.5.75 states: "Modelled receptors in the Northampton AQMA No.4 study area are detailed in Appendix 9.2, and displayed on Figure 9.8". However, Appendix 9.2 lists receptors K1 – K13 but Figure 9.8 shows receptors R1-R11. Please will the Applicant clarify?</p> <p>(ii) Please will the Applicant also check the other tables and figures for this chapter to ensure they all correspond correctly, and give the result?</p> <p>(iii) Paragraph 9.5.81 says "Of the receptors where likely significant impacts are expected (K4, K7, K10 and K12), all were located on Harborough Road, within proximity of junctions and slowed traffic, where long term concentrations of NO2 are predicted to be within 5% of the AQS". Is this 5% above or 5% below the AQS?</p> <p>Paragraph 9.5.85 states "In this sensitivity test, the largest increase in annual mean NO2 occurs at K10, where a 0.7 µg.m-3 increase is predicted",</p> <p>When one looks at Appendix 9.4, which contains the sensitivity test, it is seen that the Change due to Development is said to be columns B minus A. That, however, gives the result for K10 of minus 3.3. The explanation seems to be that the Change due to Development is B minus the centre column, which has no letter. Please can the Applicant confirm this is the right interpretation?</p> <p>(iv) What is the other sensitivity test referred to in para 9.5,86?</p> <p>(v) Paragraph 9.5.86 goes on to say that "The discrepancy in significance between the two sensitivity tests is due to the 'long term average concentration' at each receptor, with concentrations in the 2016 sensitivity on average 3.5µg.m-3 higher at each receptor". How does the 3.5µg.m-3 increase relate to the AQS (or other relevant standard used in this section of the chapter)?</p> <p>(vi) Does this affect the conclusion at paragraph 9.5.7? Could the Applicant please explain the conclusion more fully and clearly?</p>	<p>As addressed in response to question 1.0.3, there are inconsistencies which indicate a lack of consideration and review within the ES, casting doubt on the extent to which the conclusions (for air quality, and for the whole ES) have been correctly reached, and the implications fully considered across the ES.</p>
1.1.47	The Applicant	<p>Paragraph 9.7.1 says that by adopting "appropriate" mitigation measures in the Construction Environmental Management Plan (CEMP) there are not expected to be significant nuisance effects.</p> <p>(i)What are the appropriate measures?</p> <p>(ii) How will it be known that they are appropriate?</p> <p>(iii)Where have they been assessed?</p>	<p>As addressed in response to question 1.0.2 and 1.0.18, there is a lack of consideration in the mitigation of the identified effects, and how this will be delivered. The mitigation (as per IEMA's guidance on "Shaping Quality Development") must be delivered to address specific identified environmental effects. There also needs to be confidence that the delivered mitigation will be successful and effective at doing that. A general reference to "appropriate measures" does not indicate what environmental effects require to be reduced, what will be done to achieve this, and how successful this is likely to be (and why). The residual impact assessment is dependent on these steps being followed, or else the conclusions can not have sufficient confidence placed on them.</p>
1.1.48	The Applicant	<p>Paragraph 9.8.1 looks at cumulative effects in the construction phase, but only cumulates with Rail Central. Could the Applicant explain why there are no other developments which could lead to cumulative effects with the Proposed Development, for example development at Northampton South SUE?</p>	<p>As highlighted in relation to Question 1.0.4, the cumulative assessment is flawed, in that the methodology outlined in Chapter 15 is not followed, and there is no explanation or justification of this in the chapter.</p>
1.1.51	The Applicant	<p>Paragraph 9.9.5 states:</p> <p>"Standard best practice measures associated with the operation of the proposed Aggregates Terminal will also be deployed to reduce the potential for significant off-site effects from dust." Will there be any such effects? If so, how significant will they be? (See also question Exq1.1.30). What type of "best practice" measures are proposed and what is the evidence that they would be effective?</p>	<p>As addressed in the response to question 1.0.18 - until an assessment of the effects have been made, the success of the mitigation can have limited weight placed on it - especially where the mitigation measures are not defined. No evidence is provided to indicate the extent of any likely issues on any identified receptors and what will be done to mitigate them - so limited weight can be placed on the stated residual effect.</p>

1.1.52	The Applicant	Please can the Applicant clarify the position on a travel plan? In paragraph 9.9.7 it is said that “there has been no consideration of the potential improvements due to the Proposed Development’s Travel Plan which in practice will also help reduce reliance on car travel and therefore reduce transport emissions further”. However paragraph 9.6.6 states: “A Framework Travel Plan and Public Transport Strategy have been produced for the Proposed Development, and include a number of measures to encourage travel by a range of modes other than the private car.” Please clarify whether the Framework Travel Plan and Public Transport Strategy has or has not been taken into account in the assessment and, if so, how.	This is addressed in response to question 1.0.2 and 1.0.18.
1.2.	Biodiversity, Ecology and Natural Environment		
1.2.2	The Applicant	It is noted that the list of Local Wildlife Sites (LWS) and proposed Local Wildlife Sites (pLWS) in the vicinity of the Proposed Development presented in Table 5.12 of ES Chapter 5 does not match the list of LWS/pLWS in Table 1 of Appendix 5.1 [APP-136]. Could the Applicant explain this apparent discrepancy? If necessary, the Applicant is requested to report any impacts on LWS/pLWS that may have been overlooked.	The lack of review within the ES is addressed in relation to question 1.0.3.
1.2.4	Natural England	Could Natural England confirm that it is satisfied that there would be no significant adverse effects to the Upper Nene Valley Gravel Pits Site of Special Scientific Interest from the construction and operation of the Proposed Development?	The Report on European Sites (Document 6.3) does not refer to any consultation with Natural England regarding potential effects on the SPA. The screening report does not address potential effects on the SPA as a whole from noise and air quality, even to rule them out (though it does rule out water quality, air quality and hydrology/flow as being influences on Golden Plovers using the SPA).
1.2.6	The Applicant	Paragraph 5.6.44 states that mature trees will be removed according to a precautionary method statement. However, this method statement is not referred to in either the CEMP or the Landscape Environmental Management Plan. Could the Applicant explain how the delivery of the method statement would be secured?	As addressed in response to question 1.0.2 and 1.0.18 there is a lack of detail on the mitigation to be used. At present it is not clear what the mitigation is, and whether that is reasonable (as it is not described). If the residual effects are based on implementation of this undefined mitigation, there is doubt cast on these effects and therefore the conclusion of the assessment.
1.2.9	The Applicant	Could the Applicant explain why the measures to protect great crested newts described in paragraphs 5.6.51 – 5.6.52 are not also referred to in the CEMP?	This is addressed in response to questions 1.0.2 and 1.0.18.
1.3.	Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations		
1.3.4	The Applicant, Ashfield Land and Gazeley GLP	Please fully explain the circumstances surrounding Plots 1/7 and 1/12 within the Proposed Development Main Site where compulsory acquisition is sought. This is in light of the owners’ agreement in respect of the potential neighbouring Rail Central proposal and for which it is understood this land would be required for landscape mitigation purposes and the diversion of a Public Right of Way in connection with that project?	This is addressed in Appendix 1 to this response document
1.4.	Draft Development Consent Order (DCO)		
1.4.6	The Applicant, Ashfield/ Gazeley, SNBC, NBC	Responses to ISH1:107A, 107B and 107C. The responses to these questions were largely dealt with by oral exchanges at the ISH. Will the Applicant please submit written answers either by way of an answer to this question or in its written submissions of oral answers specified for Deadline 1 (6 November). Although not mentioned in those questions, the ExA drew attention at the discussion to paragraph 13 of Schedule 2 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 and the Applicant is asked to address that provision as well. Ashfield/Gazeley also contributed to the exchanges and the ExA would be grateful if they could also submit written answers/written submissions of oral answers. Submissions from the County and District Councils would also be welcomed.	This is addressed in the Written Representations and Appendix 2 to this response document
1.5.	Geology, soil and groundwater		

1.5.1	The Applicant	All paragraph and section numbers relate to ES Chapter 6 (Geology, soil and groundwater) [APP-092] unless otherwise stated. Paragraph 6.5.28 indicates that in relation to soil excavation, if any unforeseen made deposits are encountered than a Materials Management Plan would be required. What are the implications of this?	This is addressed in relation to question 1.0.2 and 1.0.18.
1.5.5	The Applicant	In relation to the baseline, paragraph 6.4.2 explains that the works to six outlying junctions including J15A of the M1 are considered to be minor, “predominantly confined to the highway boundary” and that “no significant measurable disturbance or impact will be made upon the underlying geology, soils or groundwater regime”. Therefore they have been discounted from further assessment. This is based on the statements in para 6.4.2 that: “These works appear to be primarily white line adjustment, kerb line adjustment, signage, signalling, the addition of street furniture and the addition of central splitter islands and lanes as required. The aim of these works is understood to be to increase visibility ...” (underlining added). (i) The underlined words indicate some doubt. Please can the Applicant consider this and state clearly whether or not this is an accurate description of the works in question? If it is not, please indicate how. “Predominantly confined” suggests that there are some works outside the highway boundary. (ii) Is this the case? If so, please can the Applicant indicate to what extent and state the significance? (iii) It is stated these works include additional “lanes as required”. Do those result in works outside the highway boundary? (iv) Is the highway boundary the right measure? Highway boundaries typically include soft verges and undisturbed land.	This is addressed in response to question 1.0.3. It is not clear that the author of the chapter understands the project which casts doubt on the reliability of the assessment and confidence that can be placed on the conclusions reached.
1.5.6	The Applicant	Paragraph 6.5.15 states “Risk assessments will be undertaken to identify main health and safety and environmental risks and indicate suitable mitigation to be put in place to reduce risks to acceptable levels.” Should not this be done now? This is not dissimilar from the issue raised in question ISH1:107C (to be found in the Schedule of Examining Authority issues and questions relating to the dDCO, Table 1 of Annex G to the Rule 6 letter).	This is addressed in response to question 1.0.2. The process of EIA requires a full understanding of the potential environmental effects arising from the proposed development, and an indication of how these can be mitigated. At present, the omission of these risk assessments means that sufficient information is not available for a decision as to whether a potential significant environmental effect could occur, and if so, whether this can be appropriately mitigated. It is not possible to defer these assessments for these reasons.
1.5.7	The Applicant	Paragraph 6.5.58 states: “Where materials are required to be imported, the developer will endeavour to utilise recycled inert clean aggregate and soils sourced locally. This might include...”. (i) Has this been taken into account in assessing residual effects? (ii) Why is this not a firm commitment rather than a mere endeavour? What are the implications for the conclusions of the assessment in the ES if these measures are not delivered? (iii) Should not a specification for the materials be added rather than a statement of what they “might” be? What are the implications for the ES if they turn out not to be the substances listed?	This is addressed in response to question 1.0.2.
1.5.8	The Applicant	Paragraphs 6.5.57 and 6.5.58; these two paragraphs are under the heading “Sustainability” and conclude that the re-profiling and proposals for imported materials “represent a sustainable approach to development”. Is not the question, however, whether the Proposed Development will have any likely significant effects on the environment? Please could the Applicant also explain how these two paragraphs fit into, and can be taken into account in, the assessment of likely significant effects?	The issue is not whether the approach is “sustainable”, but whether the measures (even if sustainable) are likely to have a significant environmental impact. As this has not been established as required within an EIA, the ExA cannot have sufficient information to determine whether or not a significant environmental impact is likely to arise and therefore what any residual effects would be.
1.5.9	The Applicant	Cumulative impacts; section 6.7 asserts that there will be no cumulative impacts with the committed SUEs and Rail Central. There is, however, no explanation as to how the Applicant comes to this conclusion. Please will the Applicant comment?	The cumulative assessment in this chapter is flawed, in that the methodology outlined in Chapter 15 is not followed, and there is no explanation or justification of this in the chapter.
1.6.	Historic Environment		

1.6.1	The Applicant, Historic England	<p>All paragraph numbers relate to ES Chapter 4 (Landscape and Visual Effects) [APP-083] unless otherwise stated.</p> <p>The Grade II listed Courteenhall War Memorial is referred to within paragraph 10.5.12 of ES Chapter 10 (Cultural Heritage) [APP-113] where it is stated that the highway mitigation works to the A508, involving alteration to kerb-lines and provision of a new footway, are not considered to pose any material harm to this asset.</p> <p>(i) Can the Applicant please provide justification for this assertion?</p> <p>(ii) Can the Applicant please explain why the war memorial is not mentioned within the Built Heritage Statement (ES Appendix 10.1)?</p> <p>(iii) What are the implications of the footpath passing to the rear of the memorial when its inscriptions face the road where there would be no footpath?</p>	No evidence is provided as to how the Applicant concludes that the works will have no material harm to the asset. The assessment is therefore deficient and further work is required to understand the effect of the highway works on the listed structure.
1.7.	Landscape and Visual		
1.7.1	The Applicant	<p>Paragraph 4.4.3 of ES Chapter 4 (Landscape and Visual Effects) [APP-083] refers to an earthworks strategy and that mitigation mounding proposals for the main site of the proposed development and the Roade bypass corridor “will generally be formed using materials and soils from the adjoining or other nearby development plots”.</p> <p>(i) Can the Applicant please point to where the earthworks strategy may be found?</p> <p>(ii) Please explain what is meant by the use of “materials and soils from adjoining or other nearby development plots”.</p>	There is a lack of clarity and confidence with respect to the earthworks calculations presented in the NG ES Description of Development chapter (Ch 2) and the Main Site Phasing Plan (Figure 2.3). There is therefore doubt on the cut and fill, the anticipated volume of material available to form the proposed mitigation bunds, and the lack of defined height parameters for the proposed mitigation bunds. As addressed in question 1.0.2, this creates uncertainty with respect to the aesthetic appearance and design of the bunds and their integration into the existing landscape, together with uncertainty as to the robustness of the conclusions of the landscape and visual impact assessment.
1.7.3	The Applicant	The cross-section drawings in ES Chapter 4 provide approximate height measurements (AoD) for the proposed landscape screen bunds. What confidence can the ExA have in the ability of the bunds to perform their mitigation functions, without producing additional adverse effects in themselves, in the absence of maximum and minimum values for the heights of the landscape screening? Can the Applicant please explain the extent to which the assessment of effect is sensitive to the finished level of landscape screen bunds? The ExA notes that the assessment describes ‘approximate’ heights only and the DCO does not constrain the finished level(s) in any way.	As outlined in response to question 1.7.1, there is uncertainty with respect to the aesthetic appearance and design of the bunds and their integration into the existing landscape, together with uncertainty as to the robustness of the conclusions of the landscape and visual impact assessment.
1.7.5	The Applicant	It is unclear whether the Proposed Development would be capable of being seen from Viewpoint 22 (ES figure 4.7) [AA-085] since this is simply annotated as “ <i>General Direction of the Main Site</i> ”. This viewpoint is within the Zone of Theoretical Visibility (ES figure 4.9) [APP-086]. Can the Applicant please indicate what degree of visibility of the Proposed Development there would be from this viewpoint, and the area of Blackymore Park more generally, providing illustrative material as necessary?	There is no written description provided with respect to the baseline conditions and the extent of visibility of the proposed development from the representative photo viewpoints, and it is not easily apparent which visual receptors they represent and are likely to be affected. This is contrary to Paragraph 6.24 of the 2013 Landscape Institute and Institute of Environmental Management & Assessment, Guidelines for Landscape and Visual Impact Assessment, Third Edition.
1.8 Noise and Vibration			
1.8.1	The Applicant	All paragraph numbers and Tables referred to are those in ES Chapter 8 (Noise & Vibration) [APP-094]. Can the Applicant please explain how the receptors presented in Table 8.12 have been selected, what the acoustic study area is and how it has been defined?	It is not clear how the study area for the road traffic noise assessment has been determined, which appears to be quite limited. No assessment of road traffic noise level change for road links on the wider network appears to have been carried out.
1.8.6	The Applicant	Can the Applicant explain the nature of the receptors set out in Table 8.12 and explain how the sensitivity of the receptors to road traffic noise in the operational phase of the Proposed Development (including the Roade Cutting SSSI and Roade Quarry Local Wildlife Site) has been determined?	As outlined in response to question 1.0.4, information on the nature of receptors (including their sensitivity) is lacking and no amenity or recreational receptors, such as footpaths, have been considered.
1.8.7	The Applicant	Can the Applicant confirm if an exceedance of the Significant Observed Adverse Effect Level (SOAEL) threshold values for construction noise at residential buildings (Table 8.1) constitutes a significant effect in EIA terms?	We consider that the thresholds for significant effect relating to construction noise, as set out by the Applicant, are excessively high, particularly for long term construction activities. BS 5228 suggests a significant effect could arise at levels 10dB below the thresholds cited by the Applicant, according to the ABC method, or potentially even lower where construction activities are carried out continuously over a long period of time. It is, therefore, considered that the stated SOAEL threshold values do not represent the threshold of significant effect.

1.8.8	The Applicant	Chapter 8 states that the shaded boxes with text in bold in Tables 8.4, 8.5, 8.9 and 8.10 indicate a significant adverse effect; however, bold text is not consistently used. Can the Applicant confirm that if the result for a receptor falls in the categories shown by the shaded cells in Tables 8.4, 8.5, 8.9 and 8.10, this indicates that there is a significant adverse effect in EIA terms?	The thresholds are only relevant to residential receptors. No thresholds for other receptor types of potentially differing sensitivities have been identified.
1.8.9	The Applicant, EA, SNDC and NBC	Annex E.5 of BS 5228-1 states that where construction works involve long-term substantial earthmoving then the activities are more akin to surface mineral extraction than conventional construction activity, and should be treated as such with a suggested limit of 55dB LAeq,1h for daytime construction noise. The Proposed Development will entail bulk earthworks with a proposed duration of 2 years. However, the assessment instead applies the methodology described in Table E.1 of BS 5228-1. Can the Applicant explain why the approach in Annex E.5 was not followed in this respect? Can the Environment Agency, South Northamptonshire and Northampton District Councils confirm whether they consider the approach taken by the Applicant is adequate in light of the guidance on long-term substantial earthmoving?	The Applicant appears to be applying the methodology described in Table E.2 of BS 5228-1 (eligibility for noise insulation), and not Table E.1 (ABC Method for identifying significant effects) . The EIA should primarily seek to assess the potential for significant effects to arise. The well established ABC Method indicates that the final determination of significant effect should consider various factors, including duration of impact. The Applicant has not given any consideration to the duration of impact. The thresholds applied by the Applicant are considered to be too high by up to 15dB. Therefore, the level of effect will be greater than that reported by the Applicant.
1.8.12	The Applicant, Environment Agency, SNDC and NBC	Having regards to construction vibration at residential buildings, can the Applicant explain why a threshold level of 0.5 mm/s was chosen given that BS 5228-2 Table B1 states that vibration might be just perceptible in residential environments at a level of 0.3mm/s? Can the Environment Agency, SNDC and NBC confirm whether they consider the approach taken by the Applicant is adequate in light of the guidance?	It is considered that the threshold for LOAEL should be 0.3mm/s, as per the threshold of perceptibility stated in BS 5228-2 Table B1. The Applicant's use of 0.5mm/s for the LOAEL appears somewhat arbitrary.
1.8.13	The Applicant	Can the Applicant explain, for the assessment of effects from operational SRFI activities at the Main Site, how the difference in noise levels, the resulting absolute levels of sound, and the character of the sound source have been combined to establish the significance of the effects?	The Applicant has carried out an initial assessment in accordance with BS 4142. A further assessment is then carried out by converting the established BS 4142 Rating Level to an 'internal rating level' and comparing this to criteria set out in BS 8233. While an attempt has been made to account for acoustic character in the assessment of internal noise levels, there are no existing Standards or guidance that support this methodology. The correction applied for acoustic character to internal sound levels, should be based on empirical evidence and the results of studies carried out to determine the corrections that should apply to take account of human perception, which in this case do not exist. Additionally, the Scope of BS 4142 states that the standard is not intended to be applied to the derivation of indoor sound levels arising from sound levels outside, or the assessment of indoor sound levels. It is considered that the criteria set out in BS 8233 are not appropriate for the assessment of industrial sound, where this is subject to a character correction under BS 4142.
1.8.14	The Applicant	Paragraph 8.5.3 states that noise arising from construction activities assumes the activities are “in relatively close proximity to the receptor”. Can the Applicant define what is meant by close proximity, and explain the extent to which this represents a suitable assessment of the worst case?	As outlined in response to question 1.0.4, the applicant provides insufficient information here to allow the assessment to be scrutinised or to check that reasonable assumptions have been made. Without a clear indication of the distances assumed the construction noise predictions cannot be relied upon.
1.8.20	The Applicant	The Applicant relies on the assumption that freight trains will be less noisy in the future to mitigate for the significant adverse effects arising from operational railway noise in the 2043 night-time scenario. Can the Applicant provide information regarding the work being undertaken to reduce train noise, and provide an indication of the certainty that is in place to enable this to be relied upon as mitigation?	This mitigation cannot be relied on, and as outlined in response to question 1.0.2, it cannot form the basis for the residual effects.
1.8.21	The Applicant	Can the Applicant provide a level of significance for the residual effects in Table 8.21, and include a justification to support the level assigned?	As considered in relation to question 1.0.2, there is no clear indication of what the residual effects are or how effectively these are reduced by the proposed mitigation. Additionally, the assessment of on-site operational noise significantly underestimates the noise output of some sources and omits a number of other potentially significant sources altogether, such as warehouse mechanical ventilation plant and trailer mounted diesel driven chillers. Consequently, the potential effects of operation have been underestimated and very little mitigation other than earth bunds has been proposed. It is considered that there is insufficient information included in the assessment to reach any conclusion of potential significant effect.

1.8.23	The Applicant	The ES does not assess the cumulative noise and vibration effects of the Proposed Development and the Northampton South Sustainable Urban Extension (SUE), on the grounds that the latter is “primarily residential and is therefore not a development that is expected to generate noise” (paragraph 8.8.4). No quantitative data is provided to scope the construction and operation of this development out of the assessment. Can the Applicant provide further justification for not assessing the cumulative noise and vibration effects of the Proposed Development and the SUE, especially given the potential for their construction periods to overlap?	This is addressed in the consideration of the cumulative assessment in question 1.0.4.
1.8.24	The Applicant	Paragraph 8.6.5 states that the CEMP “may include” a noise monitoring regime. However, the draft CEMP indicates that monitoring will be undertaken. Can the Applicant confirm whether noise monitoring will be undertaken and explain what the consequences would be of a breach in acceptable noise levels?	As outlined in response to question 1.0.18, there is inconsistency between the mitigation allowed for in the ES and that outlined in the CEMP. The contents of any noise monitoring plan (albeit not necessarily the details) should be included in the CEMP which will become a requirement of the DCO. If noise monitoring is relied on as mitigation, there needs to be sufficient information provided to indicate whether such mitigation is sufficient and appropriate, and to ensure it can be relied on to mitigate the identified environmental effect.
1.8.26	The Applicant	The Applicant proposes to mitigate the significant adverse effects from road traffic noise on Receptors R30 (West Lodge Cottages) and R57 (The Lodge) through the implementation of the Noise Implementation Regulations 1975 (as amended 1988). Can the Applicant explain the mechanism by which this mitigation is secured and how it will be delivered?	This is addressed in response to question 1.0.2.
1.9.	Cumulative impacts and interactions		
1.9.1	The Applicant	<p>Paragraph numbers are those within ES Chapter 15 (Cumulative impacts) [APP-123] unless otherwise stated. At present, assessments of cumulative and in-combination impacts which take account of the Rail Central proposal have been based on that project’s publicly-available pre-application material. There was considerable discussion at the PM of cumulative effects with the Rail Central proposal and these are due to be considered at the cumulative effects ISH4 on 12 March 2019.</p> <p>The SoCG requested by the ExA at Annex E of the Rule 6 letter, between the Applicant and Ashfield/Gazeley, was originally requested by Deadline 1. Following submissions by the Applicant, the ExA has decided to accept their request that the deadline for its submission should be moved to Deadline 3. Ashfield/Gazeley have requested that an SoCG between Ashfield/Gazeley, the Applicant and Network Rail should be required, to address the operational compatibility between the two schemes – see Osborne Clarke’s letter of 2 October 2018 and submissions made at the PM. The ExA have decided to require this, and that it should be provided by Deadline 3.</p> <p>Separately, please will the Applicant submit an updated cumulative impact assessment, taking into account any further available material in relation to Rail Central, by Deadline 4? The ExA will require all elements of the Applicant’s assessments which incorporate cumulative and in-combination assessment involving Rail Central to be updated.</p> <p>Wherever possible the updated assessment should be quantitative rather than qualitative; where qualitative assessments are relied upon then a justification should be provided as to why this is the case. The assessment should clearly explain the significance of the cumulative effects and explain how the significance of effects has been determined.</p> <p>The ExA is aware that the timeframe for this may be short. As such, can the Applicant please indicate at Deadline 1, with updates at Deadlines 2 and 3, what mechanisms it aims to put in place by which its cumulative and in-combination impact assessments will be updated?</p>	The Applicant has met the RC team to discuss the cumulative assessment and a copy of the application documents has been provided. Comments on the cumulative assessment are provided in response to question 1.0.4.

1.9.2	The Applicant	Bearing in mind in particular Reg 5(2) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, and in relation to “impact interactions” as defined in paragraph 15.1.4: i) Can the Applicant please explain how assessment of “impact interactions” as defined in paragraph 15.1.4 of the ES [APP-123] was carried out? ii) Can the Applicant also demonstrate how the methodology has been used to reach the conclusions presented in Tables 15.1 and 15.2? iii) Can the Applicant explain how the receptors listed in Table 15.1 and 15.2 of the ES were identified? Why has the off-site historic environment not been included as a receptor? If necessary, please explain the impact interactions on the off-site historic environment. iv) Can the Applicant describe the methodology used to define and determine significance? The Applicant is requested to provide updated versions of Tables 15.1 and 15.2 which clearly explain how the methodology has been used to reach the conclusions presented in the tables. v) Paragraph 15.1.8 of the ES states that the impact interactions have been assessed in the relevant topic chapters of the ES. The Applicant is requested to identify the paragraphs in each relevant chapter of the ES that deal specifically with impact interactions. vi) Where is ecology assessed for interactive effects? vii) Please will the Applicant supply a matrix or other explanation showing and assessing the interactions between the factors in Reg 5(2)?	These inconsistencies should be addressed to ensure confidence can be placed in the conclusions of the cumulative assessment.
1.9.3	The Applicant	Paragraph 3.9.11 of Appendix 4 of the Planning Statement [APP-376] indicates that a comparative analysis table of certain aspects of the Proposed Development and the potential Rail Central scheme has been set out. This does not appear to have been included. Could the Applicant please provide this, bearing in mind the need for likely updating (see ExQ 1.9.1 above)?	
1.9.4	The Applicant	ES Chapter 13 (Agricultural land) [APP-117] provides information on cumulative effects of the Proposed Development with other committed and proposed developments nearby. Paragraph 13.7.9 suggests that agricultural land around Northampton is of relatively high quality with significant areas being of Grade 1 and 2, which means that in this wider context and scale the cumulative losses of Best and Most Versatile land as a result of the Proposed Development are not considered strategically significant. For the ExA to be able to assess this assertion, can the Applicant please provide further detail of broad agricultural land classifications within an appropriately defined area?	This is addressed in question 1.0.4. There is general inconsistency in the projects assessed cumulatively which raises doubt over the completeness of the assessment and confidence in the conclusions.
1.9.8	The Applicant	Paragraph 15.3.8 also states that “ <i>there are no likely cumulative effects with the South of Brackmills SUE given proximity from the Proposed Development site</i> ”. Is this intended to mean that the South of Brackmills SUE is NOT sufficiently proximate for there to be cumulative effects?	This is addressed in relation to question 1.0.4. As the methodology for the assessment is not provided it is unclear on what basis this conclusion is reached, and therefore at present there is insufficient information for the ExA to base its consideration of cumulative effects.
1.9.9	The Applicant	In the matrices at the end of Chapter 15 of the ES [APP-123], italic script is used for parts. Please can the Applicant explain the significance of the italics?	
1.10.	Socio-economic Effects		
1.10.1	The Applicant	Paragraph and section references below are to ES Chapter 3 (Socio-economic) [APP-82]. Paragraph 3.3.7 categorises effects as major, moderate and minor; it equates major with Regional scale/long-term duration. The other two are related to District/medium-term duration and Local/short to medium-term duration reflecting the geographical expressions “District” and “Local” used for scale in Table 3.1. But that table uses the words “Study area” not “Regional” for the largest area. Should paragraph 3.3.7 also use “Regional”? Are the phrases “Study area” and “Regional” used interchangeably in the chapter? (This does not always appear to be the case, see paragraph 3.3.11.) Please clarify.	As outlined in the response to question 1.0.3, there is inconsistency within the chapter, with a poorly defined methodology and limited definition of terminology used.

1.11.	Transportation, Traffic and Rail		
1.11.6	The Applicant, NCC	The proposed access to the Main Site would be configured to require all departing HGV traffic to travel north, supported by Automatic Number Plate Recognition, and an enforcement regime to deter U-turning movements at the M1 J15. (i) Please provide details of the envisaged latter enforcement regime and how this would be secured and maintained. (ii) What sanctions would there be against transgressors?	As discussed in response to question 1.0.2, mitigation must be enforceable in order to be relied on. It is not clear from the application at present how this would be achieved.
1.11.20	The Applicant	Transport modelling, paragraph 12.5.3; this states no allowance for modal shift has been made. Please will the Applicant explain how this applies in relation to the freight to be transported into and out of the Proposed Development which of course aims to remove some freight from road to rail?	As addressed in relation to question 1.0.2, there must be a commitment to deliver an identified mitigation package (in this case modal shift from car to other means of traffic) in order to rely on it in the ES.
1.11.29	The Applicant	Residual effects are dependent on certain assumptions being true – see paragraph 12.7.18. Are these realistic and likely? The answer should include a justification as to why the residual effects are realistic and likely.	As addressed in relation to question 1.0.2 and 1.0.4, it is not clear that a "reasonable worst case" has been assumed in the assessment, in accordance with the parameter-led approach informing the Rochdale Envelope. Insufficient data is available in the application to test the assumptions made.
1.12	Water Environment		
1.12.3	The Applicant	Can the Applicant confirm whether, in the assessment of water resources and drainage, effects assessed as 'moderate' and above are considered 'significant' in EIA terms?	This is addressed in relation to question 1.0.4.
1.12.5	The Applicant	Paragraph 7.5.3 states that construction activity will involve "the stripping of topsoil on parts of the Proposed Development". This appears to understate the scale of works which the Project Description refers to as 'substantial earthworks', lowering the level of the site and creating bunds. Table 7.3.5 assigns a sensitivity value to each of the relevant receptors. Can the Applicant provide a justification for the level of sensitivity assigned (explaining how the generic descriptions set out in Table 7.3.1 have been applied)?	This is addressed in relation to question 1.0.3. It is not clear that the author of the chapter fully understands the details of the project which casts doubt on the reliability of the assessment and confidence that can be placed on the conclusions reached.
1.12.7	The Applicant	Having regards to the 'Rochdale envelope' approach, the ES does not specify a worst case scenario for this aspect. Can the Applicant specify what parameters and scenarios have been applied to assess the likely significant effects from the Proposed Development and justify why these would constitute a worst case? How have the limits of deviation described in Article 4 of Part 2 of the dDCO been incorporated into the flood risk modelling?	As addressed in relation to question 1.0.2 and 1.0.4, it is not clear that a "reasonable worst case" has been assumed in the assessment, in accordance with the parameter-led approach informing the Rochdale Envelope.
1.12.8	The Applicant	It is noted the Applicant is relying on the Northampton South and South of Brackmills SUEs to adhere to national planning policy and best practice to conclude that no cumulative effects are likely to occur with the Proposed Development. Could the Applicant explain if mitigation measures have been identified for these two projects and, if so, what are they?	As considered in the response to question 1.0.4, the cumulative assessment has not fully assessed the implications of the four projects highlighted in Chapter 15, and shared receptors (hydrological receptors in this case) have not been identified. It therefore seems unlikely that mitigation identified for both projects has been considered in the cumulative assessment and limited weight can be placed on the conclusions.
1.13.	Agricultural land		
1.13.1	The Applicant	All paragraph numbers relate to ES Chapter 13 (Agricultural Land) [APP-117] unless stated otherwise. Paragraph 13.3.13; is the point being made that provided there is enough topsoil retained to complete all on-site landscaping/greenspace requirements – normally 50% of the current topsoil – the fate of the remainder (normally also 50% of course) is irrelevant? So that if less than 50% is lost that is a minor environmental effect? Could the Applicant clarify this point?	As addressed in relation to question 1.0.3, the quality of the assessment limits the extent to which any significant effect on soil resources can be determined. The criteria for assessing the impacts on soil resources are unclear and cannot be used to assess impacts at this stage of the project prior to construction. The criteria suggest the loss or irreversible damage of up to 50% of topsoils on the site is a small magnitude of impact. This is inconsistent with the text in 13.3.10 that "as a valuable finite resource, the requirement should be to protect topsoils from damage."
1.13.2	The Applicant	Table 13.1 refers to effects on three receptors. Paragraph 13.3.1 says the assessment addresses effects on two receptors. Please clarify.	The Scoping Report and the Scoping Opinion identified a third receptor - farm holdings. However, no assessment on the farm holdings affected at the main site or the Roade bypass is reported in Chapter 13 and no explanation given as to why these were scoped out. The ES does not therefore comply with the requirement in the EIA Regulations to be based on the scoping opinion (question 1.0.4).

1.13.3	The Applicant, Natural England	The Proposed Development would result in the loss of some 33.3ha of Best and Most Versatile agricultural land (12% of the Proposed Development area). Given this quantum, has Natural England been consulted?	There is no indication in Chapter 13 that any consultation has taken place with Natural England on the methodology or the results of the survey. Natural England's scoping response stated that "an agricultural land classification and soil survey of the land should be undertaken. This should normally be at a detailed level, eg one auger boring per hectare, .." The implication is that the survey was carried out at a lower density of observation than proposed by Natural England, and that this lower density of sampling was not agreed with Natural England prior to the survey. It is possible that the lower density of sampling may have missed some variability in soil properties and ALC grades.
1.13.4	The Applicant	Whilst ES Chapter 13 (Agricultural land) provides an analysis of soil type and land quality, no information is provided on the impact of the Proposed Development on the integrity of existing agricultural businesses, land holdings or the current environmental stewardship of the land to be affected, including in relation to the southern part of the Main Site where agricultural use is to be maintained. Can the Applicant please provide information on these factors?	The Scoping Report and the Scoping Opinion both identified that the assessment would consider the impacts on farm holdings affected at the main site and by the Roade bypass. This is not reported in Chapter 13. There is also no assessment of farm businesses elsewhere in the ES. This highlights deficiencies in the quality of the ES in question 1.0.3, and its non-accordance with the EIA Regulations (question 1.0.4)
1.13.6	The Applicant	Paragraph 13.5.1 concludes there will be a major permanent adverse effect by soil loss, but that there are sufficient soils for all proposed landscaping. Please explain this by reference to section 13.3 and the tables in that section. Or is it meant that there would be a major permanent adverse effect without the mitigation later described?	As addressed in question 1.0.2, there is general inconsistency across the ES over what the pre-mitigation assessment includes in terms of embedded mitigation, and therefore what effects adaptive mitigation is addressing. This does not follow IEMA guidance for EIA and makes the conclusions difficult to follow, with limited confidence in the residual effects.
1.13.7	The Applicant	Paragraph 13.5.2 says approximately 80% of the Proposed Development Site is proposed to accommodate built development and therefore around 20% of the area intended for greenspace, or to be returned to agricultural use post-development, could be compacted if not protected and well managed during construction – described as a moderate adverse effect. Please could the Applicant explain why 20% of the greenspace/agricultural area is “therefore” at risk of compaction? Where does the figure of 20% come from?	It is not clear why the soil resource is assessed as a low sensitivity receptor in paragraph 13.5.2 but a medium sensitivity receptor in paragraph 13.5.1. This highlights deficiencies in the quality of the ES in question 1.0.3.
1.13.9	The Applicant	ES Chapter 13 provides information on cumulative effects of the Proposed Development with other committed and proposed developments nearby. Paragraph 13.7.9 suggests that agricultural land around Northampton is of relatively high quality with significant areas of Grade 1 and 2 land, which means that in this wider context and scale the cumulative losses of Best and Most Versatile land as a result of the Proposed Development are not considered strategically significant. For the ExA to be able to assess this assertion, can the Applicant please provide further detail of broad agricultural land classifications within an appropriately defined area?	As outlined in response to question 1.0.4, the cumulative assessment does not identify the study area or how many other projects have been considered with the potential to lead to loss of BMV land. The cumulative assessment undertaken for Rail Central has identified ten projects with such potential, suggesting that the Applicant has underestimated BMV loss cumulatively, and therefore doubt is cast on the validity of the conclusions reached.
1.13.11	The Applicant	In the summary and conclusions it is said at paragraph 13.8.3 that “This is considered a moderate adverse effect, which should be weighed against other sustainability criteria, and considered in the context of the availability of any viable alternatives of lower land quality”. The Applicant is referred to question 1.13.9 where the ExA has asked for assistance in understanding the amount of best and most versatile agricultural land available elsewhere around Northampton. (i) Please can the Applicant explain what are the “other sustainability criteria” referred to in this paragraph? (ii) How is it suggested that they affect the assessment of likely significant effects?	The sustainability criteria are not referred to elsewhere within the chapter, and it is therefore not logical to introduce them in the summary and conclusions section.
1.14 External lighting			
1.14.2	The Applicant	At paragraph 11.5.5 it is said “This is a visual effect, not an intrusive effect...”. Please could the Applicant explain the difference?	The submission does not include existing, physical, light measurements surveyed around the site at any known, ecologically sensitive positions (e.g. bat roosts). Neither a parameter plan, lighting scheme or night time LVIA's have been submitted as part of the assessment for this project. Therefore, there is not the evidence to state that ecological receptors will not experience an 'intrusive effect'.

1.14.7	The Applicant	Table A11.4.1 – residual effects during construction; for lighting effects on ecology, the ExA is referred to Chapter 6. Please could the Applicant specify the relevant parts of that chapter relied on in relation to lighting effects?	As addressed in the response to question 1.0.4, there is inconsistency in consideration of inter-relationships between assessments across the ES Chapters defer assessment to other chapters and it is not clear whether they assess the identified matter (such as this highlighted issue). Intra project effects such as this are not summarised in the cumulative chapter. Such an approach leaves doubt as to whether all potential environmental effects have been identified, assessed and mitigated as appropriate.
1.14.8	The Applicant	Cumulative effects with Rail Central. Paragraph 11.8.5. states that cumulative effects with Rail Central are likely to be moderate adverse for many receptors. Please: (i) specify which receptors and explain which of the effects of the Proposed Development are engaged; and (ii) explain what is meant when it is said the likely effects “will be visual” (see also the question 1.14.3 above relating to para 11.5.5).	As outlined in response to question 1.0.4, the cumulative assessment undertaken by the applicant of inter-project effects with Rail Central is flawed and does not follow a defined methodology. There is no evidence presented to identify what assumptions are made for the RC project so it is not clear what the assessment is made against. Similarly, no methodology has been presented, or a logical consideration of potential cumulative receptors and effects made. Doubt is therefore placed on the conclusions reached, which are unsupported by evidence or quantitative or qualitative justification.
1.14.9	The Applicant	Paragraph 11.8.6 states that “It is assumed that other types of effect ... would be eliminated ... but even so cumulative effects are likely to be significant ...”. Please: (i) explain the basis of the assumption; (ii) explain the result if the assumption turns out to be wrong or unwarranted; and (iii) state what cumulative effects not already dealt with in section 11.8 are being referred to.	This is addressed in response to question 1.0.3. The assumptions made, methodology or assessment are not described. Therefore there can be limited weight placed on the conclusions which are not supported by evidence.
1.14.10	The Applicant	Paragraph 11.9.7 states that a detailed lighting strategy will be agreed later in the DCO process. Please state: (i) at what stage the lighting strategy will be agreed; (ii) is it anticipated that this will be as a SoCG?; and (iii) at which deadline the strategy will be submitted to the ExA. If outside the timeframe for the decision on the DCO sought, please will the Applicant indicate how this is consistent with the case law on staged consents.	As discussed in relation to question 1.0.2, the assessment of this potentially significant environmental impact is deferred, with mitigation not described. If residual effects are determined based on this mitigation, the ExA requires further information as to the nature (and therefore likely success) of any mitigation. Therefore at present there is not sufficient information available to conclude that there will not be a significant environmental impact.
1.15 Waste and resource management			
[Blank reference]	The Applicant	Paragraph 14.3.2; waste from the highways and infrastructure site appears not to be assessed. Is it really the case that there will be no waste from those works?	As considered in response to question 1.0.3, the author does not appear to have assessed the entire development for which the DCO is being sought for, which is contrary to the EIA Regulations 2017. This is a major omission from the assessment.
1.15.2	The Applicant, EA	Paragraph 14.3.12; please could the Applicant explain how the first bullet point works given that the site at present is in agricultural use; does that produce waste?	The methodology chosen does not appear appropriate to the nature of the Proposed Development. There is no evidence that this approach has been scoped with the regulators (EA or RPA) which is contrary to IEMA guidance and general good practice, and conclusions are therefore doubtful.
1.15.5	The Applicant	Paragraph 14.4.13; please can the Applicant consider whether this is appropriate in the light of ex parte Hardy – see also ISH1:107C? If it is, how will the waste management options be assessed so as to comply with the law on environmental assessment?	As addressed in response to question 1.0.2 and 1.0.18, mitigation should be identified in order to establish whether it can mitigate any potentially significant environmental effect. The assessment would therefore require to be undertaken pre-consent to provide confidence that there will not be a significant environmental impact arising through a requirement to dispose of any waste without sufficient regional waste capacity.
1.15.9	The Applicant	Paragraph 14.5.15 states there will be no waste arisings from the on-site excavation activities. Please: (i) consider this against the agricultural land chapter, especially but not only paragraph 13.5.1 thereof (which should be read with para 13.3.10 and Table 13.1 which contemplate losses of >80% of topsoil) and comment, and (ii) indicate where the commitment to secure re-use is to be found.	This is addressed in response to question 1.0.3.
1.15.11	The Applicant	Paragraph 14.5.17 relies on 89% re-use/recycling but casts doubt (“if 89% are reused ...”) on whether that will be achieved. Please can the Applicant clarify and if necessary assess a more realistic figure?	This is addressed in response to question 1.0.2 and 1.0.18.

1.15.13	The Applicant	Paragraph 14.5.22; office workers have been chosen as the representative for the purpose of calculating employee-derived waste. This is on the basis that they are the “most representative and robust category available under the metric provided within BS5906:2005”. (i) Could the Applicant please explain what the disadvantages of the other categories are? (ii) Does the use of office workers represent the worst case scenario? If it does not, the Applicant is requested to present an assessment which is based on the worst case scenario?	This is addressed in response to questions 1.0.2 and 1.0.18. The NG illustrative masterplan appears to have been used as the basis for the assessment, rather than parameters in accordance with the Rochdale Envelope approach. It is not clear that a "reasonable worst case" has been used for the assessment. Therefore there is no evidence that all potential environmental effects have been identified and assessed and limited weight can be placed on the identified residual effects and conclusions.
1.15.15	The Applicant	Paragraphs 14.5.27, 14.5.28 and 14.5.29 are all predicated on achieving 52% recycling. In particular, paragraph 14.5.28 states that the amount being sent to landfill “represents the worst case”. Yet there appears to be doubt over whether 52% will be achieved. In which case, the conclusion in paragraph 14.5.29 is undermined. Please will the Applicant revisit these paragraphs and comment?	As discussed in response to question 1.0.2, any assumption of this figure in the mitigation of identified effects requires a commitment/ requirement to achieve this, or there is doubt over the residual effects reported.
1.15.19	The Applicant	Paragraph 14.6.6 refers to off-site construction being undertaken “where practicable”. (i) Please could the Applicant say if this is practicable or not, and if it is, then to what extent and to what effect? It is difficult to take this into account without quantification. (ii) Could the Applicant please also comment whether this will result in a reduction in waste, or simply a displacement of the waste generated, from the application site to the place of off-site construction; and assess the environmental effect in the latter scenario?	This is addressed in response to question 1.0.2.
1.15.20	The Applicant	The conditionality behind paragraphs 14.6.5, 14.6.7, 14.6.8 and 14.6.9 (“where possible”; “would”) makes it difficult to take these into account, or at least to give them much weight in the EIA process. (i) Please can the Applicant comment on this? (ii) It would be useful to know whether and how it is intended to secure these matters (by requirements and so on) and to what extent. (iii) Please can the Applicant also comment on how the “broader sustainability issues” referred to in paragraph 14.6.8 should be taken into account in assessing the environmental effects in the topic of waste, if at all, and specifically how that has been done in this chapter (if that is the case)?	This is addressed in response to question 1.0.2.
1.15.22	The Applicant	Residual effects – section 14.7; the ExA would draw to the Applicant’s attention that the conclusions on residual effects rely on assumptions made earlier in the chapter (especially but not exclusively in Tables 14.3 and 14.4) and apparently uncertain mitigation on which the ExA has raised questions above. Please will the Applicant consider the effect of its answers and comments on the residual effects section?	This is addressed in response to question 1.0.2.
1.15.23	The Applicant	Cumulative assessment, paragraph 14.8.4. A. Please could the Applicant: (i) explain how the construction waste arisings of >1% (sic) have been calculated; (ii) state by how much they will be greater than 1% and whether the rest of the paragraph holds good in the light of that answer; (iii) explain whether there is sufficient waste management capacity (especially given the statement at paragraph 14.5.20 that the waste from the Proposed Development alone has the potential to increase levels beyond local waste management facilities’ capacity); and (iv) explain the significance of the observation that construction wastes would be disposed of locally and some would be subject to landfilling “although this is not representative of the whole waste stream” and how it affects the assessment. B. The ExA would also be helped if it could be explained which part of the sentence is qualified by the words in inverted commas as there is some ambiguity.	A response to this is covered by the response to question 1.0.4. The data and assumptions used are not justified, and therefore there is insufficient evidence to form a conclusion of the effects on the environment in combination with the considered cumulative sites.

1.15.24	The Applicant	<p>Paragraph 14.8.7 on cumulative effects with Rail Central.</p> <p>(i) On what basis is it estimated that Rail Central will send <1000m3 of excavated material off site and whether it will all be for recycling?</p> <p>(ii) The para also states that all excavation material from Northampton Gateway will be used on site. Please will the Applicant see the ExA's questions above on para 14.5.15 (ExQ 1.0.11 and 1.15.11) and comment?</p>	<p>This is addressed in response to question 1.0.4. There is a lack of consistency internally with other chapters in the NG ES, and it is not stated from where the assumptions for RC have been taken. No consideration of non-excavation construction waste or highway construction waste has been made.</p>
1.15.25	The Applicant	<p>Cumulative operational waste with Rail Central (paragraphs 14.8.8 to 14.8.11).</p> <p>(i) On what basis is the figure of 3,380 cubic metres of waste for RC arrived at in paragraph 14.8.8?</p> <p>(ii) The assessment of minor cumulative impact is underpinned by mitigation and recycling measures which are in turn underpinned by assumptions, mitigation and the delivery of mitigation on which the ExA has asked questions and raised issues above. Please will the Applicant address those same questions in relation to this cumulative assessment?</p> <p>(iii) At paragraph 14.8.11 an assumption is again made about the delivery of mitigation and recycling. If the assumption is not fulfilled then there will be a major cumulative impact (see para 14.8.10). Please will the Applicant comment?</p>	<p>This is addressed in response to question 1.0.4. Cumulative effects must be addressed following mitigation. The assessment has not done this, but has made assumptions as to mitigation to be employed at both projects (but not specified what this mitigation is). Until these are clarified there can be limited weight given to the conclusion of the cumulative assessment.</p>

Appendix 1: Response to Question 1.3.4

Appendix 1

Question 1.3.4

The Applicant, Ashfield Land and Gazeley GLP

Please fully explain the circumstances surrounding Plots 1/7 and 1/12 within the Proposed Development Main Site where compulsory acquisition is sought. This is in light of the owners' agreement in respect of the potential neighbouring Rail Central proposal and for which it is understood this land would be required for landscape mitigation purposes and the diversion of a Public Right of Way in connection with that Project?

1. Response to Question 1.3.4:

- 1.1 The Applicant for Rail Central has set out within their Written Representation submissions regarding the Compulsory Acquisition of Parcels 1/7 and 1/12 and the Interrelationship between both Rail Central and Northampton Gateway concerning this land.
- 1.2 Ashfield Land has the benefit of an option within Parcels 1/7 and 1/12 and is therefore correctly identified as a Qualifying Person within the Book of Reference [APP-075].
- 1.3 Parcels 1/7 and 1/12 form part of the land required for Rail Central and are within the Rail Central Order Limits.

Purpose of Acquisition of Parcels 1/7 and 1/12 by Northampton Gateway

- 1.4 Paragraph 3.31 of the Statement of Reasons [APP-073] "Table Summarising the purpose of compulsory acquisition or temporary possession powers" states that the purpose for which land/rights over Parcel 1/7 and 1/12 may be acquired is as follows:
 - Parcel 1/7 is required for "*Structural landscaping including screen bunding, boundary treatments and provision of footpaths (Works No.6), a new railway line from the rail freight terminal to connect with the existing Northampton Loop railway line including a tunnel under the screening bund (Works No.1) and rail served warehousing including ancillary offices and other buildings (Works No.4)*".
 - Plot 1/12 is required for "*A new railway line from the rail freight terminal to connect with the existing Northampton Loop railway line including a tunnel under the screening bund (Works No. 1), a rail freight terminal (Works No. 2.), railway line to serve the warehousing (Works No. 3), rail served warehousing including ancillary offices and other buildings (Works No. 4) and structural landscaping including screen bunding, boundary treatments and provision of footpaths (Works No.6)*".

Parcels 1/7 and 1/12: Rail Central's proposed use of the land

- 1.5 Rail Central's proposed works within Parcel 1/7 and 1/12 are depicted on the Illustrative Landscape Masterplan appended to the Interrelationship Report enclosed as Appendix 3 to the Applicant for Rail Central's Written Representation, which in essence also comprises of structural landscaping and footpath works, including diversion of part of public footpath

KX13. These works are identified as Works 9 and 12 of the Rail Central dDCO at Appendix 5 of the Applicant for Rail Central's Written Representation.

Interrelationship between Northampton Gateway and Rail Central: Parcels 1/7 and 1/12

- 1.6 Should both Projects be granted development consent and proceed to implementation, it is considered that Rail Central's proposed landscaping (Work No.12B) will not be required in this location, since the Northampton Gateway landscaping proposed in this location will also serve to mitigate Rail Central's visual impact and impact on landscape character.
- 1.7 If both Northampton Gateway and Rail Central proceed to implementation, Rail Central proposes to connect into the Northampton Gateway footpath network, rather than delivering standalone footpath diversion works.
- 1.8 Rail Central proposes to secure these alternative scenarios through the Rail Central Public Rights of Way Strategy which has been submitted within the Rail Central application and is enclosed as Appendix 4 to the Applicant for Rail Central's Written Representation. This strategy would be secured by a requirement within the Rail Central DCO. This would facilitate the practical delivery of a footpath network whichever scenario is progressed and also provide clarity as to what will be delivered under each scenario.
- 1.9 In terms of phasing of landscaping and footpath diversion works, Northampton Gateway propose that their landscaping bund located adjacent to the NLL (Work No. 6 within the Northampton Gateway DCO) will be delivered within the first year of construction as part of a phased delivery of landscaping and as set out in Northampton Gateway's phasing plan [APP-024]. Rail Central's delivery of the footpath diversion and landscaping to the east of the NLL will be delivered at the same time as the initial phase of the intermodal facility (the first phase of which will be installed prior to first occupation).
- 1.10 Should the Projects both be granted development consent and proceed to implementation, the Applicant for Rail Central anticipates two phasing scenarios during construction that could occur. In both scenarios, it is proposed that Northampton Gateway would provide their proposed landscaping works in place of Rail Central's landscaping works, which would no longer be needed:
 - (a) In the scenario where Rail Central commences development first, it is anticipated that it will deliver the footpath infrastructure in Rail Central dDCO Work No. 9 within the order limits up to the point of intersection with Northampton Gateway's footpaths. It is then anticipated that Northampton Gateway will deliver the footpath connection (Work No. 6 of the Northampton Gateway dDCO [AS-005]) subsequently, which will connect to the Rail Central footpaths installed under Rail Central dDCO Work No. 9. To the extent that the relevant planning authority (RPA) wish to manage the delivery of the Northampton Gateway footpath (to ensure it connects to the Rail Central footpaths where both schemes are approved and proceed), this can and should be controlled through requirements of the Northampton Gateway dDCO. In this scenario Rail Central will not deliver the proposed landscaping on the east of the NLL (Work No. 12B of the Rail Central dDCO). Instead, Northampton Gateway will construct their proposed landscaping bund and structural planting in that same area (Work No. 6 of the Northampton Gateway dDCO).

(b) In the scenario where Northampton Gateway commences development first they will build their scheme and landscaping (which is one of the first phases of work in their indicative programme). Rail Central would then connect into Northampton Gateway's proposed footpath network to the east of the NLL. These connections can be managed by the RPA through Rail Central's Public Rights of Way Strategy. The Applicant for Rail Central will also seek protective provisions in the Northampton Gateway DCO to regulate interaction between the implementation of the two schemes and facilitate this arrangement. In this scenario, Rail Central would not provide the proposed landscaping in Rail Central DCO Work No. 12B.

1.11 The footpath diversions and improvements proposed by the Rail Central scheme serve to mitigate impacts of the Rail Central Project and enhance connectivity on the public rights of way network. The Rail Central dDCO application contains flexibility to enable these diversions to link into those that would be provided by Northampton Gateway, or alternatively to be constructed in their entirety should only Rail Central be granted development consent and proceed to implementation.

1.12 Rail Central will notify the RPA in advance of the option being delivered in line with the scenarios above so as to provide assurances that the works being constructed by Rail Central are in accordance with the Rail Central Project strategy and the corresponding Northampton Gateway plan.

Mechanisms to enable delivery

1.13 Co-operation between Rail Central and Northampton Gateway is considered necessary to ensure efficient and effective delivery of construction works where the proposed works of the two projects overlap.

1.14 In addition to the Protective Provisions to be sought by Rail Central in the Northampton Gateway DCO, the Rail Central draft DCO contains requirements that secure plans to deliver the alternative scenarios. Draft Protective Provisions will initially be advanced through discussions on the SoCG.

1.15 The Rail Central dDCO is enclosed as Appendix 5 of the Applicant for Rail Central's Written Representations. This contains requirements that secure plans to deliver the alternative scenarios referred to above. These plans consist of the:

(a) Landscaping and Ecology Infrastructure Strategy which details the interaction between Rail Central and Northampton Gateway in relation to landscaping works delivery and management to the east of the NLL (secured by requirements 11 and 12); and

(b) Public Rights of Way Strategy which details the interaction between Rail Central and Northampton Gateway in determining whether Rail Central need to deliver the full proposed footpath to the east of the NLL or whether it is only necessary to connect into the Northampton Gateway footpath network (secured by requirement 10);

1.16 The Rail Central dDCO also includes requirements obliging Rail Central to give notice to the RPA or highway authority as to which scenario will be implemented.

Negotiations for Parcels 1/7 and 1/12 by voluntary agreement

- 1.17 In respect of negotiations to acquire interests in the land, the Statement of Reasons [APP-073] states at paragraph 3.17.2 that:
- 1.18 *"The Applicant has attempted to negotiate with the freehold owners of parcels 1/7 and 1/12 but the land is subject to an agreement with the proposed developer of the potential development site to the west of the Northampton Loop Line (known as Rail Central) and therefore the owners are not able to enter into a voluntary agreement with the Applicant. The Applicant therefore requires compulsory powers to acquire the land and any rights which may be inconsistent with the authorised development"*
- 1.19 Ashfield Land has not been approached by Roxhill or Agents acting for Northampton Gateway regarding the freehold acquisition of Parcels 1/7 or 1/12, and to date no attempts have been made to seek to negotiate with Ashfield Land to acquire its interests in these Parcels by agreement.

Application of Compulsory Acquisition Tests: Parcels 1/7 and 1/12

- 1.20 As is set out at Section 11 of the Applicant for Rail Central's Written Representation, the tests set out under s.122 Planning Act 2008 and the CA Guidance have not been met to acquire Ashfield Land's interest and the landowners interest in relation to Parcels 1/7 and 1/12.
- 1.21 Adequate consideration has not been given by the Applicant to the implications of acquiring Parcels 1/7 and 1/12 by compulsion on the proposed Rail Central NSIP, in circumstances where any adverse impact on the successful delivery of that NSIP would have significant adverse implications for the public interest.
- 1.22 Compulsory acquisition powers should not be granted in relation to these two Parcels unless both the ExA and the Secretary of State are satisfied that the exercise of such powers would not prevent the Rail Central NSIP from being developed in an acceptable manner.
- 1.23 The Applicant has not addressed (either satisfactorily or at all) the extent to which the subsequent grant of a development consent order for the Rail Central NSIP would comprise a risk or impediment to the implementation of the Northampton Gateway NSIP, or whether and if so how those risks or potential impediments can be properly managed. These matters need to be addressed in evidence by the Applicant, and reflected in appropriate provisions within the Northampton Gateway dDCO in order to meet that requirement.
- 1.24 The Applicant did not seek to establish a good working relationship with Ashfield Land as the owner of an interest in land that it wished to acquire, nor a willingness to be open and to treat Ashfield Land's concerns with respect and to seek to resolve the issues arising before submitting the application. Appended to the Written Representations as Appendix 12 is a chronology of the attempts made on behalf of Ashfield Land to discuss the inter-relationship between the two schemes in order to seek to identify and resolve such issues ahead of submission. It is clear from that chronology that the Applicant has not complied with this important guidance.
- 1.25 The Applicant has so far failed to make any attempt to acquire Ashfield Land's interest by negotiation. Compulsory acquisition of Ashfield Land's interests in Parcels 1/7 and 1/12 is

not being sought because of a failure of attempts made by the Applicant to acquire those interests by agreement, and is being used as a first rather than last resort.

Appendix 2: Response to Question 1.4.6

Appendix 2

Question 1.4.6

The Applicant, Ashfield/Gazeley, SNBC, NBC

Responses to ISH1:107A, 107B and 107C. The responses to these questions were largely dealt with by oral exchanges at the ISH. Will the Applicant please submit written answers either by way of an answer to this question or in its written submissions of oral answers specified for Deadline 1 (6 November). Although not mentioned in those questions, the ExA drew attention at the discussion to paragraph 13 of Schedule 2 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 and the Applicant is asked to address that provision as well. Ashfield/Gazeley also contributed to the exchanges and the ExA would be grateful if they could also submit written answers/written submissions of oral answers. Submissions from the County and District Councils would also be welcomed.

Question 107 - Environmental assessment and the DCO

Background

The DCO provides in a number of places for the authorised development to be altered. For example, in article 4 where the limits in the parameters plan can be exceeded in some circumstances, article 2 in the definition of maintenance, article 45 (works required by the protective provisions), and Further works in Schedule 1.

Requirement 4 allows the travel plan to be varied with the agreement of the relevant planning authority. Requirement 8 provides for the submission of details which must be in general accordance with the parameters plan, but this does not appear to preclude details which exceed those limits. By Requirement 9 they can be altered with the agreement of the relevant planning authority. Requirements 11 (Landscape and Ecological Management Plan), 13 (Earthworks), 15 (Lighting), and 17 (Flood risk and surface water drainage) 18 (Surface water drainage) and 19 (Flood risk) are examples of requirements which allow for approved details to be changed, or for schemes and protections to be varied, with the agreement of usually the local planning authorities. Requirement 21, which controls the hours of construction working, allows those hours to be changed. This is not a complete list.

The proposed development has been subject to environmental assessment as a Schedule 2 project under the Infrastructure Planning (Environmental Assessment) Regulations 2017.

Issue A

Article 4 provides that the authorised development must be carried out within the parameters on the parameters plan and the limits of deviation. In the case of highways works and railway works in Works Nos 1 and 2 some leeway is given to the extent of an upwards or downwards deviation of up to 1.5 metres in either direction.

However, in the case at least of the limits of deviation, in respect of the highway works and the railway works in Works Nos 1 and 2, those limits do not apply where the relevant planning authority is satisfied that a deviation in excess of those limits “would not give rise to any materially new or

materially worse environmental effects in comparison with those assessed in the environmental statement”.

Measurements are approximate – see article 2(3). By article 2(6) where the term “approximate” appears before a measurement that word “does not authorise any works which would result in significant environmental effects which have not been assessed in the environmental statement”.

There is a power to maintain the authorised development in article 6 and that is constrained by Art 6(2) which states that the power “does not extend to any maintenance works which would give rise to any materially new or materially worse environmental effects in comparison with those assessed in the environmental statement”.

The Further works in Schedule 1, which form part of the authorised development, are extensive, and are subject to the proviso that “such works do not give rise to any materially new or materially worse environmental effects than those assessed in the environmental statement”.

The ExA notes that the tests used in the dDCO vary. The principal tests are whether the change would “give rise to any materially new or materially worse environmental effects in comparison with those assessed in the environmental statement” and “would result in significant environmental effects which have not been assessed in the environmental statement”.

Where comparison with effects already assessed is to take place, the draft DCO usually compares with the assessment in the environmental statement. However environmental assessment is a process as the 2014 directive emphasises.

The test in the environmental assessment directive (2011/92/EU, as amended by 2014/52/EU) is whether the project is “likely to have significant effects” (see Art 1 of the 2014 directive, amending Art 3 of the 2011 directive).

Question 107A

The Applicant, district planning authorities and county council are requested to consider the different formulations and to be ready to answer questions at the DCO ISH on (a) the need for consistency, (b) what they consider should be the correct approach, (c) the intent, meaning and drafting of article 4, (d) whether comparisons should be against the ES or effects identified and assessed in the EIA as a whole and (e) any other relevant issues concerning the test and its application in the dDCO.

Other interested persons may also wish to participate on these issues at the ISH and should identify themselves in advance. They should avoid duplication and ensure their submissions are focussed on these points. Please see Annex F (Notification of Hearings) and provide the Case Manager with the information there requested. All persons making submissions at the ISH on this issue should be ready to submit them in writing following the ISH.

1. Response to Question 107A:

1.1 The Applicant for Rail Central has included the following wording at Article 48 of their draft dDCO:

(2) Approval under sub-paragraph (1) for the amendments to the parameters identified in Schedule 2 must not be given except where it has been demonstrated to the satisfaction of the relevant planning authorities that the subject-matter of the approval sought is unlikely to

give rise to any materially new or materially different environmental effects in comparison with the authorised development as approved (as identified in the environmental statement).

- 1.2 The wording above has been accepted in (and therefore interrogated and accepted by the Secretary of State), in a number of DCOs. For example, it is contained at Requirement 15 of the Wrexham Gas Fired Generating Station Order 2017 more recently and has been adopted in the Hinkley Point C nuclear generating station DCO. The use of the word "unlikely" has been included here, and is considered appropriate in the context of environmental effects. This is given that the test for environmental assessment is whether the development is "likely to" give rise to environmental effects. The language of "unlikely to" therefore, follows the legislative language. The Applicant for Rail Central suggests that such wording is adopted for the purposes of Northampton Gateway and that such wording is consistently adopted throughout the draft DCO accordingly.
- 1.3 The Applicant for Rail Central considers that the formulation "materially new" or "materially different" is preferable to ""materially new or materially worse" because the latter does not reflect the scope of the EIA Regulations, which are concerned with all significant environmental effects whether positive or negative. The importance of this point was explained by Elias J in *BT Plc v. Gloucester City Council* [2001] EWHC Admin 1001; [2002] 2 P&CR 33 at [69]: *"In my judgment an important feature of this democratic process, as the part of the Government publication which I have emphasised notes, is that individuals "should form their own judgments on the significance of the environmental issues raised by the project". This involves a recognition that it is not always clear whether an impact is beneficial or not. ... It would frustrate the process of debate about the merits of such a development if the planning authority could determine that the impact was beneficial and as a consequence rule that no environmental statement was needed. In this context benefit, like beauty, is in the eye of the beholder."*
- 1.4 The Applicant for Rail Central considers that there are important differences for the Examining Authority to consider, when reviewing the different ways that the Northampton Gateway dDCO seeks to pursue further flexibility. These relate to:
- (a) Limits of Deviation;
 - (b) Amendments to Approved Details;
 - (c) Tail Pieces.
- 1.5 The Applicant for Rail Central considers that it is absolutely necessary to have some degree of flexibility in the Northampton Gateway and Rail Central DCOs, to allow for small, non-material variation to plans not already certified and approved by the Secretary of State. This is already an established feature of the regime established by the Planning Act 2008, reflecting the fact that for projects of the scale and complexity necessary to be classed as nationally significant, it is not usually practicable or appropriate to fix every detail at the stage of granting development consent. This can be seen in the provision that has been made to allow for flexibility in various existing approved DCOs such as the Wrexham Gas Fired Generation Order 2017 and the Hinkley Point C nuclear generating station DCO. The importance of such flexibility is particularly important for developments such as strategic rail freight interchanges which are occupier led, and feature multi transport modal designs that contain within them a number of interfaces that are likely to change over time. Whilst some

form of flexibility is of course essential, the way in which that flexibility operates needs to be checked and approved by the enforcing authority, the RPA, in order to ensure that what is built and the way it is operated does not go beyond the scope of what was assessed and approved. For example, in five years' time construction methods may have progressed a great deal and it would be reasonable to allow the developer flexibility to use methods that could be more beneficial to the environment and/or to the overall efficiency of the delivery of the project.

1.6 The Applicant for Rail Central has not, however, proposed flexibility laterally within the Limits of Deviation, nor has it included tail pieces. The rationale for this is set out below:

1.7 Limits of Deviation: It is not considered that the Applicant can know whether or not significant effects will arise outside of the parameters used for the purposes of the environmental impact assessment as part of the application for the DCO. Within the Rail Central Application the parameters - and any deviation from them - represent the maximum assessed envelope from an EIA perspective and therefore are a limitation on the project. We would expect this same limitation to apply to Northampton Gateway.

1.8 Tail Pieces: PINS Advice Note 15: Drafting Development Consent Orders (July 2018) states (para 17.4 and Good Practice Point) that a "tailpiece" requirement should not allow the local planning authority to approve details that stray outside the parameters set for the development and that applicants should provide 'justification' in relation to each tailpiece proposed.

1.9 At this stage, the Applicant for Rail Central does not consider that the Applicant has properly justified the necessity of each tailpiece. Whilst the position on this is reserved, pending sight of the responses to the Examining Authority's written questions, one specific requirement containing a tailpiece that we did wish to comment on at this stage is Requirement 3(3): phasing of rail terminal and rail served warehousing. Our submissions are as follows:

(a) The Suggested tailpiece cannot be included for the following reasons:

(i) The ability to handle at least 4 goods trains per day is an essential characteristic of an SRFI, in that absent that capacity it is simply not an NSIP (see PA 2008 s. 26(1) and (4)).

(ii) Furthermore, the NN NPS at p. 46 [4.88] and [4.89] make clear that these facilities must be provided at the initial stage.

(iii) That is unsurprising because without that facility being secured the proposed development cannot lawfully be the subject of a DCO.

(b) The suggested tailpiece would give the Applicant the ability to avoid the restriction set by the requirement, as long as it could persuade the RPA it was appropriate to do so. This could happen without further recourse to SoS, meaning that the RPA is given the ability to convert the DCO into authorisation for development which is not an NSIP. That would quite clearly be ultra vires.

1.10 Finally, the Applicant for Rail Central is concerned that the level of flexibility request by Northampton Gateway, in parts, would allow multiple changes to specific documents, thereby resulting in a "cumulative creep" of several individually non-material changes, which

could well be material in their overall combined effect. An important feature of the Planning Act regime is that it should produce transparency of control through the statutory process for making DCOs and subsequently approving any changes to them (material and non-material). This ensures those whose interests are affected by the DCO can understand what has been approved and the way in which the development is to be controlled, by reference to a specific document. The examination process allows them to influence the contents of that document. It is therefore important that the development and its controls cannot subsequently be changed in a way that undermines the transparency of that process and its outcome, and the safeguards that this provides.

Issue B

Submissions pursuant to Requirements.

A number of Requirements in the draft DCO allow for variations of limits with the agreement of the local planning authority. There does not appear to be any testing for environmental effects. The use of tailpieces is discouraged by advice note 15.

Question 107B

The Applicant is asked to consider whether the provisions for variations are consistent with the requirement for environmental assessment of the development or are satisfactorily constrained, and be ready to answer questions from the ExA at the DCO ISH. There has been considerable litigation around the multi-stage consent process and environmental assessment. One outcome of this has been the ability to require EIA where “subsequent applications” are made. Would the application of the subsequent application regime in the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 to applications for such variations be a way to address this issue? It is recognised that the subsequent applications provisions of the 2017 regulations currently only apply to approvals needed before development is begun so some amendment for the purposes of this DCO would be required.

As with question 107A, district planning authorities and the county council are asked to be ready to participate and answer questions. Other interested persons may also wish to participate on these issues and are asked to identify themselves in advance and be ready to answer questions. The same comments about duplication, focus and making submissions in writing apply.

2. Response to Question 107B:

- 2.1 The Applicant for Rail Central would welcome sight of the Applicant's submissions to the Examining Authority, as comment was reserved at the Issue Specific Hearing. The Applicant for Rail Central will then respond, if considered necessary or helpful to do so.

Issue C

Requirement 14 requires a further archaeological investigation to be carried out, following which mitigation is to be devised. See also question 65 above.

Question 107C

*The Applicant is requested to be ready to answer questions at the DCO ISH on the compatibility (or otherwise) of this and the judgment in *R. v. Cornwall CC ex p Hardy* [2001] Env L R 25; [2001] JPL 786. The Applicant should consider whether there are any other requirements affected by *ex p Hardy*.*

As with questions 107A and B, district planning authorities and the county council are asked to be ready to participate and answer questions. Other interested persons may also wish to participate on these issues and are asked to identify themselves in advance and be ready to answer questions. The same comments about duplication, focus and making submissions in writing apply.

3. Response to Question 107C:

- 3.1 The Applicant for Rail Central would welcome sight of the Applicant's submissions to the Examining Authority, as comment was reserved at the Issue Specific Hearing. The Applicant for Rail Central will then respond, if considered necessary or helpful to do so.

Appendix 3: RC Planning Statement

The Rail Central Rail Freight Interchange and Highway Order 201[x]

A vertical line of small white dashes is positioned to the left of the title.

Planning Statement

PINS Reference Number:
TR050004

Document Reference: 7.1

Regulation Number: Reg 5(2)(q)

September 2018

Version 1.0

Planning Act 2008 | Infrastructure Planning
(Applications: Prescribed Forms
and Procedure) Regulations 2009

The Rail Central Rail Freight Interchange and Highway Order 201X

Document 7.1 – Planning Statement

Ashfield Land Management Limited and Gazeley
GLP Northampton s.à.r.l.

Regulation: 5(2)(q)

September 2018

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Appendix 5: Compliance with the National Policy Statement for National Networks

Appendix 6: Compliance with the National Planning Policy Framework

Appendix 7: Compliance with Regional and Local Planning Policy

Glossary of Terms

A	
Air Quality Management Areas	An area formally designated by the local authority in which levels of air pollution are above specified levels known as “air quality objectives”.
Applicant	The applicant comprises a joint venture partnership between Ashfield Land Management Limited and Gazeley GLP Northampton s.à.r.l.
Ashfield Land	Ashfield Land Management Limited the joint Applicant in a joint venture partnership arrangement with Gazeley GLP Northampton s.à.r.l.
Assessment	An umbrella term used to encompass all the different ways of looking at, describing, analysing and evaluating features.
Attenuation pond/facility	Structure used to temporarily impound water.
B	
Baseline	Information which represents the environmental conditions immediately prior to the implementation of any scheme. Environmental impacts or benefits are assessed by measuring how much the baseline conditions would change.
Biodiversity	Biodiversity is a term to describe the variety of life on Earth. It refers to the wide variety of ecosystems and living organisms: animals, plants, their habitats and their genes.
Biomass	Fuel that is developed from organic materials, a renewable and sustainable source of energy used to create electricity or other forms of power.
British Pipeline Agency (BPA)	Joint venture which operates the oil pipeline network and transport petroleum products around the UK.
Brownfield	Previously developed land which is available for reuse.
Bunds	Man-made mound, usually intended to provide a visual screen, often in conjunction with planting.
C	
Contaminated land	Land that is in such a condition that either significant harm is being caused or there is a significant possibility of such harm being caused, or pollution of controlled waters is being or is likely to be caused.
Container	Standard and common form of shipping goods within the UK and internationally. Comprises an enclosed metal box

	which can be moved easily and efficiently from road and /or rail to ship, and vice versa as part of international Distribution networks and market supply chains.
Controlled Waters	Any coastal waters, inland fresh waters, ground waters or relevant territorial waters (up to three miles seawards).
Cumulative Effects	Effects which arise from a combination or interaction of effects at a specific location.
D	
dB (A)	Sound levels measured in decibels, calculated by a method (“A-weighted”) that takes particular account of the frequencies most significant in traffic-generated noise.
Deciduous (trees)	A tree that sheds its leaves annually.
Designated heritage asset	World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area.
Development Consent Order (DCO)	The means of obtaining permission for developments categorised as Nationally Significant Infrastructure Projects (NSIP). This includes energy, transport, water and waste projects.
Development Plan	A development plan sets out the policies and proposals for the development, conservation and use of land and buildings in a particular local planning authority area. The development plan is the most important consideration for local planning authorities when they decide on a planning application.
Direct Effect	An effect that is directly attributable to the Proposed Development.
Discharge	Release of water into surface waters, groundwater, or drainage/sewer systems.
Distribution/ Distribution Sector	The management of the flow of resources (such as components, products, or raw materials) between the point of origin and the point of consumption, both within the UK and internationally. This includes the movement of goods as part of a supply chain, which includes relationships and movements involving retailers and end-consumers, including the public, as well as often complex networks between manufacturers and often multiple suppliers.
DMRB	The Department of Transport’s Design Manual of Roads and Bridges, a multi-volume work that gives guidance on all matters relating to highway construction. Volume 11 related to Environmental Impact Assessment and

	provides methodologies for assessment that can be used for many different types of development.
DNO Good Practice	Guidance document to outline best practice approach on queue management connection milestones for Distribution Network Operators (DNO).
E	
Earthworks	In construction, this means any operations involved in moving, loosening, depositing, shaping, compacting and stabilising soil and rock. In archaeology, it means any archaeological features that are visible as slopes, mounds, banks or depressions in the ground surface.
Ecology Mitigation Area	The area which will accommodate the identified mitigation measures within the Proposed Development.
Effects	Change experienced by a receptor.
Elements	Individual parts which make up the landscape, such as, for example trees and buildings.
Environmental Impact Assessment (EIA)	A formal process which assesses the potential environmental effects of a project.
Environmental Statement (ES)	Document in which the results of an EIA are presented to decision-makers and the public.
Embankment	An elongated mound of material deliberately placed to form a raised area, sometimes built to elevate a railway above the surrounding ground.
F	
Feature	Particularly prominent or eye-catching elements in the landscape, such as tree clumps, church towers or wooded skylines OR a particular aspect of the project proposal.
Floodplain	Flat or nearly flat land adjacent a stream or river that stretches from the banks of its channel to the base of the enclosing valley walls and experiences flooding during periods of high discharge.
Fluvial	The processes associated with rivers and streams and the deposits and landforms created by them.
Foul sewers	Sewers that collect foul water (sewage and trade effluent) and convey the flow to a treatment facility.
FNPOR	Freight & National Passenger Operations Route Strategic Plan.
G	
Gantry	Overhead frame from which various structures can be

	mounted.
Gazeley GLP	Gazeley GLP Northampton s.à.r.l. the joint Applicant in a joint venture partnership arrangement with Ashfield Land Management Limited.
Green Belt	Areas of Green Belt are plots of land which have been specifically designated within set boundaries. These are principally open countryside surrounding existing built-up areas, the purpose of which is to check the unrestricted sprawl of these built-up areas and to safeguard the surrounding countryside against further encroachment.
Green Infrastructure	A network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities. This can include landscaping areas containing planting, open spaces, walkways and green links (including those intended to support habitat creation or retention to support biodiversity).
Groundwater	Water below the surface of the ground in the saturation zone, below the water table.
H	
Heritage asset	Building, monument, site, place, area or landscape positively identified as having a degree of significance meriting consideration in planning decisions.
HGV	Heavy Goods Vehicle, vehicle over 7.5 tonnes Gross Vehicle Weight.
High Speed 2 (HS2)	Proposed high-speed railway link linking London to Manchester.
Historic environment	All those material remains that our ancestors have created in the landscapes of town and countryside. It covers the whole spectrum of human activity from the largest – towns, cathedrals or motorways, to the very smallest – signposts, standing stones or flint tools.
Historic Environment Record	A series of linked computer databases that hold information on known archaeological sites, finds, landscapes, buildings and other aspects of the historic environment.
Hydrology	The study of surface water.
Hydrogeology	The study of groundwater.
I	
Impact	An action which causes an effect to be experienced by a receptor.

Indirect Effects	Effects that result indirectly from the Proposed Development as a consequence of the direct effects, often occurring away from the site, or as a result of a sequence of interrelationships or a complex pathway. They may be separated by distance or in time from the source of the effects.
Inter-project	Occurring between the Scheme and other projects.
Intra-project	Occurring within the Scheme.
K	
Key Characteristics	Those combinations of elements which are particularly important to the current character of the landscape and help to give an area its particularly distinctive sense of place.
L	
Landscape	Human perception of the land conditioned by knowledge and identity with a place.
Landscape Character Assessment	The process of systematic description, classification and analysis of landscape, in order to identify, describe and understand its character. The scale and detail of the assessment will depend upon the purpose for which it is being undertaken.
Landscape Character	The distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape, and how this is perceived by people. It reflects particular combinations of geology, landform, soils, vegetation, land use and human settlement. It creates the particular sense of place of different areas of landscape.
Landscape Character Area	Single unique areas that are the discrete geographical areas of a particular landscape type. Each has its own individual character and identity, even though it may share the same generic characteristics with other areas of the same landscape character type.
Land Cover	The surface cover of the land usually expressed in terms of vegetation cover or lack of it. Related to but not the same as land use.
Landscape Element	A component part of the landscape (e.g. roads, hedges, woods).
Landscape and Visual Impact Assessment (LVIA)	A tool used to identify and assess the likely significance of the effects of change resulting from development both on the landscape as an environmental resource in its own right and on people's views and visual amenity.
Landscape Effects	Change in the elements, characteristics, character and qualities of the landscape as a result of development.

	These effects can be positive or negative.
Landscape Feature	A prominent eye-catching element, for example, wooded hilltop or church spire.
Landscape Sensitivity	Relates to the ability of a landscape to accept change within alteration of the defining characteristics of that landscape.
Landscape Value	The relative value or importance attached to a landscape (often as a basis for designation or recognition), which expresses national or local consensus, potentially attributable to its special qualities including perceptual aspects such as scenic beauty, tranquillity or wildness, cultural associations or other conservation issues.
Local Planning Authority (LPA)	The local authority or council that is empowered by law to exercise statutory town planning functions for a particular area of the United Kingdom.
Logistics	The management of the flow of resources (such as components, products, or raw materials) between the point of origin and the point of consumption, both within the UK and internationally.
M	
Made Ground	An area of land that has been man-made, generally through the reclamation of marshes, lakes, or shorelines.
Magnitude	A combination of the scale, extent and duration of an effect.
Main SRFI Site	The area within the order limits where the majority of the proposed development will be located, i.e. to the north of the WCML, west of the NLL, South of Milton Malsor and east of the A43(T).
Masterplan	Indicative plan for entire development area marking out core infrastructure and areas for infrastructure and buildings, to be delivered over a period of time.
Methodology	The specific approach and techniques used for a given study.
Mitigation	Measures, including any process, activity or design to avoid, reduce, remedy or compensate for adverse effects of a development project.
N	
National Networks National Policy Statement (NN NPS)	A document that sets out the need for and Government's policies to deliver, development of nationally significant infrastructure projects (NSIPs) on the national road and rail networks in England.
National Planning Policy Framework	National government planning policy. A material

(NPPF)	consideration in the determination of Development Consent Order applications.
National Planning Policy Guidance (NPPG)	Detailed guidance for the implementation of policies set out in the NPPF.
National Policy Statement (NPS)	Detailed document setting out government policy on various types of national infrastructure development.
Nationally Significant Infrastructure Project (NSIP)	A project of a type and scale defined under the Planning Act 2008 and by order of the Secretary of State relating to energy, transport, water, waste water and waste generally. These projects require a single development consent.
No Significant Effects	An effect below the threshold of significance, usually taken to be less than an effect of medium significance.
O	
Operational Effects	Effects that occur during the operational phase. These can be temporary or permanent.
Order Limits	The boundary within which the proposed DCO works will be located.
P	
Pathway	A route or means by which a receptor could be, or is exposed to, or affected by a contaminant.
The Planning Inspectorate (PINS)	An executive agency of the Department for Housing, Communities and Local Government which deals with planning appeals, national infrastructure planning applications, examinations of local plans and other planning-related and specialist casework in England and Wales.
Pollution	A change in the physical, chemical, radiological or biological quality of a resource (air, water or land) caused by people or their activities that is injurious to existing, intended or potential uses of the resource.
Proposed Development Area (PDA)	The land within the order limits where development will be located, including the main SRFI site, the Junction 15a works and the other minor highways works.
Public Right of Way	A path that members of the public have a protected legal right to walk along. Depending on the type of public right of way, it may also be available for cycling, horse riding, horse drawn carriages and motor vehicles.
Q	
Qualitative	Qualities or characteristics that cannot be measured numerically.
Quantitative	Measurement based on data.

R

Rail Operations Report	A report outlining the operating details, for example the freight capacity and phasing.
Receptor	In general terms, something that could be adversely affected by a contaminant, such as people, an ecological system, property or a water body.
Residual Effect	An environmental effect that remains, or is predicted to remain, even after mitigation measures have been applied.
Ridge and furrow	An archaeological pattern of ridges and troughs created by a system of ploughing used in Europe during the Middle Ages, typical of the open field system.
River Basin Management Plan	A plan which sets out how organisations, stakeholders and communities will work together to improve the water environment.

S

The Scheme	The proposed DCO works within the boundary of the order limits, the 'Rail Central Project'.
Scoping Opinion	A formal written opinion on the information to be included in the Environmental Statement received from the Secretary of State.
Scoping Report	The written request for a Scoping Opinion provided by the Applicant to the Secretary of State.
Sensitivity	The degree of response of a receiver or instrument to a signal or a change.
Significance	The extent to which something matters. Significance of effects is defined as substantial, moderate, minor or negligible.
Source	A substance that is in, on or under the land that has the potential to cause harm or to cause pollution of controlled waters.
Stakeholder	Individuals, groups or organisations with an interest in the evaluated intervention or in the evaluation itself, particularly: authorities who decided on and financed the intervention, managers, operators, and spokespersons of the public concerned. These immediate or key stakeholders have interests which should be taken into account in an evaluation. They may also have purely private or special interests which are not legitimately part of the evaluation. The notion of stakeholders can include the funding authorities/managers, the new hoteliers (direct beneficiaries), other professionals in tourism, former hoteliers facing competition from the

	assisted hotels, tourists, nature conservation associations and building contractors.
Strategic Rail Freight Interchange (SRFI)	A large multi-purpose rail freight interchange and distribution centre linked into both the rail and strategic road network. It includes rail-connected warehousing and container handling facilities and may also include manufacturing and processing activities.
Surface water runoff	Precipitation which travels to watercourses over the surface of the land.
Sustainability	Meeting or exceeding the needs of the present without compromising the ability of future generations to meet or exceed their own needs.
Sustainable Urban Drainage Systems (SuDS)	A system which has been designed to reduce the potential impact of new and existing developments with respect to surface water drainage discharges.
Swale	Low strip of land often moist and/or marshy.
T	
Topography	Description of the shape and physical features of the earth's surface.
Traffic generation	The amount of traffic that is created by a new activity.
Traffic Management Plan	An agreed plan to manage traffic during construction.
Train	One or more rail vehicles which are coupled together to form a single operating unit.
Transport Assessment	A formal assessment of the transport implications of a development which is published as a report. For more information see the Department for Transport's Guidance on transport assessment (2007).
Trunk Road	The national strategic road network, operated and maintained by Highways England, consisting principally of the motorways and major A roads.
V	
Visual Amenity	The overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through an area.
Visual Effect	Change in the appearance of the landscape as a result of development. This can be positive or negative.
W	
Wagon	Heavy Vehicle.
Water Framework Directive	A European Law which aims to improve water

	environments such as lakes and rivers.
Watercourse	A channel in which water flows.
WebTAG	<p>The DfT's website for guidance on the conduct of transport studies. The guidance includes or provides links to advice on how to:</p> <ul style="list-style-type: none"> Set objectives and identify problems; Develop potential solutions; Create a transport model for the appraisal of the alternative solutions; and How to conduct an appraisal which meets the Department's requirements.
Z	
Zone of Influence	Area within which a proposed development may have an influence or effect.

Acronyms

A	
ALC	Agricultural Land Classification
AoS	Appraisal of Sustainability
ASA	Alternative Sites Assessment
ASNW	Ancient Semi-Natural Woodland
B	
BMW	Best and Most Versatile (Agricultural Land)
BPA	British Pipeline Agency
C	
CAA	Civil Aviation Authority
CAAP	Central Area Action Plan
CEMP	Construction Environment Management Plan
COCP	Code of Construction Practice
CPNI	Centre for the Protection of National Infrastructure
CTMP	Construction Traffic Management Plan
D	
DAS	Design and Access Statement
DCLG	Department for Communities and Local Government
DCO	Development Consent Order
DETR	Department of the Environment, Transport and the Regions
DIRFT	Daventry International Rail Freight Terminal
DM	Do Minimum' Scenario
DMRB	Design Manual for Roads and Bridges
DoE	Department of Environment
E	
EA	Environment Agency
EIA	Environmental Impact Assessment
EMG	East Midlands Gateway
EMIP	East Midlands Intermodal Park
EMS	Environmental Management System
EPS	European Protected Species

ES	Environmental Statement
ExA	Examining Authority
F	
FOCs	Freight Operating Company
FRA	Flood Risk Assessment
FTE	Full Time Equivalent
FTP	Framework Travel Plan
G	
GBFM	Great Britain Freight Model
GEA	Gross External Area
GHG	Greenhouse Gas
GIA	Gross Internal Area
GIS	Geographical Information System
GLP	Global Logistics Properties
GVA	Gross Value Added
H	
HER	Historic Environment Record
HGV	Heavy Goods Vehicles
HMP	Habitat Management Plan
HOOB	High Output Operating Base
HRA	Habitat Regulations Assessment
HS2	High Speed 2
I	
IEEM	Chartered Institute of Ecology and Environmental Management
IEMA	Institute of Environmental Management and Assessment
L	
LEP	Local Economic Partnership
LEIS	Landscape Ecological and Infrastructure Strategy
LGS	Local Geological Site
LIR	Local Impact Report
LNR	Local Nature Reserves
LONI	Letter of No Impediment
LWS	Local Wildlife Sites

M	
MAR	Market Assessment Report
MOD	Ministry of Defence
MMO	Marine Management Organisation
MWLP	Northamptonshire Minerals and Waste Local Plan
M&MP	Management and Maintenance Plan
N	
NATS	National Air Traffic Services
NBC	Northampton Borough Council
NCC	Northampton County Council
NHLE	National Heritage List for England
NLL	Northampton Loop Line
NN NPS	National Networks National Policy Statement
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NSIP	Nationally Significant Infrastructure Project
NSR	Noise Sensitive Receptor
O	
ODPM	Office of the Deputy Prime Minister
ORR	Office of Rail Regulation
OTMP	Operational Traffic Management Plan
P	
PA2008	Planning Act 2008
PAWS	Planted Ancient Woodland
PEIR	Preliminary Environmental Information Report
PINS	The Planning Inspectorate
PP	Pocket Parks
PPE	Personal Protective Equipment
PPG	Planning Practice Guidance
PPMS	Pollution Prevention Method Statement
PROW	Public Rights of Way
PTS	Public Transport Strategy
pWS	Potential Wildlife Sites

PWV	Protected Wildflower Verges
R	
RCC	Railway Control Centre
RFI	Rail Freight Interchange
RMS	Remediation Method Statement
RPE	Respiratory Protective Equipment
S	
SAC	Special Areas of Conservation
SEMLEP	South East Midlands Local Enterprise Partnership
SEP	Strategic Economic Plan
SFN	Strategic Freight Network
SNC	South Northamptonshire Council
SoCC	Statement of Community Consultation
SoS	Secretary of State
SPA	Special Protection Area
SPDs	Supplementary Planning Documents
SPG	Supplementary Planning Guidance
sqm	Square metres
sqft	Square feet
SRFI	Strategic Rail Freight Interchange
SRN	Strategic Rail Network
SSSI	Site of Special Scientific Interest
SuDS	Sustainable Urban Drainage Systems
T	
TA	Transport Assessment
the Act	the Planning Act 2008
TEN-T	Trans-European Network
TPO	Tree Preservation Order
U	
UXO	Unexploded Ordnance
W	
WCML	West Coast Mainline
WSI	Written Scheme of Investigation

1. Introduction

- 1.1 This Planning Statement has been prepared to set out the Applicant's case on the key matters that are relevant to the determination of the application for a Development Consent Order (DCO) for the Nationally Significant Infrastructure Project (NSIP) of the Rail Central Project.
- 1.2 This Planning Statement considers the factors which should influence the recommendations of the Examining Authority (ExA), including the relevant decision making framework, national policies and any other important or relevant factors which the ExA may be expected to take into account as part of the examination of the DCO application.
- 1.3 This report should be read in conjunction with the other submitted documents, most notably the Environmental Statement (ES), which provides a more detailed account of the land required, the works for which consent will be sought, and the effects of those works on the environment.

The Applicant

- 1.4 The applicant for this DCO is Ashfield Land Management Limited and Gazeley GLP Northampton s.à.r.l., which comprises a joint venture partnership arrangement between Ashfield Land Management Limited and Gazeley GLP.
- 1.5 Ashfield Land is a property development and investment company active in all sectors of the commercial property market throughout the UK.
- 1.6 The joint venture partner is Gazeley, a Global Logistics Properties (GLP) company. Gazeley is a leading developer, investor and manager of European logistics warehouses and distribution parks with a 17 million square foot portfolio concentrated in the strategic logistics markets of the UK, Germany, France and the Netherlands. In addition to its operating portfolio, which is 98% leased to blue chip customers such as Amazon, UPS and Volkswagen, Gazeley has a prime land bank which allows for the development of an additional 16 million square feet.

Project Background

- 1.7 The Applicant has made an application to the Secretary of State (SoS) via the Planning Inspectorate (PINS) for a DCO under the Planning Act 2008 (PA2008) for the development of a new Strategic Rail Freight Interchange (SRFI) (which includes warehousing) on land at Arm Farm, Milton Malsor, Northamptonshire.
- 1.8 A SRFI is a large multi-purpose rail freight interchange and distribution centre linked into both the rail and strategic road network. It includes rail-connected warehousing and container handling facilities and may also include manufacturing and processing activities. The aim of a SRFI is to optimise the use of rail in the freight journey by maximising rail trunk haul and minimising some elements of the secondary distribution leg (final delivery) by road, through co-location of other distribution and freight activities. SRFIs are a key element in reducing the cost to users of moving freight by rail and are important in facilitating the transfer of freight from road to rail, thereby reducing trip mileage of freight movements on both the national and local road networks. They are also a crucial infrastructure centrepiece

in the facilitation of the Government's vision is to achieve a low carbon sustainable transport system that is an engine for economic growth, which is safer and improves quality of life in our communities. The transfer of freight from road to rail has an important part to play in a low carbon economy and therefore helping address climate change¹.

- 1.9 The development of SRFI-type facilities on the continent started almost 50 years ago with the public led development of a network of 'interporti' in Italy – large distribution parks providing access to the main road and rail networks along with interchange and warehousing facilities. These schemes reflected a desire to make best use of all available modes for transport for goods traffic, contrasting with post-war Britain which moved away from rail transport towards road haulage on an expanding road network.
- 1.10 During the 1980's, the prospect of the Channel Tunnel fixed rail link, combined with renewed interest in rail through privatisation, saw the emergence of a new generation of interchanges, along the lines of the *interporti*. Sites such as the Daventry International Rail Freight Terminal (DIRFT) and Hall Hall in the Midlands spearheaded a small number of private-sector and public/private developments (5 in England, 1 in Scotland), primarily intended to create better access to and from mainland Europe via the Channel Tunnel.
- 1.11 Whilst the evolution of rail freight traffic through these sites has tended more towards deepsea and domestic intermodal traffic, the success in securing occupiers, employment and rail freight traffic led Government to develop policy in subsequent years to encourage expansion of the network – this originally was through SRFI policy guidance, issued by the Department of Transport in 2011 and then culminating in the Planning Act 2008 and the National Networks National Policy Statement (NN NPS) in 2014.

“Strategic RFI represent the potential for businesses to use rail freight now or in the future and are key features in encouraging a gradual conversion from road to rail. They should be seen not simply as locations for freight to access the railway but also sites for the accommodation of businesses capable now or in the future of supporting their commercial activities by rail. To this end, Strategic RFI will normally accommodate both rail and non-rail served businesses at the outset, with an expectation of increasing the proportion of rail servicing over time.

The mixed nature of Strategic RFI is essential for the longer term development of rail freight. Accommodation only of existing commercial rail users would fail to present the opportunity and encouragement for wider business conversion to rail. It is essential that Strategic RFI are developed in a form to accommodate both rail and non-rail served businesses, in order to promote future rail freight opportunities.

This type of facility provides a focus for general freight activity, not simply rail specific. This allows industry the choice and opportunity to incorporate rail into its supply chain at a time and scale to match the evolution of its operations. A Strategic RFI should be a focus of intermodal handling activity, serving both companies located on the interchange itself and in the wider region. Occupiers are likely to be major logistics service companies and national and multi-national manufacturers or retailers.

SRFIs operate to serve regional and cross regional catchment areas but are also key components in national and international networks. A SRFI is a large multi-purpose rail

¹ Paragraph 2.53 of the NN NPS

freight interchange and distribution centre linked into both the rail and trunk road system. It has rail-served warehousing and container handling facilities and may also include manufacturing and processing activities.²

- 1.12 In light of the economic and environmental benefits, which the use of rail can bring to the movement of freight, it is now government policy to deliver a national network of SRFI across the country. However, there are a relatively small number of operational SRFI in comparison to road-served distribution parks and to satisfy market demand and satisfactorily accommodate the anticipated increase in domestic and international rail freight in the most appropriate way, a need exists for more rail served warehousing space. The existing SRFI will only have a finite capacity to expand floorspace and/or rail freight interchange facilities, such that further sites, including Rail Central, are needed to increase both the capacity and the wider network, bringing rail access closer to more local companies than is possible from the existing sites alone.
- 1.13 With its geographic position – situated on one of the most important strategic corridors for freight transport within Great Britain – both in terms of the strategic highway network and strategic freight network – Rail Central is one of the best performing SRFI opportunities available and it is anticipated that rail traffic will reflect a blend of the following sectors:
- Deep-sea intermodal services across a network of major port facilities (e.g. Felixstowe, Southampton, London Gateway, Tilbury, Purfleet, Seaforth, Bristol, Teeside and Grangemouth);
 - Domestic intermodal services with the site being well placed on the national freight corridor within Great Britain;
 - European and longer distance intermodal services (particularly to and from China);
 - Domestic and European conventional wagon services; and
 - Domestic and European express freight services.
- 1.14 The delivery of Rail Central will therefore help to ensure greater opportunities to achieve a significant “modal shift” of long-distance freight from road to rail, with the associated environmental benefits, over the medium to long term. This site is therefore targeting a medium to longer term provision of space to ensure continuity of supply.
- 1.15 The DCO application includes associated development and also includes associated highway works. A specific element of those highways works relating to Junction 15a of the M1 motorway (J15a) constitutes a NSIP in its own right. Where a scheme involves development which meets the criteria for more than one type of NSIP, then such a scheme can be pursued in a single application for a DCO. For completeness it has therefore been determined that there are two NSIPs forming the Proposed Development, namely:
- The Main SRFI Site; and
 - Works to J15a of the M1

² SRFI Policy Guidance, Department for Transport, November 2011, para 4.5, 4.8 and 4.9, sections 2.1 and 2.2

- 1.16 The elements of the Proposed Development that are not encompassed within either NSIP will be characterised within the DCO as associated development. For the purposes of this Planning Statement and the ES and the final application for DCO consent, the two NSIPs and associated development are assessed as a single project. In other words, we do not distinguish between the two NSIPs and their associated development. Indeed, it is considered it would be difficult to do so given that the SRFI, highway works and associated development are clearly interconnected and linked. The Order Limits therefore include the two NSIPs and associated development.

The Decision Making Framework

- 1.17 Under Section 104 of the PA2008, an application for a NSIP must be determined in accordance with the relevant National Policy Statement (NPS), except in limited specific circumstances where important and relevant considerations should be taken into account, which may include local planning policy and Government guidance.
- 1.18 The NN NPS (December 2014) provides the primary basis for the consideration of a nationally significant SRFI and highway works on the national network. It provides a bespoke policy framework for the infrastructure which is necessary to meet identified national needs. It contains detailed guidance, on a topic by topic basis, to guide both applicants and the decision maker in their detailed approach to NSIPs – in respect of their function, design, assessment and mitigation.
- 1.19 The NN NPS sets out matters which the decision maker is required to consider. The acceptability of the Proposed Development in this policy context is considered in Sections 9 to 24 of this Planning Statement, with Sections 25 and 26 drawing overall conclusions about the compliance of the Proposed Development with the NN NPS.

Proposed Development

- 1.20 The development proposed by this Application is for a new SRFI (NSIP 1), works at J15a (NSIP 2) and associated development. The proposals for the SRFI constitute a NSIP under the criteria provided by Sections 14(1) (I) and 26 of the PA2008.
- 1.21 Section 2 of this Statement provides a context of where the site is located. Furthermore, it also provides a detailed breakdown of the site description for the Main SRFI site (NSIP 1), the J15a site (NSIP 2) and the other associated development sites. Set out below is a summary of the Proposed Development, a more detailed description can be found within Section 4 of this Planning Statement.
- 1.22 The Proposed Development comprises the following aspects:
- The 'Main SRFI Site' (including the A43(T) access and all rail infrastructure);
 - Works to J15A of the M1 motorway; and
 - Other highway works.
- 1.23 The Proposed Development comprises the following principal elements:

The 'Main SRFI Site'

- Demolition of existing buildings and structures;
- An intermodal freight terminal with direct connections to the Northampton Loop Line, capable of accommodating trains of up to 775m long, including up to 3 gantry cranes, container storage, a train maintenance depot and facilities to transfer containers to Heavy Goods Vehicles (HGV);
- An express freight terminal with direct connections to the West Coast Main Line, capable of accommodating trains of up to 240m long, a freight platform with associated loading and unloading facilities;
- Up to 702,097 square metres (sqm) (GEA) of rail connected and rail served warehousing and ancillary service buildings including a lorry park, terminal control building and bus terminal;
- New road infrastructure including a new separated access point on the A43(T), an internal site underpass (under Northampton Road) and necessary utilities infrastructure; and
- Strategic landscaping and open space including alterations to public rights of way, the creation of new ecological enhancement areas and publicly accessible open areas, flood attenuation, and the partial diversion of the Milton Malsor brook.

1.24 A series of development parameters, which provide certainty over the Proposed Development at the main site, are provided in the Parameters Plans (Appendix 1) submitted alongside this application. It is intended that these parameters will be fixed in granting the DCO. Furthermore, an Illustrative Masterplan (Appendix 3) demonstrates a means of bringing forward the Proposed Development, whilst being in accordance with the proposed parameters.

Works to J15a of the M1

1.25 Improvements to J15a of the M1 (Appendix 4), including carriageway widening, reconfiguration and signalisation to the highway and the provision of ecological mitigation to the south-west of J15a to partly mitigate habitat loss at the Main SRFI Site and landscaping around the junction.

1.26 Parameters for the works are shown on the J15a Green Infrastructure Plan (Appendix 4), which shows the extent of the highway works and ecological mitigation proposed.

Other Highway Works

1.27 The Proposed Development includes a range of additional highway improvements to the following junctions:

- A5076/ A5123/ Upton Way Roundabout (Pineham Park) (Dane Camp Way);

- A5076 (west)/ Hunsbury Hill Avenue/ Hunsbarrow Road/ A5076, Danes Camp Way/ Hunsbury Hill Road;
- Towcester Road/ A5076, Danes Camp Way/ A5123, Towcester Road/ Mere Way/ Tesco Access;
- Tove Roundabout (A43(T), Towcester Bypass (southwest)/ Towcester Road/ A5, (north)/ A43(T) (northeast)/ A5, Watling Street (southeast));
- Abthorpe Roundabout (Abthorpe Road/ A43(T), Towcester Bypass (north)/ Brackley Road/ A43(T), Towcester Bypass (south));
- A5076, Upton Way (south)/ Telford Way/ A5076, Upton Way (north)/ Walter Tull Way/ Dustan Mill Lane;
- A5076, Upton Way (south)/ High Street/ A5076, Upton Way (north)/ Dustan Mill (Stub);
- A43(T) /St John's Road Safety Scheme;
- A43(T) Northampton Road Safety Scheme; and
- Towcester Road/ Northampton Road Pedestrian/Cycle Way along Northampton Road and between Barn Lane to the junction of Collingtree Road.

1.28 The Proposed Development for which development consent will be sought is defined by a series of parameters. The parameters and the elements to be fixed are presented at Section 4 of this Planning Statement. An Illustrative Masterplan has been prepared which illustrates how the Proposed Development could be delivered in accordance with the parameters.

Approach to Consultation

1.29 In accordance with the PA2008, the Applicant has been undertaking a structured and comprehensive programme of pre-application consultation with the local community and stakeholders. This included one stage of 'non-statutory' consultation (Phase 1 – carried out between April and October 2016) on early draft proposals and preliminary baseline environmental information, and 'statutory' consultation on detailed draft proposals (Phase 2 – being held from 15 March to 23 April 2018). A further targeted consultation exercise (Phase 2a) was undertaken between 22 June and 23 July 2018 which sought representations on the series of further non-material scheme amendments proposed by the Applicant.

1.30 The Applicant acknowledges that a development of this scale has significant implications for local people, particularly those people living close to the Order Limits. The Applicant has considered and had regard to all the responses received from consultees, adjusted plans to reflect their knowledge of the area and taken into account views expressed in relation to the Rail Central project as a result of this Phase 2 Consultation. The amendments made to the Rail Central project as a result of feedback obtained through all phases of Consultation and continuing design development are explained in Section 3 of this Planning Statement.

1.31 The representations received during all phases of consultation were recorded, analysed and used to inform the evolution of the Rail Central project.

2. Site Context and Description

Site Location

- 2.1 The Potential Development Area (the 'Order Limits') (Document Ref 2.12) comprising the Main SRFI Site, J15a works and other associated development, the Order Limits are located in Northamptonshire in the East Midlands region of England, approximately 20km north-west of Milton Keynes and the Main SRFI Site and J15a sites are approximately 6km south of Northampton.
- 2.2 The rail interchange, warehousing, access from the A43(T), and associated infrastructure falls within the administrative boundary of South Northamptonshire Council (SNC). Other highway works are also required, which fall within Northampton Borough Council (NBC). Notwithstanding this, the proposed works at J15a and the Northampton Road foot/cycleway will span across parts of both authority's areas.
- 2.3 This section of the statement provides an overview of the wider context where the Order Limits are located. A description of the Main SRFI Site, J15a and associated minor highways works sites are discussed in turn. Finally, the local policy designations associated with the two NSIP sites are also confirmed.

Wider Context

Northamptonshire Context

- 2.4 Northamptonshire is a predominantly rural county situated in the heart of England. The western half of the County benefits from good north-south links, being on the spine of the M1/M6 motorway and West Coast Main Line (WCML), and Northampton on the Northampton Loop Line (NLL), giving the County good access to the UK's two biggest cities, London and Birmingham.
- 2.5 The eastern half of the county is also a key corridor with the Midland Main Line railway running north-south, and the A14 – a dual-carriageway connecting the M40 at Ardley, Oxfordshire to Stamford, Lincolnshire. The strategic positioning of the district – which is effectively at the cross roads of the strategic national and rail network – provides excellent accessibility.
- 2.6 It is possible to reach over 90% of the population of England and Wales within a drive time of four hours; five international airports are within two hours' drive and it is approximately a three hour drive to the Ports of Liverpool, Milford Haven and the Ports of Southampton and Felixstowe. The WCML is the principal route for intermodal and express freight traffic in Great Britain forming a core part of the Strategic Freight Network (SFN) able to handle the longest freight trains using diesel or electric traction and capable of carrying containers from deep sea traffic.
- 2.7 These excellent road and rail connections coupled with the County's central location have laid the foundations for a strong distribution sector, largely road based, but including the large rail-served freight distribution site at Daventry International Rail Freight Terminal (DIRFT).

- 2.8 Other important routes include the A45 and A43(T) which together link the east and west of the county, and connect the A14 to the M40 and onward links to Oxford and the south of England.
- 2.9 As a result of its geography and transport infrastructure, Northampton has emerged to become one of the UK's main logistics property markets, an especially important location for NDCs with occupiers including Panasonic, Carlsberg, BMW, Decathlon, Zara, Morrisons and Sainsbury's. Indeed, this is acknowledged by the Local Economic Partnership (LEP) which confirms that Northampton has a strong market for the growth of distribution and logistics sectors³. As the population and economy continues to expand, with business and consumers demanding ever-greater product choice and availability, there is also expected to be a consistent upward trend in demand for warehousing. The inherent geographical advantages of the Northamptonshire area mean that much of this growth is likely to be concentrated here.

Site Context (Main SRFI Site)

The Rail Context

- 2.10 The Main SRFI Site is bounded to the south and south-west by the WCML "fast lines" (also referred to as the London to Rugby Line) and to the east by the WCML "slow lines" (also referred to as the Roade and Rugby New Line or the NLL). All four lines are electrified with overhead 25kV AC catenary and cleared to W10 loading gauge (loading gauge is the maximum permitted cross-sectional profile of a rail vehicle and its load, and varies across the UK). The four WCML running lines split into two separate routes south of the Main SRFI Site at Roade Cutting, and re-join as a single route at Hilmorton Junction south of Rugby.
- 2.11 The WCML links London and the South East with the Midlands, North West and Scotland, and is the principal route for movement of north-south intermodal (containerised) and conventional wagon rail traffic of relevance to the small network of existing SRFI. The WCML forms a core part of the Trans-European Network (TEN-T), and south of Crewe to London is one of the few sections of the national network already cleared for 775m length trains (this being extended south to Southampton by the end of 'Control Period 5' (i.e. 2019).
- 2.12 At present around 580 train paths per day are scheduled to pass the Main SRFI Site along the fast and slow lines, with around 90% of these used in practice. 20% of paths are used for freight services. The proportion of freight trains routed via the fast or slow lines can vary overnight according to engineering works, with services diverted onto each side accordingly.

North

- 2.13 To the north, the Main SRFI Site is bounded principally by the village of Milton Malsor, which is in part designated as a Conservation Area. There are 34 Grade II Listed Buildings and one Grade II* Listed Building in the village (Church of the Holy Cross) (see Document Ref 6.1.11.3), and those closest to the Main SRFI Site include The Old Rectory and Mortimers on Rectory Lane.
- 2.14 Gayton Road runs from east to west along the northern boundary of the Main SRFI Site and intersects with Towcester Road/Northampton Road. At this junction the road then becomes

³ Proposition for Northamptonshire LEP Status: A Powerhouse for Growth, page 9, July 2011

Rectory Lane, which is located beyond the northern boundary and to the south of Milton Malsor.

- 2.15 Milton Business Park abuts the Main SRFI Site's north-western corner, which includes, amongst other uses, a vehicle service and parts centre. The residential dwellings of Gaytonway, Copper Beeches, Woodbury, Parley Pole and Spring Gardens run from north to south along Towcester Road at the intersection with Gayton Road/Rectory Lane.
- 2.16 A parcel of agricultural land, which is bisected by Barn Lane running from north to south, and Milton Football club complete the Main SRFI Site's northern boundary to the north-east.
- 2.17 There is a transport yard immediately adjacent to the north-west corner of the Main SRFI Site, in what appears to be a former sand pit adjacent to Towcester Road.
- 2.18 The County Town of Northampton lies approximately 6 km to the north of the Main SRFI Site.

East

- 2.19 The NLL defines the majority of the Main SRFI Site's eastern boundary, although some land to the east of the NLL is also included in the Order Limits to allow for footpath creation to link to the existing footpath network. Beyond the NLL lie agricultural land and the M1 Motorway. Junction 15 of the M1 motorway is located approximately 1.17 km from the eastern boundary of the Main SRFI Site.
- 2.20 The villages of Collingtree and Courteenhall lie approximately 1.5km to the north-west and 2km to the south-west respectively.

South

- 2.21 The WCML directly abuts the length of the southern boundary of the Main SRFI Site running from east to north-west. Beyond this lies the village of Blisworth, which like Milton Malsor, is designated in part as a Conservation Area. There are a total of 37 Grade II Listed Buildings and two Grade II* Listed Buildings (No.3 Stoneacre, High Street and Church of St John the Baptist) in the village, with the closest to the Main SRFI Site being the Railway Bridge over Northampton Road and No.25 and No.27 Grafton Villas.
- 2.22 Station Road runs from west to east and terminates at a T-Junction with Northampton Road, which runs from north to south through the Main SRFI Site. At the junction of Northampton Road and Station Road lie a number of residential dwellings, including Sumach, Glendale, Cartref and Traquair.
- 2.23 The Grand Union Canal (originally named the Grand Junction Canal) runs from north to south and forms part of the south-west boundary of the Main SRFI Site. The canal was constructed between 1793 and 1805 to provide a more convenient trade route between London and the Midlands than the existing Oxford Canal and is a designated Conservation Area.
- 2.24 An Anglian Water Sewage Treatment works (also referred to as Blisworth Water Recycling Centre) is located to the immediate south of the Main SRFI Site.
- 2.25 Between the southern boundary and the WCML, there is a row of terraced houses and a small business park, known as JBJ Business Park, and a small sewage treatment works. The business park includes a workshop, food recycling facility, garage, carpet and caravan sales.

- 2.26 Towcester lies approximately 6km to the south of the Main SRFI Site, whilst the village of Roade lies approximately 1.5km to the south-west.

West

- 2.27 The A43(T) is adjacent to and crosses within the Main SRFI Site. The western boundary is defined by Arm Farm and a spur/branch of the Grand Union Canal known as 'the Northampton Arm'. Gayton Marina, which is connected to the Northampton Arm, is located beyond the Main SRFI Site boundary to the west.
- 2.28 As set out above, the Grand Union Canal is a designated Conservation Area. The Milepost alongside the towpath and Bridge no.47 are Grade II Listed.
- 2.29 The town of Daventry lies approximately 16km to the north-west of the Main SRFI Site, whilst the villages of Gayton and Rothersthorpe lie approximately 1.8km to the south-west and 1.2km to the north-west respectively.

The Main SRFI Site

- 2.30 The Main SRFI Site itself comprises a total of approximately 294ha (727 acres). The A43(T) passes through the Main SRFI Site to the west. Northampton Road/Towcester Road runs through the Main SRFI Site from north to south. A number of farms, small holdings and associated development are located within the east of the Main SRFI Site. All of these existing developments are accessed from Barn Lane, which runs south from Milton Malsor and comes to an end within the Main SRFI Site.
- 2.31 The existing premises on the Main SRFI Site consist of:
- Flowercraft Nursery;
 - Arm Farm;
 - Manor Farm;
 - Hill Farm;
 - Lodge Farm;
 - Rathvilly Farm;
 - Corteenhall Estate; and
 - A disused petrol filling station (located within the western area of the site, with access and egress gained directly from the A43(T)).
- 2.32 The Main SRFI Site largely consists of large-scale arable farmland, with some smaller scale pastoral fields, and semi-improved grassland more common in the south-western and north-eastern parts of the Main SRFI Site. Nearly three-quarters of the land is classified as moderate quality Subgrade 3b, with the remainder predominantly in Subgrade 3a and Grade 2.

- 2.33 Other than field-corner copses, it contains no woodland. Field boundaries generally have hedgerow or intermittent tree cover, however this is limited. The fields are mostly separated by relatively species-poor hedgerows probably dating from around the beginning of the 19th Century, although there are a few more species-rich and older hedges along Towcester Road and elsewhere. There are occasional belts of dense and mature deciduous tree planting beside linear infrastructure features, such as the A43(T) road at the western extent of the Main SRFI Site and the NLL at its eastern extent.
- 2.34 The field margins generally support brambles, rough grassland and tall-ruderals. There are a few small field-corner ponds surrounded by scrub or trees, but the Main SRFI Site lacks woodland save for one small spinney next to Barn Lane and a modern plantation next to the A43(T).
- 2.35 There are a number of trees, mainly mature *Quercus robur* (Pedunculate Oak) and *Fraxinus excelsior* (Ash) in the hedgerows and as lone field trees. A small proportion of trees are currently protected by Tree Preservation Order (TPO) or are described as being Veteran, Important or Ancient, as shown by the Hedgerow and Tree Plan.
- 2.36 The Main SRFI Site is shown by the EA's Flood Zone Mapping to be predominantly within Flood Zone 1 (land assessed as having a less than 1 in 1,000 annual probability of river or sea flooding in any year (<0.1%)). However, small areas of the Main SRFI Site immediately adjacent to the Milton Malsor Brook and an Unnamed Watercourse are shown to be at an increased risk with some land categorised as being at medium and high risk.
- 2.37 There are a number of small ponds and springs in the west and centre of the Main SRFI Site which are drained via agricultural ditches to the Milton Malsor Brook. The Milton Malsor Brook flows in a predominantly northerly direction through the approximate centre of the Main SRFI Site before draining into a watercourse a short distance to the north of the Main SRFI Site. It is understood that the watercourse is referred to locally as the Shoal Creek. The Wootton Brook rises in the north-east of the Main SRFI Site, flowing northward. The Wootton Brook drains the north and north-eastern areas of the Main SRFI Site.
- 2.38 Generally the Main SRFI Site is located within a shallow south to north orientated valley associated with the Milton Malsor Brook. Higher ground is present in the north-west, north and east associated with variations in the geological conditions, specifically the occurrence of Glaciofluvial sands in the north and Till in the west and east. There are a number of small ponds or springs within the Main SRFI Site. Earthworks are present in:
- the north-west of the Main SRFI Site (Rathvilly Farm), where ground levels are raised:
 - the south-west of the Main SRFI Site in the form of embankments for the Grand Union Canal and former Great Central Railway; and
 - in the south-east of the Main SRFI Site, understood to be arisings deposited following excavation of Roade Cutting which is located to the southeast of the Main SRFI Site along the West Coast Main Line.
- 2.39 The Main SRFI Site is in part subject to designation as a Minerals Safeguarding Area (Policy 28) of the Minerals and Waste Local Plan 2017 (this policy covers substantial areas of land beyond the Main SRFI Site). A small portion of the Main SRFI Site falls within the buffer zone

of a sand and gravel extraction allocation (Policy 4 of the Minerals and Waste Local Plan 2017) to the north of the Main SRFI Site.

- 2.40 High Voltage and Low Voltage cables owned by WPD intersect the Main SRFI Site in a number of locations, serving existing dwellings and farms. Overground BT Openreach cable currently serves a number of dwellings. There is also currently a 90mm MDPE water service to an existing farm in the north-east section of the Main SRFI Site. This main is fed from a 10" AC (Asbestos Cement) main which lies within Rectory Lane. Anglian Water have provided sewer plans that indicate the only public sewer within the Main SRFI Site is a 300mm diameter foul sewer that runs from south to north through the western section of the Main SRFI Site and parallel to the Milton Malsor Brook.
- 2.41 There are currently two major oil pipelines running through the south-west corner of the Main SRFI Site, owned by BPA. This is a buried service with regular marker posts at property and road boundaries. The pipes rise from beneath the ground to cross the river at the western boundary of the site.
- 2.42 Existing public rights of way cross the Main SRFI Site, as shown by the public rights of way plan (Document Ref 2.44).
- 2.43 There are no designated heritage assets located within the Main SRFI Site. There is, however, potential for buried archaeological remains to be preserved within the Main SRFI Site and that such sites could date to any period from the prehistoric onwards. There is a particular potential for the discovery of further remains of the Later Iron Age/Roman and Romano-British periods.

Site Context (J15a Site)

- 2.44 Land around the J15a Works comprises the immediate roads for J15a of the M1, and adjoining land parcels, which contain farmland and industrial buildings. The M1 runs north-west to south-east, and the A43(T) runs north to south. The A5123 runs north-south to the north of the motorway. The junction itself comprises two roundabouts with a passageway under the M1 and associated slip roads to the motorway to the west, passing industrial buildings comprising the motorway services (Northampton Services). In addition to the roads feeding directly to the junction, the local road network comprises Banbury Lane to the west of the junction, passing on a bridge over the M1, Towcester Road to the east, also crossing the M1 by bridge, and other local roads such as Northampton Road, Milton Road and Kislingbury Road, joining together the surrounding villages of Milton Malsor, Blisworth and Rothersthorpe.
- 2.45 The Grand Union Canal runs north to south to the west of the junction, passing under the two slip roads and the carriageway of the M1.
- 2.46 To the north of the J15a Site (within the NBC administrative area) are the southern suburbs of Northampton (Shelfleys), to the east is agricultural land with Towcester Road and the WCML approximately 1 km distant, to the south (in SNC administrative area) is agricultural land, rising to the village of Milton Malsor approximately 1 km to the south-east, and to the west is the village of Rothersthorpe, and industrial buildings close to Northampton Services.

- 2.47 There are small patches of woodland to the west and south of the J15a Site, adjacent to the Grand Union Canal, and footpaths cross the agricultural land between the nearby villages.
- 2.48 Within approximately 1km of the junction are the listed buildings in Milton Malsor as referenced above, and the Locks and bridges associated with the Grand Union Canal Conservation Area. There are also ten listed buildings in Rothersthorpe.

Site Context (Minor Highway Sites)

A5076/ A5123/ Upton Way Roundabout

- 2.49 Positioned within the south western suburb of Northampton known as Hunsbury Meadows, the junction provides connectivity between the A5076 (north and east movement), the A5123 (south movement) and Upton Valley Way East (west movement). The junction consists of a standard roundabout with four access and egress points.
- 2.50 The River Nene and Grand Union Canal (Northampton Arm) run in unison to the north of the junction. Beyond the waterways to the north, the junction is primarily surrounded by land in agricultural use. In contrast, land to the south east, south and south west is primarily in residential use and occupied by detached and semi-detached properties.
- 2.51 Works to the junction are proposed within the junction itself including widening and reconfiguration of road markings on Upton Way approach. The reconfiguration of road markings on Danes Camp Way approach and on circulatory carriageway, an additional lane on A5123 approach and on circulatory carriageway, and an additional lane on Upton Way exit. The Order Limits Plan (Document Ref 2.12), details the full extent of the potential development area for this junction.

A5076/ Hunsbury Hill Road Roundabout

- 2.52 Located within Hunsbury, a suburb of Northampton located c.2.3km from the Town Centre, the junction provides connectivity between the A5067 (east to west movement), Hunsbury Hill Road (south movement), Hunsbury Hill Avenue (north west movement) and Hunsbarrow Road (north east movement).
- 2.53 All boundaries of the junction are surrounded by residential development, primarily comprising detached and semi-detached dwellings. Notwithstanding this, a building in employment use and associated car parking is positioned adjacent to the north west of the junction.
- 2.54 Works are proposed to the junction itself, all entrance routes onto the junction and egress routes from the junction on the A5067. This includes the provision of traffic signal control on both A5076 approaches (and circulatory carriageway) and an additional lane on both A5076 approaches and exists. As well as provision of an additional lane on both northern and southern circulatory carriageway. The Order Limits Plan (Document Ref 2.12), details the full extent of the potential development area for this junction.

A5076/ Towcester Road/ Tesco Roundabout

- 2.55 Located c.2.6km to the south of Northampton Town Centre, the junction provides connectivity between the A5076 (east and north west movement), Towcester Road (west and north east movement) and Tesco Mereway. The junction consists of a roundabout with five access and egress points. A pedestrian route through the junction is provided via three

underpasses, allowing for north, east and south movement on foot or by bicycle. Some landscaping is located centrally within the junction.

- 2.56 Directly to the north, the junction is bound by residential development consisting of detached and semi-detached dwellings. Towcester Road Cemetery is located adjacent to the north east of the junctions. A large Tesco Extra Superstore is positioned directly to the south, with access being served from the junction. Hunsbury Hill Country Park is located to the north west of the junction.
- 2.57 Works are proposed to the majority of the junction including the provision of additional lanes and merges on Towcester Road (westbound exit), and Mere Way exit, and an additional lane on the A5076, Danes Camp Way approach. The provision of local widening and traffic signal control (including on circulatory carriageway) on A5123, Towcester Road approach. Provision of extension to right turn lane on Mere Way. The Order Limits Plan (Document Ref 2.12), details the full extent of the potential development area for this junction.

A43(T) Tove Roundabout

- 2.58 Located c.850m to the north west of Towcester Town Centre, the junction provides connectivity between the A43(T) (north east and south west movement), the A5 (north and south movement) and Towcester Road (west movement). The junction consists of a roundabout formation with five access and egress points. Some landscaping is located centrally within the junction and within the immediate surroundings.
- 2.59 Immediately to the north of the junction lie a pre-school nursery, garden centre and land within agricultural use. To the east is an area of greened land surrounded by a number of buildings in employment and retail use, including a Tesco Superstore and a car dealership. A petrol filling station car dealership and waste recycling centre are located to the south of the junction. To the west of the junction is a further car dealership and to the north west land in agricultural use.
- 2.60 Works are proposed to the entirety of the junction including the provision of additional lanes on A43(T) (southwest) approach and A5 (north) approach. Widening and reconfiguration of Towcester Road approach and A5 (north) exit. Widening of circulatory carriageway between A5 (north) and A5 (south) to provide additional lane on circulatory carriageway by enlarging central island. The Order Limits Plan (Document Ref 2.12), details the full extent of the potential development area for this junction.

A43(T) Abthorpe Roundabout

- 2.61 The junction is located c.1km to the south west of Towcester Town Centre. Consisting of a standard roundabout, it provides connectivity between the A43(T) (north and south movement), Brackley Road (east movement) and a further unnamed road (west movement). Some landscaping is provided centrally within the roundabout and within its immediate surroundings.
- 2.62 Suburban residential dwellings are predominantly located to the north east, east and south east of the junction. To the south west is a small road service station setup, which includes the provision of a McDonalds, a petrol filling station and hotel. Land surrounding the junction to the west and north west is within arable agricultural use.

- 2.63 Works are proposed to the north bound access and egress, the junction itself and access to the junction from Brackley Road including the provision of an additional lane on A43(T) (north) approach, realignment of A43(T) (north) and Brackley Road and reconfiguration of road markings on Brackley Road and circulatory carriageway. The Order Limits Plan (Document Ref 2.12), details the full extent of the potential development area for this junction.

Upton Way/ Telford Way Roundabout

- 2.64 The junction is located c. 2.3km to the west of Northampton Town Centre. Providing connectivity between the A5067 (north and south movement), an unnamed road (east movement), Duston Mill Lane (south east movement) and Telford Land (west movement), the junction is of a standard roundabout construction. Five access and egress points are provided at the junction. Some landscaping is provided centrally within the junction.
- 2.65 To the north east of the junction is a small leisure park, beyond which is Northampton Town Football Club Stadium. Duston Mill Meadow Nature Reserve and Storton's Pits Nature Reserve are located directly to the south and south east of the junction. To the south west and north west the junction is surrounded by predominantly residential development, interspersed with a hotel, petrol filling station and a restaurant.
- 2.66 Works are proposed to the majority of the junction including the provision of additional lane on both Upton Way approaches, and additional lane and merge on both Upton Way exits. Widening and reconfiguration of road markings on circulatory carriageway. The Order Limits Plans (Document Ref 2.12) details the full extent of the potential development area for this junction.

Upton Way/ High Street Roundabout

- 2.67 Located c.2.3km to the south west of Northampton Town Centre, the junction provides connectivity between the A5067 (north and south movement), Duston Mill (east movement) and High Street (west movement). Consisting of a standard roundabout construction, the junction has four separate access and egress points. Landscaping is located centrally within the junction and within its immediate surroundings.
- 2.68 To the north east, east and south east of the junction is Duston Mill Meadow Nature Reserve. Upton Country Park is located to the south west of the junction, whilst land to the west and north west is surrounded by land in residential use.
- 2.69 Works are proposed to the entirety of the junction including the provision of an additional lane on both Upton Way approaches, additional lane and merge on both Upton Way exits and the widening and reconfiguration of road markings on circulatory carriageway. The Order Limits Plans (Document Ref 2.12) detail the full extent of the potential development area for this junction.

A43(T)/St John's Road

- 2.70 This junction is located c.9.6km south of Northampton Town Centre and 3.1km south of the Main SRFI site. The junction provides access onto the A43(T), in both the north and south directions, from St John's lane at the west and an unnamed road at the east. Immediately west of the junction lies approximately 9 residential properties, a Health Centre and a School. Agricultural land adjoins the junction to the north, east and south. Agricultural buildings, access via the unnamed road, lie to the east of the junction.

- 2.71 Works are proposed for a signage scheme to include junction ahead and warning signs and countdown markers as well as high friction surfacing for northbound vehicles on the A43(T). The Order Limits Plans (Document Ref 2.12) details the full extent of the potential development area for this junction.

A43(T) Northampton Road

- 2.72 This junction is located c 11.2km south west of Northampton Town Centre. The area of works is approximately 150m north of a junction linking the southbound carriageway of the A43(T) to Northampton Road.
- 2.73 A residential property lies to the south of these proposed works, with agricultural land and wooded areas/tree screening adjoining the other boundaries.
- 2.74 The works proposed comprise junction ahead warning signs with associated countdown markers. The Order Limits Plans (Document Ref 2.12) detail the full extent of the potential development area for this junction.

Pedestrian/Cycle Way along Northampton Road and between Barn Lane to the junction of Collingtree Road

- 2.75 These works comprise off-site infrastructure improvements to provide suitable pedestrian and cycling infrastructure between the main site, the surrounding villages and the southern residential areas of Northampton. The northern most extent of these works is c.3.3km south of Northampton Town Centre.
- 2.76 The proposed works extend along Northampton Road from south of Willow Lodge, northwards where the road turns into Towcester Road, past Milton Malsor and into the outskirts of Northampton, terminating at the roundabout at Ladybridge Drive.
- 2.77 The works include widening and extension of existing footways, and the provision of cycleways. The Order Limits Plans (Document Ref 2.12) detail the full extent of the potential development area for this junction.

Planning Policy Designations

Statutory Designated Sites

Main SRFI Site

- 2.78 Statutory designated sites within the relevant study areas (5 km for natural heritage and landscape, 2 km for built heritage and 1 km for archaeology) of the Main SRFI Site are listed at Appendix 2.1 of the ES.
- 2.79 There are five statutory designated sites for Natural Heritage within 5 km of the Main SRFI Site Order Limits, comprising of two Sites of Special Scientific Interest (SSSI) and three Local Nature Reserves (LNR). The nearest is Roade Cutting SSSI which is a geological SSSI, adjacent to the Order Limits to the south east, at the junction of the WCML and NLL railway lines. Blisworth Rectory Farm Quarry SSSI is approximately 1.5 km from the Order Limits to the south, located in a disused quarry to the south west of Blisworth.
- 2.80 In addition, the Upper Nene Valley Gravel Pits Special Protection Area (SPA) (and SSSI and Ramsar site) is within 6 km of the Main SRFI Site. It is designated for bird species that may roost on agricultural land at considerable distances from the SPA.

- 2.81 There are three Registered Parks and Gardens within 5 km of the Main SRFI Site. Courteenhall is located 1 km east of the Main SRFI Site, Stoke Park is located approximately 4.2 km south and Easton Neston is located approximately 4.9 km south, south-west of the Main SRFI Site.
- 2.82 There are eight Conservation Areas within 2 km of the Main SRFI Site. These include the Grand Union Canal and Milton Malsor Conservation Areas, which are adjacent to the Order Limits to the west and north respectively, Blisworth, 0.5 km to the south, Collingtree 0.8 km to the north east, Gayton 1km to the west, Rothersthorpe 1 km to the north west, and Courteenhall and Roade both 1.8 km to the south east. There are clusters of listed buildings within these Conservation Areas:
- Thirty nine no. in Blisworth (2 no. Grade 2* listing, and the remainder Grade 2);
 - Twelve no. in Collingtree (1 no. Grade 2* listing, and the remainder Grade 2);
 - Six no. in Courteenhall (4 no. Grade 2* listing, and 2 no. Grade 2);
 - Eight no. in Gayton (1 no. Grade 1, 1 no. Grade 2* and the remainder Grade 2);
 - Thirty five no. in Milton Malsor (1 no. Grade 2* and the remainder Grade 2);
 - Fifteen no. in Roade (1 no. Grade 2* and the remainder Grade 2);
 - Ten no. in Rothersthorpe (1 no. Grade 2* and the remainder Grade 2); and
 - Seventeen no. in Grand Union Canal (all Grade 2).
- 2.83 There is also one Listed Building that was included in the Built Heritage Study in Northampton – the Grade 2 Express Lift Tower.
- 2.84 There are no statutory archaeological sites within 1 km of the Order Limits. The nearest is in Blisworth, approximately 1.2 km south from the Order Limits (Churchyard Cross Base in St John the Baptist Churchyard) and “The Berry Ringwork” in Rothersthorpe, approximately 1.2 km to the north west.

J15a Site

- 2.85 Statutory designated sites within the relevant study areas (5km for natural heritage, 1 km for landscape and archaeology, and 0.25 km for built heritage) of the J15a Works are listed at Appendix 2.1 of the ES (Document Ref 6.1.2.1).
- 2.86 There are two international statutory designated sites for Natural Heritage within 10 km of the Order Limits, comprising one Ramsar and one Special Protection Area (SPA) – both the Upper Nene Valley Gravel Pits (also a SSSI); approximately 5.7km north east from the J15a Order Limits. There are also six national statutory designated sites within 5km of the Order Limits, comprising 2 Sites of Special Scientific Interest (SSSI) (Roade Cutting and Blisworth Rectory Farm Quarry – both over 3 km from J15a) and four Local Nature Reserves (LNR); the nearest being Storton’s Pits, approximately 2km to the north.

- 2.87 There is one Conservation Area within the J15a Site; the Grand Union Canal, and four Grade 2 listed buildings within or immediately adjacent to the J15a Site, all of which are locks associated with the Grand Union Canal. There are twelve further Grade 2 listed buildings within 0.25km of the J15a Site, again all associated with the canal (locks, bridges and a lock cottage). Rotherthorpe Conservation Area is also approximately 1 km to the west of the J15a Site.
- 2.88 There are no statutory archaeological sites within 1 km of the J15a Site.

Minor Highway Works

- 2.89 The closest statutory designated sites within the relevant study areas (2km for natural heritage, 1 km for landscape and archaeology, and 0.25 km for built heritage) of the Minor Highway Works are listed at Appendix 2.1 of the ES.
- 2.90 The nearest international site (Upper Nene Valley Gravel Pits SPA, SAC and SSSI) is approximately 4.2km from Junction 7 (Towcester Road/A5076, Danes Camp Way/A5123, Towcester Road/Mere Way/Tesco Access). All proposed work would be within the highway boundary at this junction, comprising the provision of additional lanes and merges on Towcester Road (westbound exit), and Mere Way exit, and an additional lane on the A5076, Danes Camp Way approach. As well as the provision of local widening and traffic signal control (including on circulatory carriageway) on A5123, Towcester Road approach and provision of extension to right turn lane on Mere Way approach. The nearest SSSI (Bugbrooke Meadow) is approximately 5.3km from Junction 4 (A5076/A5123/Upton Way Roundabout). Roade Cutting SSSI is 4.9 km from Junction 7 (Towcester Road/A5076, Danes Camp Way/A5123, Towcester Road/Mere Way/Tesco Access).
- 2.91 There are Local Nature Reserves (LNR) located within 2.7km of Junction 7 (Barnes Meadow LNR), Junction 19 (effectively adjacent to Storting's Pits LNR) and Junction 20 (200m from Storting's Pits LNR). Junctions 4, 6 and 7 are also within 2 km of Storting's Pits LNR. Junction 19 is approximately 2.8km from Kingsthorpe LNR. Greens Norton Pocket Park Nature Reserve is within 2 km of Junctions 14 and 15.
- 2.92 There are Grade 2 listed buildings within 250m of the Order Limits of Junction 6 (Hunsbury Hill Farmhouse), Junction 7 (Mortuary Chapel), and Junction 15 (Towcester War Memorial). The Battle of Nottingham Registered Battlefield is within 1.1km of Junction 7.
- 2.93 There are no statutory archaeological sites within 1 km of the Order Limits.

Non-Statutory Designated Sites

Main SRFI Site

- 2.94 There are twenty seven non-statutory designated sites for Natural Heritage within 2km of the Order Limits of the Main SRFI Site, comprising four Local Wildlife Sites (LWS) and twenty three Potential Wildlife Sites (pWS). These are listed in Appendix 2.1 of the ES and described in more detail in Chapter 14: Biodiversity of the ES. These include two pWSs on the Main SRFI Site (Roade Cutting, and Site 241), and five less than 100m from the Main SRFI Site, including the Grand Union Canal Local Wildlife Site and four pWSs.
- 2.95 There are twelve areas of ancient woodland within 5km of the Order Limits of the Main SRFI Site. They comprise six areas of Ancient Semi-Natural Woodland (ASNW) and six areas of

Planted Ancient Woodland (PAWS). The nearest area of ancient woodland to the Order Limits of the Main SRFI Site is approximately 3km to the south.

- 2.96 With respect to local landscape policy areas, the South Northamptonshire 'Tove Valley Special Landscape Area' is located 3 km to the south of the Main SRFI Site.
- 2.97 There are seventeen non-listed buildings on the Historic Environment Record (HER) within 2km of the Order Limits of the Main SRFI Site, including 7 no. in Blisworth, 4 no. in Gayton, 4 no. in Collingtree, and 1 no each in Courteenhall and Milton Malsor.
- 2.98 Archaeological non-statutory records included thirty eight locations on the Main SRFI Site (primarily findspots and cropmark sites recorded on the HER), and forty seven locations within 1km of the Order Limits of the Main SRFI Site. These are described and assessed in Chapter 10: Archaeology of the ES.

J15a Site

- 2.99 There are thirty nine non-statutory designated sites for Natural Heritage within 2km of the Order Limits of J15a, comprising fifteen Local Wildlife Sites (LWS), two of which are also designated as Local Geological Site (LGS) and twenty four Potential Wildlife Sites (pWS). These are listed in Appendix 2.1 of the ES and described in more detail in Chapter 14: Biodiversity of the ES. These include the Grand Union Canal Local Wildlife Site and pWS Site 239 which are located within the Order Limits, and one pWS (Site 250) adjacent to the Order Limits. There are no areas of Ancient Woodland within 2 km of J15a.
- 2.100 Archaeological non-statutory records included twenty six locations on within the J15a Order Limits (primarily findspots and ditches/ pits recorded on the HER). These are described and assessed in Chapter 10: Archaeology of the ES.
- 2.101 There are no non-statutory designations for built heritage within 250m of the Order Limits, or for landscape within 1 km.

Minor Highway Works

- 2.102 There are no recorded non-statutory designations within the relevant study areas (2km for natural heritage, 1 km for landscape, and 0.25 km for built heritage) of the Minor Highway Works. Archaeological features within the Order Limits at Junction 14 included 13 no. locations, as described in Chapter 10: Archaeology of the ES. These included features recorded in the HER and on historic maps, including possible buildings, roads and findspots.

3. Scheme Evolution

3.1 The Proposed Development has been carefully developed, based on a close understanding of the Main SRFI Site's characteristics. This section deals with the way in which the Rail Central project has evolved in response to the general themes that emerged from the Phase 1, Phase 2 and Phase 2a consultations.

3.2 Further details of the scheme evolution in the early stages of the project and following Phase 1, Phase 2 and Phase 2a Consultation can be found in the DAS.

Phase 1 Consultation

3.3 Following Phase 1 Consultation, which included a series of eight public exhibitions in Blisworth, Milton Malsor, Roade, Collingtree and Towcester, a number of changes were made to the draft illustrative masterplan in response to the comments received.

Reduction in Development Floorspace

3.4 There has been a reduction of development extent and overall floorspace from around 8,000,000 square feet (sqft) to 7,400,000 sqft to reduce visual impact.

Northampton Road Greenway

3.5 Following comments received during the Phase One Consultation, a green corridor parallel to Northampton Road at the Main SRFI Site will now be enhanced to create a landscape and walking route linking the villages of Blisworth and Milton Malsor. The existing route is defined with strong highway hedges broken up by intermittent areas of commercial and residential development. The Proposed Development has been set back from the existing road to provide a landscape buffer that will reduce the potential impact on landscape character between the two villages.

3.6 Mitigation mounding will wrap around the edge of the development zones to the east of Northampton Road, which will aid with screening views across towards the proposed units and associated infrastructure. Existing hedgerows and hedgerow trees along Northampton Road will be protected and retained where feasible and reinforced with small pockets of new woodland planting.

3.7 The bridge over the underpass linking the two development zones to the east and west of Northampton Road will be wide enough to accommodate a grass verge between the road and footpath and also a native hedgerow to aid with screening views back towards the Proposed Development and to provide continuation for pedestrians and road users. The footpath link between the two villages will be upgraded to a combined cycleway / footpath providing an 'off road' cycle link between the two villages and into the Proposed Development. In addition, the proposals were revised to ensure that there would be no HGV or vehicle access from Northampton Road with vehicular access reserved only for emergency vehicles and controlled by emergency services.

Arm Farm Pocket Park

3.8 A number of concerns were raised about the prospect of providing any built development on the parcel of land to the west of the A43(T) (Grand Junction site) and consequently, the applicant confirmed that it would not be redeveloped for a possible hotel and public

house/restaurant, or training and innovation centre. The Grand Junction site will instead be safeguarded to provide landscaping and ecological mitigation and an informal pocket park for use by local residents. The proximity of this land parcel to the canal makes it of particular importance for bat mitigation with the potential to construct purpose made features. The proposed park will be low key and kept informal with native planting. The Northampton Green Infrastructure Plan aspires to create a corridor of calcareous grassland along either side of the A43(T), which the Rail Central proposals seek to accord.

Lorry Park

- 3.9 The capacity of the lorry park at the Main SRFI Site was increased to further alleviate concerns over HGVs parking on local roads as they waited to gain access to the Rail Central site.

Reorientation of Warehouse Units

- 3.10 In an effort to reduce the visual impact on the Railway cottages and Northampton Road, the distance between the closest buildings (Units 3 and 4) at the Main SRFI Site and these receptors has been increased. Unit 4, which is closest to the Railway Cottages, has also been reduced in size.

Public Rights of Way

- 3.11 A number of concerns were raised about the impact of Rail Central on local Public Rights of Way (PROW) and Bridle Paths. The project team has taken great care to ensure that any diversion or rerouting of PROWs or Bridle Paths preserves their accessibility and character. Indeed, Rail Central's approach to PROWs and Bridle Paths has been influenced by consultation with Natural England, Northamptonshire Ramblers and the Ramblers Association, as well as local residents.
- 3.12 The rerouting of elements of the existing PROW will ensure that Rail Central is able to provide a continuous route around the development. Indeed, approximately 66.2 hectares, or just over half of the structural landscape around the periphery of the site, will become publicly accessible amenity land.

Landscaping Bunds

- 3.13 Concerns were raised about the visual impact on the surrounding villages of Milton Malsor and Blisworth. In response to these concerns, the size and number of landscaped bunds have been increased in an effort to further screen the development visually from Milton Malsor and Blisworth.

Barn Lane Bus Stops

- 3.14 In May 2017, members of the Rail Central Local Liaison Group raised concerns that unmarked bus stops are situated at the same location at Barn Lane as where the sheltered parking for the Proposed Development was initially proposed. As a result of this dialogue, the scheme design has been revised to result in the re-location of the proposed parking at Barn Lane so that the current position of the bus stops remains.

Further Scheme Changes

- 3.15 In addition to those changes described above that were brought about following comments received at Phase 1 Consultation, a number of other changes have been made as the scheme

has developed and further environmental survey work has been completed. These changes are outlined below.

- (a) The Illustrative Masterplan was updated in response to traffic engineering. The main gatehouse into the Main SRFI Site was removed to allow a freer flow of traffic. The central spine road was widened to ensure it could accommodate the traffic. The cycleway/footway running along Northampton Road was extended to link the eastern site into the cycle network.
- (b) A shuttle bus service and bus turning area were added to facilitate people using the Main SRFI Site.
- (c) Parking numbers were updated at the Main SRFI Site to provide a ratio of spaces that accord more precisely with Local Authority Standards. The bus facility on the western site was redesigned to take up less land to allow for a landscape screen to the north. Emergency access points from Northampton Road were created solely for use in the event of an emergency.
- (d) A further iteration included provision for a future High Output Operating Base (HOOB) for Network Rail. It was a facility to stable and service specialist equipment needed to maintain the rail network. Having proven the capability of the site to accommodate a HOOB facility if required in future, the masterplan and track layout was returned to its previous configuration.
- (e) Units 11 & 13 of the Main SRFI Site were amended to allow for the gradients required to achieve safe access from the spine road for HGVs. Unit 10 was reduced in size to allow the public right of way more space to navigate around the western side of the unit. Amendments to the Intermodal Area and Train Maintenance Depot were considered to allow for a longer intermodal area and rail accessibility and an electricity substation was added to the development to serve the power needs of the site.

Phase 2 and Phase 2A Consultation

- 3.16 The Phase 2 consultation was undertaken between the 15 March and 23 April 2018. Alongside consultation with statutory consultees, the consultation was also undertaken with the local community. A number of public exhibitions were also held in the local area in March 2018.
- 3.17 Feedback received during the consultation was considered and a number of amendments to the Proposed Development have been included. In addition, some minor amendments were introduced to improve flexibility and support the overall deliverability of the Proposed Development. All of these amendments were the subject of an additional localised consultation, referred to as Phase 2A. The Phase 2A consultation was undertaken from 25 June to 23 July 2018. The amendments proposed as part of the Phase 2A consultation are confirmed below:
 - A minor amendment to the development zones as shown in the parameters plan, which now enable the zones to directly abut the proposed internal estate roads, providing flexibility for access to the individual units;

- A minor realignment of the main access from the A43(T) into the site;
- Zone 3 as previously shown on the Parameters Plan has now been split in to Zones 3a and 3b. The maximum building heights within Zone 3a (to the north) have been reduced from 18.5m to 15m. This is a direct response to concerns raised at Phase 2 Consultation regarding visual impact;
- An amendment to the landscape bunds in a direct response to concerns raised at Phase 2 Consultation regarding visual impact. The amendments sought to:
 - Raise the bund to the north of Zone 1 by 2m and extending it to the north;
 - Raise the bund to the north of Zone 3a by 2m, excluding at the northern tip where it remains as before;
 - Reduce the ground levels in Zone 3a and 3b by 0.5m, and in Zone 4 by 0.35m;
- The relocation of the “building limit” line within Zone 3a. This has been moved 48m to the west, to allow additional flexibility as to the future detailed design of the proposed warehousing;
- Introducing a zone of flexibility on sections of the main site spine road, both to the east and west of Northampton Road. This zone extends to 20m either side of the current central alignment of the spine road within the site and will provide the necessary flexibility for delivering an alternative alignment at detailed design stage;
- Introduction of on-site occupational health provision within the planned lorry park amenity facilities. This is a direct response to the comments of the Northamptonshire County Council Public Health Team;
- Introduction of woodland blocks to the east of the Northampton Loop in keeping with wider landscape character. This is a direct response to concerns raised by South Northamptonshire Council;
- Minor extensions to the ‘red line’ main site boundary (known as the Order Limits) for the A43(T) access in both a northerly and southerly direction prompted as a result of detailed technical design work;
- Minor alterations to the red line boundary (known as the Order Limits) highway junctions:
 - A43(T) / Northampton Rd (Safety Scheme): this change is simply the introduction of additional safety signage to the south of the junction. It was prompted by Highways England, which requested that proposed signage should be replicated on both directions;
 - A5076 / Upton Way: this extension will allow for the approach road and left turn slip lane to be realigned, avoiding any impact on the bridge. The extension will be entirely within existing highway land, owned by Highways England.

3.18 The DAS provides further explanation of how the Proposed Development has evolved in response to all of the feedback received through extensive engagement and consultation. Furthermore, the Consultation Report provides an analysis of the consultation undertaken to date and the responses received.

4. The Proposed Development

- 4.1 The DCO application proposes the construction, operation and maintenance of a SRFI as well as associated highways works and other facilities (the 'Proposed Development'). The Proposed Development is situated within the 'Proposed Development Area' (the Order Limits). An application is required to be made to PINS because the Proposed Development is considered to comprise a NSIP under the PA2008.
- 4.2 In this case there are two types of NSIP that are applicable:
- Rail Freight Interchange (as defined in Section 26 of the PA2008); and
 - Highways (as defined in Section 22 of the PA2008).
- 4.3 With regards to the Main SRFI Site, it comprises a NSIP as it will:
- be situated in England and will be at least 60 Ha in size;
 - be capable of handling consignments of goods from more than one consignor and to more than one consignee and capable of handling at least four goods trains per day;
 - be part of the railway network in England;
 - include warehousing to which goods can be delivered from the railway network in England either directly or by means of another form of transport; and
 - not be part of a military establishment.
- 4.4 In respect of the proposed Highways Works at J15a, the PA 2008, confirms the thresholds for determining whether Highways Works comprise a NSIP in their own right. In this regard, Section 22(4)(b) confirms that Highways Works should be considered a NSIP where *"...the construction or alteration of a highway, other than a motorway, where the speed limit for any class of vehicle is expected to be 50 miles per hour or greater, is 12.5 hectares"*.
- 4.5 The improvement works at J15a of the M1 will comprise an alteration of a highway in England other than a motorway where:
- the SoS or a strategic highways company (such as Highways England) is the Highway Authority;
 - the speed limit of any class of vehicle is expected to be over 50 miles per hour; and
 - the area of development is greater than 12.5 hectares.
- 4.6 In accordance with Section 22(9)(b) of the PA2008, this highway improvement is also a NSIP in its own right.

4.7 Where a scheme involves development which meets the criteria for more than one type of NSIP then such a scheme can be pursued in a single application for a DCO. Based on the above, it has been determined that there are two NSIPs that will form the DCO submission:

- The Main SRFI Site; and
- Works to J.15a of the M1

4.8 The elements of the Proposed Development that are not encompassed within either NSIP are characterised in the draft DCO as 'Associated Development'. For the purposes of the ES, the two NSIPs and the Associated Development are assessed as a single 'project'.

4.9 The Associated Development broadly comprises:

- A43(T) access;
- a lorry park;
- underpass under Northampton Road;
- utilities provision;
- landscaping;
- footpath and cycleways;
- habitat creation; and
- other minor highways works and public rights of way alterations.

The Proposed Development

4.10 The Proposed Development is described in more detail, particularly at Chapter 5 of the ES and the Parameters Plans. An overview of the proposals is also provided in the short consultation summary document.

4.11 The Proposed Development comprises:

- Demolition of existing buildings and structures and grading the land to create a series of plateaus and bunds to facilitate development;
- Up to 702,097 sqm (GEA) of rail connected and rail served warehousing and ancillary service buildings including a lorry park, terminal control building and bus terminal;
- An intermodal freight terminal with direct connections to the Northampton Loop Line, capable of accommodating trains of up to 775m long, including up to 3 gantry cranes, container storage, a train/traction maintenance depot and facilities to transfer containers to Heavy Goods Vehicles (HGV);

- An express freight terminal with direct connections to the WCML, capable of accommodating trains of up to 240m long, a freight platform with associated loading and unloading facilities;
- New road infrastructure including a new separated access point on the A34(T), an internal site underpass (under Northampton Road); creation of an emergency access and bus access from Northampton Road and creation of enhanced bus stop facilities on Northampton Road; and improvements to the wider strategic highway network including Junction 15a of the M1 Motorway and necessary utilities infrastructure and drainage; and
- Strategic landscaping and open space including alterations to public rights of way, provision of pedestrian/cycle overbridges over the WCML and NLL, the creation of new ecological enhancement areas and publicly accessible open areas, flood attenuation (at both the Main SRFI Site and J15a of the M1), and the partial diversion of the Milton Malsor brook.

Commercial Floorspace – Unit of Measurement & Approach to Mezzanines

- 4.12 Up to 702,097 sqm (GEA) of rail connected and rail served warehousing and ancillary service buildings are proposed under this DCO application.
- 4.13 Gross External Area (GEA) and Gross Internal Area (GIA) are different measures. GIA is broadly the whole enclosed area of a building within the external walls taking each floor into account and excluding the thickness of the external walls. GEA is broadly the whole area of a building, taking each floor into account. Each exclude certain elements from their calculation.
- 4.14 The UK Government’s Valuation Office Agency (VOA) Code of Measuring Practice: Definitions for Rating Purposes (October 2012) sets out in detail what is included and excluded for both GEA and GIA measurements:

Table 4.1: GEA Definition

Included within GEA	Excluded from GEA
Perimeter wall thickness and external projections	Open balconies
Areas occupied by internal walls (whether structural or not) and partitions	Open fire escapes
Columns, piers, chimney breasts, stairwells, lift wells etc.	Open sided covered ways
Lift rooms, plant rooms, tank rooms, fuel stores, whether or not above roof level	Open vehicle parking areas, terraces and so on
Open-sided covered areas (should be stated separately)	Minor canopies
	Any area with a headroom of less

	than 1.5m (except under stairways)
	Any area under the control of service or other external authorities

- 4.15 Whilst a number of previous DCO's have used the GIA measurement, the Applicant has taken the view that GEA more accurately measures wall thickness and therefore the overall size of the footprint of the proposed maximum development floorspace set out on the Parameters Plans. In preparing the Illustrative Masterplan, the maximum area that could be achieved from the development in accordance with the Parameters Plan has been presented. For environmental impact purposes, the scheme has been assessed on this basis. It is our view that the decision to use GEA measurements offers a 'worst case' and robust approach from a Rochdale Envelope perspective.

Mezzanine Floorspace

- 4.16 The parameters plan sets out a maximum overall gross external area (GEA) for the warehousing (702,097sq m) as well as maximum building heights (18.5m except in Zone 3a which is limited to 15m).
- 4.17 GEA has also been used as a parameter rather than gross internal area (GIA) as it provides occupiers with flexibility in how they use the internal warehouse space. Such flexibility already exists for B8 warehouses developed under the Town and Country Planning Act (TCPA) regime, where the construction of mezzanines within warehouses do not constitute development by virtue of section 55(2A) of the TCPA 1990. Article 44 of the Town and Country Planning (Development Management Procedure) (England) Order 2015 (DMPO 2015) restricts development of mezzanines in buildings which are being used for the retail sale of goods if the mezzanine will increase the floorspace of the building by more than 200 square metres. Accordingly, B8 warehouses without a retail sales element are not restricted by the DMPO 2015 and would not require planning permission to install a mezzanine.
- 4.18 This is logical given that the capacity of a warehouse is based on the cubic volume of the warehouse rather than GIA. If mezzanines are used, the floorspace will increase, but the cubic volume of the warehouse and the GEA will not. If mezzanines are not used, goods will be stacked up using racking; in this way the warehouse is able to store the same volume of goods regardless of the amount of floorspace. There is no proposal to use the B8 warehouses with a retail element and, as can be seen from the illustrative masterplan, the Main SRFI site would not be open to visiting members of the public for retail sales. On this basis, given that the GEA of the warehouses will not increase, the use of mezzanines will not give rise to any impacts different to those assessed in the Environmental Statement.
- 4.19 Subsequently, the provision of mezzanine floorspace is controlled, as with East Midlands Gateway DCO and DIRFT DCO, through Permitted Development rights. The Proposed Development is coming forward as an occupier led development, where the requirements of

each occupier will vary. This approach therefore offers maximum flexibility with regards to building out the development. The DCO ensures that the provision of mezzanine space is not prevented or precluded in any way through the permitted development rights regime.

Parameters and Flexibility

- 4.20 A 'parameters approach' has been applied to the Proposed Development whereby the development is described in terms of clearly defined parameters inside which future detailed development will be undertaken. This is because flexibility is required as the development will be phased over a number of years and the need to accommodate changing occupier requirements. This approach is common in respect of large scale infrastructure projects in order to ensure the maximum extent and size of development for which consent sought is identified and assessed whilst enabling flexibility at the detailed design stage. The adopted approach is in accordance with Planning Inspectorate Advice Note Nine 'Using the Rochdale Envelope'. The environmental assessment for the Proposed Development contained within the Environmental Statement (Document Ref 6.1) has been undertaken on the basis of fixed parameters and a worse-case scenario.
- 4.21 The Parameter Plans identify those elements of the Main SRFI Site which are to be fixed or controlled as part of the DCO (i.e. the location of development plots and the framework of green infrastructure) principally through the following:
- **Parameters Plan** (Document Ref: 2.14) – sets out extent of maximum development that can be achieved on site including minimum floor levels, building heights, and building limit lines, etc.
 - **Green Infrastructure Plan** (Document Ref: 2.13) – sets out the framework of green infrastructure and embedded mitigation including landscape strategy and minimum bund heights/maximum plateau heights and retained vegetation, etc.
- 4.22 All development on the Main SRFI Site and J15a will take place within the limits shown on the Parameters Plan and Green Infrastructure Plan and respective Order Limits, and in respect of the Minor Highway Works, their respective Highway Works general arrangement plans.
- 4.23 The embedded parameters adopted provide confidence that particular environmental issues will be addressed and uncontrolled development cannot take place. Table 4.3 below and overleaf provides an overview of the parameters to be fixed as part of the DCO for the Main SRFI Site:

Table 4.2: Parameters Table (Main SRFI Site)

Zone	Use / Infrastructure	Minimum number of units	Maximum number of units	Maximum plateau level (m AOD)	Maximum building height (metres above finished floor level)	Total floor area (m ²) ⁴
1	B8 (Warehousing)	2	4	77.540	18.5	
1a	Lorry Parking and Welfare/ Health facility	1	3	77.540	6.5	
2	B8 (Warehousing)	1	3	80.300	18.5	
	Substation site	1	1	77.120	8.0	
3a	B8 (Warehousing)	1	2	82.500	15.0	
3b	B8 (Warehousing)	1	2	82.000	18.5	
4	B8 (Warehousing)	1	3	83.900	18.5	
5	B8 (Rail Connected Warehousing)	2	3	90.700	18.5	702,097
5a	B8 (Rail Connected Warehousing)	1	2	88.550	18.5	
6	Maintenance Depot	1	1	92.500	18.5	
6a	Gantry Crane	3	3	91.300	27	
7	Express Freight Terminal	1	1	94.330	4	

4.24 An illustrative masterplan (Appendix 3) has also been produced, which demonstrates one way in which the Rail Central proposals could potentially come forward, in accordance with the controls and restrictions set out within the Parameters Plans.

⁴ Total floor area is not provided for each Zone, as there is flexibility built into the parameters plan to have a greater or lesser area up to the maximum allowable floor area across the whole SRFI Site. Provision of a maximum area would therefore suggest an unrealistically large total floorspace.

4.25 The following section provides further details in respect of the individual component parts of the Proposed Development:

Up to 702,097 sqm (GEA) of rail connected and rail served warehousing and ancillary service buildings including a lorry park and bus terminal

4.26 The Proposed Development seeks up to 702,097 sqm (GEA) of warehousing and a small amount of space for ancillary buildings relating to the freight terminals, storage areas and other ancillary buildings and structures. Provision has been made for up to three of the larger warehouse units to be capable of direct rail siding access alongside the buildings, avoiding the need for any intermediate road movements between train and warehouse; whilst the remainder will be served by a common-user, open-access intermodal facility.

4.27 Within Rail Central, a lorry park with capacity of 149 HGV spaces will be provided along with a bus terminus. The terminus will provide turning, pick up/drop off areas and layover space for buses serving the site. Furthermore, the lorry park will also include the provision of a driver welfare facility including toilets and showers and accommodation for a part-time occupational health facility.

4.28 The final and detailed configuration of the warehousing development plots would be determined in response to market demand but the expectation is that the development would comprise larger floorspace buildings. The detailed approval of these buildings will be managed by the Local Authority through the discharge of requirements included within the DCO, which will require the submission and approval of details including access, layout, appearance, landscaping and scale.

4.29 The DCO Application identifies six development plots within the site which are shown on the Parameters Plans. The Parameters Plan identifies and defines the maximum floorspace, building plateau levels, and building heights. The development plots provide for ancillary buildings and structures to support warehousing including gate-houses, sprinkler tanks, substations, storage tanks and other necessary ancillary structures. The developed areas will also provide car parking, HGV tractor and trailer parking and cycle parking. Security fencing would also be provided.

4.30 The Illustrative Masterplan illustrates one way in which the Main SRFI Site can potentially be developed in accordance with the Parameters Plans.

Intermodal freight terminal with connections to the Northampton Loop Line, container storage and parking

4.31 A freight terminal is proposed, to be connected to, and immediately west of the NLL, which will handle most of the freight and non-express passenger services.

4.32 The freight terminal is designed to accommodate trains of up to 775m in length (the maximum length of UK intermodal trains). The freight terminal, through the provision of eight rail sidings (all capable of accommodating a 775m length train) would enable the transfer of the freight from road to rail, and vice versa. The freight terminal will be built out

in phases with sufficient rail and freight handling infrastructure being constructed prior to any occupation of development to enable the terminal to handle at least four trains movements per day (to depart in both directions) in accordance with the NN NPS. In infrastructure terms, this would include the construction of the following:

- 2 x 775m reception sidings (electrified)
- 3 x 775m handling sidings
- The 8ha intermodal platform with a 2ha of area of hardstanding being immediately available for container storage
- A single gantry crane
- Train maintenance depot
- 45 spaces for HGV parking

4.33 From there, the terminal, along with the additional reception and handling sidings will be delivered in further phases in line with emerging demand. Fully built out, the intermodal terminal will have capacity to handle 13 trains a day.

4.34 Trains will be able to access from either direction on the main line, with trains passing directly into or alongside the intermodal terminal to facilitate fast turnaround of trains once off the main line. Provision has been made in the track layout design to allow both diesel- and electrically-hauled trains to access the sidings.

4.35 In addition to serving operators of Rail Central, the freight terminal would be an open-access terminal which would serve a wider market, enabling the transfer, storage and distribution, as required of containers and other goods from external customers. Areas for container storage and a parking area are proposed at and adjacent to the rail terminal.

4.36 In order to facilitate the loading and unloading of containers, the freight terminal will accommodate up to four overhead gantry trains operating on rails and with the ability to span across all six rail sidings and the majority of the intermodal terminal apron areas. In addition reach stacker cranes will be utilised to transfer containers to short-term storage of containers awaiting call-off by trains or HGVs. This would provide a total storage capacity of around 4,700 TEU (Twenty-foot Equivalent Units; the standard measure of size in the container industry), the equivalent of 75 intermodal trainloads (or around 3 days' throughput by rail assuming the full capacity of approximately 13 intermodal trainloads per day (26 movements in total)). The number and average dwell time for containers on site would be determined by end user requirements and/or the terminal operator.

4.37 The intermodal terminal facility also including a terminal control building providing administration and security facilities as well as amenities for staff and visitors and a traction and rolling stock depot, which will enable the trains to be stabled, maintained and fuelled on site rather than at off-site locations.

Express freight terminal with connections to the WCML, with loading/unloading platform

- 4.38 Subject to Network Rail agreement regarding timing / phasing of delivery, an express freight platform will be created as soon as possible. This will allow direct access to the WCML fast lines. A dedicated electrified loop line from the fast line reception sidings will serve this terminal, formed of a raised platform and overhead canopy, allowing direct level access between express freight trains and goods vehicles docked against the platform.
- 4.39 In addition to the intermodal facility, (and uniquely for a SRFI), Rail Central also makes provision for access to and from the WCML itself (known historically as the London to Rugby Line), mainly for a smaller number of express freight services, similar to those used by the Royal Mail between London, Warrington, Glasgow and Newcastle (and more recently used by Eddie Stobart, Sainsbury's and TNT). The express facility would allow high speed trains to arrive on site, quickly discharge and load roll cages or palletised goods (within windows as short as 20-30 minutes) before departing again in the same or opposite direction.
- 4.40 Access would again be provided from both directions of travel for diesel and electrically-hauled express freight trains, the loop off the main line being of sufficient length to allow trains to enter and depart at higher speeds. A cross-dock platform would allow trains and goods vehicles to transfer goods quickly between modes. This facility would allow freight users to benefit from faster transits than possible with road haulage or traditional rail freight services.
- 4.41 Internal rail connection points will also be created within the site between the intermodal terminal and express terminal.

Rail Connections and Ancillary Rail Development

- 4.42 As explained above, Rail Central would connect into both the WCML Fast and Slow Lines in both directions of travel, using diesel or electric traction, for trains of up to 775m train length, with internal links between these connections to allow maximum flexibility of routing trains to and from the Main SRFI Site. In the event that either side of the WCML is closed for maintenance or due to an incident, scope will then exist for Network Rail to reroute trains via the unaffected side of the WCML as slots become available.
- 4.43 The design of the main line connections into the WCML and the NLL lines can be used by all the types of freight train anticipated to use the SRFI (intermodal, conventional and express), the nature of the connections having been designed to reflect the respective emphasis of traffic movements and to integrate these into the pattern of the main line services. Connections consist of main line crossovers (allowing trains on the main line to cross between main line tracks as required to reach the connection points) and new connections on and off the main line into the SRFI.
- 4.44 This configuration serves to maximise the potential of Rail Central's connectivity into the Strategic Freight Network (SFN). It also demonstrates that Rail Central benefits from a range

of routing options in order to ensure that the rail services offered at the SRFI are effective, efficient and resilient.

4.45 Rail Central would also include a number of ancillary rail-related facilities which are unique to this SRFI:

- A Train/Traction Maintenance Depot – to allow trains to be stabled, maintained and fuelled on site rather than at off-site locations. This would reduce the need for empty positioning movements to and from the Main SRFI Site, maximising use of available main line capacity and the efficiency of rail freight services. This unique facility for a SRFI would also provide a location where train crew could sign on and sign off from each work day as required. With the rationalisation of former maintenance depot facilities at Rugby and Wolverton in recent years, this facility would be able to tap into a pool of skilled railway staff, which may have been (or may be) displaced from other facilities in the surrounding area.
- A gatehouse at the HGV entrance to the Intermodal Terminal – this would accommodate operational processes necessary to ensure goods are checked and secure. This not only protects against theft but also forms part of the Government's mandatory security regime for terminals sending freight through the Channel Tunnel.
- A Railway Control Centre (RCC) for the Intermodal Terminal and railway operations on site providing administration and security facilities as well as amenities for staff and visitors.
- Bundled fuelling facilities for reachstackers, internal movement vehicles or locomotives.

4.46 In terms of freight capacity, the Rail Operations Report (Document Ref: 7.5) confirms that, at start up and based on equivalent UK terminal operations, Rail Central is expected to handle four trains per day from its outset and has sufficient development floorspace to create the equivalent of thirteen intermodal trainloads per day. In practice, this quantum of freight traffic would be distributed between intermodal services and other emerging service types (i.e. conventional wagon and express).

New road infrastructure

4.47 The Proposed Development includes a number of road infrastructure elements, which can be summarised as follows:

(A) The Main SRFI Site

4.48 The creation of a new grade separated access point on the A43(T), a main spine road and an internal site underpass (under Northampton Road).

4.49 The new grade separated junction onto the A43 comprises the creation of a grade separated roundabout comprising a single 9.5m wide carriageway with access to the four slip lanes and 15.8 m wide carriageway on an embankment, formed by site won material, descending into the site. The grade separated junction will sit approximately 7m above the existing

carriageway of the A43(T). The works will include landscaping, drainage, services, landscaping and lighting columns up to 18m high on the slip roads and roundabout gyratory.

4.50 A central haul road will be created to Northampton Road and to the NLL to facilitate the construction of the intermodal terminal. It is anticipated that the road will be approximately 7.3m wide, though likely wider where it enters the site from the A43(T). The routing of this haul road is shown on the Parameters Plan with flexibility in this location provided.

4.51 The construction of the Northampton Road underpass will take the form of sections of a preformed 'box' (concrete, for example) positioned below the existing Northampton Road in a cutting. It is anticipated that the underpass will be approximately 5.3m deep. This will provide for the necessary earth working to form the underpass, including temporary diversions of the alignment of Northampton Road and its reinstatement at a higher level than existing. The underpass will be drained by pumping to the wider site drainage system, including the temporary drainage system installed to enable the delivery of this and other works.

(B) J15a of the M1 (NSIP 2)

4.52 The improvements proposed to J15a of the M1 Motorway comprise the following:

- Predevelopment works to facilitate carriageway widening and reconfiguration including development of a temporary construction compound to the east of the junction; material stockpiles and concrete batching plants; partial demolition of existing carriageway, site clearance and excavation; necessary regrading and adjustments to ground levels; removal of necessary vegetation and making good; fencing and construction of boundary treatments and barriers; earthworks to facilitate works and construction of new retaining walls, bunds, embankments, cuttings and aprons;
- Widening and signalisation of the existing northern roundabout including widening of the A5123 approach; widening of the M1 southbound off-slip approach; and widening of the northbound A43(T) approach;
- Reconfiguration of existing southern roundabout to provide signalised T-Junction;
- Provision of two lane free flow slip on A43(T) southbound; and widening of the A43(T) northbound on the approach to the southern junction;
- Provision of new link road between southern junction to M1 northbound on and off slips;
- Widening of the A5123 approach and the M1 southbound off-slip approach;
- Construction of a new bridge over the Grand Union Canal to the south of the M1 and linking it to the A43(T) including construction of a new signalised junction;

4.53 Associated development within the J15a works, including;

- Temporary alteration and diversion of existing public footpath number LA13 plus stopping up of the spur connecting public footpath LA13 to the A43(T) after it joins public footpath LA1;
- Provision of landscaping and habitat creation, including ecological mitigation to the south-west of the J15a, to mitigate habitat loss at the Main SRFI Site, and landscaping around the junction.
- Surface water management and drainage works including surface drainage features, swales, attenuation and culverting; and works to alter the course of any watercourse;
- Provision of surface treatments, kerbs and channels and carriageway markings;
- Provision of necessary pavements, ramps, means of access, footpaths, bridleways, footways, cycle tracks and crossing facilities including refurbishment works to any existing bridge or gantry;
- Works to alter and remove road furniture, traffic signs, and traffic signals;
- Provision of motorway communications and control equipment;
- Utilities works including water supply works and foul drainage provision; diversion of sewers, pipelines, utilities and services; provision of street lighting and electrical equipment;
- works required for the strengthening, improvement, maintenance or reconstruction of any streets; and
- such other works as may be necessary or expedient for the purpose of or in connection with the construction or use of the authorised development.

(C) Minor Highway Works (comprising Associated Development only)

4.54 Other off site highways works proposed are as follows:

JUNCTION 4 - A5076/ A5123/ Upton Way Roundabout (Pineham Park) (Dane Camp Way)

4.55 Widening and reconfiguration of road markings on Upton Way approach. Reconfiguration of road markings on Danes Camp Way approach and on circulatory carriageway, additional lane on A5123 approach and on circulatory carriageway, and additional lane on Upton Way exit.

JUNCTION 6 - A5076 (west)/ Hunsbury Hill Avenue/ Hunsbarrow Road/ A5076, Danes Camp Way/ Hunsbury Hill Road

4.56 Provision of traffic signal control on both A5076 approaches (and circulatory carriageway) and additional lane on both A5076 approaches and exits. Provision of additional lane on both northern and southern circulatory carriageway.

JUNCTION 7 - Towcester Road/ A5076, Danes Camp Way/ A5123, Towcester Road/ Mere Way/ Tesco Access

- 4.57 Provision of additional lanes and merges on Towcester Road (westbound exit), and Mere Way exit, and an additional lane on the A5076, Danes Camp Way approach. Provision of local widening and traffic signal control (including on circulatory carriageway) on A5123, Towcester Road approach. Provision of extension to right turn lane on Mere Way approach.

JUNCTION 14 - Tove Roundabout (A43(T), Towcester Bypass (southwest)/ Towcester Road/ A5, (north)/ A43, (northeast)/ A5, Watling Street (southeast))

- 4.58 Provision of additional lanes on A43(T) (southwest) approach and A5 (north) approach. Widening and reconfiguration of Towcester Road approach and A5 (north) exit. Widening of circulatory carriageway between A5 (north) and A5 (south) to provide additional lane on circulatory carriageway by enlarging central island.

JUNCTION 15 - Abthorpe Roundabout (Abthorpe Road/ A43(T), Towcester Bypass (north)/ Brackley Road/ A43, Towcester Bypass (south))

- 4.59 Provision of additional lane on A43 (north) approach, realignment of A43 (north) and Brackley Road and reconfiguration of road markings on Brackley Road and circulatory carriageway.

JUNCTION 19 - A5076, Upton Way (south)/ Telford Way/ A5076, Upton Way (north)/ Walter Tull Way/ Dustan Mill Lane

- 4.60 Provision of additional lane on both Upton Way approaches, and additional lane and merge on both Upton Way exits. Widening and reconfiguration of road markings on circulatory carriageway.

JUNCTION 20 - A5076, Upton Way (south)/ High Street/ A5076, Upton Way (north)/ Dustan Mill (Stub)

- 4.61 Provision of additional lane on both Upton Way approaches, additional lane and merge on both Upton Way exits and widening and reconfiguration of road markings on circulatory carriageway.

JUNCTION 28 – A43(T)/Towcester Road Safety Scheme

- 4.62 Signage scheme proposed include junction ahead warning signs with associated countdown markers and the existing stack-type direction sign on the southbound approach to Towcester Road junction be removed and replaced with a map-type direction sign.

- 4.63 The Transport Assessment (TA) (Document Ref: 6.1.17.1) confirms that in respect of these works, it is not clear from the latest highway safety records that there a safety issue remains at the junction. It is therefore proposed that should future accident records indicate that a safety remains, a financial contribution towards the implementation of the above measures would be provided to NCC to undertake these works.

- 4.64 This is secured in the s106 Planning Obligations that accompanies the DCO submission.

JUNCTION 29 - A43(T)/St John's Road Safety Scheme

- 4.65 Signage scheme proposed to include junction ahead and warning signs and countdown markers as well as high friction surfacing for northbound vehicles on the A43(T).

JUNCTION 31 - A43(T) Northampton Road Safety Scheme

- 4.66 Signage scheme proposed to include junction ahead warning signs with associated countdown markers.

CYCLEWAY – Towcester Road/ Northampton Road Pedestrian/Cycle Way along Northampton Road and between Barn Lane to the junction of Collingtree Road

- 4.67 The improvements comprise:
- The widening of the existing footway along Towcester Road to accommodate a footway/cycleway. The proposed footway/cycleway will measure 3 metres in width with a minimum 0.5m wide margin along the carriageway edge. The carriageway of Towcester Road/Northampton Road will be realigned in sections with a minimum width of 6.5m;
 - A proposed 2 metre wide footway to be provided on the nearside corner of the Towcester Road/Rectory Lane junction to facilitate pedestrian movements, a dropped kerb crossing point with tactile paving will be provided on Towcester Road immediately south of the junction with Rectory Lane. In addition a dropped kerb crossing with tactile paving will be provided on Rectory Lane immediately east of the junction with Towcester Road; and
 - Extension of the footway along Barn Lane to the junction of Collingtree Road.

Structural earthworks and demolition of existing structures

- 4.68 The Main SRFI Site is undulating and some changes in levels are required which involve earthworks to create development plateaus or plots within development zones identified in the Parameters Plans.
- 4.69 The built development zones would potentially create very large buildings, and earthworks are proposed to both create level plateaus for these buildings but also help create bunding and screening to limit the visual impact of the Proposed Development from viewpoints and receptors outside the Main SRFI Site. These bunds have been designed as landscaped, natural features and will effectively define the northern and central aspects of the Proposed Development.
- 4.70 A series of demolition works will be required across the Main SRFI Site, works at J15a and to facilitate the other highways works. With regards to the Main SRFI site, buildings to be demolished include the former petrol station near the A43(T), buildings at Manor Farm, Lodge Farm and Rathvilly Farm and the nursery in the east of the site.
- 4.71 With regards to works at J15a, the junction is required to be operational throughout works. Therefore demolition (i.e. partial demolition of the existing carriageway to facilitate works) will only take place on a section of the existing carriageway, while the remainder of the

carriageway remains operational, or once construction of the alternative is complete and operational.

- 4.72 Demolition and preparatory works relating to the Minor Highway Works will follow the same principles as the Main SRFI Site. These will involve minimal works, as development would be largely within highway land. The only demolition, if required (for example, removal of verge vegetation and any required levelling of ground, or partial demolition of the existing carriageway) would take place while ensuring the remainder of the carriageway remained operational. Should any utilities require diversion to facilitate carriageway widening or similar, these would also take place within the Order Limits.
- 4.73 All demolition works would be carried out in accordance with standard guidelines and procedures and relevant regulation (including waste management requirements). Measures included in the Code of Construction Practice (COCP) and outline Construction Environmental Management Plan (CEMP) will be followed.

Strategic landscaping and open space including alterations to public rights of way and the creation of new ecological enhancement areas and publicly accessible open areas

Main SRFI Site

- 4.74 The Proposed Development of the Main SRFI Site will inevitably result in the loss of farmland and associated field edge vegetation. This will be offset through the development of a series of biodiverse and ecologically rich landscape zones to provide a net gain in area of woodland habitat, species rich grassland habitat, wetland habitat and increasing overall length of hedgerow. Although some of this is accommodated within the Main SRFI Site itself, the majority of ecological mitigation will be partly achieved through a 26ha area adjacent to J15a. This mitigates the impact at the Main SRFI Site, as described in the relevant J15a section below.
- 4.75 Landscaping provided within the Main SRFI Site will form boundaries between building zones and break up areas of car parking. The landscaped areas will incorporate opportunities for habitat creation and enhancement, as well as leisure opportunities including walks. The landscape areas include publically accessible structural landscape zones (for example around Arm Farm); structural landscape zones (around the development zones) and spine road landscaping.
- 4.76 The landscape corridors focused around the periphery of the Main SRFI Site and adjacent to internal road corridors are based on the following key design principles:
- To minimise the effect of the Proposed Development (and specifically the Main SRFI Site) on the adjacent landscape character and on views towards the Main SRFI Site through the use of mounding and native structural planting belts.

- To integrate drainage and acoustic mitigation into the design to provide a holistic landscape strategy that responds to the existing site constraints and surrounding receptors.
- To maximise the ecological mitigation within the landscape zones through the retention and enhancement of the existing vegetation framework where feasible.
- To provide connectivity for wildlife through the creation of a matrix of different habitats providing interconnectivity between the different zones and into the wider area. Mitigation will be implemented where required to respond to individual species needs and provide a robust site specific solution.
- To provide connectivity both through the site and into surrounding areas. The development will incorporate a number of diverted footpaths along with new footpath links. Footpaths around the periphery of the site will be placed in broad landscape corridors to retain openness and provide a setting.
- To implement the landscape proposals in accordance with current best practice.

4.77 An Illustrative Landscape Masterplan for the Main SRFI Site (Document Ref 2.16) and an Ecological Mitigation Plan and Hedgerow and Tree Retention and Removal Plan (Document Refs 2.3 and 2.19) are provided with the DCO submission. These demonstrate the various principles described above and how they would be applied to a typical development layout. Further information in relation to each landscape zone is also provided as part of the separate 15-year Management and Maintenance Plan (M&MP) and is assessed as required within the technical chapters of this ES.

Public Accessibility

4.78 The location of stopped up and diverted public rights of way are shown on the access and rights of way plans (Document Ref 2.44). New 2m wide footpaths will be formed, likely to comprise compacted crushed limestone aggregate or similar. Footpaths will also be set within the proposed landscaping works, including in land to the east of the NLL in the east of the site. Should the adjacent Northampton Gateway SRFI development be brought forward these footpaths will tie into the proposed footpath network associated with that site, though they also provide a “stand-alone” solution to link into the existing footpath network. Further information can be found the Public Rights of Way Strategy (Document Ref 7.6) and a Interrelationship Document (Document 7.20) which accompany the DCO submission and at the end of this chapter.

4.79 Three new pedestrian bridges over the surrounding railway lines are proposed; two crossing the NLL to the east of the Main SRFI Site and one over the West Coast Mainline (WCML) to the south. The works will also include part of a new north–south pedestrian / cycle link between Milton Malsor and Blisworth.

4.80 To facilitate pedestrian and cycle movement along Towcester Road the existing footway on the west side of the carriageway will be widened to accommodate a suitable

footway/cycleway. The proposed footway/cycleway will be 3.0 metres in width with a minimum 0.5m wide margin along the carriageway edge. The carriageway of Towcester Road/Northampton Road will be realigned in sections with a minimum width of 6.5m. Towcester Road will provide the main link for pedestrians and cyclists accessing the site from the southern residential areas of Northampton. Providing direct links from existing cycle and pedestrian infrastructure, including the on-road cycle lanes provide along Rowtree Road from the residential areas of East Hunsbury and Wooton.

- 4.81 Furthermore, as part of the proposed PROW diversions, a pedestrian route provided within the site will provide a link to an existing Public Right of Way which emerges onto Barn Lane. Barn Lane currently accommodates a footway on the eastern side of the carriageway, which provides a route to Collingtree Road located to the north.
- 4.82 The footway currently measures approximately 1.0 metre in width, however it is considered that there is sufficient highway land available to widen the footway. It is therefore proposed that the footway is widened to approximately 2.0 metres to accommodate pedestrian movements between the site and Milton Malsor.

J15a Works

- 4.83 Parameters for the proposed works are shown on the J15a Green Infrastructure Plan. Landscape mitigation is proposed primarily north of the junction and to the east of the Grand Union Canal, and comprises the retention of existing vegetation (such as around and within the northern roundabout, and south of the M1 and along the edges of the roadway) and additional soft landscaping to the east of the A43(T) and south of the new slip road. The retained vegetation will be protected during highway works, and new landscaping will be established as soon as possible after works. The areas will incorporate opportunities for habitat creation and enhancement, as well as leisure opportunities including extending existing pathways to link with a right of way. The Illustrative J15a Landscape Plan suggests how the landscape mitigation may be brought forward.
- 4.84 The J15a Green Infrastructure Plan and the Illustrative J15a Landscape Plan are provided at Appendix 4.

Ecological Mitigation

- 4.85 An area for landscape and ecological mitigation has been identified to the south-west of the junction, covering approximately 26ha. This is shown in the J15a Green Infrastructure Plan and seeks to maximise the ecological mitigation within the landscape zones through the retention and enhancement of the existing vegetation framework and field pattern where feasible.
- 4.86 The J15a Ecological Mitigation Plan (Document Ref 2.3) suggests how the ecological mitigation may be brought forward, though this is dependent on the findings of future pre-development surveys. It is anticipated to include retained vegetation including marshland and woodland, renovated barns for owls and bats, new marshland areas and waterbodies, hedgerows and new vegetation including native trees and shrubs. Ditches alongside hedgerows could create “blueway” links to enhance habitat value. It is intended that the majority of the area could be kept in arable use, as long as this is non-intensive), with a mixture of overwinter stubble and winter bird crops/cover.

Phasing

- 4.87 As the Proposed Development will be market-led, the establishment of phasing of certain elements of the phasing is currently uncertain. However, evidently certain development needs to occur before other development can be brought forward.
- 4.88 Anticipated phasing of development is set out in Table 4.4 below and set out in more detail in Chapter 5 of the ES.
- 4.89 Phases 1 to 5 will be required prior to first operation. This will be linked to preliminary landscaping and infrastructure on site and the development of J15a of the M1. This will be in place at 2021. In total it is estimated to take 18 months to 2 years to develop (J15a is estimated to take approximately 9 months to 1 year). It is anticipated that some of the phases will be constructed in parallel. For example, the haul road, underpass and initial work on the eastern side of the site and preliminary landscaping could take place while the grade separated junction is constructed.
- 4.90 For the remainder of the Main SRFI Site it is intended that a “zoning” approach will be used, with development in each Zone of the Main SRFI Site being dependent on certain criteria in terms of infrastructure within the Main SRFI Site and on the highway network. A Construction Environmental Management Plan (CEMP) will be produced before commencement of work in each Zone.

Table 4.3: Anticipated Phasing of Construction

Phase	Description
1	New Grade Separated Junction on A43(T)
2	Haul Road (Spine Road) from A43(T) to Underpass on Northampton Road (plus bus terminus/ emergency access)
3	Underpass
4	Haul Road (Spine Road) from Underpass to Intermodal Area
5	Intermodal Terminal and Train/Traction Maintenance Depot (phased) ⁵
6	Rail Connected Buildings (Zone 5)*
7	Buildings at A43(T) frontage (Zone 1 and 2 (western extent))*
8	Rail Connected Building (Zone 5a)*
9	Buildings east of Northampton Road (Zone 4)*

⁵ See Paragraph 4.29 of this Statement

Phase	Description
10	Buildings at A43(T) frontage (Zone 1 and 2 (eastern extent))*
11	Buildings east of Northampton Road (Zone 3a and 3b)*
12	Express freight terminal (Zone 7) ⁶

* phasing to be determined by user / operator requirements.

Proposed Phasing of Highway Works

4.91 The anticipated phasing of highway works is set out below. This has been devised and ordered in sequence of priority to ensure the highway benefits that flow from Proposed Development on respective junctions are delivered early in project delivery.

Table 4.4: Anticipated Phasing of Highway Works

Junction No	Junction Name	Anticipated Delivery Timescale	Notes
13	A34/Site Access	Prior to first occupation	Necessary to facilitate the scheme
5	M1 Junction 15a	Prior to first occupation	This junction is operating at capacity and a large proportion of Rail Central traffic is forecast to traffic through this junction. It is anticipated that improvements are required at this location in advance of the opening of Rail Central
29	A43(T)/St John's Road Safety Scheme	Prior to first occupation	These junctions are known to have existing issues of highway safety and the addition of traffic at Rail Central would require the implementation of these improvements.
31	A43(T) Northampton Road Safety Scheme	Prior to first occupation	
n/a	Northampton Road/Towcester Road Foot/Cycleway	Prior to first occupation	This improvement is an important element of the Framework Travel Plan in order to encourage and facilitate walking and cycling.
14	A43(T)/ Towcester Road/ A5 (Tove Roundabout)	Prior to first occupation*	These junctions are forecast to operate over capacity at 2021 in the 'without Rail Central' highway modelling scenario and it is expected that these improvements are required to be in place in advance of Rail Central opening.
15	Abthorpe Road/A43(T)/Brackley Road (Abthorpe Roundabout)	Prior to first occupation*	

⁶ See paragraph 4.35 of this Statement

4	A5076/A5123/Upton Way	
7	Towcester Road/A5076/A5123/Tesco Access	Subject to ongoing phasing assessments which will be submitted post DCO submission. However it is anticipated that these improvements are to be constructed in the order identified.
6	A5076/Hunsbury Hill Avenue/Hunsbarrow Road/ Hunsbury Hill Road	
20	A5076/High Street/Duston Mill	
19	A5076/Telford Way/Walter Tull Way/Duston Mill Lane	

Alternative Approach with Northampton Gateway

- 4.92 At the same time as the Rail Central DCO application, a second DCO application for a SRFI is being determined by PINS on an adjacent site to the east of the NLL (Northampton Gateway). Should both schemes come forward, the two schemes would need to interact, as the Order Limits overlap in certain areas both in terms of the Main SRFI Site (on the NLL itself with new railway lines being proposed, and to the east of the NLL where landscaping and footpath diversions are proposed) and at J15a (where both projects will undertake works to increase the capacity of the junction).
- 4.93 Given this, it is necessary to consider whether both projects could be delivered, should the Secretary of State determine that development consent should be granted for both projects. Rail Central has been designed in such a way that it can be delivered independently or can accommodate the delivery of Northampton Gateway. To assist the Examining Authority, an inter-relationship report has been prepared which forms part of the DCO submission (Document Ref 7.20); the report has also been issued to PINS to inform the examination of Northampton Gateway.
- 4.94 The report sets out the inter-relationship of Rail Central and Northampton Gateway and how both projects can be delivered in practice. In particular, the report considers the proposed mechanism that are secured by the Rail Central draft DCO and the provisions which Rail Central will seek to have included the Northampton Gateway DCO, in order to achieve this.
- 4.95 In summary, the report identifies the following:
- (a) The areas where the Order limits of Rail Central and Northampton Gateway overlap being:
 - (i) Areas of the Northampton Loop Line ("NLL"), where both projects are constructing new railway lines to connect to their respective

intermodal facilities. Rail Central's rail connections will run to Rail Central's intermodal facility located parallel to the NLL on its western side. Northampton Gateway's rail connections will run to Northampton Gateway's intermodal facility located parallel to NLL on its eastern side;

- (ii) Where both projects propose to undertake landscaping and footpath diversion works to the east of the NLL. Rail Central proposes to retain the majority of this land as retained farmland but also includes a footpath and some additional structural landscaping. Northampton Gateway proposes a footpath in a very similar location, additional structural planting and will construct a landscaping bund; and
 - (iii) Where both projects propose to undertake highway improvement works to increase capacity at Junction 15A of the M1. The works proposed by Rail Central are significantly larger in scale (being an NSIP in their own right) than those proposed by Northampton Gateway, to accommodate increased flow to and from the Rail Central site and will provide a net benefit to the operation of the highway network.
- (b) The possible development scenarios if Rail Central and Northampton Gateway are both granted consent. This includes:
- (i) In respect of the construction of rail connections, that protective provisions will be agreed with Network Rail so new railway lines to connect to the NLL and both projects respective intermodal facilities can be delivered through management by and with Network Rail;
 - (ii) In respect of landscaping and footpath diversion works, a Public Rights of Way Strategy to facilitate the practical delivery of a footpath network if Rail Central and Northampton Gateway both progress and provide clarity as to what will be delivered under each option (to be submitted in outline with the Rail Central application) and the phasing of landscaping works under these possible scenarios;
 - (iii) In respect of highway improvement works to J15A of the M1, the scenarios that if Rail Central and Northampton Gateway are both consented, where either Rail Central or Northampton Gateway commence development first or where Northampton Gateway commences development significantly in advance of Rail Central.
- (c) The requirement for Protective Provisions within the Northampton Gateway Development Consent Order to dictate the communication between Rail Central and

Northampton Gateway construction works where they overlap, including the broad structure of the Protective Provisions.

- (d) The requirements that are to be included within the Rail Central Development Consent Order to secure plans to deliver the alternative Northampton Gateway and Rail Central scenarios, which include a landscaping management strategy, outline rights of way strategy and construction environmental management plan for highways.

4.96 The ES has been based on the assumption that Rail Central alone is progressed, and the proposed Development as described in this chapter this. However, it is generally considered that each "conflicting" aspect of the works are of the same or similar nature (and with similar purposes) so no particular changes to the parameters assumed in the assessment are required. The infrastructure proposed by both projects in these locations is complementary and can be aligned to achieve a common purpose. In addition, there are no additional environmental effects anticipated as a result of the overlap of Order Limits.

5. S106 Obligations and Other Community Initiatives

Development Consent Obligations

- 5.1 The NN NPS sets out the policy background for which Development Consent Obligations for SRFIs should be considered.
- 5.2 It requires⁷ that Development Consent Obligations should only be recommended and imposed if they are necessary, relevant to the development to be consented, enforceable, precise and reasonable in all other respects. Further planning obligations should only be sought where they are necessary to make the development acceptable in planning terms, directly related to the proposed development and fairly and reasonably related in scale and kind to the development.
- 5.3 The DCO application is accompanied by S106 Head of Terms (Document Ref: 7.27) and the proposed Development Consent Obligations are summarised below. The scale and extent of provisions are similar to those given for previous SRFIs and other significant logistics projects.

(A) Community Liaison

An obligation to establish a Community Liaison Group to facilitate and fund liaison between local residents, local authorities and other interested stakeholders in relation to maximising the benefits for local people during construction and operation of the Project. The representatives on the Community Liaison Group shall include, but not be limited to, Gazeley GLP Northampton, Ashfield Land, South Northamptonshire Council, Northamptonshire County Council, Highways England, Milton Malsor Parish Council and Blisworth Parish Council.

The Community Liaison Group shall meet not less than every quarter following commencement of the Project.

(B) Landscaping Fund

An obligation to establish Landscaping Fund of [£90,000] were which residents can apply to obtain funding to purchase and undertake the planting of additional screen landscaping, or management of existing hedgerows/planting at affected properties. The scope of additional planting would be agreed with each landowner.

(C) Transport

Obligations in respect of the following:

- Establishment of a Transport Review Group to oversee the implementation of the Framework Travel Plan;
- Appointment of a Travel Plan Co-ordinator to oversee implementation of the Framework Travel Plan;

⁷ Paragraphs 4.9 & 4.10 of the NN NPS

- Payment of a Travel Plan Monitoring fee;
- Implementation of a HGV Routing Plan and ANPR monitoring;
- Provision of a Transport Bond to remedy any non-compliance with the Framework Travel Plan;
- A Public Transport Strategy to including the provision of new bus stops on Northampton Road, a new bus interchange within the Site and additional bus services by extending the existing 88/89 service from the A43(T)/Northampton Road into the Site. In addition, supplementary (out of hours) buses would run along the A43(T);
- Travel Plan Steering Group – to coordinate the implementation of any operator specific Travel Plans; and
- Traffic Management Group – to oversee implementation of the Construction Traffic Management Plan.

(D) Highways

A potential improvement scheme at Junction no 28 (A43(T) Towcester Road) to include the following:

- The addition of a 'junction ahead' warning signs on the southbound approach to the Towcester Road junction. The warning signs would be provided within the 300 yard, 200 yard, and 100 yard countdown signs and positioned on yellow backing board; and
- The stack-type direction sign on the southbound approach to the Towcester Road junction is to be removed and replaced with a map type advance direction sign.

A financial contribution towards the implementation of the above measures would be provided to Northamptonshire County Council to undertake the works in the event monitoring the accident records at J28 (A43(T) / Towcester Road) determined the improvements are necessary.

Community Initiatives

5.4 In addition to the obligations to be provided in the S106 Agreement, the Applicant will facilitate the implementation of an array of community initiatives and commitments which are summarised below:

- In conjunction with the Transport Review Group, monitor bus service provision to the Proposed Development to include measures to expand and improve the existing bus service to the Development.
- Establish a comprehensive skills and training package to maximise the employment, training (including apprenticeships) and business benefits for local people and local businesses during the construction, and fitting out and operation of the of the Development. This would be delivered by a construction and business employment strategy which will include: A recruitment/training programme with a focus on the South Northamptonshire Jobs Club; Advertising jobs using Universal Jobmatch and

liaison with Jobcentre Plus; Engagement with local colleges and training providers for both on and off-site training opportunities; Encouragement of contractors to adopt local sourcing to maximise supply chain benefits.

- Establish and administer a Community Fund to fund projects which improve the economic social or environmental dimensions of community life in the vicinity of the Development. The Community Fund is to be administered by a Community Fund Panel (whose membership shall include but not be limited to the Applicant, SNC, and the Parish Councils) and the purpose of the Community Fund Panel is to receive and consider bids for funding from the Community Fund in order to decide which community projects will receive funding from the Community Fund.
- The establishment of a Rail Central annual 'community action' day in conjunction with the Community Liaison Group.
- Engage with the relevant bodies (to include but not limited to the Inlands Waterways Association, Canal & River Trust and Blisworth Marina) regarding opportunities for improvements to the Canal which may include enhancing the canal either in terms of its operation and navigability or in terms of wider environmental improvements.

5.5 These initiatives are outwith the DCO process and will provided and delivered separately by the Applicant.

6. Relevant Legislation

6.1 This section summarises the legislative framework, including the PA2008, which provides the context for the DCO process, and the Environmental Impact Assessment (EIA) framework, this then sets the framework for summarising the relevant national policy and guidance position, which is undertaken in Section 7 of this Statement.

Planning Act 2008

6.2 The PA2008 received Royal Assent on 26 November 2008, and has since been amended by The Localism Act 2011, The Growth and Infrastructure Act 2013, and The Infrastructure Act 2015.

6.3 The PA2008 (as amended) is primary legislation that establishes the legal framework for applying for, examining and determining applications for Development Consent, taking account of the policy in the NPS. The PINS will appoint the Examining Authority in respect of a NSIP for which a Development Consent application is required to be made.

6.4 The relevant SoS for the type of project proposed is responsible for making the final decision on the acceptability of such applications, having regard to the recommendations of the Examining Authority, and is responsible for the issuing of the DCO that will enable the development to proceed. In this case, the relevant SoS is the SoS for Transport. The DCO will be subject to various planning requirements that restrict, direct and control the manner in which development can proceed.

6.5 Section 104(2) of the PA2008 requires the Examining Authority to take into account the following when considering an application for a DCO:

- any NPS that has effect in relation to development of the type to which the application relates;
- any local impact report (LIR);
- any matters prescribed in relation to development of the description to which the application relates; and
- any other matters which the SoS considers are both important and relevant to its decision.

6.6 Section 104(3) explains that the SoS must decide applications in accordance with the relevant NPS, save in certain limited circumstances. These circumstances are confirmed in Section 104(4) to Section 104(8) of the PA2008 and note that decisions will be made in accordance with the NPS, except where this would:

- lead to the United Kingdom being in breach of its international obligations;
- be in breach of any duty imposed on the Panel or Council, by or under any enactment;
- be unlawful by virtue of any enactment;

- result in the adverse impact of the development outweighing its benefits; or
- be satisfied that any condition prescribed for deciding an application otherwise than in accordance with a national policy statement is met.

6.7 A particular feature of the PA2008 is the need for prior consultation of a proposed development with all potentially affected stakeholders.

Guidance and Advice Notes (PA2008)

6.8 Guidance has been prepared by Government in relation to the processes of preparing and examining applications under the PA2008. Guidance is non-statutory, but pursuant to section 50(3) of the PA2008, project promoters must have regard to guidance about how to comply with the pre-application procedure under Chapter 2 of Part 5 of the PA 2008. Further, the SoS must have regard to the extent to which such guidance has been considered and followed when deciding whether to accept an application for examination (section 55(5A)(b) and 55(4)(c) of the PA2008).

6.9 In addition to the guidance published by Government, PINS has produced seventeen Advice Notes that are intended to assist individuals and organisations (including local communities) to engage more effectively in the process for making, commenting or deciding upon applications for Development Consent.

EIA Directive

6.10 The legislative framework for Environmental Impact Assessment (EIA) is provided by European Directive (the EIA Directive) 2011/92/EU as amended by European Directive 2014/52/EU (April 2014) on the assessment of the effects of certain public and private projects on the environment. Directive 2011/92/EU codified the earlier European Directives 85/337/EEC, 97/11/EC and 2009/31/EC. Member States were required to bring into force the laws, regulations and administrative provisions necessary to comply with the 2014/52/EU Directive by 16 May 2017 (further information on this issue, and its relevance for the Proposed Development, is provided below). The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 provide the relevant regulations.

6.11 The EIA Directive requires that EIA be undertaken in support of an application for Development Consent for certain types of project. For projects which require Development Consent under the PA 2008, the requirements of the EIA Directive have been transposed into UK legislation by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations).

6.12 The primary objective of the EIA process is to ensure that Member States adopt all measures necessary to ensure that projects likely to have significant effects on the environment by virtue, inter alia, of their nature, size or location, are made subject to an assessment with regard to their effects. The results of consultations and information gathered pursuant to the EIA procedure must be taken into consideration in the Development Consent procedure.

6.13 The EIA Regulations set out the requirements and provisions for Screening (deciding if an EIA is required), Scoping (setting out the scope for the EIA) and the submission of an Environmental Statement (ES) that reports the EIA process and its findings. For Rail Central, a Scoping request was made by the Applicant (December 2015) and PINS has provided its

formal Scoping Opinion (January 2016) in response to this exercise. It was under the EIA Regulations 2009 (the 2009 Regulations) that the Scoping Report and subsequent Scoping Opinion for the Proposed Development were prepared and issued.

- 6.14 Since this time, the Applicant has undertaken informal and formal consultation with the local community and statutory consultees and refined the project design during which time the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 2017 Regulations) have come into force. The Applicant has taken a robust and conservative approach and has expanded the environmental topics and information to be included in the Environmental Statement, despite it being considered that the Project falls within the remit of the transitional provisions of the 2017 Regulations. The Proposed Development has accordingly been assessed pursuant to the 2017 Regulations. The EIA is therefore being undertaken on a voluntary basis under the 2017 Regulations and, following discussions with (PINS) a notification pursuant to Regulation 8(1)(b) of the 2017 Regulations has been submitted to PINS and the Secretary of State.
- 6.15 The EIA Regulations impose procedural requirements for carrying out EIA for DCOs that fall to be considered as 'EIA development' under the EIA Regulations. The schedules to the EIA Regulations contain the following categories of projects:
- Schedule 1 projects: These are always EIA development (for example, new nuclear power stations); and
 - Schedule 2 projects: These are only EIA development if the individual project is likely to have significant effects on the environment.
- 6.16 The Proposed Development is of a scale that falls within Schedule 2 of the EIA Regulations 2017. The EIA Regulations 2017 provide that where development of a type listed within Schedule 2 is likely to give rise to significant environmental effects, the SoS must not make an order granting Development Consent unless he/she has first taken the environmental information into consideration, and must state in his/her decision that he/she has done so.
- 6.17 Environmental information has been submitted by the Applicant in support of the DCO application in the form of the ES. This brings together the environmental information which has been compiled by the applicant and is considered to be reasonably required to develop an informed understanding of the likely significant effects of the Proposed Development.

PINS Advice Note Seven: EIA – Process, Preliminary Environmental Information

- 6.18 The PINS Advice Note Seven was republished in December 2017 (version 6) and provides advice on elements of the EIA process during pre-application. This is namely in respect of screening and scoping proposals for EIA and assisting applicants in understanding the role of preliminary environmental information reports (PEIR).
- 6.19 Furthermore, the Advice Note also details matters relating to the production of PEIR's and the preparation of the ES.

The Habitats and Wild Birds Directives

- 6.20 EC Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (known as the Habitats Directive) is intended to protect biodiversity by requiring Member States to take measures to maintain or restore natural habitats and wild species listed in the

Annexes to the Directive at a favourable conservation status. It provides for robust protection for those habitats and species of European importance.

- 6.21 EC Directive 2009/147/EC on the conservation of wild birds (known as the Birds Directive) provides a framework for the conservation and management of, and human interactions with, wild birds in Europe. It sets broad objectives for a wide range of activities.
- 6.22 In England and Wales, the Habitats Directive is implemented under the Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations) and the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007.
- 6.23 The provisions of the Birds Directive are implemented through the Wildlife and Countryside Act 1981, the Habitats Regulations and the Offshore Marine Conservation (Natural Habitats & c.) Regulations 2007, as well as other legislation related to the uses of land and sea.
- 6.24 Under this legislation a network of protected areas (the Natura 2000 network) has been established. These are Special Areas of Conservation (SAC), for habitats and species, and Special Protection Areas (SPA), for birds. The Habitats Regulations require that, where the likelihood of a significant effect on a Natura 2000 site cannot be excluded (either alone or in combination with another plan or project), a competent authority must undertake an Appropriate Assessment as part of the Habitats Regulations Assessment (HRA) process. The Habitats Regulations state that it is the developer's responsibility to provide sufficient information to the Competent Authority to enable them to assess whether there are likely to be any significant effects and to enable them to carry out the appropriate assessment, where necessary.
- 6.25 The Habitats Regulations provide protection for certain species of plants and animals onshore (those species listed in Schedule 2 and Schedule 5 of the Regulations respectively), referred collectively as European Protected Species (EPSs), and their breeding sites or resting places. These Regulations set out the activities that are prohibited, such as deliberate disturbance or creating damage to a breeding place. The Regulations also provide for licences to be granted for certain operations, such as proposed developments that may affect protected species, subject to there being no satisfactory alternative, and subject to the action authorised not being detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.
- 6.26 If disturbance cannot be avoided then an application for an EPS licence would need to be made to Natural England. The EPS licence will be pursued separately to the DCO consenting process. If necessary a Letter of No Impediment (LONI) will be provided to the Planning Inspectorate to demonstrate that Natural England, the licensing authority, has considered the issues relating to protected species, and to provide reassurance that there are no reasons why an EPS licence could not be granted in due course.

PINS Advice Note Ten: Habitat Regulations Assessment Relevant to Nationally Significant Infrastructure Projects

- 6.27 PINS Advice Note Ten was republished in November 2017 (version 8) and provides some clarification on how the assessment matrices should be prepared by applicants. Furthermore, the Advice Note also confirms how these matrices will be used to inform the decision making process.

- 6.28 When preparing applications for NSIPs under the PA 2008, applicants are required to consider the potential effects of the application on protected habitats. If a NSIP, when taken alone or with existing and known future projects, is likely to affect a European site, there is a requirement on the applicant to provide a report showing that the site(s) that may be affected together with sufficient information to enable the competent authority to make an appropriate assessment if required.
- 6.29 The PINS Advice Note Ten therefore provides advice for applicants in relation to the preparation of the required assessment report and the PA 2008 processes relating to Habitats Regulations Assessments.

Summary

- 6.30 This Section has provided an overview of the legislative position, covering the context for the preparation and determination of DCO applications. Additionally, it has also identified the legislative framework for the preparation of EIA.
- 6.31 Section 7 of this Statement confirms the national policy position, for which this NSIP will be determined against.

7. Relevant National Policy

- 7.1 This section sets out the relevant national policy position against which this NSIP application will be determined against. The NN NPS⁸ sets out, and Government policies outline, the need to deliver development of NSIPs on the national road and rail networks in England.
- 7.2 The thresholds for nationally significant road, rail and strategic rail freight infrastructure projects are defined in the PA 2008. Specifically, Section 26 of the PA2008 confirms the relevant thresholds in respect of rail freight interchanges being considered as NSIPs. Section 26(3) of the PA2008 states that the Main SRFI Site must consist of at least 60 acres of land within England. Furthermore, Section 26(4) of the PA 2008 also confirms that for rail freight interchanges to be considered as NSIPs, the development must be capable of handling consignments of goods from more than one consignor and to more than one consignee and handle at least four trains per day. In respect of the proposed Highways Works, the PA 2008, confirms the thresholds for determining whether Highways Works comprise a NSIP in their own right. In this regard, Section 22(4)(b) confirms that Highways Works should be considered a NSIP where “...the construction or alteration of a highway, other than a motorway, where the speed limit for any class of vehicle is expected to be 50 miles per hour or greater, is 12.5 hectares”.
- 7.3 On this basis, the Proposed Development constitutes a NSIP and requires Development Order Consent. In accordance with Section 104(2) of the PA 2008 the Proposed Development needs to be determined against the appropriate National Policy Statement, which has effect in relation to the development proposed. The relevant National Policy Statement in this context is the NN NPS.

National Policy Statement

- 7.4 NPS guide the decision-making process for applications for Development Consent. Sector-specific NPS are produced by the relevant Government Departments and set out national policy for NSIPs. They provide the framework within which the Examining Authority will make their recommendations to the SoS and include the Government’s objectives for the development of NSIPs. The NPS define the national need for certain types of infrastructure and the issues to be considered by the Examining Authority when assessing whether a location is acceptable for the type and scale of development proposed. Each NPS therefore sets out the considerations to be taken into account when determining applications, the approach to the mitigation of impacts and the establishment of design criteria.

National Policy Statement for National Networks (December 2014)

- 7.5 The NN NPS is the principal source of policy guidance for the Proposed Development and will form the primary basis for decision-making by the SoS. The Proposed Development will therefore be determined in accordance with the policy framework provided in the NN NPS, taking into account relevant representations made.
- 7.6 The NN NPS was designated in accordance with Section 5(4) of the PA2008 (as amended) on 14 January 2015. It sets out the Government’s policy for the delivery of nationally significant road and rail projects in England, including the development of SRFI.

⁸ Paragraph 1.1

7.7 As confirmed in Paragraph 1.1 of the NN NPS and the introductory text to this section of the Planning Statement, the NN NPS is relevant to the Proposed Development and sets out the assessment principles that should be considered in the EIA.

7.8 The NN NPS is split into five parts, each of which is discussed in detail below:

Part 1 – Purpose and Scope

7.9 The NN NPS sets out the policies and need for the development of NSIPs on the national road and rail networks in England. This was designated in accordance with Section 5(4) of the PA 2008 (as amended) on 14 January 2015.

7.10 It confirms that the NN NPS provides the planning guidance for NSIPs on rail networks and is the basis for examination by the ExA and decisions by the Secretary of State. The Secretary of State will use the NN NPS as the primary basis for decision making regarding development consent applications for NSIPs.

7.11 The NN NPS has been subject to an Appraisal of Sustainability (AoS) which found no significant adverse effects of the NN NPS' policies and noted that the nature of the effects will be dependent upon the precise sensitivity of locations for development⁹.

7.12 It is recognised that the Government's chosen policy set out in the NN NPS provides the best balance of their economic, environmental and social objectives¹⁰.

Part 2 - The need for development of the national networks and Government's policy

7.13 The NN NPS's summary of need¹¹ clearly identifies that the delivery of national networks will contribute to meeting England's long-term social, economic and environmental needs. This is to be achieved through networks with capacity, connectivity and resilience which can support economic activity and growth and create jobs.

7.14 The NN NPS also identifies that the Government will deliver networks which support and improve journey quality, reliability and safety and that support environmental goals and a low carbon economy. It also underscores the Government's strategic objectives identify the promotion of national networks that can join up and link communities effectively.

7.15 However, in order to address the on-going government policy objectives, and satisfy new market demand in the most appropriate way, the NN NPS confirms a need exists for more rail served warehousing space, given the relatively small proportion of warehousing in the area which is rail served, either by intermodal terminals or directly-connected warehouses. The existing SRFI will only have a finite capacity to expand floorspace and/or rail freight interchange facilities, such that further sites such as Rail Central are needed to increase both the capacity and the catchment area of the network, bringing rail access closer to more local companies than is possible from these existing sites alone.

7.16 It identifies the explicit need for the development of SRFIs in England. SRFIs are noted as a key element for reducing user costs of moving freight and play an increasingly significant role in driving economic growth¹². The logistics industry is now required to locate and develop

⁹ Paragraph 1.10

¹⁰ Paragraph 1.11

¹¹ NN NPS Page 9

¹² Paragraphs 2.42 and 2.44

new facilities that are situated alongside major rail routes, close to major trunk roads and near to the areas consuming the goods¹³.

- 7.17 The NN NPS identifies that SRFIs play a role in meeting the changing needs of the logistics sector and reducing the trip mileage associated with freight movements. The current siting of many rail freight interchanges are considered to provide no opportunity for expansion, lack warehousing and are not in a convenient location for the modern logistics industry.
- 7.18 The need for SRFI developments to reduce the dependence on road haulage will increase as a result of additional capacity at Felixstowe North Terminal and the construction of London Gateway¹⁴. Rail freight forecasts (see Table insert below) have been produced with Network Rail and these are considered robust and have been accepted by the Government for planning purposes.

Table 3: Rail freight forecasts to 2023 and 2033: tonne km (Great Britain)				
	Billion tonne km			
	2011	2023	2033	Compound annual growth 2011 to 2033
Solid fuels	7	4	3	-3%
Construction materials	4	4	4	1%
Metals and ore	3	3	3	0%
Ports: Intermodal	5	11	16	5%
Domestic: Intermodal	1	7	13	12%
Other	4	4	4	0%
Total	23	33	44	3%

Source: Network Rail, *Freight Market Study*, published 31 October 2013

- 7.19 The NN NPS identifies that these figures demonstrate the need for large SRFIs across the regions and that these are likely to attract substantial business¹⁵. The forecasting process undertaken by Network Rail, as endorsed by the NN NPS, has taken account of the Rail Central proposals as part of the quantum of additional SRFI capacity expected to be developed over the next 30 years.
- 7.20 With regards to sustainability, the NN NPS identifies that rail freight, although having environmental advantages, will produce local impacts regarding land use and increased road and rail movements which is important to minimise¹⁶.
- 7.21 An important consideration for SRFIs is the availability of a suitable workforce to fulfil the new job opportunities provided by the labour-intensive distribution operations¹⁷.
- 7.22 In establishing the need for SRFIs, a range of options were considered by the Government including:

¹³ Paragraph 2.45

¹⁴ Paragraph 2.48

¹⁵ Paragraph 2.50

¹⁶ Paragraph 2.51

¹⁷ Paragraph 2.52

- *Reliance on the existing rail freight interchanges to manage demand*
- *Reliance on road-based logistics*
- *Reliance on a larger number of smaller rail freight interchanges¹⁸*

7.23 These were not considered viable or desirable and it was concluded that a compelling need exists for expanding the network of SRFIs in locations near the relevant business markets and linked to the key supply chain routes. It is identified that the locational requirements and links to rail and road reduce the suitable locations for SRFIs and the scope of alternative sites.

7.24 Further to this, the NN NPS identifies that existing SRFIs are predominantly situated in the Midlands and North and there are smaller-scale and poorly located intermodal RFIs in London and the South East¹⁹. This therefore requires SRFI capacity at a wide range of locations to provide flexibility to changing market demands and the challenge of expanding to service London and the South East.

Part 3 – Wider Government Policy on the National Networks

Environmental and Social Impacts

7.25 The Government expects applicants to avoid and mitigate environmental and social impacts in line with the principles set out in the NPPF and the Government’s planning guidance. Applicants should also provide evidence that they have considered reasonable opportunities to deliver environmental and social impacts.

7.26 It is recognised that some developments will have some local impacts on noise, emissions, landscape/visual amenity, biodiversity, cultural heritage and water resources. Therefore, whilst applicants should deliver development in accordance the Government policy and in an environmentally sensitive way, including considering opportunities to deliver environmental benefits, some adverse local effects of development may remain.

Emissions

7.27 Due to the Government’s legally binding carbon targets and other environmental targets there is a need to shift to greener technologies and fuels, and to promote lower carbon transport choices. Electrification of the railway will also support reductions in carbon. The Government is committed to supporting the switch to the latest ultralow emission vehicles. Impacts on road development need to be seen against significant projected reductions in carbon emissions and improvements in air quality as a result of current and future policies to meet the Government’s legally binding carbon budgets and the European Union’s air quality limit values.

Safety

Roads

7.28 The UK’s roads are amongst the safest in the world. Compared to the 2005-2009 average, fatalities and serious injuries have decreased 25% to 2013. Yet, road deaths and injuries can have tragic social impacts and economic costs of over £14.7 billion a year. The Government’s vision is set out in the *Strategic Framework for Road Safety*, and includes highway authorities being empowered to take informed decisions within their area; driver and rider training to

¹⁸ Table 4, Page 22-23

¹⁹ Paragraph 2.57

give learners the skills they need to be safe on our roads; and tough measures are taken against the minority of offenders who deliberately choose to drive dangerously.

Rail

- 7.29 The UK's railways are amongst the safest in the world and train accidents are at the lowest level ever. It is the Government's policy, supported by legislation, to ensure that the risks of passenger and workforce accidents are reduced so far as reasonably practicable. Rail schemes should take this into account and seek to further improve safety where possible and where there is value for money in doing so by focussing domestic efforts on the achievement of the European Common Safety Targets.

Technology

- 7.30 New technologies have the potential to make a significant difference to the travel choices and behaviour of individuals. This is evident from improvements and innovations in travel data and information systems, intelligent traffic management and increasing levels of vehicle automation. The Government will continue to monitor the potential benefits and risks associated with new and emerging technologies, working with industry to enable innovation to enable innovation and support new technologies that have the potential to improve transport as these developments come forward. The Government needs to address current congestion pressures and this will include utilising current technology. However, future uncertainty means it is difficult to predict exactly how much of an impact new technology will have over the coming decades.

Sustainable Transport

- 7.31 The Government is committed to providing people with options to choose sustainable modes and making door-to-door by sustainable means an attractive and convenient option. This is essential to reducing carbon emissions from transport. On the rail network, Station Travel Plans are a means of engaging with station users and community organisations to facilitate improvements that will encourage them to change the way they travel to the station. Train operators will also be asked to consider the door-to-door journey in new franchise specification that will aim to facilitate enhanced integration between sustainable transport modes.

Accessibility

- 7.32 The Government is committed to creating a more accessible and inclusive transport network that provides a range of opportunities and choices for people to connect with jobs, services and friends and family. The Government's strategy for improving accessibility for disabled people is set out in *Transport of Everyone: an action plan to improve accessibility for all*. Applicants are reminded of their duty to promote equality and to consider the needs of disabled people as part of their normal practice. Applicants are expected to comply with any obligations under the Equalities Act 2010. Severance can be a problem in some locations. Where appropriate applicants should seek to deliver improvements that reduce community severance and improve accessibility.

Road tolling and charging²⁰

- 7.33 The Government's policy is not to introduce national road pricing to manage demand on the Strategic Road Network, comprising the motorways and key truck roads for which the Secretary of State is responsible. The Government will consider tolling as a means of funding

²⁰ Section 3

new road capacity on the SRN. Where tolls or road user charges are proposed as part of a highways project that is the subject of a direction given under Section 35 of the Planning Act 2008, the Government will expect the applicant to demonstrate that the proposals are consistent with the NN NPS, the relevant development plan and relevant statutory transport strategies and plans.

Part 4 – Assessment Principles

- 7.34 The NN NPS sets out a range of assessment principles and general policies against which applications regarding national networks infrastructure are to be decided.
- 7.35 Subject to the detailed policies and protections in the NN NPS, and the legal constraints set by the PA 2008, the NN NPS creates a presumption in favour of granting development consent for national network NSIPs that fall within the need for infrastructure established in the NN NPS.
- 7.36 When considering such proposed development and balancing the adverse impacts and benefits, the decision maker should take into account²¹:
- Potential economic, social and environmental benefits such as:
 - Job creation
 - Housing
 - Environmental improvement
 - Any long-term or wider benefits
 - Potential adverse impacts such as:
 - Any longer-term and cumulative adverse impacts
 - Any measures to avoid, reduce or compensate for any adverse impacts
- 7.37 With regards to SRFI assessments, a judgement of viability within the market framework will be made, taking account of Government interventions²².

Environmental Impact Assessment (EIA)

- 7.38 In relation to the Proposed Development, the NN NPS acknowledges that National Networks Infrastructure Projects are likely to have significant effects on the environment²³. The NN NPS identifies that such proposals must be accompanied by an Environmental Statement (ES) which should include a description of the likely significant effects on the environment, including direct and indirect effects of the proposed development and include measures to mitigate or avoid any adverse effects. The ES should also account for how these interact with the effects of other development and the Examining Authority should consider the cumulative effects even though they may be deemed acceptable on an individual basis²⁴.

²¹ Paragraph 4.3

²² Paragraph 4.8

²³ Paragraph 4.15

²⁴ Paragraph 4.17

- 7.39 Evidence available to the ExA should also be provided as this may assist the SoS' decision making and possible mitigation measures required for the proposed development.
- 7.40 The NN NPS accepts that it may not be possible to settle all aspects of the Proposed Development in precise detail at the time of the application. In such cases the applicant is advised to set out within the ES, to the best of their knowledge, what the maximum extent of the Proposed Development would be and appraise the potential adverse impacts on this basis to ensure that the potential impacts of the project have been properly assessed²⁵.

Habitat Regulation Assessment (HRA)

- 7.41 The NN NPS identifies that the SoS, prior to granting a DCO, should consider whether a project could have a significant effect on the objectives of a European site or a site to which the same protection is applied²⁶. Sufficient information including measures to minimise or avoid effects on a European site should be provided with any applications for development consent. Where there is an adverse effect that cannot be ruled out, a Habitat Directive can be applied for subject to meeting three tests:

- No feasible, less-damaging alternatives exist
- There are imperative reasons of overriding public interest for the proposal progressing
- Adequate and timely compensation measures will be implemented to ensure the overall coherence of the network of protected sites is maintained²⁷

A case on imperative reasons of overriding public interest would need to be established regarding human health, public safety or beneficial consequences of primary importance to the environment if these may negatively affect a priority habitat or species.

Alternatives

- 7.42 The NN NPS outlines how to treat alternatives to the development. Further to the alternative considerations outlined as part of the Habitats Directive, the EIA directive requires an outline of main alternatives that have been considered by the applicant and the reasons for the applicant's choice, accounting for the environmental effects. An options appraisal should consider viable and proportionate alternatives, such as those likely to deliver the same infrastructure capacity, and this is not necessary for the Examining Authority and decision maker to reconsider²⁸.

Design

- 7.43 Good design in respect of national network projects should produce sustainable infrastructure that is sensitive to place, efficiently uses natural resources and energy in construction and demonstrates, as far as possible, a good aesthetic. However, the NN NPS notes that particularly regarding the nature of SRFIs, such enhancement of the quality of the area may be limited in extent²⁹. It advises that Applicants should take into account both functionality and aesthetics, and that despite limits to the physical appearance of infrastructure including SRFIs, good design can be achieved through sensitive siting and use

²⁵ Paragraph 4.19

²⁶ Paragraph 4.22

²⁷ Paragraph 4.24

²⁸ Paragraph 4.27

²⁹ Paragraph 4.30

of materials. Scheme design will be a material consideration in the decision making process³⁰.

Climate Change Adaptation

- 7.44 The NN NPS sets out how it puts Government climate change policy into practice, and how the potential impacts should be taken into account with new development. Given the long-term nature of new network infrastructure, consideration should be given to climate change when planning the location, design, build and operation of proposed development³¹.
- 7.45 Impacts and adaptation measures should be based upon the latest UK Climate Projections available, the Governments national Climate Change Risk Assessment and consultation with statutory bodies. Adaptation measures should also be considered as part of the environmental impact assessment and the environmental statement³².
- 7.46 Furthermore, if any proposed adaptation measures themselves give rise to consequential impacts, the Secretary of State should consider the impact in relation to the to the application as a whole and the impacts guidance of the NN NPS³³.

Pollution and Environmental Protection

- 7.47 The NN NPS identifies that projects can affect air, water and land quality, the marine environment and can produce noise and vibration. Such effects may be subject to separate regulation, such as a pollution control framework and only when there is good reason to believe that such separate consents will not be granted should consideration be given by the SoS to refusing consent on the basis of regulated impacts³⁴.
- 7.48 Pre-application discussions with the Environment Agency are recommended at least 6 months prior to the submission of an application for development consent and close cooperation with such relevant bodies will be required by the SoS.

Statutory nuisance

- 7.49 The NN NPS notes that Section 158 of the Planning Act provides defence for Applicants in proceedings regarding statutory nuisance. Local Authorities still have a duty to inspect the area and to seek to rectify this where necessary. Possible sources of nuisance should be considered in examining a NSIP and how such elements may be mitigated or limited should be passed onto the SoS from the Examining Authority.

Safety

- 7.50 The NN NPS sets out the safety considerations for roads and railways. New highway development can contribute to significant safety improvements and reduce accidents. Road safety audits and objective assessments of the impacts should be produced and road safety audits are mandatory for improvements to trunk road highways including motorways³⁵.
- 7.51 Steps to minimise risks of death and injury from the scheme and contributions to reduction of road casualties, unplanned incidents and improvements to road safety for walkers and cyclists should be demonstrated by the Applicant. Evidence of reasonable steps to minimise

³⁰ Paragraph 4.32

³¹ Paragraph 4.40

³² Paragraph 4.44

³³ Paragraph 4.45

³⁴ Paragraph 4.49 and 4.56

³⁵ Paragraph 4.62

road casualties from the scheme and to contribute to improvements in the safety of the Strategic Road Network should be provided for development consent to be granted.

- 7.52 The rail industry is required to comply with Common Safety Methods on significant developments under EU legislation. The SoS should expect this to be complied with and that a safety assessment has considered implications to safety throughout development construction, commissioning and operation. Development consent should not be granted unless reasonable steps to minimise risks of death and injury from the scheme, contribute to an improvement in safety levels and acknowledge that railway developments can influence risk levels on and off railway networks³⁶.

Security Considerations

- 7.53 The NN NPS identifies that the national security considerations apply across all national infrastructure sectors and the Department for Transport works closely with Government agencies to reduce terrorism and other national security threats. Government policy is to ensure that where possible, proportionate protective security measures are designed in to new infrastructure projects at an early stage.
- 7.54 The NN NPS identifies that relevant security expert within the Centre for the Protection of National Infrastructure (CPNI) and the Department for Transport should be consulted regarding physical, procedural and personnel security measures and management of the security risks. If such experts consider that the security issues have been adequately addressed, this should not require further consideration³⁷.

Health

- 7.55 The NN NPS sets out that national networks and SRFIs can have direct health impacts due to traffic, noise, vibration, air quality and emissions, light pollution, community severance, dust, odour, polluting water, hazardous waste and pests³⁸, as well as indirect health impacts such as affecting access to public services or opportunities for cycling and walking³⁹, and these should be identified in the environmental statement. Measures to deal with such adverse health impacts should be identified by the applicant.

SRFIs

- 7.56 The NN NPS sets out the assessment principles regarding SRFIs which consider rail freight's role for business and both rail and non-rail activities. As previously identified in the NN NPS, it reiterates the essential need for a SRFI to be located close to the market and supply chain, as well as adequately linked to both road and rail networks that can accommodate a modal shift from road to rail. The NN NPS further identifies that due to this, countryside locations may be required.
- 7.57 SRFIs should be located on a route with a gauge capability of W8 or more and given their continuous commercial operations, may not be considered suitable adjacent to environmentally sensitive or residential areas, although appropriate mitigation measures may be available to limit the impact.

³⁶ Paragraph 4.72

³⁷ Paragraph 4.77

³⁸ Paragraph 4.79

³⁹ Paragraph 4.80

7.58 With regards to scale and design, the NN NPS identifies that some buildings on site should be rail connected from the outset and provide intermodal handling and container storage. Rail infrastructure should also allow further rail connections to be provided in the longer term. SRFIs should also be capable of handling a minimum of four trains per day, increasing this where possible, and have the capability to handle 775m trains.

Part 5 – Generic Impacts

7.59 The NN NPS sets out the impacts which will be relevant to any national network infrastructure and how such impacts should be considered. The Applicant's consideration of environmental effects is set out in the Environmental Statement.

7.60 Topic areas for the impacts that warrant a detailed review in relation to the proposed scheme are outlined in the subsequent sections.

Air Quality

7.61 The NN NPS identifies that construction and operation phases on projects can worsen air quality and contribute to adverse impacts on human health and protected species, spreading beyond the area of the individual scheme.

7.62 The environmental statement should, where the impacts of the project will have a significant effect on air quality, describe the following:

- Existing air quality levels;
- Forecasts of air quality at the time of opening; and
- Any significant air quality effects, their mitigation and any residual effects, distinguishing between construction and operation phases and accounting for the generated road traffic impact of the project.⁴⁰

7.63 The NN NPS identifies that the SoS should refuse consent after consideration of mitigation if the scheme results in an area becoming non-compliant with the Air Quality Directive which previously was compliant or the affects non-compliant areas' ability to achieve compliance.

Carbon Emissions

7.64 The NN NPS notes that the Government has a legally binding framework to cut greenhouse gas emissions by at least 80% by 2050⁴¹ and carbon impacts from transport emissions will be considered as part of the appraisal of scheme options before an application for development consent is submitted. Road project applicants should provide evidence of the carbon impact against the Government's carbon budgets and mitigation measures in design and construction should be presented by the Applicant.

Biodiversity and Ecological Conservation

7.65 Where a project is subject to EIA, the ES should clearly set out any likely significant effects on internationally, nationally and locally designated ecological or geological sites and protected species and habitats. The applicant should demonstrate how the project has used opportunities to conserve and enhance biodiversity and geological conservation interests⁴².

⁴⁰ Paragraph 5.7

⁴¹ Paragraph 5.16

⁴² Paragraph 5.22-23

- 7.66 The Biodiversity 2020: A Strategy for England’s wildlife and ecosystem services strategy aims to halt overall biodiversity loss and support better places for nature for wildlife and people and should be viewed within the context of climate change.
- 7.67 Development should avoid significant harm to biodiversity and geological conservation interests and where such cannot be mitigated or avoided, appropriate compensation measures should be sought as a last resort. The SoS should ensure that appropriate weight is attached to designated sites, protected species, habitats and other species of principle importance for the conservation of biodiversity.

International Sites

- 7.68 The Habitats Regulations provide statutory protection for European Sites and paragraph 176 of the NPPF states that the following wildlife sites should have the same protection as European Sites:
- Potential and possible Special Protection Areas and Special Areas of Conservation;
 - Listed or proposed Ramsar Sites; and
 - Sites identified/required as compensatory measures for adverse effects on European sites, potential Special Protection Areas, possible Special Areas of Conservation and listed or proposed Ramsar Sites.

Sites of Special Scientific Interest (SSSIs)

- 7.69 Many SSSIs are also designated as sites of international importance and protected accordingly and those that are not should be given a high degree of protection. Where development is likely to have an adverse effect on an SSSI individually or in combination with other development, consent should not normally be granted. Exception should only be made where benefits of the development clearly outweigh the impact on the SSSI’s features and broad impacts on the network of SSSIs.
- 7.70 The SoS should aim to ensure harm is mitigated and where necessary, requirements and/or planning obligations should be used to ensure such proposals are delivered.

Regional and Local Sites

- 7.71 Such sites include LGSs, LNRs and LWSs and Nature Improvement Areas (NIAs) and contribute to the quality of life and well-being of the community. These should be given consideration by the SoS, but should not be used in themselves to refuse development consent given the need for new infrastructure.

Irreplaceable habitats including ancient woodland and veteran trees

- 7.72 The SoS should not grant development consent for any development that would result in the loss or deterioration of irreplaceable habitats including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the national need for and benefits of the development in such a location clearly outweigh the loss⁴³.

⁴³ Paragraph 5.32

Biodiversity within and around developments

- 7.73 The SoS should consider whether the applicant has maximised opportunities to build in beneficial biodiversity and geological features into good design and the SoS may use requirements or obligations to ensure that such features are delivered.

Protection of other habitats and species

- 7.74 Many wildlife species receive statutory protection and other species and habitats are identified as being of importance for the conservation of biodiversity in England and Wales. The SoS should ensure measures have been taken by the applicant to protect such species and habitats from adverse development effects and requirements or planning obligations may be used where appropriate to deliver such protection. Consent should be refused where harm to these would result, unless the benefits of development clearly outweigh the harm to habitats and species.
- 7.75 Overall, appropriate mitigation measures should be integral to the proposed development and demonstrate good practice during construction and operation. The SoS should consider what requirements should be attached to consent and/or planning obligations to ensure such mitigation measures are delivered. Account should be taken towards any agreements or refusal of licenses between the applicant and Natural England or the MMO.

Waste Management

- 7.76 The NN NPS notes that large infrastructure projects may generate hazardous and non-hazardous waste during construction and operation⁴⁴ and applicants should set out arrangements for managing any waste produced, whilst minimising the volume produced and the volume sent for disposal unless demonstrating that this is the best environmental outcome.
- 7.77 The SoS should consider whether an effective process to manage hazardous and non-hazardous waste from the construction and operation of the proposed development has been proposed by the applicant. This should adequately manage waste and waste should not have an adverse effect on the capacity of existing waste management facilities to deal with over surrounding waste arising. Requirements or planning obligations can be used by the SoS to ensure adequate measures for waste management are implemented.

Dust, odour, artificial light, smoke and steam

- 7.78 The construction and operation phases have potential for producing odour, dust, steam, smoke and artificial light and can have impacts on the amenity of local communities which should be kept to a minimum. These can also cause a common law nuisance or statutory nuisance (covered in Paragraph 4.46 of this Statement).
- 7.79 Such effects from odour, dust, steam, smoke and artificial light should be described in the ES, including:
- *Type and quantity of emissions;*
 - *Aspects of the development which may give rise to emissions during construction, operation and decommissioning;*
 - *Premises or locations that may be affected by the emissions;*

⁴⁴ Paragraph 5.41

- *Effects of the emission of identified premises or locations; and*
- *Measures to be employed in preventing or mitigating the emissions⁴⁵.*

7.80 It should be demonstrated to the SoS that steps have been taken for minimising the detrimental impacts from these elements and that necessary mitigation will be implemented and the SoS will decide whether management, such as a Construction Environmental Management Plan (CEMP) may need to be put into place.

Flood Risk

7.81 The NN NPS sets out that a Flood Risk Assessment (FRA) should accompany applications within Flood Zones 2 and 3 and that climate change may increase the flood risks in susceptible areas where an NSIP is proposed. It is expected that the FRA should consider all forms of flooding arising from the project and account for the impacts of climate change. It should also acknowledge any residual risk following reduction measures and whether the proposal would remain in operation in a worst case flood event.

7.82 Appropriate evidence should be provided to the SoS so that a Sequential or Exception test can be applied. Evidence including a projects drainage system should be provided to the SoS if construction work on the proposed scheme will have drainage implications. Implementation of systems such as Sustainable Drainage Systems (SuDS) and appropriate site layout and design should be demonstrated to mitigate flood risks.

The Historic Environment

7.83 The NN NPS identifies that construction and operation phases can have adverse impacts on the historic environment and designated and non-designated heritage assets including Listed Buildings, Scheduled Monuments and Conservation areas. This includes not only their physical presence, but also the setting of these assets. Whilst it affords the greatest level of protection to the highest levels of designated asset, it notes that if there is evidence that undesignated assets are equally important, they should be afforded the same level of protection.

7.84 Likely heritage impacts of a proposed scheme should be assessed within the EIA and addressed in the ES, providing a description of the impacts on the heritage asset at a level of detail that is sufficient and proportionate to its importance.

7.85 In terms of the decision making process, there should be a presumption in favour of conservation, and the more significant the asset, the greater that presumption should be. The decision maker should weigh any harmful impacts against the public benefit of the development. However, where there is a high probability that a development site may have undiscovered heritage assets with archaeological interest, there should be a requirement that appropriate procedures are in place for the identification and treatment of such assets discovered during construction.

Landscape and Visual Impacts

7.86 The NN NPS notes that landscape and visual impacts will vary on a site by site basis, but should be assessed within the EIA and described in the ES, including any effects at different phases of the development. Any proposals should aim to avoid or minimise the impact on the landscape and provide appropriate mitigation.

⁴⁵ Taken from Paragraph 5.85

- 7.87 The NN NPS further sets out that there is a strong presumption against road widening, new roads or SRFIs in National Parks, the Broads or AONBs unless any benefits significant outweigh the costs. Regard should also be given when a proposed scheme falls outside of these areas, but may affect them.
- 7.88 Local landscapes which are not nationally designated may also be highly valued or protected by local designations. The NN NPS notes that although such local designations should be considered and the siting and operation of any development should avoid adverse effects to the landscape and minimise harm, local designations should not be used as a reason for refusing consent. With regard to visual impacts, a judgement will be made by the SoS as to whether these outweigh the benefits of development.

Land Use – Open Space, Green Infrastructure and Green Belt

- 7.89 Re-using previously developed land is considered in the NN NPS to contribute to sustainable development, but identifies that for SRFIs, brownfield land may not be economically or commercially feasible. There is a presumption against inappropriate development within Green Belts and so where promoters of SRFIs find viable sites on Green Belt land, it should be clearly demonstrated to the SoS that very special circumstances⁴⁶ exist to justify planning consent for development in such an area.
- 7.90 The NN NPS further sets out that Applicants should identify existing and proposed land uses near the project and the effect on these, as well as having regard to the LA's assessment of the need for open space, sports and recreation facilities if these are proposed to be developed on. Consideration should also be given to the role of agricultural land, seeking to use poorer quality land over higher quality and identifying and minimising any impacts on soil quality.

Noise and Vibration

- 7.91 Noise can have a range of impacts on human health and quality of life, as well as wildlife and biodiversity, and vibration can damage buildings.
- 7.92 Assessment of significant noise impacts should form part of the ES, describing the following:
- Sources of noise, including the likely usage regarding the number of movements, fleet mix and diurnal pattern;
 - Identification of noise sensitive premises or areas and an assessment of the effect of predicted changes in the noise environment on these;
 - Characteristics of existing noise environment;
 - A prediction of how noise will change as part of the proposed development across different time periods and times of day;
 - Measures to be used to mitigate noise effects and the best available techniques; and
 - The nature and extent of the noise assessment should be proportionate to the likely noise impact.

⁴⁶ Paragraph 5.172

- 7.93 Relevant British Standards and other guidance should be used when assessing noise. This includes using the Calculation of Road Traffic Noise to predict road traffic noise and Calculation of Railway Noise to predict the noise of new railways. When assessing noise on designated nature conservation sites, protected landscapes, protected species or other wildlife, the applicant should consult Natural England.
- 7.94 Development must be in accordance with statutory noise requirements and have regard to relevant sections of the Noise Policy Statement for England, NPPF and Governments associated planning guidance on noise. The project should demonstrate good design, minimising noise emissions and consider the need to mitigate impacts elsewhere on the road and rail networks which have been identified as arising from the development.
- 7.95 The SoS should consider whether requirements are needed which specify that the mitigation measures proposed by the applicant are put in place to prevent noise exceeding levels described. Development consent should not be granted unless the following aims are met by the proposal:
- The noise created by the new development avoids significant adverse impacts on health and quality of life and mitigate and minimise any other adverse impacts on health and quality of life; and
 - A contribution to improvements to health and quality of life through management and control of noise.
- 7.96 The Examining Authority and SoS should consider whether mitigation measures for both operational and construction noise are needed beyond any forming part of the project application and whether requirements need to be imposed to ensure delivery of mitigation measures. Such mitigation measures should be proportionate and include one or more of:
- Engineering: containment of noise generated;
 - Materials: use of materials that reduce noise;
 - Layout: sufficient distance between source and noise-sensitive receptors; and
 - Administration: specifying acceptable noise limits or times of use.
- 7.97 The relevant Noise Insulation Regulations will apply for most national network projects, placing a duty on the authority to offer noise mitigation and ventilation for both construction and operational noise. If it is considered appropriate to provide noise mitigation through compulsory acquisition in order to gain consent, such properties should be included within the development consent order land to which compulsory acquisition powers are being sought.

Impact on Transport Networks

- 7.98 The NN NPS sets out the impacts of schemes of the surrounding transport networks and infrastructure and consideration should be given by the Applicant to addressing severance issues and local policies regarding transport.
- 7.99 With regard to SRFI developments, the NN NPS notes that where significant transport impacts may occur, a Transport Assessment should be included and impacts should be

described in the ES. It is recognised that SRFIs may impact on surrounding connecting transport networks and so steps to mitigate such impacts should be identified. If these are insufficient, then the SoS may impose obligations to fund infrastructure. Travel planning should be undertaken for such major development and where this may not be sufficient, further work with the LA and highway authorities may be required.

- 7.100 Where schemes impact on the on the Strategic Road Network, regard should be given to the DfT Circular 02/2013 *The Strategic Road Network and the delivery of sustainable development*.
- 7.101 In decision making relating to SRFIs, the Examining Authority and SoS will consider impacts on local transport networks and policies in the local plans. The SoS should ensure that reasonable steps have been taken to mitigate impacts of SRFIs on the connecting transport networks and if such mitigation measures are insufficient, requirements and/or obligations for funding infrastructure should be accepted. Providing this is accepted and attribution of costs is calculated in accordance with the Department's guidance, development consent should not be withheld.
- 7.102 Mitigation measures on strategic rail should be proportionate and reasonable and travel planning should be undertaken for all major developments generating significant transport movement. In circumstances where a travel plan alone is not sufficient to reduce traffic demand to acceptable levels, it should be considered whether implementing traffic management measures is appropriate and how such might be best delivered.

Water Quality and Resources

- 7.103 Infrastructure development can have adverse effects on the water environment and construction and operation can lead to increased demand for water, involve discharges to water and cause adverse ecological effects resulting from physical modifications to the water environment, as well as possible increased risk of spills and leaks of pollutants to the water environment. Such could adversely impact on health or protected species and result in surface or ground water failing to meet environment objectives of the Water Framework Directive.
- 7.104 The planning system should contribute to and enhance the natural and local environment by preventing unacceptable risk of water pollution on new development. Where applicable, an application for a development consent order has to contain a plan with accompanying information identifying water bodies in a River Basin Management Plan.
- 7.105 Applicants should make early contact with the relevant regulators, including the Environment Agency, for abstraction licensing and with water supply companies. Where development is subject to EIA the applicant should carry out an assessment of the impacts of the proposed project on water quality, water resources and physical characteristics as part of the ES. Projects that are making improvements should take opportunities to improve upon the quality of existing discharges where these are identified and shown to contribute to Water Framework Directive commitments.
- 7.106 Activities that discharge to the water environment are subject to pollution control. The Secretary of State will generally need to give impacts on the water environment more weight where a project would have adverse effects on the achievement of the environmental objectives established under the Water Framework Directive.

7.107 The SoS should be satisfied that a proposal has regard to:

- The River Basin Management Plans – which sets out specific objectives for particular river basins; and
- The Water Framework Directive and daughter directives – projects should aim for no deterioration of ecological status in water courses so that Article 4.7 of the Directive does not need to be applied. The specific objections for particular river basins are set out in River Basin Management Plan.

7.108 The ExA and the SoS should consider proposals put forward by the applicant to mitigate adverse effects on the water environment and whether appropriate requirements should be attached to any development consent and/or planning obligations. The SoS can grant consent if the Environment Agency objects based on the impacts on water quality/resources if they are satisfied that all steps have been taken by the applicant and Environment Agency to resolve concerns.

7.109 The SoS should consider whether the applicant's proposed mitigation measures which are needed for operation and construction are acceptable and a construction management plan may help codify mitigation.

7.110 The project should adhere to any National Standards for sustainable drainage systems, which introduces a hierarchical approach to drainage design. The risk of impacts on the water environment can be reduced through careful design to facilitate adherence to good pollution control practice.

Summary of NN NPS

7.111 The Proposed Development is a NSIP and the NN NPS provides the primary basis for the consideration of a nationally significant SRFI and improvements on the National Road Network.

7.112 The NN NPS is a very specific policy regime designed to provide a bespoke policy framework for the infrastructure (concerning national networks) which is necessary to meet identified national needs. It contains detailed guidance, on a topic by topic basis, to guide both applicants and the decision maker in their approach, appraisal and assessment of the NSIP proposals for national networks in respect of design, assessment and mitigation.

7.113 Under Section 104 of the PA2008, an application for a SRFI must be determined in accordance with the NN NPS, except in limited specified circumstances. The NN NPS confirms that there is a presumption in favour of granting development consent for national networks NSIPs that fall within the need for infrastructure established in the NN NPS and in considering any development proposals there is a need to weigh adverse impacts against its benefits.

7.114 The NN NPS confirms that there is a compelling need to create a network of SRFI to facilitate economic growth. It is underpinned by Network Rail's long-range forecasts of passenger and freight demand out to 2043, which form the basis for a separate route studies being undertaken by Network Rail to consider options for further enhancement of network capacity, alongside the proposed HS2 development. The forecasting process undertaken by

Network Rail has taken account of the Rail Central proposals as part of the quantum of additional SRFI capacity expected to be developed over the next 30 years.

- 7.115 The NN NPS sets the matters which the PINS and the SoS are required to consider under a series of matters and issues. The acceptability of the Proposed Development against these matters is considered in Sections 10 to 25 of the Planning Statement. Confirmation of how the Proposed Development complies with the NN NPS is provided at Appendix 5 of this Statement.

8. Other Relevant Policy

8.1 Section 104 of the PA 2008 identifies that the SoS must have regard to relevant NPS but also matters that are ‘important and relevant’ to the decision. Accordingly, other national policy, guidance, development plan policy, and topic-specific legislation, guidance and best-practice methods may be a material consideration in the decision making process for an application for a DCO.

8.2 In principle, the following planning policy context may have relevance for the Proposed Development, and has accordingly been considered in developing the proposals:

- National Planning Policy Framework (2018);
- Planning Practice Guidance (first published 2014, updated frequently);
- Relevant Development Plan Documents:
 - West Northamptonshire Joint Core Strategy Local Plan (Part 1) (adopted December 2014);
 - South Northamptonshire Local Plan (adopted 1997) (Saved Policies);
 - Northamptonshire Minerals and Waste Local Plan (adopted July 2017);
 - Northampton Local Plan Saved Policies (adopted 1997);
- Northampton Central Area Action Plan (adopted April 2013). Relevant emerging Local Plan documents;
- Relevant Supplementary Planning Guidance;
- Relevant Supplementary Planning Documents;
- Transport Plans; and
- Strategies and other guidance including the Rail Freight Strategy and Network Rail Operational Plans.

8.3 The Order Limits fall entirely within the administrative areas of SNC and NBC, however it should be recognised that the influence of the Rail Central Project will extend beyond the Order Limits into other administrative areas.

National Planning Policy Framework

8.4 The revised NPPF was adopted on 24 July 2018. The NPPF is a key part of the government’s reforms to make the planning system less complex and more accessible. It acts as guidance for local planning authorities and decision-makers, both in drawing up plans and making decisions about planning applications.

8.5 Paragraph 5 of the NPPF is explicit that the Framework does not contain specific policies for NSIP, which are determined ‘in accordance with the decision-making framework set out in the PA2008 and relevant national policy statements for major infrastructure’. However,

matters that the decision-maker considers important and relevant when making decisions on applications for development consent are also applicable and may include the NPPF (as confirmed by Paragraph 5 of the Framework).

- 8.6 With specific regard to the provision of large scale transport facilities, Paragraph 104 of the NPPF advises that planning policies should:

“(e) provide for any large scale transport facilities that need to be located in the area, and the infrastructure and wider development required to support their operation, expansion and contribution to the wider economy. In doing so they should take into account whether such development is likely to be a nationally significant infrastructure project and any relevant national policy statements”

- 8.7 Footnote 42 confirms that policies for large scale facilities should, where necessary, be developed through collaboration between strategic policy-making authorities and other relevant bodies. Footnote 42 continues to confirm that interchanges for rail freight represent one such example of ‘large scale facilities’.

Planning Practice Guidance

- 8.8 On 29 November 2016, the Department for Communities and Local Government (DCLG) published the online national Planning Practice Guidance (the PPG). This was accompanied by a Written Ministerial Statement setting out a list of the previous planning practice guidance documents cancelled when the site was launched.

- 8.9 The PPG consolidates (and revokes) guidance on the EIA process that was formally found in the following documents:

- Circular 02/99 Environmental Impact Assessment (1999);
- Environmental Impact Assessment: a Guide to Procedures (DETR, 2000);
- Note on Environmental Impact Assessment Directive for Local Planning Authorities (Office of the Deputy Prime Minister (ODPM), 2004); and
- Preparation of Environmental Statements for Planning Projects that Require Environmental Assessment – A Good Practice Guide (Department of Environment (DoE), 1995).

- 8.10 The PPG was last updated on 13 September 2018. The NN NPS makes specific reference to the PPG in respect of imposing requirements in relation to a development consent. Paragraph 4.9 of the NN NPS confirms that in accordance with the use of planning conditions guidance within the PPG, any requirements sought in relation to the development consent should be necessary, relevant to planning, relevant to the development to be consented, enforceable, precise and reasonable in all other respects.

Other Guidance

- 8.11 The EIA process undertaken for the Proposed Development, has taken into account other relevant guidance, including but not limited to:

- Guidelines for Environmental Impact Assessment, Institute of Environmental Management and Assessment (IEMA), 2006;

- Environmental Impact Assessment Guide to Climate Change Resilience and Adaptation, Institute of Environmental Management and Assessment (IEMA), November 2015;
- The Design Manual for Roads and Bridges (DMRB) Volume 11: Environmental Assessment (and updates) (Highways Agency et al.);
- Guidelines for Ecological Impact Assessment in the United Kingdom (IEM, 2006); and
- Guidelines for Landscape and Visual Impact Assessment 3 (Landscape Institute and IEMA, 2013).

Regional and Local Planning Policy

Adopted West Northamptonshire Joint Core Strategy Local Plan (Part 1)

- 8.12 The West Northamptonshire Joint Strategic Planning Committee adopted the West Northamptonshire Joint Core Strategy Local Plan (Part 1) (the 'JCS') on 15 December 2014. The adopted Joint Core Strategy covers the administrative areas of Daventry District, Northampton Borough and South Northamptonshire District. The following policies may be of relevance to the Proposed Development.
- 8.13 Policy SA states that the Council will take a positive approach that reflects the presumption in favour of sustainable development in the NPPF when considering development proposals. Where proposals accord with the local plan they will be approved without delay, and where the plan is absent, silent or out of date proposals will be approved unless adverse impacts would significantly and demonstrably outweigh the benefits or specific policies in the NPPF indicate the development should be restricted.
- 8.14 The JCS sets out a number of 'Spatial Objectives' to guide the future development of the authority, the ones of relevance to this proposal are confirmed below:

"Objective 1 – Climate Change

To minimise demand for resources and mitigate and adapt to climate change, by:

- *Promoting sustainable design and construction in all new development;*
- *Ensuring strategic development allocations are located and designed so as to be resilient to future climate change and risk of flooding;*
- *Encouraging renewable energy production in appropriate locations; and*
- *Ensuring new development promotes the use of sustainable travel modes.*

Objective 2 – Infrastructure & Development

To protect and enhance existing local services and to ensure social, physical and green infrastructure is adequately provided to meet the needs of people and business in a timely

and sustainable manner in response to regeneration and new development in West Northamptonshire.

Objective 3 - Connections

To reduce the need to travel, shorten travel distances and make sustainable travel a priority across West Northamptonshire by maximising the use of alternative travel modes. In so doing, combat congestion in our main towns and town centres, reduce carbon emissions and address social exclusion for those in both rural and urban areas who do not have access to a private car. To strengthen and diversify West Northamptonshire's economy by taking advantage of our internationally well-placed location, strategic transport network and proximity to London and Birmingham.

Objective 8 - Economic Advantage

To strengthen and diversify West Northamptonshire's economy by taking advantage of our internationally well-placed location, strategic transport network and proximity to London and Birmingham.

Objective 9 - Specialist Business Development

To support and develop opportunities for specialist employment clusters and business development focused on a low carbon economy.

Objective 15 - High Quality Design

To achieve high quality design in both rural and urban areas that takes account of local character and heritage and provides a safe, healthy and attractive place for residents, visitors and businesses."

- 8.15 The JCS acknowledges the strong policy support for further rail related strategic distribution development in West Northamptonshire, with reference to the evidence base associated with the former RSS and Regional Economic Strategy⁴⁷. While no new SRFIs are envisaged through the JCS plan period (to 2029), it does include a recognition of the potential for further expansion of SRFI capacity:

"The local authorities in West Northamptonshire will continue to work with Network Rail and the freight industry to consider and support further sustainable opportunities for rail freight interchanges in the longer term once the opportunities for additional access onto the rail network to support viable rail freight interchanges are confirmed."

(JCS, paragraph 5.72)

- 8.16 It clearly would have been unusual for the JCS to positively predict or made allocations for additional nationally significant infrastructure and in many ways, the approach adopted in the JCS is consistent with the future published NPS which is clear that the delivery of a national network of SRFIs will be driven by the market and viability. The Proposed Development has now subsequently emerged against a backdrop of continued strength and

⁴⁷ Paragraph 8.16 of the JCS refers the East Midlands Strategic Distribution Study (EMSDS) and paragraph 8.17 refers to the Regional Freight Strategy

opportunity provided in the area, and in the context of national policy, it would seem that the JCS had envisaged this scenario unfolding.

- 8.17 Policy S1 sets out the Distribution of Development and states that development will be concentrated primarily in and adjoining the principal urban area of Northampton. Development of a lesser scale will be located adjoining Daventry, the development needs of the rural service centres will be provided for and development in rural areas will be limited. In assessing the suitability of sites for development, priority will be given to making best use of previously developed land.
- 8.18 Policy S7 states that provision will be made for a minimum net increase of 28,500 new jobs in the period 2008-2029.
- 8.19 Policy S8 states that the majority of new job growth will be within the urban area of Northampton. The policy sets out how jobs growth will be accommodated at both Northampton and Daventry and also lists four sites for employment provision within the South Northamptonshire District.
- 8.20 Policy S10 Sets out the following Sustainable Development Principles;
- (a) Achieve the highest standards of sustainable design incorporating safety and security considerations and a strong sense of place;
 - (b) Improve environmental performance, energy efficiency and adapt to climate change;
 - (c) Make use of sustainably sourced materials;
 - (d) Minimise resource demand and the generation of waste;
 - (e) Be located for easy access by walking, cycling and public transport;
 - (f) Maximise use of solar gain, passive heating and cooling, natural light and ventilation using site layout and buildings design;
 - (g) Maximise the generation of energy needs from decentralised and renewable or low carbon sources;
 - (h) Maximise water efficiency and promote sustainable drainage;
 - (i) Protect, conserve and enhance the natural and built environment and heritage assets and their surroundings;
 - (j) Promote the creation of green infrastructure networks, enhance biodiversity and reduce the fragmentation of habitats; and
 - (k) Minimise pollution from noise, air and runoff.
- 8.21 Policy S11 states that major development should use the sustainable development principles set out in Policy S10 to contribute to reductions in carbon emissions and adapt to climate change. Proposals should be sensitively located and have no significant adverse impact on

amenity, landscape character and access and new non-residential floorspace should achieve a minimum of BREEAM very good.

- 8.22 Policy C1 seeks to change behaviour and achieve modal shift away from private car use, priority will be given to proposed transport schemes that promote sustainable transport.
- 8.23 Policy C2 states that new development should maximise travel choice from non-car modes, mitigate its effects on the highway network and be accompanied by a transport assessment and travel plan prepared in accordance with current best practice guidelines.
- 8.24 Policy C3 sets out the Council's policy aspirations in terms of strategic connections and prioritises retaining and enhancing West Northamptonshire's strategic connections for economic advantage. For rail, the policy sets out various initiatives including; enhancing journey time and frequency between London and Birmingham, introduce additional services to the wider North West for passenger and freight movements along the M6 corridor to relieve congestion on the road network, and enhancing rail connections to the Daventry International Rail Freight Terminal.
- 8.25 Policy C4 seeks to improve connections between urban areas, including ensuring an effective, reliable, inter-urban public transport network along key journey to work corridors. These corridors include A43(T) Brackley to Northampton.
- 8.26 Policy E4 states that further rail connected storage and distribution uses and associated rail and road infrastructure is supported in principle at Daventry International Rail Freight Terminal (DIRFT). A high standard of layout, landscaping, building design and materials will be required.
- 8.27 Policy E5 seeks to support Silverstone Circuit as an international venue for motorsport, employment, tourism, education and leisure development. Provision will be made for new development here including a 40ha advanced technology park, 15ha of additional B1-B8 employment, and a 600 place university technical college.
- 8.28 Policy E8 stated that development at the Northampton Junction 16 Strategic Employment Site must comply with the principles set out in policies S10 and S11. The site is allocated for B1, B2 and B8 uses and necessary infrastructure must be phased alongside the delivery of the development.
- 8.29 Policy BN1 states that Green Infrastructure Connections will be recognised for their important contribution to sense of place. Measures to enhance existing and provide new green infrastructure will be designed and delivered sustainably and to a high quality, mitigate and adapt to climate change, reflect local characters and be supported by a long term management strategy.
- 8.30 Policy BN2 states that development that will maintain and enhance existing designations and assets or deliver a net gain in biodiversity will be supported. In cases where there is no reasonable alternative to development that is likely to prejudice the integrity of an existing wildlife site or protected habitat, appropriate mitigation, including compensation, will be expected.
- 8.31 Policy BN5 seeks to ensure that designated and non-designated heritage assets, and their settings, will be conserved and enhanced. Development in areas of landscape sensitive or

heritage significance should sustain and enhance the heritage and landscape features, demonstrate an appreciation and understanding of the impact of the development on the assets, and be sympathetic to locally distinctive landscape features, design styles and materials.

- 8.32 Policy BN7A states that new development must ensure adequate and appropriate water supply and waste water infrastructure. Proposals will ensure that adequate waste water treatment capacity is available and sustainable drainage systems are used where practicable.
- 8.33 Policy BN7 states that development proposals will comply with flood risk assessment and management requirements set out in the NPPF. A sequential approach will be applied to all proposals and new development will need to demonstrate that there is no increased risk of flooding. Proposals for development of 1ha or above, or within Flood Zones 2 and 3, must be accompanied by a flood risk assessment that sets out the mitigation measures.
- 8.34 Policy BN9 states that proposals for development likely to cause pollution or risks to safety will need to demonstrate that they provide opportunities to minimise and reduce pollution issues. Development should seek to maintain and improve air quality, protect and improve surface water and groundwater quality, minimise light pollution and reduce the adverse impacts of noise. Development that will cause pollution individually or cumulatively will only be permitted if measures can be implemented to minimise pollution to provide a high standard of protection or health and environmental quality.
- 8.35 Policy N4 sets out details relating to the Northamptonshire West SUE including that 2,550 dwellings will be provided and that the proposals will include a local centre.
- 8.36 Policy N5 sets out the details relating to the Northampton South SUE stating that it will comprise 1,000 dwellings and a local centre with retail facilities of an appropriate scale.
- 8.37 Policy N6 states that the Northampton South of Brackmills SUE will comprise 1,300 dwellings a local centre with retail facilities of an appropriate scale and various other features.
- 8.38 Policy N9, Northampton Upton Park SUE, states that this allocation will include 1,000 dwellings and that the proposals will include a local centre.
- 8.39 Policy N9A relates to Northampton Norwood Fran/Upton Lodge SUE which will deliver 3,500 dwellings two primary schools and a local centre.
- 8.40 Policy N12 relates to Northampton's Transport Network Improvements and sets out the following projects;
- (a) Improved connectivity through sustainable transport to link essential services;
 - (b) Improved connectivity throughout the town centre from all parts of the town by public transport, walking and cycling;
 - (c) Improved priority interchanges of central Northampton bus station;
 - (d) Enhanced public transport services to and from priority interchanges;

- (e) Identify demand management measures on public transport routes to improve public transport reliability;
- (f) Revised parking standards;
- (g) Strategic highway measures as identified in the M1/A45 growth management scheme;
- (h) Sandy Lane relief road; and
- (i) Northampton North West bypass.

8.41 Policy T3 sets out the details of the Towcester South Sustainable Urban Extension, including that it will make provision for 3,000 dwellings and at least 15.5ha of employment land.

South Northamptonshire: Local Plan 1997

8.42 The Local Plan, which covered the period 1998-2006, was adopted in 1997 and is now considered to be largely out of date in the context of Paragraph 11 of the NPPF.

8.43 Notwithstanding the above, a number of the policies and proposals contained in the Local Plan were 'saved' by the Government Office in September 2007. Following the adoption of the JCS, several of the 'saved' policies were replaced. Some policies, however, remain saved and those relevant to the Proposed Development are set out below.

8.44 Within the South Northamptonshire Local Plan 1997 proposals maps, the Order Limits for the Main SRFI Site are predominantly designated as being located within an area of Open Countryside. Notwithstanding this, land within to the west of the A43(T), which is within the order limits for the main site is designated as being within Retail and Recreational Use.

8.45 Policy E7 sets out in what circumstances industrial and commercial development will be permitted in villages and the open countryside.

8.46 Policy EV1 sets out the design elements new development will be expected to pay attention to.

8.47 Policy EV2 protects the open countryside from development.

8.48 Policy EV11 seeks to protect conservation areas from development that may impact the setting or views of the conservation area.

8.49 Policy EV21 seeks to retain and protect landscape features, including trees and hedgerows, where they make an important contribution to the character of the area.

8.50 Policy EV29 sets out the requirements for proposals which include an element of landscaping.

8.51 Policy IMP1 seeks contributions from major development for infrastructure and community facilities where the need for these arises from the development.

Northampton Local Plan 1997

- 8.52 The Local Plan, which covered the period 1988-2006, was adopted in 1997 and, given the time period the plan covered has now passed, many of the policies are now considered to be out of date.
- 8.53 A number of policies were saved in 2007 to ensure that they remained part of the development plan prior to the adoption of a new plan. Some of these saved policies have now been replaced by the West Northamptonshire Joint Core Strategy, those which remain saved, and therefore remain part of the development plan, are set out below. Please note, only those policies relevant to the Proposed Development have been summarised below.
- 8.54 Policy E7 seeks to protect the skyline in certain areas from development that may have an adverse impact.
- 8.55 Policy E9 sets out areas where special importance will be attached to the impact of development on the character of locally important landscapes.
- 8.56 Policy E20 sets out the requirements new development should adhere to in terms of being designed to reflect the character of its surroundings and being located to ensure adequate standards of privacy and daylight.
- 8.57 Policy E26 sets requirements for development within conservation areas.
- 8.58 Policy B14 seeks to ensure that business uses are retained in existing and proposed business areas unless other development would be of benefit to the community or lead to substantial employment opportunities.
- 8.59 Policy B33 requires development proposals to have regard to existing hazardous installations.
- 8.60 Policy T12 requires adequate parking provision and areas for manoeuvring for development requiring servicing by commercial vehicles.
- 8.61 Policy T14 seeks to protect existing rail corridors from development that would adversely affect them.
- 8.62 Policy D9 sets out the requirements for development that would be permitted adjoining J15A of the M1.

Northamptonshire County Council Minerals and Waste Local Plan

- 8.63 The Minerals and Waste Local Plan was adopted on 1 July 2017 and comprises the land use planning strategy for minerals and waste related development, and all other forms of development, made in Northamptonshire.
- 8.64 The northern half of the Order Limits for the Main SRFI Site is within a minerals safeguarding area. Policy 28 sets out requirements for development in Minerals Safeguarding Areas. It states that development of a significant nature in Minerals Safeguarding Areas will have to demonstrate that the sterilisation of mineral resources of economic significance will not occur as a result of the development and that the development would not pose a serious hindrance to future extraction in the vicinity.

- 8.65 A small area at the north east of the Main SRFI Site is within the buffer zone associated with a nearby allocated site for the Provision of Sand and Gravel. The allocation site, M1: Milton Malsor is identified for the provision of sand and gravel and the associated buffer zone (Policy 30) seeks to prevent land use conflict in close proximity to such allocated sites.

South Northamptonshire: Local Plan (Part 2)

- 8.66 Consultation on the Pre-Submission Draft of the South Northamptonshire: Local Plan Part 2 was undertaken during autumn 2017.
- 8.67 Policy Site Development Principles 1 sets out general development principles in respect of sustainable urban design and the quality of the environment.
- 8.68 Policy Site Development Principles 2 sets a series of criteria for design principles, including additional criteria for major development proposals. Developments are required to make a positive contribution to the built and natural environment, recognise and complement the local character of the area and result in a high quality design.
- 8.69 Policy Site Development Principles 3 requires new development to provide for the necessary onsite and, where appropriate, off-site infrastructure requirements arising from the proposal.
- 8.70 Policy Employment 2 New Employment Development requires proposals that would involve the construction of a new building in the open countryside to be supported by a robust business plan. The proposal will need to demonstrate why the location is required and that the scale of development is appropriate.
- 8.71 Policy Connections 1 Electric Charging Points requires one parking bay per 10 parking bays.
- 8.72 Policy Natural Environment 1 Rural Character states that development proposals on sites outside defined settlement confines will only be permitted where they do not cause significant harm to the landscape. Developments should not have an unacceptable effect on the rural tranquillity of the area and should be informed by, and be sympathetic to, the landscape areas identified in the Northamptonshire Landscape Character Assessment.
- 8.73 Policy Natural Environment 3 Trees, Woodland and Hedgerows requires proposals for development to provide for the protection and integration of existing trees, woodland and hedgerows for their wildlife, landscape, and/or amenity value.
- 8.74 Policy Natural Environment 5 Biodiversity and Geodiversity requires proposals to seek to conserve biodiversity and geodiversity, and actively enhance biodiversity in order to provide net gains wherever possible.
- 8.75 Policy Natural Environment 10 HS2, Major Developments and National Significant Infrastructure Projects states:
- “The design and construction of the HS2 and other major developments and nationally significant infrastructure projects must minimise adverse impacts on the environment.
- *Any environmental harm that would occur as a result of such developments should be fully mitigated and compensated with opportunities taken to*

address any shortfalls identified in the Northamptonshire Biodiversity Action Plan and to bring about wider landscape enhancements. The use of native species is encouraged as will the enhancement of existing and creation of new biodiversity and green infrastructure corridors and habitats.”

8.76 Consultation on the Proposed Submission Draft Local Plan Part 2 is anticipated to take place in autumn 2018.

Northampton Local Plan (Part 2)

8.77 The next stage of the progress will be the draft Plan which was due to be consulted on in Spring 2018 but, at the time of writing, still has not been made available. The Council has stated (verbally) that it anticipates the draft Plan consultation taking place in late 2018. There are no draft policies within this document.

Northampton Central Area Action Plan (CAAP) 2013

8.78 The CAAP was formally adopted by NBC in January 2013. It forms part of the Development Plan for Northampton Borough. The overall aim of the Action Plan is to provide a consistent strategic framework for the improvement and extension of the town centre whilst seeking to protect and enhance its intrinsic historic built character and green spaces. This policy document relates primarily to the improvement.

South Northamptonshire: Supplementary Planning Documents (SPDs)

8.79 The following SPDs may be of relevance to the Proposed Development:

- Energy Efficiency (July 2013);
- Renewable Energy (July 2013);
- Energy Efficiency and Renewable Energy (Appendices) (not dated); and
- Energy and Development (March 2007).

South Northamptonshire: Supplementary Planning Guidance (SPG)

8.80 SNC has a range of SPG on various topics, however, many are out of date. The following documents may be of relevance to the Proposed Development:

- Conservation Areas (not dated);
- Light Pollution (not dated);
- Listed Buildings (not dated);
- Nature Conservation (not dated); and
- Trees and Development Parts 1 and 2 (not dated).

Northamptonshire Supplementary Planning Documents

8.81 NBC has produced several SPDs to expand on policies included within the Development Plan Documents. The following SPDs may be of relevance to the Proposed Development:

- Biodiversity Supplementary Planning Document (September 2017);

- Nene Meadows Supplementary Planning Document (February 2014); and
- Planning Obligations SPD (2013).

Northamptonshire County Council Transportation Plan

- 8.82 The Transportation Plan (March 2012) comprises a suite of documents, which set out 'Thematic Transport Strategies' relating to various transportation modes. The Transportation Plan covers Northamptonshire as a whole and is a statutory requirement of the Transport Act 2000 and the Local Transport Act 2008, which requires Council's to set out plans and policies for transport and how they intend to implement them.
- 8.83 Strategic Policy 19 and 20 are set out under the heading 'Improving the Efficiency of Freight Movements'. Policy 19 states that the Council will work to improve journey times and reliability on the highway and freight networks in order to increase efficiency and facilitate economic growth. Policy 20 states the Council will work closely with the Highways Agency to ensure energy between policies concerning the strategic network and the local network.
- 8.84 Alongside the County Council Transportation Plan are several thematic transport strategies. The Northamptonshire Rail Strategy was published in January 2013 following adoption by Northamptonshire County Council's Cabinet in December 2012. The Rail Strategy sets out the overarching vision for rail within Northamptonshire and the following policies may be relevant to the Proposed Development.
- 8.85 Policy RAIL 22 supports an increase in the use of the rail network for freight including the provision of additional track capacity and clearance to accommodate large containers.
- 8.86 Policy RAIL 23 supports further developments of rail freight terminals subject to appropriate planning considerations and the provision of appropriate highway access.
- 8.87 The Northamptonshire Road Freight Strategy, another thematic transport strategy, which sits alongside the Transportation Plan, includes the following policies relevant to the Proposed Development:
- 8.88 One of the Overarching Objectives states:

"We will aim to increase the options available to freight companies when moving goods and encourage a shift to rail and water."

South Northamptonshire: Transport Strategy

- 8.89 The latest South Northamptonshire Transport Strategy is dated 2010 and makes the following reference to the benefits of rail freight:
- "The provision and ability to move goods by rail (and waterways where appropriate) is vital, not just for the economy but also to meet other objectives such as climate change."*
- 8.90 The Strategy also confirms that SNC feel that one of the key challenges to secure sustainable economic growth is:

"The balance between road and rail freight and logistics for the area – a major concern given the development pressure for B8 distribution in the District given its

location, with which the Council has major concerns in terms of impact, increasing heavy goods traffic and the current over provision in the County as a whole (NEL: SELA 2009)”

South Northamptonshire: Economic Growth Strategy

- 8.91 This document sets out the economic development priorities for the District over a 3 year period. The latest document is the Economic Development Strategy for 2016-2019 which was adopted as a policy document by the Council in July 2016. The Economic Development Strategy identifies logistics as a key local economic sector and sets out a number of actions across a range of economic and skills agendas to support the continued growth of the sector. These agendas include issues relating to skills and training, working with providers of training and education and matching local job-seekers with employers.

South Northamptonshire Logistics Study (May 2017)

- 8.92 The Logistics Study for South Northamptonshire was prepared by GVA and published by the Council in May 2017. The aims of the report are twofold - firstly to provide a detailed evidence base of the logistics sector, and secondly identify suitable and appropriate opportunities to grow the sector within the District.
- 8.93 Section 2 of the Study provides an overview of the sector and confirms that logistics employment is expected to see significant growth in the next 20 years. It also highlights the strong supply chain linkages with a wide variety of sectors and that logistics businesses are a fundamental enabler of growth within the national economy. The Study also identifies that the District is a critical strategic location, at the ‘crossroads’ of national road (M1/M40/A14) and rail networks and with strong international links via airports and ports (within 2-3 hour drive times) and 90% of the UK population of England and Wales accessible within a drive time of 4 hours.
- 8.94 This position is further lamented in Section 4 of the Study, which confirms that the Districts position has a close geographical relationship with the Midlands Engine, The Golden Triangle and South East Midlands Local Enterprise Partnership (SEMLEP⁴⁸). Within this context South Northamptonshire is again identified as forming part of a key logistics hub formed by the M1 as well as a number of key A-roads offering strategic freight routes and key transportation links. The promotion of a number of new strategic distribution schemes that take advantage of these connections is acknowledged as indicating “significant levels of occupier demand”.
- 8.95 The Study also confirms that there are relatively few locations across the UK, which offer the nature of connections and scale of development provided by South Northants. Furthermore, the ability to locate close to Northampton is identified as an associated driver given the potential to relocate existing business from older and obsolete premises and for distribution operators to service key manufacturing activity in the town.
- 8.96 Paragraph 5.8 of the Study recognises that access to rail facilities play a further driver in demand, with the M1 and wider road infrastructure providing efficient access to rail-road intermodal freight terminals. Further consideration is given to rail based logistics demand within Paragraph’s 5.33 to 5.39 and points to robust growth with 1.69 billion net tonne kilometres of domestic intermodal freight moved in the first quarter of 2016-17. The report acknowledges the Rail Central proposals and indicates that it would have the potential to

⁴⁸ P13 highlights a number of developments that combined constitute over 12 million sqft of additional provision in the SEMLEP by late 2018. All of the schemes referenced have been delivered / promoted by Prologis.

dramatically change the role of District within the logistics sector, potentially providing a new market differentiator that would set the borough apart from other competing locations in the M1 market⁴⁹.

Other Relevant Studies

SEMLEP Economic Plan and Logistics Report

- 8.97 The Strategic Economic Plan (SEP) sets out a vision and aspirations for growth across the area covered by the SEMLEP, which comprises 14 local authorities including South Northamptonshire. Substantive growth is expected to be led by the private sector, with major inward investment which will take advantage of the excellent road and rail links to the north and south and its central location between Oxford, Cambridge, London and Birmingham.
- 8.98 The SEP aims for the delivery of new homes and infrastructure to grow the labour force and support the creation of new jobs and growth in productivity, and such investment is an element considered to be central to achieving growth across the LEP area.
- 8.99 Logistics is identified as a '*Showcase Sector*' and a major strength of the South East Midlands economy, which has the potential to rapidly grow. The SEP notes that this growth must, however, be supported through the increased provision of suitable employment land.
- 8.100 In December 2013, SEMLEP produced a report on logistics confirming that logistics is a critical enabler in improving the competitiveness of a nation and local areas and the scale of employment which exists within the sector which is stated at 2.2 million – one in twelve workers. However the report notes that the sector's performance lags behind many of our European competitors and performs poorly in respect of training.
- 8.101 Across the SEMLEP area, the report confirms that logistics employs as many people as the health sector with high concentrations existing in Milton Keynes, Northampton and Bedford – locations which are key logistics locations and it is crucial that the supply of personnel is available to meet today's and future requirements. In this context, the report notes that (at the time), the SEMLEP area had the highest employment rate (6.9%) with nearly 31,000 individuals claiming JSA of which 24% are young people (under 25 years) and that 46% of those claiming JSA has done so for more than six months.
- 8.102 The report therefore identifies a range of potential measures to secure new job opportunities in the sector.

Cambridge – Milton Keynes – Oxford Corridor

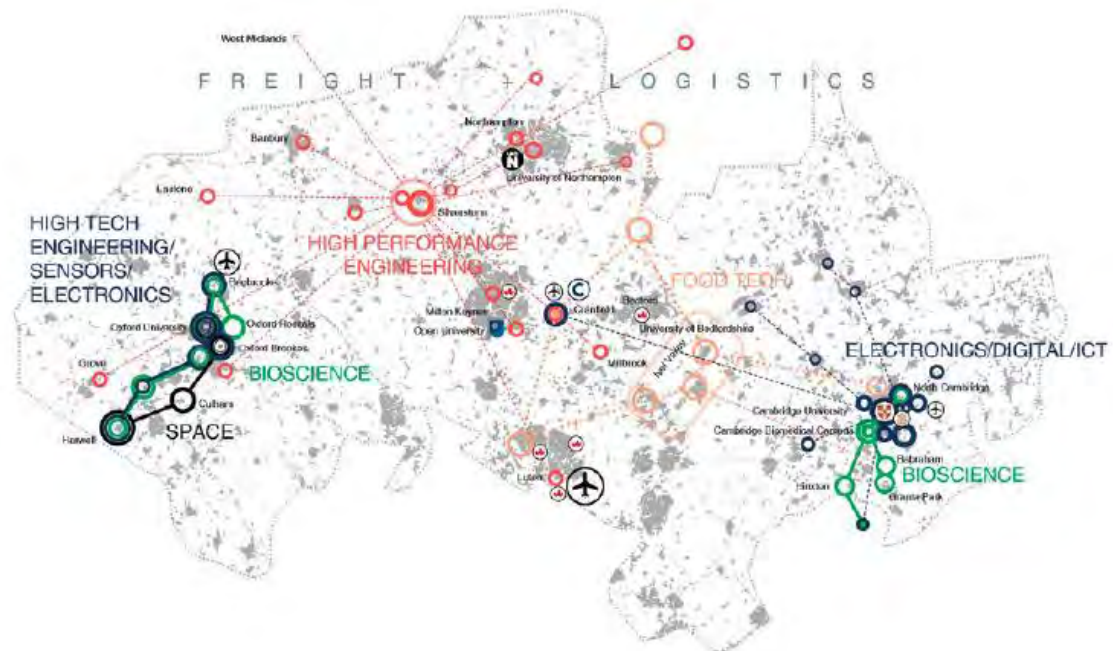
- 8.103 Following the preparation of the National Infrastructure Commission's initial report and alongside the Autumn Budget 2017, the government published the overarching vision for the Cambridge – Milton Keynes – Oxford Corridor⁵⁰, to stimulate economic growth in the national interest.
- 8.104 The report confirms that the Cambridge – Milton Keynes – Oxford Corridor forms an arc around the north and west of London's Green Belt, stretching from Cambridgeshire, via the

⁴⁹ Paragraph 9.24

⁵⁰ Partnering for prosperity: a new deal for the Cambridge – Milton Keynes – Oxford Arc', National Infrastructure Commission, November 2017

south-east midlands to Oxfordshire. The report continues to confirm that 3.3 million people currently live within the arc.

Figure 8.1: Major Business Clusters in the Cambridge-Milton Keynes-Oxford ⁵¹



8.105 As indicated in Figure 8.1, the broad area around Northampton is identified as serving a function for freight and logistics uses. In a broader sense, the report confirms that the Cambridge, Milton Keynes and Oxford axis has the potential to be a growth corridor that nurtures and UK’s innovative industries. It is identified that this area is already amongst the most economically successful in the UK. Taking this further, the government wants to build on that success for the benefit of the whole of nation.

8.106 To achieve this growth, the NIC’s findings confirm that up to one million new homes will need to be built within the corridor by 2050, if the area is to maximise economic potential. Additionally, there is a commitment to investing in infrastructure improvements, which include improving east to west connectivity, focusing on improvements to both railways and the highway network.

Rail Freight Strategy (September 2016)

8.107 The Rail Freight Strategy published by the Department for Transport in September 2016 sets out the Government’s vision for expanding the role of rail freight. The Strategy recognises that the UK freight and logistics sector is critically important to the competitiveness and growth of the UK economy, and it highlights specifically the benefits of rail freight:

“Analysis by KPMG in 2015 estimated the benefits of rail freight to the UK economy at £1.6 bn per year, including productivity gains for UK businesses, reduced road congestion and environmental benefits. Each tonne of freight transported by rail

⁵¹ Plan sourced from Page 21 of Partnering for prosperity: a new deal for the Cambridge – Milton Keynes – Oxford Arc’, National Infrastructure Commission, November 2017

reduces carbon emissions by 76 per cent compared to road, and each freight train removes 43-76 HGVs from the roads. The rail freight industry is also an important employer in its own right.”

8.108 The Rail Freight Strategy sets out future rail freight growth and the necessary policy measures necessary to deliver a modal shift from road to rail. The strategy is underpinned by the proposition that ports intermodal traffic will at least double in size by 2030 with domestic intermodal traffic is projected to almost double. The strategy refers to further work which the Department for Transport commissioned Arup to undertake to assess the opportunities for rail freight growth by commodity and to review the key capacity constraints that could limit this growth. Among the keys constraints which Arup identified was infrastructure capacity confirming:

- **for Ports intermodal traffic** (i.e. deep sea containers arriving into the UK): terminal capacity; gauge restrictions, and availability of freight paths;
- **for the Domestic intermodal traffic** (containers being transported within the UK): the key constraint to unlocking potential in this sector – availability / construction of suitable rail-connected terminal facilities including SRFIs.⁵²

8.109 The Strategy subsequently reaffirms that the development of SRFIs forms a key part of government policy in respect rail freight:

“Our existing Government policies are already making progress in many of these areas. For example: The designation in January 2015 of the National Networks National Policy Statement which has given the Planning Inspectorate a clear statement of Government policy on the development of Strategic Rail Freight Interchanges (SRFIs). This also provides developers with a clear indication of the evidence they need to submit in applying for planning permission. The National Networks National Policy Statement has been welcomed by the rail freight industry, which advises that proposals for SRFIs are now starting to come forward.”⁵³

8.110 The Strategy sets out forecasts of future rail freight growth. In contrast to Network Rail’s forecasts, the DfT growth forecasts are ‘constrained’ in that they are informed by an understanding of existing capacity of the rail network and the availability of rail freight terminals to receive and process traffic. The Strategy makes clear that this assessment is not intended to replace or be directly comparable to the ‘unconstrained’ forecasts produced by Network Rail in its *Freight Markets Study 2013* (and which underpin the NN NPS). The forecasts still predict significant growth but indicate lower growth forecasts than the Network Rail unconstrained growth figures. The difference only reaffirms the impact that a lack of infrastructure and terminal capacity (as identified above) has on overall traffic forecasts. The DfT forecasts only reinforce the fact that expected freight traffic growth is fundamentally reliant upon the delivering more terminal capacity to meet demand and to successfully facilitate movement between ports and inland rail freight terminals and also for onward distribution.

⁵² DfT, Rail Freight Strategy, September 2016, paragraph 42, table 1

⁵³ Paragraph 65b

- 8.111 Therefore while the traffic forecasts differ, this is largely due to the methodology applied and assumptions which underpin them. The overall conclusion however remain the same – that is the demand for rail freight is increasing and increasing terminal capacity (i.e. freight interchanges) is necessary to address market demand.
- 8.112 Finally, one area that the strategy highlights is the scope for rail freight to explore innovative models that build on the particular strengths of rail and meet the demand of customers for a reliable, flexible and rapid delivery service. In this respect, one area it identifies is express rail, in which rail is used for the rapid movement of consignments with relatively short delivery timescales, including parcels. This has already been subject to trials, as the Strategy highlights in a case study based on Colas Rail working in partnership with Eddie Stobart/Sainsbury’s and TNT Urban Logistics. This potential for innovation and the use of express rail services to further facilitate and expand the range of freight services available to customers is clearly pertinent to the Proposed Development as it includes an express rail terminal to do just that.

Freight & National Passenger Operations Route Strategic Plan (February 2018)

- 8.113 In the Freight & National Passenger Operations Route Strategic Plan (FNPOR), Network Rail sets out their five-year plan for the period 1 April 2019 to 31 March 2024, which is referred to as Control Period 6 (CP6). The plan includes the first stage of a longer-term vision to facilitate significant rail freight growth over the next 15 years.
- 8.114 The FNPO highlights the changing nature and dynamics of rail freight with the ‘sector simultaneously managing sustained growth in sectors such as intermodal and construction whilst continuing to manage the reduction in coal volumes since 2014/15.’⁵⁴ To illustrate this change, it notes that ‘in recent years most of the major supermarkets have started to utilise rail for trunk haul movement of goods from their national distribution centres to regional centres and even to store.’⁵⁵ Indeed, the FNPO confirms that rail’s market share has grown 50% since 1998⁵⁶ and confirms how rail freight supports the UK economy including:
- Between 30-40% of the containers that arrive or depart from key deep sea ports of Felixstowe, London Gateway and Southampton travel by rail;
 - Rail has a 10% market share of finished automotive export traffic;
 - Rail freight provides considerable benefits through reduced CO₂ emissions, road congestion and safety. Each tonne transported by rail rather than by road cuts CO₂ emissions by 76%; and
 - Rail freight delivers some £1.6bn per annum of economic benefit.
- 8.115 The plan includes new rail freight growth forecasts, produced by MDS Transmodal, which cover a shorter period to those it previously provided for Network Rail’s 2013 *Freight Markets Study* which are referred to in the NN NPS. The FNPO is based on estimates of freight growth of over 15% over the seven years (2.1% per annum) although reference is made to the forecast presented by MDS Transmodal which suggest that freight moved could increase by up to 50% between 2016/17 to 2023/24 subject to market conditions and

⁵⁴ Network Rail, FNPO Route Strategic Plan, page 21

⁵⁵ Ibid

⁵⁶ Ibid

assuming unconstrained network capacity. These forecasts are being updated by Network Rail but this is consistent with previous evidence in identifying a clear link between the capacity to transfer freight and the capacity of the network and interchange facilities. Indeed, the FNPO recognises that introducing constraining capacity within the forecasts results in lost growth with corresponding lost economic benefits from modal shift benefits of between £1.7bn and £4.7m⁵⁷. On this basis the FNPO confirms that this provides further justification for the case for freight network enhancements set out elsewhere in the plan.

- 8.116 The FNPO therefore sets out an action plan which Network Rail will implement to deliver rail freight growth. Critical key actions include enhancements in rail capacity and the support the delivery of more rail terminals. Section 5.12 of the FNPO confirms that the critical to facilitating rail growth are the terminals that provide the origins and destinations of freight traffic and:

“Network capacity and capability enhancements are ineffective if there is insufficient terminal capacity to accommodate the traffic they enable, such capacity being a function of both the number of terminals and their respective individual capability.”

“Additional inland terminal facilities are required and this need is primarily addressed by Strategic Rail Freight Interchange (SRFI) developments.”

(FNPO, Section 5.12 – Terminals)

- 8.117 In this context, the FNPO seeks to:

*“Facilitate new terminal developments at Daventry, **Northampton**, West Midlands and Parkside.”*

(FNPO Appendix B, Page 121 – add emphasis)

- 8.118 The FNPO Route Strategic Plan, prepared and published by Network Rail therefore supports the principle of new rail terminal capacity, including at Northampton, as well as other locations across the Midlands.

Summary of Local Policy Position & Strategies

- 8.119 The above section has outlined the planning policy context which may have relevance for the Proposed Development and which in accordance with Section 104 of the PA 2008 the SoS must have regard to as matters that are ‘important and relevant’ to the decision.
- 8.120 In summary, this review of the other policy context has identified that the Order Limits for the Main SRFI Site fall entirely within the administrative areas of SNC and NBC.
- 8.121 In the context of the relevant local planning policy position, the relevant Development Plan confirms that for the most part, the Order Limits for the Main SRFI Site are principally designated as being within Open Countryside. Notwithstanding this, land to the west of the A43(T), which is within the Order Limits for the Main SRFI Site, is designated as being within Retail and Recreational Use. With the emergence of the South Northamptonshire Local Plan Part 2, the Proposals Maps for the authority are in the process of being updated, however

⁵⁷ Section 5.7.1, page 26

drafts have not yet been prepared for consultation. Conversations with Planning Policy officers indicate that these existing designations are unlikely to change.

- 8.122 In accordance with the NPPF, the Core Strategy Local Plan reflects the presumption in favour of sustainable development. This further confirms that where proposals accord with the Core Strategy Local Plan they will be approved without delay. In respect of the distribution of development, it is confirmed that this will principally be located within the urban area of Northampton.
- 8.123 In respect of the scale of future employment, the Core Strategy Local Plan confirms that a minimum net increase of 28,500 new jobs will be created in the period 2008-2029. Thus, indicating the deemed high performing economic market, which Rail Central is located within. In achieving this job growth and future employment development, the Core Strategy Local Plan sets out a series of sustainable development principles to be complied with. As identified through this document and the ES, these sustainability principles have been considered in bringing forward the Rail Central proposals.
- 8.124 Although the South Northamptonshire Local Plan and Northampton Local Plans were adopted a considerable time ago and the majority of the policies are considered to be out of date, they have been reviewed for overall due diligence purposes. For the most part these documents do not denote anything further than the information detailed within the Local Plan Core Strategy.
- 8.125 With regards to the emerging planning policy position, the pre-submission draft of the Local Plan Part 2 was consulted upon at the end of 2017. Additional consultation on the Proposed Submission Draft of the Local Plan is anticipated to take place in Winter 2019.
- 8.126 Additional to this, numerous studies and assessments have been reviewed, which are specific to South Northamptonshire, some of which has been used to inform the emerging planning policy for the authority. These have generally confirmed that logistics is a key local economic sector within the geographical location of South Northamptonshire.
- 8.127 Taking this a step further, the SEMLEP Economic Plan and Logistics Report refers to logistics as a 'Showcase Sector'. Furthermore, the studies recognise that access to rail facilities play a further driver in demand, with the M1 and wider road infrastructure providing efficient access to rail-road intermodal freight terminals. This clarifies the major strength of the South East Midlands economy, which has the potential to rapidly grow. However, it is confirmed that in order for this to happen, growth must be supported through the increased provision of suitable employment land.
- 8.128 This potential for growth is largely a result of its strategic location, positioned with good relationships between Midlands Engine, The Golden Triangle, SEMLEP and the emerging Cambridge-Milton Keynes-Oxford Corridor which is expected to deliver up to one million homes by 2050. South Northamptonshire is recognised as being well positioned to take full advantage of forecast logistics growth and evidence cites the potential for Rail Central to dramatically change the role of District within the logistics sector, potentially providing a new market differentiator that would set the borough apart from other competing locations in the M1 market. National rail strategies and underpinning evidence reaffirms the need to deliver more freight interchanges to meet growing rail freight demand highlighting the lack of SRFI delivery being a consistent constraint upon delivering rail freight growth. The FNPO

Route Strategic Plan, prepared and published by Network Rail supports the principle of new rail terminal capacity, including at Northampton, as well as other locations across the Midlands.

- 8.129 On the whole, the local policy and supporting document position is largely supportive of the continued growth of the logistics sector and in particular the delivery of SRFIs.
- 8.130 Confirmation of how the Proposed Development complies with the NPPF and Regional and Local Policy is provided at Appendix 6 and 7 respectively of this Statement.

9. National Policy Statement for National Networks Compliance

9.1 The preceding sections of this Planning Statement have identified the legislative and policy framework for which this NSIP will be determined. The remainder of this Planning Statement is structured in the following manner:

- Section 10. Policy Need, Demand and Alternatives
- Section 11. Functional and Locational Criteria
- Section 12. Land Use
- Section 13. Impact on Transport Networks
- Section 14. Design
- Section 15. Landscape and Visual Impacts
- Section 16. Historic Environment
- Section 17. Noise and Vibration
- Section 18. Biodiversity, Ecology and Nature Conservation
- Section 19. Veteran Trees
- Section 20. Flood Risk, Hydrology & Water Quality
- Section 21. Air Quality
- Section 22. Ground Conditions and Land Instability
- Section 23. Climate change adaptation
- Section 24. Socio-Economic Impacts
- Section 25. Cumulative Impacts
- Section 26. Overall Planning Balance

9.2 In a situation where there is a relevant NPS⁵⁸, under s104 of the PA2008, the SoS must decide the application in accordance with the NPS, and in doing so he must have regard to:

- any local impact report (LIR);
- any prescribed matters; and
- any other matter the SoS thinks important and relevant to his decision.

⁵⁸ As defined by s5 of the PA 2008 and referred to in s104 of the Act

- 9.3 Subsequently, the designated NPS has effect under s104 of the PA2008 and the SoS must decide an application for a national network NSIP in accordance with the NN NPS. This is the SoS is satisfied that to do so would be considered to apply with circumstances confirmed in Section 104(4) to Section 104(8) of the PA 2008.
- 9.4 Subject to the detailed policies and protections in the NN NPS, and the legal constraints as set out in Section 104 of the PA2008, there is a presumption in favour of granting development consent for national networks NSIPs that fall within the need for infrastructure established in the NN NPS. In considering any Proposed Development and in particular, when weighing its adverse impacts against its benefits, the ExA and the SoS need to take into account the SRFIs
- potential benefits, including the facilitation of economic development, including job creation, housing and environmental improvement, and any long term or wider benefits; and
 - potential adverse impact, including any long term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts.
- 9.5 In this context, the NN NPS confirms that environmental, safety and economic benefits and adverse impacts, should be considered at national, regional and local levels.
- 9.6 It is this policy framework that the decision maker needs to have regard to in assessing SRFI NSIPs and is the starting point for appraisal of this application. Our appraisal is set out below in the following sections, having regard to this established framework and taking into account any of the mitigation measures and any relevant local planning policies.
- 9.7 The remainder of this Planning Statement, the structure of which is set out above, considers the Rail Central SRFI proposals and assesses the scheme in compliance with the NN NPS.

10. Policy Need, Demand & Alternatives

- 10.1 The NN NPS clearly identifies the importance of rail freight and the increasing significant role it plays in logistics. It also recognises that rail freight is an important driver of economic growth. These conclusions are endorsed but the underpinning of these conclusions lie in the ability of rail freight to help drive economic growth is directly related to the provision of national networks (particularly in the form of SRFI) to facilitate an increase in rail freight share of container traffic.
- 10.2 The Government accepts and recognises⁵⁹ that given the specific locational requirements, the number of locations suitable for SRFI will be limited, which will restrict the scope of developers to identify viable alternative sites. Indeed, the NN NPS confirms the siting of many existing rail freight interchanges in traditional urban locations inhibits expansion, as such sites are not conveniently located for the modern logistics and supply chain industry⁶⁰. Moreover, the NN NPS accepts that given locational requirements, countryside locations may be required for SRFI⁶¹.
- 10.3 In this regard, the NN NPS strongly supports applications such as Rail Central SRFI in terms of the strategic need for well-located SRFI. The NN NPS support a “network” of SRFI and even accepts that even where potential alternatives might exist, the NPS does not limit the number of SRFI, nor the need for them.
- 10.4 This and the following sections of the Planning Statement cover NN NPS compliance in matters such as need, demand and alternatives; all which heavily weigh in favour of the Proposed Development.

National Need

- 10.5 The NN NPS sets the context for consideration of need in this case. The need for SRFI is driven by a combination of:⁶²

- *The changing needs of the logistics industry*

The NN NPS confirms that a network of SRFI is a key element in aiding the transfer of freight from road to rail, supporting sustainable distribution and rail freight growth and meeting the changing needs of the logistics industry, especially the ports and retail sector. This need is emerging and in flux with the NN NPS noting that rail freight interchanges are not only locations for freight access to the railway but also locations for businesses, capable now or in the future, of supporting their commercial activities by rail. Therefore, from the outset, a rail freight interchange (RFI) should be developed in a form than can accommodate both rail and non-rail activities.

⁵⁹ Paragraph 2.56

⁶⁰ Paragraph 2.47

⁶¹ Paragraph 4.84

⁶² Paragraph 2.47 to 2.52

- *Rail Freight Growth*

Rail freight has become an important driver of economic growth⁶³. The NN NPS, underpinned by Network Rail long-range forecasts to 2043 demonstrate the scale of the pressure and urgency in delivering new SRFI facilities to accommodate and foster the long term growth in rail freight. These forecasts relate to a quantum of existing and proposed SRFI being brought forward to 2043/4, increasing rail served warehousing floorspace from 1.6 million sqm at present to more than 13 million sqm by 2043, such that by this time around 35-40% of new large warehousing would be rail connected⁶⁴.

Network Rail forecasts reflect the assumed delivery of new SRFI between Northampton and Milton Keynes equitable to some 2.5 million sqm of rail-served floorspace by 2043. Rail Central is included in the quantum of floorspace and sites on which the aggregate forecast is based⁶⁵. It is these forecasts that underpin the NN NPS, which states that these forecasts should be accepted for planning purposes⁶⁶. As the NN NPS explains, SRFI capacity is needed at a wide range of locations to match the changing demands of business⁶⁷. If this is not achieved, the NN NPS forecasts will not be met and wider government policy objectives on the economy, mobility and sustainability will be hindered.

As the previous section of this Planning Statement has explained, more recent rail freight forecasts only reaffirms the need to deliver more rail interchange capacity to meet growing rail freight demand highlighting the lack of SRFI delivery being a constraint upon delivering rail freight growth resulting in significant economic and environmental benefits being lost. The Network Rail published FNPO Route Strategic Plan supports the provision of new rail terminal capacity, including at Northampton, as well as other locations across the Midlands.

- *Environmental Factors, primarily reducing carbon emissions and removing freight from the UK's roads*

The NN NPS reaffirms that the Government's vision is to achieve a low carbon sustainable transport system that is an engine for economic growth that is safer and improves quality of life in our communities. The transfer of freight from road to rail has an important part to play in a low carbon economy and therefore helping address climate change⁶⁸.

- *Economic benefits, including job growth and economic prosperity*

The NN NPS notes that SRFI can provide significant benefits for the local economy.

⁶³ Paragraph 2.42

⁶⁴ Rail Freight forecasts to 2023/4, 2033/4 and 2043, Final Report, MDS Transmodal, April 2013

⁶⁵ Page 15, Network Rail Freight Market Study, October 2013

⁶⁶ Paragraph 2.49

⁶⁷ Paragraph 2.58

⁶⁸ Paragraph 2.53

- 10.6 In order to achieve the transfer of freight from road to rail and for the Government's forecasts of rail freight to be achieved, a network of SRFI is needed across the regions to serve regional, sub-regional and cross-regional markets⁶⁹. The alternative options to address the drivers of need set out in the NN NPS at Table 4 are considered to be neither viable nor desirable⁷⁰. These options include reliance on the existing rail freight interchanges to manage demand; reliance on road-based logistics; and reliance on a larger number of smaller rail freight interchange terminals (see table 10.1 below).

Table 10.1: Options to address need (Table 4, NN NPS, page 22)

Reliance on the existing rail freight interchange to manage demand	Perpetuating the status quo, by design or default, is simply not a viable option. Road congestion would continue to increase and the deep-sea ports would face increasing difficulties in ensuring the efficient inland movement of the forecast growth in the volume of sea freight trade, causing port congestion and unacceptable costs and delays for shippers. <u>This would constitute a constraint on economic growth, private sector investment and job creation.</u>
Reliance on road based logistics	Even with significant future improvements and enhancements in the Strategic Road Network the forecast growth in freight demand would lead to increasing congestion both on the road network and at our ports, together with a continued increase in transport carbon emissions. <u>Modal shift to rail therefore needs to be encouraged. This will require sustained investment in the capability of the national rail network and the terminals and interchange facilities which serve it.</u>
Reliance on a larger number of smaller rail freight interchange terminals	The increasing performance and efficiency required of our logistics system would not allow on an expended network of smaller terminals. <u>While there is a place for local terminals, these cannot provide the scale of economies, operating efficiencies and benefits and linkages offered by SRFIs.</u>

- 10.7 All of the above options have been considered by Government and discounted and the fundamental conclusion is that there is considered to be a compelling need for an expanded network of SRFI⁷¹.
- 10.8 The Proposed Development is well placed to contribute to the overriding Government vision of delivering on a low carbon economy and the objective to transfer freight from road to rail through an expanded network of SRFI.

A Network of SRFI

- 10.9 It is clear that National Policy establishes the need for a network of SRFI which have access to road and rail infrastructure and are located in the most viable markets. There is no policy based restriction or geographical restraint on the number of SRFI required across the

⁶⁹ Paragraph 2.54

⁷⁰ Paragraph 2.55

⁷¹ Paragraph 2.56

Country or across specific regions to meet demand. In this context, the NN NPS makes it clear it is for the market to determine the viability of particular proposals.⁷²

10.10 In market terms, operator requirements are the key driver, set against a wider market context where the vast majority of current warehousing has no prospect of rail accessibility now or in the future. A greater availability of space and improved connectivity between rail infrastructure and its markets will serve to encourage business to make more use of these facilities, with the commensurate environmental benefits, compared to a do-nothing option wholly reliant on road haulage and the highway network. Indeed, at a national level, newer SRFI facilities are emerging to fill identified gaps in the national network and clusters are beginning to form. Examples of SRFI emerging to deliver an expanded network of sites include:

- Port Salford, serving the Greater Manchester conurbation of the North West, between Widnes 3MG serving the Liverpool conurbation to the west and Wakefield Europort to the east;
- iPort Doncaster, serving the east of Yorkshire and Humberside, with Wakefield Europort serving the west of the region;
- East Midlands Gateway (EMG) to serve the area north of DIRFT and south of iPort/Wakefield Europort;
- Mossend International Railfreight Park, strengthening existing provision with a mirror-image development to Mossend Eurocentral immediately opposite;
- East Midlands Intermodal Park, serving the area between East Midlands Gateway, the North West, Yorkshire & Humberside;
- West Midlands Interchange, serving the Black Country, mid-Wales and the rest of the area between the Midlands and North West;
- Radlett and Howbury Park, serving London and the South East; and
- Rail Central and Northampton Gateway serving the area south of DIRFT, Northamptonshire and beyond, potentially serving the London and the South East.

10.11 The emergence of clustering reflects the experience of continental Europe, the scale of demand for SRFI in specific locations and major markets reflecting the success of the concept, e.g.:

- (i) Hams Hall SRFI and Birch Coppice SRFI – less than 10km apart. Hams Hall is in turn less than 11km from established Lawley Street RFI in the centre of Birmingham;
- (ii) East Midlands Gateway SRFI and East Midlands Distribution Centre RFI – less than 3km apart;

⁷² See for example paragraph 2.58

- (iii) Wakefield Europort SRFI and Leeds Stourton RFI – less than 3km apart;
- (iv) 3MG Widnes SRFI and Garston RFI – less than 9km apart;
- (v) Port Salford SRFI and Trafford Park RFI – less than 6km apart;
- (vi) iPort Doncaster SRFI and Doncaster Railport RFI – less than 3km apart; and
- (vii) DIRFT I, II and III (within which 4 separate RFI facilities effectively compete for business), to be supported by an emerging cluster of Rail Central and/or Northampton Gateway to expand this network further south.

10.12 In addition to clustering, connectivity between SRFI is occurring. For example, a daily service now operates between the SRFI at DIRFT and Hams Hall highlighting the ability for otherwise competing SRFI to connect their service and traffic together, as opposed to series of standalone SRFI connected only to ports and other inland RF.

10.13 The success of these co-located SRFIs is not accidental; it is a direct response to meeting demand and growth in rail freight accessibility principally located in the heart of the country which has greatest access to the UK population and located within the heartland of the logistics sector with a predominance of existing logistics occupiers. It also echoes the pattern of road-served distribution parks which also exist in clusters around major highway intersections (e.g. motorway junctions).

10.14 This is largely being achieved by new occupiers and businesses utilising rail freight (which is fully consistent with the policy objectives of the NPS) rather than diverting rail freight traffic from elsewhere. Indeed, it would be impractical, and against the grain of the NN NPS, for customers to rely upon remote facilities elsewhere to meet its own freight requirements.

10.15 The NN NPS reiterates the compelling need to see an expanded network of SRFI, as part of the wider transport network⁷³ but the NN NPS also recognises that it expects the private sector to bring forward a network of SRFI and it follows that these are likely to be in the most viable markets. Commercial considerations are just as important in understanding the need for an SRFI network as physical characteristics. National policy does not specify where these should be but the specific requirements of SRFI are such that many parts of the UK and many sites can be ruled out. It is therefore unsurprising that there is an existing concentration of SRFI in the Midlands and the Golden Triangle in particular as this part of the country has, in the most part, a lack of policy constraints (e.g. Green Belt) but is centrally positioned and close to the strategic road and rail network. Ultimately, however, the Midlands the heartland of the UK distribution and logistics and is where demand is greatest and this is where the concentration of a network of SRFI's needs to be to fulfil government objectives.

10.16 The Proposed Development therefore fully displays the distinguishing features necessary for a successful and viable SRFI:

- Proximity to the main Strategic (Rail) Freight Network, to facilitate the movement of freight traffic regionally, nationally and internationally;

⁷³ Paragraphs 2.47, 2.50, 2.54 and 2.56

- Proximity to the Strategic Road Network, to provide complementary access to the rail network, particularly for distribution into the surrounding regional and local area;
- Proximity to existing clusters of warehouse occupiers and other companies which currently do not have accessibility to the network but, with rail access available, can facilitate the gradual conversion from road to rail for parts of their supply chains;
- A large amount of flexible distribution floorspace on site (either directly rail connected or rail served) which immediately increases the amount of floorspace available to businesses wishing to benefit from rail access and integrated interchange facilities.
- Located in an area which demonstrates highest demand but can expand the current SRFI network reaching areas currently underserved by SRFI.

10.17 An assessment of the Proposed Development against the specific location criteria as set out in the NN NPS is provided in Section 11 of this Planning Statement.

Market Assessment

10.18 A Market Assessment Report (MAR) (Document Ref 7.4) has been prepared by JLL on the behalf of the joint Applicant. The MAR confirms the following:

- The availability of SRFIs is constraining rail freight growth and, in turn, the demand of SRFIs. Network Rail has identified a shortage of interchange capacity noting the network capacity and capability enhancements are ineffective if there is insufficient interchange capacity to accommodate the traffic they enable. Therefore, without additional rail freight interchange capacity, the benefits associated with rail freight and modal shift from road will not be secured and freight movement will continue to be predominately road based.
- The logistics sector makes a vital contribution to the UK economy with structural changes and supply chain management driving a wave of demand for large scale logistics buildings which are critical nodes in virtually all supply chains. The logistics sector makes a vital contribution to the UK economy. Structural changes in logistics and supply chain management have driven a wave of demand for large-scale logistics buildings, which are critical nodes in virtually all supply chains. E-commerce is just one of these drivers, but it has expanded hugely over recent years and it is forecast to continue growing. There is increasing evidence that many companies are either currently using rail, or are seeking to use it, within their supply chain operations. These companies include major retail supermarkets and other retailers, food and drink manufacturers, automotive manufacturers and leading logistics service providers.
- Within the UK, the East and West Midlands attracts a substantial proportion of all occupier demand for large logistics facilities, due to its central strategic location and market access, the quality of its transport infrastructure, the

availability of suitable sites and the availability of appropriate labour and skills. Over the past 20 years (1998-2007), the Midlands accounted for 40% of the total GB take up of logistics floorspace involving new warehousing over 9,290 sqm (100,000 sqft and over). The East Midlands (where the Proposed Development is located), attracted the largest share of take up over the past 20 years of all the GB regions and the take up of logistics floorspace in the East and West Midlands remains strong. The MAR reaffirms the reasons why the Midlands is so important as an area of logistics property demand as it:

- benefits from a central strategic location within GB in terms of its access to key population centres – this makes especially attractive to companies needing large scale National Distribution Centres (NDCs) and Regional Distribution Centres (RDCs)
 - benefits from significant transport infrastructure including the M1 and M6 motorway and the WCML and has good access to other infrastructure outside the region including the Port of Felixstowe, the UK's largest container port.
 - has good supply of available labour; and
 - has a large population and economic base, which generate requirements for logistics property.
- Over the last 20 years, a particular area within the Midlands has emerged as being especially significant in terms of attracting logistics property demand for large NDCs and RDCs. The 'Golden Triangle', which includes the location of the Proposed Development, is recognised as the epicentre for UK logistics and this is the key area for NDCs and RDCs and has witnessed enormous demand for large scale logistics facilities over a sustained period. Given these facts, it is unsurprising that the Midlands and 'Golden Triangle' are also key areas for SRFIs. This is highlighted by the existing SRFIs in the Midlands at: DIRFT; Hams Hall; BIFT, Birch Coppice; and East Midlands Gateway.
 - At the southern end of the 'Golden Triangle, the Northampton market (which includes to the Proposed Development in South Northamptonshire) is one of the UK's main logistics property markets and especially an important location for NDCs and RDCs; examples of companies with NDCs in Northampton include Panasonic, Carlsberg, BMW, Decathlon, Zara, Morrisons and Sainsbury's. Given the Proposed Development's position at the southern tip of the Golden Triangle, this facilitates the ability to extend the existing SRFI network further southwards and enable the service markets south of DIRFT (e.g. London and the South East) that are underprovided for in terms of SRFI.
 - There is strong demand from companies for large-scale logistics facilities on SRFIs. Across GB, some 2.28 sqm (24.5 million sqft) of floorspace is occupied in large logistics buildings of 9,290 sqm (100,000 sqft) and over on eight existing SRFIs; within the 'Golden Triangle' 1.45 million sqm (15.65 million sqft) is

occupied in large logistics units on four existing SRFIs. In addition, across GB, the vacancy rate for large logistics units on the eight existing SRFIs is just 3%, less than half that for the market generally (7%) and within the 'Golden Triangle' the large logistics buildings on the four SRFIs are 100% occupied.

- The MAR confirms that the level of floorspace occupied at the existing SRFIs in the Golden Triangle exceeds the additional floorspace that can be provided by all consented rail connected sites in the area. Given forecasts in rail freight growth and growing interest among companies in rail freight this implies a potential future imbalance with demand exceeding supply. Proposed SRFI activity across the East and Midlands reflect the central role the region plans in UK and regional rail freight and in logistics more generally and reflects the confidence that developers have in the demand for SRFI's in the Golden Triangle.
- Within the 'Golden Triangle' the catchment areas of the existing SRFIs overlap to varying extents but this has not prevented each from growing and developing because of strong demand, as highlighted in their respective levels of development and occupation. The Proposed Development has a strong external catchment area with 371 large-scale modern logistics buildings totalling 8.19 million sqm (88.18 million sqft) within a 50 km radius of the site. These facilities are occupied by more than 200 different companies, including many which are already using rail or which, based on their products and supply chains, might reasonably be considered as potential rail freight users. The MAR concludes that the Proposed Development would have a large base of companies with its wider catchment area from which to attract demand.
- The MAR explains the policy support towards rapid rail freight facilities and discusses the prospects their emergence in the market confirming that there is likely to be an increasing trend for occupiers to utilise such facilities in the future. The Proposed Development includes the provision of an express freight terminal, with full and direct access onto the WCML and which will be delivered as soon as possible in the construction phase subject to agreement with Network Rail.
- The Proposed Development at Rail Central would complement the existing network of SRFIs and help to service market areas that are underprovided for in terms of SRFIs. This includes, for example, assisting in servicing London and the South East due to a lack of suitable sites to service these regions⁷⁴. As Rail Central is situated at the southern tip of the 'Golden Triangle' it would be well located to help service these markets, which together comprise the largest consumer market in the UK.

⁷⁴ The NPS recognises the particular challenge in expanding rail freight interchanges to service London and the South East (paragraph 2.58)

Alternatives

- 10.19 An Alternative Sites Assessment (ASA) has prepared on behalf of the Applicant as part of the DCO application (Document Ref 7.3).
- 10.20 The assessment has demonstrated that, despite the large area of search, the development opportunities for SRFI proposals are limited. A total of 25 locations were identified as satisfying key SRFI characteristics as defined by the NN NPS. Of these, only five locations (20%) present realistic SRFI opportunities and were identified for further comparative analysis. Within this context, it is not surprising, therefore, that four of the five alternative sites assessed for further comparative analysis are the subject of on-going DCO applications for SRFI proposals and each has the potential to provide SRFI facilities.
- 10.21 Indeed, this in itself demonstrates the rigour of the assessment methodology and is a reflection of the East and West Midlands being a significant area of developer interest to deliver a network of SRFI to meet burgeoning demand. It is also reflective of the NN NPS which makes it clear that it is for the market to determine the viability of particular proposals. All shortlisted sites comprise greenfield and all would result in the loss of agricultural land with associated biodiversity effects. Comparison of environmental benefits is difficult due to the size and scale of SRFI development and the individual nature of each candidate site. Each give rise to environmental effects of similar scales, albeit with different effects across different disciplines and at different receptors. It is not the case that one site is clearly preferable to another, in terms of development effects. It is important to note that the delivery of a single additional SRFI will not meet the objectives of government policy nor does the NN NPS require applicants to demonstrate that their sites are the best available alternatives. Indeed, where the NN NPS policy tests are met, it would be appropriate for all sites to come forward to fully respond to Government policy to assist in creating the network of SRFIs needed.
- 10.22 Overall, therefore, it is the conclusion of this assessment that there are very limited SRFI opportunities within the broad search area. Comparisons of environmental impacts are difficult, due to the contrasting scale of each site and the different impacts which arise as a result. None of the other sites, however, creates development opportunities with clear environmental, operational or market benefits equivalent to Rail Central.
- 10.23 Four of the five sites which present realistic development SRFI opportunities are the subject of developer interest and are being pursued through the DCO process. Three of these locations would serve a different core catchment area to that of Rail Central and do not present realistic alternatives. They would, however, provide complementary facilities to Rail Central. They would also contribute to the required network of SRFI facilities as required by the NN NPS with the overriding objective of securing access to the rail network and fostering the transfer of freight from road to rail to support economic growth in an environmentally responsible manner.
- 10.24 The study concludes that there are two clear top performing sites – Rail Central and Northampton Gateway that are located in the same area of the Midlands. They score the same using the scoring matrix but there are differences in performance between these two sites which allow them to be distinguished.

- 10.25 Northampton Gateway has very good access to the strategic road network. However, whilst it is closer to the motorway than Rail Central, this in itself is not a major distinguishing factor between these two sites. Environmental impacts are of comparable, albeit each gives rise to different effects at different receptors. Rail Central does however, have the ability to directly connect to the WCML, as well as the NLL and this presents, along with its additional infrastructure, enhanced operational and technical advantages over Northampton Gateway which make it more resilient, flexible and more adaptable to the changing rail freight market.
- 10.26 On this basis, it is concluded that the Rail Central site is the better performing SRFI site. However, it is recognised that Northampton Gateway to be consented in addition to Rail Central. Northampton Gateway could also be complementary to Rail Central and, along with Rail Central, could contribute to the required network of SRFI's. This scenario with Northampton Gateway also being delivered has therefore been the subject of cumulative impact assessment in the Rail Central ES.

Summary

- 10.27 This section of the Planning Statement identifies the following:
- The NN NPS confirms that the Government has considered a number of options to accommodate the changing needs of the logistics industry and the anticipated growth in freight traffic which is, and will continue to, fuel economic growth. All options, including the continued reliance on road-based logistics, have been discounted, other than the need to expand the current network of SRFI have been discounted.
 - The NN NPS confirms there is a compelling need for an expanded network of SRFI. There is no policy based restriction of geographical restraint on the number of SRFI required across the Country or across specific regions to meet demand and the expansion of the network is to be driven by the market. The Proposed Development would contribute towards the creation of a network of SRFI nationally, regionally and locally to serve a part of the Country which displays the highest demand and best geographical characteristics and infrastructure to which to locate a SRFI.
 - There is an emergence of new SRFI which are seeking to expand the existing network. They are arising in locations where demand is greatest, existing logistic operators are close by and which have excellent access to the Strategic Road Network and the Strategic (Rail) Freight Network. This remains to be the East and West Midlands and forms the ASA area of search.
 - The Proposed Development benefits from all the necessary distinguishing features to deliver a successful and viable SRFI.
 - Across the West and East Midlands, there are a very small number of alternative locations (five) which satisfy the key SRFI characteristics as defined by the NN NPS. Not surprisingly, four of the five are being subject of on-going DCO applications for SRFI; clearly reflective of the developer interest to deliver an expanded network of SRFI to meet growing demand. These are located in different parts of the Midlands and do not present realistic alternatives. Comparisons of environmental impacts are difficult, due the contrasting scale and nature of each site and the different impacts which arise as a result. Because of the limited number of suitable sites that could

accommodate SRFI development, these SRFI site will need to come forward to complement Rail Central and to create the required network of SRFI's. Northampton Gateway is a high performing SRFI site but it is concluded that the Proposed Development is a better performing SRFI site. It is recognised that Northampton Gateway is formally being pursued in addition to Rail Central. This scenario has been the subject of a cumulative assessment in the ES.

- The MAS explains the response of the property market to the demand for distribution warehousing with good access to the motorway network and the emergence of rail served logistics to meet the provisions of Government policy and to respond to meeting rail freight demand which is incapable of being served through the existing network of SRFI. It confirms that the Proposed Development is located within an area of high demand which is only expected to continue in the future. Existing occupier demand at existing SRFI in the Golden Triangle is high with all large logistics buildings being fully occupied which clustering appears to only assist rather than hinder growth. The Proposed Development is located in an extremely strong logistics location which is witnessing strong demand from occupiers seeking large scale NDCs and RDCs and in terms of the market, the Proposed Development is in an ideal location to attract occupiers. It has great access to London and a large number of urban centres. Ultimately, Rail Central is well placed to complement the existing network of SRFIs and help to service market areas that are underprovided for in terms of SRFIs. This includes assisting in servicing London and the South East due to a lack of suitable sites to service these regions⁷⁵. As Rail Central is situated at the southern tip of the 'Golden Triangle' it would be well located to help service these markets, which together comprise the largest consumer market in the UK.

⁷⁵ The NPS recognises the particular challenge in expanding rail freight interchanges to service London and the South East (paragraph 2.58)

11. Functional and Locational Criteria

- 11.1 The NN NPS notes that the aim of a SRFI is to optimise the use of rail in the freight journey by maximising rail trunk haul and minimising some elements of the secondary distribution leg by road, through co-location of other distribution and freight activities. SRFIs are important in reducing costs and facilitating the transfer of freight movements on both the national and local road networks⁷⁶.
- 11.2 As explained in the MAR, occupiers of warehousing and distribution services are increasingly looking to integrate rail freight into their transport operations. This requires the logistics industry to develop new facilities that need to be located alongside the major rail routes, close to trunk roads as well as near to the conurbations that consume the goods. The nature of that commercial development means that some degree of flexibility is needed when schemes are being developed, in order to allow the development to respond to market requirements as they arise⁷⁷.
- 11.3 SRFIs can provide considerable benefits for the local economy as they are relatively labour-intensive and can therefore create many new job opportunities. The availability of a suitable workforce is also an important consideration⁷⁸.
- 11.4 As set out above, NN NPS concludes that there is a compelling need for an expanded network of SRFIs⁷⁹. It is for the market to determine where individual SRFIs should be located, but the NPS notes that they should be near the business markets they will serve – major urban centres, or groups of centres – and are linked to key supply chains routes. Given the locational requirements and the need for effective connections for both rail and road, the number of locations suitable for SRFIs will be limited, which will restrict the scope for developers to identify viable sites.

Locational Criteria

- 11.5 Specific locational criteria for SRFIs are set out in the NPS⁸⁰. SRFI should comply with the following provisions:
- have good connectivity both with the road and rail network, in particular the strategic rail freight network;
 - are near the business markets they will serve – major urban centres, or groups of centres – and are linked to key supply chain routes;
 - are located alongside the major rail routes, close to major trunk roads as well as near to the conurbations that consume the goods; and
 - should ideally be located on a route with a gauge capability of W8 or more, or capable of enhancement to a suitable gauge.

⁷⁶ Paragraph 2.44

⁷⁷ Paragraph 2.45

⁷⁸ Paragraph 2.52

⁷⁹ Paragraph 2.56

⁸⁰ Paragraphs 4.84 - 4.87

11.6 The rationale for Rail Central is driven by its strategic location and direct connections to key rail and road networks. Rail Central positively combines these four factors in the operation of the SRFI as explained within the three headings topic headings below:

(1) *Direct connections to the national rail network*

Rail Central is located on the existing rail freight network, connected via the NLL which is the most important corridor for freight transport within Great Britain and forms a core part of the SFN which is able to handle the longest freight trains using diesel or electric traction and carry containers for deep sea traffic.

All four lines are electrified and cleared to W10 loading gauge. This would provide onward access at W10 gauge to the principal deep-sea ports of Felixstowe, Southampton and London Gateway, as well as other ports and (S)RFI at W10 gauge in London, the Midlands, North West, Yorkshire & Humberside, North East and the Scottish Central Belt. It is also worth noting that all conventional wagon and express freight services are built to operate within the smallest W6A loading gauge, and could therefore operate between Rail Central and virtually the entire national rail network where axle load and train length restrictions permit.

Rail Central offers comprehensive resilience and flexibility on the railway network and would have, upon full operation, four separate (and fully electrified) main line access points onto two separate branches of the West Coast Mainline and which are inter-connected. This means that should NLL is closed for maintenance or incidents, Rail Central can continue to operate and access the fast lines of the WCML.

Rail Central also provides dedicated facilities for locomotive and wagon maintenance and servicing.

In addition (and uniquely for a SRFI), the proposals also makes provision for direct access to and from the WCML itself mainly for a smaller number of express freight train services similar to those used by the Royal Mail between London, Warrington, Glasgow and Newcastle. Access would again be provided from both directions for travel for diesel and electricity-hauled express freight trains.

The emerging market for express freight and urban logistics, using faster, lighter rolling stock to move goods by rail direct into towns and cities has received policy support via the Rail Freight Strategy (2016) and government in responding to market interest⁸¹. It is crucial that the next generation of SRFI (such as Rail Central) seek to provide a wider range of rail freight opportunities than the narrower focus of first generation SRFI sites achieved. In dialogue with Network Rail, Rail Central not only seeks to cater for the more established conventional and intermodal services but also make separate and dedicated provision for express freight services. With such provision in place, Rail Central would be within 1.5 hours of London and within 4 hours of the majority of the population

⁸¹ See section 2.5 of the Rail Operations Report (Document Ref 7.5)

(from the Scottish Central Belt to the south coast). This compares with current intermodal services from DIRFT to Scotland (7 hours) and East London (3 hours). The express freight services could facilitate the opening up of a much wider range of potential 'RFI' facilities, including most of the principal passenger stations amongst a network of 2,500 covering the national network which previously handled such traffic.

The ever changing structure of supply chains and the increasing need for same day distribution for ecommerce orders, the combination of rail services available to occupiers and users at Rail Central are such that this would enable inbound supplies from the Far East and mainland Europe to arrive direct by rail, and/or from the main deepsea ports, from where domestic intermodal and express freight services can then deliver out by rail to the rest of the UK, the latter offering a much faster means of distribution for more time-sensitive traffic than possible at present.

In this context, Rail Central therefore aims to offer the widest possible of rail-based services for manufacturers, retailers and logistics companies expected to occupy and use the site and maximises the potential for modal shift to arise in line with government objectives.

(2) *Direct connections to the strategic road network*

Rail Central offers direct access to the A43(T) dual-carriageway and lies in close proximity of the M1 which serves as the key north-south motorway link in the UK which forms a core part of the strategic highway network and provides access to a large proportion of the national population while the A43(T) offers alternative access to the M4 motorway.

(3) *Central location in the UK & Close to Markets*

As the MAR demonstrates, Northamptonshire is part the Golden Triangle which is the UK's 'centre of gravity' for the distribution and logistics, with excellent access to national, regional and local markets and a wide range of urban conurbations.

This area is known for its high concentration of existing large-scale and major logistics operators and it has been attractive due to the large conurbations it can serve – both on the doorstep (such as the East and West Midlands) but also further afield. This because around over 90% of the national population can be reached within a four hour drive. The area is an especially an important location for NDCs and RDCs; examples of companies with NDCs in Northampton include Panasonic, Carlsberg, BMW, Decathlon, Zara, Morrisons and Sainsbury's. Given the Proposed Development's position at the southern tip of the Golden Triangle, this facilitates the ability to extend the existing SRFI network further southwards and enable the service markets south of DIRFT that are underprovided for in terms of SRFI.

In addition to serving existing on-site occupiers, SRFIs provide the opportunity for existing warehousing occupiers within its vicinity to utilise the rail

connectivity available. The MAR confirms that the Proposed Development has a strong external catchment area identifying 371 large-scale modern logistics buildings totalling 8.19 million sqm (88.18 million sqft) within a 50 km radius of the site. These facilities are occupied by more than 200 different companies, including many which are already using rail or which, based on their products and supply chains, might reasonably be considered as potential rail freight users. The MAR concludes that the Proposed Development would have a large base of companies with its wider catchment area from which to attract demand.

Without such provision, these clusters of existing logistic operations will continue to be dominated by road based distribution. Placed within its locational context, therefore, Rail Central is one of the better performing sites within the East and West Midlands for a SRFI.

- 11.7 In light of the foregoing, it is clear that the Rail Central SRFI is compliant with the NN NPS⁸² in relation to the location criteria for SRFIs.

Functional Criteria

- 11.8 The NN NPS⁸³ sets out the functional criteria required for SRFIs to achieve and meet. In summary these paragraphs require the following:

- (1) From the outset, a rail freight interchange (RFI) should be developed in a form that can accommodate both rail and non-rail activities.
- (2) The initial stages of the development must provide an operational rail network connection and areas for intermodal handling.
- (3) Applications for proposed SRFI should be capable of handling 4 trains per day and, where possible, be capable of increasing the number of trains handled.
- (4) SRFIs should, wherever possible, have the capability to handle 775 metre trains with appropriate configured on-site infrastructure and layout. This should seek to minimise the need for on-site rail shunting and provide for a configuration which, ideally, will allow main line access for trains from either direction.

- 11.9 The Rail Operations Report (Document Ref 7.5) outlines these functional elements in detail and when considered alongside the indicative phasing arrangements for the proposals and, on this basis, demonstrates the following:

(1) *Rail Served and Rail Connected*

The entirety of the SRFI Site will be 'rail-served' with a significant element of the development plots (comprising around 2.2m sqft) having the ability to be directly 'rail-connected'.

At 294 ha, and offering significant warehouse development capacity of circa 7.4 million square feet, the Proposed Development offers a significant opportunity

⁸² Paragraphs 4.84 to 4.87

⁸³ Paragraphs 4.83, 4.88 and 4.89

to achieve the critical mass required to facilitate a significant modal shift from road to rail in accordance with the overall strategic objectives of the NN NPS⁸⁴ and to deliver significant economic benefits.

(2) *Rail Infrastructure*

Prior to first occupation of development, sufficient rail infrastructure will be in place to allow for the intermodal terminal to connect to the WCML and achieve the minimum NN NPS requirement to provide capacity for at least four trains per day. The phased expansion of the intermodal terminal and reception sidings will then take place in accordance with meeting demand and rail freight traffic growth. This approach was successfully utilised at Hams Hall SRFI which delivered its intermodal terminal in a series of phases with each phase added in response to demand and traffic growth. The development of the iPort SRFI at Doncaster is also being undertaken in phases. Further information can be found in the Rail Operations Report.

In respect of the implementation of the express freight terminal, the Applicant will construct the express freight terminal as soon as possible through agreement with Network Rail on securing a suitable opportunity to install the main line connections into the WCML fast lines. Should an interim solution be required for handling express freight services, this could be achieved using the intermodal terminal facility, with direct cross docking between trains and HGVs.

The proposed level of express freight infrastructure is a direct response to ensuring that Rail Central offers the widest range of rail-based services for on-site and off-site customers. As the Rail Operations Report (Document Ref

(3) *Network Capacity*

In terms of network capacity, analysis of the network capability for additional freight traffic has been undertaken on both the slow lines and fast lines by Network Rail and specialist timetable planners PRA. Please refer to the Rail Operations Report for further details.

On the slow lines south of Northampton, between 28 and 38 daytime paths for intermodal freight trains were identified in each direction, with additional capacity being available overnight. On the fast lines, between 14 and 19 paths were identified in each direction per day for express freight trains, with up to 50 paths for intermodal freight trains being available overnight. Whilst in combination the total number of paths available on fast and slow lines would be considerably less than this in practice, the joint analysis confirms the overall capability of the main line to cater for the initial requirements of the site, at 4 trains per day in and 4 trains per day out.

The development of SRFI such as Rail Central along the WCML and other main line routes is a response by the logistics industry to the NN NPS and the compelling need for more SRFI across the country. Conversely the Government recognises (as does Network Rail) that in order for this to occur, there is a need

⁸⁴ Paragraph 2.37 of the NN NPS

to expand the capacity of the rail network to cater for both passenger and freight growth (including from new SRFI).

Development of the wider rail network, including phase 1 of HS2, will release capacity on the existing network to support further growth in freight services.

Network Rail's long-range forecasts of market potential for intermodal services in the 2013 Freight Market Study have been produced using the GB Freight Model (GBFM). The model has been used to determine the quantum of rail freight traffic to and from Rail Central on a similar the basis, indicating the site floorspace could create the equivalent of 13 intermodal trainloads per day. In practice, this quantum of freight traffic would be distributed between intermodal services and other emerging service types (i.e. conventional wagon and express).

The Proposed Development will share the same rail (and highway) networks with other users and developments. In this regard it is apparent that the site is situated some 20 miles south of the established SRFI at DIRFT I and II (now being expanded into a third phase), with an additional SRFI scheme (Northampton Gateway) proposed east of the NLL, east of the Main SRFI Site. The three SRFI schemes would draw on the same main line capability of the Slow Lines, Rail Central being distinguished by having direct access into the WCML Fast Lines.

As explained above, the close or co-location of SRFI is not unique to this area, and elsewhere SRFI and RFI already operate alongside each other, and in some cases collaborate operationally despite being run by separate otherwise competing commercial undertakings. The Rail Operations Report documents numerous instances of SRFI and RFI successfully co-existing on the same sections of main line alongside other rail users. The NN NPS confirms the compelling need to create an expanded network of SRFI facilities, but does not set out requirements for the proximity or dispersal of these SRFI. The NN NPS notes that, in some cases, the development of SRFI may result in traffic moving from existing RFI as a consequence⁸⁵. The overall objective is to significantly expand the level of rail-served distribution floorspace as a share of total distribution floorspace.

The Rail Operation Report confirms that the work undertaken with Network Rail on main line access and network capability has not identified any constraints which would prevent all three sites from able to operate as SRFI in line with the Planning Act 2008 and the NPSNN.

(4) *Train Length Capacity*

The Rail Operations Report confirms that from the outset, 775 metre long trains would be able to access the site from both directions on the main line, using diesel or electric traction, in intermodal or conventional wagon services.

⁸⁵ Paragraph 2.58

Highways NSIP Criteria and Appraisal Requirements

- 11.10 Paragraph 4.5 to 4.6 of the NN NPS sets out the appraisal requirements in relation to road projects. The paragraphs require applications for road projects to be supported by a business case prepared in accordance with the Treasury Green Book principles and based on the Department of Transport, Transport Business Case guidance and WebTAG guidance.
- 11.11 The DCO application will comprise two NSIPs; one of which relates to a major highway scheme (J15A of the M1). In addition, associated development also contains a large number of other highway works. The two respective NSIPs are fully integrated and each will not proceed without the other. In essence, the highway proposals at J15A of the M1 are a NSIP simply as a consequence of exceeding the thresholds in the PA2008. As such, the Proposed Development is assessed as one single project.
- 11.12 It is therefore the Applicant's position that paragraph 4.5 and 4.8 are not applicable in this instance. Our reading of this paragraph is that it serves to two purposes. One is that it is requiring justification of investment which requires public funding. This is not the case here where the highway NSIP is to be funded entirely by the Applicant. The second is that any business case prepared is to ensure that adverse impacts of the Proposed Development are set out and understood, and the necessary mitigation has been fully demonstrated. The practicality of the matter is that the TA provides a significant amount of information to assess adverse impacts and has been prepared in accordance with WebTAG guidance in any event.
- 11.13 As a result, the highway works at J15A of the M1 are assessed as part of the SRFI application as a whole. An assessment of the highway impacts arising from the Proposed Development is set out in Section 13 of this Planning Statement and appraised against the relevant NN NPS sections⁸⁶.

⁸⁶ Paragraphs 5.207-5.218

12. Land Use

12.1 Land Use matters are covered by paragraphs 5.162 – 5.185 of the NN NPS and in this context, principally relate to matters such as minerals and agriculture. Other pertinent matters such as green infrastructure are covered elsewhere in this statement at section 18 (Biodiversity, Ecology and Nature Conservation).

Minerals

12.2 The NN NPS states that ‘applicants should safeguard any mineral resources on the proposed site as far as possible’⁸⁷.

12.3 To ensure a thorough approach has been taken in the preparation of the development proposals, the local policy position in respect of minerals has also been considered. This has confirmed that the northern half of the Rail Central SRFI site is within a minerals safeguarding area.

12.4 Policy 28 of the Northamptonshire Minerals and Waste Local Plan (MWLP) sets out requirements for development in Minerals Safeguarding Areas, applicable to applications under the Town and Country Planning Act 1990. It states that development of a significant nature in Minerals Safeguarding Areas will have to demonstrate compliance with one of a range of criteria including that the sterilisation of mineral resources of economic significance will not occur as a result of the development and that the development would not pose a serious hindrance to future extraction in the vicinity and there is an overriding need for the development.

12.5 Chapter 12 of the ES confirms that based upon professional judgement, the mineral resource will not be sterilised by the development, for the following reasons:

- Detailed analysis indicates that the sand and gravel deposits do not extend as far to the south into the site as indicated in the MWLP, thus reducing the area of mineral safeguarding;
- As confirmed by the Ground Conditions site investigation, there are a number of former sand pits on the site in the northwest, north and northeast (now backfilled). This indicates that the exploitable resource have been depleted, with little room for significant sand and gravel extraction activities to be undertaken;
- The piecemeal nature of the site ownership and shape of the numerous land holdings across the northern part of the site, means that any potential quarrying operation would be unlikely;
- The location of the remaining small pockets of sand and gravel, which are located close to the southern boundary of Milton Malsor, means that any potential quarrying operation would be unlikely. Furthermore, given the small scale of these sand and gravel pockets, their future extraction is unlikely to be commercially viable;

⁸⁷ Paragraph 5.169

- The Proposed Development is limited in regards to its encroachment onto the Glaciofluvial Deposits in the north of the site; and
- As shown by the presence of the M1: Milton Malsor allocated sand and gravel resource in the MLWP substantial (economically viable) deposits exist elsewhere in the county.

12.6 A small area at the north east of the Main SRFI Site is within the 300m buffer zone associated with a nearby allocated site for the Provision of Sand and Gravel. The allocation site, M1: Milton Malsor relates to a 1.2 million tonne resource at Maple Farm. It is identified for the provision of sand and gravel and the associated buffer zone (Policy 30) seeks to prevent land use conflict in close proximity to such allocated sites.

12.7 In accordance with the NN NPS, the Proposed Development has as far as possible sought to safeguard any existing mineral deposits within the proposed Order Limits. Notwithstanding the above, it is considered that there is an overriding need for the development as supported by the NN NPS by virtue of it being a NSIP, which seeks to deliver a network of SRFIs to ensure the government policy objective of shifting freight from road to rail is realised.

Agricultural Land

12.8 The NN NPS recognises that it may not be possible to develop SRFIs without causing harm to the countryside and undeveloped greenfield land⁸⁸. However, the economic and other benefits of the best and most versatile (BMV) agricultural land (i.e. grades 1, 2 and 3a) should be taken into account⁸⁹. The majority of the Proposed Development would take place on agricultural land, currently mainly in arable agricultural use. The impacts on agricultural land, soil resources and farm holdings have been assessed in the ES (Chapter 9).

12.9 Environmental effects on these receptors that could arise from construction included the loss of best and most versatile (BMV) agricultural land which represents approximately one-quarter of the agricultural land affected; the potential damage to, and loss of, the soil resource; and the impacts on the viability of the residual farm holdings. Environmental effects on these receptors that could arise from operation included the effects of local traffic on farm vehicle movements affecting the operations of neighbouring agricultural land.

Farm Holdings

12.10 The impacts on farm holdings relate primarily to the loss of land and other key farm infrastructure (dwellings, buildings and other structures) and the fragmentation of land from the residually farmed area. The proposed Order Limits for the Main SRFI site include the following agricultural land-holdings:

Table 12.1: Farm Holdings within the Main SRFI Site

Farm name	Farm type	Tenure	Area farmed	Other enterprises
Arm Farm	Arable/Grass	Tenanted	65.8ha	None

⁸⁸ Paragraph 5.163

⁸⁹ Paragraph 5.176

Manor Farm	Arable	Share farmed	32.4ha	None
Hill Farm	Arable	Tenanted	197.9ha	None
Lodge Farm	Mixed Arable / Livestock	Owner Occupied	85.0ha	None
Rathvilly Farm	Grazing	Owner Occupied	6.3ha	Buildings let to marquee hire company
Corteenhall Estate	Arable	Owner Occupied	850.0ha	Large estate with a variety of enterprises including wedding and events venue

- 12.11 In respect of farm holdings, the assessment does not identify any significant environmental effects arising from the impacts on farm holdings (negligible). These will either be removed as a result of the Proposed Development, and the owners compensated, or the residual holdings will be able to continue in their current forms and management.

Agricultural Land

- 12.12 Due to the nature of the Proposed Development and the specific locational and geographic requirements, the development of SRFI will result in the loss of land predominantly in agricultural use. As it is not possible to mitigate against this direct loss in the same location as the proposals and by virtue of the scale of the Proposed Development, there will ultimately be an impact on this undeveloped land. Table 9.17 of the ES (replicated as Table 12.2 below) states that overall, of the 274ha of agricultural land which will be affected by the Proposed Development, the vast majority of the total Site Area is deemed to be 'moderate quality' land and there is only 71ha which is the best and most versatile quality (predominantly of Grades 2 and 3a). The overall loss is deemed to be a moderate adverse effect at the Main SRFI Site (which is significant for the purposes of EIA) and a minor adverse effect at the J15a works.

Table 12.2: Area of Agricultural Land Required within the proposed Order Limits

ALC Grade	Hectares	% of agricultural land
Grade 1	2	<1
Grade 2	29	11
Subgrade 3a	40	15
Subgrade 3b	203	74
Total agricultural land	274	100

- 12.13 As reflected in the NN NPS, it is accepted that SRFI developments will inevitably result in an environmental impact on land use. In addition, in the case of the Proposed Development, this has been further minimised by the predominant use of Subgrade 3b agricultural land and the NN NPS recognises that the loss of this grade of land should have little weight applied. In

addition, a total of 24ha at J15a will remain in or available for agricultural use and for ecological mitigation, potentially for arable cropping and livestock grazing.

Soil Resources

- 12.14 The impact on the soil resource is assessed according to the degree to which the disturbed soil is re-used in a manner that enables the resource to fulfil one or more of the primary soil functions. Taken into account the embedded mitigation measures, which include the implementation of a Soil Resources Management Plan (SRMP), the effect with regards to soil resources is a minor adverse residual effect.
- 12.15 In conclusion, the ASA confirms that there are no brownfield alternatives to greenfield SRFI development and the Rail Central Site location and nature means that the permanent loss of a small portion of BMV land is inevitable. In respect of these impacts, the significant benefits that would result for the Proposed Development clearly outweighs the impacts of the loss of agricultural land in this context and is in accordance with the NN NPS.

13. Impact on Transport Networks

- 13.1 The consideration and mitigation of transport impacts is an essential part of the Government's wider policy objectives for sustainable development.
- 13.2 The NN NPS advises that applicants should consult the relevant highway authority, and local planning authority, as appropriate, on the assessment of transport impacts, and should consider reasonable opportunities to support other transport modes in developing infrastructure⁹⁰.
- 13.3 If a SRFI is likely to have significant transport impacts it should include a Transport Assessment (TA), and any significant impacts should be described in the EIA. Where appropriate, the applicant should prepare a Travel Plan including management measures to mitigate transport impacts⁹¹.
- 13.4 Projects may give rise to impacts on the surrounding transport infrastructure including connecting transport networks. The NPS confirms that the Secretary of State should ensure that the applicant has taken reasonable steps to mitigate impacts on surrounding transport infrastructure⁹². Where the proposed mitigation measures are insufficient to reduce the impact on the transport infrastructure to acceptable levels, the Secretary of State should expect applicants to accept requirements and/or obligations for funding infrastructure and otherwise mitigating adverse impacts on transport networks⁹³. It also states that any mitigation should be proportionate and reasonable, focussed on promoting sustainable development⁹⁴.
- 13.5 Provided that the applicant is willing to commit to transport planning obligations and, to mitigate transport impacts, then the NPS confirms that: '*development consent should not be withheld*'. Appropriately limited weight should be applied to residual effects on the surrounding transport infrastructure⁹⁵.

Highway Assessment

- 13.6 The Transport Assessment (TA) sets out a review of the existing site and surroundings. The review confirms that the Main Site is well served with good transport links, including the M1 and M6 motorways approximately two kilometres to the north and 32 kilometres to the North West respectively, the WCML railway and the NLL railway.
- 13.7 The proposals are supported by a comprehensive public transport strategy including the provision of new bus stops on Northampton Road, a new bus interchange within the Main SRFI Site and additional bus services. The proposals are also underpinned by a PROW and cycle strategy explaining how the scheme would knit into the existing infrastructure ensuring

⁹⁰ Paragraphs 5.204-5

⁹¹ Paragraphs 5.207-8, and paragraph 5.218

⁹² Paragraph 2.13

⁹³ Paragraph 5.213

⁹⁴ Paragraph 5.215

⁹⁵ Paragraph 5.214

pedestrian and cycle connectivity through the site and into existing villages such as Milton Malsor, Blisworth and beyond.

- 13.8 The Main SRFI Site is well connected to the strategic highway network, including the M1, A43(T), A5 and A45, as well as strategic local routes such as the A5123 and A5076. The connectivity to the major road network is a key requirement of the NN NPS for SRFI sites and the Proposed Development site is therefore considered to be appropriately located in this regard.
- 13.9 The effects of the Proposed Development have been assessed in detail in the ES and the TA covering a large study area using a variety of techniques. The methodology has been agreed with the relevant highway authorities and a robust assessment approach has been adopted. The Applicant has developed a comprehensive package of measures including:
- Junction improvements;
 - Pedestrian and cycle improvements;
 - Safety schemes; and
 - Environmental enhancements.
- 13.10 The Applicant will also implement the following:
- A Construction Traffic Management Plan (CTMP) – to minimise the impact of construction traffic on the strategic road network and local road network;
 - An Operational Traffic Management Plan (OTMP) – to minimise the impact of operational traffic on the strategic road network and local road network;
 - A Public Transport Strategy (PTS) – to facilitate the use of local bus services; and
 - A Framework Travel Plan (FTP) – includes a variety of measures and initiatives aimed at reducing the number of single person occupancy car trips to and from Rail Central, and to encourage the use of sustainable modes of travel.
- 13.11 Relevant local and national policy recognises that the Proposed Development presents the opportunity for sustainable economic growth whilst minimising the impact upon the local highway network. The development proposals and associated highway mitigation works have all been designed in accordance with the relevant highway design guidance. The development aligns with the thrust of national and local planning policy and guidance and will contribute to sustainable development and economic growth through the provision of a Strategic Rail Freight Interchange in a strategically suitable location.

Assessment Scenarios

- 13.12 In agreement with HE and NCC, the NSTM model has been used to assess the strategic impact of Rail Central. The NSTM is a strategic model which seeks to reflect the operation of the highway network in the vicinity of the site and includes a number of identified commitments (either granted planning permission and/or allocated for development in JCS)

and highway infrastructure schemes. To inform the model, NCC carried out an exercise to determine which of these schemes are likely to come forward by 2021 and 2031.

13.13 For the purpose of modelling Rail Central, the NSTM was run under the following scenarios which were agreed with HE and NCC:

- *Highways England – Future forecast assessment year of 2021*

This presents the forecast opening year for the Proposed Development but assumes a full build out of Rail Central in the 2021 opening year in line with the requirements set out in DfT Circular 02/2013.

While this scenario does represent a realistic scenario in build-out terms, it enables us to identify, in the absence of background traffic growth, whether the highway interventions proposed for Rail Central would fully mitigate the anticipated growth in traffic arising from the Proposed Development.

- *Northampton County Council – Future forecast assessment year of 2031*

This assessment equates to the end of the Local Plan period and when it is anticipated that the Proposed Development would be fully operational and built out. This effectively presents the scenario of a fully built out Rail Central at 2031 along with the anticipated background traffic contained within the model arising from identified allocations and commitments.

Design Year Baseline Conditions

13.14 The future forecast baseline scenario is known as the “Do Minimum” (DM) Scenario. This sets out the forecast situation without the Proposed Development but includes all allocated and committed development schemes as well as committed infrastructure schemes that are reasonably expected to come forward in each assessment year.

13.15 The DM scenario is therefore the benchmark to determine whether the impact of Rail Central is significant, whether the proposed highway improvements are appropriate (against the provisions of the NN NPS) and whether residual impacts are considered to be severe in the context of the NPPF.

13.16 The results of the 2015 baseline NSTM modelling show that the existing highway network is under significant stress during the AM and PM peak periods. In particular:

- There are significant delays shown within Towcester with both the A43 Tove and Abthorpe Roundabouts showing to operate over capacity in both the AM and PM peak hours.
- All junctions along the A45 corridor between M1 Junction 15 and the A5 / A43 Lumbertubs Way Roundabout (inclusive) are shown to operate over capacity in both the AM and PM peak hours.
- M1 Junction 15A is shown to operate close to capacity in the AM peak and over capacity in the PM peak hour.

- The A5076 / A5123 / Upton Valley Way Roundabout and the A5076 Upton Way / Telford Way Roundabout are shown to operate over capacity in the PM peak, and close to capacity in the AM peak hour.
- The A5076 / Hunsbury Hill Avenue / Hunsbarrow Road Roundabout and the A5076 / Towcester Road / Tesco Roundabout are shown to operate close to capacity in the AM peak. The latter junction also operates close to capacity in the PM peak hour.
- There are significant delays shown on Towcester Road between Milton Malsor and Blisworth in the PM peak.

13.17 The results of the DM scenario modelling for the 2021 and 2031 design years without Rail Central indicate that the Northamptonshire highway network is forecast to experience significant delays and congestion in future years taking account of the commitments and allocations in the JCS. There is an anticipated increase in trips compared to the baseline of 10% and 12% in the 2021 AM and PM peaks respectively and 32% and 29% in the 2031 AM and PM peaks respectively leading to significant delay and congestion on the highway network.

13.18 Due to the level of delay and congestion on the highway network in the DM scenario, traffic is expected to distribute away from major roads onto minor routes through villages such as Milton Malsor and Blisworth as drivers seek to improve upon journey times.

13.19 A key element of our highways strategy has been to ensure any highway interventions proposed as part of the proposals would materially attract baseline traffic back towards major routes, therefore having a beneficial impact on other routes for all road users and local residents.

The Proposed Development

13.20 The following transport proposals are proposed to accompany the SRFI to ensure that any opportunities for sustainable transport modes have been taken up, safe and suitable access can be achieved for all people, and improvements in the transport network to cost effectively limit the significant impacts of the development:

- Vehicular access to the site is proposed from the A43(T) via a new grade separated junction west of the development. The principal of this access strategy is agreed to be appropriate with Highways England and NCC;
- An estate spine road is proposed to serve the site from west to east from the access on the A43(T) through the development;
- A vehicular underpass is proposed on the route of the main estate road to allow it to pass beneath Northampton Road without impeding existing local traffic flow;
- Two emergency vehicle access points are provided into the site;
- During the construction phase, the existing left in, left out access on the A43(T) will be used to access the site, before this is switched to a new temporary left-in, left out access to the north on the A43(T);

- Pedestrian and cycle access to the site will be provided from Northampton Road via foot and cycleway connections both to the east and west of Northampton Road in the vicinity of the proposed underpass;
- It is proposed that a pedestrian underpass will be provided under the new access road, to allow pedestrians using the PROW to safely bypass this new infrastructure;
- Bus services can be provided via the emergency access point on the western side of Northampton Road which links directly to a proposed bus interchange including a bus stop, waiting area and turning facilities;
- Each of the warehouse units will be served with its own adjacent car and HGV parking provision which will be provided in accordance with Northamptonshire Parking Standards. In addition, a lorry park comprising is proposed to the north of the access road and adjacent to the site access;
- Off-site capacity improvements are proposed at 8 junctions;
- Road safety schemes are proposed at 2 junctions;
- A continuous off-carriageway foot/cycleway is proposed to be provided along Northampton Road between the site and residential areas at the southern edge of Northampton;
- A Construction Traffic Management Plan and an Operational Traffic Management Plan to minimise their impact on the local highway network; and
- A public transport strategy and Framework Travel Plan have been prepared which include a range of initiatives and measures to encourage modes of travel other than single occupancy vehicles, such as improved bus services and pedestrian and cycle facilities.

Design Year 'With Development' Conditions

13.21 To appraise the impact of Rail Central on the surrounding highway network, a number of scenarios have been used and applied to both the forecast design years of 2021 and 2031. The scenarios have been carried out in a staged process to determine the impact of Rail Central and to test the scope and extent of highway interventions required to mitigate the proposals.

13.22 The scenarios undertaken are provided below.

Table 13.1: Assessment "With Development" Scenarios

<i>Project Specific</i>

DS1	<p>Includes all elements of DM scenario plus the full build out of Rail Central with no highway interventions proposed.</p> <p>The analysis of the DS1 scenario results indicated that, with the addition of Rail Central traffic, there are forecast to be significant congestion issues on the highway network. This is largely due to congestion at M1 Junction 15A, which occurs in both the DM and the DS1 scenarios. As a result of this of this congestion, traffic reassigns away from the Strategic Road Network, instead rat-running along minor routes through local villages, such as Milton Malsor, Blisworth, Gayton and Tiffield. Only a small proportion of this rat-running traffic is directly associated with Rail Central and it is therefore clear that the presence of Rail Central could lead to existing baseline traffic being displaced from the strategic road network onto minor routes.</p> <p>Following the results of the DS1 modelling, it was acknowledged at an early stage that an improvement scheme would be necessary at M1 Junction 15A in order to mitigate the impact of Rail Central. At this stage, it was agreed with HE and NCC that it would be appropriate for a highway improvement scheme at M1 Junction 15A to be entered into the NSTM, in order to create capacity within the network in order to determine the true impact of Rail Central on junctions elsewhere.</p>
DS2	<p>The second stage of assessment included the assessment of Rail Central with a highway improvement scheme in place at M1 Junction 15a only. This is referred to as the DS2 scenario.</p> <p>The DS2 results demonstrate that the proposed improvements at J15a of the M1 provided a significant benefit to the operation of the wider highway network, with trips returning to major routes and away from, in some cases, inappropriate, minor routes. In particular, the DS2 scenario shows a significant increase in traffic on the A43(T) and an associated reduction in traffic using minor routes through Milton Malsor, Blisworth, Gayton and Tiffield. This is as a result of traffic that had previously diverted away from the A43(T) corridor (due to congestion at M1 Junction 15a) reverting to its original desired route. There is therefore a significant beneficial impact on local villages as a result of the improvement scheme at J15a of the M1.</p> <p>Whilst attracting traffic back towards the strategic road network is beneficial to local villages such as Milton Malsor, Blisworth, Gayton and Tiffield, the scenario reveals that there is a resultant adverse impact on the operation of other junctions on those corridors. In 2031, due to the additional traffic using the A43(T), Junctions 14 (Tove Roundabout) and 15 (Abthorpe Roundabout) are more stressed, and there is an increase in traffic through Towcester as a result. It also shows that in comparison to the DS1 scenario, there were reductions in traffic shown along the A45 corridor (north of M1 Junction 15), along the A4500 (north of M1 Junction 16) and along the A5, as a result of traffic being attracted towards the A43(T) corridor. However, there were still increases shown on these routes in comparison to the DM scenario.</p> <p>The results of the DS2 scenario were considered to provide a reasonable</p>

	<p>basis upon which to form a study area of junctions for further assessment.</p> <p>Based on the analysis of the flow differences and V/C (volume over capacity) of the DS2 scenario in comparison to the DM scenario, an extensive list of 38 junctions was compiled where further detailed capacity assessment was considered necessary, in discussion with HE and NCC. This was refined following a more detailed review of flow differences, V/C and development flows to determine the final study area (25 junctions), with many junctions being excluded from further assessment due to the immaterial impact of Rail Central at those locations. This has been agreed as appropriate with HE and NCC.</p> <p>Following agreement of the study area, detailed junction capacity assessments were carried out for each junction to determine the impact of Rail Central, based on outputs from the DS2 modelling. Where a significant adverse impact was shown on the operation of the junction as a result of Rail Central, a highway improvement scheme was developed to address this. These schemes (15 junction capacity improvement schemes in total) formed the basis of the Stage 2 consultation, and were considered to represent the widest extent of capacity improvement schemes that could reasonably be anticipated to be provided.</p>
DS3	<p>The third stage of assessment included an assessment of Rail Central with all highway improvement schemes (at 15 junctions) as were presented at Stage 2 consultation. This is referred to as the DS3 scenario.</p> <p>Analysis of the DS3 modelling showed an increase in traffic flow using the Ring Road and A45 corridors. This is as a result of the additional capacity provided at junctions along those routes attracting traffic towards them. There remains a general decrease in traffic along minor routes through Milton Malsor, Blisworth, Gayton and Tiffield.</p> <p>The DS3 scenario reveals that whilst the proposed improvement schemes improved the operation of individual junctions, there was a resultant increase in traffic on the mainline of the A45, which in itself is known to be stressed. As a result, it was agreed with HE and NCC that it would be appropriate for the highway strategy to be refined to focus any improvement schemes along the A43(T) and the western end of the ring road, such that traffic would be attracted away from the A45 corridor.</p>
DS4	<p>This scenario includes all elements of DM scenario plus full build of Rail Central, the improvement scheme at M1 J15a but also includes an alternative collection of highway improvement schemes at other junctions on the highway network.</p> <p>The DS4 modelling showed that, with the addition of the improvement schemes, there was an increase in traffic along the A43 and along the Ring Road, as was desired. There was also a continued reduction in traffic through local villages (Milton Malsor, Blisworth, Gayton and Tiffield). However, there remained an increase in traffic along the A45, albeit a</p>

	<p>smaller increase than was previously shown in the DS3 scenario.</p> <p>It was noted that there was an increase in congestion shown on the A5076 Upton Way (Ring Road), particularly at A5076/Telford Way/Walter Tull Way/Dunston Mill Lane. This was likely constraining the ability of traffic to reroute towards this corridor, and it was therefore apparent that further improvement schemes would be required.</p> <p>An alternative package of improvement measures was therefore required to be modelled; this formed scenario DS6.</p>
DS6	<p>DS6 includes all elements of DM scenario, full build of Rail Central plus the improvement scheme of M1 J15a but also includes the proposed suite of highway improvement schemes at other junctions on the highway network identified in the DCO submission (Junctions 4, 5, 6, 7, 14, 15, 19, and 20).</p> <p>The results of the DS6 modelling show that there is an increase in traffic using the A43(T), A5123, M1 and A5076 (Ring Road) corridors, in comparison to the DM scenario. This increase in traffic flow is a combination of Rail Central traffic and background traffic that has transferred to the A43(T) as a result of the capacity improvements associated with the mitigation schemes. Accordingly, there is predicted to be a decrease in traffic utilising the minor routes on either side of the A43(T), including through the villages of Milton Malsor, Blisworth, Gayton and Tiffield.</p> <p>In the evening peak within Towcester there is a predicted reduction in traffic utilising the A5 which transfers to the proposed Towcester bypass as this route becomes more attractive with the proposed improvement schemes in place on the A43(T).</p> <p>In both peaks there are widespread decreases in congestion at the main junctions that have been identified as being impacted by the development and also as being congested in the DM scenario including junctions on the A43(T), A5123 and A5076 corridors. The majority of these junctions have been improved as part of the Rail Central off-site highway improvements.</p> <p>This reduction in congestion compared to the DM scenario indicates that despite there being significant increases in both background and development traffic the mitigation schemes provide a net benefit in terms of congestion along these routes.</p>

Conclusions on Strategic Modelling

- 13.23 The DS6 results demonstrate that the proposed improvement strategy, including improvements at M1 Junction 15a along with the seven other junctions, encourages traffic to use the A43(T) and Ring Road corridors, as opposed to the A45 and other minor routes through villages. This was the strategic aim of the Rail Central improvement scheme as requested by HE and NCC.

Junction Capacity Assessments

- 13.24 Capacity assessments have been carried out based on the DS6 scenario to demonstrate the operation of each of the mitigated junctions following the implementation of the improvement schemes, in comparison to the DM scenario.
- 13.25 The junction capacity assessments show that the residual traffic impacts of the Proposed Development have been mitigated and that the proposed mitigation provides an overall benefit to the operation of the junctions including reductions in queuing and delay to the benefit of road users.
- 13.26 In particular, the TA shows that there are significant net benefit to the operation of M1 J15a with significant reduction in queues and delay across the whole junction in the AM and PM peak hours. These significant reductions are achieved despite an increase in traffic through the junction of more than 1,300 PCU [obtain reference) in all scenarios. It is therefore considered that the improvement scheme proposed at M1 J15a more than mitigates the impact of Rail Central and fulfils its purpose not only accommodating Rail Central development traffic but also draws in additional baseline traffic that otherwise is anticipated (in the DM scenario) to be distributed across minor routes through villages such as Milton Malsor and Blisworth.

Conclusions (Transport and Highways)

- 13.27 Projects may give rise to impacts on the surrounding transport infrastructure including connecting transport networks.
- 13.28 Working with the relevant highway authorities has been a key element of the project design and assessment. The Applicant has agreed the assessment methodology with Highways England and Northampton County Council, and an appropriate Transport Assessment and assessment of traffic management has been undertaken, providing appropriate management measures to mitigate transport impacts in accordance with the NN NPS.
- 13.29 The NN NPS confirms that the SoS should ensure that the applicant has taken reasonable steps to mitigate impacts on surrounding transport infrastructure⁹⁶. It also states that any mitigation should be proportionate and reasonable, focussed on promoting sustainable development⁹⁷.
- 13.30 The TA identifies the following conclusions:
- The baseline conditions of the highway network is for the 2021 and 2031 design years without Rail Central indicate that the Northamptonshire highway network is forecast to experience significant stress significant delays and congestion across the network including key junctions such the J15a of the M1. Due to the level of delay and congestion on the highway network, traffic is expected to distribute away from major roads onto minor routes through villages such as Milton Malsor and Blisworth as drivers seek to improve upon journey times.
 - The significant improvement at J15a of the M1 motorway was identified early in the process as being necessary to mitigate the impact of Rail Central.

⁹⁶ Paragraph 2.13 of the NN NPS

⁹⁷ Paragraph 5.215

- The TA has undergone a thorough process of scenario modelling which seeks to increase traffic capacity at J15a of the M1 and to achieve the strategic objective of attracting baseline and anticipated development traffic back onto the main highway network (principally the A45 corridor and Ring Road) and away from minor routes through nearby villages. Various highway interventions have been assessed and tested including the final package of highway improvements which form the DCO submission.
- The various scenario modelling shows that in addition there is a need to improve a number of junctions around the main highway network to achieve this strategic objective. The DS6 results demonstrate that the improvement strategy that is proposed, including improvements at M1 Junction 15a along with the seven other junctions, encourages traffic to use the A43(T) and Ring Road corridors, as opposed to the A45 and other minor routes through villages. It also delivers a reduction in congestion compared to the DM scenario confirming that despite there being significant increases in both background and development traffic, the mitigation schemes provide a net benefit in terms of congestion along these routes.
- Capacity assessments have been carried out based on the DS6 scenario to demonstrate the operation of each of the mitigated junctions following the implementation of the improvement schemes, in comparison to the DM scenario. This testing has been undertaken to establish the stress of these junction of AM and PM peaks and are therefore considered to be robust.
- The junction capacity assessments show that the residual traffic impacts of the Proposed Development have been mitigated and that the proposed mitigation provides an overall benefit to the operation of the junctions including reductions in queuing and delay to the benefit of road users. In particular, there are significant net benefits to the operation of M1 J15a with significant reduction in queues and delay across the whole junction in the AM and PM peak hours and greater reductions during non-peak times. These significant reductions are achieved despite an increase in traffic through the junction. It is therefore considered that the improvement scheme proposed at M1 J15a more than mitigates the impact of Rail Central and fulfils its purpose not only accommodating Rail Central development traffic but also draws in additional baseline traffic that otherwise is envisaged (in the DM scenario) to be distributed across minor routes through villages such as Milton Malsor and Blisworth.
- The DCO includes a package of measures to improve the accessibility of the SRFI site through non-car travel modes and Travel Planning.

13.31 The package of measures proposed within the Parameters Plans and assessed within the ES and the Transport Assessment will provide for development that is in accordance with the NN NPS. Accordingly, and in line with NN NPS paragraph 5.214, development consent should not be withheld.

13.32 It is concluded that the methods and evidence submitted and assessed in respect of the current and future highway traffic situation in the area, the likely impacts of constructing the

Rail Central SRFI, and the package of highway improvements, are in accordance with the NN NPS⁹⁸.

- 13.33 Whilst some further work is required on proposed mitigation phasing and assessment, overall, the junction capacity assessments show that the residual traffic impacts of the Proposed Development have been more than mitigated. The proposed mitigation provides a net benefit to the overall operation of the local strategic highway network including greater resilience.
- 13.34 It should also be noted that in assessing the impact of Rail Central, no specific account has been taken of the transport benefits arising from HGV miles which will be saved on the highway network by the operation of the Rail Central SRFI. This is addressed in section 23 of this Statement.
- 13.35 Overall, the benefits to the existing highways network therefore need to be accorded significant weight.

⁹⁸ Paragraphs 5.201 – 5.218

14. Design

- 14.1 SRFIs are identified as Nationally Significant Infrastructure Projects (NSIPs) and the NN NPS accepts that these are a significant scale and size. In this context, it recognises that for developments such as SRFIs, there will be local impacts in terms of land use and it is important for environmental impacts to be minimised. The NN NPS⁹⁹ notes that some (SRFI) developments will have some adverse local impacts on noise emissions, land/visual amenity, biodiversity, cultural heritage and water resources. It states whilst applicants should deliver developments in accordance with government policy and in an environmentally sensitive way, including considering opportunities to deliver environmental benefits, some adverse local effects of development may remain.
- 14.2 The NN NPS therefore includes design criteria for national networks. Delivering ‘good design’ has also recently been reinforced through the NPPF. Visual appearance should be a key factor in the design of new infrastructure as well as functionality, fitness for purpose, sustainability and cost. Applying ‘good design’ to national network projects should be sensitive to place, efficient in resources and matched by an appearance that demonstrates good aesthetics as far as possible. Good design is anticipated to meet the principal objectives of the scheme eliminating substantially mitigating identified problems by improving operational conditions and minimising adverse effects.
- 14.3 In this context, the NN NPS clearly recognises that given the nature of much national networks infrastructure development, particularly SRFIs, there may be a limit to which it can contribute to the enhancement of the quality of the area.

Design Approach

- 14.4 The Design and Access Statement (Document Ref: 7.2) sets out the design rationale and key principles behind the scheme, including explaining the design process and how the scheme has evolved. The Proposed Development has been designed in direct response to the requirements of government policy and carefully formulated in response to the site’s context, market demand and commercial considerations. This has been a continual iterative process of consultation and engagement with statutory consultees and informed by a comprehensive evidence base which is included in the Environmental Impact Assessment (EIA) and accompanies the application and a range of technical studies that have informed the design response in respect of rail, market demand, and sustainability.
- 14.5 The scheme form, layout and orientation has been designed to respond the following design principles:
- A next generation SRFI – Rail Central seeks to provide for a wider range of rail freight services and opportunities than previous SRFI building upon its ability to connect to the fast and slow lines of the WMCL in order to maximise customer choice and modal shift.
 - A well-integrated development – a contextually sensitive proposal that seeks to minimise local factors as much as possible including neighbouring context and environment whilst capturing the economic potential of its strategic location;

⁹⁹ Paragraph 3.4

- A sustainable place – balancing social, economic and environmental factors that combine to create a sustainable environment, notably it will seek to achieve a ‘Building Research Establishment Assessment Method’ (BREEAM) Excellent rating;
 - A connected and legible place – linking Rail Central to existing modes to transport and enhancing them ensuring safety for all users;
 - Protecting residential amenity - respecting the local residential areas of Blisworth and Milton Malsor;
 - Respecting the landscape - the site is in large part undeveloped open land within a range of natural farmland and landscape features. The design process aims to strengthen and diversify the identity and structure of the landscape; and
 - Recreation and ecological enhancements – to be sensitively designed to mitigate the impacts of the development and enhance recreational opportunities and ecological diversity.
- 14.6 These principles have been progressed to strengthen the design proposition of the Proposed Development and deliver the overall vision of a high quality working environment. As reflected in the Design and Access Statement, the principles also reflect how the Development has taken advantages of the key site features, including in terms of how the layout has been carefully designed to reflect the access and movement routes and minimise any adverse effects on landscape features.
- 14.7 The design code within the Design and Access Statement also reflects several additional requirements, including the operational and commercial aspects of the Development brief and the views of the scheme to neighbouring uses. This includes the need to deliver a strong and consistent design quality across the whole site, with a series of standards outlined to demonstrate that the proposed building form and appearance will satisfy market demand and are acceptable from a design perspective. In addition, the design approach has been focussed upon positioning built development within the centre of the Main SRFI Site with the development parcels being lowered as much as possible to assist in visual mitigation. Levels have also partly been determined by a series of fixed parameters; namely:
- The location at which the rail connections can be achieved, both on the WMCL main line (fast) and the NLL;
 - The location at which access to the strategic road network can be achieved, on the A43(T); and
 - The need to cross under Northampton Road.
- 14.8 These elements dictate the general extent of development, as well as factors including the location of the intermodal and express freight terminals and the positioning of rail connected warehousing to the south-eastern part of the site. The development parcels have been carefully considered ensuring building lines (embedded in the Parameters Plan) are sufficiently set back from specific parts of the site (Milton Malsor, Railway Cottages and from the A43 Blisworth Arm) to minimise visual impact and protect residential amenity. The built development core has been subsequently wrapped around its perimeter through the provision of extensive earth mounding, and landscaping. These corridors are focused around

the periphery and adjacent to internal road corridors and have been designed to take account of local landscape character and characteristic features, based on the following key principles:

- To minimise the effect of the development on the local and adjacent landscape character and on views towards the Main SRFI Site through the use of sensitively designed and profiled mitigation bunding and native structural planting belts, woodland blocks, and hedgerow planting utilising locally prominent species.
- To integrate drainage and acoustic mitigation into the design to provide a holistic landscape strategy that responds to the existing Main SRFI Site constraints and surrounding receptors.
- To maximise the ecological mitigation within the landscape zones through the retention and enhancement of the existing vegetation framework and field pattern where feasible.
- To provide connectivity for wildlife through the creation of a matrix of different habitats providing interconnectivity between the different zones and into the wider area.
- To provide connectivity both through the Main SRFI Site and into surrounding areas. The Proposed Development incorporates a number of diverted footpaths along with new footpath links. Footpaths around the periphery of the Main SRFI Site are placed in broad landscape corridors to retain openness and provide a setting.
- To minimise the engineered look of the proposed mitigation mounding, external slopes will be kept to a maximum slope of 1 in 5. The bunding will follow existing contouring on the Main SRFI Site to create a more naturalised landscape edge. Slopes facing in towards the Main SRFI Site will be a maximum of 1 in 2.5 to ensure that the proposed bunding can achieve the intended level of visual mitigation of key views towards the development and also support structural vegetation. Bunding will be kept close to the development edge to ensure the maximum amount of amenity space can be created around the periphery of the Main SRFI Site.

14.9 The landscape framework establishes a high quality environment within which to set new buildings within the development core. The peripheral landscape corridor also provides the framework for other enhancements to be delivered across the Proposed Development; these include:

- The area of land to the west of A43(T) which is safeguarded to provide mitigation planting for the proposed development and new grade separated junction on the A43. Native tree and shrub planting will be used to block views to the proposed junction and provide a landscape buffer between the junction and Blisworth Arm. In addition to the visual mitigation planting, the land will be developed as an informal pocket park for use by adjacent residents and also utilised for ecological mitigation.
- The landscape between the proposed development and Milton Malsor is to be developed as part of a linear country park. It will provide a strong screen to views back towards the development through the combination of earth mounding and structural landscape. The site topography allows this area to be utilised for

attenuation ponds which will be designed to provide additional ecological and amenity benefit. To the north of the proposed earth mounding the existing field structure and vegetation will be retained to protect the existing village edge character with the existing fields developed as species rich neutral grassland in line with the Northamptonshire Green Infrastructure Plan. The linear country park will extend around the western edge of the development to form a link between the Grand Union Canal and Milton Malsor.

- The WCML Ecological Corridor provides mitigation from visual and landscape impacts of the development from Blisworth and users of the PRoW to the south. The planting will soften views of the proposed buildings from the south, partially screening them once established. The interconnecting habitats would also increase habitat diversity in that area.
- The Proposed Development will require the diversion of the existing Blisworth to Collingtree footpath around the eastern edge of the development. The proposed re-routed footpath will run adjacent to the existing West Coast and Northampton Loop train lines along the existing field edge. It will cut across the site in the south eastern corner to minimise the additional distance of the diversion. Where the footpath runs adjacent to the railway, new hedgerow planting will be planted between the footpath and the railway to provide an increasingly effective screen to views towards the development and encourage views out to surrounding countryside. Where the footpath cuts across the corner of the site, the surrounding landscape will be developed as woodland habitat in line with the Northamptonshire Green Infrastructure Plan. In keeping with the landscape character to the East of the Main SRFI Site, to the east of the Northampton Loop Line three new blocks of woodland will be planted within the existing farmland adjacent to the diverted footpath. The remaining farmland will continue to be used as such.
- To the west of Northampton Road, the development borders the Grand Union Canal which is designated as a local wildlife site and is considered an important ecological feature within the county. Adjacent to the canal there two further sites that are identified as potential wildlife sites, one between the West Coast Mainline and Station Road and one sited between the A43, West Coast Mainline and the Grand Union Canal. Both of these sites have a mixed habitat of woodland, scrub and species rich grassland. The landscape buffer between the canal and the proposed development will be established with the aim of complementing and expanding these potential wildlife sites by linking them both to provide a continuous strip of mixed habitat on both sides of the canal. The intention is that this segment of land will not be generally accessible to the public in order to maximise its ecological potential. This area will also be managed as a dark zone to minimise light spillage into the landscape zone. Grand Union Canal Ecological Corridor would provide mitigation from visual and landscape impacts of the development from The Grand Union Canal and users of the PRoW. Native tree and shrub planting would provide layers of screening from users of the canal and PRoW. The buffer will create a sense of separation between the canal and the proposed buildings.

14.10 Detailed guidance is also contained within the DAS regarding building design and it seeks to ensure that warehouse buildings are designed to high environmental and quality standards. This will set a benchmark for the next generation of SRFI's and ensure that the proposed

Development responds sensitively to the surrounding site context. This is also reflected within the design parameters which include details of the extent of the maximum built development and details of maximum bund heights. The height, scale and floor areas of each building, for example, will satisfy the storage requirements and servicing capability of occupiers and be sufficiently flexible to meet market demands, for example via the use of metal cladding and 15m clear internal heights. Elevational treatments will be also designed to minimise the visual impact of buildings upon sensitive views. The proposed access, servicing and lighting arrangements will also reflect operator requirements.

- 14.11 In addition, sustainable design and construction features have been incorporated within the masterplan, including the use of best practice sustainable construction methods, the provision of landscape buffers to minimise the impact of the development on the local area and the use of sustainable materials. There is also commitment for the new buildings to be resource efficient and an overall target to achieve a BREEAM Excellent rating based on the BREEAM 2014 New Construction scheme. To help deliver this, a series of sustainability measures will be integrated, including the delivery of rainwater harvesting systems, carbon saving and thermal insulation initiatives. As outlined in the Sustainability Statement, collectively, these measures will reduce water use by 25% and help to enable a 384% reduction in greenhouse gas emissions, compared with the existing baseline between 2019 and 2050. To mitigate impacts on climate change, new buildings will also be designed in accordance with the energy hierarchy to achieve a 20% reduction in CO₂ emissions above the requirements of the 2013 Building Regulations.

Conclusions

- 14.12 Notwithstanding the scale and nature of the Proposed Development, the approach to design is entirely consistent with the NN NPS. It is functionally fit for purpose, environmentally sensitive and positively responds to site context and to existing features. The resulting design has regard to the amenity and visual impact on residential communities and brings enhancements to the road and right of way network. Other enhancements are also embedded within the overall design of the scheme including in the form of recreational provision, such as the Pocket Park and the liner Country Park and ecological enhancements throughout the site. The DAS provides detailed guidance which will ensure the detailed design of warehousing will be of high quality and high sustainability (BREEAM excellent).

15. Landscape and Visual Impacts

- 15.1 The NN NPS requires that where development is subject to EIA, the Applicant should undertake an assessment of any likely significant landscape and visual impacts¹⁰⁰. The NPS also notes that local landscape designations and views from designated areas should not be used as reasons to refuse consent¹⁰¹. It also indicates that the Proposed Development should be designed carefully to avoid adverse impacts and to minimise harm to the landscape¹⁰².
- 15.2 The Landscape and Visual chapter of the ES (Chapter 15) contains the landscape and visual assessment, based upon current Landscape Institute and the Institute of Environmental Management and Assessment Guidelines (amongst other considerations).
- 15.3 The landscape assessment has considered the effects of the Proposed Development on the landscape as an environmental resource in its own right, and the visual assessment has considered the effect of visual change on people's views and visual amenity.
- 15.4 Landscape and visual effects have been considered for:
- the construction phase;
 - operational phase at Year 1 Winter; and
 - operational phase at Years 7 and 15 during Summer (to take account of the residual effects once embedded mitigation has developed and reached a level of maturity).
- 15.5 These factors have been considered together with consideration of the:
- night time visual effects of the Main SRFI Site; and
 - intra and inter project cumulative effects.
- 15.6 The landscape and visual assessments have been undertaken in parallel, and have been informed by a combination of desk and site-based appraisal techniques and professional judgement.
- 15.7 The DAS details the design considerations and the various iterations of the masterplan for the scheme as it evolved. It also outlines the underlying design principles for the buildings, which would be designed to high environmental and quality standards with elevational treatment designed to minimise the visual impact of the buildings towards sensitive views. Although the choice of building materials has not been specified, cladding materials with low reflective properties, avoiding bright colours, would be appropriate. Adherence to the provisions contained within the DAS is a requirement of the DCO.

¹⁰⁰ Paragraph 5.144

¹⁰¹ Paragraphs 5.155 and 5.166

¹⁰² Paragraph 5.157 - 5.158

- 15.8 Significant landscaping, in the form of engineered screening bunds and landscape planting, is proposed as part of the Proposed Development. It is accepted that to provide the degree of screening that is envisaged, it is vital that the proposed landscaping, particularly on the mounding, is properly maintained to ensure it becomes established and thrives.
- 15.9 To illustrate the effectiveness of the embedded mitigation verifiable rendered photomontage images for ten of the representative viewpoint locations have been prepared, to represent the residual visual effects once planting has established in the Summer of Year 7 following the completion of the development; and once planting proposals have reached a reasonable level of maturity, which is taken as the Summer of Year 15 following completion of development. These photomontage images do not include additional (adaptive) mitigation.
- 15.10 The establishment and future success of the external landscaping is largely dependent on the standard and frequency of the subsequent maintenance and management it receives. A 15-year Maintenance and Management Plan will be finalised, that outlines the proposed establishment monitoring, maintenance and management programme.
- 15.11 Additional adaptive measures over and above the proposed embedded mitigation which may assist with the screening and integration of the Proposed Development into the landscape will be considered at the detailed design stage and agreed with SNC. Such additional measures to be considered may include:
- Site design and layout, position and orientation of buildings and other infrastructure;
 - Finished ground levels and heights of buildings and other infrastructure; and
 - Material finishes and colour scheme for buildings and other infrastructure.
- 15.12 Other additional mitigation measures to be considered at detailed design stage may include:
- Planting strategic groups of larger sized trees (e.g. semi mature, extra heavy standard, and large feathered trees) for instant visual impact;
 - Planting strategic groups of coniferous and evergreen tree and shrub species for year round screening from sensitive views;
 - Planting of new native species hedgerows for wildlife and habitat connectivity;
 - Provision of oversized culverts under road and rail at key points to connect up key landscape corridors and wildlife hedges across the site;
 - Provision of ditches running adjacent to hedgerows to replicate the traditional field edge;
 - Infill planting and restoration of retained existing hedgerows for wildlife and habitat connectivity and visual screening;
 - Management of the existing on-site hedgerows that are to be retained (e.g. hedgerows along Northampton / Towcester road) and offsite hedgerows

(subject to third party agreements) trim sides of hedges only to encourage top growth and an increased hedgerow height, maintain at taller height;

- Offsite provision of planting within gardens or at boundaries of affected residential properties (subject to third party agreements);
- Species selection and habitat creation will seek to provide a net gain in biodiversity across the site;
- Provision of woodland, calcareous grassland and neutral grassland 'reservoirs' as defined in Northamptonshire GI Plan;
- Creation of dark zones along canal side boundary; and
- Collection of cuttings / seeds from TPO and Veteran Trees identified for removal in order to propagate and grow planting stock of local provenance for use in mitigation planting.

15.13 No significant landscape or visual effects are anticipated for the Minor Highways Works and therefore no additional mitigation over and above the embedded mitigation is proposed.

15.14 The Main SRFI Site is not designated and demonstrates no greater than local level of value, therefore it is considered to be Medium Value.

Construction

Construction – Main SRFI Site

15.15 The landscape effects which are associated specifically with the construction phase of the Main SRFI Site relate to the introduction of construction operations, related structures, equipment, landform alterations and stockpiling of materials for a temporary period. The existing site has a network of hedgerows and small amount of tree cover related to the existing field boundaries. So, the alteration in land cover due to the construction of the Main SRFI Site relates to a loss of arable land as a component of the landscape character and a direct loss of other landscape elements such as hedgerows, hedgerow trees including some notable and veteran trees.

15.16 The construction operations will be highly prominent in the landscape of the study area given the relative complexity of their appearance. As set out in the Construction Environmental Management Plan (CEMP), construction operations will also be in a state of change as construction progresses, and operations such as the bulk earthworks, together with the loss of agricultural fields, field boundaries and trees, would result in a substantial alteration to the areas key characteristics. Therefore the effects of construction are considered to result in a High degree of change.

15.17 The construction operations will result in extensive change across the Main SRFI Site for up to ten years. Therefore the extent and duration of change to the local landscape character of the Main SRFI Site is considered to be Extensive and Long Term. The changes would be Partially Reversible as the construction compounds, construction access tracks and roads, plant and machinery, buildings and bunds could be removed and land cover, field pattern and field boundaries re-established, however the loss of mature trees could not be reversed in the short or medium term.

15.18 Therefore it is considered that the construction of the Main SRFI Site will give rise to a Major Adverse level of effect to local landscape character, including for residential receptors and users of the public rights of way and recreational routes, along with road users from Northampton Road / Towcester Road.

15.19 Following the completion of construction operations, the following reinstatement will occur:

- The removal of the construction compounds; and
- The removal of all construction vehicles, plant and equipment.

15.20 The main visual effects which are associated specifically with the construction phase of the Main SRFI Site relate to the introduction of construction operations, related structures, equipment, earthworks and stockpiled material for a temporary period. The existing site has a network of hedgerows and a small amount of tree cover related to the existing field boundaries. So, the visual effects during construction relate to the introduction of new features for a temporary period and a direct loss of other landscape elements such as the hedgerows.

15.21 Specific aspects of the SRFI construction operations which have the potential to give rise to visual effects for a temporary period are:

- The presence of a construction compounds;
- The use of tall construction equipment, such as cranes;
- The storage of materials; and
- The movement of construction vehicles within the site and along the new temporary and permanent access tracks.

15.22 For the purposes of this visual assessment, the visibility of three stages of construction have been described and assessed. The three stages of construction are:

- Construction of the A43(T) grade separated junction, Northampton Road underpass and internal access roads;
- Construction of the landscape screening mounds; and
- Construction of the warehouses and gantry cranes.

15.23 A detailed viewpoint assessment has been undertaken for the representative viewpoints.

15.24 The assessment shows significant effects in relation to the following receptors:

- VP1 – Barn Lane – Residents (R8) & PRoW – Major Adverse
- VP2 – PRoW KX13 – Major Adverse
- VP3 – PRoW RD6 – Major Adverse
- VP4 – PRoW RD1 – Major Adverse

- VP5 – Railway Cottages, Northampton Road – Residents (R8) – Major Adverse & Road Users TRd – Moderate Adverse
- VP6 – PRoW RD12 – Major Adverse
- VP7 – Blisworth Arm – Residents (R21) & PRoW GUCW2 – Major Adverse
- VP13 – Courteenhall Road – Residents (R6) – Moderate Adverse
- VP14 – Hill Farm, Gayton Road – Residents (R5) & PRoW MSW – Moderate Adverse
- VP16 – PRoW KX5 – Moderate Adverse
- VP17 – PRoW KX7 & KX8 – Major Adverse
- VP18 – Milton Malsor – Residents (R11) & PRoW KX9 – Major Adverse.
- VP24 – Deveron House – Major Adverse – Road Users

Construction – Highways works

- 15.25 The landscape effects which are associated specifically with the construction phase of the J15a Works relate to the introduction of construction operations, related structures, equipment, landform alterations and stockpiling of materials for a temporary period. The existing site has a network of linear tree and shrub belts along the road corridors. There is little alteration in land cover due to the construction of the J15a Works as it relates to the upgrading, widening and / or realignment of existing road lines and bridges, and the introduction of a new link road and bridge structure south of the M1. Impacts relate more to the direct loss of other landscape elements primarily the linear tree and shrub belts.
- 15.26 The construction operations will be prominent in close proximity. However works to the road network are relatively commonplace and would be experienced in the context of ongoing maintenance to the highway network. Construction operations will also be in a state of change as construction progresses, and operations such as the bulk earthworks, together with the loss of linear groups of shrubs and trees, would result in some a very minor alteration to some of the local landscapes key characteristics to the south of the M1 in particular. Therefore the effects of construction are considered to result in a Low degree of change over a very limited geographical extent. The construction operations will result in a loss of vegetation for a period of years. Therefore the duration of change is considered to be Medium term. The changes would be Partially Reversible as the construction compounds, construction access tracks and roads, plant and machinery, buildings and embankments could be removed and land cover, field pattern and field boundaries re-established, the loss of mature trees may be reversed in the long term.
- 15.27 It is considered that the construction of the J15a Site will give rise to a Minor Adverse level of effect to local landscape character.
- 15.28 Following the completion of construction operations, the following reinstatement will occur:
- The removal of the construction compounds;

- The removal of all construction vehicles, plant and equipment; and
- Reinstatement of grass verges and replacement planting.

15.29 In terms of the J.15a Works and visual effects, significant construction phase visual effects would be limited to the visual receptors in close proximity to the J15A Works site, to users of the Grand Union Canal recreational route, the Grand Union Canal Walk), and ProW KX2. The Grand Union Canal passes through the middle of the J15a Works site and unobstructed views of the construction of the southern link road and other modifications to the north would be available to users of the canal and walkers in close proximity to the works. Similarly ProW KX2 passes through an area defined for use as a construction compound, and unobstructed views may be obtained to users.

15.30 In relation to the Minor Highways Works, significant effects are only likely to be experienced at the works at Junction 6 A5076 / Hunsbury Hill Road Roundabout.

Operation

Operation - Main SRFI Site

15.31 The following section sets out the assessment of the residual landscape and visual effects during operation at Years 7 and Year 15 to take account of the effectiveness of the proposed embedded together with additional identified (adaptive) mitigation measures.

Residual Landscape Effects

15.32 During operation, the effects of the Proposed Development at the Main SRFI Site (including embedded mitigation) to local landscape character have been assessed as Major Adverse (at Year 1) and Moderate Adverse (at years 7 and 15). However, the introduction of additional mitigation measures may help to further limit the prominence and influence of the Main SRFI Site and provide further compensation for landscape features and habitats lost or modified during construction.

15.33 Whilst the Proposed Development at the Main SRFI site would remain a reasonably conspicuous element in the local landscape and would result in some alteration to key characteristics, after 7 years it is considered that the embedded and additional mitigation will begin to mature and will soften the appearance of the Proposed Development and help to further screen and integrate it with the receiving landscape. After 15 years of operation the embedded and additional mitigation will have established and reached a reasonable level of growth and maturity, and planting on the screening bunds would further soften, screen and filter views of the Proposed Development at the Main SRFI Site further reducing its prominence in the local landscape and provide some beneficial effects for both the landscape and ecological character of the site.

15.34 It is considered that the residual landscape effects to the landscape character of the Main SRFI Site at year 15 would be a Moderate Beneficial effect.

Residual Visual Effects – Residential Receptors

15.35 Highly Significant or Significant visual effects will be limited to residents in individual properties in close proximity to the Main SRFI Site or in more distant locations where views may be gained from elevated locations overlooking the site.

15.36 The Applicant is providing a fund available to the local residents affected by the Proposed Development, to enable the purchase and planting of trees, or management of existing hedgerows at affected properties. If this fund is taken up by local residents, the introduction of this additional mitigation would have a significant benefit and would reduce adverse effects at these affected properties to not significant at Year 15. However, it is acknowledged that take up of this fund and the implementation of additional mitigation measures cannot be guaranteed or relied upon in the assessment, and therefore the assessment of worst case residual visual effects remains as stated above.

15.37 Should affected residents take up the fund, then the effect on those residents previously assessed as being highly significant or significant would be reduced to negligible by year 15.

Residual Visual Effects - Recreational Routes and Public Rights of Way

15.38 Highly Significant visual effects will be limited to users of Recreational Routes and PRoW in close proximity to the site and from elevated ground overlooking the Main SRFI Site, where unobstructed prolonged views are available from a large proportion of the route.

15.39 Highly Significant and Significant visual effects cannot be fully mitigated for KX13, RD1 & RD22 due to the elevated positions they occupy at close proximity to the site, and to the open nature of the fields they cross allowing prolonged, open, unobstructed views of the Proposed Development at the Main SRFI site. Therefore Highly Significant residual visual effects will occur to users of the PRoW.

15.40 For KX5, Major Adverse / Highly Significant visual effects are anticipated at year one of operation. Such effects are anticipated to reduce due to the effectiveness of the proposed embedded mitigation including screen bunding and planting by Year 15, however significant residual visual effects are anticipated.

15.41 For RD3, RD6 & KZ14 Major Adverse / Highly Significant residual visual effects are anticipated. For KX10 Moderate Adverse / Significant residual visual effects are anticipated.

15.42 However, the introduction of additional mitigation measures may reduce the visual effects. Specifically in relation to KX5: by third party agreement to management of the existing intervening hedgerow field boundaries adjacent to Gayton Road; For RD3, RD6 & KZ14: by third party agreement to management of the existing intervening hedgerow field boundaries adjacent to Courteenhall Road and field boundaries to the south of the road; and for KX10 by third party agreement to management of the existing intervening hedgerow field boundaries adjacent to Collingtree Road and field boundaries to the south of the road. Hedgerows could be managed to grow out and tall, or targeted offsite planting adjacent to these field boundaries including the introduction of groups of large size feathered and semi mature deciduous trees may result in a Medium degree of change by Year 7, which is Significant, and a Low degree of change by Year 15, which is Not Significant. However it is acknowledged that agreement with third parties to such measures cannot be guaranteed and therefore the implementation of the additional mitigation measures cannot be guaranteed or relied upon in the assessment, and therefore the assessment of worst case residual visual effects remains as stated above.

15.43 For KX16 and RD12, which are realigned and routed though the proposed Landscaped Open Space within the Main SRFI Site, Major Adverse / Highly Significant visual effects are anticipated at year one of operation. Such effects are anticipated to reduce to Significant by

Year 15 due to the effectiveness of the proposed embedded mitigation including screen bunding and planting. However, the introduction of additional mitigation measures as set out in the Mitigation section above may reduce the visual effects. Specifically in relation to KX16 and RD12 the targeted introduction of groups of large size feathered and semi mature deciduous and coniferous trees and other evergreen species may result in a Medium degree of change by year 7, which Significant, and a Medium to Low degree of change by Year 15.

Residual Visual Effects – Road Users

- 15.44 No significant residual visual effects are anticipated for road users due to the effectiveness of the embedded mitigation measures.

Operation – Highways Works

- 15.45 In terms of the J15a Works Operational Landscape Effects, it is considered that the residual effects to the landscape character of the J15a Works at year 15 would be Negligible.
- 15.46 In terms of the J15a Work Operational Visual Effects at approximately year 15 of operation the proposed structural planting is expected to have reached a level of maturity such that they will provide mitigation of operational visual effects of the J15a Site with views of moving traffic being very minor or barely discernible, resulting in a Minor Adverse to Negligible level of residual visual effects.
- 15.47 Regarding the Minor highways Works Operational Landscape and Visual Effects, by year 7 replacement mitigation tree planting will be well developed and by year 15 fully established, replacing the vegetation lost to construction and visual screening. Therefore it is considered that the proposed works will give rise to a Negligible level of residual landscape and visual effect.

Monitoring

- 15.48 The establishment and future success of the external landscaping is largely dependent on the standard and frequency of the subsequent maintenance and management it receives. A 15 Year Soft Landscape Maintenance, Ecological Enhancement and Overall Management Plan (1627-15-RP02) has been prepared which outlines the proposed establishment monitoring, maintenance and management programme. At the end of this initial 15 year period a full review of the management approach will be undertaken. Revisions and amendments will be included to form the basis of an amended plan to ensure that the landscape continues to develop its ecological potential and to maintain the benefits of the enhancements provided.

Lighting

- 15.49 Chapter 19 of the ES contains an assessment of lighting associated with the Proposed Development of the main SRFI Site and the J15a works, for during the construction / decommissioning and operational phases.
- 15.50 Good lighting is critical for the safe and secure functioning of businesses where people work at night to service distribution networks. As the Proposed Development is likely to operate 24-hours a day, as a worst-case, good quality night-time illumination is a vital requirement to ensure worker safety and business efficiency. However, the lighting approach for such ventures must be mindful of being a 'good neighbour' especially when these, as in this instance, are in rural or semi-rural environments. As agreed with South Northamptonshire

Council, a baseline survey of the lit nightscape has been carried out to establish the site condition and to review the lighting levels from the existing small dwellings, light industrial areas and highways routes within the Study Area. Then, given the fact that the exact design details of the site are not known at this stage, an 'Operational Lighting Parameters' lighting scheme was generated using a 'worst case scenario' approach.

- 15.51 From this scheme an 'Illumination Impact Profile' has been produced that shows the potential impact on a range of ecological, heritage and human sensitive receptors at a number of baseline sensitive locations. A quantitative assessment was undertaken of the Significance of Effect for each receptor; this is based on the value and baseline condition of the receptor, the effect magnitude, the duration involved and its sensitivity within the Study Area. This has included a detailed review of the potential effect on residential, natural, rail and highway receptors, prior to mitigation.
- 15.52 The initial lighting parameters modelling has identified that there could be a major adverse effect, prior to embedded mitigation, for the nearby residential users. To address this, and in accordance with standard good practise industry guidance limits, a series of embedded measures have been identified to ensure that any residual impact from the lit site can be minimised in the short, medium and long term. The assessment confirms that, after the implementation of these measures, there will only be a minor adverse / negligible magnitude of effect on the receptors by the additional lighting at night, and therefore there are deemed to be no significant effects in relation to lighting.
- 15.53 Whilst the implementation of embedded mitigation measures to help reduce the impact for off-site residential and commercial / industrial site users and members of the public, will be fully re-assessed during the detailed design stage, the following mitigation measures are likely to be required:
- The correct installation and use of suitably selected directional LED luminaires and light controlling attachments within the 'Order Limits' and in the correct directions to reduce light spill;
 - The careful consideration and minimisation of lighting in areas of ecology habitat or areas directly adjacent to these areas; and
 - The minimisation of column heights to reduce light trespass, glare and visual effect.
- 15.54 The lighting strategy will also be carefully designed to minimise glare on the railway for the train drivers and the implementation of a Construction Environmental Management Plan for during the initial stages of the programme.
- 15.55 The draft DCO will require that details of the permanent lighting for each phase of the development are submitted for the approval of the LPA, or relevant highway authority for the highway works, prior to the commencement of development. In addition to the conclusions drawn in the ES, it is considered that this requirement will provide safeguards to ensure the appropriate lighting scheme is provided to avoid unnecessary adverse impacts on nearby residents.
- 15.56 When a lighting design scheme is progressed at the detailed design stage, the lighting assessment will also investigate the possible lighting design impact at night on these

sensitive receptors based on two equally important night time factors: operational safety and security; and, minimising light pollution. External Operational Lighting Parameters will also provide details of the typical lighting arrangements and their location in relation to the proposed uses, alongside providing parameters to inform the detailed lighting design. In addition, a Lighting Management Plan will include further details of the periodic monitoring of the lighting and that make provision for any necessary remedial works.

Conclusions (Landscape and Visual)

- 15.57 The NN NPS acknowledges that due to their particular locational requirements, countryside locations may be required for SRFIs¹⁰³. It also makes clear that *“projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints, the aim should be to avoid or minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.”*¹⁰⁴
- 15.58 The consideration of the proposals within the context of the NN NPS is whether harm to the landscape has been avoided or minimised, with reasonable mitigation provided.
- 15.59 As clearly demonstrated in the ES, the development of the proposals has been informed by a detailed assessment of the existing landscape to understand the nature of the effect likely to occur as a result of the Proposed Development. The assessment has considered effects on the landscape at a range of scales and visual effects from the perspective of residents, pedestrians and road users. A series of viewpoints have been agreed to inform the assessment process.
- 15.60 This assessment has informed the embedded mitigation proposals which have evolved through the design process for the development, such as the proposed bunds to seek to avoid harm to the landscape. A suite of mitigation measures are proposed to further minimise any potential harm to the landscape. Where these mitigation measures are subject to take up from local residents, such as the fund to enable purchase of trees, the assessment has been undertaken on a worst case scenario.
- 15.61 Although the existing character and appearance of the SRFI site will be clearly altered, the assessment shows that, overall, the wider landscape impacts would not be significantly detrimental. The surrounding area already contains significant elements of built development, and the design of the scheme parameters, including proposed earthworks and other landscaping, provide sufficient mitigation. Indeed, in the longer term, a moderate beneficial residual impact is concluded in respect of the landscape character of the SRFI site. The assessment also demonstrates that overall the impact on the assessed views is also not significantly detrimental.
- 15.62 In accordance with the NN NPS¹⁰⁵ the proposals have been designed carefully taking account of their potential impact on the landscape, which has been informed by a detailed assessment of the existing landscape and visual baseline. This assessment has led to the inclusion of a suite of mitigation measures, including embedded mitigation, to seek to avoid or minimise harm to the landscape. The DAS demonstrates that the design considerations

¹⁰³ Paragraph 4.84

¹⁰⁴ Paragraph 5.149

¹⁰⁵ Paragraph 5.149

have been taken into account during the evolution of the scheme, in compliance with paragraphs 4.30 and 4.35 of the NN NPS. It is concluded that the landscape and visual impacts, including lighting, of the Proposed Development are acceptable and compliant with the NN NPS in terms of the methodology adopted¹⁰⁶ and the mitigation proposed¹⁰⁷.

¹⁰⁶ Paragraphs 5.144 and 5.146

¹⁰⁷ Paragraphs 5.160 - 5.161

16. Historic Environment

- 16.1 The NN NPS acknowledges that the construction and operation of national networks infrastructure has the potential to result in adverse impacts on the historic environment. Those elements of the historic environment that hold value because of their historic, archaeological, architectural or artistic interest are termed 'heritage assets'¹⁰⁸.
- 16.2 Categories of designated heritage assets include, for example, Schedule Monuments, listed buildings, registered parks and gardens, registered battlefields, and conservation areas. Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to Scheduled Monuments, should be considered subject to the policies for designated heritage assets. The NN NPS acknowledges that the absence of designation for such heritage assets does not indicate lower significance. Impacts on other non-designated heritage assets are also relevant where there is clear evidence that the assets have a significance that merit consideration in that process, even though those assets are of lesser value than designated heritage assets.
- 16.3 In terms of the decision making process, there should be a presumption in favour of conservation, and the more significant the asset, the greater that presumption should be. The decision maker should weigh any harmful impacts against the public benefit of the development. However, where there is a high probability that a development site may have undiscovered heritage assets with archaeological interest, there should be a requirement that appropriate procedures are in place for the identification and treatment of such assets discovered during construction.
- 16.4 Above and below ground assets have been assessed, and form two separate chapters in the ES. The assessments have, however, been undertaken in conjunction with each other to ensure a robust approach. For the purposes of this Planning Statement, Built Heritage Assets are considered first, followed by Archaeology.

Built Heritage Assets

- 16.5 Chapter 11 of the ES assesses above-ground built heritage assets. The chapter and supporting Heritage Assessment have assessed the likely significant environmental effects of the Proposed Development on the above ground historic built environment of the proposed Order Limits and the surrounding area.
- 16.6 In defining the appropriate heritage Study Areas, best practice guidance, professional experience and judgement, and an assessment of the potential effects of the Proposed Development on Built Heritage has been applied. It has also been informed by the extent of consultation undertaken and received to date, including from Historic England.
- 16.7 An assessment of the significance of all designated and non-designated built heritage assets within a 2km radius Study Area for the Main SRFI Site has been undertaken, including an assessment of the contribution made by their setting. For the J15a Works and the other highway works, a 250m Study Area has been used, with the grade II listed Express Lift Tower also assessed for its significance, as requested by South Northamptonshire Council. The

¹⁰⁸ Paragraph 5.122

heritage assets and the rationale for the Study Areas are out within the Heritage Assessment and have been undertaken in accordance with best practice guidance and advice contained within the NPPF 2018, Planning Practice Guidance (PPG) 2014, Design Manual for Roads and Bridges (DMRB) 2015 and Historic England guidance, 2017. Both of the Study Areas have been defined by taking into consideration the following factors:

- The nature and extent of the Proposed Development (the Main SRFI Site and the offsite highway works at J15a of the M1 and the minor highways works);
- The location and or proximity of built heritage assets and also within or to the proposed Order Limits;
- The degree of inter-visibility between the designated built heritage assets and the proposed Order Limits taking into account, for instance, changes in topography as well as interposing townscape and landscape features; and
- The relative sensitivity of the significance of the heritage assets and their setting, to future change.

16.8 The definition of the Study Area has also been informed by additional site visits to determine the proximity, relationship, visual and experiential connection and disposition of the heritage assets within and also relative to the proposed Order Limits.

16.9 There are no designated heritage assets within the proposed Order Limits of the Main SRFI Site. Within the Main SRFI Site Study Area, there are 146 Listed Buildings, 8 Conservation Area, 1 Registered Park and Garden and 2 Scheduled Monuments. There are no World Heritage Sites or Registered Battlefields within this Study Area. There are 17 buildings on the Historic Environment Record (HER) within this Study Area.

16.10 There are 4 designated heritage assets fully or partially within the J15a Works area and Minor Highway Works proposed Order Limits, consisting of the Grand Union Canal Conservation Area, two grade II listed locks (No's 11 and 13) and a grade II listed Drawbridge (to Lock No 13) on the Northampton Arm of the Grand Union Canal. Within the Study Area, there are approximately 23 Listed Buildings, 1 Conservation Area and 1 Registered Battlefield. There are no World Heritage Sites, Registered Parks and Gardens or buildings on the Historic Environment Record (HER) within the J15a works or Minor Highway Works Study Area.

16.11 The above designated and non-designated heritage assets were identified and confirmed through a search of the HER for Northamptonshire (as of 11 July 2017).

16.12 The effects arising from the Proposed Development on Built Heritage will be direct and indirect in nature having potential to affect the significance of the identified assets through direct works and change within their setting.

16.13 As the Proposed Development has the potential to affect the setting and significance of designated and non-designated heritage assets, mitigation has been designed into the scheme, including (but not limited to):

- Maintaining an area of open space and landscaping to the north of the development area;

- construction of a native structural planting belt that has been designed to respond to the existing site, rather than appearing intrusive and engineered within the wider landscape;
- introduction of a building limit line to ensure that the proposed warehousing is 'set back', further reducing the visual effect of the proposals when viewed from the north and south; and
- introduction of native tree and shrub planting to visually screen the Proposed Development in views from the north and south.

Construction

- 16.14 There are several forms of temporary effects that can affect heritage assets during the construction phase of the Proposed Development. The first of these is the direct effect to buildings or areas as a result of ground works, vibration or displacement that might result from works being undertaken within or adjacent to them. The second relates to the temporary diminution in the quality of the setting of heritage assets, for example as a result of the presence of cranes and conspicuous machinery and materials together with increased construction traffic movements and noise.
- 16.15 A moderate adverse effect has been identified on 5 built heritage features, namely the grade II listed Milton House and Manor Cottage, No.33 Mortimers, Rectory Lane (MM10), Milton Malsor Conservation Area (MM36), Grand Union Canal Conservation Area (GU18), Lock No.10, Grand Union Canal (HW12), Lock No.11, Grand Union Canal (HW13) and the Grand Union Canal Conservation Area (HW17) during the construction phase. These are considered to be 'significant' in EIA terms.
- 16.16 There will be localised and temporary (short to medium term) effects arising from demolition and construction, such as the erection of hoardings, noise, dust and pedestrian / vehicle movements arising from excavation and other building activities, the use of cranes and other construction equipment / scaffolding as new buildings and structures erected, and wider landscape remodelling. This would be visible and would change the existing experience within the proposed Order Limits during this phase, and also potentially from within the surrounding area.
- 16.17 The construction phase of the Proposed Development has the potential to indirectly affect the significance of heritage assets through development within their setting. Undertaking construction in accordance with a construction method statement would, however, assist in lowering the scale of effect.

Operation

- 16.18 For the operational phase, it is concluded that for many of the heritage assets there will be a neutral effect having taken into consideration their significance, the relative distance between them and the Site, the extent of intervening development and the nature of the Proposed Development.
- 16.19 It has been identified that there are some moderate adverse effects on a number of heritage assets relevant to the Proposed Development that at this stage of assessment remain significant with mitigation in place, namely to No.33 Mortimers (MM10), Milton Malsor

Conservation Area (MM36) Lock No.10, Grand Union Canal (HW10), Lock No.11, Grand Union Canal (HW11) and the Grand Union Canal Conservation Area (GU18 and HW17).

Summary Conclusion (Built Heritage)

- 16.20 The Proposed Development has been designed to ensure these effects are avoided, reduced or offset by maintaining areas of open space and landscaping; construction of a native structural planting belt; introduction of a building limit line and introduction of native tree and shrub planting to visually screen the Proposed Development. The Proposed Development therefore has reduced the significant environmental impacts arising through site design. Residual effects will further reduce the impact on Lock No.10, Grand Union Canal (HW10), Lock No.11, Grand Union Canal (HW11) and the Grand Union Canal Conservation Area (GU18 and HW17) by the design of the proposed bridge across the canal.
- 16.21 Significant (moderate) residual effects remain post-mitigation during the construction and operation phases for Mortimers, Milton Malsor Conservation Area and the Grand Union Canal Conservation Area. These effects are assessed to be 'less than substantial' harm. For the majority of the 203 assets which have been assessed (the majority of which lie within the wider Study Area), there will be a neutral effect.
- 16.22 Taking into consideration their significance it is concluded that overall, the Proposed Development would not give rise to substantial harm to the setting and thereby significance of the built heritage assets.

Archaeology

- 16.23 Chapter 10 of the ES considers the potential impacts and effects of the Proposed Development on archaeological sites and features (the 'archaeological resource').
- 16.24 Specifically relevant to the archaeology assessment, the NN NPS¹⁰⁹ requires that where there is a high probability that a development site may include as yet undiscovered heritage assets with archaeological interest, the Secretary of State should consider requirements to ensure that appropriate procedures are in place for the identification and treatment of such assets discovered during construction.
- 16.25 Data collection and surveying has included a variety of methods, including, but not limited to:
- Desk-based information – in respect of sites and features of potential archaeological interest and on historic land-use development, from sources such as: Historic England Designation Data; Northamptonshire County Council (NCC) Historic Environment Record (HER) and Northamptonshire Archives; Heritage Gateway; Pastscape; Images of England; Ordnance Survey; on-line aerial photography; bibliographic, documentary and internet sources; existing reports relevant to the Main SRFI Site.
 - Reconnaissance Field Survey - to assess the information obtained through desk-based assessment; to identify the extent and condition of any visible

¹⁰⁹ Paragraph 5.142

archaeological sites or features; to inform an assessment of archaeological potential; and to assess the topography and geomorphology.

- Hedgerow survey and data - including a review of hedgerows which have been identified as being important under the Hedgerows Regulations.
- Geophysical survey - to test for the presence of anomalies of possible archaeological interest, carried out in accordance with a Written Scheme of Investigation (WSI) agreed by the NCC Archaeology Team.
- Archaeological Trial Trench Evaluation - a programme of archaeological trial trenching evaluation carried out in accordance with a WSI agreed by the NCC Archaeology Team.

16.26 The study areas included the Main SRFI Site, the J15a Works and the locations of other minor highways works. A desk-based assessment and walkover survey was carried out for all of these locations and a geophysical survey and archaeological trial trench evaluation was carried out within the Main SRFI Site. The desk-based assessment used data from the Northamptonshire HER and a range of other sources including historic maps, aerial photography and Lidar data and bibliographic sources. The trial trench evaluations were used to determine the date, character, condition and heritage significance of the site features.

16.27 The archaeological evaluation identified that the Main SRFI Site contains archaeological remains of later prehistoric, Romano-British and medieval and later date, which could be divided into 15 discrete archaeological sites, including 11 sites which were judged to be of medium heritage significance. The desk-based assessment indicated that the J15a Works and the A43(T)/A5 Tove Roundabout locations have some archaeological potential, with the possibility that archaeological remains of a comparable date to those within the Main SRFI Site could be present. However, the land-take required for the proposed reconfiguration of M1 J15a includes a large area for ecological mitigation, which would remain undeveloped. The works required for the highways works lies almost entirely within the existing highways corridors and hence no effect on buried archaeological remains is predicted at this location, and the impacts of the Proposed Development are, therefore, predicted to arise only at the Main SRFI Site and at the A43(T)/A5 Tove Roundabout location.

16.28 Through consultation with the NCC Archaeology Team, a programme of embedded mitigation has been secured that will deliver mitigation of the effect of the Proposed Development on the archaeological resource that would be acceptable to the Council. The embedded mitigation will ensure that the identified archaeological resource within the Proposed Development will be adequately investigated, recorded and the results of new findings properly reported. Adaptive mitigation provides a framework for the mitigation to evolve and develop in accordance with new data and detailed design as the Proposed Development progresses. The scheme has therefore prevented and reduced the environmental effects arising from the Proposed Development through its overall site design and a combination of agreed embedded and adaptive mitigation which would be adopted during the construction phase. This includes set-piece excavations in areas where there is identified archaeological potential; a strip, map and sample strategy in areas where the archaeological remains are less concentrated; and archaeological investigations or watching

briefs in areas where archaeological investigation has not yet taken place but where there is an identified archaeological sensitivity.

- 16.29 The assessment has also reviewed the potential for direct archaeological impacts, such as the removal of, or damage to, archaeological sites and features arising from the construction, operation and decommissioning. It has concluded that there would be no residual significant adverse effect as a result of the Proposed Development. It concludes that taking the embedded mitigation into account, the residual effect on the archaeological resource is assessed to be minor adverse. The implementation of the embedded mitigation would ensure that the archaeological resource affected by the Proposed Development is fully investigated, recorded and the material recovered subject to post-excavation analysis and publication to a standard acceptable to the Council, resulting in preservation by record in accordance with ClfA guidelines.
- 16.30 As opportunities for preservation in situ are limited, and in order to comply with National and Local Plan Policies, a programme of archaeological mitigation works have been agreed with the NCC Archaeology Team and would be carried out to offset the predicted direct impacts on archaeological assets at the Main SRFI Site and at A43(T)/A5 Tove Roundabout.
- 16.31 A programme of archaeological mitigation works can be carried out to offset the predicted direct impacts on archaeological assets, as reflected in the Outline Archaeological Mitigation Strategy WSI that has been agreed with NCC Archaeology, to be adopted post consent. The preferred option for mitigation of potential effects on heritage assets is for the preservation of important remains in-situ wherever practicable and by records where preservation is not possible. As opportunities for preservation in situ are limited for this Proposed Development, the mitigation measures presented in the ES provide proposals for identifying, investigating and recording and for enhancement of the archaeological record designed to offset the loss of the archaeological resource.
- 16.32 These identifying, investigating and recording measures would take account of those features identified by the geophysical survey and archaeological evaluation within the Main SRFI Site and by desk-based assessment at A43(T)/A5 Tove Roundabout. The mitigation proposals would be set out in one or more WSI prepared in consultation with the NCC Archaeology Team and designed to satisfy any archaeological planning condition placed on the Proposed Development.
- 16.33 In practice, direct effects on archaeological remains arise only during the construction phase; are almost invariably adverse in nature; and are normally irreversible and permanent in duration. Therefore, whilst the predicted effects on archaeological remains would not be avoided or reduced by the proposed mitigation, they would be offset through preservation by record of the archaeological resource and the dissemination of archaeological knowledge, resulting in enhancement of the archaeological record. The archaeological excavations of the Main SRFI Site would also be followed by a programme of post-excavation assessment, scientific analysis and reporting of the results in an appropriate publication.
- 16.34 The resulting effect on the archaeological resource would therefore be permanent, minor adverse.

Operation

- 16.35 The Proposed Development would not give rise to operational effects on the archaeological resource as embedded mitigation is in place to investigate and record the archaeological remains through set piece excavations and strip, map sample recording.
- 16.36 The potential for operational effects, arising from the possibility of future construction works being required during the lifetime of the Proposed Development, has also been considered but it is considered that construction phase mitigation, to be agreed with the NCC Archaeology Team will have been sufficient to ensure that no significant effects arise during the operational phase.

Summary Conclusion (Archaeology)

- 16.37 Taking the proposed mitigation into account, no significant residual effects would be anticipated in relation to the archaeological resource and the development proposals would conform to the aims and requirements of national, regional and local planning policy as regards below ground heritage. The completion of an agreed programme of archaeological mitigation works, devised in consultation with the NCC Archaeology Team, would offset the loss of archaeological resources that would occur as a result of the construction of the Proposed Development. This would ensure that the archaeological effects are fully addressed prior to or during the construction phase and it is considered that no post-construction monitoring is required in relation to the consideration of the archaeological resource.

Conclusions (Historic Environment)

- 16.38 The NN NPS identifies that construction and operation phases of SRFI can have adverse impacts on the historic environment and designated and non-designated heritage assets.
- 16.39 In accordance with NN NPS¹¹⁰, the impact of the Proposed Development on heritage assets has been assessed taking into account the particular nature of the significance of the heritage assets and the value that they hold, including the contribution made by setting.
- 16.40 The NN NPS¹¹¹ also requires that where the Proposed Development will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal.
- 16.41 In relation to the archaeology assessment, it is recognised within the NN NPS that the ability to record evidence of the asset should not be a factor in deciding whether consent should be given¹¹². However, where the loss of the whole or part of a heritage asset's significance is justified, as in this case, the Secretary of State should require the applicant to record and advance understanding of the significance of the heritage asset before it is lost (wholly or in part). The NN NPS recognises that the extent of the requirement should be proportionate to the importance and the impact¹¹³.

¹¹⁰ Paragraph 5.129

¹¹¹ Paragraph 5.134

¹¹² Paragraph 5.139

¹¹³ Paragraph 5.140

- 16.42 In terms of below ground heritage assets, and taking the proposed mitigation into account, no significant residual effects would be anticipated in relation to the archaeological resource. The completion of an agreed programme of archaeological mitigation works would offset the loss of archaeological resources that would occur as a result of the construction of the Proposed Development.
- 16.43 In terms of above ground heritage assets, whilst there are a limited number of residual moderate adverse effects that remain post-mitigation during the construction and operation phases (including to the grade II listed Mortimers and the Milton Malsor Conservation Area), these effects are all assessed to be 'significant' in EIA terms. Taking into consideration the significance of the majority of the designated and non-designated heritage assets, it is concluded that overall the Proposed Development would not give rise to substantial harm to the setting and thereby significance of the large majority of the built heritage assets and the wider public benefits of the proposals are capable of being attributed weight in favour of the development in accordance with the NN NPS¹¹⁴.
- 16.44 It is concluded that the impacts on the historic environment are acceptable. The proposal accords with the NN NPS in terms of assessment¹¹⁵ and decision-making¹¹⁶ considerations, and with Regulation 3 of the Infrastructure Planning (Decisions) Regulations 2010 (as amended).

¹¹⁴ Paragraph 5.134

¹¹⁵ Paragraph 5.126 and 5.127

¹¹⁶ Paragraph 5.128-5.138

17. Noise and Vibration

- 17.1 The NN NPS¹¹⁷ sets out the assessment needed in terms of construction and operational noise of a new rail line, rail freight terminal and warehouse buildings and road improvements arising from the Proposed Development. It goes on to say that the SoS should not grant development consent unless satisfied that the proposals will meet the following aims within the context of sustainable development:
- avoid significant adverse impacts on health and quality of life from noise as a result of the new development;
 - mitigate and minimise other adverse impacts on human health and quality of life from noise from the new development; and
 - contribute to improvements to health and quality of life through the effective management and control of noise, where possible.
- 17.2 Noise levels across the Main SRFI Site are generally controlled by road traffic movements on the M1, the A43(T), and Northampton Road. Train movements on the WCML and NLL lines are intermittently audible.
- 17.3 The noise and vibration assessment is provided at Chapter 16 of the ES and considers the effects of the Proposed Development (including the Main SRFI site, J15a and other minor highways works) on a range of sensitive receptors including residential dwellings, care homes and schools as well as amenity/recreational areas including the canal, its associated marinas and towpaths, and existing and proposed new footpaths. The assessment also considers the impact to ecological receptors, and heritage receptors.
- 17.4 The calculations of construction and operational noise have been based on worst-case assessments (as an example, assuming that the acoustic centre of the noise generating activity is assumed to be at the minimum distance from the boundary of the works nearest to the Noise Sensitive Receptor (NSR)).
- 17.5 Mitigation in the form of earth bunds is embedded into the Proposed Development. Other mitigation measures are adaptive (an example would be acoustic barriers) and will therefore be subject to detailed design as the design is further developed.
- 17.6 Measures are set out in the CEMP, to ensure that noise and vibration from the construction of the site is kept to a minimum.
- 17.7 The assessment recognises that construction and decommissioning would be temporary and relatively short term activities when compared to the operational phase, which would be a long term and relatively permanent activity. Noise from construction can be highly variable but is typically short lived at any given receptor, particularly as the focus of activity is mobile. In contrast, operational activities would be continuous across the Proposed Development and would appear to be stationary, much like noise from road traffic movements on distant roads. Consequently, noise from construction is considered to have a lower potential to cause adverse effects than noise from operation. This is reflected in current guidance and

¹¹⁷ Paragraph 5.195

Standards. It concludes that the environmental noise and vibration effects that could arise from the construction and operational phases will not be significant.

Construction

- 17.8 The significance effects have been established based on calculations of impact at the nearest sensitive receptors. The calculations are based on a typical equipment list for each construction activity (for example plateau preparation, warehouse unit construction etc.) using noise data taken from measurements presented in Standards and manufacturers' specifications and assuming a typical worst case scenario where several activities are carried out simultaneously.
- 17.9 Various mitigation methods have been proposed to reduce the effects of the temporary construction noise as far as is reasonably practicable. These are set out in the CEMP. The most effective of the proposed mitigation methods would be to restrict the hours of noisy construction activities.
- 17.10 The results of the construction noise assessment indicate that the effects would generally be of negligible significance at the majority of receptors. At receptors that would be close the boundary of the works, the effects during some of the phases of construction would be of minor significance.
- 17.11 The potential for vibration impacts during construction have also been assessed. Vibration decays rapidly with distance. Most receptors are more than 100m from proposed work areas at which point vibration would be negligible. There are some receptors that may be potentially nearer than this and the significance of effect could rise to minor. In any case, construction activities within 100m of a residential receptor should generally be accompanied by a programme of vibration monitoring, in accordance with the outline CEMP and COCP. This would include notification of occupied affected residential NSRs advising the activity, its duration and likely effect and advising that monitoring will be undertaken.

Operation

- 17.12 The assessment of noise from operational activities considers noise generated by activities from within the Main SRFI Site as well as from off-site road and rail traffic movements.
- 17.13 A computer based 3D noise model has been created to predict the noise levels generated by operational activities from within the Main SRFI Site at nearby receptors. The number and type of noise sources input into the model represent a considered worst case scenario where the Proposed Development is operating at its full capacity. The noise output from each source has been based on manufacturers' data and measurements carried out of similar operational equipment at other similar sites.
- 17.14 The results of the model have indicated that mitigation would be required to reduce noise to acceptable levels at some receptors. The effectiveness of the proposed mitigation, which consists primarily of earth bunds and acoustic screens, has been tested in the model.
- 17.15 The results indicate that, with the proposed mitigation in place, there would be a negligible to minor significance of effect at the majority of residential receptors during the sensitive early night time period. At four residential receptors, noise levels during this period have been predicted, with a series of worst case assumptions, to be approaching, at, or up to 1dB

above, the threshold of moderate significance of effect. During the daytime period, all residential receptors would be subject to a negligible significance of effect.

- 17.16 At recreational receptors such as Gayton Marina, the canal, and public footpaths near to the Proposed Development, the significance of effect is predicted to be negligible to minor at most locations. On the footpath that runs parallel and to the east of the proposed intermodal platform the significance of effect would rise to moderate at locations in close proximity to an operating gantry crane.
- 17.17 It should be noted that the predicted noise impacts used in the assessment would be a worst case, based on robust assumptions relating to the extent of activity at the site, the number of noise sources and their respective sound outputs, and by testing a fully operational scenario that would not occur until at least 2031 against the 2016 baseline noise environment. In practice, the operational noise impact of the Proposed Development is likely to be lower, particularly during the night time period when activities are likely to be less intensive than they would be during the daytime. It is considered, therefore, that the significance of effect of the on-site operational activities as a whole would be minor and thus not significant.
- 17.18 There is the potential for some vibration to be generated by operational activities within the Main SRFI Site, particularly on the Intermodal Platform. Such activities may include, for example, the stacking of containers and slow moving shunters on on-site lines. However, vibration decays rapidly with distance. Receptors are generally located far from the Intermodal Platform. Additionally, these activities are not considered to be significant sources of vibration. Consequently, the significance of effect is considered to be negligible.
- 17.19 The effect of additional road traffic movements on local roads and the wider network as a result of the operation of the Proposed Development has been assessed. The significance of effect has been determined by establishing both the short term and long term noise level changes in road traffic noise as compared to the baseline condition in the opening year. Although further assessment is required, the results of the assessment indicate that the significance of effect is likely to be typically negligible to minor.
- 17.20 The effect of additional rail traffic movements on the WCML as a result of the operation of the Proposed Development has been assessed. The significance of effect has been determined by establishing both the short term and long term noise level changes in rail traffic noise as compared to the baseline condition in the opening year. The results of the assessment indicate that the significance of effect is negligible.
- 17.21 Freight trains travelling on the rail network have the potential for generating vibration. Baseline vibration monitoring of the existing high speed passenger and rail freight traffic indicates very low existing vibration levels. Slower moving freight trains arriving and departing the Proposed Development would generate less vibration than the existing faster moving freight trains on the WCML. Given the anticipated increases in rail traffic movements on the WCML resulting from the operation of the Proposed Development, the significance of effect of rail vibration is considered to be negligible.

Monitoring

- 17.22 Monitoring of noise and vibration during construction and operation stages will be carried out in conjunction with the local authority and other stakeholders and in accordance with the CEMP and the Noise and Vibration Management Plan.

Conclusions (Noise & Vibration)

- 17.23 The assessment of likely significant noise impacts has included identification of sources of noise, noise sensitive receptors, characteristics of the existing noise environment, an assessment of the effect of predicted changes in the noise environment and how noise will change as part of the Proposed Development across different time periods and times of day and night. Relevant British Standards and other guidance have been used.
- 17.24 Measures to be used to mitigate noise effects using the best available techniques have been considered. In reviewing mitigation, the design and subsequent assessment has considered engineering, layout, and the potential to specify acceptable noise limits and times of use.
- 17.25 In accordance with the NN NPS¹¹⁸, the Proposed Development has evolved taking account of the optimisation of the scheme layout to minimise noise emissions at source and, where possible, the use of landscaping, bunds and acoustic barriers, and the transport network.
- 17.26 Further, and in accordance with the NN NPS¹¹⁹, the noise and vibration assessment has been undertaken in accordance with statutory requirements for noise, and the relevant sections of the Noise Policy Statement for England, the NPPF, and associated guidance.
- 17.27 The assessment has shown that the implementation of these embedded and adaptive mitigation measures will ensure that the construction and operation of the Proposed Development will not result in significant noise effects on the environment.
- 17.28 The proposals will meet the identified aims summarised in paragraph 5.195 of the NN NPS in accordance with Government policy on sustainable development, as well as providing appropriate mitigation where necessary.
- 17.29 The noise created by the new development avoids, mitigates and minimises significant adverse impacts on health and quality of life and through management and control of noise, contributes to improvements to health and quality of life. In such circumstances, the NN NPS advises that development consent is capable of being granted.

¹¹⁸ Paragraph 5.194

¹¹⁹ Paragraph 5.193

18. Biodiversity, Ecology and Nature Conservation

- 18.1 The NN NPS¹²⁰ states that the applicant should show how the project has taken advantage of the opportunities to conserve and enhance biodiversity (and geological) conservation interests. This reflects the NPPF which sets out the ways the planning system should enhance the natural and local environment. Matters that should be considered in decision-making¹²¹ and mitigation¹²² are described within the NN NPS.
- 18.2 The biodiversity review is reported at Chapter 14 of the ES.
- 18.3 Consultation with interest groups and organisations has been undertaken to acquire local background data and/or to discuss particular aspects of ecological survey and mitigation. This has included discussions with (amongst others) Natural England, the Environment Agency, Wildlife Trust for Bedfordshire, Cambridgeshire & Northamptonshire, the Woodlands Trust, the Bat Conservation Trust, and relevant local groups.
- 18.4 The zone of influence (the area within which ecological features may be affected) has been determined with reference to important ecological features on or around the proposed Order Limits (including designated sites), the extent and nature of project activities liable to give rise to potentially significant impacts, any incidence of mobile or migratory species, seasonality of ecological features, and ecosystem functioning including interdependencies between ecological features.
- 18.5 The identified Zone of Influence includes few 'important ecological features' outside the Main SRFI Site boundary, as these are scarce given the intensively agricultural area surrounding the site (they are mostly concentrated around the canal system to the south-west). Far-ranging birds have, however, been a consideration. The Upper Nene Valley Gravel Pits Special Protection Area (SPA) and Ramsar site, which is located approximately 5.6km away, has been included within the Zone of Influence, thus forming part of the study area.
- 18.6 The assessment has followed the latest Chartered Institute of Ecology and Environmental Management (CIEEM) guidelines, and has involved the following key stages:
- a background data search to obtain archival records of sites and species, and to gain information to focus the field surveys;
 - identifying the Zone of Influence (Study Area) arising from the whole lifespan of the project;
 - identifying ecological features through field surveys;
 - determination of the ecological value of ecological features;
 - identification of the potential impacts and assessment of impacts on the integrity or conservation status of the ecological features;

¹²⁰ Paragraph 5.23

¹²¹ Paragraphs 5.24 and 5.35

¹²² Paragraphs 5.36 - 5.38

- incorporation of ecological enhancement and mitigation measures to avoid or reduce impacts, and compensation measures to balance any unavoidable significant impacts; and
- assessment of the significance of any residual ecological impacts remaining after the implementation of mitigation and compensation measures.

18.7 Desk-based and field surveys have included:

- Ecological Background Data Search;
- Phase 1 Habitat Survey and assessment of habitat for protected animals;
- Phase 2 Botany – NVC and other surveys;
- Phase 2 Botany - Hedgerow surveys;
- Veteran Tree desk study and detailed survey;
- Amphibians - Habitat Suitability Index and presence / absence for Great Crested Newt;
- Aquatic Invertebrates;
- Badger;
- Bats (tree roost potential);
- Bats – tree climbing surveys;
- Bats – tree emergence and dawn surveys;
- Bats (initial building assessment);
- Bats (emergence / dawn re-entry);
- Bats (activity);
- Breeding birds and barn owls;
- Golden plover and lapwing surveys;
- Reptiles;
- White clawed crayfish; and
- Terrestrial invertebrates.

18.8 Field surveys were undertaken at the Main SRFI Site and M1 J15a Site. A high level appraisal has been carried out using satellite photography, of the habitat that may be directly affected by Minor Highway Works, and a drive-past survey. No detailed field surveys have been

undertaken. The appraisal for the Minor Highways has identified that the potential habitats in the Limits comprise mainly of grassland, scrub, hedges and scattered trees.

Statutory and Non-Statutory Designations

18.9 Among other considerations, the following designations have been considered as part of the assessment:

- There are five statutory designated sites within 5km of the boundary of the Main SRFI Site: two SSSIs and three Local Nature Reserves (LNRs). In addition the Upper Nene Valley Gravel Pits Special Protection Area (SPA) is within 5.6km of the Main SRFI Site.
- There are 107 non-statutory designated sites within 5km of the Main SRFI Site, comprising 1 Local Geological Site (LGS), 38 Local Wildlife Sites (LWS), 3 Pocket Parks (PP), 58 Potential Wildlife Sites (pWS), 3 Protected Wildflower Verges (PWV) and 4 Wildlife Trust Reserves (WTR).
- There are 85 non-statutory designated sites are between 2km and 5km from the Main SRFI Site and are sufficiently far from the Main SRFI Site to ensure they will not be affected during construction or operation, and these are not considered further in the assessment.
- There are areas of ancient woodland within 5km of the Main SRFI Site. They comprise areas of Ancient Semi-Natural Woodland (ASNW) and areas of Planted Ancient Woodland (PAWS). The nearest area of ancient woodland is approximately 3km to the south.
- There are seven statutory designated sites within 5km of the J15a site boundary comprising three SSSIs and four LNRs. The closest is over 2km.
- There are 41 non-statutory designated sites within 2km of the J15a site comprising one Local Geological Site, 16 Local Wildlife Site, 22 potential Wildlife Sites and two Wildlife Trust Reserves.
- Two of the minor highway works have statutory designated sites within 100m: Junction 10 Barnes Meadow Interchange, and Junction 19 Upton Way/Telford Way Roundabout.

18.10 In summary, no statutory designated sites for ecology are within the proposed Order Limits for the scheme. The works at Junction 10 (Barnes Lane Interchange) are adjacent to a LNR. Two PWS are within the proposed Order Limits at the Main SRFI site, and One Local Wildlife Site (Grand Union Canal), and an un-named PWS are within the proposed Order Limits at the J15a Site.

18.11 Consultation with Natural England has confirmed that no impacts to the SPA/Ramsar site are likely to arise from the construction or operation of the Main SRFI Site or J15a works.

18.12 The design of the Proposed Development has sought to avoid significant ecological effects through careful design, applying the mitigation hierarchy:

- Avoidance – seek options that avoid harm to ecological features.
- Mitigation – where avoidance of effects is not possible, suitable mitigation should be implemented to ensure that the residual effects are not significant. This should be achieved either through the design of the project (embedded mitigation) or subsequent measures (adaptive mitigation) that can be guaranteed. Mitigation is relevant for negative impacts assessed as being potentially significant (before mitigation) or where required to ensure compliance with legislation.
- Translocation - where effects on certain Important Ecological Features (IEFs) (not all) cannot be avoided in a particular location it may sometimes be possible to move the IEF to a new and safe location (this approach is only possible for specific environmental disciplines, most obviously ecology).
- Compensation – where there are potentially significant adverse effects despite the mitigation proposed, these should be offset by appropriate compensatory measures. Compensation is relevant for negative impacts assessed as being significant or where required to ensure compliance with legislation.
- Enhancements – seek to provide net benefits for biodiversity over and above requirements for avoidance, mitigation or compensation. Opportunities to provide nature conservation enhancement have been incorporated in the Proposed Development (mostly) through the Green Infrastructure Plan for both the Main SRFI Site and M1 J15a.

18.13 The parameters plans and green infrastructure plans have been developed through an iterative design process with inputs from various environmental disciplines.

18.14 Effects arising from the Proposed Development will arise from construction activity and during operation. The design of the Proposed Development aims to minimise these effects as far as possible through mitigation embedded into the site design. This includes:

- Retention of habitat, including certain buildings used by bats, the northern section of the Milton Malsor Brook, some ancient and veteran trees and other areas of woodland and habitat at the periphery of the Main SRFI Site and at J15a.
- Provision of green infrastructure, creating links through the site to the wider countryside and to locally designated sites. There is approximately 116.7 hectares of structural landscape shown on the Green Infrastructure Plan for the Main SRFI Site. Of this 13.8 hectares is retained farmland to the east of the Northampton Loop Line and 3.2 hectares will be developed as a new pocket park to the west of the A43(T). Except for ornamental planting around car parks and buildings, the majority of the planting will use native species in grassland, scrub

and woodland planting. Stand-alone hedges will form an important part of the planting. In addition to this a further circa 26 hectares of land to the south of J15a will be developed as an ecological mitigation area.

- Ecological protection measures are described in the Outline Construction Environmental Management Plan (CEMP) and Code of Construction Practice (COCP). These include good practice measures to protect habitats during construction.

18.15 The CEMP will ensure that matters such as the following are addressed: installation and maintenance of fencing at the start of construction; environmental awareness training for construction personnel; dust control; appropriate storage of fuels, lubricants and chemicals; lighting; environmental management. These topics would be accompanied by specific advice on ecological issues to be followed during construction, particularly during clearance of vegetation for groundwork (including protection of breeding birds, great crested newts, retained trees and hedgerows).

18.16 There is potential to further enhance and improve the function of the proposed green infrastructure, including, for example, design of wildlife hedgerows with oversized culverts to facilitate passage of small mammals through the site. Additional adaptive mitigation will ensure delivery of potential benefits, and ensure that benefits are tailored to species that it is desirable to promote in the Northamptonshire context. In addition, it will ensure that any adverse impacts on biodiversity are more than counterbalanced by benefits from green infrastructure in accordance with planning policy.

18.17 As the minor highway works are within the adopted highway, no significant effects to ecological features are expected.

Construction

18.18 Direct permanent adverse effects will arise primarily from land-take, which will be by far the most important source of effect given the particular important ecological features that have been identified by the assessment. In the absence of mitigation these effects would include, but are not limited to:

- loss of arable farmland habitat and agricultural grassland (including hedges) important for farmland birds;
- loss of a generally intact hedgerow network over large parts of the Main SRFI Site (foraging habitat and commuting routes);
- loss of some species-rich hedges, veteran trees, semi-improved neutral agricultural grassland, temporary or permanent loss of mixed scrub, tall-herb vegetation and grassland on railway line-sides and the A43(T) verges;
- rerouting of a section of the Milton Malsor Brook and loss of some wet ditches connecting to it;
- loss of roosts used by small numbers of Common Pipistrelle bats;
- permanent loss of barn owl roosts in trees and farm buildings; and

- some loss of aquatic and water margin vegetation (J.15a works).
- 18.19 Direct, temporary, adverse effects will arise primarily from construction activity. In the absence of mitigation these effects could include (for example): sediment laden run off into watercourses; dust deposition on adjacent habitats; disturbance to animals in adjacent habitat from noise generation; construction site lighting; traffic and the presence of personnel (etc.). These impacts can be reduced to minimal levels acceptable for wider purposes (including health and safety) by measures set out in the CEMP.
- 18.20 There remains a possibility of some level of disturbance to animals in the most sensitive adjacent habitats, especially the Grand Union Canal corridor. This will be addressed by adaptive mitigation. In particular there may be temporary disturbance (mainly noise and visual disturbance) in the canal corridor during landscaping works on immediately adjacent land that in the long term will provide buffering against operational disturbance. While this may not greatly exceed the disturbance likely from agricultural operations such as combine-harvesting, much of the land adjacent to the canal is under permanent grass where such operations are infrequent.
- 18.21 Direct, permanent, beneficial effects will arise primarily from the provision of green infrastructure. Since a large percentage of the Main SRFI Site is arable supporting very little biodiversity (on an amount per unit area basis), the green infrastructure would provide a net increase in biodiversity even without the incorporation of ecological mitigation into the landscape design.
- 18.22 A new circa 26ha area will be dedicated to ecology mitigation at J15a. Without adaptive mitigation, this area would remain as farmland with no enhancements, and it would add no specific ecological benefit. In order to mitigate for adverse ecological effects arising from a range of habitats and species over the scheme as a whole, the ecological mitigation area will be subject to baseline surveys and detailed design in consultation with ecologists. The construction management plan will ensure construction is conducted in a way that prevents or minimises possible effects on the canal, and additional adaptive mitigation will be secured in order to avoid adverse effects on animal species.
- 18.23 The landscape design has been developed in order to minimise tree removal, though the development will result in the loss of veteran trees which is deemed to be a negligible/minor adverse impact in ecological terms (see section 19). It is not possible to 'replace' a veteran/notable tree within any realistic timescale; however, there are some measures that are recognised as beneficial (in addition to further tree planting) where there is no alternative to removal. These include: tree resurrection and limb/feature re-attachment. A Veteran Tree Assessment and Tree Survey report has been prepared that justifies the approached proposed.
- 18.24 Overall, it is not to be expected that the green infrastructure will provide habitat suitable for all of the farmland plant and animal species that are likely to be lost, and therefore it is not to be expected that all adverse impacts will be avoided by provision of the green infrastructure (in the absence of further mitigation). However, other species are likely to benefit.
- 18.25 During construction, the following beneficial effects are assessed to arise:

- Breeding birds in relation to works at the Main SRFI Site: provision of extensive nesting habitat in green infrastructure of grassland and scrub (minor beneficial);
- Provision of new Green Infrastructure at the Main SRFI Site (minor beneficial); and
- Provision of an Ecology Mitigation Area at J15a (minor beneficial).

Operation

- 18.26 Temporary adverse impacts and effects during operation may arise from various types of activity on the site including traffic movements, the presence of people, site maintenance and repair, lighting, etc. Potential impacts and effects on ecological resources during operation include: disturbance of animal species in adjacent areas due to increased presence of people and vehicles, and associated activity giving rise to noise, vibration etc., and damage to mitigation work through accident or acts of vandalism.
- 18.27 Site operation and management plans are likely to minimise this, and effects on adjacent sites and especially on the Grand Union Canal corridor, will be minimised by the green infrastructure (which will become more effective in this respect as time progresses). It is not therefore expected that disturbance to adjacent habitats will be greater than that arising from current agricultural, commercial and pedestrian activities.
- 18.28 Potential for effects on plants and animals from rainwater runoff from car-parks and other areas of hard-standing will be minimised by means of suitable drainage provision, as well as site operation and management plans, and there are unlikely to be adverse impacts. The cessation of agricultural chemical use in combination with the suitable drainage provision may lead to improved water quality and beneficial impacts effects on plants and animals.
- 18.29 During operation of the Proposed Development there may be some disturbance to animals on the site and in adjacent habitats, especially the canal corridor. This includes effects on otters, breeding birds and foraging and commuting bats, with the latter species likely to experience a moderate adverse impact. Further impacts of noise and disturbance may also affect animals and birds on site.
- 18.30 In order to reduce the impact of these identified effects, mitigation is proposed which deliver benefits and which are tailored to species that are desired to be promoted in the Northamptonshire context. In addition, such provision will ensure that any impacts on biodiversity are more than counterbalanced by benefits from green infrastructure and ecological mitigation. This includes:
- c. 39.2ha of scrub and woodland planting, including field maple and oak.
 - c. 2,300 large stature trees will be incorporated into the scheme design.
 - Creation of new grasslands using a native and locally appropriate seed mix which mimics typical wildflower meadows for Northamptonshire. To support populations of the Yellow-faced Bee, mixes will include *Daucus carota* ssp. *carota* (Wild Carrot).

- Veteran trees will be reused in measures such as such as tree resurrection (i.e. using large trunks or limbs of felled trees to provide high-elevated deadwood habitat by using existing trees as supports).
- Development of a lighting scheme to ensure light on site during construction and operation of the site will avoid spill into ecologically important places.
- Specifications for new hedgerow planting to enhance ‘embedded’ retained foraging and commuting routes and create more.
- Renovation of barns at the Main SRFI Site and J15a site to provide bat and barn owl habitat.
- Milton Malsor brook diversion will be profiled to provide a variety of flow rates, depth and widths (allowing for Environment Agency specifications), and planted with water-margin species currently found there and in adjacent ditches. The detailed design of the watercourse will be undertaken in collaboration with ecologists, and it is anticipated that the overall quality of the brook will be enhanced for otters, fish and aquatic invertebrates.
- The planting adjacent to the Grand Union Canal and The Arm Farm pocket park beside the Northampton Arm will improve the connectivity of the ecological corridor centred on the canal.
- Detailed design of the circa 26 ha Ecological Mitigation Area at J15a which will make a contribution to net biodiversity gain and a positive contribution to the Nene Valley Improvement Area. The area will be managed as farmland, ideally with livestock in some areas, but will also include a public access track. The site will be designed by ecologists in discussion with the Wildlife Trust, but will include a mixture of field sizes and shapes, new species rich native-species hedgerows with standard trees, wet scrapes and scrub, ‘winter bird’ fields, and field corner ponds for farmland birds, bats and local species.
- A post-construction Habitat Management Plan (HMP) will protect and promote biodiversity in areas retained for ecology and in newly created habitats. It will cover such matters as pond management, scrub control, hedgerow pruning, and retention of dead or felled trees among others. It will include provisions for monitoring retained and created habitats and key species.

18.31 Overall, although minor adverse effects will remain as a result of habitat loss, especially for farmyard birds and bats, loss of hedgerows, permanent beneficial effects will arise primarily from the provision of green infrastructure. Since a large percentage of both the Main SRFI Site and J15a site is arable, supporting very little biodiversity (on an amount per unit area basis), the green infrastructure and incorporation of ecological mitigation measures as adaptive mitigation will provide a net gain in biodiversity. This is reflected within the accompanying Biodiversity Offsetting Report (Document 7.14) which calculates ‘biodiversity units’ using the Warwickshire, Coventry and Solihull Biodiversity calculator and following the methods set out in Defra’s biodiversity offsetting pilot and demonstrates an overall net gain to biodiversity arising from the Proposed Development.

18.32 Beneficial effects are assessed to arise in relation to:

- Mixed habitat provision at the Main SRFI Site, with use of the green infrastructure by the public providing ecological amenity (minor beneficial); and
- Mixed habitat provision at J15a, with use of the footpath through the c.26 ha Ecology Mitigation Area by the public providing ecological amenity (minor beneficial). This will include new habitat areas for a range of species, such as farmland birds and bats.

Monitoring

18.33 Ongoing monitoring of habitats created and enhanced will be needed to ensure it meets the required level of quality. An Ecological Creation and Habitat Management Plan will be produced which will include a monitoring plan and will be updated with each Detailed CEMP. Monitoring will initially be undertaken annually during the summer for the first 3-years while the vegetation becomes established, in year 5 and then subsequently every three years. A 15 year Management and Maintenance Plan will also be produced which will guide maintenance of the soft landscaping on the Main SRFI Site.

Conclusions (Biodiversity)

- 18.34 Development should avoid significant harm to biodiversity and geological conservation interests and where such cannot be mitigated or avoided, appropriate compensation measures should be sought as a last resort. The SoS is expected to ensure that appropriate weight is attached to designated sites, protected species, habitats and other species of principle importance for the conservation of biodiversity.
- 18.35 The ES has assessed likely significant effects on internationally, nationally and locally designated ecological sites and protected species and habitats, and has demonstrated how the Proposed Development has used opportunities to conserve and enhance biodiversity and geological conservation interests. The Proposed Development has avoided significant harm to biodiversity and conservation interests where possible, and has provided integral mitigation and appropriate compensation measures where necessary.
- 18.36 Overall, the Proposed Development would avoid significant harm to biodiversity. Although minor adverse effects (not significant) will remain as a result of habitat loss, especially for farmyard birds and bats, loss of hedgerows, permanent beneficial effects will arise primarily from the provision and delivery of green infrastructure on both the Main SRFI Site and the J15a Site. Since a large percentage of both the Main SRFI Site and J15a site is arable, supporting very little biodiversity (on an amount per unit area basis), the green infrastructure and incorporation of ecological mitigation measures as adaptive mitigation will provide a net gain in biodiversity. This is reflected within the accompanying Biodiversity Offsetting Report (Document 7.14) which calculates 'biodiversity units' using the Warwickshire, Coventry and Solihull Biodiversity calculator and following the methods set out in Defra's biodiversity offsetting pilot and demonstrates an overall net gain to biodiversity arising from the Proposed Development. The Proposed Development is therefore considered to be compliant with ecological provisions of the NN NPS¹²³.

¹²³ Paragraph 5.23 and 5.25

19. Veteran Trees

- 19.1 The NN NPS states that the decision maker should not grant consent for development that would result in the loss of irreplaceable habitats, including aged or veteran trees, unless the national need for the development, in that location, outweighs the loss and that the loss of aged or veteran trees should be avoided, where possible¹²⁴.
- 19.2 In April 2017, a Pre-Development Survey was undertaken by Midland Tree Surgeons Ltd in accordance with the criteria set out within BS5837:2012 *Trees in relation to design, demolition and construction – recommendations*.
- 19.3 In 2017, RSK Environment Prepared a Veteran Tree Assessment Report (Document Ref 6.1.14.13). This consisted of a desktop review of the baseline pre-development tree survey information, extrapolating information for review and resulting in preliminary classification of ancient, veteran, notable and locally notable trees at the site. This assessment revealed that the Proposed Development would result in the removal of 26 trees which were considered to be veteran.
- 19.4 A more thorough assessment survey for any veteran trees that may be present within the Main Site has been subsequently undertaken by an appropriately qualified arboriculturalist. The method for the survey, the assessment criteria and the definition of a veteran tree used to determine whether or not any trees were of veteran status was based on accepted guidance including the use of English Nature's (now Natural England) Specialist Survey Method; at level 2.
- 19.5 The detailed assessment reveals that a total of 23 were found to be 'true veteran trees' as they possessed the necessary characteristics be identified as veteran trees in accordance with the assessment criteria and survey method employed. These trees are predominantly Ash, English Oak and Sweet Chestnut with a small number of Hawthorn, Crab Apple and Field Maple also identified within a hedgerow.
- 19.6 Care has been taken with the layout of the Proposed Development to limit impacts on veteran trees. Due to the layout requirements of the development and, in particular, the need for large footprint buildings, it is anticipated that the development would require the loss of 14 of the 23 'true' veteran trees identified.

Mitigation

- 19.7 The principal mitigation measure has been the cautious design of the parameters of the Proposed Development which has been adapted in order to retain and conserve as many of the true veteran trees as possible.
- 19.8 In line with guidance provided by Natural England and Forestry Commission guidance, the buffer zones for retained 'true' veteran trees are at least 15 times larger than the diameter of the said tree of 5m from the edge of the canopy, whichever is greater. For all of the retained veterans, this has been achieved to ensure there is sufficient space around the trees

¹²⁴ Paragraph 5.32

to ensure their long term protection. During construction, appropriate screening barriers will be erected to protect trees from dust and pollution.

- 19.9 Further mitigation for the loss of veteran trees will take principally the form of retaining as much of the physical structure of the trees as possible (e.g. entire trees, trunk or key limbs and branches) to lie either on the ground and/or attached to existing trees to provide further habitat creation for invertebrates. It is also proposed to propagate the trees through hard wood cuttings and seeds from veteran trees for use in planting on the Main SRFI Site and the ecological area at J15a of the M1 to expand the veteran tree community in those areas. Offspring from the parent trees can create further succession and grow these valuable habitat trees.
- 19.10 The proposed mitigation measures would form part of a veteran tree management strategy for managing, maintaining and replenishing the veteran oak and ash community for the long term.

Conclusions

- 19.11 The Applicant has endeavoured to retain as many veteran trees where possible. Retention of more veteran trees would require significant modification to the design of the Proposed Development and is not achievable. Due to the nature and scale of the development, it would require the loss of 14 of the 23 true veteran trees. The benefits of the Proposed Development are set out in section 24 of this Statement and the approach taken in respect of veteran trees accords with NN NPS¹²⁵.

¹²⁵ Paragraph 5.32

20. Flood Risk, Hydrology & Water Quality

- 20.1 The NN NPS states that a flood risk assessment should be carried out if the application is in Flood Zones 2 and 3, and in Flood Zone 1 (low probability) for projects of 1 ha or greater. The volumes and peak flows of surface water leaving the Main SRFI Site should be no greater than the rates prior to the proposed project, unless specific off-site arrangements are made and result in the same net effect¹²⁶.
- 20.2 Hydrology, drainage and flood risk is assessed in the ES at Chapter 13. However, the hydrogeological regime, comprising the groundwater in any permeable deposits (rock, soil or Made Ground) beneath the site, and the hydrological regime (surface water), insofar as they interact with land contamination, are assessed in Chapter 12 of the ES relating to ground conditions. There is some cross-over therefore between the summaries provided here in this Planning Statement.
- 20.3 The NN NPS recognises that during construction and operation, projects can lead to increased demand for water, and discharges of pollutants to water causing adverse ecological impacts¹²⁷. In turn, these could compromise environmental objectives established under the Water Framework Directive¹²⁸. Activities that discharge to the water environment are subject to pollution control. For this reason, the NN NPS states that decisions under the PA2008 should complement but not duplicate those taken under the relevant pollution control regime¹²⁹.
- 20.4 The NN NPS also advises (amongst other things) that the existing quality of waters, water resources, physical characteristics of the water environment (including quantity and dynamics of flow) and protected areas (as described in the NN NPS) should be considered.
- 20.5 The Proposed Development includes embedded mitigation that has been developed in conjunction with the flood risk and drainage strategy.
- 20.6 Environment Agency flood risk data has been reviewed, which shows that the lower lying areas within the western section of the Main SRFI Site, and those areas immediately adjacent to the Milton Malsor Brook to be at an increased risk of fluvial flooding and within Flood Zone 3. The remainder of the site is shown as being within Flood Zone 1.
- 20.7 Mitigation is required to minimise the risk to the Proposed Development through the realignment of both the Milton Malsor Brook and an 'Unnamed Watercourse'. Each watercourse has been realigned around the proposed units shown on the Parameters Plan with the channel geometry adopting a two-stage channel designed to provide suitable capacity to contain and convey flows for all flood events up to and including the 1 in 1,000 year extreme flood event. The design of the proposed channels has also included required easements (and allows for green corridors), as well as allowing for the sizing of any new watercourse crossings and culverts. An allowance for climate change based on current guidance has also been included.

¹²⁶ Paragraph 5.113

¹²⁷ Paragraph 5.219

¹²⁸ Water Framework Directive (2000/60/EC)

¹²⁹ Paragraph 4.50

- 20.8 Modelling of the proposed new channel route and geometry has been undertaken. This confirms a betterment in flood outlines when compared to the baseline scenario, for the Main SRFI Site but also to third party land downstream. The modelling confirms that the proposed two-stage channel provides sufficient capacity to convey all flows for the 1 in 200 year plus climate change event and the extreme 1 in 1,000 year event.
- 20.9 The surface water drainage system to be installed as part of the Proposed Development works will involve the construction of a new system (as enabling works and therefore as embedded mitigation). The principles of this drainage strategy will be to ensure any surface water drainage is designed to ensure post development peak run-off rates will not increase from the existing conditions and as such will result in no increase of flooding to the Main SRFI Site or surrounding settlements.
- 20.10 Given that infiltration techniques have been proven as not being viable, it is assumed that, generally, each building unit and its associated hardstanding areas will contain storage features that will deal with their own attenuation requirements. In the majority of cases, because of the land use, the storage is likely to be provided in underground tanks beneath the car park/working yard areas, along with open above ground attenuation features where possible.
- 20.11 It is proposed for any discharge from the Main SRFI Site to be restricted to mimic the existing Greenfield runoff QBAR runoff rate, with attenuation being provided for the 1 in 200 year plus 40% allowance for climate change storm event.
- 20.12 In a number of locations (areas of soft landscaping) there would be the opportunity to include attenuation ponds/basins that will be able to provide additional storage and deliver the ability to improve water quality before discharging to the existing watercourses within the site. It is also intended to include swales or similar features as conveyance systems and to provide water treatment benefits where there are areas within the layout that will permit.
- 20.13 With reference to foul water, the improved system capacity and attenuation storage at the Main SRFI Site will bring a moderate beneficial effect.
- 20.14 Areas where further mitigation is required are summarised below.

Construction

- 20.15 With the incorporation of mitigation measures, the following impacts and effects are not significant.
- Culverting of existing watercourse - appropriate realignment of the watercourse to avoid the proposed built development.
 - Loss of floodplain storage as a result of ground re-profiling - redesign of realigned channel to provide a two-stage channel with adequate capacity to convey flows up to and including the 1 in 1,000 year extreme event.
 - Restriction of flows within Milton Malsor Brook and Unnamed Watercourse - culvert crossings of both watercourses have been kept to a minimum, with only two new crossings being proposed. The required size has been modelled and detailed within

the Flood Risk Assessment. These have been shown to provide suitable capacity, with freeboard, for all events up to and including the 1 in 1,000 year event.

- Loss of permeable ground owing to soil compaction/excavation/construction of units - installation of a detailed surface water drainage system to intercept flows and provided a restricted outfall to surrounding networks (namely the Milton Malsor Brook) to mimic existing conditions. In restricting flows, attenuation will need to be provided through a combination of above and below ground storage.

20.16 Given the nature of construction, there is the potential for surface water to be contaminated in the event of a fuel spillage or spillage of any chemicals within the Main SRFI site. Contaminants could potentially enter the surrounding area and watercourses by being transported within generated runoff. The CEMP provides further details of the mitigation measures to address the potential for this.

20.17 The Proposed Development will reduce infiltration, thus improving the groundwater. In addition, source reduction (betterment) via treatment of any hydrocarbons that exceed the tolerable limits will be undertaken during the construction phase. This will lead to an improvement in water quality.

20.18 The highways works are, generally, not at high risk of flooding. There will be some loss of permeable ground as part of the J.15a Works owing to soil compaction/ excavation/ construction.

20.19 Loss of permeable ground can be mitigated through the installation of a detailed surface water drainage system to intercept flows and provided a restricted outfall to surrounding networks to mimic existing conditions.

Operation

20.20 There is the potential for a decrease in efficiency of both fluvial and surface water features. This can be addressed by a management and maintenance schedule, to be prepared for both the surface water and realigned watercourse. With mitigation, the effects are not significant and the monitoring of effects will be in accordance with the 'Management Strategy for Water Resources', as outlined in the CEMP.

Monitoring

20.21 In relation to all phases of the Proposed Development no monitoring post development is considered necessary other than a visual inspection of any watercourse crossings to remove any blockages or identify any structure deficiencies within the system.

Conclusions (Flood Risk, Hydrology & Water Quality)

20.22 The NN NPS anticipates that FRA's should consider all forms of flooding arising from the project and account for the impacts of climate change, as well as acknowledging any residual risk following reduction measures and whether the proposal would remain in operation in a worst case flood event. Evidence should also include a project's drainage system if construction work will have drainage implications. The NN NPS also advises (amongst other things) that the existing quality of waters, water resources, physical characteristics of the

water environment (including quantity and dynamics of flow) and protected areas (as described in the NN NPS) should be considered. The assessment has had due regard to these factors.

- 20.23 The FRA, Modelling Assessment and Drainage Strategy confirm the existing impacts to the site along with the measures required to mitigate any identified potential impacts of the proposals. The results of the risk assessments were used to identify significant effects that could be introduced as part of the project for which mitigation measures would be required.
- 20.24 The FRA confirms that there are areas at flood risk within the Main SRFI Site, which are predominantly located within the lower elevated sections of the site and in those areas that immediately border the Milton Malsor Brook and the Unnamed Watercourse. The same is the case for the J15a Works and other minor highways works with the majority of each area being at low risk of flooding but with localised lower elevated areas being at potentially increased risk.
- 20.25 Proposed mitigation measures included within the scheme (realignment and design of watercourse, installation of surface water drainage systems etc.) minimise any of the identified impacts. These measures form part of the design of the Main SRFI Site and as such are considered as being embedded mitigation undertaken as enabling works during the construction phases.
- 20.26 During operation, whilst all embedded mitigation will be in place, adaptive mitigation measures will be required for some receptors (watercourses, attenuation storage areas, swales, pipe runs etc.).
- 20.27 Adaptive mitigation measures proposed to address potential impacts to operational phase receptors include regular and ongoing maintenance of all drainage features. These works are to include visual inspections and any clearance/maintenance works as required.
- 20.28 The assessment confirms that the site layout and surface water drainage systems can cope with events that exceed the design capacity of the system, and that surface water drainage arrangements can be designed such that the volumes and peak flow rates of surface water leaving the site (or through on-site storage) are no greater than the rates prior to the Proposed Development.
- 20.29 The assessment that has been carried out meets the requirements of paragraphs 5.92- 5.104 of the NN NPS, and in relation to mitigation¹³⁰. Additionally, the assessment, in conjunction with the work undertaken in other parts of the ES (such as in relation to Ground Conditions and Biodiversity) also complies with the NN NPS¹³¹ in relation to water quality.
- 20.30 With mitigation in place, as set out within the ES, there will be no significant adverse effects arising during any phase of the Proposed Development. Indeed, it concludes that the proposed two-stage channels for flood risk offers greater capacity than that provided by the existing channels, resulting in a 'significant' ('moderate') beneficial effect, alongside the foul drainage measures.

¹³⁰ Paragraphs 5.112-5.114

¹³¹ Paragraphs 5.219-5.231

21. Air Quality

- 21.1 The NN NPS advises that increases in emissions of pollutants during the construction or operation phases of projects in the national networks can result in the worsening of local air quality¹³².
- 21.2 The NN NPS advises that the assessment should describe:
- Existing air quality levels;
 - a forecast of air quality at the time of opening, assuming that the scheme is not built (the 'future baseline') and taking account of the impact of the scheme;
 - any significant air quality effects, their mitigation and any residual effects, distinguishing between the construction and operation stages and taking account of the impact of road traffic generated by the project; and
 - a judgement on the risk as to whether the project would affect the UK's ability to comply with the Air Quality Directive.
- 21.3 It also advises that the construction and operation of national networks infrastructure has the potential to create a range of emissions that include noise, light and dust, and also odour, steam and smoke¹³³. All have the potential to have a detrimental impact on amenity or cause a common law nuisance or statutory nuisance under Part III, Environmental Protection Act 1990. The NN NPS highlights, however, that whilst pollution impacts from some of these emissions (e.g. dust, smoke) are covered in air emissions assessment, others (e.g. odour) may be covered by pollution control or other environmental consenting regimes (where NPS paragraphs 4.48-4.56 and 5.3-5.15 apply).
- 21.4 The above considerations that are relevant to air quality have informed the air quality assessment undertaken at Chapter 8 of the ES.
- 21.5 The closest Air Quality Management Area (AQMA) is within neighbouring Northampton. NBC has designated seven AQMAs, all of which are within approximately 8km of the Main SRFI Site. SNC has also designated an AQMA which encompasses the A5 Watling Street, from the Saracens Head crossroads to Silverstone Brook adjacent to 131 Watling Street, due to high levels of nitrogen dioxide (NO₂) attributable to road traffic emissions. This AQMA is approximately 5km to the south-west of the Main SRFI Site.
- 21.6 An assessment of the air quality impacts of the Proposed Development in terms of nitrogen dioxide (NO₂), PM₁₀ and PM_{2.5} has been undertaken. The assessment includes an evaluation of the effects from fugitive dust and exhaust emissions associated with construction activities and construction traffic associated with the Proposed Development, in consideration of the impacts upon the surrounding existing sensitive receptors and the impact of the existing air quality on future proposed sensitive receptors. An evaluation of the significance of the potential air quality effects resulting from changes in traffic flow characteristics on the local road and rail network during the future operation of the

¹³² Paragraph 5.3

¹³³ Paragraph 5.81

Proposed Development, including employee traffic, has also been undertaken. Appropriate mitigation measures are recommended where required.

- 21.7 During the construction and operational phases, arrivals at and departures from the Proposed Development may change the number, type and speed of vehicles using the local road network. Changes in road vehicle emissions are the most important consideration in terms of air quality during these phases of the development.
- 21.8 The air quality assessment addresses the elements recommended in the NPPG. The approach is consistent with EPUK/IAQM guidance and Defra's Local Air Quality Management Technical Guidance.
- 21.9 The assessment includes the key elements listed below:
- Assessment of the existing air quality in the study area (existing baseline) and prediction of the future air quality without the development in place (future baseline), using official government estimates from Defra, publically available air quality monitoring data for the area, and relevant Air Quality Review and Assessment documents;
 - A qualitative assessment of likely construction-phase impacts with mitigation and controls in place; and
 - A quantitative prediction of the future operational-phase air quality impact with the development in place (with any necessary mitigation), encompassing the impacts of the development traffic on the local area including any effects on the AQMAs.

Construction and Operation

- 21.10 The results of the modelling indicate that with the Proposed Development, the predicted NO₂, PM₁₀ and PM_{2.5} concentrations at existing receptors are below the relevant long and short-term AQS objectives. When the magnitude of change in annual-mean NO₂, PM₁₀ and PM_{2.5} concentrations is considered in the context of the absolute predictions, the air quality impacts of the development on existing receptors are categorised as 'negligible' at all receptors. At a number of receptors the predicted concentrations are expected to decrease with the development. Taking into account the geographical extent of the impacts predicted in the study, the overall impact of the development on the surrounding area (for South Northamptonshire) is considered to be 'negligible', using the descriptors adopted for this assessment.
- 21.11 During construction, the impact of an increase in suspended particulate matter concentrations and deposited dust is assessed to be not significant, provided that a range of dust control and mitigation measures is applied, including using enclosed chutes, use of dust suppression facilities and dampening down of potentially dusty areas, as reflected in the CEMP.
- 21.12 During operation, the impact of an increase in NO₂, PM₁₀ and PM_{2.5} concentrations from traffic generated by the development is assessed to be not significant for South Northamptonshire, provided that mitigation such as travel planning, provision of electric charging points, incentives for low carbon transport, no idling, and monitoring of vehicle types and tree planting.

- 21.13 Using professional judgement, the resulting air quality effect in South Northamptonshire is considered to be 'not significant' overall.

Monitoring

- 21.14 The CEMP describes the monitoring of dust to be undertaken during the construction phase. This includes visual inspections of the site perimeter and dust levels on site. All dust control equipment will be maintained and maintenance and servicing activities recorded and haul routes will be inspected for integrity and repaired as necessary. Wheel washes and road sweepers will be provided to prevent 'trackout' of mud and potential resuspension of dust from roads off site.
- 21.15 Monitoring of NO₂ in Blisworth and Milton Malsor will continue for three years beyond the completion of the development.

Conclusion (Air Quality)

- 21.16 The NN NPS advises that increases in emissions of pollutants during the construction or operation phases of projects in the national networks can result in the worsening of local air quality¹³⁴. In accordance with the NN NPS, the assessment undertaken has considered existing air quality levels, has provided a forecast of air quality at the time of opening, along with any significant air quality effects, their mitigation and any residual effects.
- 21.17 The assessment modelling demonstrates that with mitigation there would not be any significant air quality impacts as a result of either the construction or operational phases of the development. The construction management plan would be a significant factor in ensuring the construction air quality impacts are maintained at acceptable levels in accordance with both European and National legislation.
- 21.18 Once the remaining modelling and assessment (as identified above) has been undertaken, a clear judgement on the risk as to whether the project would affect the UK's ability to comply with the Air Quality Directive will be provided (with the conclusion anticipated to be that it would not affect this ability).
- 21.19 It is concluded that the Proposed Development accords with paragraphs 5.7 and 5.9 of the NPS, and that the impacts on air quality are acceptable and in compliance with the decision-making requirements of the NN NPS¹³⁵.

¹³⁴ Paragraph 5.3

¹³⁵ Paragraphs 5.10 - 5.13

22. Ground Conditions and Land Instability

- 22.1 The NN NPS¹³⁶ advises that in the case of potentially polluting developments, the relevant pollution control authority should be satisfied that potential releases can be adequately regulated under the pollution control framework; and the effects of existing sources of pollution in and around the project are not such that the cumulative effects of pollution when the Proposed Development is added would make that development unacceptable, particularly in relation to statutory environmental quality limits.
- 22.2 The NN NPS states that a preliminary assessment for land instability should be carried out. Furthermore, the NN NPS recommends that liaison with the Coal Authority should take place if necessary¹³⁷.
- 22.3 The NN NPS¹³⁸ also refers specifically to developments on previously developed land, but nevertheless emphasises the need to ensure that the risk posed by land contamination is addressed. NN NPS paragraph 5.179 goes on to highlight the importance of good design principles including the layout of the Proposed Development and the protection of soils during construction. Applicants should identify any effects, and seek to minimise impacts, on soil quality, taking into account any mitigation measures proposed. It also goes on to reference the safeguarding of any mineral resources¹³⁹.
- 22.4 'Ground Conditions' is assessed in Chapter 12 of the ES, with further consideration of the soil resource being considered in Chapter 9 of the ES relating to agriculture.
- 22.5 Chapter 12 identifies the existing soil and geological conditions and development constraints, evaluates the potential for contamination and assesses the potential effects on ground conditions. The assessment has considered naturally occurring geological conditions and any man-made deposits, including the physical nature of the rocks, soils and Made Ground, together with information on existing chemical contamination arising from the former and existing uses of the site. Mineral safeguarding and impacts on mineral resources, ground improvement, earthworks, foundation solutions, slope stability and associated geotechnical issues have been assessed.
- 22.6 Earthworks and geotechnical requirements of the enablement phase works have also been assessed, as the geotechnical characteristics of the soils are one of the factors to determine if excavated soils can be re-used at the site.
- 22.7 The hydrogeological regime, comprising the groundwater in any permeable deposits (rock, soil or Made Ground) beneath the site, and the hydrological regime (surface water), are described in so much as they interact with land contamination.
- 22.8 No ground conditions have been found that would prevent the proposed scheme being technically viable with respect to geology, soils or groundwater.

¹³⁶ Paragraph 4.55

¹³⁷ Paragraphs 5.117 - 118

¹³⁸ Paragraph 5.168

¹³⁹ Paragraph 5.169

22.9 The site investigation has confirmed that there is no widespread presence of soil contamination at the Main SRFI Site and the desk studies and reviews have indicated that widespread contamination is not expected at the J15A site or other minor highway works sites.

Construction

22.10 The construction works could lead to contaminated material being exposed and mitigation measures will be required to ensure this does not represent a risk to construction workers, site visitors, trespassers or local residents and workers.

22.11 With regards to construction of the Main SRFI Site, the likely significant effects for the Construction Phase can be summarised as:

- Effects of asbestos present within existing buildings present on site.
- Effects of soil contamination on construction workers, including:
 - Metals and PAHs in Made Ground.
 - Petroleum hydrocarbons in Made Ground and in the vicinity of historical storage tanks.
 - Asbestos in Made Ground.

22.12 With regards to the construction of the J15A Works, the likely significant effects for the Construction Phase can be summarised as:

- Effects of asbestos present within existing buildings (Shepherd's Lodge) present on site.
- Effects of soil contamination on construction workers, including:
 - Metals and PAHs in Made Ground.
 - Petroleum hydrocarbons in Made Ground.
 - Asbestos in Made Ground.

22.13 With regards to construction of the other minor highway works, the likely significant effects for the Construction Phase can be summarised as:

- Effects of soil contamination on construction workers, including:
 - Metals and PAHs in Made Ground.
 - Petroleum hydrocarbons in Made Ground.
 - Asbestos in Made Ground.
- Effects of soil contamination on services, plastics, bitumen's and buried concrete etc. due to PAHs, and petroleum hydrocarbons in Made Ground.

22.14 The above notwithstanding, the ES identifies a range of mitigation measures as embedded. During construction this will include appropriate design; prescribed methods of working (including works to be undertaken by appropriately trained (and where required, licenced) personnel, safe working practices and working in accordance with codes of practice); provision of appropriate PPE and RPE (where required) and pre-construction identification of potential contamination by further ground investigation. Mitigation measures (for example in accordance with PPG5) will also be required to protect surface watercourses during construction.

22.15 It is only asbestos in existing buildings impacting site workers during demolition (Main SRFI Site only) that result in a significant effect (major significance). Subject to mitigation in the form of asbestos removal being undertaken by appropriately trained contractors who would be required to obtain appropriate licences, the significance is reduced to negligible.

Operation

22.16 With regards to operation of the Main SRFI Site, the likely significant effects for the Operational Phase can be summarised as:

- Effects of soil contamination on site users, including:
 - Metals and PAHs in Made Ground.
 - Petroleum hydrocarbons in Made Ground.
 - Asbestos in Made Ground.
- Effects of soil contamination on future maintenance workers, particularly with regards to asbestos in Made Ground.
- Effects of radon on site users.
- Effects of soil contamination on construction materials (services, plastics, bitumen's and buried concrete etc.) due to PAHs, and petroleum hydrocarbons in Made Ground.

22.17 With regard to operation of the J15A, and the other minor highway works, the likely significant effects for the Operational Phase can be summarised as:

- Effects of soil contamination on future maintenance workers, particularly with regards to asbestos in Made Ground.
- Effects of soil contamination on services, plastics, bitumen's and buried concrete etc. due to PAHs, and petroleum hydrocarbons in Made Ground.

22.18 During operation, mitigation measures will be required for receptors such as site users, future maintenance workers, buried concrete and buried water supply pipes. Mitigation measures proposed for the potential impacts to operational phase receptors include: design (such as no soakaways in Made Ground); use of appropriate materials (e.g. sulphate resistant concrete and barrier pipe (where required) for potable water supplies); appropriate

materials management to ensure any potentially contaminated Made Ground is not exposed at the surface or in service corridors; and radon barriers in buildings as required.

- 22.19 It is only the effects of radon on site users that results in a moderate significance of effect. Mitigation will comprise construction of appropriate floor slabs and installation of an appropriate radon membrane, with the result that the significance of effect reduced to negligible.

Monitoring

- 22.20 Monitoring will be required during construction to confirm that the works have been undertaken in accordance with a CEMP, Pollution Prevention Method Statement (PPMS), Remediation Method Statement (RMS), Geotechnical Design Reports and the Earthworks Specifications.
- 22.21 No post-construction monitoring is required.

Conclusions (Ground Conditions)

- 22.22 The NN NPS¹⁴⁰ refers specifically to developments on previously developed land, but nevertheless emphasises the need to ensure that the risk posed by land contamination is addressed. It also goes on to highlight the importance of good design principles including the layout of the Proposed Development and the protection of soils during construction. Applicants should identify any effects, and seek to minimise impacts, on soil quality, taking into account any mitigation measures proposed¹⁴¹. It subsequently references the safeguarding of any mineral resources¹⁴².
- 22.23 Accordingly, ground conditions impacts and effects have been considered and assessed. This has included consideration of soils, geological and ground conditions (including groundwater), potential for contamination, as well as assessment of the mineral resource, ground improvement, earthworks, foundation solutions, land stability and associated geotechnical issues. In accordance with the NN NPS¹⁴³ the relevant pollution control authorities have been consulted.
- 22.24 Detailed assessment tables are provided in the ES in relation to impacts, effects and mitigation, where required. No ground conditions have been found that would prevent the Proposed Development being technically viable with respect to geology, soils or groundwater.
- 22.25 The site investigation confirmed that there is no widespread presence of soil contamination at the Main SRFI Site and the desk studies and reviews have indicated that widespread contamination is not expected at the J15A site or other minor highway works.
- 22.26 The construction works will lead to contaminated material being exposed and mitigation measures will be required to ensure this does not represent a risk to construction workers, site visitors, trespassers or local residents and workers. Mitigation measures during

¹⁴⁰ Paragraph 5.168

¹⁴¹ Paragraph 5.179

¹⁴² Paragraph 5.169

¹⁴³ Paragraph 4.55

construction will include appropriate design; prescribed methods of working (including works to be undertaken by appropriately trained (and where required, licenced) personnel, safe working practices and working in accordance with codes of practice); provision of appropriate Personal Protective Equipment (PPE) and Respiratory Protective Equipment (RPE) (where required) and pre-construction identification of potential contamination by further ground investigation.

- 22.27 Mitigation measures, for example in accordance with Pollution Prevention Guidelines (PPG5), will also be required to protect surface watercourses during construction.
- 22.28 During operation, mitigation measures will be required for receptors such as site users, future maintenance workers, buried concrete and buried water supply pipes. Mitigation measures proposed for the potential impacts to operational phase receptors include: design (such as no soakaways in Made Ground); use of appropriate materials (e.g. sulphate resistant concrete and barrier pipes, where required, for potable water supplies); appropriate materials management to ensure any potentially contaminated Made Ground is not exposed at the surface or in service corridors; and radon barriers in buildings as required.
- 22.29 Monitoring will be required during construction to confirm that the works have been undertaken, in accordance with the CEMP.
- 22.30 With mitigation in place, as set out within the ES, there will be no significant adverse effects arising during any phase of the Proposed Development. In relation to heavy metals, metalloids, and hydrocarbons there are some beneficial effects identified due to improvements to made ground and in respect of infiltration. In light of the above, the Proposed Development is considered to be compliant in respect of the NN NPS on ground conditions.

23. Climate Change

- 23.1 The NN NPS sets out the value and importance of rail freight explaining that rail transport has a crucial role to play in delivering significant reductions in pollution and congestion. It states that tonne for tonne, rail freight produces 70% less carbon emissions than road freight, up to 15 times lower NOx emissions and nearly 90% lower PM10 emissions. It also has de-congestion benefits depending on its location; each freight train can remove between 43 and 77 HGVs from the road¹⁴⁴. The NN NPS sets out the government's aim to facilitate modal shift from road to rail and that a network of SRFIs is a key element supporting sustainable distribution¹⁴⁵.
- 23.2 Paragraph 4.40 of the NN NPS states that the environmental statement (ES in this case) should set out how the proposal will take account of the projected impacts of climate change which can be placed into two specific categories:
- (i) Climate Change Mitigation – How the Proposed Development contributes to the cause of climate change through the emission or reduction of greenhouse gases (GHG) as a result of the Proposed Development; and
 - (ii) Climate Change Adaptation – How the Proposed Development is affected by the projected changes to the future climate and whether measures are required to adapt to this changing climate.
- 23.3 For climate change adaptation, the NN NPS provides guidance on the methodology for assessing climate change impacts¹⁴⁶. It states that the applicant should utilise the latest UK Climate Projections (UKCP09) available at the time and utilise the high emission scenario against the 2080 climate projections. The NN NPS also requires the applicant to ensure that appropriate mitigation or adaptation measures are identified to cover the estimated lifetime of the proposed infrastructure.
- 23.4 The NN NPS¹⁴⁷ provides further guidance on assessing the carbon (in this context an abbreviation for all key GHG covered by the Kyoto Protocol) emissions from the Proposed Development and therefore its potential contribution to the cause of climate change. This can be summarised as follows:
- (i) Applicants should provide an assessment of the carbon (GHG) impacts together with a comparison against the Government's carbon budgets.
 - (ii) The Government has a national carbon reduction strategy and targets to which it is legally bound to meet. An increase in carbon (GHG) emissions from the Proposed Development is therefore not a reason to warrant refusal unless it can be demonstrated that this would jeopardise the ability of the Government to meet its carbon targets.

¹⁴⁴ Paragraph 2.35

¹⁴⁵ Paragraph 2.44

¹⁴⁶ Paragraphs 4.36 - 4.47

¹⁴⁷ Paragraphs 5.17-5.19

- (iii) The applicant should demonstrate evidence of appropriate mitigation in both design and construction which should ensure the carbon footprint is not unnecessarily high.

23.5 Climate Change Mitigation and Climate Change Adaptation are assessed in two distinct sections in ES in Chapter 21 and supported by technical appendices. The Chapter considers the anticipated GHG emission effects as a result of the Proposed Development and the measures taken to mitigate and adapt to climate change impacts during construction and operation. The methodology has been developed in accordance with the following key documents, together with the application of Professional Judgement:

- The NPS for National Networks;
- The EIA (2017) Regulations and the requirement to consider the impact of the project on climate and the vulnerability of the project to climate change;
- Best Practice Guidance: *IEMA Environmental Impact Assessment Guide to: Climate Change Resilience and Adaptation*;
- Best Practice Guidance: *IEMA Environmental Impact Assessment Guide to: Assessing Greenhouse Gas Emissions and Evaluating their Significance*; and
- The Greenhouse Gas (GHG) Protocol.

Climate Change Mitigation (Greenhouse Gas Emissions):

23.6 It is recognised that the consumption of fossil fuels result in the emission of a range of GHGs which, in turn, are resulting in global climate change. There is an international and national response to the dangers posed by climate change through a commitment to decarbonise the global economy through a range of measures specific to each country.

23.7 The UK has committed to a legally binding carbon reduction target by 2050 of 80% of emissions relative to a 1990 baseline. This is to be secured by a series of five-year carbon budgets which set progressively lower carbon emission 'budgets' against which all sectors must collectively seek to reduce emissions. Paragraph 5.17 of the NN NPS requires an assessment of the Applicant's GHG emissions against these carbon budgets to determine if the project may prevent the Government from achieving the necessary reductions.

23.8 The carbon budgets inherently recognise that GHG emissions will occur in line with the expansion of the population and economy, with a significant proportion of GHG emissions reductions currently occurring from the decarbonisation of the UK's energy supply. This, in turn, will result in reduced emissions from the built environment due to energy consumption.

23.9 In terms of identifying the effect of Rail Central upon climate change it will be important to consider this effect in the context of the net carbon emissions resulting from both the construction and operation of Rail Central.

23.10 The Proposed Development will result in GHG emissions as a result of the below activities:

- At the existing site, as a result of the current use of the site for agricultural purposes.
- During the construction phase, due to the combustion of fuels in construction plant and vehicles, indirectly through the consumption of electricity, in the processing of materials and manufacture of products, in the transportation of materials and resources, and the transportation of waste and treatment of water consumed in site activities.
- During the operational phase, due to the combustion of fuels and from fugitive releases of refrigerant gases, indirectly from the consumption of electricity in buildings, from the combustion of fuel in employees vehicles and the transport of goods.
- During the operation of the SRFI it will have a displacement impact, encouraging modal shift from the road network to rail. An assessment of these GHG savings is therefore also included.

Treatment of Freight

- 23.11 Analysis by MDS Transmodal (Appendix F (Table 2) of Appendix 23.2 to the ES) estimates that the operational SRFI will result in a reduction of annual HGV-km travelled of approximately 20% when compared to a road only scenario which is equivalent to a movement of approximately 53million HGV-kms from road to rail which is considered to be a significant environmental benefit.
- 23.12 In order to calculate how this modal shift may result in GHG savings relative to the baseline, an assessment of future emissions from road and rail freight (assuming decarbonisation in line with future projections) has been undertaken.
- 23.13 Using current (2018) emission factors, and taking into account both direct and indirect emissions, it is estimated that rail freight produces around 73% reduction less carbon per tonne.km.
- 23.14 It is anticipated that rail movements of 772,740 thousand tonne.km at the SRFI will displace circa 561,217 thousand tonne.km of road freight, which results in emissions of 58,816 tCO₂e per annum by road, compared with 31,064 tCO₂e by rail, equivalent to a 47% reduction in GHG emissions as a result of modal shift from road to rail from the operational SRFI. Future rail and road emission factors, based on expected levels of decarbonisation across both rail and road, indicate that by 2031, road emissions from the SRFI will have reduced 49,202 tCO₂e per annum and rail emissions will have reduced to 25,109 tCO₂e per annum; this is a 49% reduction. By 2038, further reductions could result in 47,456 tCO₂e per annum by road and 14,072 tCO₂e per annum by rail; this is a 70% reduction.
- 23.15 The GHG assessment (see ES Chapter 21 and Appendix 23.1) has calculated emissions for the following periods:
- During construction (2019 - 2028)
 - Short-term operation (2029 - 2038)
 - Long-term operation (2039 - 2089)

23.16 The assessment has considered these periods relative to the current and future baselines and in comparison to the relevant carbon budgets.

Total GHG emissions per Carbon Budget Period

Period	GHG Emissions [million tonnes CO ₂ e]
1st carbon budget (2008 – 2012)	3,018
2nd carbon budget (2013 – 2017)	2,782
3rd carbon budget (2018 – 2022)	2,544
4th carbon budget (2023 – 2027)	1,950
5th carbon budget (2028 – 2032)	1,725
6th carbon budget (2033 – 2037)	1,491
7th carbon budget (2038 – 2042)	1,255
8th carbon budget (2043 – 2047)	1,019
9th carbon budget (2048 – 2050)	468

Embedded Mitigation

23.17 For the purpose of the assessment, embedded mitigation has included the principles set out in the Construction Environmental Management Plan (CEMP). Relevant to this assessment, this includes:

- compliance with principles of waste management and Site Waste Management Plan;
- all construction contractors will follow an Environmental Management System (EMS);
- appropriate management of excavated soils; and
- appropriate training of staff and contractors.

23.18 The expected reductions in the GHG emissions associated with fuels and electricity consumed in the construction and operation of the Proposed Development are also assumed as embedded mitigation.

Current and Future Baseline GHG Emissions

23.19 Although the Main SRFI site is agricultural in use, GHG emissions still occur and in order to compare the GHG emissions from the construction and operational phase, the baseline emissions were estimated for the periods of construction (27,394 tCO₂e) and operation up to 2050 (59,633 tCO₂e) of the Proposed Development.

23.20 For context, and in the absence of any development on site, the existing baseline emissions currently account for 0.00054% of the total carbon budget for the period. By 2028 (end of the construction period), with no emission reductions other than those as a result of external factors, annual existing site baseline emissions would contribute 0.00070%; by 2038, this increases to 0.00108% and by 2050, 0.00173% of each carbon budget period.

Construction Phase Emissions (2019 - 2028)

- 23.21 The GHG assessment has calculated the GHG emissions from the construction phase of the Proposed Development are 221,101 tCO₂e.
- 23.22 During the construction phase however, elements of the SRFI become operational and modal shift begins to occur resulting in a reduction in GHG emissions as freight is moved from road to rail which begins to offset some of the carbon emissions generated from the construction materials.
- 23.23 The total construction phase operational emissions are estimated at circa 21,885 tCO₂e, equivalent to 0.00050% of the cumulative carbon budget for the comparable period, compared with 0.00063% from the aggregated baseline. As there is a net reduction in emissions over the site baseline, construction phase operational emissions are deemed to have a minor beneficial effect on climate change in the short-term operational phase.

Short Term Operational Phase Effects (2029 - 2038)

- 23.24 During the short-term operational phase of development, the SRFI will result in a reduction in GHG emissions of -121,278 tCO₂e, equivalent to 0.00388% of the aggregated carbon budget for the period. This compares with an increase in GHG emissions equivalent to 0.00087% of the aggregated carbon budget for the period that the aggregated existing site baseline would have otherwise contributed.
- 23.25 Whilst the operation of the SRFI results in GHG emissions, it is estimated that greater emission savings will occur as result of modal shift from road to rail resulting in an overall reduction in GHG emissions.
- 23.26 As there is a net reduction in emissions over the current site baseline, short-term operational emissions are deemed to have a minor beneficial effect on climate change in the short-term operational phase.

Long-term Operational Phase Effects (2039 – 2088)

- 23.27 Between 2039 and 2050, a GHG emission reduction of -160,152 tCO₂e is estimated, equivalent to -0.00643% of the aggregated carbon budget for the period, compared with 0.0013% that the aggregated existing site baseline would have otherwise have contributed.
- 23.28 This is a significant reduction in GHG emissions which is expected to result almost exclusively from modal shift as freight is transferred from road to a more carbon efficient rail network. The ES has concluded that these reductions in GHG emissions over the long term operational phase result in a significant environmental benefit which is in fully compliance with Paragraph 5.17-5.19 of the NPS NN.
- 23.29 To determine the effects beyond 20250 is challenging as the UK carbon budgets only exist up to 2050, but it has been assumed that the annual budget between 2050 and 2088 will remain constant at circa 156 million tonnes CO₂e per annum. Between 2039 and 2088, it is estimated that a substantial GHG emission reduction of -898,743 tCO₂e is estimated, equivalent to -0.01068% of the aggregated carbon budget for the period, compared with 0.00161% that the aggregated existing site baseline would otherwise have contributed. As a result, the aggregated significance of effect into the long-term operational phase will

continue to reduce and has the potential to deliver a significant environment benefit with respect to climate change.

- 23.30 In accordance with Paragraph 5.17 of the NN NPS, the table below presents the combined construction and operational phase emissions over the construction, short-term operational and long-term operational phases, net of existing site baseline emissions, in comparison with carbon budget emissions over the same periods.

Cumulative Emissions and comparison with Carbon Budgets

Cumulative Emissions	2019 - 2028	2019 -2038	2019 - 2050	2019 - 2088
Carbon budget [million tCO ₂ e]	4,378	7,500	9,991	15,919
Existing Site Baseline Emissions [tCO ₂ e]	27,394	54,556	87,026	189,698
Proposed Development Emissions [tCO ₂ e]	242,986	121,707	-38,444	-777,035
Net Proposed Development Emissions [tCO ₂ e]	215,592	67,151	-147,609	-966,733
Baseline emissions as % of CB	0.00063%	0.00073%	0.00087%	0.00119%
Proposed Development emissions as % of CB	0.00555%	0.00162%	-0.00083%	-0.00488%
Net emissions as % of CB	0.00049%	0.00009%	-0.00013%	-0.00061%

- 23.31 By the end of the construction phase (2028), aggregated and combined emissions from the Proposed Development equate to 0.0055% of the aggregated carbon budget for the period, reducing to 0.00049% when aggregated existing site baseline emissions are displaced.
- 23.32 By the end of the short-term operational phase (2038), cumulative emissions from the Proposed Development equate to 0.00162% of the carbon budget, reducing to 0.00009% when baseline emissions are displaced. This is still a net increase in emissions, but by an increasingly reduced quantity as the impact of GHG emissions from the construction phase become proportionally less significant by 2050, and the point at which the UK is legally required to have reached an 80% reduction in emissions compared with the 1990 baseline, aggregated and combined emissions from the Proposed Development are estimated to generate a saving over the aggregated and combined carbon budget of 0.00083%, contributing to a reduction in the UK carbon budgets.
- 23.33 By the end of the long-term operational phase (2088), aggregated and combined emissions from the Proposed Development could potentially result in a reduction of circa 966,733 tCO₂e compared with the aggregated existing baseline.
- 23.34 For context it is helpful to understand the significance of these savings given that typically, only renewable energy projects result in GHG emissions reductions and therefore on this basis, it is clear that Rail Central is making a significant contribution to the creation of a low carbon economy.

Mitigation

- 23.35 The assessment of the operational impacts of the Proposed Development upon climate change reveals a significant environmental benefit. However, further mitigation measures have been considered on the basis that any further reductions in GHG emissions can only be beneficial. Paragraph 5.19 of the NN NPS also requires appropriate mitigation to ensure the carbon footprint is not ‘unnecessarily high’.
- 23.36 Construction phase emissions are anticipated to have a moderate significant effect, with the majority of emissions occurring as a result of emissions ‘embodied’ within construction materials. It is estimated that a reduction in construction emissions could be achieved following the adaptive mitigation measure of carrying out an assessment of GHG emissions associated with the production of materials and selecting materials with lower ‘embodied’ GHG emissions. Total construction emissions following mitigation are estimated to be 180,945 tCO₂e.
- 23.37 With the adaptive mitigation measures proposed the following residual effects have been identified the Proposed Development will result in a significant environmental benefit with regard to GHG emissions and the impact upon climate change.
- 23.38 Furthermore data supporting this assessment demonstrates that significant reductions in GHG emissions during the operation of the Proposed Development are anticipated as a result of moving approximately 53 million HGV-kms from road to rail.
- 23.39 A comparison of the GHG emissions from the Proposed Development against the UKs current and anticipated future carbon budgets indicate that by 2050 the Proposed Development will make a positive contribution to the achievement of this budget and is therefore fully in compliance with the requirements of the NN NPS¹⁴⁸.

Climate Change Adaptation

- 23.40 The Proposed Development has been assessed to consider how it may be affected in the future by climate change and what measures may be needed to improve resilience. Chapter 21 of the ES presents the results of this assessment and is supported by a Climate Change Risk Assessment within Appendix 23.3.
- 23.41 This risk assessment has considered the potential risks posed to the development from changes to the UK Climate based on an assessment of the UK Climate Change Risk Assessments and relevant guidance associated with elements of the Proposed Development.
- 23.42 In accordance with the requirements of the NN NPS¹⁴⁹, the UKCP09 dataset for East Midlands for the 2020s, 2050s and 2080s for the high emissions scenario has been used to establish the future climatic factors with which to assess the Proposed Development.
- 23.43 Qualitatively the future climate of the project location at 2020 and with increasing variability up to 2080 may include the following which have been used as the basis for the assessment:
- An increase in annual average temperature by 3.6 degrees in winter and 4.4 degrees in summer;

¹⁴⁸ Paragraphs 5.17-5.19

¹⁴⁹ Paragraph 4.41

- More very hot days particularly in long term operation with an increase in daily maximum temperature of 6 degrees;
- More intense downpours of rain;
- Increase in winter rainfall with reduced snowfall and winter rainfall increasing by 25%; and
- An increase in dry spells particularly in summer months with summer rainfall dropping by 25%.

23.44 A number of embedded mitigation measures, including tertiary mitigation have been included within the Proposed Development and which have been considered in the ES:

- Flood risk legislation – Existing flood risk legislation and guidance underpinned by the Flood and Water Management Act (2010) and Flood Risk Regulations (2009) set out requirements for development to consider the impacts of climate change.
- Health and Safety Legislation - The Health and Safety Executive [HSE] sets out UK legislation and guidance to ensure the safety of construction and operational workforce.
- Building Regulations - The Building Regulations are statutory instruments that seek to ensure that the policies set out in relevant legislation are carried out and include a number of Approved Documents [ADs] including; Structure; Conservation of fuel and power; and Drainage and waste disposal.
- The Main SRFI site Parameters Plan –Shows surface water drainage attenuation sized for a 1 in 200 year storm with a 40% allowance for climate change.
- The Code of Construction Practice (COCP) – Sets out the general good practice methodologies. In relation to sustainability and climate change the COCP includes embedded mitigation, including:
 - Confirmation the Proposed Development will be in accordance with all appropriate UK Legislation.
 - The Proposed Development will be constructed in accordance with the BREEAM (2014) scheme and achieve an Excellent rating.
 - Confirmation that as part of the J15A works the drainage strategy proposed will provide for up to the 1 in 200 year event plus a 40% allowance for climate change.
- The Construction Environmental Management Plan (CEMP) – Which sets out a range of embedded mitigation measures including design and best practice climate change measures in relation to Air quality and dust, Construction compounds, Construction site drainage, Health and wellbeing, Protection of controlled waters, Water efficiency, as well as the Design of watercourse realignment and surface water drainage.

Construction Stage Effects

23.45 The assessment has concluded that after the initial assessment, taking into account the embedded mitigation, there are no significant adverse effects in relation to climate change during the construction stage.

Operational Stage Effects

23.46 The assessment of future climate change upon the operational stage of the Main SRFI site and J15A works has identified the following significant adverse environmental effects:

- Main SRFI site and J15a - An increase in summer and winter temperatures and changes in rainfall – The increase in temperatures and changes in rainfall are anticipated to lead to greater swings in ground conditions through summer and winter which can lead to ground movement impacting on infrastructure foundations. Given the potential for structural damage this is therefore considered to have a moderate adverse effect.
- Main SRFI site only - Increase in summer mean and daily maximum temperature - The increase in summer mean and daily maximum temperature may result in an increased risk of overheating. Given the potential negative effects of building occupants this is there considered to have moderate adverse effect.

23.47 In addition to the effects set out above through the assessment of operational stage effects a number of effects have been identified where additional adaptive mitigation could improve the climate change resilience of the Proposed Development.

- Main SRFI site only - Reduced Summer Rainfall - A reduction in summer rainfall may have a minor adverse effect on site habitats through a lack of rainfall or water irrigation supplies.
- Main SRFI site only - Reduced summer rainfall – The impact of reduced summer rainfall may affect local and national water supplies. As the East Midlands are in an area of moderate water stress this could impact on the operation of site and potentially contribute to water shortages and is considered a minor adverse effect.

Mitigation – Climate Change Resilience

23.48 As a result of the above effects, the following adaptive mitigation is proposed:

- Use of best practice design and construction practices for the construction of foundations in line with relevant guidance including consideration of climate change.
- Use of thermal dynamic modelling to ensure overheating risks in new buildings is identified and actioned through building design and mitigation.
- Buildings designed to include water efficiency measures targeting 2 credits under the BREEAM 2014 scheme achieving a 25% reduction in water consumption.

- Provision of a Habitat Management Plan to facilitate the use of rainwater for irrigation.

23.49 With the adaptive mitigation measures proposed above, it is considered that there are no significant residual environmental effects and the Proposed Development has a high resilience to the projected future impacts of climate change.

Conclusions (Climate Change Mitigation and Adaptation)

23.50 Based on the requirements of the NPS and utilising the latest technical guidance in combination with professional judgement, a robust assessment of the impacts of, and contribution to, future climate change from the Proposed Development has been undertaken.

23.51 Based on current 2018 emission factors, it is estimated that the operation of the SRFI results in a 47% reduction in GHG emissions as a result of moving approximately 53 million HGV-Kms from road to rail. Furthermore, it is estimated that by 2050, the operation of the SRFI may lead to an overall reduction in GHG emissions as a result of this modal shift and with due consideration to the potential future effects of decarbonisation of the economy and transportation network. This is considered to have a significant environmental benefit.

23.52 In compliance the NN NPS¹⁵⁰, this assessment has concluded that the construction and operation of Rail Central will not prevent the Government from achieving its carbon budgets, indeed, it is considered that Rail Central will make a positive contribution to the achievement of these budgets given that significant reductions in GHG emissions are secured via modal shift from road to rail.

23.53 A Climate Change Risk Assessment has been prepared to demonstrate the scale of climate variation anticipated and associated risks over the construction and operational phases of the Proposed Development. The subsequent assessment of climate change effects and impact highlighted the potential for a small number of minor adverse effects in relation to ground movement and the potential for overheating.

23.54 Following the application of the adaptive mitigation measures however it is concluded that there are no significant environmental effects upon the Proposed Development associated with the future impacts of climate change. It can therefore be concluded that the Proposed Development has a high resilience to the future effects of climate change and has robustly addressed the requirements of the NN NPS¹⁵¹.

¹⁵⁰ Paragraphs 5.17-5.19

¹⁵¹ Paragraphs 4.36 – 4.47

24. Socio-Economic Impacts

- 24.1 The NN NPS recognises the significant role of the national rail network in supporting economic growth and sustaining existing economic activity and productivity, and the need to further develop national networks to meet the country's long-term needs and both stimulate and support economic growth.
- 24.2 The increasingly significant role of rail freight in logistics is recognised as an important driver of economic growth. The considerable local economic benefits that SRFIs can provide are acknowledged, with the labour-intensive nature of major distribution centres creating many new job opportunities.
- 24.3 The NN NPS identifies that there is a critical need to improve the national networks to address road congestion and crowding on the railways to provide safe, expeditious and resilient networks that better support social and economic activity; and to provide a transport network that is capable of stimulating and supporting economic growth¹⁵².
- 24.4 As set out within the NN NPS¹⁵³:

“In the context of the Government's vision for the transport system as a driver of economic growth and social development, the railway must:

- *offer a safe and reliable route to work;*
- *facilitate increases in both business and leisure travel;*
- *support regional and local public transport to connect communities with public services, with workplaces and with each other; and*
- *provide for the transport of freight across the country, and to and from ports, in order to help meet environmental goals and improve quality of life”.*

- 24.5 The NN NPS identifies that rail freight plays an increasingly significant role in logistics and has become an important driver of economic growth. It highlights that there is an increasing need for SRFI due to the changing needs of the logistics sector, the high levels of forecast growth in rail freight to reduce the dependence on road haulage to serve the major markets and finally due to the considerable local economic benefits that SRFIs can provide. The NN NPS states that:

“... because many of the on-site functions of major distribution operations are relatively labour-intensive this can create many new job opportunities and contribute to the enhancement of people's skills and use of technology, with wider longer term benefits to the economy...”¹⁵⁴

- 24.6 The NN NPS also states that the ExA and SoS when considering any Proposed Development should:

¹⁵² Paragraph 2.2

¹⁵³ Paragraph 2.29

¹⁵⁴ Paragraph 2.52

*'take into account its potential benefits, including the facilitation of economic development, including job creation, housing and environmental improvement, and any long term or wider developments.'*¹⁵⁵

- 24.7 National, regional and local levels should be considered, as reflected in the NN NPS. The Part 2 Local Plan for South Northamptonshire also targets continued growth in the size and competitiveness of local businesses by encouraging inward investment and job creation, and aims to both maintain unemployment at currently low levels and reduce out-commuting.
- 24.8 An Economic Benefits Statement (Document Ref 7.19) accompanies the DCO submission as well as a socio-economic assessment which forms Chapter 18 of the ES. This includes the identification and assessment of likely direct and indirect effects relating to employment, housing and labour force, productivity, crime and business rate revenue. These have been reviewed through the collation and analysis of nationally recognised and published research and data, including mid-year population estimates and Experian Local Market Forecasts.
- 24.9 It is also recognised that the Main SRFI Site could generate broader socio-economic effects resulting from the movement of road-based freight to rail; such effects are likely to benefit the national economy.
- 24.10 Socio-economic effects may also be generated by works at J15a and other highways works, which are considered within this chapter where possible. These effects are expected to be primarily generated during construction, with significant socio-economic effects unlikely to be generated by these works once constructed and operational. However, the costs associated with works at J15a and other highways works are not presently known, and therefore insufficient detail currently exists to fully assess the socio-economic effects generated during their construction.
- 24.11 Socio-economic effects have been assessed at various spatial scales, based on an understanding of relevant local and wider economic geographies and the extent to which socio-economic effects are likely to be contained within these geographies. For the purposes of the assessment, socio-economic effects are established within the following study areas: South Northamptonshire; Coventry, Daventry, Milton Keynes, Northampton, South Northamptonshire and Wellingborough; and England. Within these study areas, the construction of the Main SRFI Site is likely to generate significant beneficial local socio-economic effects, resulting from the creation of direct (268no. FTE gross temporary construction jobs per annum, including a high proportion of skilled trade occupations) and indirect (an additional 187no. indirect and induced) jobs and an increase in productivity in the local economy (£203.5m in GVA to the national economy over the full construction period, including £67m to the local economy of South Northamptonshire).
- 24.12 Once completed, operational and occupied, significant major beneficial effects relating to jobs, productivity and business rate revenue are likely to be generated, based on the maximum floorspace parameters. In particular, the Proposed Development will help to foster growth in the jobs sector (calculated to be 8,090 gross FTE direct jobs in the local area, plus the generation of a further 5,663 indirect or induced jobs), increase the provision of apprenticeships and result in a significant lasting high uplift in economic productivity (an

¹⁵⁵ Paragraph 4.3

annual contribution of £168.7m in GVA to the economy of the local impact area, rising to £554.2m in the national economy).

- 24.13 A commitment to working closely with local and regional training and education providers, will provide a strong alignment between the skills profile of the local and wider population and the skills required to occupy positions created at the Main SRFI Site. Measures to reduce incidences of crime, as requested by Northamptonshire Police, are also embedded through the scheme design, thereby mitigating any potential adverse effect.

Monitoring

- 24.14 The applicant is committed to investing in training and skills development. As part of the proposed Local Employment Scheme the frequency of monitoring and selection of Key Performance Indicators will be agreed with South Northamptonshire Council. Beyond this, it is not anticipated that any socio-economic monitoring procedures are necessary.

Conclusions (Socio-Economics)

- 24.15 The ES assessment and Socio-Economic Benefits Report has considered the socio-economic effects generated by investment in the construction of the Proposed Development and the effects resulting from its operation once completed. This has included the identification and assessment of likely direct and indirect effects relating to employment, labour force, productivity, crime and business rate revenue.
- 24.16 Within the identified Impact Areas it is envisaged that construction of the Proposed Development is likely to generate significant socio-economic effects which are beneficial in nature, resulting from the creation of jobs and increase in productivity in the local economy. There are therefore no significant adverse socio-economic effects arising during construction which require mitigation.
- 24.17 Once completed, operational and fully occupied, significant beneficial effects relating to jobs, productivity and business rate revenue are likely to be generated. Rail Central is expected to create a level of employment directly on site which is equivalent to delivering 8.3% of SEMLEP's job creation target. The vast majority of the jobs created are expected to be filled by people residing within the Impact area. A wide range of jobs are expected to be provided with over 40% of the jobs created anticipated to be in managerial, senior, professional and associate professional roles. Over the next decade, there are plans to deliver around 69,000 new homes within the wider area in which Rail Central is expected to draw its labour force. This will lead to growth in both the resident population and the labour force available to fulfil job opportunities. Indeed, the level of housing growth could result in a labour force which contains 66,000 additional economically active people by 2026 and more beyond this time. This is in addition to some 7,800 people currently identified as claiming Jobseeker's Allowance. Rail Central would also present opportunities for a reduced out-flow of commuters from South Northamptonshire to Northampton and beyond (which the 2011 Census identified is currently at a rate of 72%), thereby reflecting the Part 2 Local Plan targets which seek to encourage the continued growth in the size and competitiveness of local businesses and reduce out-commuting.
- 24.18 No significant adverse effects are identified through the assessment, which takes account of the labour force growth facilitated by planned new housing growth across the wider area as

well as embedded measures relating to employment, skills and training. In addition, measures have been designed to maximise the benefits of the Development and been incorporated into the scheme. Measures to reduce incidences of crime are also embedded through design, mitigating any potential adverse effect.

24.19 The Proposed Development is in accordance with the NN NPS by enabling social and economic activity and by stimulating and supporting economic growth¹⁵⁶.

¹⁵⁶ Paragraph 2.2

25. Cumulative Impact Assessment

- 25.1 The cumulative impact assessment (CIA), undertaken as part of the ES, identifies the potential environmental effects arising from the Proposed Development on a topic by topic basis, with consideration of different effects from different topics on the same receptor and in-combination with other relevant projects at the receptor level.

Intra-project effects

- 25.2 The assessment of intra-project effects considers only those effects produced by the Proposed Development, and not those from other projects (which are considered via the inter-project process). In order for there to be an intra-project effect, there would need to be an adverse or beneficial residual effect identified on a receptor from across one of more topics, i.e. a minor effect or above. This assumes the implementation of all embedded and adaptive mitigation. Lower levels of effect could not reasonably be expected to contribute to a significant cumulative effect.
- 25.3 The shared receptors identified (as groups) were: people (including human health), land and soil, heritage assets, biodiversity and landscape assets.
- 25.4 People were considered to have potential to be affected by changes in agricultural land (loss of land/ loss of soil resource), changes in landscape (views), increases in noise and vibration, changes in the likelihood of accidents/ driver delay/ pedestrian amenity and severance from highways, changes in jobs and economic changes, and changes in temperature and rainfall. Such changes could interact – for example the loss of agricultural land could interact with changes in land use due to climate, or changes in the socioeconomic factors. It is considered that some of the beneficial effects will contribute to partially off-setting adverse effects when considered in-combination. However, overall the level of effect is considered to be no greater than identified in the individual Chapters set out in the ES and confirmed within previous section of this Statement.
- 25.5 Land and soil were considered to have potential to be affected by changes in agricultural land (loss of land/ loss of soil resource) and climate change (changes in temperature and rainfall). However, it is considered that the residual effects are likely to be managed through future design requirements. Therefore the level of effect is considered to be no greater than identified in the individual Chapters.
- 25.6 Heritage assets were considered to have potential to be affected by changes in the archaeological resource, changes in the built heritage resource, changes in the landscape resource (setting), and changes as a result of hedgerow loss. However, overall, there was little functional interaction between the above and below ground aspects (archaeology and built heritage), and little relationship between the hedgerows and their archaeological importance. Both the built heritage and landscape and visual assessments considered the intra-project effect in detail and the ES concludes that the level of effect is no greater than identified in the individual Chapters.
- 25.7 Biodiversity assets were considered to have potential to be affected by changes in shared no common receptors other than those assessed in the chapter (e.g. loss of hedges potentially having a landscape and heritage/archaeological effect, or biodiversity receptors being

affected by noise and lighting). Therefore the level of effect on these is considered to be no greater than identified in the Biodiversity ES Chapter.

- 25.8 Landscape assets were considered to have potential to be affected through their interrelationship with the setting of heritage features as experienced by both residential receptors and users of the Public Right of Way (PROW) or/and local road network. This is assessed in Chapter 15: Landscape and Visual and 11: Built Heritage. Loss of hedges and hedgerow network and loss of mature and veteran trees are assessed in Chapter 14: Biodiversity. It can be concluded that the level of effect is no greater than identified in the individual ES Chapters.

Inter-Project Effects

- 25.9 These effects arise from the Proposed Development interacting with other developments/projects in the vicinity.
- 25.10 Projects have been considered for CIA only where it is considered that sufficient detail is available with which to undertake a meaningful assessment. In the case of Northampton Gateway, which is being promoted by Roxhill, this has been included in the CIA for Rail Central. The Northampton Gateway application for development consent was accepted for examination on 15 June 2018 and the pre-application stage for both projects ran to similar timescales. At the time of conducting some of the cumulative impact assessments, the submitted application data for Northampton Gateway was not available. The assessment was therefore conducted on the basis of the data publicly available at that time, as presented in the PEIR for Northampton Gateway. A similar approach was taken by Northampton Gateway, whose submitted CIA is based on the Rail Central PEIR data. However, the Applicant will continue to work with statutory consultees to ensure the CIA is as accurate as it can be. If appropriate in due course, the Applicant can consider any new data which is made available and can confirm the extent to which this alters (if at all) the conclusions of the CIA already undertaken. This approach complies with the relevant EIA Regulations and is consistent with that taken for other applications, where relevant environmental information has become available following preparation of the CIA.
- 25.11 The topic assessments provided in the ES have assessed the likelihood on an inter-project cumulative effect based on there being a common receptor and a residual effect which is considered adverse or beneficial, i.e. a minor effect or above. This assumes the implementation of all embedded and adaptive mitigation. Lower levels of effect could not reasonably be expected to contribute to a significant cumulative effect. 35 potential cumulative projects were identified which had the potential of affecting receptors shared with Rail Central due to their location, nature and status.
- 25.12 Specifically, consideration of the Rail Central Proposed Development with Northampton Gateway SRFI was undertaken. Should the two projects be consented and developed together, there would be slight changes to the landscaping to the east of the Northampton Loop Line (NLL), and changes to the phasing of the works at J15a. However, overall, the ES considers that both projects mitigate their own effects to an acceptable level. There will be different effects on different receptors should they both progress, but the cumulative effects on shared receptors are considered to be not significant (with the exception of agricultural land, two built heritage receptors as identified below, some landscape and visual receptors during construction, and at one receptor during operation before landscaping is fully mature

– see below). There would also be significant cumulative positive effects on socio-economic receptors in terms of labour force and job creation, economic productivity and business rate revenue and a reduction in unemployment would occur. Residual effects in terms of climate change mitigation identified as moderate beneficial (construction and operational in-combination) remains and would contribute in a beneficial way to any inter-project cumulative effect.

25.13 Significant adverse impacts on landscape (remaining receptors), and built heritage (remaining receptors) would remain significant in cumulation with Northampton Gateway, but the additional effect in itself is not considered to be cumulatively significant.

25.14 No significant adverse cumulative effects were identified for assessments (Northampton Gateway and the other 34 identified cumulative projects) as follows:

- Air quality - there would be cumulative construction dust and operational traffic, but as each project would mitigate its own effects, these would not be significant at the few shared receptors (especially given largely differing traffic routes followed on the road network by each cumulative project) and there would not therefore be a significant adverse cumulative effect.
- Archaeology - the cumulative loss of archaeological resource is mitigated through mitigation of each project and there would not therefore be a significant adverse cumulative effect.
- Ground conditions and Hydrology, drainage and flood risk – all projects would control their own effects and there would not therefore be a significant adverse cumulative effect.
- Biodiversity – although there would be cumulative effects on receptors including hedgerows (contributing to the wider network); foraging and commuting bats and farmland habitat (and farmland birds) the level of effect identified would remain as minor adverse although the magnitude may increase. Therefore there would be no significant cumulative effects.
- Noise and vibration - There is unlikely to be an inter-project cumulative effects due to the distance from the majority of cumulative projects. Northampton Gateway shares a number of common receptors with Rail Central including NSR 4 (Barn Lane, Milton Malsor) and NSR 5 (West Lodge Farm). The residual effects identified as up to minor adverse remain but this is not considered a significant inter-project cumulative effect.

- Highways and transportation - The traffic model which fed into assessments of operational traffic was based on a model including traffic arising from the cumulative projects in Northamptonshire (though not Northampton Gateway specifically). Therefore traffic arising from the cumulative developments was included within the model. Residual effects identified as up to minor beneficial remain and but this is not considered a significant inter-project cumulative effect. The cumulative effect with Northampton Gateway is mitigated through the proposed alterations to the road network (creating beneficial individual effects) and that both projects access the relevant sites through different parts of the road network.

This is also reiterated within the TA which demonstrates that in the vast majority of cases, the highway improvement proposals provide an overall benefit to the operation of the highway network, with the addition of both the Rail Central and the Northampton Gateway developments. At three junction schemes, whilst an impact is shown in the cumulative assessment, this is not considered to be significant and in some instances the benefits shown during one peak period outweigh the impacts shown in the other peak period.

- Lighting – impact from each project on the shared receptors is mitigated through mitigation of each project and there would not therefore be a significant adverse cumulative effect.
- Waste and Resource Efficiency – all projects would minimise waste sent to landfill, so the cumulative impact on the waste facilities would not be significant.
- Climate Change Adaptation – The assessment of residual effects to temperatures and rainfall identified as minor beneficial to minor adverse remain are relevant to the Proposed Development. It is assumed that measures to adapt to climate change will be controlled in a similar manner across the other Schemes assessed but this is not considered a significant inter-project cumulative effect.

25.15 The assessment of agricultural land concludes that during construction there would be a moderate adverse cumulative effect arising from loss of best and most versatile land. There would be no cumulative effect during operation.

25.16 The assessment of built heritage concluded that Milton Malsor Conservation Area (MM36) and Mortimers House (MM10) would experience a moderate level of effect from Rail Central and a negligible and slight effect from Northampton gateway respectively. Assuming both projects were constructed simultaneously, this could lead to a significant cumulative effect. There would be some screening of Northampton Gateway by landscaping (vegetation and bunds) around Rail Central (and vice versa for other views), but there would be some residual cumulative effect. Northampton Gateway would also occupy land to the east of Rail Central which surround the village and Milton Malsor Conservation Area. Overall, therefore, there would be a cumulative effect on these two receptors as a result of both projects during construction (before maturation of landscaping), which as a worst case could be significant. There would be no cumulative operational effects.

25.17 The assessment of landscape and visual effects concluded that there would be shared receptors at Rail Central and Northampton Gateway including landscape character and visual receptors, particularly in-between Collingtree and Milton Malsor (for Northampton Gateway – corresponding to Viewpoints 3 (representative of views to users of PRow RD3, RD6, KZ14 and RD22 located to the East of Blisworth) and Viewpoints, 4, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19. There will be residual construction effects remaining at these, which will be increased as a result of the cumulative change from operational agricultural land and the loss of landscape features such as hedgerows and trees during site clearance. Construction equipment could also have a cumulative effect with Northampton Gateway at the identified receptors. This would result in a significant cumulative effect at these receptors, until landscaping of both schemes is established. However, there is a very limited level of intervisibility within the local landscape context, and with each project being relatively contained and separated by proposed mitigation at operation. Visual residual effects would remain during operation but these would only be significant at Viewpoint 3 at Year 1. No significant inter-project cumulative effects are anticipated at Viewpoint 3 at Year 15.

Summary

- 25.18 In summary, a number of intra-project effects have been identified at a number of common, sensitive receptors. These are people (including their health), land and soil, heritage assets, biodiversity and landscape character. The intra-relationships have been evaluated through the use of a matrix and for many intra-project effects, detailed assessment has been an integral part of the technical assessments within the ES. The level of effect at the common, sensitive receptors is no greater than identified individually within topic chapters.
- 25.19 Inter-project effects have been considered for up to 35 approved projects. These have been evaluated by the team if there are relevant residual effects to common, sensitive receptors. For air quality; ground conditions; hydrology, drainage and flood risk; biodiversity; and lighting there are no significant residual effects at the project level and no significant inter-project cumulative effects. For archaeology; built heritage (during operation); noise; highways and transportation; and waste and resource efficiency, there are no significant inter-project cumulative effects, albeit residual effects remain at the project level.
- 25.20 A consideration of the Rail Central Proposed Development with Northampton Gateway SRFI was undertaken. Should the two projects be developed together, there would be slight changes to the landscaping to the east of the Northampton Loop Line (NLL), and changes to the phasing of the works at J15a. However, overall, both projects mitigate their own effects to an acceptable level. There will be different effects on different receptors should they both progress, but the cumulative effects on shared receptors were not significant (with the exception of agricultural land, two built heritage receptors and some landscape and visual receptors during construction, and at one receptor during operation before landscaping is fully mature). There would also be significant cumulative positive effects on socio-economic receptors in terms of labour force and job creation, economic productivity and business rate revenue and a reduction in unemployment would occur. Residual effects in terms of climate change mitigation (shift of freight from road to rail) identified as moderate beneficial (construction and operational in-combination) remains and would contribute in a beneficial way to any inter-project cumulative effect.

25.21 Significant adverse impacts on landscape (remaining receptors), and built heritage (remaining receptors) would remain significant in cumulation with Northampton Gateway, but the additional effect in itself would not be cumulatively significant.

26. Overall Planning Balance

26.1 The statutory framework for deciding NSIP applications where there is a relevant designated NPS is set out in s104 of the PA 2008. The Secretary of State must decide the application in accordance with any relevant NPS, with exceptions. The NN NPS states that:

“Subject to the detailed policies and protections in the NPS, and the legal constraints set out in the Planning Act, there is a presumption in favour of granting development consent for national networks NSIPs that fall within the need for infrastructure established in the NPS.”¹⁵⁷

26.2 The NN NPS also identifies that:

“In considering any Proposed Development, and in particular, when weighing its adverse impacts against its benefits the ExA and the Secretary of State should take into account:

- *Its potential benefits, including the facilitation of economic development, including job creation, housing and environmental improvement, and any long-term or wider benefits;*
- *its potential adverse impacts, including any longer term and cumulative impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts.”¹⁵⁸*

26.3 Our case for granting development consent for this application is set out in Chapters 9 to 25 of this Statement and summarised below.

The Facilitation of Economic Development, Environmental Improvement and Wider Benefits

Delivering upon Government Policy

26.4 The NN NPS establishes a compelling need for an expanded network of SRFIs. This strong policy position was established in response to the changing needs of the logistics industry and the anticipated growth in freight traffic which will continue to fuel economic growth. All other options – including relying upon road based logistics; the existing network of SRFI or a smaller number of rail freight terminals – have been discounted on the basis that these options would result in economic growth being constrained and private sector investment and job creation stymied. National rail freight forecasting, which underpins the NN NPS, will not be satisfied if the need is not met.

26.5 The NN NPS does not set out any policy-based restriction or geographical restraint on the number of SRFI required across the Country or across specific regions to meet Government policy objectives and demand. Indeed the NN NPS is explicit in that there is an expectation that the market will deliver new SRFIs where they are viable. There is an emergence of new SRFI to expand the existing network and they are arising in locations where demand is greatest and where they can significantly and strategically benefit from access to the

¹⁵⁷ Paragraph 4.2

¹⁵⁸ Paragraph 4.3

strategic road and rail network. Recent rail freight forecasts only reaffirms the need to deliver more rail interchange capacity to meet growing rail freight demand highlighting the lack of SRFI delivery being a constraint upon delivering rail freight growth resulting in significant economic and environmental benefits being lost. The Network Rail published FNPO Route Strategic Plan supports the provision of new rail terminal capacity, including at Northampton, as well as other locations across the Midlands.

- 26.6 The Proposed Development is therefore strategically well positioned in an area which has significant competitive advantage – located in the heartland of logistics and distribution which displays high demand and the most optimum geographical characteristics and infrastructure to serve existing logistic occupiers (within the hinterland) and new logistics customers which together will deliver a critical mass to sustain and support the economy. These ingredients emphasise the need to capitalise on its market potential. Across the region, there is a paucity of suitable SRFI locations and a critical undersupply of suitable logistics warehousing sites and floorspace. The ASA identifies the Proposed Development is one of the best performing SRFI locations across the region.
- 26.7 The NN NPS explicitly underscores the need to deliver a network of SRFI by confirming that there is a presumption in favour of granting development consent order for national networks NSIPs that fall within the need for infrastructure established in the NN NPS.
- 26.8 The Proposed Development meets the NN NPS requirements of locational criteria as set out in paragraph 2.56 with it being located adjacent to the M1 which serves as the key north-south motorway link in the UK and a core part of the strategic highway network and provides access to a large proportion of the population; it is also in a location which is highly accessible to serve markets and where a high level of logistics operators already reside. Access to freight interchange provision provides an additional means of transportation offering improved supply chain resilience, choice and flexibility while significantly reducing emissions. The Proposed Development directly connects to the WCML providing direct access to the SRN enabling swift access to the rail freight network and key deep-sea ports.
- 26.9 The locational requirements of the NN NPS are therefore met.
- 26.10 The NN NPS also specifically requires SRFIs to be of specific function and size in order to deliver the scale of economies, operating efficiencies, benefits and linkages afforded by such SRFI development. The Proposed Development would be capable of handling freight trains of the optimal length (up to 775m long) with on-site infrastructure configured for optimum use to eliminate shunting and to be able to receive trains from both north and south of the rail network. The terminal would also be capable to handle four trains per day¹⁵⁹ from the outset with the ability to increase the number of trains handled as the development matures.
- 26.11 The Proposed Development is compliant with the NN NPS requirement¹⁶⁰ relating to functionality. The proposed SRFI will be capable of accommodating both rail and non-rail activities. Early phases of development will also provide an operational rail connection and areas for intermodal handling and container storage. The functional requirements of the NN NPS are therefore met.

¹⁵⁹ The scale of warehousing envisaged indicates that the intermodal terminal will be able to handle up to 13 trains per day at maturity.

¹⁶⁰ Paragraphs 4.83 and 4.88

26.12 The Proposed Development is also compliant with the NN NPS requirement¹⁶¹ regarding rail connected buildings. The whole development will be capable of being rail served with a significant element of warehousing (c 2.2m sqm) having the ability to be rail-connected. The Proposed Development is therefore compliant with the NN NPS regarding rail connectivity, in that from the outset, the SRFI is to be developed in a form to accommodate rail activities.

The Unique Offer presented by Rail Central

26.13 Not only is Rail Central situated on the most important strategic corridor for freight transport corridor within Great Britain and positioned within the centre of UK logistics where demand is greatest, the Proposed Development would provide added benefits from an operational perspective which are not offered by any existing or emerging SRFI. First generation SRFI narrowly focussed on a specific service but the next generation of SRFI (such as Rail Central) need to offer a wider range of rail freight opportunities to positively respond to market changes in demand and supply chains.

26.14 The Rail Central SRFI provides full inter-connectivity between the WCML and the NLL ensuring users benefit from a range of routing options and resulting in rail services that are flexible, resilient and efficient. This also enables main line access to be maintained throughout when either the WCML Fast Line or Slow Line is closed for maintenance. The Proposed Development also includes important ancillary facilities including a dedicated lorry park and Train Maintenance Depot allowing trains to be stabled, maintained and fuelled on site rather than at off-site locations. This reduces the need for trains to be moved off site, maximising the efficient use of available mainline capacity.

26.15 In addition to the intermodal terminal, the Proposed Development utilises its ability to connect onto the WCML fast line and includes the unique proposition (for a SRFI) of being able to capture express freight traffic through the provision of quick and easy loading and unloading via a dedicated express freight terminal. This element of the Proposed Development is an immediate response to facilitate and capture this burgeoning market and offers occupiers and users of Rail Central a unique range and combination of rail freight services and network routes ultimately resulting in faster means of distribution and more direct means of distribution into urban centres.

26.16 Rail Central aims to offer the widest possible of rail-based services for manufacturers, retailers and logistics companies expected to occupy and use the site and this, ultimately, maximises the potential for modal shift to arise in line with government objectives.

Facilitating Economic Development, Investment and Benefit

26.17 Rail Central is an entirely privately funded Strategic Rail Freight Interchange project located at the epicentre of UK logistics.

26.18 Rail Central is also a NSIP which will generate a range of economic and social benefits that will positively affect the local area of Northamptonshire as well as the UK as a whole. As set out in the Socio-Economic Benefits Statement, Rail Central will deliver the following benefits:

- Private Sector investment in Rail Central will total £400 million and will be sustained for a 10 year construction period supporting a total of 455 FTE construction jobs every

¹⁶¹ Paragraph 4.88

year across the national economy and generating a total of more than £200 million in GVA.

- The operation of Rail Central will contribute over £169m to South Northamptonshire's economy every year and will also generate a lasting productivity impact to the national economy which is expected to be over £500 million per annum.
- Rail Central would help maintain and enhance the efficient competitive and sustainable logistics and distribution network the area needs to maintain and enhance its inherent economic strengths. It would assist in supporting the growth of other sectors such as manufacturing and higher technology activities. It would introduce further resilience into the region to ensure the area remains competitive against other regions, both nationally and internationally which already have similar facilities in place.
- Once fully constructed and operational, the Proposed Development would support over 8,000 jobs directly on site across a range of occupations. This is equivalent to over 8% of the LEP's job creation targets to 2050. A further 5,663 jobs will be supported in associated industries through the business supply chain as well as jobs supported by the spending of wages in the economy.
- Rail Central will generate significant local taxation benefits including an estimated £14.5m in business rates annually benefitting the finances of local and national government and helping to fund the services that benefit people locally. Under current arrangements South Northamptonshire Council could potentially retain over £7 million of this revenue every year. This would increase the annual revenue currently retained by the Council by around one third.

26.19 These benefits are substantial and weight heavily in favour of the Proposed Development.

Transport Benefits

26.20 The package of highway proposals is set out in the WebTAG compliant Transport Assessment (TA). The highway proposals comprise a range of junction improvements, pedestrian and cycle improvements, Travel Plan measures, safety schemes and environmental enhancements. The proposed improvements, including improvements to J15a of the M1 would provide a significant benefit to the operation of the wider highway network, both in terms of improved performance, capacity and resilience with trips returning to major routes and away from minor routes.

26.21 The Proposed Development would retain connectivity through the Main SRFI Site and enhance its permeability and accessibility through improved pedestrian/cycle routes and new local bus services. The mitigation package will provide an overall net-benefit to the overall highway network, improving the performance, capacity and resilience of J15a of the M1 and more than fully mitigates the impact of the SRFI, thereby satisfying the requirements of the NN NPS¹⁶².

Environmental Benefit – Green Space and Ecology

26.22 In summary, the Proposed Development will prevent significant environmental impacts arising, through the overall site design principles which have been embedded. Any residual

¹⁶² Paragraph 5.208

effects are further reduced through the implementation of detailed adaptive mitigation measures and more than counterbalanced by benefits from green infrastructure and ecological mitigation areas, in accordance with the NN NPS.

26.23 The provision of over 116ha of accessible green corridors landscaped areas, ecological mitigation and pocket parks on the main SRFI site, as outlined in the Green Infrastructure Plan, are positive benefits to the scheme and generate a net gain in biodiversity. In particular, significant green buffers between the development area and the Grand Union Canal and around the periphery of the Main SRFI Site will provide a continuous area of mixed habitat which comprise:

- Northampton Road Greenway – Provision of a green corridor along the Northampton Road protecting the existing hedgerows.
- Renovated Barns – Renovation of disused barns in the north of the site into a permanent roost site for barn owls and bats. In addition bat boxes will be used throughout the site to provide roosting opportunities.
- Grand Union Canal Ecological Corridor – A buffer zone will be created in the south west of the site and managed to include woodland, grassland and scrub species.
- West Coast Mainline Corridor - This landscape buffer will include structural planting combined with species rich grassland.
- The A43 Ecological Corridor – Will include new native planting and managed as a dark area, including an underpass designed to facilitate the passage of wildlife including bats.
- Milton Malsor Brook Ecological Corridor – The brook will be enhanced through new planting.
- Attenuation Ponds – The site attenuation ponds will be designed to enhance biodiversity with a range of native species providing opportunities for smooth newts, birds, invertebrates and amphibians.

26.24 The areas would be positively managed to deliver a mosaic of woodland, species rich grassland, scrubland and amenity landscape, with c 7.2km of new green corridors, c. 39ha of woodland planting and c. 2,300 large stature trees, including oak and field maple. Arm Farm Pocket Park will also comprise the creation of a pocket park to the west of the A43 to include native trees and grassland to provide foraging habitat for bats.

26.25 Furthermore, as part of a 32ha devoted to landscape and ecological mitigation, approximately 26ha of the land which is currently in agricultural use, located to the south of J15a of the M1, with close links to the canal and adjacent wildlife sites, will be enhanced within the Ecology Mitigation Area, with additional species-rich hedgerows, scrub areas, field edge ponds, habitat provision for ground nesting birds and grazed wildflower areas.

26.26 Additionally, deadwood from felled trees on the main SRFI site, the attenuation ponds and the diversion of the Milton Malsor Brook corridor would be specifically controlled to create additional habitat and to maximise their wildlife benefit, including for invertebrates, birds and bats. Further adaptive mitigation measures which will be incorporated within the

Habitat Management Plan, also include the proposed renovation and repair of barns 1 and 2, alongside further nest boxes, which could provide long-term roosting opportunities for a number of bat species.

- 26.27 The Biodiversity Offsetting Report (Document 7.14) confirms that a net gain and positive change in biodiversity value arises from the Proposed Development.

Nationally Significant Environmental Benefits – CO₂ and other sustainability measures

- 26.28 The Proposed Development has been carefully designed to generate social, economic and environmental benefits for the site and wider area, in accordance with the NN NPS and NPPF. This includes a commitment to achieve a BREEAM Excellent rating and the incorporation of energy efficient measures which result in a significant reduction in GHG emissions. Other measures, for example the provision of electric vehicle charging points, efficient waste management processes and the use of best practice sustainable construction and landscape methods (including the use of recycled materials wherever viable) will also reduce the impact of the development on the local area.
- 26.29 The Government has a commitment to cut greenhouse gas emissions by at least 80% by 2050¹⁶³, with planning policy at all levels providing strong support for development which helps the transition to a low carbon economy and future and to limit climate change. The NN NPS recognises that rail transport and SRFIs have a particular role to play in delivering significant reductions in pollution, including CO₂, at a national level¹⁶⁴.
- 26.30 The nature and scale of Rail Central means that it will contribute significantly to this policy initiative of national importance. The Proposed Development is forecast to be able to receive 13 trains per day at maturity which will result in real carbon savings. This is estimated to amount to over 50 million HGV kilometres saved per annum – equivalent to a 20.1% reduction. The NN NPS also recognises that a key benefit of the transfer of freight from the road to the rail network is the resulting reduction in vehicle GHG emissions. It is anticipated that by full operation in 2031, a reduction in emissions of 49% will be achieved as a result of the mode shift from road to rail.
- 26.31 This illustrates the significant and positive contribution Rail Central would make to the Government's UK wide carbon reduction strategy, given the significant reductions in pollution (and congestion) that rail freight delivers over road freight.
- 26.32 The presence of Rail Central within the heartland of the UK logistics, with a significant number of NDC's and RDC's already present, would unlock access to the rail network for these occupiers and provide a more environmentally acceptable alternative (compared to road) for products and goods that are increasingly being delivered from mainland Europe and China.
- 26.33 The GHG assessment for the Proposed Development estimates a 384% reduction in GHG emissions from a current baseline and 758,981 tonnes of CO₂ will be saved through the shift of freight from road to rail from 2019 - 2050.

Flooding and Drainage Benefits

¹⁶³ 2008 Climate Change Act

¹⁶⁴ Paragraph 2.35

- 26.34 Through the embedded mitigation proposed as part of the Proposed Development (the realignment of both the Milton Malsor Brook and the Unnamed Watercourse with two-stage channels designed to provide suitable capacity to contain and convey flows for all flood events up to and including the 1 in 1,000 year 'extreme' flood event), there is a significant reduction in potential flood extent and level compared to the baseline scenario for both the Main SRFI Site and locations downstream. As a consequence, the residual effects with regards to flood risk, during both the construction and operational phases of the Main SRFI Site are identified as being beneficial and significant.
- 26.35 It is also considered that the proposed system reinforcement works to the existing foul drainage network, along with a required additional 102m³ storage volume to be provided within the Order Limit boundary will lead to a 'Moderate Beneficial' level of effect at the Main SRFI Site.
- 26.36 For the reasons above, it is considered that the Proposed Development will have significant benefits in terms of reducing the effects on flood risk and improving the capacity of the existing foul water drainage system in the vicinity of the Site and weight positively in the planning balance.

Potential Adverse Impacts and measures to avoid, reduce, or compensate for any adverse impacts

- 26.37 By their nature, NSIPs are of significant scale and size. In the case of any SRFI, there is a need for the site to be in excess of 60ha.
- 26.38 In this context, the NN NPS recognises that for developments such as SRFIs, there will be local impacts in terms of land use and in increased road and rail movements and it is important for environmental impacts at these locations to be minimised¹⁶⁵. Further, the NN NPS notes that some (SRFI) developments will have some adverse local impacts on noise emissions, land/visual amenity, biodiversity, cultural heritage and water resources¹⁶⁶. It notes whilst applicants should deliver developments in accordance with Government policy and in an environmentally sensitive way, including considering opportunities to deliver environmental benefits, some adverse local effects of development may remain.
- 26.39 In terms of SRFI locations, the NN NPS identifies clear locational criteria to ensure SRFIs are viable and successful and notes that due to requirements (access to road and rail being essential) it may be that countryside locations are required for SRFIs¹⁶⁷.
- 26.40 It is in this context that any residual significant impact (that is significant impacts anticipated to arise after mitigation) should be considered in the planning balance.
- 26.41 For the vast majority of environmental topics assessed in the ES, it is not anticipated that the Proposed Development will give rise to any residual adverse effects that are considered as being significant. However, it is inevitable that some local adverse significant impacts are anticipated to occur; these are follows:

¹⁶⁵ Paragraph 2.51

¹⁶⁶ Paragraph 3.4

¹⁶⁷ Paragraph 4.84

- Moderate adverse impacts associated with the permanent loss of agricultural land including the loss of a small proportion of land (approximately one quarter) identified as Best and Most Versatile Agricultural Land (BMV);
- Some significant visual effects at a small number of local visual receptors (including a limited number of residential properties and recreation routes and PROW) during the construction and operation phases of the Proposed Development. The majority of these visual effects will reduce as the new planting is managed and matures. At year 15, the significant adverse visual effects will be generally limited to local users of recreational routes and PRoW from elevated ground and in close proximity to the Site.
- The construction and operation of the Main SRFI Site will give rise to significant adverse effects to local landscape character al
- There are a number of moderate residual effects that remain during the construction and operational phases for 3 out of the 203 heritage assets assessed. These include Mortimers, Milton Malsor Conservation Area and the Grand Union Canal Conservation Area. These effects are considered to be moderate adverse and thereby significant. However, are all assessed to constitute 'less than substantial' harm to the setting and thereby significance of built heritage assets.
- The loss of veteran trees which are protected by policy but their loss cannot be avoided and have been mitigated as much as possible in accordance with the NN NPS.

Summary and Conclusions

- 26.42 The NN NPS establishes a compelling need for an expanded network of SRFIs. Rail Central is one of the highest performing SRFI site opportunities in the Midlands. It is close to the M1 providing access to a large proportion of the national population and on the core part of the Strategic Rail Freight Network providing access to deep sea ports. It also benefits from direct connections to the fast and slow lines of the strategic rail network enabling the ability to offer a wide range of freight services to the market. It is located within the centre of heartland of UK logistics where occupiers (NDCs in particular) ideally wish to be to service their customers. It has been demonstrated that there is strong market demand for SRFI which the Rail Central site can meet and this is likely to continue to grow in the future. Rail Central is therefore well positioned and has the specific characteristics to deliver an SRFI commensurate with the aspirations of government policy to grow the rail freight market.
- 26.43 The Proposed Development would make an important contribution to the achievement of the main strategic objectives that the Government has identified for SRFI; namely helping the transfer of freight from road to rail and delivering substantial economic benefits to the local and national economy.
- 26.44 The Proposed Development has been carefully designed to ensure that it has evolved to respond carefully to the characteristics of the surrounding area and has sought to minimise

and mitigate the development's effects, as required by the NN NPS whilst positively responding to a clear and established national need for new SRFIs at this unique location.

26.45 It is concluded that the Proposed Development is compliant with the other assessment principles and generic impacts set out in the NN NPS. The contribution to Government policy objectives including the creation of a network of SRFI and to economic growth - both nationally and locally - is significant. Significant benefits would be delivered in terms of meeting government policy, transportation, socio-economic factors, carbon emissions and ecology / biodiversity. These would clearly outweigh the adverse effects identified above, which have been avoided, minimised and mitigated as far as reasonably possible.

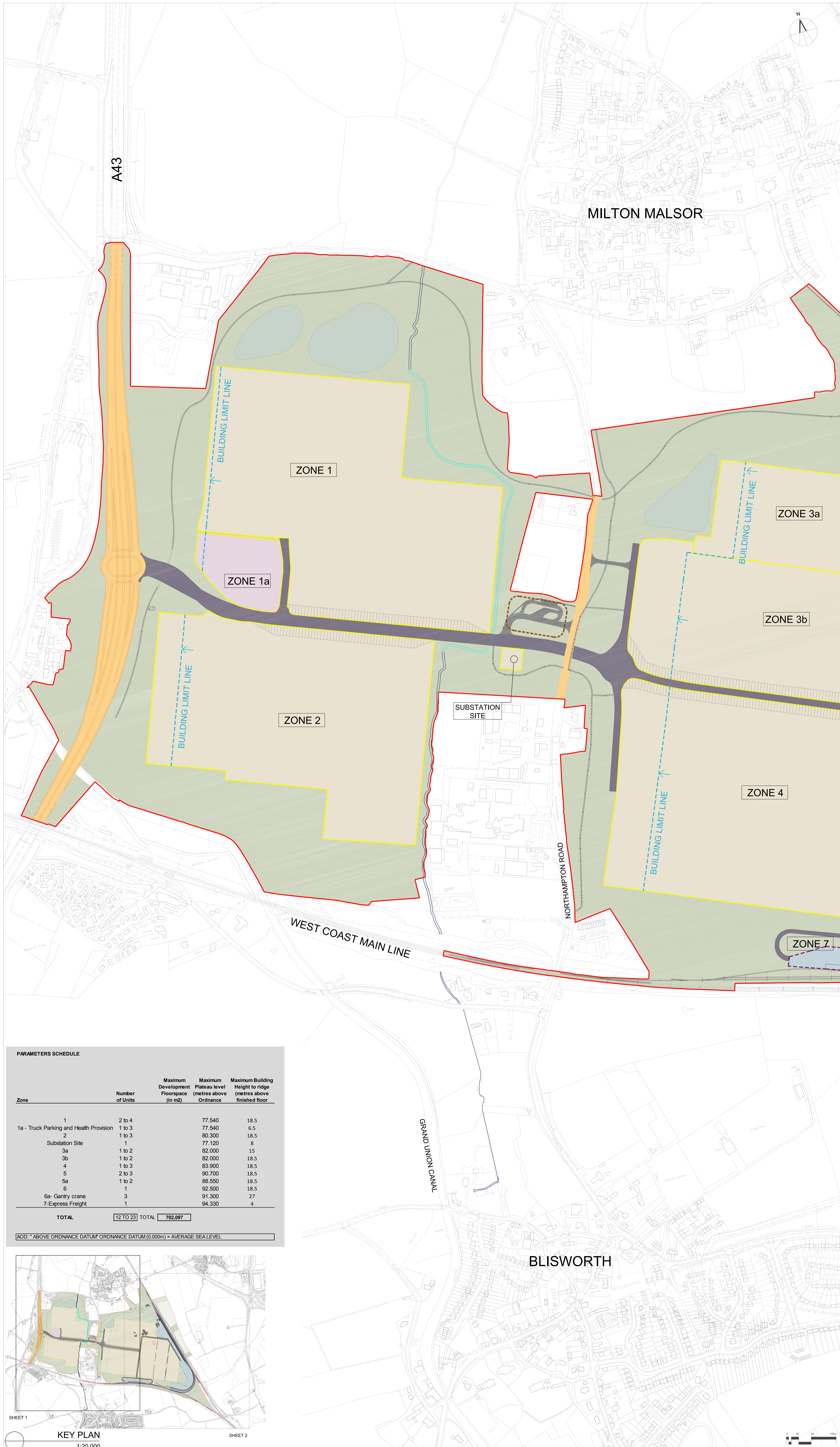
26.46 With the mitigation proposed, other impacts from the Proposed Development would be acceptable and therefore the need for the proposed SRFI and the significant benefits that the Proposed Development would deliver would far outweigh the adverse effects.

26.47 Therefore, the Proposed Development is consistent with the NN NPS, and benefits from the presumption in favour of the grant of development consent. Granting consent will not:

- Lead to the UK being in breach of its international obligations;
- Be unlawful;
- Lead to the Secretary of State being in breach of any duty imposed by or under any legislation;
- Result in adverse impacts of the development outweighing its benefits; or
- Be contrary to legislation about how decisions are to be taken.

26.48 Development consent should therefore be granted for the Proposed Development.

Appendix 1: Main SRFI Site Parameters Plans



LEGEND

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 BASED ON MK SURVEYS, TOPOGRAPHICAL SURVEY DRAWING. REF: 2223. DATED JULY 2016. AND ORDNANCE SURVEY INFORMATION.

- ORDER LIMITS
- ILLUSTRATIVE PROPOSED PUBLIC RIGHT OF WAY
- PROPOSED LANDSCAPED OPEN SPACE (INCLUDING SCREENING AND BUNDING)
- FARMLAND TO BE RETAINED
- ILLUSTRATIVE FLOOD ATTENUATION
- DEVELOPMENT PLATEAU
- INTERMODAL AREA
- ESTATE ROAD ZONE
- MILTON MALSOR BROOK
- ILLUSTRATIVE MILTON MALSOR BROOK DIVERTED
- ILLUSTRATIVE NEW ROAD INFRASTRUCTURE
- NEW ROAD INFRASTRUCTURE AND IMPROVEMENTS TO EXISTING INFRASTRUCTURE INCLUDING LANDSCAPING
- ILLUSTRATIVE AREA FOR BUS INTERCHANGE
- BUILDINGS TO BE DEMOLISHED
- BARN TO BE RETAINED/RESTORED FOR BATS/BARN OWLS
- EXISTING CATENARY STRUCTURES
- ILLUSTRATIVE PROPOSED CATENARY STRUCTURES
- RAIL TRACKS
- POTENTIAL RAIL TRACKS

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B	24-10-18	BOUNDARY UPDATED	PF	MS
A	18-10-18	BUS INTERCHANGE INDICATED	PF	MS
O	17-08-18	FIRST ISSUE	PF	MS
REV	DATE	DETAILS OF ISSUE/REVISION	DRW	REV



THE RAIL CENTRAL RAIL FREIGHT INTERCHANGE AND HIGHWAY ORDER 201[x]

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PARAMETERS PLAN SHEET 1 OF 2

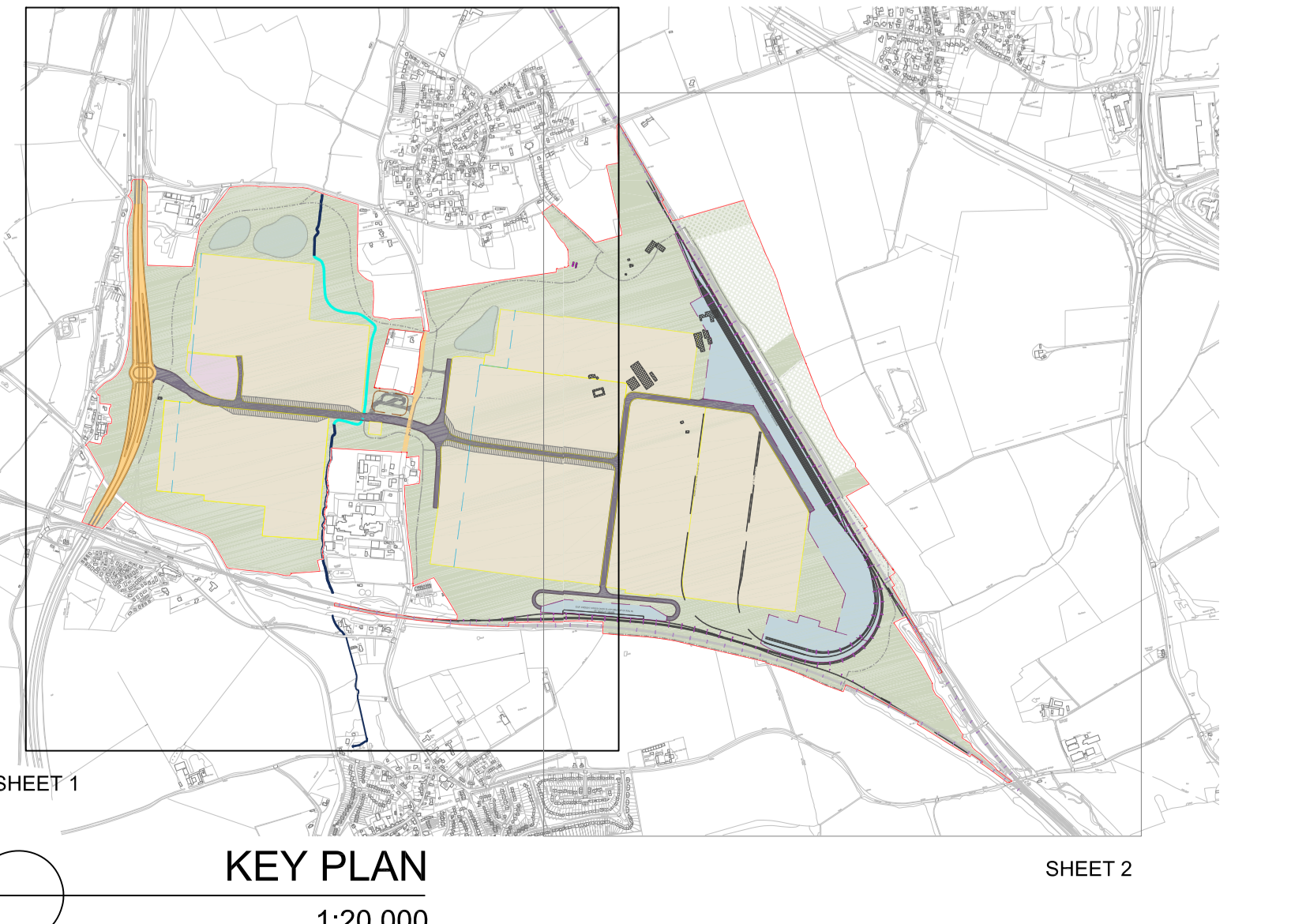
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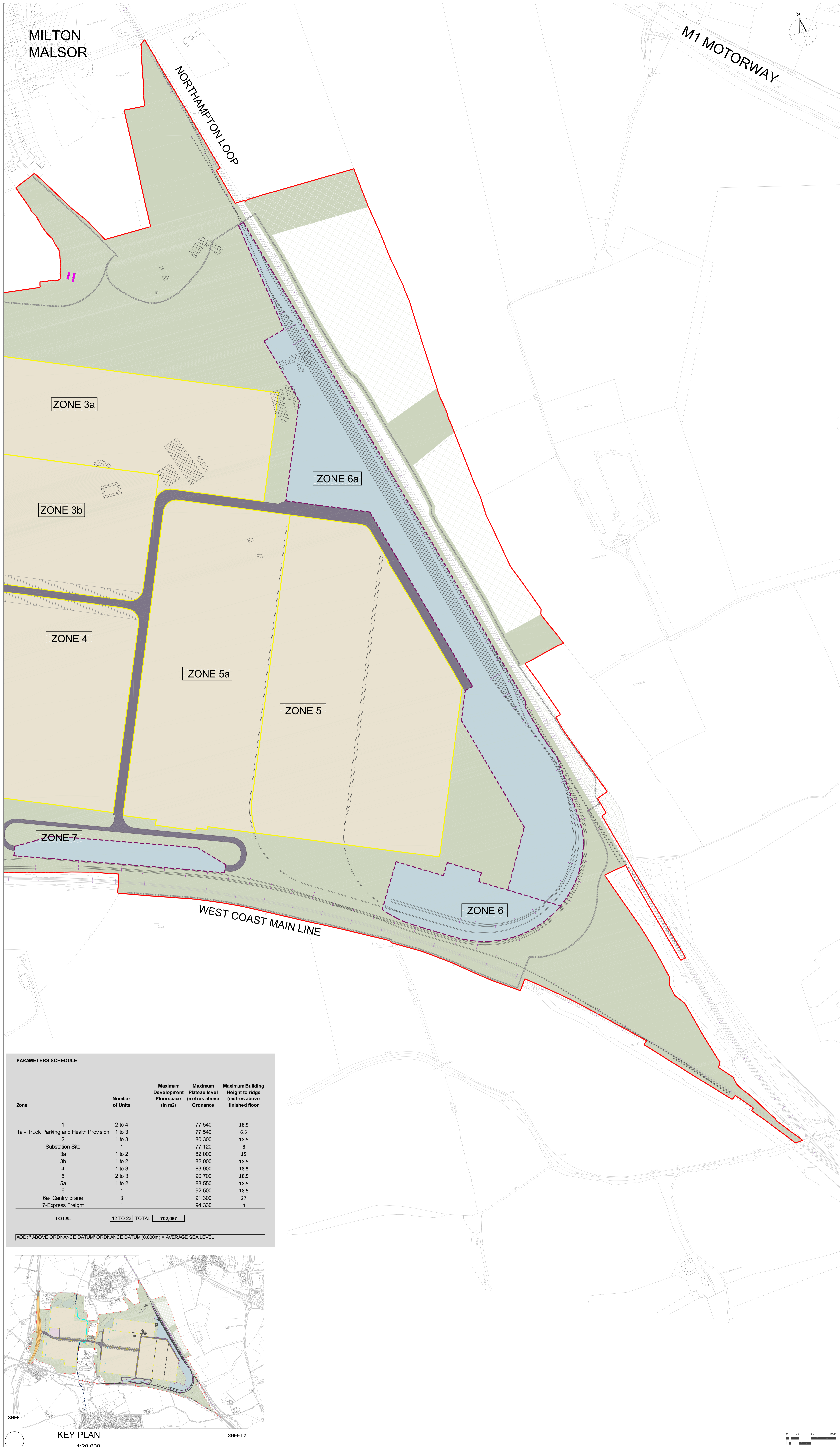
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PARAMETERS SCHEDULE

Zone	Number of Units	Maximum Development Floorspace (in m2)	Maximum Plateau level (metres above Ordnance)	Maximum Building Height to ridge (metres above finished floor)
1	2 to 4	77,540	18.5	18.5
1a - Truck Parking and Health Provision	1 to 3	77,540	6.5	6.5
2	1 to 3	80,300	18.5	18.5
Substation Site	1	77,120	8	8
3a	1 to 2	82,000	15	15
4	1 to 3	83,900	18.5	18.5
5	2 to 3	90,700	18.5	18.5
5a	1 to 2	88,550	18.5	18.5
6	1	92,500	18.5	18.5
6a- Gantry crane	3	91,300	27	27
7-Express Freight	1	94,330	4	4
TOTAL	12 TO 23	TOTAL 702,097		

AOD: * ABOVE ORDNANCE DATUM* ORDNANCE DATUM (0.000m) = AVERAGE SEA LEVEL





LEGEND

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- RAIL TRACKS
- POTENTIAL RAIL TRACKS

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A	24-10-18	BOUNDARY UPDATED	PF	MS
0	17-08-18	FIRST ISSUE	PF	MS
REV	DATE	DETAILS OF ISSUE/REVISION	DRW	REV

ASHFIELD LAND

Gazeley
a GLP company

Rail Central
Northamptonshire

THE RAIL CENTRAL RAIL FREIGHT INTERCHANGE AND HIGHWAY ORDER 201[x]

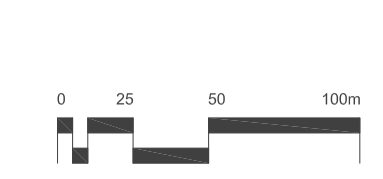
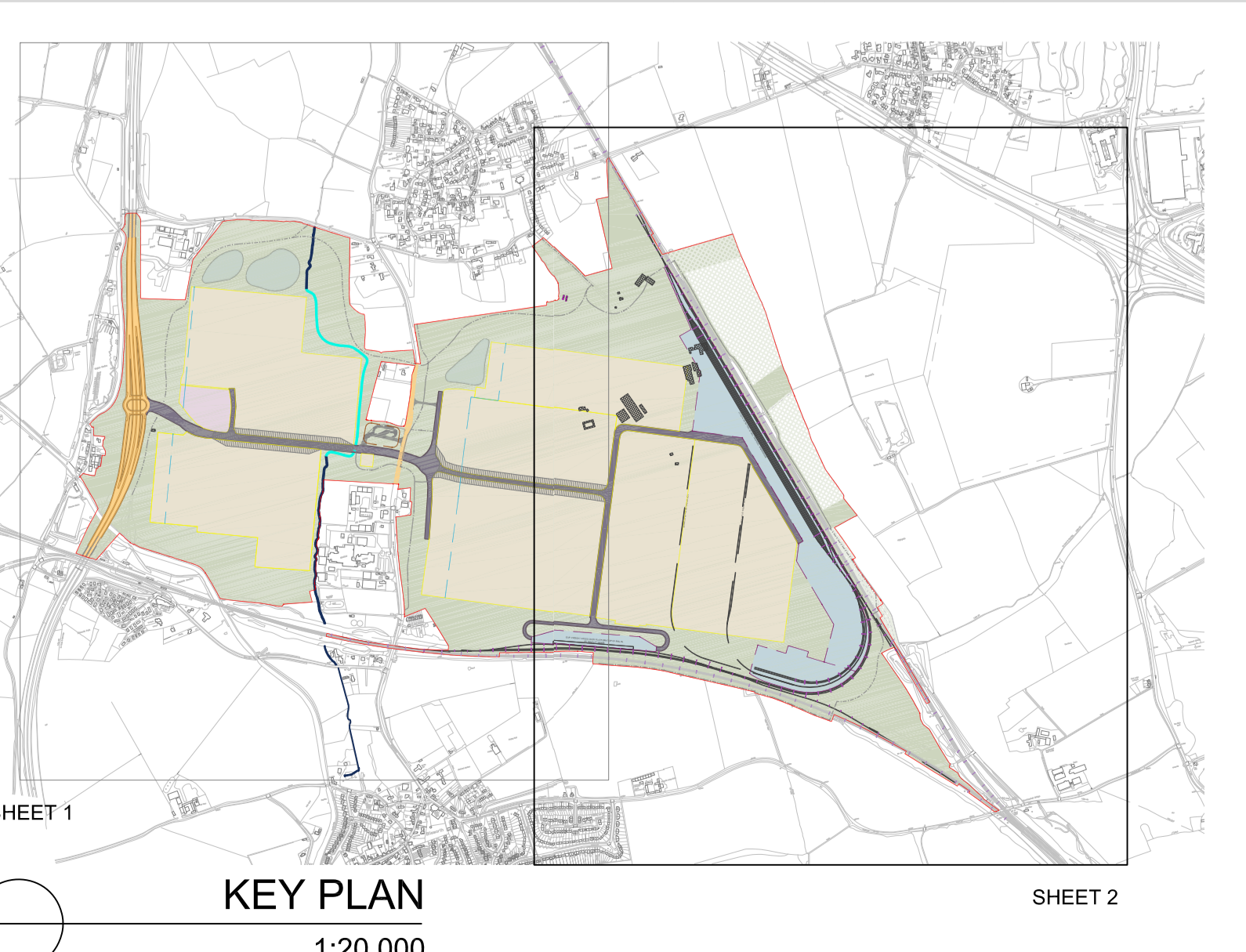
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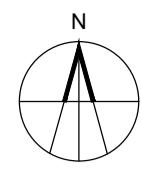
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3a	1 to 2	82,000	15	
3b	1 to 2	82,000	18.5	
4	1 to 3	83,900	18.5	
5	2 to 3	90,700	18.5	
5a	1 to 2	88,550	18.5	
6	1	92,500	18.5	
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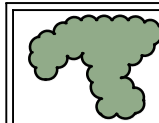


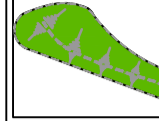

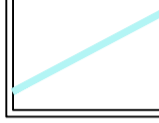
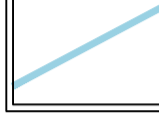
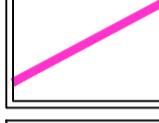
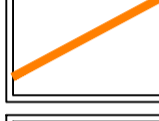
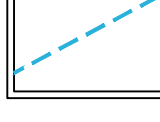


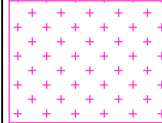
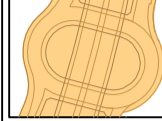

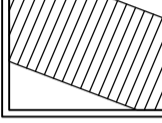
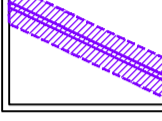
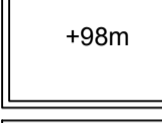
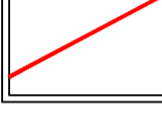
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Appendix 2: Main SRFI Site Green Infrastructure Plans



LEGEND

-  Existing Vegetation (Retained where within the order limits)
-  Primary Green Infrastructure (Including woodland and hedgerow planting)
-  Retained Farmland (within red line)
-  Proposed Screening Mound (Including woodland and hedgerow planting)
-  Proposed Attenuation Feature (Capacity and design as required by the Environmental Statement)
-  Proposed Milton Brook Diversion
-  Existing Milton Brook Profile Retained
-  Proposed Combined Cycleway / Public Footpath
-  Proposed Public Footpath
-  Building Line Limit
-  Development Plateau
-  Intermodal Area
-  Approximate area to be Developed as Linear Country Park and Pocket Park
-  Improvements to Existing Road Infrastructure
-  Indicative New Road Infrastructure
-  Estate Road Zone
-  Line of Underground Oil Pipeline and 10m Easement Zone
-  Minimum Bund Height (AOD)
-  Site Boundary

REV	DATE	DETAILS OF ISSUE/REVISION	DRW
I	24/10/18	Minor amendments to red line	CS
H	30/08/18	Minor amendments following final review	CS
G	07/08/18	Drawing number amended	CS
F	13/06/18	Amendments following consultation	CS
E	05/03/18	Client Name Amended	CS
D	21/02/18	Minor Amendments	CS
C	05/02/18	Retained farmland defined	CS
B	31/01/18	Minor amendments to footpaths layout	CS
A	02/08/17	Minor amendments to text in key	CS



THE RAIL CENTRAL RAIL FREIGHT INTERCHANGE AND HIGHWAY ORDER 201[X]

DRAWING TITLE
Parameter Plan - Green Infrastructure Keyplan

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REGULATION	5 (2) (o)	DOCUMENT	2.13

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DRAWING No	RC ALG-PLN-2.13.0	REVISION	I
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LEGEND

	Existing Vegetation (Retained where within the order limits)		Development Plateau
	Primary Green Infrastructure (Including woodland and hedgerow planting)		Intermodal Area
	Retained Farmland (within red line)		Approximate area to be Developed as Linear Country Park and Pocket Park
	Proposed Screening Mound (Including woodland and hedgerow planting)		Improvements to Existing Road Infrastructure
	Proposed Attenuation Feature (Capacity and design as required by the Environmental Statement)		Indicative New Road Infrastructure
	Proposed Milton Brook Diversion		Estate Road Zone
	Existing Milton Brook Profile Retained		Line of Underground Oil Pipeline and 10m Easement Zone
	Proposed Combined Cycleway / Public Footpath		Minimum Bund Height (AOD)
	Proposed Public Footpath		Site Boundary
	Building Line Limit		

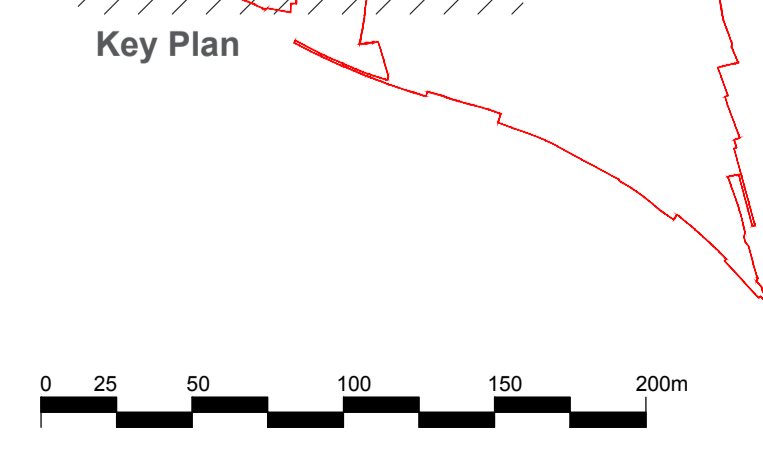
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C	07/08/18	Drawing number amended	CS
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A	05/03/18	Client name amended	CS
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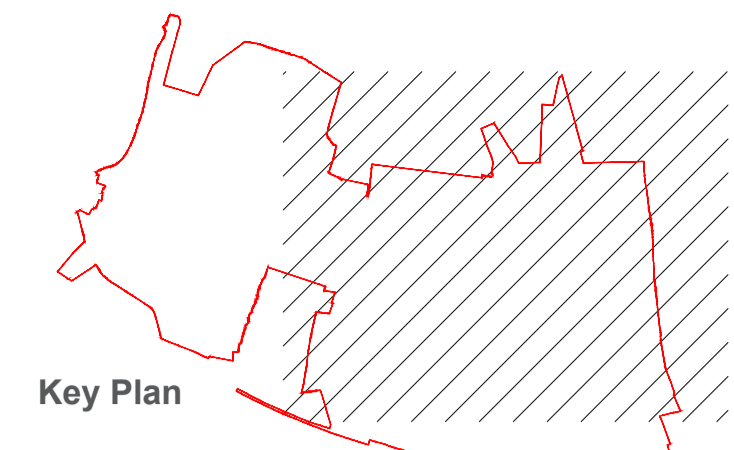
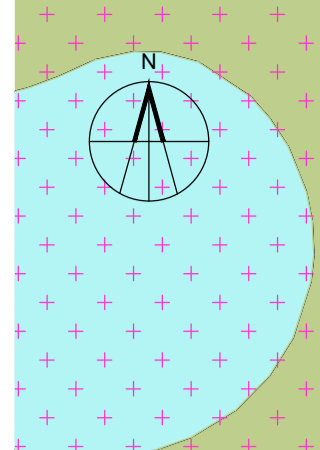


THE RAIL CENTRAL RAIL FREIGHT INTERCHANGE AND HIGHWAY ORDER 201[X]

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 Sheet 1 of 4 at 1:2500

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DRAWING No	RC ALG-PLN-2.13.1	REVISION	E





LEGEND

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	Primary Green Infrastructure (Including woodland and hedgerow planting)		Intermodal Area
	Retained Farmland (within red line)		Approximate area to be Developed as Linear Country Park and Pocket Park
	Proposed Screening Mound (Including woodland and hedgerow planting)		Improvements to Existing Road Infrastructure
	Proposed Attenuation Feature (Capacity and design as required by the Environmental Statement)		Indicative New Road Infrastructure
	Proposed Milton Brook Diversion		Estate Road Zone
	Existing Milton Brook Profile Retained		Line of Underground Oil Pipeline and 10m Easement Zone
	Proposed Combined Cycleway / Public Footpath		Minimum Bund Height (AOD)
	Proposed Public Footpath		Site Boundary
	Building Line Limit		

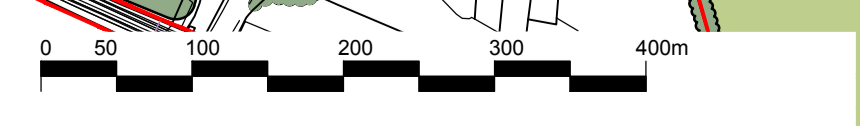
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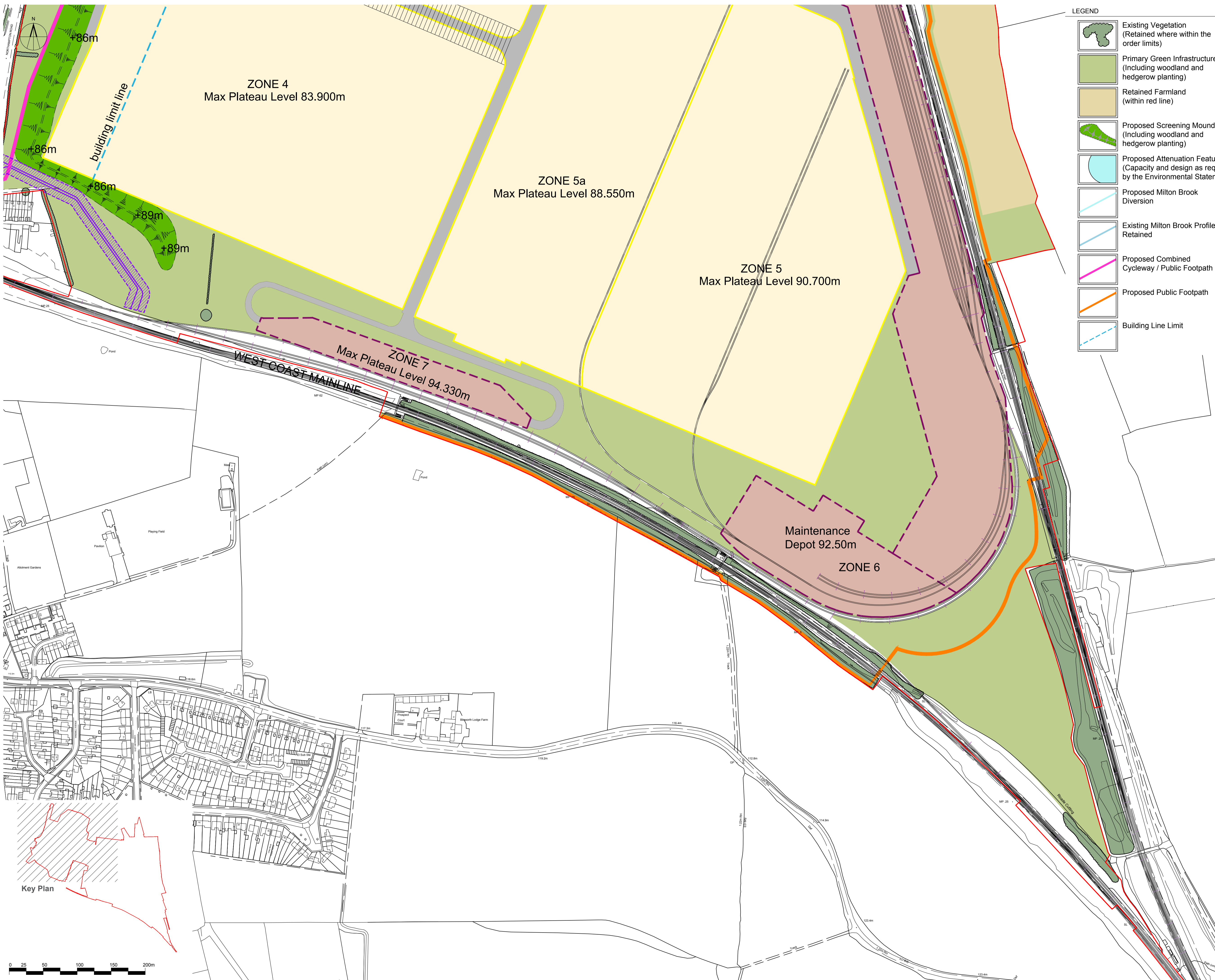


THE RAIL CENTRAL RAIL FREIGHT INTERCHANGE AND HIGHWAY ORDER 201[X]

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DRAWING No	RC ALG-PLN-2.13.2	REVISION	E





LEGEND

	Existing Vegetation (Retained where within the order limits)		Development Plateau
	Primary Green Infrastructure (Including woodland and hedgerow planting)		Intermodal Area
	Retained Farmland (within red line)		Approximate area to be Developed as Linear Country Park and Pocket Park
	Proposed Screening Mound (Including woodland and hedgerow planting)		Improvements to Existing Road Infrastructure
	Proposed Attenuation Feature (Capacity and design as required by the Environmental Statement)		Indicative New Road Infrastructure
	Proposed Milton Brook Diversion		Estate Road Zone
	Existing Milton Brook Profile Retained		Line of Underground Oil Pipeline and 10m Easement Zone
	Proposed Combined Cycleway / Public Footpath		Minimum Bund Height (AOD)
	Proposed Public Footpath		Site Boundary
	Building Line Limit		

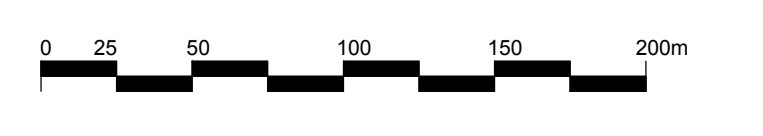
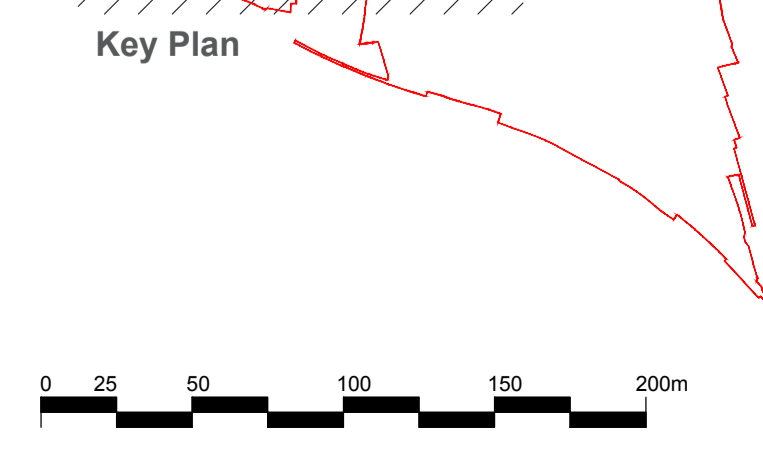
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A	05/03/18	Client name amended	CS
REV	DATE	DETAILS OF ISSUE/REVISION	DRW REV



THE RAIL CENTRAL RAIL FREIGHT INTERCHANGE AND HIGHWAY ORDER 201[X]

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Appendix 3: Main SRFI Site Illustrative Masterplan



LEGEND

	Existing Vegetation (Retained where within Order Limits)		Proposed Water Body
	Proposed Blocks of Native Tree and Shrub Planting		Existing Footpath (Removed)
	Proposed Scrub Areas		Proposed Footpath
	Proposed Formal Planting		Proposed Cycleway / Footpath
	Highway Planting to be Retained or Re-instated		Existing Footpath
	Proposed Hedgerow		Existing Retained Water Body
	Proposed Grass and Wildflower Areas		Order Limits
	Retained Farmland (Within Red Line)		Oversized Culvert Habitat link
	Proposed Screening Mound		Proposed Acoustic Barrier

J	24/10/18	Footpath routes confirmed	CS
I	06/09/18	Footpath routes confirmed	CS
H	30/08/18	Minor amendments following final review	CS
G	07/08/18	Drawing number changed	CS
F	31/07/18	Additional section added, section lines re-numbered	CS
E	19/06/18	Amendments following consultation	CS
D	05/03/18	Client name amended	CS
C	21/02/18	Minor Amendments	CS
B	05/02/18	Key Plan and drawing sheet added	CS
A	02/02/18	Minor amendments to layout and footpath route	CS
REV	DATE	DETAILS OF ISSUE/REVISION	DRW



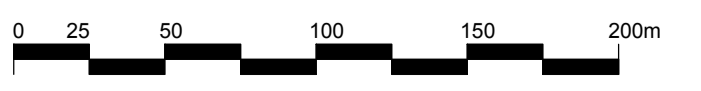
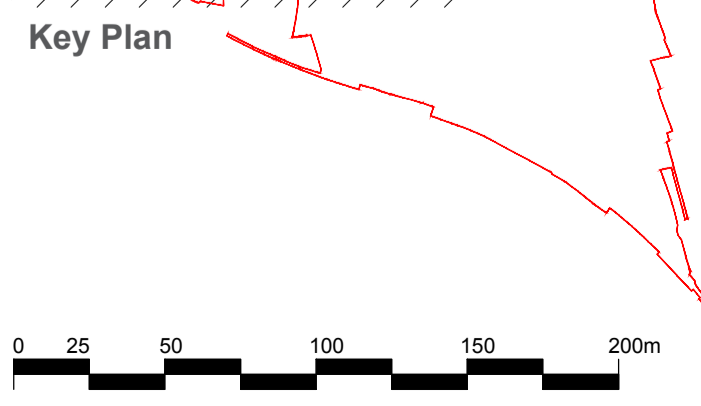
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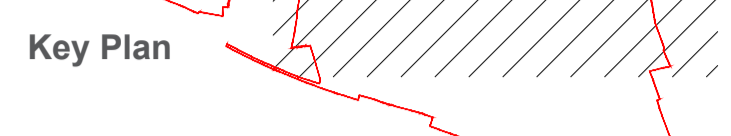
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PLANNING

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LEGEND

	Existing Vegetation (Retained where within Order Limits)		Proposed Water Body
	Proposed Blocks of Native Tree and Shrub Planting		Existing Footpath (Removed)
	Proposed Scrub Areas		Proposed Footpath
	Proposed Formal Planting		Proposed Cycleway / Footpath
	Highway Planting to be Retained or Re-instated		Existing Footpath
	Proposed Hedgerow		Existing Retained Water Body
	Proposed Grass and Wildflower Areas		Order Limits
	Retained Farmland (Within Red Line)		Oversized Culvert Habitat link
	Proposed Screening Mound		Proposed Acoustic Barrier

REV	DATE	DETAILS OF ISSUE/REVISION	DRW
J	24/10/18	Minor Amendments to Red Line	CS
I	06/09/18	Footpath routes confirmed	CS
H	30/08/18	Minor amendments following final review	CS
G	07/08/18	Drawing number changed	CS
F	31/07/18	Additional section added, section lines re-numbered	CS
E	19/06/18	Amendments following consultation	CS
D	05/03/18	Client name amended	CS
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B	05/02/18	Key Plan and drawing sheet added	CS
A	02/02/18	Minor amendments to layout and footpath route	CS



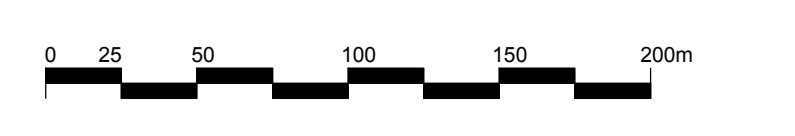
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PLANNING

DRAWING No	RC-ALG-PLN-2.16.2	REVISION	J
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LEGEND

	Existing Vegetation (Retained where within Order Limits)		Proposed Water Body
	Proposed Blocks of Native Tree and Shrub Planting		Existing Footpath (Removed)
	Proposed Scrub Areas		Proposed Footpath
	Proposed Formal Planting		Proposed Cycleway / Footpath
	Highway Planting to be Retained or Re-instated		Existing Footpath
	Proposed Hedgerow		Existing Retained Water Body
	Proposed Grass and Wildflower Areas		Order Limits
	Retained Farmland (Within Red Line)		Oversized Culvert Habitat link
	Proposed Screening Mound		Proposed Acoustic Barrier

J	24/10/18	Minor Amendments to Red Line	CS
I	06/09/18	Footpath routes confirmed	CS
H	30/08/18	Minor amendments following final review	CS
G	07/08/18	Drawing number changed	CS
F	31/07/18	Additional section added, section lines re-numbered	CS
E	19/06/18	Amendments following consultation	CS
D	05/03/18	Client name amended	CS
C	21/02/18	Minor Amendments	CS
B	05/02/18	Key Plan and drawing sheet added	CS
A	02/02/18	Minor amendments to layout and footpath route	CS
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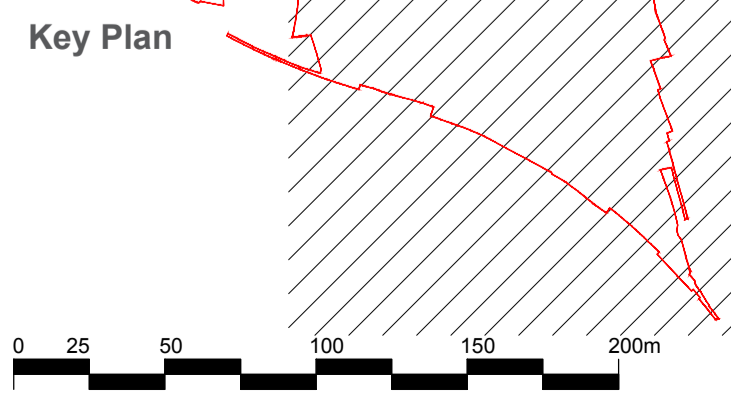
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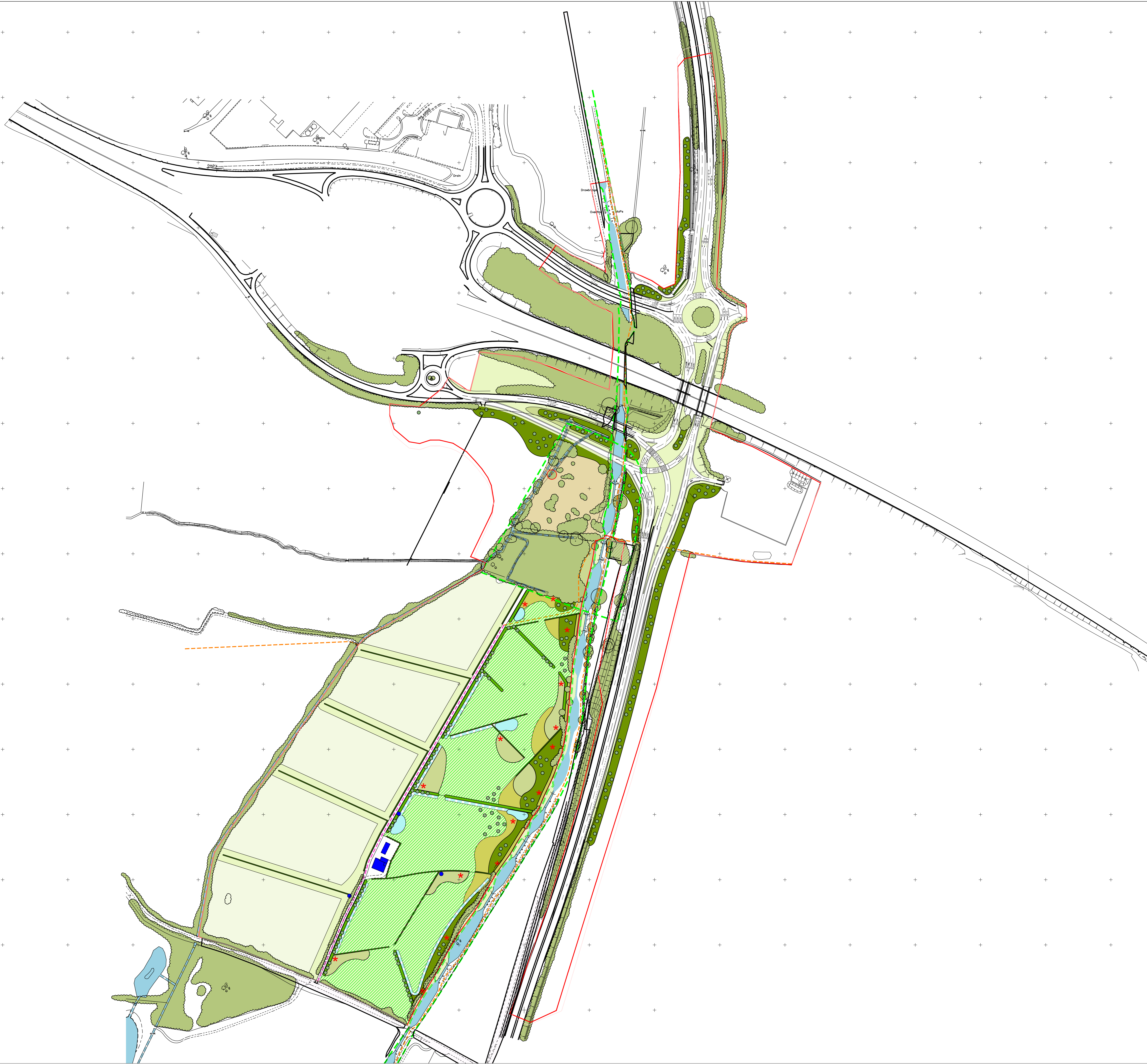
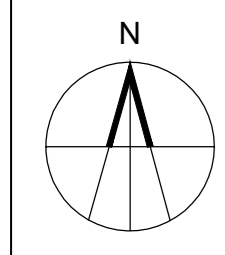
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DRAWING No	RC-ALG-PLN-2.16.3	REVISION	J
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LEGEND

- Existing Vegetation (Retained where within Order Limits)
- Proposed Blocks of Native Tree and Shrub Planting
- Proposed Scrub Areas
- Proposed Hedgerow
- Proposed Grass and Wildflower Areas
- Proposed Grass and Wildflower Areas (To be Grazed)
- Proposed Marshland Area
- Retained Farmland (Within Red Line)
- Retained Marshland Area
- Existing Barns to be Renovated for Bats and Barn Owls
- Pole Mounted Barn Owl Box
- Standing Deadwood / Deadwood Tree Piles
- Existing Retained Water Body
- Proposed Pond
- Proposed Ditch Line
- Site Boundary
- Existing PRoW / Towpath
- Proposed PRoW
- Non-statutory designated sites boundaries supplied by NBRC January 2018

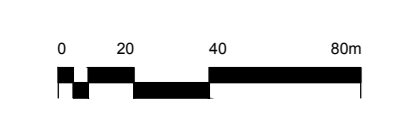
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E	08/08/18	Drawing number amended	CS
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C	05/03/18	Existing road layout removed	CS
B	23/02/18	Existing road layout removed	CS
A	06/02/18	DCO drawing frame added, general amendments	CS



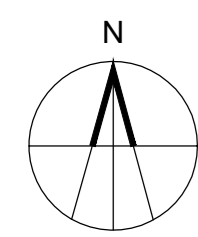
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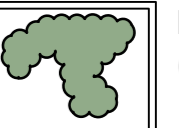
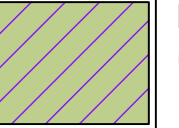

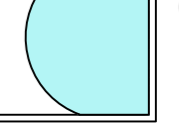
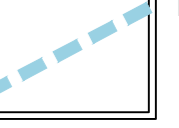
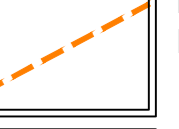
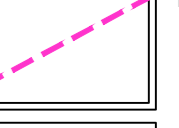
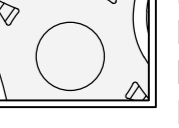

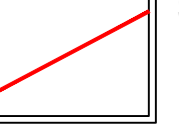
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DRAWING No	RC-ALG-PLN-2.16.4	REVISION	F



Appendix 4: Junction 15a Site Green Infrastructure Plan



LEGEND

-  Existing Vegetation (retained where within order limits)
-  Primary Green Infrastructure (Ecological Mitigation Zone)
-  Primary Green Infrastructure (Other Soft Landscape Areas)
-  Grand Union Canal
-  Existing Retained Ditchline
-  Existing Retained Public Footpath
-  Proposed Public Footpath
-  Highways Works Including New Road Infrastructure and Improvements to Existing Road Infrastructure
-  Construction Compound (To be reinstated as existing upon completion)
-  Site Boundary

REV	DATE	DETAILS OF ISSUE/REVISION	DRW
F	30/08/18	Minor amendments following final review	CS
E	23/08/18	Drawing number amended	CS
D	08/08/18	Drawing number amended	CS
C	05/03/18	Existing road layout removed	CS
B	23/02/18	Existing road layout removed	CS
A	06/02/18	DDO Drawing sheet added	CS

Gazeley
a GLP company



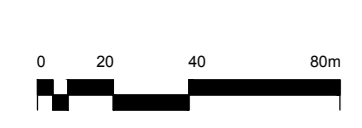
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RAIL FREIGHT INTERCHANGE
AND HIGHWAY ORDER 201[X]**

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PARAMETERS PLAN -
GREEN INFRASTRUCTURE
PLAN (4 OF 4)**

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PLANNING

DRAWING No	RC-ALG-PLN-2.13.4	REVISION	F
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Appendix 5: Compliance with the National Policy Statement for National Networks

Policy within the National Policy Statement for National Networks	Rail Central Policy Compliance
Section 2 – Need for the Development	
<p>“The Government will deliver national networks that meet the country’s long-term needs; supporting a prosperous and competitive economy and improving overall quality of life, as part of a wider transport system. This means:</p> <p>Networks with the capacity and connectivity and resilience to support national and local economic activity and facilitate growth and create jobs.</p> <p>Networks which support and improve journey quality, reliability and safety.</p> <p>Networks which support the delivery of environmental goals and the move to a low carbon economy.</p> <p>Networks which join up our communities and link effectively to each other.”</p> <p>Paragraph 2.10: “The Government has therefore concluded that at a strategic level there is a compelling need for development of the national networks – both as individual networks and as an integrated system. The Examining Authority and the Secretary of State should therefore start their assessment of applications for infrastructure covered by this NPS on that basis.”</p>	<p>Rail Central responds directly to the compelling need identified within the NN NPS. The Proposed Development will actively respond the anticipated forecast demand in freight traffic and to long term needs of the country, helping to support a prosperous and competitive economy and creating a significant number of new jobs. Through transferring the movement of goods from the road to the rail network, Rail Central will help to reduce carbon emissions and contribute towards the move to a low carbon economy.</p>
<p>Paragraph 2.45: “In addition, the nature of that commercial development is such that some degree of flexibility is needed when schemes are being developed, in order to allow the development to respond to market requirements as they arise.”</p> <p>Paragraph 2.48: “The development of additional capacity at Felixstowe North Terminal and the construction of London Gateway will lead to a significant increase in logistics operations. This will increase the need for SRFI development to reduce the dependence on road haulage to serve the major markets.”</p>	<p>Rail Central has been carefully designed to provide a sufficient level of flexibility to ensure it has the ability to respond to market requirements as they arise.</p> <p>Rail Central has excellent transport links and is well connected thereby enabling the SRFI to access a large market, including London, and key urban centres. Rail Central is situated at the southern tip of the ‘Golden Triangle’ it is well located to help service the London and the South East markets, which together comprise the largest consumer market in the UK.</p>

<p>Paragraph 2.50: “While the forecasts in themselves, do not provide sufficient granularity to allow site specific need cases to be demonstrated, they confirm the need for an expanded network of large SRFIs across the regions to accommodate the long-term growth in rail freight. They also indicate that new rail freight interchanges, especially in areas poorly served by such facilities at present, are likely to attract substantial business, generally new to rail.”</p>	<p>The Market Assessment Report confirms the strength of the market for logistics and freight logistics and confirms that Rail Central would complement the existing network of SRFI in the Midlands to help serve this high demand market areas and expand the network of SRFIs further in the midlands towards the south thereby facilitating the ability to also service markets which are currently poorly served by SRFI; this also includes London and the south east.</p>
<p>Paragraph 2.51: “The environmental advantages of rail freight have already been noted at paragraph 2.40 and 2.41 Nevertheless, for developments such as SRFIs, it is likely that there will be local impacts in terms of land use and increased road and rail movements, and it is important for the environmental impacts at these locations to be minimised.”</p>	<p>A full assessment of Rail Central’s environmental effects and the measures proposed to avoid and minimise the extent of such effects is set out within the Environmental Statement, which forms part of this DCO submission.</p>
<p>Paragraph 2.52: “SRFIs can provide considerable benefits for the local economy. For example, because many of the on-site functions of major distribution operations are relatively labour-intensive this can create many new job opportunities and contribute to the enhancement of people’s skills and use of technology, with wider longer term benefits to the economy. The availability of a suitable workforce will therefore be an important consideration.”</p>	<p>The Socio-Economic Chapter of the Environmental Statement (Chapter 18) and the Economic Benefits Statement confirms that Rail Central will lead to the significant creation of direct and in-direct employment. Additionally, the Socio-Economic Chapter confirms that there is suitable availability within the identified impact area of the site to accommodate the uplift in jobs created by Rail Central.</p>
<p>Paragraph 2.54: “To facilitate this modal transfer, a network of SRFIs is needed across the regions, to serve regional, sub-regional and cross-regional markets. In all cases it is essential that these have good connectivity with both the road and rail networks, in particular the strategic rail freight network</p>	<p>Rail Central benefits from outstanding road and rail connections. Rail Central will have direct access from a new grade separated junction on the A43, which is located 1.9km to the south of Junction 15a of the M1. In respect of the connections to the Strategic Rail Network, Rail Central has the rare opportunity to directly access both the West Coast Main Line, a major part of the fast moving countryside rail network, and the Northampton Loop Line, a rail line that allows slower moving rail freight. In addition to these direct connections (onto both the fast and slow lines), Rail Central enables further connections between these two lines within the SRFI itself.</p>

	<p>Rail Central is located within an area of the country which has emerged as being especially significant in terms of attracting logistics property demand for large NDCs and RDCs. The golden triangle – which the proposed development is located is recognised as the centre of gravity for UK logistics and has witnessed huge demand for large scale logistics facilities over a sustained period owing to its excellent transport links and accessibility to large markets and urban centres. It is therefore no surprise that there is a concentration of SRFIs across the Midlands. Rail Central would contribute towards the expansion of the SRFI network further south and help service market areas that are underprovided for in terms of SRFIs.</p>
<p>Paragraph 2.56: “The Government has concluded that there is a compelling need for an expanded network of SRFIs. It is important that SRFIs are located near the business markets they will serve – major urban centres, or groups of centres – and are linked to key supply chain routes. Given the locational requirements and the need for effective connections for both rail and road, the number of locations suitable for SRFIs will be limited, which will restrict the scope for developers to identify viable alternative sites.”</p>	<p>The Market Assessment Report concludes that Rail Central would complement the existing network of SRFIs and help to service market areas that are underprovided for in terms of SRFIs and other distribution parks with no realistic prospect of securing direct rail access. The Alternative Site Assessment confirms that there are limited SRFI opportunities within the broad search area. Comparisons of environmental impacts are difficult, due to contrast in scale of each site but none of the other sites creates development opportunities that are of clear environmental, operational or market benefits when compared to Rail Central.</p>
<p>Section 3: Wider Government Policy on the National Networks</p>	
<p>Paragraph 3.3: “In delivering new schemes, the Government expects applicants to avoid and mitigate environmental and social impacts in line with the principles set out in the NPPF and the Government’s planning guidance. Applicants should also provide evidence that they have considered reasonable opportunities to deliver environmental and social benefits as part of schemes.”</p>	<p>The Environmental Statement, Planning Statement and Design and Access Statement submitted in support of this DCO application confirm the extent that the scheme has been designed to avoid and mitigate environmental and social impacts in line with the principles set out in the NPPF and Government’s planning guidance. Where impacts are unavoidable, the Environmental Statement also confirms how impacts will be mitigated and what the residual effects of Rail Central will be.</p>
<p>Paragraph 3.17: “The Government expects</p>	<p>The needs of cyclists and pedestrians have been</p>

<p>applicants to use reasonable endeavours to address the needs of cyclists and pedestrians in the design of new schemes. The Government also expects applicants to identify opportunities to invest in infrastructure in locations where the national road network severs communities and acts as a barrier to cycling and walking, by correcting historic problems, retrofitting the latest solutions and ensuring that it is easy and safe for cyclists to use junctions.”</p>	<p>considered from the outset. This includes the diversion and upgrading of existing routes and the introduction of new pedestrian and cycle connections. Details of these improved works are set out within Highways and Transportation Chapter of the Environmental Statement (Chapter 17) and the Public Rights of Way Strategy (Document 7.6).</p>
Section 4: Assessment Principles	
<p>Paragraph 4.18: “In some instances it may not be possible at the time of the application for development consent for all aspects of the proposal to have been settled in precise detail. Where this is the case, the applicant should explain in its application which elements of the proposal have yet to be finalised, and the reasons why this is the case.”</p>	<p>A series of key parameters, which provide certainty over the Proposed Development at the main site, are provided in the Parameters Plans submitted alongside this application. It is intended that these parameters will be fixed in granting the DCO. This seeks to provide as much certainty as possible, whilst ensuring that the proposed development maintains flexibility in the form it comes forward. The Proposed Development is coming forward speculatively; therefore at this time it not possible to confirm the exact layout of the proposed warehousing units. The scheme has been prepared in accordance with the “Rochdale Principles”.</p>
<p>Paragraph 4.19: Parameters</p>	<p>A series of key parameters, which provide certainty over the Proposed Development at the main site, are provided in the Parameters Plans submitted alongside this application. It is intended that these parameters will be fixed in granting the DCO.</p>
<p>Paragraph 4.22: Habitats Regulations Assessment</p>	<p>In accordance with the habitat regulations, the Biodiversity Chapter of the Environmental Statement (Chapter 14) confirms that an assessment of the effects has been undertaken.</p>
<p>Paragraph 4.26: Alternatives</p>	<p>The detailed Alternative Site Assessment and the Reasonable Alternatives Chapter of the Environmental Statement (Chapter 3) confirm why other sites identified are not considered to be suitable or available alternatives to the Proposed Development.</p>
<p>Paragraph 4.27: Options Appraisal</p>	<p>The NPS requires all projects to be subject to an</p>

	<p>options appraisal, but makes clear that it is not necessary for the examining authority to reconsider this process, as opposed to satisfying themselves that this assessment has been undertaken. Footnote 61 of the NPS acknowledges that investment decisions on SRFI's will be made in the context of a commercial framework. Rail Central is privately funded and is not subject to any funding bid or process that requires a formal Options Appraisal Report to be prepared as part of the business case to secure public funding. The NPS notes that the appraisal should consider viable modal alternatives.</p> <p>An Options Appraisal is set out at Chapter 3 of the Alternative Site Assessment, which considers high level alternatives to pursuing the type of development proposed in the application. Many of these options are discounted in the NPS itself as they will not contribute towards meeting the policy need for a network of SRFI's. The Options Appraisal considers that the reasoning that sits behind discounting those options as the basis for national policy, apply equally well to the site specific consideration in the Alternative Site Assessment.</p>
<p>Paragraph 4.28 - Paragraph 4.35: Delivering Good Design</p>	<p>The Design and Access Statement (DAS) sets out the design rationale that has influenced the proposals. It seeks to demonstrate how the design process was conducted; how the design response evolved; how the proposals were shaped through consultation; and a deep understanding of the site's prevailing context.</p> <p>The DAS sets the design vision and approach for Rail Central, which is based on a flexible approach to the form of development with a firm commitment to delivering a quality working environment that will take advantage of the opportunities the site presents, whilst addressing the key constraints. In doing so, Rail Central will seek to provide:</p> <ul style="list-style-type: none"> • a well-integrated development; • a sustainable place; • connectivity; • protection of residential amenity;

	<ul style="list-style-type: none"> • respect to the landscape; • recreation and ecological enhancements. <p>The landscape design will be key to the success of the Rail Central’s integration into the surrounding area. The following key objectives will be implemented:</p> <ul style="list-style-type: none"> • add to the woodland, calcareous grassland and neutral grassland habitat reservoirs; • mitigate the loss of existing field edge vegetation by the creation of interlinked habitat corridors; • utilise the Grand Union Canal Blueway to provide additional complementary habitat and transient wildlife; • diversion of footpath links to ensure continued connectivity within the surrounding landscape; • creation of new publicly accessible space within the site adjacent to re-routed footpaths connecting into the key green infrastructure links surrounding the site; • creation of a new ecological mitigation areas. <p>The DAS demonstrates how Rail Central will be a national asset, a leading next generation SRFI ideally placed within the heart of the country, the destination of choice for logistics and industry occupiers. It will be a state of the art SRFI which is well connected to the principal routes for freight (road and rail) in the country, a great place to work and an exemplar of sustainability. The proposals have been carefully designed to ensure it responds to the surrounding area and has sought to minimise and mitigate the development’s effects as required by the NN NPS while positively responding to the clear and established need for new SRFIs at this unique location.</p>
<p>Paragraph 4.36 - Paragraph 4.47: Climate Change</p>	<p>The Climate Change Mitigation and Adaptation Chapter of the Environmental Statement (Chapter 21) and Sustainability Appraisal consider the anticipated Green House Gas emission effects as a result of the Proposed Development and the measures taken to mitigate and adapt to climate change impacts</p>

	<p>during construction, operation and decommissioning. The Sustainability Appraisal also reinforces the commitment to sustainable development by confirming that new buildings will be designed to be resource efficient and will target a BREEAM Excellent rating based on the BREEAM 2014 New Construction scheme.</p>
<p>Paragraph 4.60 – Paragraph 4.66: Road safety</p>	<p>The NPS recognises that new highway development can contribute to significant safety improvements and reduce accidents. Road safety audits and objective assessments of the impacts have been prepared and are provided as part of the Highways and Transportation Chapter of the Environmental Statement (Chapter 17). The Transport Assessment confirms that the proposed level of investment and intervention in the road network proposed by the development would result in a net benefit to the operation of the road network improving performance, capacity, resilience.</p>
<p>Paragraph 4.79 – Paragraph 4.82: Health</p>	<p>The technical chapters of the Environmental Statement assess a range of relevant health considerations, and the Human Health Chapter of the Environmental Statement (Chapter 22) specifically considered health and wellbeing. The assessment of health takes a holistic approach that considers ‘traditional’ impacts relating to air quality, noise and vibration and transport, but that also looks more widely to consider broader socio-economic factors.</p>
<p>Paragraph 4.83: “Rail freight interchanges are not only locations for freight access to the railway but also locations for businesses, capable now or in the future, of supporting their commercial activities by rail. Therefore, from the outset, a rail freight interchange (RFI) should be developed in a form that can accommodate both rail and non-rail activities.”</p>	<p>The proposed SRFI will be capable of accommodating both rail and non-rail activities from the outset. Early phases of development will also be capable of providing an operational rail connection and areas for intermodal handling and container storage. The functional requirements of the NPS are therefore met.</p>
<p>Paragraph 4.84: “Given the strategic nature of large rail freight interchanges it is important that new SRFIs or proposed extensions to RFIs upgrading them to SRFIs, are appropriately located relative to the markets they will serve,</p>	<p>Rail Central benefits from outstanding road and rail connections. Rail Central will have direct access from a new grade separated junction on the A43, which is located 1.9km to the south of Junction 15a of the M1. In respect of the</p>

<p>which will focus largely on major urban centres, or groups of centres, and key supply chain routes. Because the vast majority of freight in the UK is moved by road, proposed new rail freight interchanges should have good road access as this will allow rail to effectively compete with, and work alongside, road freight to achieve a modal shift to rail. Due to these requirements, it may be that countryside locations are required for SRFIs.”</p>	<p>connections to the Strategic Rail Network, Rail Central has the rare opportunity to directly access both the West Coast Main Line, a major part of the fast moving countryside rail network, and the Northampton Loop Line, a rail line that allows slower moving rail freight. In addition to these direct connections (onto both the fast and slow lines), Rail Central enables further connections between these two lines within the SRFI itself.</p>
<p>Paragraph 4.85: “As a minimum a SRFI should ideally be located on a route with a gauge capability of W8 or more, or capable of enhancement to a suitable gauge.”</p>	<p>The Main SRFI Site at Rail Central is bounded to the south and south-west by the West Coast Main Line “fast lines” (also referred to as the London to Rugby Line) and to the east by the West Coast Main Line “slow lines” (also referred to as the Roade and Rugby New Line or the Northampton Loop Line). All four lines are electrified with overhead 25kV AC catenary and cleared to W10 loading gauge (loading gauge is the maximum permitted cross-sectional profile of a rail vehicle and its load, and varies across the UK).</p>
<p>Paragraph 4.87: “SRFIs can provide many benefits for the local economy. For example because many of the on-site functions of major distribution operations are relatively labour intensive, this can create many new job opportunities. The existence of an available and economic local workforce will therefore be an important consideration for the applicant.”</p>	<p>The Socio-Economic Chapter of the Environmental Statement (Chapter 18) confirms that the proposed development of Rail Central will lead to the significant creation of direct and in-direct employment. Additionally, the Socio-Economic Chapter confirms that there is suitable availability within the impact area of the site to accommodate the uplift in jobs created by the proposed development.</p>
<p>Paragraph 4.88: “Applications for a proposed SRFI should provide for a number of rail connected or rail accessible buildings for initial take up, plus rail infrastructure to allow more extensive rail connection within the site in the longer term.</p> <p>The initial stages of the development must provide an operational rail network connection and areas for intermodal handling and container storage. It is not essential for all buildings on the site to be rail connected from the outset, but a significant element should</p>	<p>The whole development will be capable of being rail served with a significant element of warehousing having the ability to be rail-connected. The Proposed Development is therefore compliant with paragraph 4.88 of the NPS regarding rail connectivity, in that from the outset, the SRFI is to be developed in a form to accommodate rail activities.</p>

be.”	
<p>Paragraph 4.89: “As a minimum, a SRFI should be capable of handling four trains per day and, where possible, be capable of increasing the number of trains handled. SRFIs should, where possible, have the capability to handle 775 metre trains with appropriately configured on-site infrastructure and layout. This should seek to minimise the need for onsite rail shunting and provide for a configuration which, ideally, will allow main line access for trains from either direction.”</p>	<p>The first phase of the intermodal terminal would deliver sufficient rail infrastructure to allow for the intermodal terminal to connect to the Northampton Loop Line and achieve the minimum NPS requirement to provide capacity for up to four trains per day. This would be constructed prior to first occupation of any development. Furthermore, the Rail Operations Report submitted in support of the application confirms that from the outset, 775 metre long trains would be able to access the site from both directions.</p>
Section 5: Generic Impacts	
<p>Air Quality: Paragraph 5.3 – 5.15</p>	<p>An Air Quality chapter (Chapter 8) has been prepared as part of the Environmental Statement, to support the submission of the DCO application. This chapter has been prepared to assess the effects of the Proposed Development on air quality in accordance with the requirements of the NPS.</p>
<p>Carbon Emissions: Paragraph 5.16 – 5.19</p>	<p>A Climate Change Mitigation and Adaptation chapter (Chapter 21) has been prepared as part of the Environmental Statement, to support the submission of the DCO application. This chapter has been prepared to assess the effects of the Proposed Development on carbon emissions in accordance with the requirements of the NPS.</p>
<p>Biodiversity and Ecological Conservation: Paragraph 5.20 – 5.38</p>	<p>A Biodiversity chapter (Chapter 14) has been prepared as part of the Environmental Statement, to support the submission of the DCO application. This chapter has been prepared to assess the effects of the Proposed Development on biodiversity and ecological conservation in accordance with the requirements of the NPS.</p>
<p>Waste Management: Paragraph 5.39 – 5.45</p>	<p>A Waste and Resource Efficiency chapter (Chapter 20) has been prepared as part of the Environmental Statement, to support the submission of the DCO application. This chapter has been prepared to assess the effects of the Proposed Development on waste management in accordance with the requirements of the NPS.</p>

<p>Dust, Odour, Artificial Light, Smoke, Steam: Paragraph 5.81 – 5.89</p>	<p>A number of chapters within the Environmental Statement including Air Quality (Chapter 8) and Lighting (Chapter 19) assess the effect of the Proposed Development on dust, odour, artificial light, smoke and steam, in accordance with the requirements of the NPS.</p>
<p>Flood Risk: Paragraph 5.90 – 5.115</p>	<p>A Hydrology, Drainage and Flood Risk chapter (Chapter 13) has been prepared as part of the Environmental Statement, to support the submission of the DCO application. This chapter has been prepared to assess the effects of the Proposed Development on flood risk in accordance with the requirements of the NPS.</p>
<p>The Historic Environment: Paragraph 5.120 – 5.142</p>	<p>A Built Heritage chapter (Chapter 11) has been prepared as part of the Environmental Statement, to support the submission of the DCO application. This chapter has been prepared to assess the effects of the Proposed Development on the historic environment in accordance with the requirements of the NPS.</p>
<p>Landscape and Visual Impacts: Paragraph 5.143 – 5.161</p>	<p>A Landscape and Visual Impact Assessment chapter (Chapter 15) has been prepared as part of the Environmental Statement, to support the submission of the DCO application. This chapter has been prepared to assess the landscape and visual impacts in accordance with the requirements of the NPS.</p>
<p>Land Use Including Open Space, Green Infrastructure and Green Belt: Paragraph 5.162 – 5.185</p>	<p>The Proposed Development site is not designated as Green Infrastructure, Open Space or as Green Belt. However, the Proposed Development does incorporate significant areas of additional open green space.</p> <p>The effects of the Proposed Development on agricultural land and soil management are considered in Chapter 9 of the Environmental Statement (Agricultural Land).</p>
<p>Noise and Vibration: Paragraph 5.186– 5.200</p>	<p>A Noise and Vibration chapter (Chapter 16) has been prepared as part of the Environmental Statement, to support the submission of the DCO application. This chapter has been prepared to assess the noise and vibration effects of the Proposed Development in accordance with the requirements of the NPS.</p>
<p>Impact on Transport Networks:</p>	<p>A Highways and Transportation chapter (Chapter 17) has been prepared as part of the</p>

<p>Paragraph 5.201– 5.218</p>	<p>Environmental Statement, to support the submission of the DCO application. This chapter has been prepared to assess the impact of the Proposed Development on the transport network in accordance with the requirements of the NPS.</p>
<p>Water Quality and Resources: Paragraph 5.219 – 5.231</p>	<p>A Hydrology, Drainage and Flood Risk chapter (Chapter 13) has been prepared as part of the Environmental Statement. This chapter has been prepared to assess the water quality and resources effects of the Proposed Development in accordance with the requirements of the NPS.</p>

Appendix 6: Compliance with the National Planning Policy Framework

Relevant NPPF Paragraph Number	Rail Central Policy Compliance
Section 6 Building a Strong, Competitive Economy	
<p>Paragraph 80: “Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development. The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future. This is particularly important where Britain can be a global leader in driving innovation, and in areas with high levels of productivity, which should be able to capitalise on their performance and potential.”</p>	<p>The principle of the Proposed Development seeks to deliver a SRFI which would deliver logistics floorspace and is identified as a key element of national infrastructure required to support the national economy. In accordance with Paragraph 80, significant weight should be given to the Proposed Development due to the substantial economic benefits to the local and national economy.</p> <p>The Socio-Economic Chapter of the Environmental Statement (Chapter 18) and the Economic Benefits Statement confirms that the construction of the Main SRFI Site is likely to generate significant socio-economic benefits, including:</p> <ul style="list-style-type: none"> • Over 8,000 jobs created on site; • 13,753 jobs across England, which could be created and supported by Rail Central once indirect and induced jobs are taken into consideration; and • The economic activity generated by Rail Central is expected to boost the gross value added to the national economy by over £550 million each year.
<p>Paragraph 82: “Planning policies and decisions should recognise and address the specific locational requirements of different sectors. This includes making provision for clusters or networks of knowledge and data-driven, creative or high technology industries; and for storage and distribution operations at a variety of scales and in suitably accessible locations.”</p>	<p>The NN NPS confirms a compelling need to create a network of SRFI and identifies clear locational criteria to ensure SRFIs are viable and successful. It also notes that due to requirements (access to road and rail being essential), it may be that countryside locations (such as Rail Central) are required for SRFIs.</p> <p>The Market Assessment Report confirms that Rail Central is located in a strong market for logistics and freight logistics and would expand the network of SRFIs and this Planning Statement and The Rail Operations Report also demonstrate that Rail Central meets the locational and functional requirements of the NN NPS.</p>

Section 8 Promoting Healthy and Safe Communities

Paragraph 91: “Planning policies and decisions should aim to achieve healthy, inclusive and safe places which:

a) promote social interaction, including opportunities for meetings between people who might not otherwise come into contact with each other – for example through mixed-use developments, strong neighbourhood centres, street layouts that allow for easy pedestrian and cycle connections within and between neighbourhoods, and active street frontages;

b) are safe and accessible, so that crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion – for example through the use of clear and legible pedestrian routes, and high quality public space,

which encourage the active and continual use of public areas; and

c) enable and support healthy lifestyles, especially where this would address identified local health and well-being needs – for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling.”

Paragraph 92: “To provide the social, recreational and cultural facilities and services the community needs, planning policies and decisions should:

a) plan positively for the provision and use of shared spaces, community facilities (such as local shops, meeting places, sports venues, open space, cultural buildings, public houses and places of worship) and other local services to enhance the sustainability of communities and residential environments;

b) take into account and support the delivery of local strategies to improve health, social and cultural well-being for all sections of the

The Design and Access Statement (DAS) sets out the design rationale that has influenced the proposals. It seeks to demonstrate how the design process was conducted; how the design response evolved; how the proposals were shaped through consultation; and a deep understanding of the site’s prevailing context. See section 14 in the Planning Statement for further details.

The DAS sets the design vision for Rail Central, which is based on a flexible approach to the form of development with a firm commitment to delivering a quality working environment that will take advantage of the opportunities the site presents, whilst addressing the key constraints. In doing so, Rail Central will seek to provide:

- a well-integrated development;
- a sustainable place;
- connectivity;
- protection of residential amenity;
- respect to the landscape;
- recreation and ecological enhancements.

The landscape design will be key to the success of the Rail Central’s integration into the surrounding area. The following key objectives will be implemented:

- add to the woodland, calcareous grassland and neutral grassland habitat reservoirs;
- mitigate the loss of existing field edge vegetation by the creation of interlinked habitat corridors;
- utilise the Grand Union Canal Blueway to provide additional

<p>community;</p> <p>c) guard against the unnecessary loss of valued facilities and services, particularly where this would reduce the community’s ability to meet its day-to-day needs;</p> <p>d) ensure that established shops, facilities and services are able to develop and modernise, and are retained for the benefit of the community; and</p> <p>e) ensure an integrated approach to considering the location of housing, economic uses and community facilities and services.”</p> <p>Paragraph 95: “Planning policies and decisions should promote public safety and take into account wider security and defence requirements by:</p> <p>a) anticipating and addressing possible malicious threats and natural hazards, especially in locations where large numbers of people are expected to congregate. Policies for relevant areas (such as town centre and regeneration frameworks), and the layout and design of developments, should be informed by the most up-to-date information available from the police and other agencies about the nature of potential threats and their implications. This includes appropriate and proportionate steps that can be taken to reduce vulnerability, increase resilience and ensure public safety and security; and</p> <p>b) recognising and supporting development required for operational defence and security purposes, and ensuring that operational sites are not affected adversely by the impact of other development proposed in the area.”</p>	<p>complementary habitat and transient wildlife;</p> <ul style="list-style-type: none"> • diversion of footpath links to ensure continued connectivity within the surrounding landscape; • creation of new publicly accessible space within the site adjacent to re-routed footpaths connecting into the key green infrastructure links surrounding the site; • creation of a new ecological mitigation area. <p>The Illustrative Masterplan submitted in support of the DCO application provides a possible iteration of how this development could be delivered in accordance with the design principles identified within the Parameters Plan.</p> <p>Health welfare provision for occupiers and users is also included within the Proposed Development and this is secured through the DCO.</p>
<p>Section 8 Promoting Healthy and Safe Communities</p>	
<p>Paragraph 98: “Planning policies and decisions should protect and enhance public rights of way and access, including taking opportunities to provide better facilities for users, for example by adding links to existing rights of way networks including National Trails.”</p>	<p>The Proposed Development has been designed to limit the level of impact caused to the existing public rights of way (PROW), which are currently present on the site. However, in some instances, due to the operational requirements of Rail Central, it has not been possible to retain all of these</p>

	<p>PROW as existing routes. In these circumstances, alternative routes have been provided, which maintain and improve the connectivity around Milton Malsor, Blisworth and Collingtree and provide public access to these areas through the site and through specific recreational areas of the site including the proposed linear country park and pocket park.</p> <p>Further information is contained within the PROW Strategy, the Landscape and Ecology Strategy and the Design and Access Statement.</p>
<p>Section 9 Promoting Sustainable Transport</p>	
<p>Paragraph 102: “Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:</p> <ul style="list-style-type: none"> a) the potential impacts of development on transport networks can be addressed; b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated; c) opportunities to promote walking, cycling and public transport use are identified and pursued; d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places.” <p>Paragraph 103: “The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through</p>	<p>The Highways and Transportation Chapter of the Environmental Statement (Chapter 17) and the Transport Assessment provide confirmation of the various measures proposed as part of the Proposed Development, which will in turn ensure that any opportunities for sustainable transport modes are provided and that safe and suitable access can be achieved for all. The provision of electric charging points will also be included within the Proposed Development.</p> <p>The Transport Assessment also confirms that the investment and interventions which are proposed across the highway network as part of the Proposed Development would result in a net benefit the operation of the road network, improving its performance, capacity, resilience and result in benefits including the reduction of traffic through nearby villages such as Milton Malsor and Blisworth.</p> <p>By its very nature, the one of the key benefits of an SRFI is the increased opportunity to deliver a modal shift in transport from the road to rail in accordance with the overall strategic objectives of the NPS and to deliver significant economic benefits. This will have the advantage of moving freight traffic from traditional road methods and on to the railways. The benefits of which are reduced congestion on the wider strategic road</p>

limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making.”

Paragraph 104: “Planning policies should:

- a) support an appropriate mix of uses across an area, and within larger scale sites, to minimise the number and length of journeys needed for employment, shopping, leisure, education and other activities;
- b) be prepared with the active involvement of local highways authorities, other transport infrastructure providers and operators and neighbouring councils, so that strategies and investments for supporting sustainable transport and development patterns are aligned;
- c) identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice and realise opportunities for large scale development;
- d) provide for high quality walking and cycling networks and supporting facilities such as cycle parking (drawing on Local Cycling and Walking Infrastructure Plans);
- e) provide for any large scale transport facilities that need to be located in the area⁴², and the infrastructure and wider development required to support their operation, expansion and contribution to the wider economy. In doing so they should take into account whether such development is likely to be a nationally significant infrastructure project and any relevant national policy statements; and
- f) recognise the importance of maintaining a national network of general aviation airfields, and their need to adapt and change over time – taking into account their economic value in serving business, leisure, training and emergency service needs, and the Government’s General Aviation

network and a more sustainable means of transporting goods from producers and manufacturers to consumers.

Strategy.”

Paragraph 109: “Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.”

Paragraph 110: “Within this context, applications for development should:

- a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;
- b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;
- c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;
- d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and
- e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.”

Paragraph 111: “All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.”

Section 11 Making Effective Use of Land	
<p>Paragraph 117: “Planning policies and decisions should promote an effective use of land in meeting the need for homes and other uses, while safeguarding and improving the environment and ensuring safe and healthy living conditions. Strategic policies should set out a clear strategy for accommodating objectively assessed needs, in a way that makes as much use as possible of previously-developed or ‘brownfield’ land.”</p> <p>Paragraph 122: “Planning policies and decisions should support development that makes efficient use of land, taking into account:</p> <ul style="list-style-type: none"> a) the identified need for different types of housing and other forms of development, and the availability of land suitable for accommodating it; b) local market conditions and viability; c) the availability and capacity of infrastructure and services – both existing and proposed – as well as their potential for further improvement and the scope to promote sustainable travel modes that limit future car use; d) the desirability of maintaining an area’s prevailing character and setting (including residential gardens), or of promoting regeneration and change; and e) the importance of securing well-designed, attractive and healthy places.” 	<p>The NN NPS identifies clear locational criteria to ensure SRFIs are viable and successful and notes that due to requirements (access to road and rail being essential), it may be that countryside locations (such as Rail Central) are required for SRFIs.</p> <p>The Alternative Sites Assessment confirms that there are no brownfield alternatives to the proposals.</p>
Section 12 Achieving Well-Designed Places	
<p>Paragraph 124: “The creation of high quality buildings and places is fundamental to what the planning and development process should achieve. Good design is a key aspect of sustainable development, creates</p>	<p>The Proposed Development comprises a National Significant Infrastructure Project and, as such, comprises a large and complex development, which will inevitably have some impact on the local</p>

better places in which to live and work and helps make development acceptable to communities. Being clear about design expectations, and how these will be tested, is essential for achieving this. So too is effective engagement between applicants, communities, local planning authorities and other interests throughout the process.”

Paragraph 125: “Plans should, at the most appropriate level, set out a clear design vision and expectations, so that applicants have as much certainty as possible about what is likely to be acceptable. Design policies should be developed with local communities so they reflect local aspirations, and are grounded in an understanding and evaluation of each area’s defining characteristics. Neighbourhood plans can play an important role in identifying the special qualities of each area and explaining how this should be reflected in development.”

Paragraph 127: “Planning policies and decisions should ensure that developments:

- a) will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;
- b) are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;
- c) are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities);
- d) establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit;
- e) optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development (including green and other

surrounding area.

The Design and Access Statement (DAS) sets out the design rationale that has influenced the proposals. It seeks to demonstrate how the design process was conducted; how the design response evolved; how the proposals were shaped through consultation; and a deep understanding of the site’s prevailing context.

The DAS sets the design vision for Rail Central, which is based on a flexible approach to the form of development with a firm commitment to delivering a quality working environment that will take advantage of the opportunities the site presents, whilst addressing the key constraints. In doing so, Rail Central will seek to provide:

- a well-integrated development;
- a sustainable place;
- connectivity;
- protection of residential amenity;
- respect to the landscape;
- recreation and ecological enhancements.

However, through the use of a sound design approach (see section 14 of this Planning Statement) and the implementation of these principles, the proposals have been designed to ensure it is functionally fit for purpose, environmentally sensitive and positively responds to site context and to existing features. The guidance within the DAS and subsequent controls in the DCO will ensure that delivery of a detailed high quality scheme which is leading in respect of sustainability.

public space) and support local facilities and transport networks; and f) create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users⁴⁶; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience.”

Paragraph 128: “Design quality should be considered throughout the evolution and assessment of individual proposals. Early discussion between applicants, the local planning authority and local community about the design and style of emerging schemes is important for clarifying expectations and reconciling local and commercial interests.

Applicants should work closely with those affected by their proposals to evolve designs that take account of the views of the community. Applications that can demonstrate early, proactive and effective engagement with the community should be looked on more favourably than those that cannot.”

Paragraph 130: “ Permission should be refused for development of poor design that fails to take the opportunities available for improving the character and quality of an area and the way it functions, taking into account any local design standards or style guides in plans or supplementary planning documents. Conversely, where the design of a development accords with clear expectations in plan policies, design should not be used by the decision-maker as a valid reason to object to development. Local planning authorities should also seek to ensure that the quality of approved development is not materially diminished between permission and completion, as a result of changes being made to the permitted scheme (for example through changes to approved details such as the materials used).”

Paragraph 131: “In determining applications, great weight should be given

As detailed within the Sustainability Appraisal submitted as part of the

to outstanding or innovative designs which promote high levels of sustainability, or help raise the standard of design more generally in an area, so long as they fit in with the overall form and layout of their surroundings.”

DCO application, the applicant has made a commitment to sustainable development by confirming that new buildings will be designed to be resource efficient and will target a BREEAM Excellent rating based on the BREEAM 2014 New Construction scheme.

Section 14 Meeting the Challenge of Climate Change, Flooding and Coastal Change

Paragraph 148: “The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.”

Paragraph 149: “Plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating from rising temperatures. Policies should support appropriate measures to ensure the future resilience of communities and infrastructure to climate change impacts, such as providing space for physical protection measures, or making provision for the possible future relocation of vulnerable development and infrastructure.”

Paragraph 150: “New development should be planned for in ways that:
a) avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; and

The Climate Change Mitigation and Adaptation Chapter of the Environmental Statement (Chapter 21) considers the anticipated Green House Gas emission effects as a result of the Proposed Development and the measures taken to mitigate and adapt to climate change impacts.

Furthermore, the principle of the scheme, which seeks a modal shift of the transportation of freight from road to rail, meets the principles set out at Section 14 of the NPPF; it is anticipated that over 50 million HGV kilometres will be saved per annum. By full operation in 2031, a reduction in emissions of 49% will be achieved as a result of mode shift from road to rail.

The Sustainability Appraisal also reinforces the commitment to sustainable development by confirming that new buildings will be designed to be resource efficient and will target a BREEAM Excellent rating based on the BREEAM 2014 New Construction scheme.

b) can help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the Government’s policy for national technical standards.”

Paragraph 151: “To help increase the use and supply of renewable and low carbon energy and heat, plans should:

- a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts);
- b) consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and
- c) identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers.”

Paragraph 153: “In determining planning applications, local planning authorities should expect new development to:

- a) comply with any development plan policies on local requirements for decentralised energy supply unless it can be demonstrated by the applicant, having regard to the type of development involved and its design, that this is not feasible or viable; and
- b) take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption.”

Paragraph 155: “Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such

The Flood Risk Assessment submitted in support of the DCO application confirms that there are areas at risk of flooding within the Main SRFI Site. However, the Hydrology, Drainage and Flood Risk Chapter (Chapter 13) of

areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.”

Paragraph 163: “When determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment. Development should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:

- a) within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;
- b) the development is appropriately flood resistant and resilient;
- c) it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;
- d) any residual risk can be safely managed; and
- e) safe access and escape routes are included where appropriate, as part of an agreed emergency plan.”

Paragraph 165: “Major developments should incorporate sustainable drainage systems unless there is clear evidence that this would be inappropriate. The systems used should:

- a) take account of advice from the lead local flood authority;
- b) have appropriate proposed minimum operational standards;
- c) have maintenance arrangements in place to ensure an acceptable standard of operation for the lifetime of the development; and
- d) where possible, provide multifunctional benefits.”

the Environmental Statement confirms that with mitigation in place, will deliver benefits in respect of flood risk and foul drainage.

Paragraph 170: “Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.”

Paragraph 175: “When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

A Biodiversity chapter (Chapter 14) is included within the submitted Environmental Statement, which assesses the effects of the Proposed Development on biodiversity and ecological conservation.

Chapter 14 confirms that with mitigation the Proposed Development does not result in significant effects on Biodiversity. The Main SRFI site proposes significant ecological areas including:

- 7.2km of new green corridors;
- 39ha of new woodland; and
- the planting of over 2,300 new trees including oak and maple.

In addition, approximately 26ha of land to the south of J15a of the M1 will be enhanced as an ecological mitigation area with additional species rich hedgerows, scrub areas, field edge ponds and habitat provision for ground nesting birds.

The Design and Access Statement includes a section, which considers the design evolution of the Proposed Development. Specifically, this provides confirmation of how existing landscape features, including trees and hedgerows have been retained where possible. The Biodiversity Chapter (Chapter 14) of the Environmental Statement confirms that where it is not possible to retain existing features these will be compensated for or replaced as part of the Proposed Development. Furthermore, the Green Infrastructure Plan and the Landscape and Ecology Strategy which are secured as part of the DCO, provides confirmation of how green infrastructure will be delivered across the Proposed Development.

<p>b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;</p> <p>c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁵⁸ and a suitable compensation strategy exists; and</p> <p>d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.”</p>	
<p>Paragraph 178: “Planning policies and decisions should ensure that:</p> <p>a) a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination. This includes risks arising from natural hazards or former activities such as mining, and any proposals for mitigation including land remediation (as well as potential impacts on the natural environment arising from that remediation);</p> <p>b) after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990; and</p> <p>c) adequate site investigation information, prepared by a competent person, is available to inform these assessments.”</p>	<p>A number of chapters within the Environmental Statement including Ground Conditions, Flood Risk, Air Quality and Lighting assess the effect of the Proposed Development on pollution. No significant effects would arise through the development. Furthermore, through the adoption of a Construction and Environmental Management Plan (CEMP), which is submitted alongside this DCO application, it is proposed that pollution from the construction phase can be adequately controlled.</p>

Paragraph 180: “Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:

- a) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;
- b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason; and
- c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.”

Paragraph 181: “Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.”

Paragraph 183: “The focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than

the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively. Equally, where a planning decision has been made on a particular development, the planning issues should not be revisited through the permitting regimes operated by pollution control authorities.”

Section 16 Conserving and Enhancing the Historic Environment

Paragraph 184: “Heritage assets range from sites and buildings of local historic value to those of the highest significance, such as World Heritage Sites which are internationally recognised to be of Outstanding Universal Value⁶¹. These assets are an irreplaceable resource, and should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations”

Paragraph 189: “In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets’ importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.”

Paragraph 190: “Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a

The Design and Access Statement confirms how the scheme has been designed to sensitively in response to various existing heritage assets located in close proximity to Rail Central. Furthermore the Built Heritage Chapter (Chapter 11) of the Environmental Statement assesses any impacts of Rail Central on heritage assets and conservation areas. Chapter 11 confirms that, taking into consideration their significance, the Proposed Development would not give rise to substantial harm to the setting and thereby significance of the built heritage assets.

proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this into account when considering the impact of a proposal on a heritage asset, to avoid or minimise any conflict between the heritage asset's conservation and any aspect of the proposal.”

Paragraphs 192: “In determining applications, local planning authorities should take account of:

- a) the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
- b) the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and
- c) the desirability of new development making a positive contribution to local character and distinctiveness.”

Paragraph 193: “When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance.”

Paragraph 194: “Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification.

Substantial harm to or loss of:

- a) grade II listed buildings, or grade II registered parks or gardens, should be exceptional;

b) assets of the highest significance, notably scheduled monuments, protected wreck sites, registered battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.”

Paragraph 195: “Where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:

- a) the nature of the heritage asset prevents all reasonable uses of the site; and
- b) no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and
- c) conservation by grant-funding or some form of not for profit, charitable or public ownership is demonstrably not possible; and
- d) the harm or loss is outweighed by the benefit of bringing the site back into use.”

Paragraph 196: “Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use.”

Paragraph 197: “The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage

asset.”

Paragraph 199: “Local planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.”

Paragraph 200: “Local planning authorities should look for opportunities for new development within Conservation Areas and World Heritage Sites, and within the setting of heritage assets, to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to the asset (or which better reveal its significance) should be treated favourably.”

Paragraph 201: “Not all elements of a Conservation Area or World Heritage Site will necessarily contribute to its significance. Loss of a building (or other element) which makes a positive contribution to the significance of the Conservation Area or World Heritage Site should be treated either as substantial harm under paragraph 195 or less than substantial harm under paragraph 196, as appropriate, taking into account the relative significance of the element affected and its contribution to the significance of the Conservation Area or World Heritage Site as a whole.”

Section 17 Facilitating the Sustainable use of Minerals

Paragraph 203: “It is essential that there is a sufficient supply of minerals to provide the infrastructure, buildings, energy and goods that the country

The Ground Conditions Chapter (Chapter 12) of the Environmental Statement confirms that any minerals present within the Main SRFI Site

needs. Since minerals are a finite natural resource, and can only be worked where they are found, best use needs to be made of them to secure their long-term conservation.”

Paragraph 205: “When determining planning applications, great weight should be given to the benefits of mineral extraction, including to the economy. In considering proposals for mineral extraction, minerals planning authorities should:

- a) as far as is practical, provide for the maintenance of landbanks of non-energy minerals from outside National Parks, the Broads, Areas of Outstanding Natural Beauty and World Heritage Sites, scheduled monuments and conservation areas;
- b) ensure that there are no unacceptable adverse impacts on the natural and historic environment, human health or aviation safety, and take into account the cumulative effect of multiple impacts from individual sites and/or from a number of sites in a locality;
- c) ensure that any unavoidable noise, dust and particle emissions and any blasting vibrations are controlled, mitigated or removed at source⁶⁶, and establish appropriate noise limits for extraction in proximity to noise sensitive properties;
- d) not grant planning permission for peat extraction from new or extended sites;
- e) provide for restoration and aftercare at the earliest opportunity, to be carried out to high environmental standards, through the application of appropriate conditions. Bonds or other financial guarantees to underpin planning conditions should only be sought in exceptional circumstances;
- f) consider how to meet any demand for small-scale extraction of building stone at, or close to, relic quarries needed for the repair of heritage assets, taking account of the need to protect designated sites; and
- g) recognise the small-scale nature and impact of building and roofing

will not be sterilised by the Proposed Development.

Additionally Chapter 12 confirms that:

- a small area at the north east of the Main SRFI Site is within the 300m buffer zone associated with a nearby allocated site for the Provision of Sand and Gravel.
- the identified extraction site is separated from the Main SRFI Site by existing residential development and major pre-existing infrastructure in the form of Collingtree Road and the NLL.
- there is no viable link between the Proposed Development and the identified extraction site; meaning, both operations would be able to co-exist without impacting upon each other.

On the basis of the above, there are no significant impacts upon the potential exploitation of the known mineral resource.

stone quarries, and the need for a flexible approach to the duration of planning permissions reflecting the intermittent or low rate of working at many sites.”

Paragraph 206: “Local planning authorities should not normally permit other development proposals in Mineral Safeguarding Areas if it might constrain potential future use for mineral working.”

Appendix 7: Compliance with Regional and Local Planning Policy

Objective 1 – Climate Change	<p>The Climate Change Mitigation and Adaptation Chapter of the Environmental Statement (Chapter 21) considers the anticipated Green House Gas emission effects as a result of the Proposed Development and the measures taken to mitigate and adapt to climate change impacts.</p> <p>Furthermore, the principle of the scheme, which seeks a modal shift of the transportation of freight from road to rail, meets the principles set out at Objective 1; it is anticipated that over 50 million HGV kilometres will be saved per annum. By full operation in 2031, a reduction in emissions of 49% will be achieved as a result of mode shift from road to rail.</p>
Objective 2 – Infrastructure & Development	<p>In bringing forward the development, the Proposed Development will not negatively impact upon local services. Furthermore, as confirmed throughout the Environmental Statement, the Proposed Development will provide enhanced social, physical and green infrastructure.</p>
Objective 3 – Connections	<p>The Highways and Transportation Chapter of the Environmental Statement (Chapter 17) and the Transport Assessment provide confirmation of the various measures proposed as part of the Proposed Development, which will ensure that any opportunities for sustainable transport modes are taken up, safe and suitable access can be achieved for all. The Proposed Development will deliver a rail connected logistics facility which will help reduce road congestion in the wider area.</p>
Objective 8 – Economic Advantage	<p>The principle of the Proposed Development of Rail Central seeks to utilise the geographical advantages of the site and the existing infrastructure to help strengthen the economy of the area. The operation of Rail Central will contribute over £169m to South Northamptonshire’s economy every year and lasting productivity impact to the national economy expected to be over £500m per annum.</p>
Objective 9 – Specialist Business Development	<p>The principle of the Proposed Development seeks to deliver a SRFI which would deliver further logistics floorspace and is identified as a key economic sector as identified by local and regional economic strategies as well as high performing technology and manufacturing. Rail Central will make an important contribution to provision of a range of local jobs, helping the Council to achieve its economic development aims and objectives.</p>
Objective 15 – High Quality Design	<p>The Design and Access Statement submitted in support of the DCO application confirms the design evolution of the development proposals. This establishes that the scheme has been carefully design balancing the various site constraints and achieving a scheme that still performs from a functionality perspective. The</p>

	<p>Illustrative Masterplan submitted in support of the DCO application provides a possible iteration of how the development could be designed.</p> <p>Furthermore, as detailed within the Sustainability Statement submitted as part of the DCO application, it is confirmed that the applicant is committed to the construction of sustainable buildings, which will achieve a BREEAM Excellent rating.</p>
Policy S1 – Distribution of Development	<p>SRFI development is nationally significant infrastructure and local development plan policy does not actively seek to plan or make provision for it. The NN NPS confirms that specific connectively elements of SRFI are such that the number of suitable SRFI locations will be limited and countryside locations may be required. The Alternative Site Assessment, submitted in support of the DCO application confirms that the site of Rail Central is an excellent location for a SRFI development and the Market Assessment Report confirms that the Proposed Development will contribute towards the creation of a network of SRFIs in accordance with national policy.</p>
Policy S7 – Job Creation	<p>The Socio-Economic Chapter of the Environmental Statement (Chapter 18) confirms that the proposed development of Rail Central will lead to the significant creation of direct and in-direct employment. Additionally, the Socio-Economic Chapter confirms that there is suitable and sufficient labour force availability within the catchment area of the site to accommodate the uplift in jobs created by the proposed development.</p>
Policy S8 – Distribution of Job Growth	<p>As confirmed in relation to Policy S1, it is not possible for the Proposed Development to be located within the existing urban area; particularly not in the allocated locations for new employment development. However, the Proposed Development is responding to national requirements identified within the National Policy Statement for National Networks, which accepts that proposals will in certain circumstances be in conflict with local policy.</p> <p>The Socio-Economic Chapter of the Environmental Statement (Chapter 18) confirms that the construction of the Main SRFI Site is likely to generate significant socio-economic effects which are beneficial in nature, resulting from the creation of jobs and increase in productivity in the local economy. This job growth will be predominantly met through the sites unique location in close proximity to a number of urban areas, including Northampton, Milton Keynes and Coventry.</p>
Policy S10 – Sustainable Development Principles	<p>The Design and Access Statement submitted in support of the DCO application and the various chapters of the Environmental Statement confirm how the various Sustainability principles have been built into the Proposed Development.</p>

Policy S11 – Use of Sustainable Principles	Similarly to the response to Policy S10, the Design and Access Statement submitted in support of the DCO application and the various chapters of the Environmental Statement confirm how the various sustainability principles have been built into the Proposed Development. In particular, this is demonstrated within the Sustainability Appraisal, submitted in support of the DCO application.
Policy C1 – Sustainable Transport	<p>The Highways and Transportation Chapter of the Environmental Statement (Chapter 17) and the Transport Assessment provide confirmation of the various measures proposed as part of the Proposed Development, which will ensure that any opportunities for sustainable transport modes are taken up, safe and suitable access can be achieved for all.</p> <p>Furthermore, the principal of providing an SRFI seeks to create a modal shift in transport from the road to rail. This will have the advantage of moving freight traffic from traditional road methods and on to the railways. The benefits of which are reduced congestion on the strategic road network and a more sustainable means of transporting goods from producers and manufacturers to consumers.</p>
Policy C2 – Maximising Travel Choice/Policy C3 – Strategic Connections	The Proposed Development seeks to meet the requirements of Policy C3, by increasing freight movements on the railway network and therefore relieving pressure on the existing strategic highway network. The Proposed Development also provides road improvements which are a net benefit to the operation and resilience of the local and strategic highway network and a range cycling and pedestrian connectivity to and from the site. The Development is also supported by a Framework Travel Plan will ensure that any opportunities for sustainable transport modes are taken up, safe and suitable access can be achieved for all.
Policy C4 – Public Transport Connections	The Proposed Development will not hinder the delivery of Policy C4. Highway improvement works at Junction 15a of the M1 will provide enhanced traffic movement through this junction and along the A43. Furthermore, the Proposed Development includes the provision of a shuttle bus service, to provide sustainable travel options for people accessing the site.
Policy E4 – Rail Connected Storage and Distribution	It is noted that Policy E4 relates solely to Daventry International Rail Freight Terminal (DIRFT), however it demonstrates the general acceptability of rail connected storage and distribution uses in Northamptonshire. The Proposed Development at Rail Central has the same development principles as DIRFT. Furthermore, Rail Central is proposed in accordance with the high standard design principles set out within Policy E4, as confirmed within the Design and Access Statement.
Policy E5 – Silverstone Circuit	The Proposed Development of Rail Central is not in conflict with the requirements of Policy E5. It is envisaged that Rail Central and the proposals could be mutually beneficial. Rail Central could

	<p>provide a means for freight to be transported to Northamptonshire and then moved onwards to Silverstone. Furthermore, the proposals at Rail Central would serve a different market to the development proposed at Silverstone.</p>
Policy E8 – Junction 16 Strategic Employment Site	<p>Similarly to the proposals at Silverstone, development at Junction 16 of the M1 is seen not to be in conflict with the Proposed Development of Rail Central.</p>
Policy BN1 – Green Infrastructure Connections	<p>The Proposed Development seeks to deliver extensive areas of open green space. The Design and Access Statement and Environmental Statement confirm the arrangements for the green infrastructure proposed to be delivered. To ensure the up-keep of this additional provision, a 15 Year Management Plan is also submitted alongside the DCO application. Furthermore, the Green Infrastructure Plan, which will be secured as part of the DCO provides confirmation of how green infrastructure will be delivered across the Proposed Development.</p>
Policy BN2 – Biodiversity	<p>A Biodiversity chapter (Chapter 14) has been prepared as part of the Environmental Statement, to support the submission of the DCO application. This chapter has been prepared to assess the effects of the Proposed Development on biodiversity and ecological conservation. Chapter 14 confirms that with mitigation the Proposed Development does not result in significant effects on Biodiversity. The Main SRFI site proposes significant ecological areas including 7.2km of new green corridors, 39ha of new woodland and the planting of over 2,300 new trees including oak and maple. In addition, approximately 26ha of land to the south of J15a of the M1 will be enhanced as an ecological mitigation area with additional species rich hedgerows, scrub areas, field edge ponds and habitat provision for ground nesting birds.</p>
Policy BN5 – Heritage	<p>The Design and Access Statement confirms how the scheme has been designed to sensitively respond to various existing heritage assets located in close proximity to Rail Central. Furthermore the Built Heritage Chapter (Chapter 11) of the Environmental Statement confirms the impact of Rail Central on heritage assets and conservation areas. On the whole, Chapter 11 confirms that the Proposed Development would not give rise to substantial harm to the setting of existing heritage assets.</p>
Policy BN7A – Water Infrastructure	<p>The Proposed Development has been designed in accordance with the requirements identified in Policy BN7A. The arrangements for water infrastructure are confirmed within the Hydrology, Drainage and Flood Risk Chapter (Chapter 13) of the Environmental Statement and the various supporting information relating to this chapter.</p>
Policy BN7 – Flood Risk Assessment	<p>The Flood Risk Assessment submitted in support of the DCO application confirms that there are areas at flood risk within the Main SRFI Site. However, the Hydrology, Drainage and Flood Risk</p>

	Chapter (Chapter 13) of the Environmental Statement confirms that with mitigation in place, there will be no significant adverse effects during any phase of the Proposed Development.
Policy BN9 – Pollution	A number of chapters within the Environmental Statement including Air Quality (Chapter 8) and Lighting (Chapter 19) assess the effect of the Proposed Development on pollution. Furthermore, through the adoption of a Construction and Environmental Management Plan, which is submitted alongside this DCO application, it is proposed that pollution from the construction phase can be adequately controlled.
Policy N4 – Northamptonshire West SUE	The Proposed Development is not considered to be in conflict with this allocation. There is a latent need for additional housing to be provided within the local area. Furthermore, it is envisaged that some of the jobs proposed to be created at Rail Central could be met by the residents of this residential allocation.
Policy N5 – Northamptonshire South SUE	The Proposed Development is not considered to be in conflict with this allocation. There is a latent need for additional housing to be provided within the local area. Furthermore, it is envisaged that some of the jobs proposed to be created at Rail Central could be met by the residents of this residential allocation.
Policy N6 – Northampton South of Brackmills SUE	The Proposed Development is not considered to be in conflict with this allocation. There is a latent need for additional housing to be provided within the local area. Furthermore, it is envisaged that some of the jobs proposed to be created at Rail Central could be met by the residents of this residential allocation.
Policy N9 – Northampton Upton Park SUE	The Proposed Development is not considered to be in conflict with this allocation. There is a latent need for additional housing to be provided within the local area. Furthermore, it is envisaged that some of the jobs proposed to be created at Rail Central could be met by the residents of this residential allocation.
Policy N9A – Northampton Norwood Fran/ Upton Lodge SUE	The Proposed Development is not considered to be in conflict with this allocation. There is a latent need for additional housing to be provided within the local area. Furthermore, it is envisaged that some of the jobs proposed to be created at Rail Central could be met by the residents of this residential allocation.
Policy N12 – Northampton Transport Network Improvements	The Highways and Transportation Chapter of the Environmental Statement (Chapter 17) and the Transport Assessment provide confirmation of the various measures proposed as part of the Proposed Development, which will ensure that any opportunities for sustainable transport modes are taken up, safe and suitable access can be achieved for all. These measures seek to meet some of the network improvements identified in Policy N12.
Policy T3 – Towcester South SUE	The Proposed Development is not considered to be in conflict with this allocation. There is a latent need for additional housing to be

provided within the local area. Furthermore, it is envisaged that some of the jobs proposed to be created at Rail Central could be met by the residents of this residential allocation.

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Policy E7 – Industrial and Commercial Development

SRFI development is nationally significant infrastructure and local development plan policy does not actively seek to plan or make provision for it. The NN NPS confirms that specific connectively elements of SRFI are such that the number of suitable SRFI locations will be limited and countryside locations may be required. The Alternative Site Assessment, submitted in support of the DCO application confirms that the site of Rail Central is a high performing SRFI site and the Market Assessment Report confirms that the Proposed Development will contribute towards the creation of a network of SRFIs in accordance with national policy.

Policy EV1 – Design

The Design and Access Statement submitted in support of the DCO application confirms the design evolution of the development proposals. This establishes that the proposals have been carefully designed included balancing the various site constraints and achieving a scheme that still performs from a functionality perspective. The Illustrative Masterplan submitted in support of the DCO application provides a possible iteration of how the development could be designed.

Policy EV2 – Open Countryside

SRFI development is nationally significant infrastructure and local development plan policy does not actively seek to plan or make provision for it. The NN NPS confirms that specific connectively elements of SRFI are such that the number of suitable SRFI locations will be limited and countryside locations may be required. The Alternative Site Assessment, submitted in support of the DCO application confirms that the site of Rail Central is a high performing SRFI site and the Market Assessment Report confirms that the Proposed Development will contribute towards the creation of a network of SRFIs in accordance with national policy.

Policy EV11 – Conservation Areas

The Design and Access Statement confirms how the scheme has been designed to sensitively respond to various existing heritage assets and conservation areas located in close proximity to Rail Central. Furthermore the Built Heritage Chapter (Chapter 11) of the Environmental Statement confirms the impact of Rail Central on heritage assets and conservation areas. On the whole, Chapter 11 confirms that the Proposed Development would not give rise to substantial harm to the setting of existing heritage assets.

Policy EV21 – Landscape Features/
Policy EV29 – Landscaping
Proposals

The Design and Access Statement submitted in support of the DCO application confirms the design evolution of the development proposals. Specifically, this provides confirmation of how existing landscape features, including trees and hedgerows have tried to be retained where possible. The Biodiversity Chapter (Chapter 14) of the Environmental Statement confirms that where it is not

	<p>possible to retain existing features these will be compensated for or replaced as part of the Proposed Development. Furthermore, the Green Infrastructure Plan, which will be secured as part of the DCO, provides confirmation of how green infrastructure will be delivered across the Proposed Development.</p> <p>A Landscape and Visual Impact Assessment chapter (Chapter 15) has been prepared as part of the Environmental Statement, to support the submission of the DCO application. This chapter has been prepared to assess the landscape and visual impacts of the Proposed Development. To ensure that visual impacts on surrounding sensitive receptors are minimised, a number of landscape features form part of the Proposed Development. These landscape features have all been designed in accordance with Policy ENV29.</p>
Policy IMP1 – Contributions	The draft Development Consent Order confirms the various contributions that will be made as part of the Proposed Development. These have been established in accordance with Policy IMP1.
Northampton Local Plan 1997	
Policy E7 – Visual Impacts	A Landscape and Visual Impact Assessment chapter (Chapter 15) has been prepared as part of the Environmental Statement, to support the submission of the DCO application. This chapter has been prepared to assess the landscape and visual impacts of the Proposed Development. To ensure that visual impacts on surrounding sensitive receptors are minimised, a number of landscape features form part of the Proposed Development.
Policy E9 – Locally Important Landscapes	In response to ensuring that impacts on Locally Important Landscapes are minimised, a series of landscape features form part of the Proposed Development. These impact of the Proposed Development with the provision of the identified landscape features are all detailed within the Landscape and Visual Impact Assessment chapter (Chapter 15), which has been prepared as part of the Environmental Statement, to support the submission of the DCO application.
Policy E20 – Surrounding Character Area	The Design and Access Statement submitted in support of the DCO application confirms the design evolution of the development proposals. This confirms how the Proposed Development has been designed to give consideration to the existing surrounding character area.
Policy E26 – Conservation Areas	The Design and Access Statement confirms how the scheme has been designed to sensitively respond to various existing heritage assets and conservation areas located in close proximity to Rail Central. Furthermore the Built Heritage Chapter (Chapter 11) of the Environmental Statement confirms the impact of Rail Central on heritage assets and conservation areas. On the whole, Chapter

	11 confirms that the Proposed Development would not give rise to substantial harm to the setting of existing heritage assets, or conservation areas.
Policy B14 – Business Uses	SRFI development is nationally significant infrastructure and local development plan policy does not actively seek to plan or make provision for it. The NN NPS confirms that specific connectively elements of SRFI are such that the number of suitable SRFI locations will be limited. The Alternative Site Assessment, submitted in support of the DCO application confirms that the site of Rail Central is the most favourable location for a SRFI development and the Market Assessment Report confirms that the Proposed Development will contribute towards the creation of a network of SRFIs in accordance with national policy.
Policy B33 – Hazardous Installations	The Design and Access Statement confirms how the Proposed Development has been designed to give consideration to existing hazardous installations. The design accords with Policy B33.
Policy T12 – Parking Provision	The final parking provision at the Proposed Development will be in accordance with latest policy guidelines. Please see the Highways Assessment for more details.
Policy T14 – Rail Infrastructure	Although the Proposed Development seeks to connect with the existing rail corridors, the Rail Operations Report confirms that the Proposed Development will not adversely impact the existing infrastructure.
Policy D9 – Junction 15a of the M1	The Proposed Development of Rail Central is not in conflict with the requirements of Policy D9. It is envisaged that Rail Central and the proposals could be mutually beneficial. Rail Central could provide a means for freight to be transported to Northamptonshire and then moved onwards to the site at Junction 15a. Furthermore, the proposals at Rail Central would serve a different market to the development set out at Policy D9.
Northamptonshire County Council Minerals and Waste Local Plan	
Policy 28 – Minerals Safeguarding	The Ground Conditions Chapter (Chapter 12) of the Environmental Statement confirms that any minerals present within the Main SRFI Site will not be sterilised by the Proposed Development for a number of reasons. The Ground Conditions Chapter (Chapter 12) of the Environmental
Policy 30 – Land Use Conflicts	Statement confirms that a small area at the north east of the Main SRFI Site is within the 300m buffer zone associated with a nearby allocated site for the Provision of Sand and Gravel. Chapter 12 continues to confirm that the identified extraction site is separated

from the Main SRFI Site by existing residential development and major pre-existing infrastructure in the form of Collingtree Road and the NLL. Furthermore, there is no viable link between the Proposed Development and the identified extraction site; meaning, both operations would be able to co-exist without impacting upon each other. On this basis, there are no significant impacts upon the potential exploitation of the known mineral resource.

South Northamptonshire: Local Plan (Part 2A)

Policy Site Development Principles 1 and Policy Site Development Principles 2 The Design and Access Statement submitted in support of the DCO application confirms the design evolution of the Proposed Development. This establishes that ‘high quality design’ has been at the centre of preparing the scheme. This has included balancing the various site constraints and achieving a scheme that still performs from a functionality perspective. The Illustrative Masterplan submitted in support of the DCO application provides a possible iteration of how the development could be designed. The Proposed Development therefore meets the requirements of Site Development Principles 1 and 2.

Policy Site Development Principles 3 As confirmed within various Chapters of the Environmental Statement, various infrastructure improvement works form part of the Proposed Development (e.g. improvement works to Junction 15a of the M1). Additionally, the draft Development Consent Order confirms the various contributions that will be made as part of the Proposed Development.

Policy Employment 2 – New Employment Development SRFI development is nationally significant infrastructure and local development plan policy does not actively seek to plan or make provision for it. The Alternative Site Assessment, submitted in support of the DCO application confirms that the site of Rail Central is a high performing SRFI site and the Market Assessment Report confirms that the Proposed Development will contribute towards the creation of a network of SRFIs in accordance with national policy.

Policy Connections 1 – Electric Charging Points The Proposed Development will include electric charging points. The Design and Access Statement and Sustainability Statement submitted in support of the DCO application confirms the design evolution of the development proposals. This confirms how the Proposed Development has been designed to give consideration to the existing surrounding character area.

Policy Natural Environment 1 – Rural Character/Policy Natural Environment 3 – Trees, Woodland and Hedgerows/Policy Natural Environment 5 – Biodiversity and Geodiversity/Policy Natural Environment 10 – HS2, Major A Landscape and Visual Impact Assessment chapter (Chapter 15) has been prepared as part of the Environmental Statement, to support the submission of the DCO application. This chapter has been prepared to assess the landscape and visual impacts of the Proposed Development. To ensure that visual impacts on surrounding sensitive receptors are minimised, a number of landscape features form part of the Proposed Development.

Developments and Nationally Significant Infrastructure Projects	In respect of both Policy Natural Environment 5 and 10, the Design and Access Statement submitted in support of the DCO application confirms the design evolution of the development proposals. Specifically, this provides confirmation of how existing landscape features, including trees and hedgerows have tried to be retained where possible. The Biodiversity Chapter (Chapter 14) of the Environmental Statement confirms that where it is not possible to retain existing features these will be compensated for or replaced as part of the Proposed Development.
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Appendix 4: RC Alternative Sites Assessment

The Rail Central Rail Freight Interchange and Highway Order 201[x]

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Alternative Sites Assessment

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Planning Act 2008 | Infrastructure Planning
(Applications: Prescribed Forms
and Procedure) Regulations 2009

The Rail Central Rail Freight Interchange and Highway Order 201[x]

Document 7.3: Alternative Site Assessment

Ashfield Land Management Limited and
Gazeley GLP Northampton s.à.r.l.

Regulation: 5(2)(q)

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1. Introduction

- 1.1 Ashfield Land Management Limited and Gazeley GLP Northampton s.à.r.l. (the applicant) have submitted an application for a Development Consent Order (DCO) for a Strategic Rail Freight Interchange (SRFI), referred to as Rail Central at land at Arm Farm, Milton Malsor in South Northamptonshire (the Rail Central site).
- 1.2 This Alternative Site Assessment (ASA) provides an assessment of alternative sites that have been considered in selecting the Rail Central site. This ASA establishes an area in which it is appropriate to search for an alternative site, sets out the search criteria to assess potential sites and assesses the suitability of alternative sites.
- 1.3 A SRFI is a large rail served distribution park linked into both the rail and strategic road systems, capable of accommodating the large warehouses necessary for the storage, processing and movement of goods for manufacturers, retailers and end consumers. The aim of a SRFI is to optimise the use of rail in the freight journey by maximising rail trunk haul and minimising some elements of the secondary distribution journey by road, through co-location of other distribution and freight activities and by adopting locations close to centres of demand. Thus, a SRFI has specific locational requirements.
- 1.4 It is not, however, the purpose of this ASA to seek to justify the detailed suitability of the proposed development in its own right. The suitability of the proposed site from a planning and environmental perspective is assessed in detail within the Planning Statement (Document 7.1), Environmental Statement (ES) (Document 6.1) and Design and Access Statement (DAS) (Document 7.2).
- 1.5 In addition, further information on the design evolution and alternative iterations of the proposed development is provided in the DAS. There is no formally prescribed process or methodology for undertaking an ASA, and the process should be adapted to the characteristics of different projects. The method used in this assessment reflects the national planning policy requirements set out in the following section and the specific operational and locational needs of a SRFI.

Purpose of the Assessment

- 1.6 This Chapter sets out the process undertaken by the Applicant in considering potential alternatives for the proposed development. The EIA Regulations¹ require the ES to outline the main alternatives studied by the applicant and to give an indication of the main reasons for the applicant's choice, taking into account the environmental effects. Although the project benefits from a scoping opinion issued under the 2011 Regulations, notice has been formally served on the Planning Inspectorate (PINS) to confirm that the Rail Central Development Consent application will follow the 2017 Regulations.

¹ The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 as amended by the Infrastructure Planning (Environmental Impact Assessment) (Amendment) Regulations 2012 and the Consequential Amendments Regulations 2012

- 1.7 The approach required by the 2017 Regulations² differs slightly from the 2011 Regulations, in that it asks for a description of the reasonable alternatives studied by the applicant, which are relevant to the proposed development and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment. An assessment of reasonable alternatives is provided within Chapter 3 of the Environmental Statement.
- 1.8 The policy requirements to consider alternatives as confirmed within the National Policy Statement for National Networks (December 2014) (NN NPS)³ do not apply to the Proposed Development. Furthermore, the Proposed Development site is not located within an area of flood risk nor is it located within a National Park, the Broads or an Area of Outstanding Natural Beauty.

Background and General Approach

- 1.9 The assessment of alternatives has been undertaken in two main phases. These stages link directly to the consultation process undertaken for the proposed Application.
- 1.10 For the Phase 1 consultation, an Assessment of Alternatives was included in the first phase Preliminary Environmental Information Report (PEIR). The methodology adopted was simple and focussed on considering sites that local interest groups, stakeholders and the public had suggested could be possible alternatives.
- 1.11 It also included sites that had been shortlisted in the assessment undertaken for Daventry International Rail Freight Terminal III (DIRFT), as these are potential rail freight sites already identified within relatively close proximity to the Rail Central proposal.
- 1.12 A more thorough ASA was prepared as part of the Phase 2 consultation. This assessment was undertaken to supplement that earlier Phase 1 exercise. It adopted a more rigorous but consistent approach, using a defined methodology.
- 1.13 The Phase 2 ASA was based on a GIS mapping exercise, including mapping proximity to road and rail infrastructure and constraints mapping. Potential sites were identified and scored against a common matrix.
- 1.14 This final ASA submitted in support of the DCO application is consistent with the Phase 2 ASA. Albeit, the various alternative sites have been reviewed again, and updates to the document have been made where new information is available.

² The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

³ NN NPS Paragraphs 4.26 and 4.27

2. Need

- 2.1 The starting point for an assessment of alternatives is to understand the need that the proposed development is seeking to meet. This helps to frame the extent of the exercise, in terms of both geography and the opportunities available to satisfy that need.
- 2.2 The NN NPS sets the context for consideration of need in this case. It notes that need for SRFI's is driven by a combination of⁴:
- The changing needs of the logistics industry
 - Rail freight growth
 - Environmental factors, primarily reducing carbon emissions and removing freight from the UK's roads
 - Economic benefits, including job growth
- 2.3 The Government's vision is to achieve a low carbon sustainable transport system that is an engine for economic growth that is safer and improves quality of life in our communities. The transfer of freight from road to rail has an important part to play in a low carbon economy and therefore helping to address climate change⁵.
- 2.4 In order to achieve the transfer of freight from road to rail, a network of SRFIs is needed across the regions⁶. The alternative options to address the drivers of need set out in the NN NPS at Table 4 are considered to be neither viable nor desirable⁷. There is considered to be a compelling need for an expanded network of SRFIs⁸.
- 2.5 Whilst it is recognised that capacity for SRFIs needs to be provided at a wide range of locations to provide flexibility to match the changing demands of the market,⁹ it is also recognised that given the locational requirements of SRFIs the number of locations suitable will be limited, which restricts the scope to identify viable alternative sites¹⁰.
- 2.6 The NN NPS recognises that SRFIs need to be located alongside major rail routes, close to major trunk roads and close to the urban areas that consume the goods being moved¹¹.
- 2.7 It is clear that National Policy establishes the need for a network of SRFI's across the Country in locations which have access to road and rail infrastructure and the markets they are intended to serve. This means that different regional geographies need to be served and there is no policy based restriction on the number of SRFIs required.

⁴ NN NPS See paragraphs 2.47 to 2.52

⁵ NN NPS Paragraph 2.5

⁶ NN NPS Paragraph 2.54

⁷ NN NPS Paragraph 2.55

⁸ NN NPS Paragraph 2.56

⁹ NN NPS Paragraph 2.58

¹⁰ NN NPS Paragraph 2.56

¹¹ NN NPS Paragraph 2.45 and 2.54

- 2.8 The need context set out above provides important context for any consideration of alternative sites as clearly the delivery of a single SRFI will not meet the objectives of government policy (as set out in the NN NPS) or meet existing and emerging demand. It follows therefore that the NN NPS does not require applicants to demonstrate that their sites are the best of the available alternatives. Provided that other sites are capable of meeting the requirements of the NN NPS, this report does not seek to “discount” or “reject” such alternatives.
- 2.9 The key issue for this, or any SRFI site which is subject to an application, is whether the Proposed Development complies with the NN NPS.

3. Options Appraisal

- 3.1 The NN NPS requires all projects to be subject to an options appraisal¹², but makes clear that it is not necessary for the examining authority to reconsider this process, as opposed to satisfying them that this assessment has been undertaken. Footnote 61 of the NN NPS acknowledges that investment decisions on SRFIs will be made in the context of a commercial framework. This SRFI project is privately funded and is not subject to any funding bid or process that requires a formal Options Appraisal Report to be prepared as part of the business case to secure public funding.
- 3.2 Notwithstanding this, the DCO application comprises two Nationally Significant Infrastructure Projects (NSIPs); one of which relates to a major highway scheme (J15A of the M1). In addition, associated development also contains a large number of other highway works. The two respective NSIPs are fully integrated and each will not proceed without the other. In essence, the highway proposals at J15A of the M1 are a NSIP simply as a consequence of exceeding the thresholds in the Planning Act 2008 (PA2008). As such, the Proposed Development is assessed as one single project. However, in practice the Transport Assessment and the analysis of impacts on highways in the ES, both submitted in support of the Rail Central DCO, provide a significant amount of information to assess adverse impacts and have been prepared in accordance with WebTAG guidance¹³ in any event.
- 3.3 The NN NPS notes that the appraisal should consider viable modal alternatives.
- 3.4 A number of potential options have been considered to meet the need for a network of SRFI's. These are:
- (a) The no development scenario;
 - (b) Focussing on road only distribution schemes;
 - (c) Relying on existing SRFIs
 - (d) Relying on more, smaller rail freight interchanges (RFI)
 - (e) Alternative sites as considered in the remainder of this assessment, and;
 - (f) Alternative forms of development on this site.
- 3.5 These are considered further below.
- (a) The no development scenario**
- 3.6 This is not an option. The NN NPS confirms that the overriding government objective is to shift freight from road to rail to help reduce transport's carbon emissions and provide economic benefits¹⁴. The NN NPS establishes there is a compelling need for an

¹² NN NPS Paragraph 4.27

¹³ The WebTAG documents consist of a collection of advice and guidance on modelling and appraisal of transport projects

¹⁴ NN NPS Paragraph 2.40

expanded network of SRFIs throughout the country and that “SRFI capacity needs to be provided at a wide range of locations, to provide the flexibility needed to match the changing demands of the market.” A no development scenario would also not meet the identified need for a network of SRFIs across the UK, and would leave freight movements on the strategic road network, with the associated greater level of emissions and cost of delays caused by congestion.

- 3.7 In terms of Rail Central, this option would not result in any environmental change and would leave the Rail Central site in productive agricultural use. However, it would have major opportunity costs in the form of unrealised economic and job growth opportunities.

(b) Focussing on road only distribution schemes

- 3.8 This option has similar disadvantages to the no development scenario. The economic benefits of growth in the logistics industry would be secured, but this would be in a manner which is, relatively speaking, less environmentally acceptable. The NN NPS recognises¹⁵ that even with significant road infrastructure investment, forecast freight levels would lead to increasing congestion at ports and on the road network, and lead to increased transport related carbon emissions. It recognises that a modal shift to rail needs to be encouraged and that this will require investment in the rail network and having suitable freight terminals to serve the growing need.
- 3.9 This option is not considered to be an acceptable option as it would not meet policy objectives and would result in a less environmentally acceptable alternative being adopted.

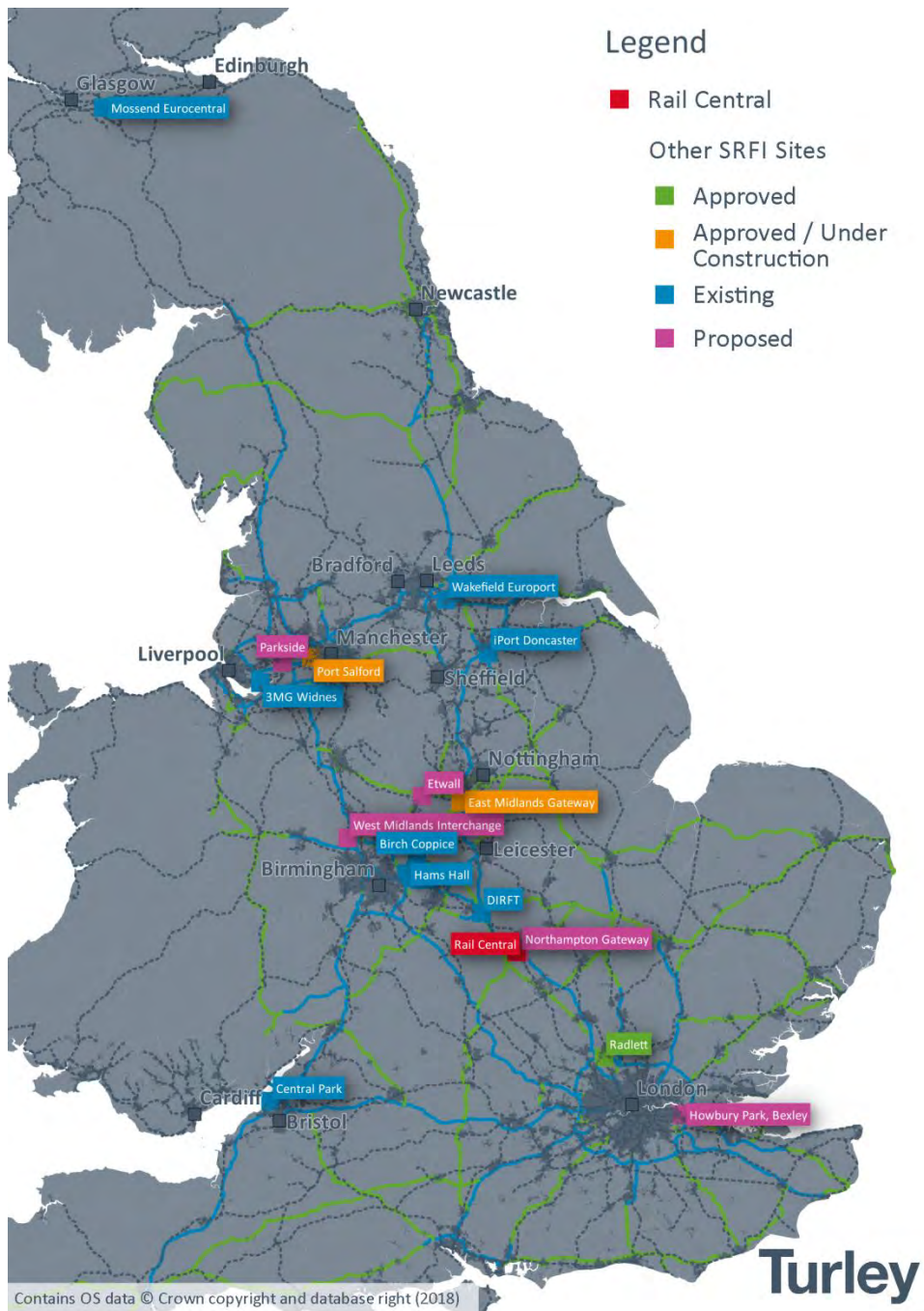
(c) Relying on existing SRFIs

- 3.10 The NN NPS recognises that while small parts of the country are served by existing SRFIs, relying on the existing network of RFI to manage demand is neither a viable nor desirable option, concluding: “perpetuating the status quo...is simply not a viable option”¹⁶. Road congestion would increase, ports would have increasing difficulties moving goods inland causing congestion and both costs and delays for shippers. This would constrain economic growth, investment and job creation.

¹⁵ NN NPS Table 4: Options to address need, paragraph 2.55

¹⁶ NN NPS Table 4: Options to address need, paragraph 2.55

Figure 3.1: Proposed and Operational SRFI Sites



3.11 This option is not considered to be an acceptable option as it would not meet policy objectives, would have significant economic opportunity costs and would result in a less environmentally acceptable alternative being adopted.

Relying on more, smaller rail freight interchanges

3.12 Whilst this would achieve a modal shift to rail, smaller Rail Freight Interchanges (RFIs) would not have the capacity or efficiency to deal with forecast levels of freight growth. The NN NPS recognises that smaller RFIs have a place in the network of RFIs, but that

they cannot provide the scale, efficiencies and the related business facilities and linkages offered by SRFIs¹⁷.

- 3.13 In order for the rail network to operate efficiently, larger SRFIs are required in addition to smaller RFIs or single rail served warehouses. Each of these has a role to play in removing traffic from the road network and can deliver economic opportunities and environmental benefits compared to a road only solution. However, to be efficient, these types of rail freight facilities must operate together and the SRFIs have a key role to play in bulk handling of goods and clearing port capacity.
- 3.14 This option is a partial solution but would still have economic dis benefits in terms of port congestion and effects on costs to shippers. This option is not considered to be acceptable as it only deals with part of the reason for the policy requirement for a network of rail freight facilities, and therefore does not meet the policy need in full.

Alternative sites

- 3.15 Within the identified assessment area, there are a small number of alternative sites for a SRFI which are considered later in this report. The methodology adopted shows that Rail Central is amongst the best locations in the East and West Midlands for a SRFI.
- 3.16 However, there is an identified need to secure a modal shift to rail and there is a need for more SRFIs and other rail served developments to be delivered in order to achieve a network of rail freight infrastructure. This has potential to encourage greater use of rail for distribution activity across the UK, through greater accessibility to rail freight services and markets.
- 3.17 There is no limit to the number of rail freight sites that can be given development consent in policy terms and it is expected that the delivery of new SRFI and the identification of suitable sites is to be led by the market. In market terms, operator requirements are the key driver, against a wider market where the vast majority of the current warehousing stock has no prospect of rail access. A greater availability of space and improved connectivity between rail infrastructure and its markets will serve to encourage operators to make more use of these facilities, with the commensurate environmental benefits compared to a road only option. Indeed, at a national level, newer SRFI facilities are emerging to fill identified gaps in the national network and clusters are beginning to form. Examples of SRFI emerging to deliver a network of sites include:
- iPort Doncaster, serving the east of Yorkshire and Humberside, with Wakefield Europort serving the west of the region;
 - Port Salford, serving the Greater Manchester conurbation of the North West, between Widnes 3MG serving the Liverpool conurbation to the west and Wakefield Europort to the east;
 - East Midlands Gateway (EMG) to serve the area north of DIRFT and south of iPort/Wakefield Europort;

¹⁷ Table 4: Options to address need, paragraph 2.55 of the NN NPS

- Mossend International Railfreight Park strengthening existing provision with a mirror image development to Mossend Eurocentral immediately opposite;
- East Midlands Intermodal Park, serving the area between East Midlands Gateway, the North West, Yorkshire & Humberside;
- West Midlands Interchange, serving the Black Country, mid-Wales and the rest of the area between the Midlands and North West;
- Radlett and Howbury Park, serving London and the South East; and
- Rail Central and/or Northampton Gateway serving the area south of DIRFT and Northamptonshire.

3.18 The emergence of clustering reflects the experience of continental Europe, the scale of demand for SRFI in specific locations and major markets reflecting the success of the concept, as confirmed below:

- (i) Hams Hall SRFI and Birch Coppice SRFI – less than 10km apart collaborating on rail services (some Felixstowe trains to and from Birch Coppice use the facilities at Hams Hall to change direction. Hams Hall is in turn less than 11km from the established Lawley Street Rail Freight Interchange (RFI) in the centre of Birmingham;
- (ii) East Midlands Gateway SRFI and East Midlands Distribution Centre RFI – less than 3km apart;
- (iii) Wakefield Europort SRFI and Leeds Stourton RFI – less than 3km apart;
- (iv) 3MG Widnes SRFI and Garston RFI – less than 9km apart;
- (v) Port Salford SRFI and Trafford Park RFI – less than 6km apart;
- (vi) iPort Doncaster SRFI and Doncaster Railport RFI – less than 3km apart; and
- (vii) DIRFT I, II and III (within which 4 separate RFI facilities effectively compete for business), to be supported by an emerging cluster of Rail Central and/or Northampton Gateway

3.19 The success of these co-located SRFIs is not accidental; it is a direct response to meeting demand and growth in rail freight accessibility in the markets they intend to serve. It also echoes the pattern of road-served distribution parks which also exist in clusters around major highway intersections (e.g. motorway junctions).

3.20 This is largely being achieved by new occupiers and businesses within those markets utilising rail freight (which is fully consistent with the policy objectives of the NN NPS) rather than diverting rail freight traffic from elsewhere. Indeed, it would be impractical, and against the grain of the NN NPS, for customers to rely upon remote facilities elsewhere to meet its own freight requirements.

Alternative forms of development

- 3.21 There are other potential development scenarios for the Rail Central site. These include:
- A rail freight terminal of lesser extent;
 - A non- rail connected / served logistics development; and
 - Residential or other non-employment related development.
- 3.22 The non-rail related development options have not been pursued, primarily because they will not meet the established need for a network of SRFIs across the UK. Whilst there is strong residential demand, this need is addressed elsewhere through local policies and a release of the Rail Central site for residential development would not maximise the functional and locational benefits of this site.
- 3.23 In the case of a reduced scale of development on this site, this option would not maximise the opportunity from creating such a development. Furthermore, the position of the railway infrastructure relative to the strategic highway access means that creating a smaller development should naturally occur around the rail infrastructure. This would create the need to provide significant new access infrastructure without providing the development associated with that infrastructure which would provide its funding. This option therefore represents an opportunity cost and creates a potential project viability issue.
- 3.24 Consideration has also been given to alternative layouts of the selected form of development. These were considered as part of the iterative process of site design and environmental assessment and are included in the Design and Access Statement. These early iterations of the masterplan are not presented in detail in this report as they add little to the consideration of options and represent the fine detail of the evolution of the current scheme¹⁸.
- 3.25 However, there are key factors which have guided the general form of the development. These fixed parameters are:
- The locations at which rail connections can be achieved, both on the main line and the Northampton Loop Line (NLL);
 - The location at which access to the strategic road network can be achieved, on the A43; and
 - The need to cross Northampton Road.
- 3.26 These elements of the development are fixed and are all essential elements of the proposed scheme. These dictate the general extent of the development as well as factors such as the location of the intermodal and express freight facilities and the positioning of the directly rail connected units to the eastern side of the site. The difficulties of securing a rail link to the western side of the site, past the old

¹⁸ Site masterplan options can be viewed in the Design and Access Statement

Northampton Road also dictates the position of the rail served units to the western side of the site. These parameters have therefore heavily influenced the general form and nature of the proposed development and each of the alternatives has had to work within these limits.

Options appraisal conclusion

- 3.27 This options appraisal has considered high level alternatives to pursuing the type of development proposed in the application. Many of these options are discounted in the NN NPS as they will not contribute towards meeting the policy need for a network of SRFIs.
- 3.28 The reasoning that sits behind discounting those options that there are fundamental and strategic difficulties with not seeking to meet the need for a network of SRFIs as established in the NN NPS. These are essentially environmental and economic costs, which suggest that significantly enhanced rail freight provision in the UK is the best solution to ensuring continued economic prosperity and reducing the environmental burden of society's current need to move bulk freight to the UK and around the UK.
- 3.29 The Rail Central site is considered to be an excellent opportunity to provide a high quality, 'next generation' rail freight development that will contribute to the UK's ultimate aim of securing a network of rail freight infrastructure. In this context, and as explained within the Rail Operations Report (Document 7.5) submitted in support of this DCO application, its potential has been recognised by Network Rail which maintains a programme (in parallel with developments such as HS2) which focuses on seeking to respond to forecast growth in passenger and freight traffic through capacity enhancement.
- 3.30 Network Rail forecasts reflect the assumed delivery of new SRFI in Northampton. Rail Central is included in the quantum of floorspace and sites on which the aggregate forecast is based¹⁹. It is these forecasts which underpin the NN NPS which states that these forecasts should be accepted for planning purposes²⁰. As the NN NPS explains²¹, SRFI capacity is needed at a wide range of locations to match the changing demands of business. If this is not achieved, the NN NPS forecasts will not be met and wider government policy objectives on the economy, mobility and sustainability will be hindered.

¹⁹ Page 15, Network Rail Freight Market Study, October 2013

²⁰ NN NPS Paragraph 2.49

²¹ NN NPS Paragraph 2.58

4. Methodology

Assessment Area

- 4.1 The national policy solution to successfully deliver the transfer of freight from road onto rail is the creation of a network of SRFIs which can provide distribution floorspace within the same site as a RFI. A SRFI requires (by legislation²²) an intermodal terminal (capable of handling at least four trains per day); it must also include warehouses to which goods can be delivered from the railway network either directly or by means of another form of transport. Indeed this is considered necessary to attract customers and to generate returns sufficient to justify the rail infrastructure investment costs. SRFIs must also be of significant scale (at least 60 ha in size). The SRFI concept therefore combines an interchange and warehousing activities on the same site. SRFIs should not be seen simply as locations for freight to access the railway but also sites for the accommodation of businesses capable now or in the future of supporting their commercial activities by rail²³.
- 4.2 The rail terminal facilities at a SRFI are used by the occupiers of the on-site warehousing at the SRFI and by companies located off-site in the surrounding catchment area of the SRFI. On-site occupiers of existing SRFI development floorspace have traditionally been in the form of National and Regional Distribution Centres (NDCs and RDCs) which, by their scale and nature, receive, store and distribute freight in the greatest volume and over longer distances thereby making rail use more competitive.
- 4.3 In addition to any rail connection, demand for NDCs and RDCs is strongly governed by certain locational requirements. In particular, for NDCs especially, the attractiveness of an area relative to another area is governed by the following intrinsic characteristics:
- A location in the UK which provides access to major population centres in all parts of the UK within a reasonable drive time. Drive time connections are crucial to the logistics industry as road is the predominant mode for moving freight and because of statutory limits on a driver's working (driving) hours
 - A location convenient and central to the major container ports, key manufacturers and other suppliers of goods
 - A location with convenient access to the country's two most significant motorways – the M1 and M6 - and trunk roads which provide supporting connections to the UK's main urban centres
 - A location which provides a good supply of appropriately skilled labour as NDCs and other large warehouses offer significant employment opportunities
- 4.4 These inherent characteristics are displayed in the Midlands where the demand for large scale logistics remains strongest at locations with good access to the strategic motorway network where occupiers can serve a large proportion of the UK population,

²² Section 26, Planning Act 2008

²³ NN NPS paragraph 4.88

as well as major ports and the Channel Tunnel, within appropriate drive times and with a ready supply of labour.

- 4.5 Therefore, in order to be successful in attracting occupiers and rail freight services, the location of SRFI will need to meet these key location considerations. In reality, therefore, most major NDC and RDCs are concentrated in the Midlands, therefore a concentration of SRFI developments in the region can be expected. The Midlands is also at the heart of the UK rail freight network.
- 4.6 It is therefore considered appropriate for any assessment area, considering sites for SRFI in the Midlands, to cover both the West and East Midlands for the purposes of a robust assessment.
- 4.7 As noted above, SRFIs provide rail access not only for on-site occupiers but also for other companies located offsite in the hinterland on non-rail-served sites. For SRFI, operational evidence indicates that in the case of the latter, the size of the road-based hinterland for traffic arriving or departing from the SRFI by rail is primarily within a 15km radius of the SRFI, although it can extend beyond this to a secondary catchment area potentially up to 50km. However it is the locational requirements of on-site warehousing to serve as NDCs or RDCs (along with a suitable connection on the Strategic Road Network (SRN)) which is a principal consideration in the location for a SRFI.
- 4.8 Therefore any assessment of alternative locations should be considered against where the demand for NDC's and RDC's is the highest, reflective of the locational characteristics that attract these type of occupiers. The Market Assessment Report submitted in support of the Rail Central DCO application demonstrates that the demand for large scale logistics is strongest in the Midlands and given the economics of rail freight and dynamics of the logistics market, SRFI's will inevitably need to be concentrated, albeit not exclusively, in the centre of the UK where locations have the greatest access to UK markets and where a large number of NDC and major RDC's are located and will continue to be located. Therefore the assessment area for alternative sites of the East and West Midlands is considered to be an appropriate one.
- 4.9 The catchment area for the assessment is shown on Plan 1 at Appendix 1

Approach

- 4.10 This assessment has adopted a methodology based on the locational criteria for SRFIs which are described in the NN NPS²⁴. The locational criteria described include the following key factors:
- Proximity to major urban centres and supply chain routes;
 - Good road access;
 - Adequate links to the rail network;
 - Loading gauge of W8 or more;

²⁴ NN NPS Paragraphs 4.84 to 4.89

- Capability to accommodate longer trains of 775 metres in length in one manoeuvre to and from the main line without intermediate splitting or shunting;
 - Avoiding environmentally sensitive areas, defined as being residential areas or National Parks, the Broads and AONBs, taking into account the possibility of mitigation;
 - Other environmental considerations such as flooding and agricultural land; and
 - Availability of a workforce.
- 4.11 The methodology is based on a defined area of search, availability of key infrastructure and mapping constraints. Ultimately, the methodology follows a map based constraints “sieving” exercise over the East and West Midlands, which is the core of logistics activity in the UK and a strong central location where the majority of the UK can be served within the driver working limits set by the Working Time Directive.
- 4.12 The exercise focusses on many of the key constraints confirmed in the NN NPS and reiterated above, including proximity to motorway junctions, rail gauge, train length and environmental and key policy constraints. The “sieving” identifies any areas of land that are considered to be environmentally sensitive. These areas were subsequently removed from the process and hence the scoring mechanism used (see below) does not focus on the environmental constraints and instead focusses on the constraints of proximity to sensitive uses and the potential to mitigate adverse effects.
- 4.13 Once areas of search based on these criteria were identified, further elements of suitability were introduced and the sites compared for appropriateness as a SRFI.
- 4.14 This methodology is considered to be an appropriate means of standardising the approach to site assessment, and to ensure that a consistent outcome for each site is achieved. However, as it is a tool designed to standardise, it naturally has limitations in its ability to be used for fine grained comparison. For this reason the assessment is also supplemented by a qualitative review once a shortlist of sites has been selected.
- 4.15 The approach to each stage of the process is outlined below.

Stage 1: Sieving

- 4.16 Having defined a suitable assessment area, the “sieving” exercise was undertaken.
- 4.17 This sieving exercise focussed on a GIS based approach to mapping key infrastructure and environmental constraints. The following factors were mapped using data from data.gov, Historic England, Natural England, Environment Agency and GIS software:
- (i) 5km distance from Motorway Junctions²⁵.

This ensures that the sites selected for review accord with the NN NPS criteria of having good road access and being capable of accessing the supply chain routes

²⁵ Defined as being motorway standard through DfT Circular 02/2013

and major urban areas which are likely to be the ultimate destination of many of the goods handled by the development. The 5km threshold has also been used in previous alternative site assessments undertaken for previous/existing SRFI proposals including Howbury, Radlett, DIRFT and West Midlands Interchange.

It is not considered appropriate to consider the potential to create new motorway junctions, owing to both the cost associated with such an intervention rendering SRFI projects unviable. There is also significant delivery times associated with new motorway junctions and, unless a motorway junction is expressly identified in Local Plans to facilitate strategic growth or is programmed by Highways England, the Department for Transport (DfT) has a presumption against the construction of new junctions²⁶. No new motorway junctions are currently proposed in the search area.

- (ii) 5km distance from railway lines.

This ensures that the sites selected can accord with the NN NPS criteria for having adequate access to the rail network. While a 5km threshold has been adopted, it is acknowledged that that this is a conservative approach as it is likely that identified sites towards the fringe of this range are unlikely to pose realistic and viable alternatives for the market to exploit. The 5km threshold has also been used in previous alternative site assessments undertaken for previous/existing SRFI proposals including Howbury, Radlett, DIRFT and West Midlands Interchange.

- (iii) Rail Gauge of W8 and above²⁷ and contiguous track able to accommodate a 775m train.

This ensures that the sites selected can accord with the NN NPS criteria for having a suitable loading gauge and the ability to accommodate longer trains.

- (iv) Environmental designations based on www.magic.gov.uk datasets.

This ensures that the sites selected can accord with the NN NPS criteria for avoiding environmentally sensitive areas.

4.18 These datasets were used to identify locations where there is a combination of good access to the strategic road and rail networks, with no or limited environmental constraints. This included the removal of nationally designated areas (i.e. Areas of Outstanding Natural Beauty and European Sites). This stage also included a review of existing Green Belt boundaries. It is recognised that the national need for development weighs in favour of NSIPs, even if this would result in the loss of existing designations, including Green Belt land. However, in bringing forward development on the Green Belt, the NN NPS²⁸ is clear that the Secretary of State would have to be convinced and promoters would need to demonstrate very special circumstances to justify planning consent for inappropriate development in the Green Belt. The NN NPS²⁹ also confirms that the Secretary of State will attach substantial weight to the harm to the Green Belt,

²⁶ See DfT Circular 02/2013

²⁷ Based on manual logging of the routes using Network Rail information

²⁸ NN NPS Paragraph 5.172

²⁹ NN NPS Paragraph 5.178

when considering any application for such development. Furthermore, it is recognised that there are alternative sites that would not require the loss of Green Belt land. Therefore, land identified as being within the Green Belt was sieved out in the early stages, identified as being more sensitive, in policy terms, to non-Green Belt designated land.

- 4.19 The outputs were used to further reduce the area of search. The next stage was to review the more detailed mapping to determine site boundaries which had the potential to offer train access with limited effects based on the physical infrastructure in the area, including roads, housing and other sensitive uses, canals, etc. This exercise was based on the professional judgement of the Applicants' team.
- 4.20 Once the sites had been identified, topographical data, flooding data, agricultural land classification and environmental constraints data was used to inform the site specific assessment.
- 4.21 Following this, workforce availability data, in the form of jobseeker's allowance (JSA) applicants and economically inactive people looking for a job³⁰, was obtained for the local authority area in which the site sits, and the immediately adjoining local authority areas. These were added to the qualitative discussion of the site scoring as a measure of whether labour availability would be likely to be a constraint to achieving a successful SRFI.

Stage 2: Site Assessment

- 4.22 Sites identified through the sieving process were combined with the sites identified in the initial alternatives assessment in April 2016. These sites were then subject to a qualitative analysis, focussing on the following factors:
- Proximity to a motorway junction;
 - Access to rail network;
 - Vehicle access routes;
 - Site size;
 - Site shape;
 - Topography³¹; and
 - Proximity to and potential effects on residential or other sensitive land uses.

³⁰ Both taken from ONS data (Appendix 9)

³¹ Site size, shape and topography were included because in addition to the factors set out in the NN NPS they are practical issues which affect service; whether a site can accommodate a SRFI, which has a defined minimum size in the Planning Act; whether a critical mass of development can be achieved which is both viable and likely to generate the economic benefits of clustering similar uses together around a common rail facility; whether the site can accommodate large floorplate buildings which for both practical and institutional investment purposes need to be large, rectangular and have large yard areas; and finally topography is important as a level access needs to be achieved for the rail connection.

4.23 For each identified site, local plan and land use designations were identified and each was scored using a scale of -2 to +2. This scale was considered appropriate given the level of information available relating to potential sites and the specific NN NPS and NSIP thresholds which influence individual banding. Addressing the sites with a more finely grained scale would have required additional assumptions to be made, bringing in potential inaccuracies in grading and ranking. The scale utilised therefore allows for an accurate assessment, without ensuring the need to make unfounded assumptions. The utilised scale is presented at Table 4.1 below:

Table 4.1: Scoring Scale

Score	Performance
2	Very High
1	High
0	Neutral
-1	Low
-2	Very low

4.24 The scoring criteria for each of the factors noted above is set out in Table 4.2 below:

Table 4.2: Scoring Matrix

Score	Performance	Proximity to Motorway Junction	Access to Rail	Vehicle Access Routes	Site Size	Site Shape	Topography	Sensitive User Residential Amenity ³²
2	Very High	Up to 1km from junction	Access to more than one W10 gauge route section	Access to motorway all on A Class Road, no need to pass through residential areas	200Ha+ ³³	Large regular blocks of land capable of accommodating multiple large floorplate buildings. Long straight areas adjacent to rail line to allow multi-modal access	Largely flat site with little or no earth working required to achieve level rail access for intermodal facility	No sensitive properties nearby
1	High	1-2 km from junction	Access to W10 gauge route section	Access to motorway largely on A Class Road, but some using lower class roads	100-199Ha ³⁴	Fairly regular site, with long straight areas adjacent to rail line	Largely flat site with ability to achieve level rail access for intermodal facility with limited earth working	Physical development distant from sensitive properties, with potential for visual and noise screening

³² Sensitive users have been defined as housing, care homes, hospitals, residential institutions. Sensitive areas were screened out by the sieving methodology.

³³ Meeting NSIP threshold and broadly comparable to successful SRFI DCO applications, e.g. DIRFT III and EMG

³⁴ Meeting minimum NSIP threshold, but with limited numbers of units and smaller than recent successful SRFI DCO applications, e.g. DIRFT III and EMG

Score	Performance	Proximity to Motorway Junction	Access to Rail	Vehicle Access Routes	Site Size	Site Shape	Topography	Sensitive User Residential Amenity ³²
0	Neutral	2-3 km from junction	Access to W8/9 route section, but close to W10 with no bridge structures between site and W10 route	Access to motorway mostly on lower class roads	60-99 Ha ³⁵	Fairly regular site ability to secure suitable rail access to provide intermodal facility	Sloping or hilly site but retains ability to achieve suitable rail access subject to moderate/ large scale earth works	Physical development close to sensitive properties but adequate opportunities to screen for significant noise and visual effects
-1	Low	3-4 km from junction	Access to W8/9 route section, with distant access to W10 gauge with no bridge structures between site and W10 gauge route	Access to motorway mostly on lower class roads, including the need to pass through residential areas	40-59 Ha ³⁶	Irregular site with ability to accommodate intermodal facility	Sloping or hilly site with levels difference between site and rail infrastructure that requires major earth works to achieve rail access	Physical development close to sensitive properties and limited opportunities to screen for significant noise and visual effects
-2 ³⁷	Very low	4-5 km from junction	Access to W8/9 gauge route,	Access to motorway	Under 40 Ha ³⁸	Irregular site with no ability	Sloping or hilly site, with major	Physical development close

³⁵ Meeting minimum NSIP threshold, but with limited numbers of units and significantly smaller than recent successful SRFI DCO applications, e.g. DIRFT III and EMG.

³⁶ Not an NSIP, but meeting minimum size criteria set out in Strategic Rail Authority RFI Policy document (March 2004)

³⁷ Any sites that are identified as scoring Very Low in the matrix have been sieved out of the process and are not considered any further as they are subject to an absolute constraint that would curtail their operation as a SRFI

Score	Performance	Proximity to Motorway Junction	Access to Rail	Vehicle Access Routes	Site Size	Site Shape	Topography	Sensitive User Residential Amenity ³²
			with bridge structures between site and W10 gauge route	mostly on lower class roads, including the need to pass through significant residential areas, or more than one community		to accommodate multimodal access	levels difference between site and rail infrastructure that will not allow suitable rail access to be achieved	to sensitive properties with no opportunities to screen for significant noise and visual effects

³⁸ Not an NSIP, only capable of accommodating 1 large unit

4.25 The rankings used in the scoring matrix have been devised as follows:

- Proximity to a motorway junction
 - The distances selected are banded to reflect the desirability of logistics operators to be very close to motorway junctions. Most modern logistics developments aim to be almost directly on junctions. Further distance adds costs in mileage and emissions. The distance bandings are designed to reflect this general principle.
- Access to Rail
 - This is designed to directly reflect the requirement in the NN NPS to have access to W8 or greater rail infrastructure. However, W10 is the ideal gauge as this gives the best flexibility to accommodate all container sizes with no obstacles. This scoring includes provision for exceptional sites, like Rail Central, where access to more than one W10 line is available. It also provides for different scenarios where lower grade access is available with differing levels of ease of access to the W10 network, including obstacles such as bridges which may impede container size and / or ability to upgrade the line in the future. The “sieving” exercise has allowed the longlist sites to be limited to only those sites which can accommodate full length trains.
- Vehicle access routes
 - The scoring used allows for a subjective assessment of the route taking into account factors such as the class of the road and whether the best access route would need to pass through a more sensitive community. This approach takes into account the NN NPS requirement to demonstrate good road access.
- Site size
 - The site size criteria are based on whether the site could accommodate a NSIP scale SRFI project or would only be suitable for a smaller RFI. The scoring favours larger scale sites, which are equivalent to recent SRFI NSIP projects, as this scale of development is being actively pursued by commercial developers and thus demonstrates viability. This scale of development also offers the best opportunity to maximise the economic benefits and economies of scale of the development, compared to the associated costs of creating new rail connections and providing the necessary infrastructure to deliver a SRFI. The scoring reflects the lesser efficiencies and economic contribution of smaller NSIP SRFI projects and favours larger scale strategic options as these would be the sites that would offer a reasonable alternative to the application site.
- Site shape

- The scoring reflects the physical nature of large scale rail freight development, including the need to be able to accommodate multiple large scale rectangular buildings and with the availability of straight sections of railway suitable to accommodate an intermodal area.
- Topography
 - The scoring reflects the nature of the site and the effect of topography on the ability of the site to achieve a rail connection. The scoring favours those sites which are relatively flat and have flat areas adjacent to the railway. Sites which have topographical constraints which inhibit their ability to achieve a rail connection attract the lowest scores.
- Proximity to and potential effects on residential or other sensitive users
 - The effects on residential amenity and other sensitive users have been considered on the basis of general proximity and the potential for the development to introduce screening against the effects of a large scale SRFI development.

4.26 Each of the identified sites was scored using the performance matrix. Each identified site was scored against each of the criteria and a total score calculated.

4.27 At this stage, analysis of available workforce was included in the qualitative section. This data was included as an indication of whether there is likely to be a shortage of labour that such a SRFI would not be able to be supported by local labour. This was measured on a relative basis. Using the site area, the amount of development that could be supported on the site was calculated and then the number of employees that this would generate was calculated. This requirement was compared to the number of economically active people looking for work. If the number of employees generated by the development would exceed the available labour force, this was highlighted as being an additional issue to be taken into account alongside the scoring.

4.28 It is recognised that this local available workforce calculation has limitations. The labour need for a SRFI site will grow over the lifecycle of the development, and the total workforce provision will not be required immediately from the outset of the development. Furthermore, it is likely that the jobs available may be accommodated outside of the established catchment area. Notwithstanding its limitations, the assessment still offers a measured means of differentiating between the sites.

4.29 The available local workforce was calculated using the following formula:

- 40% of site area in Hectares (representing a 40% development density, common in large scale logistics schemes), multiplied by 10,000 (to convert to sqm), divided by 95³⁹; or
- $0.4 \times \text{Ha} \times 10,000 / 95 = \text{job generation}; \text{ or}$

³⁹ Lower end of employment densities typically seen at distribution centres, which range from 70 – 95sqm per employee in the Homes and Communities Agency Employment Density Guide, 3rd edition November 2015

- Specific information/data has been used if available (e.g. for the proposed Northampton Gateway SRFI).

4.30 This method provides an estimate of job generation which allows comparison to the local labour pool.

4.31 Following this, further qualitative analysis was used to check rankings using professional judgement. The purpose of this was to ensure that the scorings had produced a reasonable reflection of whether the scheme was suitable for use as a SRFI. Any adjustments made to the overall ranking of the site as a result of this stage is clearly differentiated in the analysis section which provides a finer grained consideration of specific sites.

Stage 3: Assessment of previously short listed sites

4.32 This stage involved a review of the initial alternatives assessment work undertaken and scoring the sites identified as having rail access potential. This was undertaken to ensure that every site considered by the Applicant has been scored against a consistent framework.

4.33 Sites which have no direct rail connection have been discounted and are not analysed further. However, sites which are capable of gaining rail access have been scored.

Stage 4: Assessment of Rail Central

4.34 This stage scored Rail Central against the common scoring matrix, to allow comparative analysis to sites considered in Stage 3.

Stage 5: Comparative Assessment

4.35 Once each site had been allocated a total score, the site scores were tabulated and ranked.

4.36 All the sites were then considered qualitatively to address any limitations inherent in the scoring approach, alongside the Rail Central site. A professional judgement was made on the performance of each site and an overall comparative assessment made with the Rail Central site against the site selection criteria.

Overview and Conclusions

4.37 This methodology was devised to locate potential SRFI sites in the East and West Midlands, which is the target market for the proposed development and the focus of logistics activity in the UK. The methodology also allowed for the inclusion of sites which were suggested by local residents.

4.38 The methodology sieves out sites which do not meet key access requirements. It also sieves out sites which have high level environmental constraints, in the form of national and regional designations.

- 4.39 The sites were identified with the objective of finding larger scale SRFI sites. Each stretch of suitable rail infrastructure was considered and the best sites identified.
- 4.40 These were assessed against common scoring criteria seeking to achieve objective and impartial rankings. These were subject to a further stage of pure qualitative analysis in order to “sense check” the results and ensure strong sites were not being unfairly disadvantaged by the methodology.
- 4.41 The sites were then ranked and comparatively assessed.

5. Stage 1: Sieving Results

- 5.1 Stage 1 was primarily GIS based, with the mapped outputs provided at Appendices 1 to 8.
- 5.2 Plan 1 (Appendix 1) shows the catchment area for this preliminary assessment, comprising the East and West Midlands Regions.
- 5.3 Given the importance of motorway access to all modern logistic operations, Plan 2 (Appendix 2) shows the location of motorway junctions within these Regions and maps a 5km area of search around these.
- 5.4 Plan 3 (Appendix 3) overlays railway lines within this area of search. This has a limited effect on the area of search. However, rail freight uses need a loading gauge of at least W8 to function. Ideally, they will have access to W10 or W12 standard railways. These higher rail gauges offer better clearances and faster routes so that a variety of wagons can be utilised.
- 5.5 Plan 4 (Appendix 4) limits the area of search to those areas with stretches of W8 railway or above. This further reduces the area of search.
- 5.6 Plan 5 (Appendix 5) overlays key environmental designations taken from published government datasets⁴⁰ on the area of search. As this data is very detailed, Plan 5 is also shown across 6 sub-plans, Plans 5a to 5f.
- 5.7 Plan 6 (Appendix 6) shows the area of search further reduced by excluding the land constrained by environmental designations. It is also important to note that an ability to accommodate full length trains is also a key feature of a SRFI. A full length train is 775m long and SRFI should be capable, where possible, of handling 775m trains with on-site infrastructure configured accordingly. Plan 6 therefore highlights sections of rail track which are 775m long (including contiguous sections) which are both within the area of search and outside the environmental constraints. Sections of railway which are not long enough to handle a full length train have been excluded as sub optimal.
- 5.8 Plan 6 has then been split into 6 sub-plans, Plans 6a to 6f (Appendix 7), which show in more detail topographical constraints⁴¹ and Flood Zones. Similarly, Plans 7-1 to 7-25 (Appendix 8) detail the agricultural land classification for each alternative site. In respect of agricultural land classifications, information has been derived from Natural England resources and therefore only provides a broad interpretation of the classification. More detailed analysis specific to the site may indicate variations in this classification.
- 5.9 All of these plans have been used to identify sites for assessment as described in Section 2.

⁴⁰ A full list of designations is provided at Appendix 5

⁴¹ Using LIDAR data from the Environment Agency dataset, where this is available

- 5.10 A series of site plans has then been produced which show each of the selected sites in their local context with all relevant constraints shown.
- 5.11 For each site, a commentary of the existing environmental designations or land-use allocation (if appropriate) is set out along with any identified planning permission and/or consent that have been identified.

6. Stage 2: Site Assessment

Sites identified through Stage 1 Sieving

Figure 6.1: Site 1: Wadborough Park Farm, near Stoulton, Worcestershire



6.2 This site is located approximately 6km to the south east of Worcester. It is 258Ha and has the following constraints noted in the sieving analysis:

- Cooksholme Meadows SSSI located adjacent to the north west boundary; and
- The majority of the central area of the site is identified as Grade 2 agricultural land, whilst some areas in the north are Grade 3.

6.3 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	0	Access from B4084 to J7 of M5 is approximately 2.5km
Access to Rail	0	W8 rail gauge rail route
Vehicle access routes	-1	Most suitable access route from B4084 north west to J7 of M5. Route passes through 2 small Hamlets on Whittington Road.

Factor	Score	Notes
Site size	2	258Ha
Site shape	2	Large site of a regular shape
Topography	2	The site is flat by the rail line and slopes only around 10m across the width of the site. Capable of accommodating rail with little earth moving required.
Proximity to and potential effects on residential or other sensitive land uses	0	Site close to Littleworth (300m), Stoulton (200m) and Hawbridge (280m), but opportunities exist to provide visual and noise screening.
Total	5	

- 6.4 In terms of labour force availability, the site is 258Ha, applying the formula at paragraph 4.29, the site could generate in the region of 10,863 jobs. There are currently 22,900 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.
- 6.5 In relation to local policy designations and planning status, the site has a number of Green Infrastructure policies, which seek to protect and enhance the landscape. A mineral safeguarding designation also covers much of the central area of the site. It is anticipated that these designations would not unduly restrict the development of a SRFI on the site. Furthermore, there are no relevant extant or current planning applications on the site.
- 6.6 This site scores well on size, shape and topography. However, it suffers from access to a lower gauge rail line, access via a “B” road and the need to drive past two small hamlets close to the motorway junction.

Figure 6.2: Site 2: Dairy House Farm, Grendon, near Tamworth



- 6.7 This site is located some 8km to the south east of Tamworth. It is 153Ha and has the following constraints noted in the sieving analysis:
- Small block of ancient woodland within the site boundary;
 - The entirety of the site is categorised as being Grade 3 agricultural land;
 - Area of Flood Zone 2 at northern edge of site, partly adjacent to rail sidings; and
 - Scheduled Ancient Monument (Merevale Abbey) and Registered Park & Garden (Merevale Hall).
- 6.8 In addition there are two listed locks / basins on the canal which forms the northern boundary of the site, and a listed bridge which runs over the canal.
- 6.9 The scoring matrix has been utilised to produce the following results for this site:

Factor	Score	Notes
Proximity to a motorway junction	-2	4.8km to J10 of M42 from a potential grade separated access point on dual carriageway section of A5. 4km to second potential access point on Spon Lane (NE of site) which reduces the number of residential properties passed.

Factor	Score	Notes
Access to Rail	1	The site is bisected by the 4-track W10 gauge West Coast Main Line (WCML) route section, likely to require grade-separation of main line connections to avoid the need for flat crossings of up to 3 main line tracks by freight trains to/from the site.
Vehicle access routes	1	A5 access point all on A roads, but passes a number of residential properties. These are already likely to be heavily influenced by traffic effects on A5. Alternative route via Spon Lane involves B road access, but reduces the number of properties passed.
Site size	1	153Ha
Site shape	2	Regular shape with potential for long railway sidings and larger footprint buildings.
Topography	1	Relatively flat site, gradients cross rail line, but likely to be capable of being levelled.
Proximity to and potential effects on residential or other sensitive land uses	-1	Southern and western boundaries partially formed by residential properties. Immediately adjacent to Grendon. Potential for mitigation to be included but this is likely to be extensive to be effective and would significantly reduce development area.
Total	3	

- 6.10 In terms of labour force availability, the site is 153Ha, applying the formula at paragraph 4.29, the site could generate in the region of 6,442 jobs. There are currently 61,900 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.
- 6.11 In relation to local policy designations and planning status, a small area within the centre of the site is designated as an Ancient Woodland. This could potentially curtail the developable area of the site. However, there are no policies that would entirely restrict the future development of the site. No relevant extant planning permissions or current planning applications have been identified.
- 6.12 This site scores well for its shape, but poorly for highways access and proximity and likely effects on residential properties. The 4-track nature of the WCML at this point

(from west to east being northbound Slow Line, bi-directional Fast Line, bi-directional Fast Line, southbound Slow Line) would make at-grade access to the main line difficult to achieve (a similar arrangement at the proposed Radlett SRFI requires full grade-separation).

Figure 6.3: Site 3: Land adjacent to Birch Coppice, near Tamworth



6.13 This site is located some 5km to the south east of Tamworth. It is located adjacent to the existing Birch Coppice RFI. It is 165Ha and has the following constraints noted in the sieving analysis:

- Blocks of ancient woodland to the south and south west;
- The site is predominantly categorised as being Grade 3 agricultural land, aside from a small area within the north east of the site which is Grade 4 agricultural land; and
- Kettlebrook Local Nature Reserve to the north east.

6.14 In addition there are 4 listed buildings in Freasley, around Freasley Hall, and a further listed building at Hall End Farm, which adjoin the site.

6.15 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	2	Access could be taken off a new junction on the A5 within around 500m of J10 of

Factor	Score	Notes
		M42. Alternatively, it may be feasible to make use of the existing Birch Coppice Business Park junction, just less than 1km from J10.
Access to Rail	1	The site is adjacent to a W10 gauge route. As noted below, topographical constraints limit the accessibility of the site to most of the available length of rail line.
Vehicle access routes	2	The site is adjacent to the A5, very close to the M42 with no need to pass through local communities.
Site size	1	165Ha
Site shape	-1	The site is irregular in shape owing to the location of the settlement of Freasley in respect of the site. Based on this, the available length of rail frontage, as well as the size of the site, it would appear difficult to accommodate a significant number of larger floorplate buildings as well as an intermodal facility.
Topography	1	The site is relatively flat at its southern end and it may be possible to achieve rail access at this point. However, the eastern boundary is dominated by the spoil mound, and so would need a very significant tip relocation exercise to gain access to rail at this point. This is unlikely to be economic, so reliance would need to be made on the southern area to gain access to the rail line.
Proximity to and potential effects on residential or other sensitive land uses	-1	The site is immediately adjacent to the settlement of Freasley. With extensive screening, it may be possible to reduce the impacts of development on the settlement, although this would significantly reduce the available development area of the site, which is already not an ideal shape for this type of use.
Total	5	

6.16 In terms of labour force availability, the site is 165Ha, applying the formula at paragraph 4.29, the site could generate in the region of 6,947 jobs. There are currently

61,900 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.

- 6.17 In relation to local policy designations and planning status, the eastern and brownfield element of the site is designated as an 'Existing Industrial Estate' in the North Warwickshire Core Strategy. The area of land directly to the south east of Junction 10 of the M42 (northern area of the identified site) benefits from an extant outline planning permission, which consents the development of land within Use Class B1(c) (light industry), Use Class B2 (general industry), and Use Class B8 (storage and distribution) and demolition and removal of existing structures (North Warwickshire ref. PAP/2014/0648). Following the granting of this planning permission at appeal, a series of subsequent applications have been submitted to discharge conditions and seek approval for reserved matters.
- 6.18 This area of land within the north of the identified site is therefore considered to be committed. However, the uses permitted are consistent with the development of a SRFI, albeit this area of the site does not have direct access to the existing railway. To facilitate the development of a SRFI on this site, it would also require the southern and central elements to also be built out.
- 6.19 This site benefits from excellent road access and good rail access. However, it suffers due to the shape of the site and its proximity to a residential settlement, the necessary configuration of the site would be sub-optimal for a SRFI and would not offer the same advantages as other potential sites compared in this assessment.

Figure 6.4: Site 4: Land between Hinckley and Nuneaton



6.20 This site is located some 2km to the east of Nuneaton and 3km south west of Hinckley. It is 345Ha and has the following constraints noted in the sieving analysis:

- Areas of Flood Zones 2 and 3 along Sketchley Brook, Harrow Brook and River Anker; and
- The site is predominantly categorised as Grade 3 agricultural land, with an area in the west of the site categorised as being Grade 2. Of the Grade 3 land, some of the northern area is sub-categorised with small areas being Grade 3a.

6.21 In addition, it is in the Rugby Green Belt and thus will play an important role in separating the two settlements.

6.22 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	-1	Access could be taken off the existing A5 / A47 / B4666 roundabout. This junction is 3.9km from J1 of M69.
Access to Rail	1	The site has a long straight stretch of W10 gauge route within the site.
Vehicle access routes	2	The site could take direct access off the A5, without the need to pass through communities. It would pass adjacent to properties on the southern side of Hinckley, although are already likely to be highly influenced by traffic on the A5.
Site size	2	345Ha
Site shape	2	The site is regular with good opportunities to accommodate large floor plate buildings.
Topography	1	The site is relatively flat with gradients crossing the railway line. Suitable access should be achievable with limited earthworks.
Proximity to and potential effects on residential or other sensitive land uses	0	The site is located directly to the east of Nuneaton and to the south of Hinckley. As a result, the site has a number of residential properties along its north western and western boundaries; although given the size of the site it should be feasible to provide a good level of mitigation for noise and visual effects.
Total	7	

- 6.23 In terms of labour force availability, the site is 345Ha, applying the formula at paragraph 4.29, the site could generate in the region of 14,526 jobs. There are currently 35,200 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.

- 6.24 In relation to local policy designations and planning status, positioned across two local authority areas, the majority of the site is designated as Green Belt whilst a central area is regarded as at high risk of flooding. The site therefore has some policy and fluvial constraints. No relevant extant planning permissions or current planning applications have been identified on the site.

- 6.25 This site has good vehicle access options and is of a suitable scale and shape to accommodate a SRFI. However, it is quite distant from the Motorway and would need considerable mitigation to ensure there were no effects on residential amenity.

- 6.26 In addition to the scoring undertaken in accordance with the set methodology, the site is in the Green Belt, which is a major policy constraint which must also be weighted in the balance of considering this site. As the site plays a significant role in maintaining the separation between Nuneaton and Hinckley, it is likely to be an important area of Green Belt which should not be lost unless there are no other alternatives available.

Figure 6.5: Site 5: Land at Burbage Common, Hinckley



- 6.27 This site is located some 3km to the north east of Hinckley. It is 222Ha and has the following constraints noted in the sieving analysis:

- Adjacent to Burbage Wood and Aston Firs SSSI to the south;
- Adjacent to Burbage Common and Woods Local Nature Reserve to the south;
- The entirety of the site is categorised as being Grade 3 agricultural land; and
- Area of Flood Zone 2 at the northern end of the site.

6.28 In addition, there are several listed buildings to the north of the site.

6.29 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	2 (<i>see note</i>)	The site is immediately adjacent to J2 of the M69. However, the best access route which doesn't involve a longer trip through either the urban area of Hinckley (c 10k) or Stoney Stanton (c 5km) would necessitate travel past two permanent residential caravan sites on Smithy Lane. This would involve a major upgrade at the B4469 junction. This location is very close to the Motorway roundabout and the area is highly constrained by woodland and residential caravan sites. Alternative access routes (c.5-10km to access J2) could be achieved at the north of the site although this area is similarly constrained by motorway embankments and a number of residential and commercial properties.
Access to Rail	1	Access to W10 gauge route. Part of the main line frontage is blocked by Burbage Common Road which bisects the site. Adequate length can be accessed at the northern side of the site.
Vehicle access routes	2	Vehicle access routes to the site are outlined above. Information presented to PINS indicates the provision of a direct access onto the M69 junction.
Site size	2	222Ha
Site shape	2	The site is regularly shaped. There will be a need to cross Burbage Common Road, although it should still be possible to accommodate large floorplate buildings.

Factor	Score	Notes
Topography	2	The site is relatively flat and gently sloping by the rail line. Suitable access should be achievable with little earth working.
Proximity to and potential effects on residential or other sensitive land uses	0	There are a number of properties at the northern end of Burbage Common Road, that form the northern boundary of the site, as well as permanent residential caravans and lodges at the southern end. Both would be directly affected by any potential access solution with little scope for appropriate mitigation.
Total	11	

- 6.30 In terms of labour force availability, the site is 222Ha, applying the formula at paragraph 4.29, the site could generate in the region of 9,347 jobs. There are currently 38,100 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.
- 6.31 This site scores well on scale, topography, proximity to motorway (see below) and rail access.
- 6.32 Whilst this site is adjacent to a motorway junction, no immediate access is currently available onto it and any SRFI proposals would need to undertake a major upgrade either at the northern or southern ends of the site.
- 6.33 In relation to local policy designations and planning status, no relevant extant planning permissions or current planning applications have been identified. However the intention to submit a DCO application for a SRFI has been registered with PINS by DB Symmetry (Hinckley) Limited. At the time of writing, the independent project website⁴² confirms that informal consultation will take place during summer 2018. Furthermore, the website confirms that statutory consultation will subsequently follow this in winter 2018. On the dedicated PINS National Infrastructure Planning website for the proposed development at Hinckley it is timetabled that the DCO application will be submitted to PINS in Q2 of 2019.
- 6.34 Information presented on the PINS website states that the proposals are to include railway sidings and a freight transfer area alongside the two-track railway between Hinckley and Leicester and a dedicated road access directly from junction 2 of the M69 motorway comprising the addition of a northbound off-slip and a southbound on-slip to this junction, which currently caters only for motorway traffic heading to and from the north.

⁴² <http://www.hinckleynrfi.co.uk/>

6.35 Assuming the proposed vehicular access arrangements from the M69 are achievable and viable, the site scores well in the assessment.

Figure 6.6: Site 6: Land at Potters Marston



6.36 This site is located some 6km to the north east of Hinckley. It is 114Ha and is partially occupied by a Calor installation. It has the following constraints noted in the sieving analysis:

- Flood Zone 2 and 3 running in a corridor across the northern part of the site; and
- The entirety of the site is categorised as being Grade 3 agricultural land.

6.37 In addition there are a number of listed buildings in Potters Marston to the east.

6.38 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	-2	The site is some 4.8km from J2 of the M69 motorway.
Access to Rail	1	There is a long stretch of W10 gauge route running along the southern boundary of the site.
Vehicle access routes	-2	Vehicle access to get to J2 would mean a circuitous route through Stoney Stanton passing a large number of residential

Factor	Score	Notes
		properties before eventually accessing the B4669.
Site size	1	114 Ha
Site shape	1	The site is triangular but should be able to achieve an intermodal facility and some larger floorplate buildings.
Topography	2	The site is relatively flat with flat land adjacent to the railway.
Proximity to and potential effects on residential or other sensitive land uses	0	The nearest properties are c.140m to the south of the site. Albeit the sensitive receptors are separated from the site by the existing railway line. There are reasonable prospects of implementing suitable mitigation against noise and visual effects.
Total	1	

- 6.39 In terms of labour force availability, the site is 114Ha, applying the formula at paragraph 4.29, the site could generate in the region of 4,800 jobs. There are currently 38,100 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.
- 6.40 In relation to local policy designations and planning status, the site is designated as being in the countryside and is located within a Hazard Consultation Zone for Gas and the Calor Site. No relevant extant planning permissions or current planning applications have been identified.
- 6.41 This site has good access to rail and a relatively flat topography. However, road access is limited and there is potential for road access to cause significant amenity harm with limited opportunities to mitigate.

Figure 6.7: Site 7: Land between Ladbroke and Bishops Itchington



6.42 This site is located some 9.5km to the south east of Royal Leamington Spa. It is 391Ha and has the following constraints noted in the sieving analysis:

- Area of ancient woodland in the centre of the site; and
- The site is predominantly categorised as being Grade 3 agricultural land, aside from a small area within the north west of the site, which is confirmed as being Grade 4.

6.43 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	-2	<p>This site is approximately 3.8km from J12 of the M40. However, that is a straight line distance. The most direct route is via Hambridge Road, a single lane country road that passes under a railway bridge with a height restriction of 13ft 3inches. That route is approximately 5.2km.</p> <p>An alternative route exists via Deppers Bridge, and south through Bishops Itchington. This route is 7.1km and involves the use of the B4451 and some single track country lane.</p>

Factor	Score	Notes
Access to Rail	1	The site has access to a long stretch of W10 gauge route.
Vehicle access routes	-2	As noted above, site access by vehicle is by B roads and lower, passing through two residential communities
Site size	2	391 Ha
Site shape	2	The site is large and broadly rectangular with the ability to accommodate multiple large floorplate buildings and long flat areas adjacent to the railway line.
Topography	1	The site is generally flat, although Weddington Hill is located within the central area. However, this is unlikely to affect the ability to get suitable rail access.
Proximity to and potential effects on residential or other sensitive land uses	0	The nearest properties are in the settlement of Ladbroke, c.120m to the west of the site boundary. Furthermore, the settlement of Bishop's Itchington is located c.450m to the west. Given the size of the site, it should be possible to mitigate significant amenity effects. The site access routes would however create concerns regarding impacts on amenity with little opportunity to mitigate traffic effects.
Total	2	

- 6.44 In terms of labour force availability, the site is 391Ha, applying the formula at paragraph 4.29, the site could generate in the region of 16,463 jobs. There are currently 22,400 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.
- 6.45 In relation to local policy designations and planning status, the site has no specific designations, however the settlement of Ladbroke, which is located directly adjacent to the north east is designated as a conservation area. Through high quality design, it is envisaged that the conservation area of Ladbroke will not be impacted by the proposals. No extant planning permissions or current planning applications are present on the site.
- 6.46 This site scores well on scale, shape and topography. However, there are major issues with site access and proximity to the motorway network.

Figure 6.8: Site 8: Land between Knightcote and Fenny Compton



6.47 This site is located some 14km to the north west of Banbury. It is 276Ha and has the following constraints noted in the sieving analysis:

- Area of Flood Zone 2 and 3 on the northern boundary; and
- The site is predominantly categorised as being Grade 3 agricultural land, aside from a small area in the north of the site, which is Grade 4.

6.48 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	-1	The nearest motorway junction is J12 of the M40, which is 3.7km away using Knightcote Bottoms (a single lane country road) for the majority of the distance and the B4451.
Access to Rail	1	The site has access to a straight section of W10 gauge route.
Vehicle access routes	0 (See note below)	The access route is via a single track country lane for around 3km that does not pass any houses.
Site size	2	276 Ha

Factor	Score	Notes
Site shape	2	The site is roughly triangular, but is large enough to accommodate multiple large floor plate buildings and has straight lines adjacent to the railway.
Topography	2	The site is flat and has level ground adjacent to the railway line.
Proximity to and potential effects on residential or other sensitive land uses	0	The site is c.130m from the settlement of Knightcote. However, the site is large enough to accommodate suitable mitigation to ensure there are no significant effects on amenity. Development of a major warehousing and logistics site in close proximity to a major ammunition storage facility could raise mutually exclusive safety and security constraints.
Total	6	

- 6.49 In terms of labour force availability, the site is 276Ha, applying the formula at paragraph 4.29, the site could generate in the region of 11,621 jobs. There are currently 22,400 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.
- 6.50 Whilst this site has been scored 0 (against the vehicle access route factor) as it accords with this definition in the scoring matrix, it is notable that a 3km access on a single lane country road is clearly not adequate for the main entrance route to a SRFI. To adequately serve a SRFI, significant improvement works would be required to this route.
- 6.51 There are also the potential security implications of the nearby ammunition storage facility. In relation to local policy designations and planning status, the site has no specific designations. There are no extant planning permissions or current planning applications on the site.
- 6.52 This site scores well on topography, scale, shape and rail but its performance in practical terms will be significantly limited by site access considerations.

Figure 6.9: Site 9: Kilsby North



- 6.53 This site is located some 5km to the south east of Rugby. It was also identified in the DIRFT III Alternative Site Assessment as site 6 Kilsby North. It is approximately 238 Ha.
- 6.54 The site is predominantly categorised as being Grade 3 agricultural land, except for two small areas within the north of the site, which are confirmed as being Grade 4 and urban land.
- 6.55 The DIRFT assessment concluded that the southern area of the site would have limited capacity for new trains as freight trains would need to use the WCML Fast Lines which carry faster moving trains and would be less suitable for standard freight trains, other than at night. It was discounted at short list stage from the DIRFT Assessment⁴³.
- 6.56 The northern section was considered to be capable of accommodating a limited form of rail freight development and was considered further in the assessment. It was however, concluded that the shape of the site created limitations on rail layout which would affect path availability for other passenger and freight trains, and left little site capacity to accommodate warehousing as well as an intermodal facility.
- 6.57 The scoring matrix has been utilised to produce the following results for this site

⁴³ This would be the case for slower-moving freight trains (i.e. 75mph intermodal and 60mph conventional wagon services). Rail Central includes specific facilities to accommodate faster express freight trains (100-110 mph) which are more compatible with services on the WCML Fast Lines.

Factor	Score	Notes
Proximity to a motorway junction	0	The site is approximately 2.2km to J18 of M1. Access would be via the A5 and A428.
Access to Rail	2	The site has access to two separate W10 gauge routes.
Vehicle access routes	2	Access is all via A roads, with no need to pass through residential areas.
Site size	2 (<i>see note</i>).	The site is 238 Ha, although as noted in the DIRFT III assessment, the site is bisected by the WCML which creates two smaller areas of land.
Site shape	1	The site is regular in shape with straight edges adjacent to the rail lines.
Topography	2	The site is relatively flat with the ability to achieve level access for rail access.
Proximity to and potential effects on residential or other sensitive land uses	0	The southern area of the site would adjoin houses on the northern boundary of Kilsby; whilst the northern boundary is adjacent to residential properties in the settlement of Hillmorton. However, due to the extent of the site and the narrow areas by which the site adjoins the settlements, it would be possible to screen the sensitive receptors from significant visual and noise effects.
Total	9	

- 6.58 In terms of labour force availability, the site is 238Ha, applying the formula at paragraph 4.29, the site could generate in the region of 10,021 jobs. There are currently 22,800 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.
- 6.59 In relation to local policy designations and planning status, the site and immediate surrounding area are not subject to any specific designations.
- 6.60 No relevant extant planning permissions or current planning applications have been identified. However, the Council refused an application for 99 dwellings on the southern area of the identified site in November 2015 (Daventry District Council ref. DA/2015/0830). The application was refused for being outside the settlement boundary, consisting of unsustainable development, design grounds and for its impact to surrounding landscape and heritage assets.

6.61 This site has scored well, particularly in relation to rail and road access, scale and topography. However, it is noted that the more detailed assessment carried out in the DIRFT III assessment discounted both areas of this site due to technical rail issues related to the type of trains associated with DIRFT. This finding will be considered further in the comparative assessment.

Figure 6.10: Site 10: Part of Rugby Radio Station West



6.62 This site is located some 3.5km to the east of Rugby. It is 226Ha and has the following constraints noted in the sieving analysis:

- Areas of Flood Zone 2 and 3 to the north eastern boundary; and
- The site is predominantly categorised as being Grade 4 agricultural land, except for areas within the east of the site confirmed as being Grade 3a and 3b and a small area in the south confirmed as being Grade 3.

6.63 This site was also one of the alternatives considered in the DIRFT III Assessment, as Site 1 Rugby Radio Station (West). That study found that due to separation between the site and the NLL, with the A428 in between, a rail connection could be achieved by extending the rail line serving DIRFT II.

6.64 The DIRFT III assessment notes that the site is allocated as an urban extension, and that a planning application had been submitted for 6,200 homes and other uses. That assessment found that the site was a SRFI opportunity when considered against its assessment criteria, but that it was unlikely to be available for a SRFI. The DIRFT III assessment also noted a concern that proposing a SRFI here could prejudice the

delivery of a strategically important development for Rugby. The site was discounted from further consideration.

6.65 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	1	The site is 1.8 km to J18 of the M1 via the A5, and 1.9km via the A428.
Access to Rail	1	The site does not have direct access to the mainline, but access could be achieved through extending the existing DIRFT II rail line to the north.
Vehicle access routes	2	Access to the motorway is all via A roads, with no residential communities affected.
Site size	2	The site is 226 ha.
Site shape	2	The site is regularly shaped. There is no current rail access, but this could be achieved whilst still allowing space for multiple large floorplate buildings.
Topography	2	The site is relatively flat and appropriately graded access can be created to any new rail infrastructure.
Proximity to and potential effects on residential or other sensitive land uses	0	A detached residential property is positioned on the south western boundary of the site. The settlement of Hillmorton is c.150m to the south west of the site boundary. However, given the size of the site, it is considered that sufficient mitigation can be implemented.
Total	10	

6.66 In terms of labour force availability, the site is 226Ha, applying the formula at paragraph 4.29, the site could generate in the region of 9,516 jobs. There are currently 35,200 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.

6.67 In relation to local policy designations and planning status, the site and immediate surrounding area are not subject to any specific designations.

6.68 However, the site was allocated in the Local Plan as a urban extension and outline development was granted in May 2014 (Rugby Borough Council ref. R11/0699) (limited to 3 years for the submission of the first reserved matters) for the development of Use

Classes A1, A2, A3-A5, C1, C3, D1, D2 and B1, B2 and B8 (up to 106,000sqm). A Section 73 application to amend the previous permission was approved in June 2017 (LPA ref. R17/0022).

- 6.69 A series of subsequent reserved matters and discharge of conditions have been submitted. Some of these have been approved and a number are awaiting determination. Some works to the south of the site have also commenced.
- 6.70 This site scores well on a number of indicators. However, it is recognised that this site is to perform strategically important roles in the local area and is not available for development as a RFI.

Figure 6.11: Site 11: Kilsby East



- 6.71 This site is located some 6km to the south east of Rugby. It is 215Ha. The entirety of the site is categorised as being Grade 3 agricultural land.
- 6.72 This site was considered in the DIRFT III assessment, as Site 5 Kilsby East. This site was discounted as it was not capable of accommodating 750m rail sidings as much of the rail line is in a cutting, and the site slopes steeply up from the rail line to the south west.
- 6.73 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	0	The site is 2.3km from J18 of the M1

Factor	Score	Notes
Access to Rail	1	The site has access to a W10 gauge route (WCML slow lines), although achieving suitable access was considered not to be feasible in the DIRFT III assessment. Access to the WCML fast lines would not be possible as the route is in tunnel on this section of network.
Vehicle access routes	2	Access could be taken via the A5 directly to J18 with no need to pass through residential properties.
Site size	2	215Ha
Site shape	2	The site is a regular shape with relatively straight boundaries to the rail line.
Topography	-2	The rail sidings are in cutting for much of the boundary of the site and the site slopes up by around 40m to the south west.
Proximity to and potential effects on residential or other sensitive land uses	0	The site is c.270m from the eastern boundary of Kilsby, furthermore, a small cluster of residential properties are located directly to the south of the site, albeit they are separated from the site by the A5. Despite this, given the scale of the site, there are opportunities to provide appropriate screening to limit significant noise and visual effects.
Total	5	

- 6.74 In terms of labour force availability, the site is 215Ha, applying the formula at paragraph 4.24, the site could generate in the region of 9,053 jobs. There are currently 22,800 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.
- 6.75 In relation to local policy designations and planning status, the site and immediate surrounding area are not subject to any specific designations. There are no extant planning permissions or current planning applications on the site.
- 6.76 This site scores well on road access but very poorly on topography, which means that it is not feasible to achieve a suitable rail access to this site.

Figure 6.12: Site 12: Land North of Long Buckby Wharfe



6.77 This site is located some 5km to the north east of Daventry. It is 114Ha and has the following constraints noted in the sieving analysis:

- Areas of Flood Zone 2 and 3 running along stream corridors across the north of the site and diagonally across the south western corner; and
- The site is predominantly Grade 3 agricultural land, albeit some areas centrally are sub-categorised as being Grade 3a and 3b. Furthermore, very small areas within the north and south of the site are categorised as being Grade 2.

6.78 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	-2	As J17 of the M1 does not allow access, the nearest junction is J18, some 8km away. Access would be via the A5.
Access to Rail	1	The site has access to a W10 gauge route but only the fast lines which would restrict rail freight traffic to express freight and limited overnight intermodal and conventional wagon services.
Vehicle access routes	1	The A5 passes the eastern side of Kilsby, adjacent to residential properties, although these are already likely to be

Factor	Score	Notes
		affected by the road traffic.
Site size	1	114Ha
Site shape	0	The site is long and thin which will limit its ability to provide suitable rail sidings as well as large distribution buildings.
Topography	0	The site slopes up to 30m, peaking in the central area. Whilst there is potential to re-grade this, it may be difficult given the limited width of the site and the need to retain level rail access along one boundary.
Proximity to and potential effects on residential or other sensitive land uses	0	The site adjoins residential properties to its southern boundary, with many being separated by the Canal. There are however opportunities for screening along this boundary.
Total	1	

- 6.79 In terms of labour force availability, the site is 114Ha, applying the formula at paragraph 4.29, the site could generate in the region of 4,800 jobs. There are currently 22,800 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.
- 6.80 In relation to local policy designations and planning status, the site and immediate surrounding area are not subject to any specific designations. There are no extant planning permissions or current planning applications on the site.
- 6.81 This site scores moderately on most of the measures, although access to the motorway network is via a convoluted and distant route as the nearest junction does not allow direct access. Rail accessibility is also severely restricted.

Figure 6.13: Site 13: Land to the North West of Long Buckby



6.82 This site is located to the north east of Long Buckby, some 8km to the north east of Daventry. It is 360Ha and has the following constraints noted in the sieving analysis:

- Areas of Zone 2 and 3 flood risk along the eastern boundary; and
- The site is predominantly Grade 3 agricultural land; however a small area within the south is categorised as being Grade 2.

6.83 In addition, there are a number of Listed Buildings on Long Buckby and Watford, and there is a Scheduled Ancient Monument (Watford Park C18 Garden) to the west of Watford. A single Grade 2 listed building sits adjacent to the southern boundary at Murcott.

6.84 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	-2	The nearest motorway is J18 of the M1. Access would need to be taken through the settlement of Watford on the B5385 and then north via the A5, past Kilsby to J18 (9.8km). Alternatively, access could be taken through West Haddon to reach the A428, via Crick (6.3km).
Access to Rail	1	The site has access to a relatively straight

Factor	Score	Notes
		section of W10 gauge route.
Vehicle access routes	-1	The vehicle access route options would both involve travelling through residential communities to access an A class road.
Site size	2	360Ha
Site shape	2	The site is relatively regular and is large enough to accommodate multiple large floorplate buildings.
Topography	0	The site slopes some 40m in height, although given the size of the site, it should be possible to regrade the land to accommodate development and a suitable rail access.
Proximity to and potential effects on residential or other sensitive land uses	0	The southern boundary of the site is directly adjacent to the settlement of Long Buckby. Furthermore, the northern boundary of the site borders the settlement of West Haddon. However, given the great extent of the site, it is anticipated that significant mitigation measures could be implemented.
Total	2	

- 6.85 In terms of labour force availability, the site is 360Ha, applying the formula at paragraph 4.24, the site could generate in the region of 15,158 jobs. There are currently 22,800 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.
- 6.86 In relation to local policy designations and planning status, there are no planning designations on the site. No relevant extant planning permissions or current planning applications have been identified on the site.
- 6.87 This site scores well on size, shape and rail access. However, its distance from the motorway and need to pass through residential areas to get to A class roads is a major limitation.

Figure 6.14: Site 14: Land to the West of Bugbrooke and South of Nether Heyford



- 6.88 This site is located some 9km to the south west of Northampton. It is 133Ha and has no constraints noted in the sieving analysis. There is a listed canal bridge close to the northern boundary, and there are a number of listed buildings nearby in Nether Heyford.
- 6.89 A large area within the centre of the site is categorised as being Grade 2 agricultural land, whilst all remaining land is Grade 3.
- 6.90 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	-1	Nearest motorway is J16 of M1 (3.7km) although gaining access to this junction would necessitate travelling through the settlement of Nether Heyford and using residential streets.
Access to Rail	1	The site has access to a W10 gauge route section, but only the Fast Lines, which would restrict rail freight traffic to express freight services and limited overnight intermodal and conventional wagon services.
Vehicle access routes	-1	The nearest motorway junction would

Factor	Score	Notes
		necessitate travel through the centre of Nether Heyford with only a short stretch at the northern end of the route being on an A class road.
Site size	1	133 Ha
Site shape	2	The site is a regular shape with potential to accommodate multiple large buildings and suitable rail infrastructure.
Topography	0	The site slopes some 40m down to the rail line. However, it should be feasible to secure relatively level rail access with suitable earth working.
Proximity to and potential effects on residential or other sensitive land uses	1	The nearest sensitive receptor is a number of residential properties to the north west of the site, which are c.100m away. Furthermore, the settlement of Upper Stowe is located c.500m to the west of the site. It is however understood that some mitigation measures could be implemented on the site to lessen the impacts. Due to lack of proximity to the motorway, vehicular access to the M1 is only possible with movement through the centre of Nether Heyford.
Total	3	

- 6.91 In terms of labour force availability, the site is 133Ha, applying the formula at paragraph 4.29, the site could generate in the region of 5,600 jobs. There are currently 33,400 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.
- 6.92 In relation to local policy designations and planning status, the site is designated as being in a Special Landscape Area. This has the potential to restrict the development of the site for a SRFI. However, given the overarching need for SRFIs, it is considered that this Special Landscape Area designation could be overcome to ensure that the development of a SRFI would not be restricted. No relevant extant planning permissions or current planning applications have been identified.
- 6.93 This site scores well on shape and rail access, although rail freight access into the WCML Fast Lines would be limited to express freight services and some overnight intermodal and conventional wagon services. It also has major limitations in terms of the routes available to secure access to the motorway and the likely effects on residential amenity of doing so.

Figure 6.15: Site 15: Land South of Bugbrooke



6.94 This site is located some 8km to the south west of Northampton. It is 278Ha and has the following constraints noted in the sieving analysis:

- Areas of Flood Zone 2 and 3 to the western boundary; and
- The entirety of the site is categorised as being Grade 3 agricultural land.

6.95 In addition, Lower Downs farm house, at the north eastern corner of the site is Grade II listed, and there is a listed canal bridge to the north east of the site. Further clusters of listed buildings exist in nearby Bugbrooke, Gayton and Pattishall.

6.96 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	-2	The nearest motorway junction is J16 M1 (3km), although J15a M1 (3.75km) is also close. Securing access to J16 would mean travelling through both Bugbrooke and Nether Heyford (6km). Access to J15a would be less disruptive but would still involve travelling through Rothersthorpe and residential areas of Hunsbury Meadows (south west Northampton) and is a 7.4km route.

Factor	Score	Notes
Access to Rail	1	The site has access to a W10 gauge route section, but only the Fast Lines, which would restrict rail freight traffic to express freight services and limited overnight intermodal and conventional wagon services.
Vehicle access routes	-2	Vehicle access routes to the motorway involve several km of route which is not on A class roads, and all options involve passing through multiple residential communities.
Site size	2	278Ha
Site shape	1	The site is a regular shape and is capable of accommodating multiple large buildings.
Topography	-1	The site has several hilly peaks with gradient changes of up to 50m. Two of these peaks are close to the railway line.
Proximity to and potential effects on residential or other sensitive land uses	1	The nearest sensitive receptors are residential properties located in the settlement of Pattishall, c.270m to the south west. Due to the distance of the site from the motorway, vehicle access routes will pass through multiple residential communities.
Total	0	

- 6.97 In terms of labour force availability, the site is 278Ha, applying the formula at paragraph 4.29, the site could generate in the region of 11,705 jobs. There are currently 33,400 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.
- 6.98 In relation to local policy designations and planning status, the very northern tip of the site is designated as a Special Landscape Area, whilst this designation is also located parallel, but not adjoining the sites western boundary. A well designed scheme should be able to mitigate against impacting upon this designation. No relevant extant planning permissions or current planning applications have been identified on the site.
- 6.99 This site scores well on size and rail access, but has topographical limitations which would require major remodelling. Rail freight access into the WCML Fast Lines would be limited to express freight services and some overnight intermodal and conventional wagon services. Access options are both distant from the motorway and would be likely to have major residential amenity effects.

Figure 6.16: Site 16: Northampton Gateway



6.100 This site is currently being promoted as a SRFI and is located directly to the east of Rail Central. A DCO application was submitted in May 2018. This was subsequently accepted by PINS for examination in June 2018. The site is located some 5km to the south of Northampton. The site is 220ha (varying site areas are referenced within the DCO submission) in area and has the following constraints noted in the sieving analysis:

- Roade Cutting SSSI affected by the southern part of the development;
- The entirety of the site is categorised as being Grade 3 agricultural land. A small area within the west of the site is sub-categorised as being Grade 3a and 3b; and
- Adjacent to Courteenhall Registered Park and Garden.

6.101 In addition, there are a number of listed buildings at Collingtree, Roade, and within Courteenhall Gardens, including Courteenhall House.

6.102 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	2	The site adjoins J15 of M1.
Access to Rail	1	The site has access to a W10 gauge route along a straight boundary.

Factor	Score	Notes
Vehicle access routes	2	Access can be secured easily to the M1.
Site size	2	216Ha
Site shape	2	The site is a regular shape with an ability to accommodate multiple large scale buildings.
Topography	2	The site is generally flat.
Proximity to and potential effects on residential or other sensitive land uses	0	The nearest sensitive receptors are residential properties within the settlement of Collingtree, which are c.100m to the north east, albeit they are separated from the site by the M1 motorway. Further sensitive receptors are located at Lodge Farm, which is c.100m to the west of the site. It is anticipated that suitable screening opportunities are available to protect the amenities of these receptors.
Total	11	

- 6.103 In terms of labour force availability, the site is 216Ha, applying the formula at paragraph 4.29, the site could generate in the region of 9,094 jobs⁴⁴. There are currently 33,400 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.
- 6.104 In relation to local policy designations and planning status, the northern area of the site is designated as an Important Local Gap, which seeks to prevent the coalescence of settlements. Land directly adjacent to the eastern boundary of the site is designated as a Historic Park and Garden.
- 6.105 However, the site is currently being promoted for use as a SRFI, with a DCO application that has been accepted by PINS for examination.
- 6.106 This site scores well against the majority of the criteria as it has excellent motorway access and access to a rail line. It is large and relatively flat and has the ability to accommodate multiple large floorplate buildings. This site is also being promoted as a SRFI site.

⁴⁴ Phase 2 consultation information for Northampton Gateway assumes that the development will generate 7,544 FTE jobs

Figure 6.17: Site 17: Land North of Penkridge



6.107 This site is located some 6km to the south of Stafford. It is 328Ha and has the following constraints noted in the sieving analysis:

- Area of Flood Zone 2 and 3 in the northern area of the site; and
- The site is predominantly categorised as being Grade 3 agricultural land, albeit a small area in the north is Grade 2.

6.108 In addition, there are a number of listed buildings in Penkridge to the south and Dunston to the north.

6.109 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	2	The nearest motorway is J13 of the M6, which is around 1km to the north.
Access to Rail	1	The site has a straight section of W10 gauge route running through its centre.
Vehicle access routes	-1	Motorway access from the eastern part of the site could be gained via a new junction on the A449, although there are a number of residential properties which would be passed at Dunston. These properties are already likely to be

Factor	Score	Notes
		affected by traffic on the A449 which limits the effects. However, in order to access the western part of the site, it would be necessary to either bridge the railway line, which may limit the ability to provide suitable intermodal facilities, or to travel north through Dunston (School Lane) or south, via the northern part of Penkridge (Levedale Road). Both routes pass residential properties. The northern route through Dunston also passes by a school, and the southern route adds considerable distance to the motorway junction (c. 4km).
Site size	2	328Ha
Site shape	2	The site is large and regularly shaped. It is capable of accommodating multiple large buildings.
Topography	2	The site is generally flat.
Proximity to and potential effects on residential or other sensitive land uses	0	The southern boundary of the site is immediately adjacent to residential properties at the northern edge of Penkridge. However, it is anticipated that suitable measures to mitigate against the impacts of the development can be implemented.
Total	8	

- 6.110 In terms of labour force availability, the site is 328Ha, applying the formula at paragraph 4.29, the site could generate in the region of 13,811 jobs. There are currently 59,500 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.
- 6.111 In relation to local policy designations and planning status, the site is located within Open Countryside. There are no relevant extant planning permissions or current planning applications on the site.
- 6.112 This site scores well on a number of criteria, although is ultimately limited by proximity to residential uses, including on the main route to the motorway.

Figure 6.18: Site 18: Land to the South of Stafford



6.113 This site is located some 3km to the south of Stafford. It is 282Ha and has the following constraints noted in the sieving analysis:

- Corridor of Flood Zone 2 and 3 in the eastern area of the site; and
- The site is predominantly categorised as being Grade 3 agricultural land. However, a small area within the centre and east of the site is identified as being Grade 2 agricultural land.

6.114 In addition, there are several listed buildings at Dunston to the east.

6.115 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	1	The nearest motorway is J13 of the M6. Access can be achieved through Dunston which is a 1.1km route.
Access to Rail	1	The site has a straight length of W10 gauge route on its boundary.
Vehicle access routes	-1	Vehicle access to the motorway could be achieved through Dunston, using School Lane, which is a narrow country road that passes through a small Hamlet and houses in Dunston before reaching the

Factor	Score	Notes
		A449. An alternative route is via Ash Flats Lane and Chain Lane, which runs to the north through a residential area, before reaching the A449 to the north of the motorway junction (2.4km).
Site size	2	282 ha
Site shape	2	The site is relatively regular in shape with an ability to accommodate multiple large floorplate buildings.
Topography	0	The site is relatively flat although there is a corridor of lower land that follows the route of a brook and which is subject to flooding. The brook runs parallel to the rail infrastructure and may need to be diverted and re-levelled to facilitate the development of a SRFI.
Proximity to and potential effects on residential or other sensitive land uses	0	The north western boundary of the site is boarded by residential properties at the settlement of Coppenhall. Furthermore, a number of residential properties located to the south of Stafford are c. 520m from the site boundary. Dependent upon chosen access routes, other sensitive receptors in the settlements of Dunston and Stafford may also be affected.
Total	5	

- 6.116 In terms of labour force availability, the site is 282Ha, applying the formula at paragraph 4.29, the site could generate in the region of 11,873 jobs. There are currently 59,500 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.
- 6.117 In relation to local policy designations and planning status, the site is located within open countryside. There are no relevant extant planning permissions or current planning applications on the site.
- 6.118 This site scores well on size and shape, but has access difficulties, despite being close to a motorway junction.

Figure 6.19: Site 19: Land South of Great Bridgeford



- 6.119 This site is located some 4km to the north west of Stafford. It is 100Ha and has no constraints noted in the sieving analysis. There is a listed bridge in Great Bridgeford, on the route from this site to Motorway.
- 6.120 With regards to agricultural land classification, the site consists of a mixture of Grades 2 and 3 with a small area of Grade 4 in the north of the site.
- 6.121 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	0	The nearest motorway is J14 of the M6, which is 2.7km away, via Great Bridgeford, using the A5013
Access to Rail	1	The site is bounded by the 4-track W10 gauge WCML route section. At-grade access could be achieved into the Slow Lines nearest the site, but direct access to the Fast Lines would be likely to require grade-separation.
Vehicle access routes	-1	Access to the motorway would need to be taken from Newport Road (B5405) to access the A5013 running from Great Bridgeford to the Motorway junction.

Factor	Score	Notes
		Newport Road has residential properties along the length that would be used by vehicles accessing the site.
Site size	0	100 Ha
Site shape	0	The site is relatively regular in shape and should be able to accommodate a rail connection.
Topography	0	The site slopes down to the railway line, but it should be feasible to secure an access with appropriate earth moving,
Proximity to and potential effects on residential or other sensitive land uses	0	A number of residential properties are located adjacent to the northern boundary of the site, in the settlement of Great Bridgeford. However, it is anticipated that through mitigation, the impact of the development can be lessened. Gaining access to the M6 motorway from the site would however require traffic to navigate through Great Bridgeford, potentially causing an impact to the existing settlement.
Total	0	

- 6.122 In terms of labour force availability, the site is 100Ha, applying the formula at paragraph 4.29, the site could generate in the region of 4,211 jobs. There are currently 50,700 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.
- 6.123 In relation to local policy designations and planning status, there are no designations on the site. There are no relevant extant planning permissions or current planning applications of relevance.
- 6.124 This site scores well on rail access, but the 4-track nature of the WCML at this point (from west to east being northbound Slow Line, southbound Slow Line, northbound Fast Line, southbound Fast Line) would make at-grade access to the Fast Lines difficult to achieve. The site also suffers from road access issues and proximity to a number of houses that would be affected by the development.

Figure 6.20: Site 20: Land at Baldwin's Gate



- 6.125 This site is located some 8.5km to the south west of Stoke on Trent. It is 65Ha and has no constraints noted in the sieving analysis. The entirety of the site is categorised as being Grade 3 agricultural land.
- 6.126 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	-2	The nearest motorway junction is J15 of the M6 (4.5km). However, the road distance is around 11km using the A51 to the south and west, before heading north to the junction. This involves passing a number of isolated residential properties. A shorter route (8.5km) exists, travelling via properties at Hill Chorlton, to access the A53 through Baldwin's Gate and then the A5182 east to the motorway.
Access to Rail	1	The site is bounded by the 4-track W10 gauge WCML route section. At-grade access could be achieved into the Slow Lines nearest the site, but direct access to the Fast Lines would be likely to require grade-separation.

Factor	Score	Notes
Vehicle access routes	1	The vehicle access routes are described above. Both routes are distant from the motorway and involve passing numerous isolated dwellings, or travelling through a residential community. However, the longer route can be mostly achieved using A class roads.
Site size	0	The site is 65Ha.
Site shape	0	The site a fairly regular and may be able to accommodate rail access.
Topography	0	The site slopes down to the railway line. It may be possible to achieve a rail access as well as suitable buildings.
Proximity to and potential effects on residential or other sensitive land uses	0	The nearest sensitive receptors are residential properties directly adjacent to the south eastern boundary of the site. There may however be opportunities to mitigate the main impacts of the development from these properties.
Total	0	

- 6.127 In terms of labour force availability, the site is 65Ha, applying the formula at paragraph 4.29, the site could generate in the region of 2,737 jobs. There are currently 38,400 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.
- 6.128 In relation to local policy designations and planning status, the site is designated as an area of Landscape Restoration and Enhancement. Whilst the forest adjacent to the north of the site is designated as a Natural Asset. With considerate design and suitable mitigation, it is understood that these designations could be overcome. However, this may limit the scale of the development. There are no relevant extant planning permissions or current planning applications on the site.
- 6.129 This site primarily suffers from very poor highways access, although its scale is also a limitation in the context of securing a SRFI. The 4-track nature of the WCML at this point (from west to east being northbound Slow Line, southbound Slow Line, northbound Fast Line, southbound Fast Line) would make at-grade access to the Fast Lines difficult to achieve.

Figure 6.21: Site 21: Covidien, Staveley



6.130 This site is located some 6km to the north east of Chesterfield. It is 200Ha and has the following constraints noted in the sieving analysis:

- Areas of Flood Zone 2 and 3 running along the River Rother corridor; and
- The site is predominantly categorised as being urban land, with a small area of Grade 3 agricultural land in the north of the site.

6.131 This site has a history of various heavy industrial uses, including foundries, chemical works, coal mining and landfill. The land is allocated for part housing and part commercial (50Ha), with the commercial focussed around the Works Lane / Hall Road area.

6.132 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	-2	The nearest motorway junction is J29a of the M1. A new link road has been completed by the developers of Markham Vale on part of the route, which is 4.8km.
Access to Rail	1	The site has access to a W10 gauge route.

Factor	Score	Notes
Vehicle access routes	2	Access to J29a would be taken from the A6192 to J29a. The route does run past some residential properties, but it is in cutting and well screened from the houses.
Site size	2	The site is 200Ha. The site's allocation in the Core Strategy would suggest 50Ha of employment land is available, although it has been assumed that a wider area can be used for the purposes of scoring.
Site shape	1	The site is fairly regular with a relatively straight section of rail access.
Topography	0	The site is fairly flat, although there are some mounds adjacent to Barrow Hill (north of the railway line) which may need regrading. The River Rother corridor may need to be diverted and regraded to allow suitable building floorplates to be achieved.
Proximity to and potential effects on residential or other sensitive land uses	0	The northern boundary of the site is close to properties in Barrow Hill (c 100m), whilst the southern boundaries border the existing settlements of Hollingwood and Staveley. However, it is anticipated that there are opportunities to screen the sensitive receptors from any development.
Total	4	

6.133 In terms of labour force availability, the site is 200Ha, applying the formula at paragraph 4.29, the site could generate in the region of 8,421 jobs. There are currently 8,700 people looking for work in the surrounding local authority areas, the labour force requirement for the development can therefore only just be met in the local area. Labour availability could therefore possibly be a constraint to delivering a SRFI in this location.

6.134 In relation to local policy designations and planning status, The site has numerous designations that comprise the following:

- Staveley Regeneration Route;
- Staveley & Rother Valley Corridor Area Action Plan;
- Existing Business and Industrial Development;

- Tree Woodland Planting;
- Sports Pitches; and
- Open Countryside.

6.135 The site is allocated via the adopted Chesterfield Core Strategy (PS5) to be redeveloped for a sustainable community to deliver 2,000 homes and 50ha of employment uses. At the time of writing, the Council website confirms that an Area Action Plan (AAP) is currently in the process of being finalised and submitted to Secretary of State for examination.

6.136 There are no extant planning permissions considered relevant on the site. Notwithstanding this, a screening and subsequently a scoping opinion has been issued by the Council in respect of redeveloping the western area of the site for mixed use development. Furthermore an outline planning application for this development was submitted in September 2017 (Chesterfield Borough Council ref. CHE/17/00644/OUT). However, the application is still awaiting determination. Should development come forward in this regard, it would restrict the development and operation of the site as a SRFI.

6.137 This site performs well on access, size and shape, although it is distant from the main motorway junction. Alternative development proposals are being progressed.

Overview of Sites identified during Sieving

6.138 The following table summarises the sites identified through the sieving exercise and their associated scores, the highest scoring of these sites are considered alongside the Rail Central site (refer to Section 9):

Site Number	Site Name	Site Score
1	Wadborough Park Farm, near Stoulton, Worcestershire	5
2	Dairy House Farm, Grendon, near Tamworth	3
3	Land adjacent to Birch Coppice, near Tamworth	5
4	Land between Hinckley and Nuneaton	7
5	Land at Burbage Common, Hinckley	11
6	Land at Potters Marston	1
7	Land between Ladbroke and Bishops Itchington	2
8	Land between Knightcote and Fenny Compton	6
9	Kilsby North	9
10	Part of Rugby Radio Station West	10
11	Kilsby East	5
12	Land North of Long Buckby Wharfe	1

Site Number	Site Name	Site Score
13	Land to the North East of Long Buckby	2
14	Land to the West of Bugbrooke and South of Nether Heyford	3
15	Land South of Bugbrooke	0
16	Northampton Gateway	11
17	Land North of Penkridge	8
18	Land to the South of Stafford	5
19	Land South of Great Bridgeford	0
20	Land at Baldwin's Gate	0
21	Covidien, Staveley	4

6.139 There are four sites which stand out alongside Rail Central as scoring particularly well. These are:

- Site 5 – Land at Burbage Common, Hinckley – an emerging SRFI proposal;
- Site 9 - Kilsby North: Considered and discounted as part of the DIRFT III alternatives assessment (but considered further in the comparative assessment at Section 9 of this document);
- Site 10 - Rugby Radio Station West: Considered and discounted as it is unavailable due to other committed development; and
- Site 15 - Northampton Gateway: A current SRFI proposal.

6.140 With the exception of Site 10, these sites (Sites 5,9 and 15) are considered further in the comparative assessment at Section 9 of this report.

7. Stage 3: Sites identified by Local Representation and Other Studies

- 7.1 This section of the report considers those sites which were reviewed in the early alternatives assessment. It discounts those sites without rail access, but scores the remaining sites utilising the same methodology applied to the wider search area.
- 7.2 The following sites were identified by people living locally, who suggested that they should be considered as alternatives. The sites are listed below, alongside a note of whether they are considered further in this analysis and if not, the reason for discounting them at this stage:
- Northampton Highgate: See Site 15 Northampton Gateway;
 - Pineham Extension: Discounted due to lack of rail connection potential;
 - Land to the South of J15a, M1: Discounted due to lack of rail connection potential;
 - Land to the East of J15a, South of M1: Discounted due to lack of rail connection potential;
 - Land to the East of J15a, North of M1 (Milton Ham Business Park): Discounted due to lack of rail connection potential;
 - Land to the East of NLL, North of M1 (Northampton South SUE): Considered further in the below section;
 - Midway Park, J16 M1: Discounted due to lack of rail connection potential;
 - Midway Park, Phases 2 & 3, J16, M1: Discounted due to lack of rail connection potential; and
 - DIRFT III, J18, M1: Existing SRFI Consent, not considered further.
- 7.3 The following sites were considered as they were identified as possible rail freight sites in the DIRFT III Alternatives Assessment:
- Eurohub, Corby;
 - Etwell Common (East Midlands Intermodal Park);
 - East Midlands Distribution Centre, Castle Donington – rail terminal currently being activated but discounted as too small to qualify as a SRFI; and
 - East Midlands Gateway – discounted as it forms part of committed DCO development as a SRFI.

- 7.4 In addition to these sites, a further RFI has been promoted at Four Ashes. This NSIP project is referred to as West Midlands Interchange and the DCO application has now been submitted to PINS. The site was sieved out of this assessment as set out in Section 6, because it is within the Green Belt. However, as the Four Ashes site is being promoted and has potential to contribute to the network of SRFI's required by national policy, that site is included for assessment in this section of the report.
- 7.5 The remainder of this section of the report considers these sites against the common scoring framework.

Table 7.1: Site 22: Land to the East of Northampton Loop, North of M1 (Northampton South SUE)



- 7.6 This site is located to the immediate south of Northampton. It is 97Ha and has the following constraints noted in the sieving analysis:
- Areas of Flood Zone 2 and 3 running along the northern boundary; and
 - The entirety of the site is categorised as being Grade 3 agricultural land, with sub-categories of Grade 3a and 3b confirmed centrally.
- 7.7 There are also a number of listed buildings in the nearby settlement of Collingtree.
- 7.8 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	0	The site is adjacent to the M1 and very close to J15. However, there is no direct highways access with the shortest route being around 2.5km via Collingtree Park and down the A45.
Access to Rail	1	The site has access to a W10 gauge route. However there is a lack of frontage onto the main line and this would require rail sidings to be laid perpendicular to the main line. This would operationally less efficient than those laid parallel to the main line with access at each end.
Vehicle access routes	-1	Site access would need to be taken via Windingbrook Lane, Rowntree Road, Wooldale Road and the A45. This passes by houses in Collingtree Park.
Site size	1	102 Ha
Site shape	1	The site is regularly shaped and could accommodate larger floorplate buildings.
Topography	1	The site is relatively flat.
Proximity to and potential effects on residential or other sensitive land uses	0	Numerous sensitive receptors are located within the surrounding area of the site. Specifically, these include residential properties in the settlements of Collingtree, and the Collingtree Park and Merefield all of which bound the site to the north and east. It is however anticipated that mitigation measures could be implemented to reduce the impacts of developing the site.
Total	3	

7.9 In terms of labour force availability, the site is 102Ha, applying the formula at paragraph 4.29, the site could generate in the region of 4,295 jobs. There are currently 14,400 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.

7.10 In relation to local policy designations and planning status, The site has numerous designations that comprise the following:

- Greenspace;

- Nature Conservation Value;
- Locally Important Landscape Area;
- Proposed Residential Area; and
- River Nene and Grand Union Canal Policy.

- 7.11 The site was the subject a planning application (Northampton Borough Council ref. N/2013/1035) and subsequent appeal (PINS ref. APP/V2825/W/15/3028151), which resulted in the approval of a scheme for 1,000 homes in August 2016. The first reserved matters application was considered at Committee on 15 February 2018 and subsequently approved on 7 March 2018 (Northampton Borough Council ref. N/2017/1566). Furthermore, applications to discharge conditions have also been submitted. Notwithstanding this, at the time of writing, it is not evident that construction of the development has not commenced.
- 7.12 This site performs reasonably well on access to rail, size and shape, although it is relatively distant from the main motorway junction no roads that are shared with residential uses.
- 7.13 Achieving rail access would also be difficult from both directions of travel on the main line, as the site has a limited rail frontage of 700m. To accommodate full length trains would require a triangular junction with the main line linked to sidings lain perpendicular to the main line rather than parallel; a less efficient arrangement than the “passing loop” sidings laid parallel to the main line as can be achieved at Rail Central.
- 7.14 This site is also not considered to be available given the recent planning permission received for a large housing scheme.

Figure 7.1: Site 23: Eurohub, Corby



- 7.15 This site is located to the immediate south east of Corby. It is 106Ha and has no constraints noted in the sieving analysis. The entirety of the site is categorised as being non-agricultural land.
- 7.16 This site would function as an extension to the existing Eurohub development in Corby. The site was assessed in the DIRFT III alternative site assessment.
- 7.17 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	-2	The nearest motorways are the M1 / M6 junction, some 40km away to the west. The A1 is some 25km to the east.
Access to Rail	-2	The site is not currently rail served, although has potential access to a W7 gauge rail line if the rail infrastructure is extended to the site.
Vehicle access routes	2	Vehicle access routes to the strategic highways network are long, but nearly all on A class roads (A43 and A14 to M1; and A43 to the A1). There is no need to pass through residential areas.
Site size	1	106Ha

Factor	Score	Notes
Site shape	1	The site is a regular shape and has potential to accommodate a rail link.
Topography	1	The site is relatively flat.
Proximity to and potential effects on residential or other sensitive land uses	0	The closest sensitive receptor is a Holiday Inn located c.80m to the north east of the site. Furthermore, a number of residential properties are located c.120m to the south of the site at Little Stanion. The properties at Little Stanion are already extensively screened due to existing woodland to the south of the site, whilst screening to benefit the Holiday Inn is considered possible.
Total	1	

- 7.18 In terms of labour force availability, the site is 106Ha, applying the formula at paragraph 4.29, the site could generate in the region of 4,463 jobs. There are currently 11,000 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.
- 7.19 Outline planning permission was granted in December 2013 (limited to five years to commence development) for the development of Use Classes B1/B2 and B8 (Corby borough Council ref. 12/002589/OUT). An application to vary this permission was submitted in August 2017 and was subsequently approved on 13 February 2018 (Corby Borough Council ref. 17/00388/RVC). Following the grant of the revised planning permission, a series of applications seeking reserved matters and to discharge conditions have been submitted.
- 7.20 This site performs well on access, size and shape, although its distance from the main motorway junction is a major limiting factor.
- 7.21 This extension site is not directly rail served. The site has planning permission for a rail connected development and it is understood that the site owners do not intend to implement the rail connection due to cost concerns. The developer which controls the site, Prologis, is not marketing the site as a rail served scheme. It is considered that the rail connection is unlikely to be included in any future development of this site.

Figure 7.2: Site 24: Etwall Common (East Midlands Intermodal Park)



- 7.22 This site is located some 9km to the south west of Derby. It is 268Ha and it has no constraints noted in the sieving analysis. The entirety of the site is categorised as being Grade 3 agricultural land.
- 7.23 The site has been promoted as a SRFI opportunity and it was subject to public consultation in 2014. To date no DCO application has been submitted. Furthermore, the PINS website for the scheme confirms that the applicant has not yet set a timetable for the project.
- 7.24 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	-2	The site is 19km from J24a of the M1
Access to Rail	1	The adjacent main line is cleared for W10 gauge to the southeast where it joins the existing W10 gauge Birmingham - Derby line. The site has W7 gauge access northwest from the site to Crewe.
Vehicle access routes	2	The motorway can be accessed by the A50 with no need to pass through residential communities
Site size	2	268 Ha

Factor	Score	Notes
Site shape	2	The site is regularly shaped with straight boundaries adjacent to the railway line
Topography	2	The site is relatively flat.
Proximity to and potential effects on residential or other sensitive land uses	0	The closest sensitive receptors are a cluster of residential properties located c.100m to the south east of the site. Furthermore, there are a number of residential properties located along the western boundary of the site. It is however considered possible that the development could be screened from these receptors.
Total	7	

- 7.25 In terms of labour force availability, the site is 268Ha, applying the formula at paragraph 4.29, the site could generate in the region of 11,284 jobs. There are currently 26,700 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.
- 7.26 In relation to local policy designations and planning status, the site has no designations. Furthermore, no relevant extant planning permissions or current planning applications have been identified.
- 7.27 This site performs well on access, size and shape, although its distance from the main motorway junction is a limiting factor.
- 7.28 A smaller adjacent site at Etwall Common (93,000sqm) was noted in the DIRFT assessment. The DIRFT assessment notes that there would be a resulting focus on regional rail need, with the site serving urban areas primarily to the north.
- 7.29 The DIRFT assessment was undertaken in 2012. Since then, this site has been notified as a NSIP project and the site promoter, Goodman, has completed informal consultation on a proposed intermodal facility which could provide up to 6 million sqft of floorspace. This is comparable to the scale of the Rail Central proposals.
- 7.30 The project was subject to informal consultation with a timeline for commencing formal consultation in May 2014, with submission of the application in spring 2015. The development was subject to a screening request and opinion in summer 2014 and it is understood that work was continuing on development of a DCO application, with formal consultation expected in 2016/17 and submission in early 2017⁴⁵. No formal consultation has subsequently progressed.
- 7.31 The proposals would address a more northerly area and market, centred on an area of existing manufacturing (Toyota, JCB, Nestle, Rolls Royce, Bombardier).

⁴⁵ See <http://www.emipark.co.uk/public-consultation/>

Figure 7.3: Site 25: West Midlands Interchange



- 7.32 As explained above, this site is being promoted as a SRFI by Four Ashes Ltd. This NSIP project is referred to as West Midlands Interchange and a DCO application was submitted to PINS on 3 August 2018. This was subsequently accepted for examination by PINS on 24 August 2018.
- 7.33 The site was sieved out of the assessment as set out in Section 6 because it is within the Green Belt, which is considered to be a constraint to delivering a SRFI. Notwithstanding this, as the site is being actively promoted and has the potential to contribute to the network of SRFI's required by national policy, the site is assessed below.
- 7.34 The site is located approximately 10km north of Wolverhampton and immediately west of Junction 12 of the M6 in South Staffordshire.
- 7.35 The site comprises approximately 297Ha of land and other than its location within Green Belt; the site has no landscape or ecological designations of a national, regional or local importance. The site is categorised as being entirely Grade 3 agricultural land, with some sub-categorised Grade 3a and 3b land within the west of the site.
- 7.36 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	2	The site is adjacent to J12 of the M6, the current proposals for the development seek to utilise this existing junction

Factor	Score	Notes
		arrangement.
Access to Rail	1	The W10-gauge twin-track WCML bisects the site.
Vehicle access routes	2	With limited amendments to the existing highway network, vehicles can access the site via J12 of the M6 and the A5. This route does not require vehicles to navigate through residential areas.
Site size	2	297 Ha
Site shape	2	The site is large and relatively regular in shape.
Topography	0	The site is largely level and will require only minimal site works to be suitable for development. However, the railway line is positioned below the level of the site. Ground works will need to take place to ensure a level rail access can be achieved.
Proximity to and potential effects on residential or other sensitive land uses	0	The closest sensitive receptors to the site are residential properties located directly to the north of the site. However, due to the scale of the site, it is envisaged that suitable mitigation measures can be implemented to protect the amenity of the sensitive receptors.
Total	9	

- 7.37 In terms of labour force availability, the site is 297Ha, applying the formula at paragraph 4.29, the site could generate in the region of 12,505 jobs. There are currently 33,400 people looking for work in the surrounding local authority areas and on this basis we conclude that labour availability is not likely to be a constraint to delivering a SRFI in this location.
- 7.38 In relation to local policy designations and planning status, the South Staffordshire Local Plan (1996) Proposals Map confirms that the site for the most part is designated as being within the Green Belt, whilst the existing built area is designated as Employment Use, with a further area designated as an Employment Proposal. Furthermore, the site also carries the designation of Landscape Improvement Area.
- 7.39 The Green Belt and Employment Site designations have been carried forward to the Site Allocations Document, which PINS have confirmed is sound and was adopted at the Council committee meeting on 11 September 2018. There are no extant permissions of relevance on the site, however it is currently being promoted as a SRFI and a DCO application has been accepted for examination by PINS.

- 7.40 Much of the site is designated as being within the Green Belt, which would typically be restrictive to this form of development. However, through the submission of the DCO application, very special circumstances are identified for the proposals. A neutral rating has therefore been awarded in this factor.
- 7.41 This site performs well on access, size and shape, the only noticeable limitation being the level change between the rail access and the site. However, it is understood that through the course of the development, this issue can be overcome.
- 7.42 The site was subject to Stage 2 consultation between Wednesday 5 July and Wednesday 30 August 2017 with a further focussed consultation (Stage 2a) being undertaken between December 2017 and January 2018. Should a DCO be secured on the site, it will add to the regional supply of rail served space and the choice available for rail connected space to meet market demand arising from the northern extent of the West Midlands and Staffordshire.

Overview

- 7.43 The following table summarises the sites identified through the sieving exercise and their associated scores:

Site Number	Site Name	Score
22	Land to the East of Northampton Loop, North of M1 (Northampton South SUE)	3
23	Eurohub, Corby	1
24	Etwall Common (East Midlands Intermodal Park)	7
25	West Midlands Interchange	9

- 7.44 West Midlands Interchange stands out as scoring well and is currently progressing through the DCO process. It therefore needs to be considered further in the comparative assessment.
- 7.45 In addition, as Etwall Common is currently being promoted as a SRFI by a reputable logistics developer, despite scoring slightly lower than the other top performing sites, this site has also been considered further in the comparative assessment (Section 9).

8. Stage 4: Rail Central

- 8.1 In order to compare the potential alternative sites against the proposed Rail Central site on a like for like basis, Rail Central has been scored below.

Figure 8.1: Rail Central



- 8.2 This site is located approximately 6km to the south of Northampton. It is 294Ha and has the following constraints noted in the sieving analysis:
- Areas of Flood Zone 2 and 3 running along the Milton Malsor beck corridor.
 - Roade Cutting SSSI at the southern end of the site
- 8.3 In addition, there is a listed railway bridge to the south of the site, a number of listed buildings in Milton Malsor and a flight of Grade II listed locks on the Northampton Arm of the Grand Union Canal.
- 8.4 The scoring matrix has been utilised to produce the following results for this site

Factor	Score	Notes
Proximity to a motorway junction	1	The site is within 2km J15a of the M1.
Access to Rail	2	The site has access to two W10 gauge route sections, the Fast Lines via

		Weedon and the Slow Lines via Northampton.
Vehicle access routes	2	Site access will be taken directly off the A43 with no need to travel through either the settlements of Milton Malsor or Blisworth.
Site size	2	294Ha.
Site shape	2	The site has large regular areas capable of accommodating multiple large floorplate buildings, with long straight sections of site adjacent to rail infrastructure.
Topography	2	The site is largely flat with little earth working required to achieve level rail access.
Proximity to and potential effects on residential or other sensitive land uses	0	The site is close to residential properties along Northampton Road. However, the parameters plan, master plan and assessment work in the ES show that there is adequate provision to ensure potential effects can be mitigated.
Total	11	

- 8.5 In relation to local policy designations and planning status, for the most part, the site does not have any designations within the South Northamptonshire Local Plan (1988-2006). Notwithstanding this, a small area of the site located directly adjacent to the east of the NLL is designated as being within an Important Local Gap. On the basis of the current proposals, it is not considered that the scheme will conflict with this designation. The site does not have any extant planning permissions of relevance. However, as is the purpose of this DCO application, the site is being promoted as a SRFI.
- 8.6 This site performs well on access, size, shape, and rail connectivity. The key issues are a slightly longer distance from the main motorway junction compared to other sites and its close proximity to a small number of residential properties, albeit mitigation can be provided to reduce the likely impact on the properties. The site will also have direct access onto the A43, providing good access to junction 15a of the M1 motorway.

9. Stage 5: Comparative Assessment

- 9.1 The preceding sections of this report have identified the following sites as being notable high scores for further consideration.

Table 9.1: Site Summary

Site Number	Site Name	Site Score
-	Rail Central	11
16	Northampton Gateway	11
5	Land at Burbage Common	11
9	Kilsby North	9
25	West Midlands Interchange	9
24	Etwall Common (East Midlands Intermodal Park)	7

- 9.2 This section of the report considers those sites in more detail and compares them to Rail Central.

Etwall Common (EMIP)

- 9.3 This site is located close to Derby alongside the A50 and A50/A38 junction. It is close to a number of employers in the region including JCB, Nestle and Toyota. The site scores moderately well on the standard matrix, and has potential to operate as a rail freight terminal.

Site Capacity

- 9.4 The site is approximately 255 ha and is a sufficient size for a SRFI. There is currently a waste water treatment facility on site, a composting facility, an existing flood attenuation pond, three residences and overhead electricity lines (x2) supported by steel lattice pylons across the north of the site which would need to be relocated for development to proceed. A number of residential properties adjoin the site boundary. Parts of the site have been subject to previous gravel extraction which has been filled in through licensed waste tipping. In the past the majority of the land has been used for intensive sewage sludge recycling and as such is unsuitable for growing crops direct for human consumption. As a consequence the land is used to grow crops for biofuels or animal feed uses only. As such, while the site is of sufficient size, there are on-site constraints that are likely to add significantly to the cost of bringing this site forward.
- 9.5 This site was not considered in the DIRFT assessment as the latter focussed on a much smaller adjacent site (93,000sqm). The DIRFT assessment notes that there would be a resulting focus on regional rail need, with the site serving urban areas primarily to the north.
- 9.6 The DIRFT assessment was undertaken in 2012. Since then, this site has been notified as a NSIP project and the site promoter, Goodman has begun informal consultation on

a proposed intermodal facility which could provide up to 6m sqft of floorspace. This is more comparable to the scale of the DIRFT and Rail Central proposals.

- 9.7 Various site layout options – which showed how the proposed warehousing could be arranged and effectively served by rail access as well as ensuring residential amenity, were the subject of non-statutory consultation between May and July 2014.

Topography

- 9.8 The site generally slopes from around 62m above ordnance datum (AOD) in the north eastern corner to around 50m AOD in the south west corner. Along the southern boundary on Carriers Road, the land rises up to form a ridge line that obscures views further into the site when viewed from the road. The A38/A50 junction and the associated earthworks also provide some screening of views into the site.
- 9.9 Topographical variations across the site are unlikely to impact on site capacity.

Rail Infrastructure

- 9.10 The site is located adjacent to the Derby to Stoke line which broadly runs through the centre of the site. The various design options presented in 2014 suggest the proposed full length intermodal terminal will be located alongside the main line with alternate options for rail-linked warehouse units and a car loading terminal. The existing railway provides direct access to the Birmingham to Burton line at the Derby end which provides a route to locations in the north and also to the Midland Main Line at Sheet Stores Junction near Long Eaton. Network Rail has confirmed that the site is cleared to W10 gauge southeast to where it joins the existing W10 gauge Birmingham - Derby line. W7 gauge exists northwest of EMIP to Crewe.

Road Infrastructure

- 9.11 The site is bordered by the strategic road network to both the north and the east of the site (the A50 and A38). The site does not have any existing access to either of these roads and current masterplan options propose access via a new junction on the A50 and direct access onto the A38/A50 junction. The DIRFT site assessment (2012) also noted that the Highway Agency (now Highways England) had raised concerns about the safety implications of the potential access arrangements and the congestion levels that could result.
- 9.12 Existing public transport in the area is limited to longer distance services and express routes between settlements. Investment in new bus services would offer the potential to secure sustainable links to nearby settlements such as Burton and Derby.

Environmental

Landscape/Visual

- 9.13 The site does not contain or lie close to any statutory landscape areas such as National Parks or Registered Parks or Gardens. With the exception of existing development on site, the landscape is relatively flat and open predominately comprising large agricultural fields.
- 9.14 The visual impact arising from SRFI development is likely to be significant most obviously from the perspective of existing residential properties located around the

edges of the site and public footpaths that run to the site boundary. The edge of Etwall and Egginton – the nearest villages to the site approximately 0.5km and 0.7km away will have part direct and part filtered views of the development. Other villages further away are likely to be partially or fully obscured by intervening vegetation. Other receptors such as road users may experience an impact; however, this is something that would need to be confirmed as part of additional survey and site assessment work.

Heritage

- 9.15 There are no designated heritage assets on the site although there are numerous Conservation Areas which surround the site; three of which have direct views into the site. These include the Trent and Mersey Canal Conservation Area - an important ecological corridor and popular route for walkers, anglers and cyclists which presents views towards the site at various points along the canal; Repton Conservation Area, approximately 2.3km from the site which has views towards the site from the northern edge of the Conservation Area; and Newton Solney Conservation Area which lies approximately 2.6km from the site at its closest point and has some long views across the site. The only listed building which has any potential relationship with the site is Willington House Farmhouse (Grade II Listed) on Etwall Road.
- 9.16 The prevailing cultural heritage of the site and immediate surroundings does not indicate that the SRFI development would present any significant adverse local impacts. A geo-physical survey over part of the site found only limited evidence of archaeological assets to be preserved with modern activities likely to have removed any archaeological remains over slightly more than a third of the site.

Air Quality/Noise

- 9.17 The site is fairly well isolated with only those residential properties which border the site likely to be affected by the proposals. With the proposed site access being identified at the opposite end of the site from these properties, no significant air quality or noise impacts are likely to arise from the development. The site is not located within an Air Quality Management Area.

Biodiversity

- 9.18 The site consists primarily of large arable fields with associated hedgerows and narrow field margins with strands of semi-natural woodland and areas of grassland and tall ruderal vegetation. A number of ponds exist within and outside the site. Surveys undertaken in 2013 indicate great crested newts are not present on the site; however the scoping opinion for the SRFI proposals indicates that subsequent surveys have revealed the presence of a small population of two great crested newts to be present in two ponds in woodland located in the southern part of the site. Other surveys reveal that presence of bats, reptiles (grass snake, common lizard and slow worm), a wide assembly of winter birds (of no more than county level value) and common invertebrates. Redevelopment of the site for a SRFI is likely to give rise to some significant impacts that will need to be mitigated.
- 9.19 The nearest statutory designated site is Hilton Gravel Pitts SSSI approximately 1.4km to the north west which is designated for its range of breeding birds and overwintering

wildfowl. The designated site is not considered to provide significant constraints to development.

- 9.20 No detailed agricultural land classification surveys are publicly available but the scoping report indicates detailed surveys of similar land locally have identified Subgrade 3b (moderate).

Land Use Policy

- 9.21 The South Derbyshire Local Plan (Part 1) was adopted in June 2016 while the Local Plan (Part 2), covering non-strategic housing allocations and development management policies, was adopted in November 2017.
- 9.22 Local Plan Policy INF3 sets out the detailed criteria with which SRFI proposals are required to comply. The criteria references to rail access arrangements, vehicular access arrangements and a range of environmental issues.

Other

- 9.23 The site is located within Flood Zone 2.

Conclusions

- 9.24 The Etwall Common project was subject to informal consultation with a timeline for commencing formal consultation in May 2014, with submission of the application in Spring 2015. A request for a screening opinion was issued by the applicant in Summer 2014 and screening opinion was issued by PINS in September 2014.
- 9.25 The latest project update available on the PINS website for Etwall Common confirms that the applicant has not yet set a timetable for the project. However previous updates on the PINS website dated September 2016 confirmed that the developer was preparing a SOCC and intended to formally consult in late 2016 / early 2017. It noted that technical rail work (GRIP stages 1 and 2) were complete and the submission of the application was anticipated in the first quarter of 2017. No further update has been provided on the PINS website or the SRFI website. While this in itself is not problematic, it does suggest that the project remains in the initial phase of development, with the creation of SRFI facilities not likely to be delivered in the immediate future. Comparison with Rail Central suggests that it is at least eighteen months behind in programme terms.
- 9.26 In the alternatives assessment presented during the Stage 1 consultation process for Etwall Common, it was noted that this site would address more northerly markets than Rail Central, centred on an area of existing manufacturing (Toyota, JCB, Nestle, Rolls Royce, Bombardier). This is still considered to be the case, particularly in respect of Toyota whose factory is located immediately north of the site. The site also has limitations as it is further from the motorway network than Rail Central, despite there being good A Road access to the M1.
- 9.27 This site is considered to be a good SRFI site and it is being promoted by a reputable logistics developer. However, it is located significantly further north than Rail Central in the search area serving Derby and Nottingham to the north. Furthermore, given its distance from the strategic road network, and existing rail gauge issues, taken with the low score achieved on the scoring matrix in comparison to Rail Central, the site is not

particularly high performing for SRFI development. Notwithstanding this, should the site come forward as a SRFI, it could help to create a network of SRFI, expanding the current network further north towards Derby and Nottingham.

West Midlands Interchange

- 9.28 The West Midlands Interchange (WMI) site is approximately 10km to the north of Wolverhampton and immediately west of Junction 12 of the M6 in South Staffordshire.
- 9.29 A large proportion of the land is in agricultural use with other notable areas of mineral workings in the east and woodland (Calf Heath Wood) towards the centre of the site. Existing residential properties are located along Croft Lane and the A5 around the northern part and boundary of the site, with further farming and residential properties positioned around or close to the site boundaries.
- 9.30 The WMI site is currently characterised by a large area of sand and gravel mineral extraction within the east known as Calf Heath Quarry; a patchwork of agricultural fields with hedgerows and trees to the west and south of this and an area of mixed woodland known as Calf Heath Wood.
- 9.31 A DCO application for the development of a SRFI was submitted to PINS on 3 August 2018. This was subsequently accepted for examination by PINS on 24 August 2018. Through the DCO application, detailed information has been made available, which has permitted a more detailed review of the site.

Site Capacity

- 9.32 The site is approximately 297ha. The current masterplan includes a full-length rail terminal located directly adjacent to the WCML and sufficient space for up to 743,200sqm (GIA) of warehousing, as well as significant strategic landscaping and open space as confirmed in the information submitted in support of the DCO application.

Topography

- 9.33 The topography of the site is relatively level, with localised topographical features associated with the canal cutting, railway and quarry workings.

Rail Infrastructure/ Capacity

- 9.34 The site has over 2km of frontage onto a suitable main line (WCML branch via Penkridge, W10 gauge and electrified) and thus able to accommodate main line access from either direction of travel and on-site stabling/ handling sidings running parallel with the main line.

Road Infrastructure

- 9.35 The WMI site has direct connections to the strategic highway network via the A5, which provides onward connectivity to Junction 12 of the M6 as confirmed in the ES for the development. The main access to the WMI site for vehicular traffic would be via the A5 and would be provided between Junction 12 of the M6 and the Gailey Roundabout. The other principal means of access will be onto the A449 for vehicles travelling to the M54 and Wolverhampton. There would be a secondary access from the site to Vicarage Road which would give access to the southern element of the site, provide an access for local employees and act as an alternative route to the M6.

- 9.36 There is a considerable variance in levels between the site and the WCML. Providing adequate access from the rail line will therefore require significant levelling works to be undertaken.

Environmental

Landscape/ Visual

- 9.37 A large proportion of the land is under agricultural use with other notable areas of mineral workings in the east and woodland (Calf Heath Wood) towards the centre of the site. The existing Four Ashes Industrial Area lies outside the site to the south, contained between the railway and the canal. Existing residential properties are located along Croft Lane and the A5 around the northern part of the site, with a number of other farming and residential properties positioned around or close to the site boundaries.
- 9.38 The ES confirms that the character of the site is affected by a number of significant features including its current uses as predominantly arable farming, quarrying and Calf Heath Wood, as well as by the influence of features surrounding and crossing the site including the canal, railway, roads and dwellings, and the industrial area of Four Ashes.
- 9.39 The ES confirms that a number of significant adverse temporary effects have been identified on visual receptors during construction, notably Minor/Moderate to Major adverse effects on certain properties within view of the proposals, and Moderate to Major adverse effects on the canal towpath and Calf Heath reservoir. It is however anticipated that these effects will reduce during the completed development phase of the SRFI.
- 9.40 Furthermore, the ES confirms that the development will give rise to significant landscape effects (moderate to adverse) and result in significant visual impacts during construction and operation with effects reducing as new planting matures. The changing character of the site will have a significant effect on the existing openness of the Green Belt.

Cultural Heritage

- 9.41 The ES confirms that several historic features associated with the canal are located within or near the site. These comprise the canal itself, lock keeper's cottages including the Grade II Listed 18th century Round House located between two of the land parcels west of Gailey along the northern edge of the site. Adjacent to the Round House, Gailey Wharf is a Grade A locally listed building which includes a restored 18th century revolving crane. Furthermore, the Canal itself is within a Conservation Area that runs through the site.
- 9.42 The ES notes that the proposed SRFI will cause effects on the setting of the canal, however it is proposed to be mitigated through careful design of the landscaping so as to minimise the visual and setting impacts. Potential effects are identified relating to the demolition of the locally listed Heath Farm. These effects are seen to be minimised by Historic Building Recording prior to demolition. The ES confirms that no significant residual effects have been identified in relation to above ground cultural heritage.

Air Quality/ Noise

- 9.43 The ES confirms that the main source of existing air pollutants close to the site is road traffic in particular associated with the main road network to the north, east and west of the Site. This includes the A5, M6 and A449.
- 9.44 With regards to air quality, the ES confirms that negligible to slight residual effects have been identified for dust at construction stage and operational traffic on human receptors adjacent to the road network. In respect of noise, the ES confirms that noise from on-site operational activities is likely to give rise to moderate adverse effects at a number of receptors around the site.

Biodiversity

- 9.45 The ES confirms that there are no internationally or nationally designated sites for nature conservation located on or adjacent to the site. Without mitigation, there is the potential for development of the site to affect protected species. The ES confirms that surveys at the site have recorded the presence of several protected rare, declining or notable species including:

- Great crested newts and other amphibians;
- Birds, including breeding birds;
- Farmland birds and water birds;
- Invertebrates;
- Several species of bats; and
- Terrestrial mammals including badgers, hedgehogs and otters.

- 9.46 The ES confirms that there are significant residual effects in the operational phase, generally at the site or local scale (notably on farmland birds) or while habitats develop. This is balanced in part through the provision of significant new and enhanced habitat including the proposed community parks and offsite farmland bird mitigation land, to be maintained in the long term, which would provide benefits to a range of wildlife and which would be managed for the duration of the operational phase. The habitats created would address local and national biodiversity action plan targets.
- 9.47 Furthermore, it is noted within the ES that a number of veteran trees will be lost as a result of the proposed development.

Land Use Policy

- 9.48 The WMI site lies within Green Belt land and in accordance with the NN NPS⁴⁶ the Secretary of State would have to be convinced and promoters would need to demonstrate very special circumstances exist to justify planning consent for inappropriate development in the Green Belt. The NN NPS⁴⁷ also confirms that the Secretary of State will attach substantial weight to the harm to the Green Belt, when

⁴⁶ NN NPS Paragraph 5.172

⁴⁷ NN NPS Paragraph 5.178

considering any application for such development. Furthermore, the NN NPS⁴⁸ is clear that infrastructure projects may comprise inappropriate development which is, by definition, harmful to the Green Belt and for which there is a presumption against development, except in exceptional circumstances.

Other

- 9.49 According to the Environment Agency flood maps for planning, the WMI site is located within Flood Zone 1 and therefore has a 1 in 1,000 annual probability of tidal/ fluvial flooding. Notwithstanding this, Environment Agency data suggests that the site may be susceptible to surface water flooding.

Conclusions

- 9.50 On the scoring matrix, the site scored 9 points. Measuring 297Ha, the site is a considerable size and has minimal constraints that could restrict the future delivery of the site. Notwithstanding this, there is a significant level change between the WCML and the surrounding site area. Gaining suitable rail access will therefore require significant levelling works to be undertaken. From information submitted in support of the DCO application it is understood that this level change can be addressed.
- 9.51 The ES for the development discusses the various impacts that are a result of the proposals. These primarily include adverse impacts on heritage, ecology and nature, landscape and noise which the proposals have sought to mitigate and minimise where possible in accordance with the NN NPS.
- 9.52 The key differences in the scoring of the site against the Rail Central scheme are that WMI has closer access to the Motorway, whilst Rail Central has access to two W10 rail lines.
- 9.53 Having access to two W10 railway lines allows Rail Central to offer services to the emerging Express Freight market, which allows it to better utilise the faster moving WCML. This is a clear distinction between the two sites which suggests that Rail Central is more adaptable to anticipated future changes in the rail freight market.
- 9.54 Whilst access to the motorway is closer at the West Midlands Interchange scheme, this is only marginally better than the Rail Central scheme, where routes utilise A roads and do not pass through predominantly residential areas. Conversely, access to two W10 rail lines is considered to be a much greater advantage.
- 9.55 Furthermore, from a planning policy perspective, the WMI is located within the Green Belt. This sets a requirement on the DCO application to demonstrate very special circumstances for the release of land from the Green Belt. This factor further separates WMI and the Rail Central scheme, with Rail Central being preferable from a planning policy position.
- 9.56 Providing that the planning basis for providing a SRFI on land in the Green Belt can be adequately justified through the demonstrated of very special circumstances, WMI is a relatively high scoring site. WMI would seek to serve a more northern markets and and would expand the network of SRFIs between the North West and the Midlands.

⁴⁸ NN NPS Paragraph 1.78

Kilsby, North

- 9.57 This site is located approximately 5km to the south east of Rugby. It was also identified in the DIRFT III Alternative Site Assessment as Site 6 Kilsby North. The site area is approximately 238Ha.
- 9.58 The southern area of the site would have limited capacity for new trains as freight trains would need to use the WCML which is faster moving and less suitable for standard freight trains, other than at night. The northern section is considered to be capable of accommodating a limited form of rail freight development. However, the shape of the site creates limitations on rail layout which would affect path availability for other passenger and freight trains, and leaves little site capacity to accommodate warehousing as well as an intermodal facility. The details of the site are assessed below, although the DIRFT III Assessment discounted the site from its short list stage on the basis of the restricted nature of the site for rail access and its capacity for warehousing alongside an intermodal facility.

Site Capacity

- 9.59 The site is approximately 238Ha in area and is therefore sufficient to accommodate a SRFI. The site is primarily in agricultural use and is subdivided into a number of field parcels. Notwithstanding this, there are a number of small farm holdings and individual detached residential dwellings located within the site. The northern area of the site also includes Hamilton Wharf, which is a small marina, linking directly to the Oxford Canal.
- 9.60 Hillmorton, which is a residential suburb of Rugby, is located directly adjacent to the north west of the site. Furthermore, the settlement of Kilsby is located directly to the south of the site.
- 9.61 The site is not presently being promoted as a SRFI, on this basis, there is limited information regarding the possible capacity to deliver such a development. Notwithstanding this, considering the size of the site, this is not considered to be a constraint.

Topography

- 9.62 The site is considered to be relatively flat, higher ground is primarily located to the east of the site, which is approximately 124m AOD. From this location, the topography gently slopes downwards towards the north west, reaching approximately 102m AOD where the site intersects the Oxford Canal.
- 9.63 The general topography of the site is unlikely to impact upon the deliverability of a SRFI.

Rail Infrastructure/ Capacity

- 9.64 The WCML runs through and dissects the site; from the south east to the north west of the site. The WCML Northampton Loop forms the northern boundary of the site. The DIRFT Assessment confirmed that a new access point onto the WCML Northampton Loop line would be required, whilst the use of the existing DIRFT I crossing would also be required.

- 9.65 As a result and again as confirmed by the DIRFT Assessment, this would create a requirement to accommodate the rail infrastructure (including the necessary 775m siding) within the narrow triangle of land between the WCML and NLL. The limited size of this triangle (approx. 67ha) would make accommodating both 750m sidings and a terminal facility very difficult to achieve. Even shorter starter sidings (i.e. less than 750m) would be very difficult to accommodate.
- 9.66 Additionally, due to the variances in height between the site and the WCML, significant earth works would be required to ensure adequate rail access could be achieved.
- 9.67 On this basis, although the site is within close proximity to rail infrastructure, it would be difficult to achieve the necessary standards required to support a SRFI development.

Road Infrastructure

- 9.68 All routes bounding the site are single carriageways. Access to the M1 is currently along the A428, which becomes a dual carriageway where it meets DIRFT I. However, to access this road from the eastern section of the site will require a bridge over the railway or upgrading works to the A5.
- 9.69 Access via the B4038 to the south of the site is not considered suitable, this would require major road improvement works within the settlement of Kilsby. Furthermore, it is likely that the use of this route would cause a major disturbance to the settlement.
- 9.70 Additional assessment work may determine that access to the site could be achievable, however it is likely to require significant upgrading works to the highway network.

Environmental

Landscape/ Visual

- 9.71 The site does not contain or lie in close proximity to any statutory landscape areas such as National Parks or Registered Parks or Gardens. With the exception of some existing development on the site and the dissecting railway line, the site is relatively flat and open predominantly comprising large agricultural fields. The development of a SRFI site would therefore significantly impact upon the existing landscape of the site.
- 9.72 The most obvious adverse impacts will be experienced by occupiers of existing residential dwellings situated adjacent to the site boundary. Furthermore, visual impacts will also be experienced from the many public footpaths, which are located within and adjacent to the site.
- 9.73 As a result of road and rail routes being in close proximity to the site, users of these routes will see the development as they pass by, and this will result in an adverse visual impact, albeit transient for those receptors.
- 9.74 Through the design of the scheme, it is envisaged that some of these impacts could be mitigated, however, it is considered inevitable that some landscape and visual impacts will remain.

Cultural Heritage

9.75 There are no designated heritage assets within the site, however the Oxford Canal within the north of the site is in a Conservation Area. Furthermore, there are a number of listed buildings that are in close proximity to the site boundary. These include the following:

- A large number of primarily Grade II listed buildings within the settlement of Kilsby;
- The Grade II listed Wharf Farmhouse located directly adjacent to the north west of the site; and
- The scheduled ancient monument of Watling Street Roman Road, situated to the east of the site.

9.76 Given the proximity of these heritage assets, it is probable that a SRFI development on this site will create some impact on setting. Notwithstanding this, it should be possible to implement some form of mitigation to reduce adverse impacts. From an initial appraisal it is not evident that heritage constraints would restrict the development of the site as a SRFI, however their proximity would need to be considered in designing an appropriate scheme.

Air Quality/ Noise

9.77 For the most part, the site is relatively detached from sensitive receptors. Notwithstanding this, residential properties that do lie in close proximity to the site would be likely to experience adverse air quality and noise impacts.

9.78 Again, as with heritage implications, it is envisaged that both of these matters could be mitigated through the careful design of a SRFI development on the site.

Biodiversity

9.79 The site consists of primarily large fields with associated hedgerows and narrow field margins, with strands of semi natural woodland. There are no statutory biodiversity or ecological designations on the site or within close proximity.

9.80 Although additional assessments would need to be undertaken to ascertain the biodiversity value of the site, this initial appraisal does not demonstrate that it will cause any major constraints to the delivery of a SRFI on the site.

Land Use Policy

9.81 A small portion of the northern element of the site is located within Rugby Borough Council and is therefore covered in the Rugby Core Strategy. It is part of a wider allocation for an Urban Expansion. Adjacent to the proposed Urban Expansion is another designation, indicating the presence of a Regionally Important Geological Site.

9.82 The remainder of the site is located within the area covered by the Daventry Local Plan and the West Northamptonshire Joint Core Strategy (pre submission version). The Daventry Local Plan indicates the presence of a footpath in the vicinity of the northern corner of the site, although the policy relating to this allocation has not been saved. There are no other site specific allocations in the Daventry Local Plan. The West

Northamptonshire Joint Core Strategy contains no policy allocations for this part of the site.

Other

- 9.83 No relevant extant planning permissions or current planning applications have been identified. However, the Council refused an application for 99 dwellings on the southern area of the identified site in November 2015 (Daventry District Council ref. DA/2015/0830). The application was refused for being outside the settlement boundary, consisting of unsustainable development, design grounds and for its impact to surrounding landscape and heritage assets. This indicates that in bringing forwards a SRFI on the site, the development would need to overcome a number of possible constraints.
- 9.84 The entirety of the site is located within Flood Zone 1 and therefore has a 1 in 1,000 annual probability of tidal/ fluvial flooding.

Conclusions

- 9.85 This site scored 9 points on the scoring Matrix. It is clearly a strong site which has the characteristics of a good potential rail freight site.
- 9.86 This site was considered in detail in the DIRFT III assessment. That assessment considered a larger site, the northern part of which is included in this assessment. The southern part of the site assessed by the DIRFT III team was discounted from the analysis.
- 9.87 The DIRFT III assessment considered that the northern section of the site was considered to be capable of accommodating a limited form of rail freight development. However, it concluded that the shape of the site created limitations on rail layout which would affect path availability for other passenger and freight trains, and left little site capacity to accommodate warehousing as well as an intermodal facility.
- 9.88 This site clearly has merit as a SRFI location. However, this site scores lower than Rail Central and has acknowledged technical difficulties in delivering a similar quantum of rail served floorspace. Based on the scoring matrix and the above analysis, Rail Central appears to perform more favourably; however Kilsby North still represents a site which could complement and expand the network of SRFIs.

Land at Burbage Common, Hinckley

- 9.89 Consisting of an area of approximately 222Ha, the site at Burbage Common is located to the west of the M69. The north and north western boundary is defined by the Leicester to Nuneaton railway line, which has the capacity for W10 gauge trains. The settlement of Hinckley is located approximately 3km to the west of the site.
- 9.90 Notification has recently been submitted to PINS by DB Symmetry (Hinckley) Limited confirming the intention to submit a DCO application for a SRFI on the site. The application website confirms that statutory consultations are planned for winter 2018. Furthermore, the PINS infrastructure website confirms that the DCO application will be submitted in Q2 of 2019. Information presented on the PINS website states that the proposals are to include railway sidings and a freight transfer area alongside the two-

track railway between Hinckley and Leicester and a dedicated road access directly from junction 2 of the M69 motorway comprising the addition of a northbound off-slip and a southbound on-slip to this junction, which currently caters only for motorway traffic heading to and from the north.

- 9.91 Assuming the proposed vehicular access arrangements from the M69 are achievable and viable, the site scores well in the assessment.

Site Capacity

- 9.92 The site is approximately 222Ha and is therefore of sufficient size to accommodate a SRFI. The site is predominantly in agricultural use and subdivided into a number of different field parcels. Notwithstanding this, there are a number of singular detached residential dwellings and small farm holdings on the site. A small area within the south of the site is also occupied by a permanent traveller site. Residential dwellings associated with the village of Elmesthorpe are located to the north east of the site boundary.

- 9.93 As the site is in the early stages of being promoted for a SRFI, there is limited information currently available regarding its possible layout. Notwithstanding this, based on the site area it is envisaged that a SRFI can be accommodated alongside necessary mitigation measures to lessen the impact of the proposals.

Topography

- 9.94 The site generally slopes from around 112m AOD in the southern corner, to around 90m in the north. The M68, which runs along the sites eastern boundary, fluctuates from being above and below the general height of the site. Again, the railway line running along the sites northern and north western boundary fluctuates from being above and below the general height of the site.

- 9.95 The general topography of the site is unlikely to impact upon the delivery of a SRFI in this location.

Rail Infrastructure/ Capacity

- 9.96 The W10 gauge Leicester to Nuneaton railway line runs adjacent to the north and north western boundary of the site.
- 9.97 There are areas within the site boundary where the topography of the railway line and site are broadly level. Direct accesses to the railway line from parts of the site are blocked due to the location of Burbage Common Road. Adequate access should however be achievable from the northern site area. It is therefore envisaged that with some earthworks, reception lines into the site could be created. Albeit, detailed design work would need to be undertaken to demonstrate that this is feasible.

Road Infrastructure

- 9.98 The eastern boundary of the site is defined by the M69 with access possible from junction 2, which is located directly adjacent to the south eastern corner of the site. No detailed analysis of this junction has been undertaken, however it is anticipated that significant improvements are proposed comprising the addition of a northbound off-slip and a southbound on-slip to this junction, which currently caters only for motorway traffic heading to and from the north.

- 9.99 If these proposals ultimately prove unviable, the site would therefore need to gain access to the B4669 in the first instance. This would then provide onward connection to the M69. In doing so, the B4669 would need considerable improvement works. Furthermore, achieving direct access to the B4669 from the site is constrained by proximity to two existing permanent residential caravan sites and dense areas of woodland habitat.
- 9.100 Alternative access routes (approximately 5-10km additional distance to access J2) could be achieved at the north of the site although this area is similarly constrained by motorway embankments and a number of residential and commercial properties.
- 9.101 On this basis, although the strategic road network is within close proximity to the site, access to it will likely require significant investment in road infrastructure to create a suitable access. Detailed feasibility, design and mitigation work will therefore need to be undertaken to establish the means of achieving access.

Environmental

Landscape/ Visual

- 9.102 The site does not contain or lie in close proximity to any statutory landscape areas such as National Parks or Registered Parks or Gardens. With the exception of existing development on the site, the landscape is relatively flat and open, predominantly comprising large agricultural fields.
- 9.103 The development of a SRFI would be likely to affect the existing landscape of the site, in comparison to the existing nature as predominantly land in agricultural use. However, the actual impacts of this would only be established following a detailed analysis of landscape and visual impact issues.

Cultural Heritage

- There are no designated heritage assets within the site, although the conservation area of Aston Flamville is located approximately 1km to the south of the site. Furthermore, there are a number of listed buildings which are in close proximity to the site boundary. These include:
 - Three Grade II listed properties to the north of the site;
 - A cluster of Grade II listed properties within Aston Flamville;
 - A series of Grade II and II* listed properties within the settlement of Hinckley;
 - A cluster of Grade II and II* listed properties within the settlement of Stoney Stanton; and
 - A cluster of Grade II properties located within the settlement of Sapcote.
- 9.104 It is anticipated that given the scale of the proposed site many of the views from the historic designations can be mitigated. The full extent of any impacts would however only be established following a full assessment of development on the site.

Air Quality/ Noise

- 9.105 For the most part, the site is fairly well isolated with only residential properties that are in close proximity to the site likely to be affected by the proposals. With regards to properties to the north of the site, it is envisaged that measures can be undertaken to mitigate against air quality and noise impacts.
- 9.106 However, the permanent caravan sites to the south of the site are likely to experience some detrimental air quality and noise impacts. The extent of these impacts will only be established following a detailed assessment as part of the emerging scheme.

Biodiversity

- 9.107 The site consists primarily of large arable fields with associated hedgerows and narrow field margins with strands of semi-natural woodland. In addition, the site is in close proximity to the following statutory designations:

- Adjacent to Burbage Wood and Aston Firs SSSI to the south; and
- Adjacent to Burbage Common and Woods Local Nature Reserve to the south.

- 9.108 Due to the close proximity of these designations, the design of the SRFI scheme will need to be carefully considered. However, given the size of the site, it is envisaged that mitigation measures can be implemented in the south of the site to reduce the impact on these designations.

- 9.109 Detailed agricultural land assessments and ecological surveys will need to be undertaken alongside the promotion of the site as a SRFI.

Land Use Policy

- 9.110 The site in its entirety is designated as being located within the 'Countryside'. This designation generally restricts against widespread development. Albeit, this designation does not carry the same restrictive weight as a Green Belt designation.

- 9.111 No relevant extant planning permissions or current planning applications have been identified on the site that would restrict the future development of the site as a SRFI.

Other

- 9.112 A small area within the north of the site is located within Flood Zone 2; however it is not considered that this will detrimentally impact the delivery of the site as a SRFI. The remainder of the site is within Flood Zone 1 and therefore has a 1 in 1,000 annual probability of tidal/ fluvial flooding.

Conclusions

- 9.113 The site generally scores well on most measures within the scoring matrix. It is at the early stages of being promoted as a SRFI by a reputable logistics developer. It is within close proximity of the strategic highway network, with proposals to secure access on to the M69, and has access to a W10 rail line.

- 9.114 Land at Burbage Common achieves the same score in the matrix as Rail Central, which is a reflection of the site location in proximity to important transport infrastructure and the lack of environmental constraints identified on the site. Notwithstanding this, the

site is only at the early stages of being promoted for SRFI development. As such, limited information regarding the proposals has been available to fully assess the potential SRFI scheme at Burbage Common.

- 9.115 However, this analysis has highlighted a number of key issues that will need to be addressed through the detailed design of the scheme. These include the proximity to sensitive biodiversity designations, impact on the permanent caravan sites to the south and the ability to find a feasible access route to the site.
- 9.116 Notwithstanding this, although the site has been identified within this alternative site assessment exercise, it will serve a different area of the region being almost 50km to the north west of Rail Central.
- 9.117 Although the site at Burbage Common may be a good SRFI site on its own merits, this can only be confirmed upon the review of more detailed information when it is available. For these reasons and similarly to the other sites considered as part of this assessment, Land at Burbage Common could function as a complementary SRFI to the wider SRFI network, including Rail Central.

Northampton Gateway

- 9.118 The site is located between the M1 motorway to the east (near J15a) and the WCML to the west, to the south east of the settlement of Milton Malsor. The site is being advanced through the DCO process as a SRFI proposal by the promoters and applicant for the proposals, Roxhill (Junction 15) Ltd. The proposals have been subject to a Stage 2 public consultation process which was held between 9 October until 24 November 2017. A further focused consultation was held between December 2017 and February 2018. Furthermore, a DCO application was submitted in May 2018. This was subsequently accepted by PINS for examination in June 2018. A pre-examination hearing has been arranged for 9th October 2018.

Site Capacity

- 9.119 The site comprises an area of approximately 219ha (main site). The most recent masterplan shows a scheme with 5m sqft⁴⁹ of logistics space and a single connection to the NLL. In comparison, Rail Central will provide 7.4m sqft of logistics space and has two direct connections and full inter-connectivity, to the NLL. The Northampton Gateway proposal also includes road infrastructure including a new bypass to the village of Roade, improvements to Junction 15 and 15A of the M1 motorway, the A45, and other highway improvements at junctions on the local highway network.

Topography

- 9.120 The site generally slopes from the west to east; at its peak along the western boundary, elevations are approximately 102m AOD, falling to its lowest elevation of approximately 80m AOD with the shallow valley associated with the Courteenhall Brook along the south eastern boundary which flows to the north east.

⁴⁹ Proposals include 1.6msqft of mezzanine

Rail Infrastructure

- 9.121 The western boundary of the site is defined by the WCML NLL (W10 gauge) running from London to Scotland serving the West Midlands, North Wales and the North West, providing the site with excellent rail connectivity. The SRFI proposals intend to capitalise on this proximity, with direct connection to the WCML Northampton Loop (W10 gauge); providing a set of three 775m reception sidings; a 775m headshunt and run round loop to permit shunting moves around the site; a three track intermodal terminal (775m); rail connections to four warehouses; and a rapid rail freight terminal. There are connections to both the southbound and northbound lines in both directions enabling trains being able to enter and leave the site in both directions.

Road Infrastructure

- 9.122 The proposal also includes road infrastructure including a new bypass to the village of Roade, improvements to Junction 15 and 15A of the M1 motorway, the A45, and other highway improvements at junctions on the local highway network. The information submitted as part of the DCO application indicates that J15 is operating well over its design capacity and is a congestion 'hot-spot'. The SRFI proposes an upgrade to Junction 15, lane widening and new signals at J15A and new bypass for Roade. It is asserted that highway modelling demonstrates that this package of works would remove congestion on the highway network (particularly at M1 Junction 15 and 15A and at Roade). Existing traffic would reassign to principal road networks consisting of the A508 between the A5 and M1 Junction 15 and Junction 15A and thereby lead to a consequential reduction in traffic on many of the surrounding roads.

Environmental

Landscape /Visual Impact

- 9.123 There is no statutory landscape designations that cover any part of Northampton Gateway other than the Roade Bypass extending into the edge of a locally designated Special Landscape Area largely located to the south east of Roade.
- 9.124 The ES confirms that at a local level, the effects of the development will vary on different receptors at different stages of the development process. The proposals would represent a significant change to the existing landscape not only built development but also through the provision of bunding and green infrastructure. The ES concludes that at worst the Northampton Gateway scheme will result in moderate long-term residual landscape and visual effects.

Cultural Heritage

- 9.125 The ES identifies 51 listed buildings within 1km of the main site along with two buildings within the main site which are considered to be non-designated heritage assets. The ES also identifies a number of heritage assets surrounding the bypass corridor. There are also three Conservation Areas and a Registered Park and Garden located within 1km of the site.
- 9.126 The Heritage Chapter of the ES concludes that the proposal will result in no more than a minor impact on the identified listed buildings and asserts that many of the effects have been identified as negligible.

Air Quality/Noise

- 9.127 In terms of noise impacts the ES suggests that no significant adverse effects are anticipated from operational rail noise or vibration, or road traffic associated with the site or the proposed Road bypass.
- 9.128 There are two Air Quality Management Areas (AQMA) close to the site and the primary focus of air quality monitoring is nitrogen dioxide (NO₂). NO₂ is closely associated with major roads with the closest AQMA being on the M1 adjacent to the site and extends along the stretch of motorway running north-west from Junction 15 and around Collingtree to the east of the M1. The other AQMA of relevance is on the A45 at Wootton to the north of Junction 15.
- 9.129 The ES indicates that the proposals will reduce HGV miles on the national network and therefore result in potential improvements at a number of AQMA's across the UK – mostly on the strategic network and key ports. Furthermore, the ES confirms that the proposed highway mitigation measures, such as the M1 J15 and J15A improvements and a Road by-pass will result in reduced localised emissions, thereby having a positive effect on air quality in a number of locations and communities.

Biodiversity

- 9.130 The site is dominated by arable farmland and boundary hedgerows, with areas of grassland, scattered woodland blocks, mature trees and ponds. There are no statutory designated sites within or adjacent to the site but the Upper Nene Valley Gravel Pits Special Protection Area (SPA)/Ramsar site is located approximately 5km to the west of the site. The Road Cutting Site of Special Scientific Interest (SSSI), which is geological (not ecological) interest, falls within the boundary of the bypass corridor. There are no non-statutory Local Wildlife Sites (LWSs) within the boundary of the site. There are a number of potential LWSs (pLWSs) within the boundary of the site including 236/Unnamed pLWS of Highgate Wood, Road Cutting pLWS and Road pLWS. Protected or notable species present include badgers, roosting and foraging bats, farmland and woodland birds, great crested newts (GCN), invertebrates, common lizard, grass snake and otter.
- 9.131 The DCO submission documents indicate that the significant habitat losses resulting from development will be off-set through the re-creation and favourable management of hedgerows, trees, grassland and wetland features. It is indicated that where appropriate, the most sensitive habitats (hedgerows and neutral grassland) will be retained by translocation into part of the site green infrastructure. This would be a significant undertaking and appears impractical over an extensive site area. Overall, the ES confirms that the proposed development provides an opportunity to establish new habitats for nature conservation and to deliver a net gain for biodiversity in the locality.

Land-Use Policy

- 9.132 The South Northamptonshire Local Plan Proposals Map designates the site as being an Area of Important Local Gap. Saved Policy EV8 of the South Northamptonshire Local Plan confirms that "in order to prevent the coalescence of settlements the Council will not permit development which would significantly intrude into (...) important local gaps as shown on the proposals map".

9.133 On this basis, development within this land use designation is generally considered to be incompatible. Notwithstanding this, in drafting the South Northamptonshire Local Plan Part 2 (pre-submission draft), the Council does not intend to carry forward the principles of Saved Policy EV8. Policy Site Development Principles 1 within the pre-submission draft of the Local Plan Part 2 does however set out a number of principles to limit the coalescence of settlements.

9.134 It is anticipated that the Northampton Gateway scheme will need to have regard to these policies during the examination of the DCO application.

Other

9.135 The socio-economic information provided through the DCO submission asserts that the SRFI development could support around 7,544 additional jobs once fully operational.

9.136 For the most part, the site is located within Flood Zone 1, however the assessment and site specific modelling provided submitted alongside the DCO application indicate that small areas of the site are at an increased risk and within Flood Zones 2 and 3 (medium and high risk). The areas identified as being at increased risk from surface water flooding are limited to low lying areas of the site and the immediate corridors of existing drainage ditches/watercourses. Mitigation is proposed comprising the creation of a Sustainable Urban Drainage System (SuDS) to reduce surface water runoff rates with surface runoff restricted to existing greenfield annual flow rate with attenuation volume provided across the site. Residential impacts are identified as negligible.

Conclusion

9.137 This site scores well on most measures in the scoring matrix. It is currently being promoted as a SRFI by a reputable logistics developer. It has good access to the motorway network and access to a W10 rail line.

9.138 Northampton Gateway achieves the same score in the scoring matrix as Rail Central which is a reflection of the strategic nature and strength of this area as a location for rail freight development. This also reflects one of the limitations of the adopted methodology, in that it does not allow a fine grained enough analysis of sites in comparable areas, or as in this case, adjacent to each other. This is why qualitative analysis is provided for in the methodology. However, the national policy aim is not to develop a limited number of SRFI sites; it is to create a network of SRFIs and to ensure the growth of rail freight capacity and the associated economic and environmental benefits of this sector.

9.139 In assessing the degree and scale of environmental impact, it is important to note that a like for like comparison is difficult as the Northampton Gateway ES does not set out a standardised methodology for the assessment of environmentally significant effects. Instead different approaches are adopted across the whole of the ES resulting in a series of separate technical assessments as opposed to an ES which should be a cohesive and integrated report on the outcome of the EIA process. Many of the methodologies adopted also do not appear to have been followed through in topic assessments. The inconsistency of assessment methodology applied potentially compromises the ES and the conclusions within it. Notwithstanding this, for the

following assessment, we have largely accepted the conclusions of the Northampton Gateway ES at face value unless otherwise stated.

9.140 In appraising both schemes, it is important to note that Rail Central is almost 30% larger in site size and also delivers significantly more commercial floorspace than Northampton Gateway. Despite this, an appraisal of both schemes reveals that both are comparable in respect of environmental impacts. The environmental impact assessment in respect of air quality, archaeology, ground conditions, lighting, human health and waste all conclude that significant effects would not arise from the proposals. Both schemes identify a residual benefit in terms drainage and reduced flood risk although the residual benefit is identified as being significant for Rail Central. Both schemes are anticipated to give rise to significant benefits in respect of socio-economics and both will positively encourage the movement of freight from road to rail resulting in significant beneficial effects on HGV miles on the highway network and CO₂ emissions.

9.141 There are some key specific impacts and/or differences within certain topic areas which are worth explaining. These are summarised below:

(a) Landscape and Visual

Both Rail Central and Northampton Gateway do not affect any designated landscapes.

Northampton Gateway is located in an area between the NLL and the M1 motorway defined as “Area of Important Local Gap” within the South Northamptonshire Local Plan Policy EV7. Rail Central maintains the “Area of Important Local Gap” through significant landscape mitigation around its development zones comprising of hedgerow planting, ecological mitigation, woodland block planting, farmland and footpath diversions.

Northampton Gateway is in a rural, and slightly more contained landscape than Rail Central, though the site is influenced by urbanising features including the NLL to the east and southeast and by the M1 to the north and east and Northampton beyond the M1.

Rail Central is larger and in a slightly more open rural landscape than Northampton Gateway, though the local landscape of Rail Central does have some urbanising influences including the Northampton/Towcester Road, JBJ Business Park, and the Milton Business Park, and transport routes with noticeable traffic movement and noise from the WCML to the south, the NLL to the east, and A43 to the West. The Rail Central site does benefit from some containment being in a slight bowl of land with a ridgeline and the embankments of the WCML to the south, rising land to the south east and east and the embankments of the NLL and Milton Malsor to the north, rising land and Gayton Road to the northeast and the A43 to the West.

In terms of impacts, both schemes will have significant effects on their respective sites and immediate surroundings during construction, at year 1 and year 15, but the respective effects are limited and localised. Both schemes will

have limited and localised effects to County Landscape Character Areas (The Tove Catchment, and Bugbrooke and Daventry) though neither scheme's assessment identifies significant effects to these LCA's during construction or operation.

The relative effects of each scheme on the local landscape and landscape character are similar in level and extent (limited and localised), and are comparable. However, it should be noted that the Roade Bypass element of Northampton Gateway will add to the landscape and visual effects of this scheme, extending the overall effects of the scheme over a wider area in the vicinity of Roade and Stoke Bruerne in the south. The Northampton Gateway ES Appendix 4.4 Landscape Effects Table, and Appendix 4.5 Visual Effects Table identifies that the Roade bypass scheme will give rise to significant landscape and visual effects during construction and operation to a number of sensitive receptors including the local landscape character, residential receptors and public rights of way, which are greater than the very limited and localised landscape and visual effects resulting from the proposed works to J15a and other minor highway works included as part of Rail Central.

Considering the landscape and visual context and considering the nature, size and scale of the Rail Central and Northampton Gateway SRFIs in their own right, the visual effects are limited and localised. Significant visual effects during the construction and operational phases are anticipated to be experienced by a relatively small number of receptors overall, the majority of which are in close proximity to each site or where views may be gained from limited elevated locations overlooking each respective site. A number of these affected receptors are in close proximity to one another including a number of Public Rights of Way on elevated land overlooking the sites to the south, and to the east of Blisworth, so the geographical extent of visual effects is limited and localised. From such locations, the proposed embedded and adaptive landscape and visual mitigation of screen bunding and planting will be effective in the medium to long term in softening and screening the lower level elements of Rail Central such as acoustic barriers and service yards.

Both schemes propose areas of earth bunding and planting for landscape and visual mitigation. Since the PEIR, Rail Central has sought to refine the Green Infrastructure, ecological and landscape & visual mitigation proposals and has increased the height and extent of earth bunding, and reduced the maximum height of buildings within Zone 3a, to reduce the visual effects of the site. Rail Central is proposing sensitively designed screen bunding with maximum 1:5 gradients to outer facing slopes which takes consideration of existing land form and contouring and avoids an overly engineered appearance. Whereas Northampton Gateway appears to rely on much steeper earth bunds with 1:3 gradients, which are more engineered in appearance and therefore appear incongruous with the existing topography of the site.

In addition, Rail Central has refined its substantial Green Infrastructure, ecological, and landscape & visual mitigation proposals to further respond to local landscape character through the introduction of more regular planting

blocks, particularly to the east of the site, as well as providing: internal estate roads which will have ecological corridors that seek to replicate field edge vegetation with a ditch line and banked hedgerow; retention of existing trees and field edge vegetation where possible; and the use of predominantly native and locally occurring species throughout the scheme. The proposed scheme of Green infrastructure, ecological, and landscape & visual mitigation will also contribute to the strategic biodiversity network habitat reservoirs through the creation of neutral grassland, woodland and calcareous grassland.

The Applicant for Rail Central is providing a fund available to certain residents affected by the Proposed Development, to enable the purchase and planting of trees, or management of existing hedgerows at affected properties. This fund will be secured through a section 106 obligation as part of the DCO application. If this fund is taken up, the introduction of this additional mitigation would have a significant benefit and would reduce adverse effects.

For Rail Central and Northampton Gateway, the introduction and the effectiveness of the proposed embedded mitigation together with the adaptive mitigation measures, mean that relatively few significant residual visual effects remain in the long term and that the proposed developments can be integrated into the landscape in the medium to long term.

In summary Rail Central and Northampton Gateway give rise to a similar level and significance of landscape and visual effects during both the construction and operational phases and both seek to employ mitigation measures which mean that relatively few significant residual visual effects remain in the long term and that the proposed development can be integrated into the landscape in the medium to long term.

(b) Ecology and Green Infrastructure

The baseline ecological conditions are similar for both Rail Central and Northampton Gateway, as are the predicted impacts. Both schemes consider that their impacts can largely be mitigated, leaving only a few residual minor adverse impacts as well as offering beneficial impacts. The ecological impact assessment for Northampton Gateway indicates that the majority of impacts are not considered to be significant and that the majority of adverse effects will be off-set in the mid- to long-term by the creation and favourable management of ecological habitat. It acknowledges that the loss of arable fields will lead to the unavoidable displacement of some protected farmland birds (the Northampton Gateway site is used by Golden Plovers, whereas the Rail Central site is not). Both schemes will have potential to affect bats, with Northampton Gateway likely to have a greater effect on badgers and GCN, and the Rail Central scheme having a greater effect on barn owl roosts and mature/veteran trees.

Both schemes demonstrate a positive net gain in biodiversity, possible largely because of provision of new habitat that is more valuable than the intensively farmed agricultural land that will be lost. However, Rail Central has undertaken a specific Biodiversity Assessment using the Warwickshire, Coventry and Solihull Biodiversity calculator and following the methods set out in Defra's biodiversity

offsetting pilot which confirms Rail Central delivers a net gain in biodiversity. The GI provision for Rail Central is designed to enhance retained vegetation, and to buffer features that are important for ecology, including the Grand Union Canal to the south. The GI will be augmented by specific adaptive mitigation that requires collaboration with ecological consultants to specifically design the habitat identified in the Illustrative Landscape Plan, so that it complements and reflects the existing local habitats. In addition to the on-site GI provision, Rail Central proposes a dedicated 26ha area for ecology mitigation located at J15a. This is considered to be an advantage over the Northampton Gateway provision where the on-site GI frequently requires habitat to fulfil landscape/screening/productive agricultural roles in addition to biodiversity. While there is loss of veteran trees, it is considered therefore that Rail Central will deliver more green infrastructure and biodiversity gains than Northampton Gateway.

(c) *Built Heritage*

The Northampton Gateway ES confirms that within a 1km radius of the Main Site, there are 51 listed buildings, three Conservation Areas, and a Registered Park and Garden. The ES notes that the majority of these will not be affected by the development proposals due to a lack of any visual or functional association between them but no visuals or plans are provided to support this. The ES notes that Northampton Gateway will require the demolition of two non-designated barns on the Main Site.

The Northampton Gateway ES confirms that the development will result in no more than a minor impact on the identified listed buildings and conservation areas within proximity to the site. Furthermore, many of the effects have been identified as negligible. This appears to be on an assumption that the proposed bunding will reduce or mitigate the visual effect of the development. However, there is no assessment as to the impacts of the bunding itself which could be considered to affect the heritage assets by creating an incongruous and engineered feature within the landscape. Should this assessment to be included, significant effects on heritage assets may arise.

The ES for the Rail Central scheme assesses all heritage assets within a 2km radius of the site. It confirms that adverse effects will be caused on a limited number of heritage assets as a result of Rail Central. These principally relate to the Milton Malsor Conservation Area (as a result of the Main SRFI Site) together with the Grand Union Canal Conservation Area (as a result of the highway works). The ES for Rail Central concludes moderate adverse effects on 3 (out of 203 assessed) heritage assets which are considered to be affected by the scheme, together with lower/ less significant effects to a limited number of other heritage assets. With the exception of one, these effects are indirect. This takes into account the effect of the Rail Central bunding unlike the Northampton Gateway ES.

Both schemes affect heritage assets within their immediate vicinity but due to their differing locations, different assets would be affected. The Rail Central

scheme has been robustly assessed and is supported by plans and visuals which help illustrate the level of effects identified. However, the level of effect for Northampton Gateway is potentially understated due to the lack of supporting assessment, plans and visuals within the ES Chapter.

(d) Agriculture

Northampton Gateway would affect approximately 220ha. All of this would be lost except 24ha of land which would be retained as agricultural land. Of the agricultural land to be lost, 33ha (12%) is best and most versatile (BMV) land in Grades 2 and 3a, with the remainder classified as moderate quality Subgrade 3b. This loss is assessed as a moderate adverse effect. Rail Central would involve 298ha of agricultural land, of which 89ha (30%) is BMV land, which is also considered to result in a moderate adverse effect. The extent of agricultural loss for Rail Central is a result of its size compared to Northampton Gateway but in terms of environmental impact, both result in an impact which is considered significant in EIA terms.

(e) Transport

Based on information contained within the Northampton Gateway DCO submission, the site is forecast to result in a total of 1,044 two-way vehicle movements during the AM peak hour and 1,303 two-way vehicle movements during the PM peak hour.

In comparison, Rail Central is forecast to result in a total of 1,233 two-way vehicle movements during the AM peak hour and 1,566 two-way vehicle movements during the PM peak hour. Therefore, in general terms, it can be seen that Rail Central is likely to result in a higher trip generation than Northampton Gateway. This is due to the fact that Rail Central is a larger scheme than Northampton Gateway.

The proposed mitigation associated with Rail Central is appropriate to minimise the impact of the proposals. From the information submitted as part of the DCO application, the impact of Northampton Gateway on the local highway network is intended to be mitigated.

Both Rail Central and Northampton Gateway traffic analyses have been carried out based on study areas agreed as appropriate with Highways England and Northamptonshire County Council, with capacity assessments carried out to determine where highway improvements may be appropriate. The highway improvement strategy for Rail Central includes capacity improvements at eight locations on the strategic and principal road network (including major improvements at M1 J15A), along with two road safety improvements on the A43 and a proposed foot/cycleway along Northampton Road.

In comparison, Northampton Gateway's highway improvements include major improvements at M1 Junction 15 (including improvements along the A45 and A508 approaches) and a new bypass at Roade. There are also more minor works proposed at M1 J15A, two locations on Knock Lane and 3 locations on the A508,

along with a new foot/cycleway along the A508 and further financial contributions towards other junction improvements.

Overall, the highway improvements proposed as part of Rail Central are more significant than those proposed as part of Northampton Gateway. However, this reflects the larger scale of Rail Central, and as set out in their respective assessments, both schemes are forecast to result in a net benefit to the overall operation of the highway network.

- 9.142 Overall, despite Rail Central delivering significantly more floorspace, both SRFI schemes have environmental impacts of a similar scale, albeit with different types of effects at different receptors. In addition, both of the proposals seek to mitigate environmental impacts to ensure they are reduced to an acceptable level.
- 9.143 It is also relevant to consider both schemes in respect of the operational and technical aspects being proposed within each SRFI proposal.
- 9.144 The table below (Table 9.2) presents a number of key differences between Rail Central and Northampton Gateway. Rail Central offers significantly more commercial floorspace than Northampton Gateway, it is also anticipated to generate more jobs (over 8,000) and generates greater economic benefits. Rail Central also provides direct access to two W10 railway lines and full connectivity between them. This enhanced flexibility and resilience in its infrastructure puts Rail Central at a distinct advantage. The Rail Central Express Freight Interchange will allow direct and quick access as opposed to Northampton Gateway which requires more time due to the need to shunt freight within the site. This will make other operations within the Northampton Gateway scheme less efficient than Rail Central. Rail Central also provides a range of additional facilities which aid the attractiveness of the SRFI as well as providing positive consequences to the efficiency of the rail network.

Table 9.2: Rail Central and Northampton Gateway Operational Comparison

	Rail Central	Northampton Gateway
Rail Connections	Rail Central has 4 main line access points onto two separate branches of the WCML (Fast and Slow Lines).	2 main line access points onto one branch of the WCML (Slow Lines).
Rail Inter-Connectivity	Full electrified inter-connectivity provided between WCML Fast and Slow Lines, maximising direct routing opportunities to and from site onto the main line. This also enables main line access to be maintained throughout when either the WCML Fast Line or Slow Line is closed for maintenance (up to 27 separate occurrences per annum).	No direct interconnectivity provided between WCML Fast and Slow lines, access to Fast lines available via at-grade crossings 4 miles to the south (Hanslope Junction) and 20 miles to the north (Hillmorton Junction) Northampton Gateway would lose main line access in the event of maintenance activity blocking access to both main line

		connections on the Slow Lines.
Intermodal Terminal	<p>Prior to first occupation, sufficient infrastructure will be constructed to enable the intermodal terminal to serve at least four trains per day.</p> <p>The phased expansion of the intermodal terminal will then take place in accordance with meeting demand and rail freight traffic growth.</p> <p>This approach was successfully utilised at Hams Hall SRFI which delivered its intermodal terminal in phases with each phase added in response to demand and traffic growth. The development of iPort SRFI is also being delivered in phases.</p>	Rail Terminal will be constructed prior to first occupation of any development.
Overall Commercial Floorspace	702,097 sqm (GEA) ⁵⁰	468,000 sqm (GIA) plus 155,000 sqm in the form of mezzanines
Trains per day and capacity for growth	<p>First phase of rail operations with 4 trains per day in and out of site, growing commensurate with warehousing and interchange facilities.</p> <p>The GB Freight Model (used in NR Freight Market Study as endorsed by the NN NPS) indicates that 7.4m sqft of floorspace would generate the equivalent of 13 intermodal trains per day in and out of site.</p>	<p>Rail Operation Report suggests that 4 trains per day each way will be achieved growing to up to 16 trains per day as the critical mass of development grows.</p> <p>However, this may be overstated because on a like-for-like comparison, the GB Freight Model output suggests the equivalent level of rail freight traffic from 5m sqft of floorspace would be 9 trains per day in and out of the site.</p>
Rail Connected Floorspace	<p>Approximately 179,250 sqm (GEA) would be rail connected.</p> <p>The level of rail-connected warehousing at SRFIs varies considerably from no provision at Hams Hall SRFI, iPort Doncaster,</p>	The illustrative masterplan confirms that Units 4 – 7 could be rail connected. This would equate to 303,143 sqm (GIA)

⁵⁰ In preparing the DCO application, the Applicant for the Rail Central site has taken the view that it is appropriate to use Gross External Area (GEA) as a parameter. The maximum area that could be achieved from the development is set out on the Parameters Plan. Northampton Gateway which has taken a different approach for their submission, using Gross Internal Area (GIA). This approach provides maximum flexibility with regards to building out the development as the requirements of each occupier will vary.

	<p>East Midlands Gateway and Howbury Park; limited provision at Mossend, 3MG and BIRFT; and greater provision at DIRFT and Northampton Gateway.</p> <p>Providing a diversity of SRFI facilities in functional terms will help maximise choice to occupiers.</p>	
Electrification	<p>Electrification is proposed from the outset of the development in agreement with Network Rail.</p>	<p>Electrification is proposed from the outset of the development.</p>
Express Freight Terminal	<p>Rail Central has direct and dedicated electrified access on WCML (Fast Lines) for express freight trains, allowing trains to arrive and depart in either or both directions with no intermediate shunting.</p> <p>Internal electrified access to the WCML Slow Lines provides continuity of access when the Fast Lines are closed for maintenance.</p> <p>The express freight facility will be delivered in accordance with a programme agreed with Network Rail in order to minimise disruption to rail services.</p> <p>The DCO includes drafting requiring a commitment to including the express rail freight facility, in agreement with Network Rail (Network Rail).</p>	<p>Northampton Gateway requires intermediate shunting of all express freight trains between the main line and the terminal, significantly slowing the processing of trains through the terminal.</p>
Sidings	<p>Rail Central has 10 x 775m sidings available (6 accessible by cranes), plus additional sidings serving the rail-linked warehouse units, express freight terminal and train maintenance depot.</p> <p>Provision of 4 electrified reception sidings (2 on either side of the site plus the interconnecting trackwork) allow for electric trains and multiple units to use the site.</p>	<p>Northampton Gateway has 6 x 775m sidings (5 accessible by cranes assuming outer line is electrified), plus additional sidings serving the rail-linked warehouse units, express freight terminal and aggregates terminal.</p> <p>Reception sidings assumed to be electrified outside of the intermodal terminal, express freight terminal, warehousing and aggregates terminal.</p>

	<p>In terms of the number of sidings provided, Rail Central has taken the decision to forego floorspace for providing additional space for sidings, to maximise the operational flexibility available to operators, and to provide the capability for future growth as per the NN NPS.</p>	
Other rail-related facilities	<p>Operational Control Room.</p> <p>Rail Central proposes a Train Maintenance Depot allowing trains to be stabled, maintained and fuelled on site rather than at off-site locations. This reduces the need for trains to be moved off site, maximising the efficient use of available mainline capacity. Early engagement with NR identified opportunities to minimise movement of light engines and empty stock to and from remote depots elsewhere on the network, which would be a less efficient use of main line capacity.</p> <p>The Train Maintenance Depot provides a facility enabling train operators to undertake crew changes, servicing and repair of traction and rolling stock without having to leave the site or incur empty running to and from site. This enhances the centralised and integrated suite of rail-related facilities on site and helps make best use of capacity on and off the main line.</p>	Operational Control Room.
Aggregate Rail-head	<p>Not provided.</p> <p>In reviewing the various options for rail freight facilities and services on site, it was concluded that the additional HGV movements and associated dust /</p>	<p>Provided.</p> <p>The proposals for Northampton Gateway make explicit provision for an aggregates terminal within the intermodal terminal area.</p>

	noise which would arise from handling aggregates traffic (up to 200 HGV trips per 2,000 tonne train), plus the pathing of heavier and slower Class 6 aggregate trains on and off the main line, would not be desirable.	
GRIP Feasibility	Network Rail has informed the design of the rail infrastructure and main line connections; the assessment has progressed to GRIP2 validating technical and operational feasibility of the main line connections.	No reference has been provided to any GRIP feasibility work having been undertaken with/by Network Rail.
Transport Access	Direct access onto the A43 (T) and providing connectivity to J15a of the M1. The A43(T) provides an alternative strategic route on the trunk network and connections to the M40 and to surrounding towns such as Towcester.	Direct access onto the A508, providing connectivity to J15 of the M1.
Sustainability	The current proposals for Rail Central exceed that offered by Northampton Gateway. Main commitments/ targets are: Committed to achieving a BREEAM Excellent rating New Buildings will target a 20% reduction in carbon dioxide emissions over Building Regulations Electric vehicle Charging infrastructure	Following completion of a BREEAM 2018 Design and Procurement Pre-Assessment, the scheme currently achieves a translatable BREEAM 'Very Good' rating. In respect of sustainability, very little in the way of deliverables are committed to. It is however noted that Solar PV systems could be incorporated within the development. This could include the provision of Battery Energy Storage System (BESS), which could provide an energy supply for electric vehicles to operate on the site. The buildings are aiming to deliver a 9% improvement over current Building Regulations.
Road to Rail	In the road-only comparator scenario, the annual distance travelled by HGV across the road network equates to 263,550,000 HGV.km. With the Rail Central SRFI fully operational, this reduces to	No reference to or assessment of GHG emissions in the assessment of likely significant effects associated with the construction or operational phases of the proposed development is carried out in the DCO submission.

	210,605,000 HGV.km per year, saving of circa 52.95 million HGV.km per year, and equivalent to a 20.1% reduction.	
Economic Benefits	<p>Estimated 8,090 gross full time equivalent (FTE) jobs. This takes account of:</p> <p>The lower employment densities typically seen in rail-connected warehouses, due to the need to accommodate rail infrastructure; and</p> <p>The absence of detailed design and layout information at the current point in time, with internal arrangements dependent upon the operational requirements of the end user.</p>	<p>Estimated 7,400 FTE jobs accommodated through provision of 623,000sqm floorspace. This takes account of:</p> <p>The proposed mezzanine, albeit a lower employment density has been assumed for this space (155,000sqm).</p>

- 9.145 The other difference between these two sites is their distance to the strategic highway network. Whilst Northampton Gateway is closer to J15 than Rail Central is to J15a, the differences in distance are very limited (J15 is located directly adjacent to the Northampton Gateway site and Rail Central is within 2km from Junction 15a) and in practical terms both sites have good connections to the strategic road network. Both routes are on higher class roads and will not involve passing through residential communities. However, Rail Central is positioned on the A43 (T) and benefits from significant highway resilience offering alternative access arrangements if necessary.
- 9.146 Bringing all the analysis together, Rail Central is larger than Northampton Gateway in commercial terms and has the ability to connect to the WCML, as well as the NLL. Along with additional facilities such as the Train Maintenance Depot, this presents additional market, operational and technical advantages over Northampton Gateway which makes Rail Central more resilient, flexible and more adaptable to the changing rail freight market. Therefore, it is concluded that the Rail Central site is the better performing SRFI site. However, it is recognised that Northampton Gateway is being formally pursued in addition to the Rail Central site. Both schemes could contribute towards creating a network of SRFIs and the clustering of such infrastructure in this particular location. This scenario has therefore been the subject of cumulative impact assessment in the ES.

10. Overview and Conclusions

- 10.1 The NN NPS is clear that the Government has concluded there is a compelling need for an expanded network of SRFIs and not having such a network is not an option. In that context, this assessment has applied several distinct stages of work to identify possible alternative SRFI sites across a broad search area. It has employed a sieve mapping technique using a GIS system over the East and West Midlands. This was used to identify sites with good rail access, close to motorway junctions and with very few environmental constraints.
- 10.2 The sites were then scored using a common scoring matrix, which was designed to identify the best performing potential rail freight sites. The scoring prioritised factors including proximity to motorways, access to high gauge rail lines, local access routes, site levels, shape, size and proximity to sensitive land uses.
- 10.3 Further sites not identified in the screening exercise but which have been suggested by local representation or short listed in other similar studies were included in the analysis and scored using the same matrix.
- 10.4 The scores achieved by each of the sites identified were then reviewed and the highest scoring sites selected for comparative analysis. This process was subjective and focussed around the topics identified as important in the scoring matrix. The comparative analysis not only assesses the locations in terms of SRFI operations and environmental impacts, but also concludes with an understanding of the possible role each site would perform in operating as a network of SRFI facilities as required by the NN NPS.
- 10.5 The assessment has demonstrated that, despite the large area of search, the development opportunities for SRFI proposals are limited. A total of 25 locations were identified as satisfying key SRFI characteristics as defined by the NN NPS. Of these, only five locations (20%) present realistic SRFI opportunities and were identified for further comparative analysis. Within this context, it is not surprising, therefore, that four of the five alternative sites assessed for further comparative analysis are the subject of on-going DCO applications for SRFI proposals and each has the potential to provide SRFI facilities.
- 10.6 Indeed, this in itself demonstrates the rigour of the assessment methodology and is a reflection of the East and West Midlands being a significant area of developer interest to deliver a network of SRFI to meet burgeoning demand. It is also reflective of the NN NPS which makes it clear that it is for the market to determine the viability of particular proposals. All shortlisted sites comprise greenfield and all would result in the loss of agricultural land with associated biodiversity effects. Comparison of environmental benefits is difficult due to the size and scale of SRFI development and the individual nature of each candidate site. Each give rise to environmental effects of similar scales, albeit with different effects across different disciplines and at different receptors. It is not the case that one site is clearly preferable to another, in terms of development effects. It is important to note that the delivery of a single additional SRFI will not meet the objectives of government policy nor does the NN NPS require applicants to

demonstrate that their sites are the best available alternatives. Indeed, where the NN NPS policy tests are met, it would be appropriate for all sites to come forward to fully respond to Government policy to assist in creating the network of SRFIs needed.

- 10.7 Overall, therefore, it is the conclusion of this assessment that there are very limited SRFI opportunities within the broad search area. Comparisons of environmental impacts are difficult, due to the contrasting scale of each site and the different impacts which arise as a result. None of the other sites, however, creates development opportunities with clear environmental, operational or market benefits equivalent to Rail Central.
- 10.8 Four of the five sites which present realistic development SRFI opportunities are the subject of developer interest and are being pursued through the DCO process. Three of these locations would serve different areas of the Midlands (and potentially beyond) and do not present realistic alternatives. They would, however, provide complementary facilities to Rail Central and expand the SRFI network as required by the NN NPS with the overriding objective of securing access to the rail network and fostering the transfer of freight from road to rail to support economic growth in an environmentally responsible manner.
- 10.9 The study concludes that there are two clear top performing sites – Rail Central and Northampton Gateway that would seek to serve broadly the same core catchment area. They score the same using the scoring matrix but there are differences in performance between these two sites which allow them to be distinguished.
- 10.10 Northampton Gateway has very good access to the strategic road network. However, whilst it is closer to the motorway than Rail Central, this in itself is not a major distinguishing factor between these two sites. Environmental impacts are comparable albeit each project results in different effects at different receptors. Rail Central does however, have the ability to directly connect to the WCML, as well as the NLL and this presents, along with its additional infrastructure, enhanced operational and technical advantages over Northampton Gateway which make it more resilient, flexible and more adaptable to the changing rail freight market.
- 10.11 On this basis, it is concluded that the Rail Central site is the better performing SRFI site. However, it is recognised that Northampton Gateway to be consented in addition to Rail Central. Northampton Gateway could also be complementary to Rail Central and, along with Rail Central, could contribute to the required network of SRFI's. This scenario with Northampton Gateway also being consented and delivered has therefore been the subject of cumulative impact assessment in the Rail Central ES.

Appendix 1: Plan 1 – Catchment Area

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Client:
Ashfield Land Management Limited and Gazeley GLP Northampton s.a.r.l.

Project:
Rail Central

Drawing:
Plan 1 - Catchment Area

Scale:
NTS@A3

Status:
Draft

Project Number:
ASHA3002

Drawing Number:
3002_101

Date:
22_11_2016

Revision:
1.2



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Appendix 2: Plan 2 – Motorway Junction Buffer

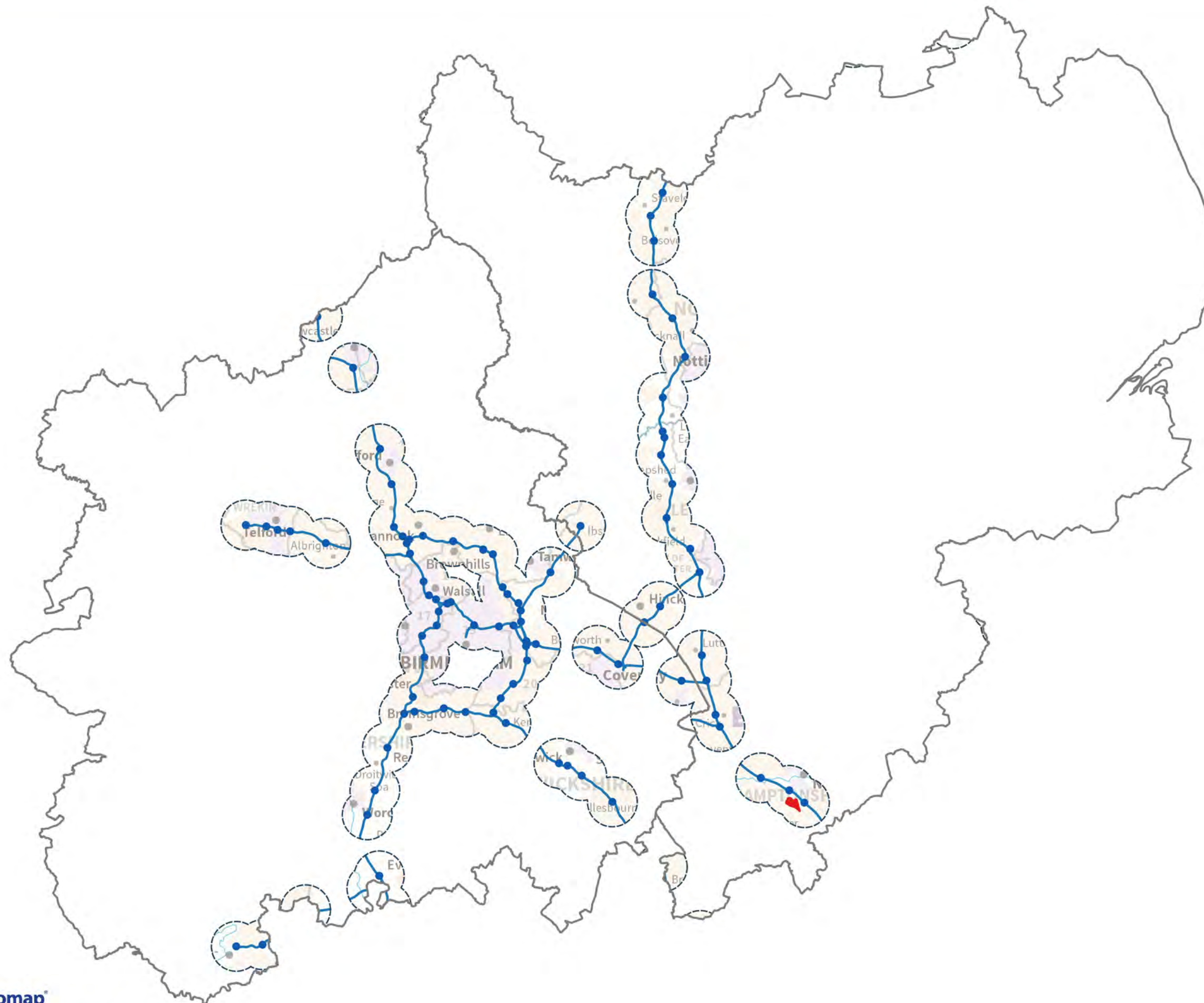
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- Rail Central Site
- Region
- Motorways (OS Open Data)
- Junctions
- 5k Buffer from Motorway Junction



Client:
**Ashfield Land Management Limited and
Gazeley GLP Northampton s.à.r.l.**

Project:
Rail Central

Drawing:
**Plan 2 - Areas within 5km of a Motorway
Junction**

Scale: **NTS@A3** Status: **Draft**

Project Number:
ASHA3002

Drawing Number:
3002_101

Date: **22_11_2016** Revision: **1.2**



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Appendix 3: Plan 3 – Railways within Motorway Junctions

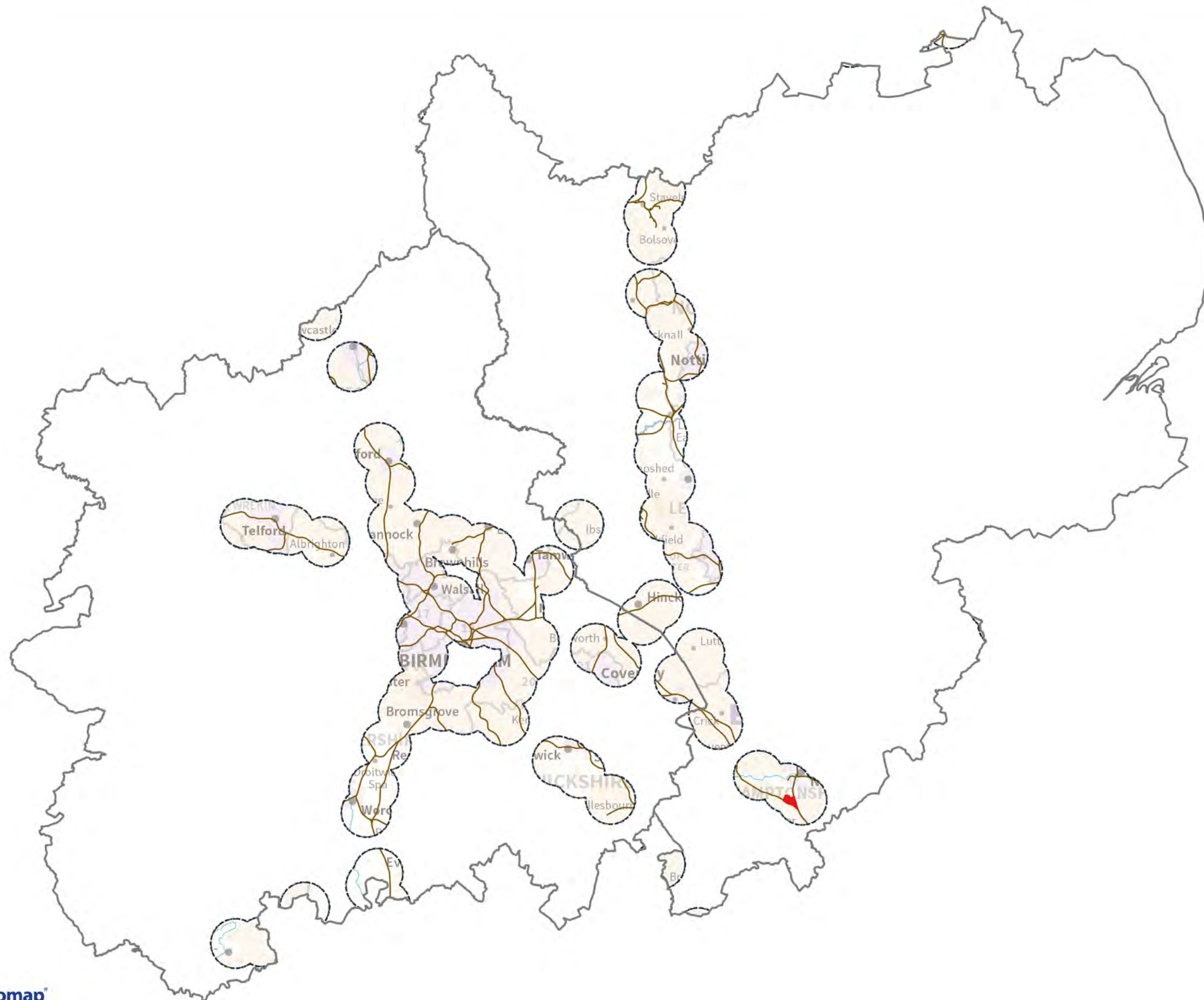
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-  Rail Central Site
-  Region
-  Railway
-  5k Buffer from Motorway Junction



Client:
Ashfield Land Management Limited and Gazeley GLP Northampton s.a.r.l.

Project:
Rail Central

Drawing:
Plan 3 Railway line overlay

Scale: **NTS@A3** Status: **Draft**

Project Number:
ASHA3002

Drawing Number:
3002_102

Date: **22_11_2016** Revision: **1.2**



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Appendix 4: Plan 4 – W8 Gauge Railways and Above

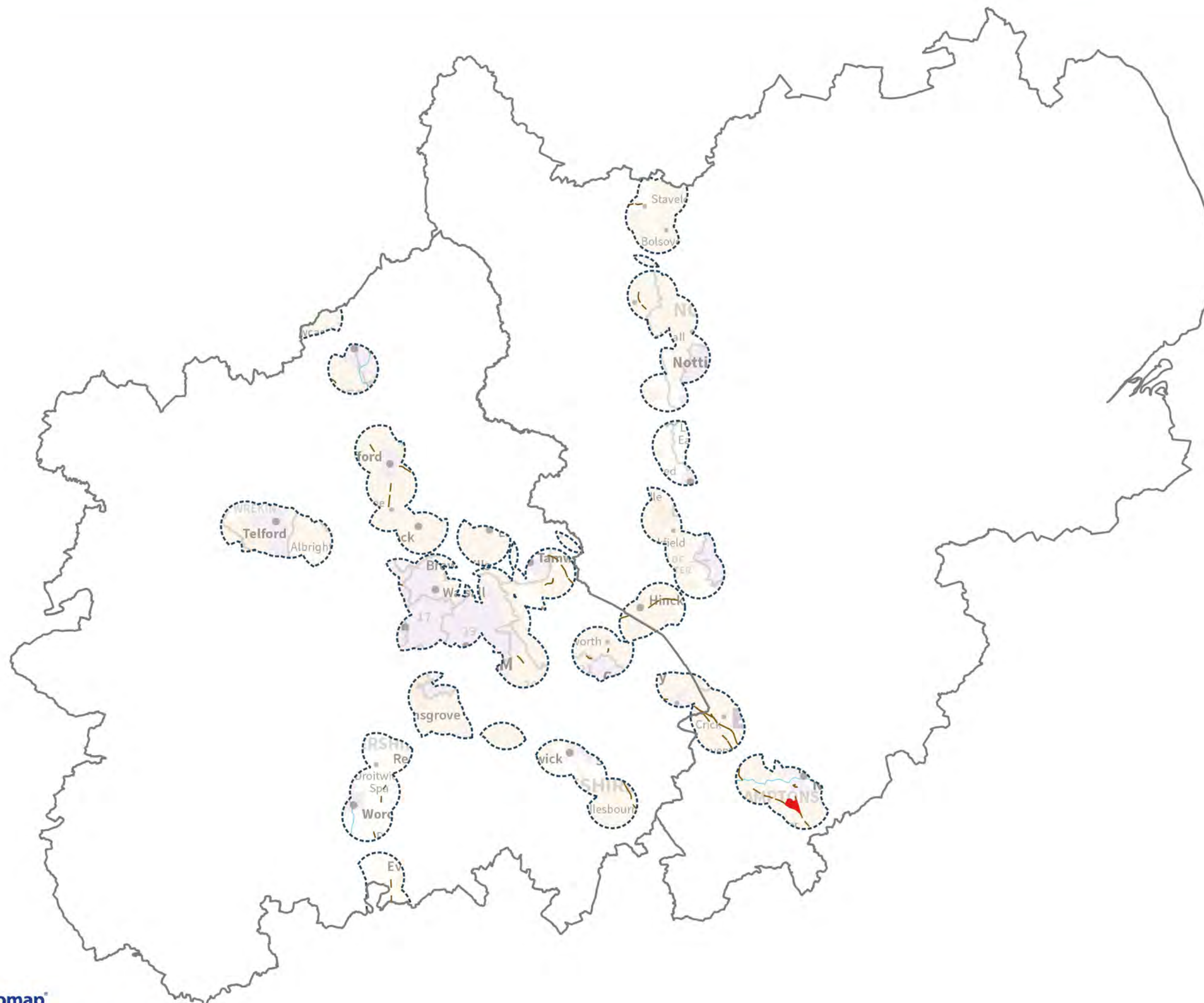
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-  Rail Central Site
-  Region
-  W8 / W10 / W12 Gauge
-  Area for Site Search



Client:
**Ashfield Land Management Limited and
Gazeley GLP Northampton s.à.r.l.**

Project:
Rail Central

Drawing:
Plan 4 - W8 Gauge and above

Scale: **NTS@A3** Status: **Draft**

Project Number:
ASHA3002

Drawing Number:
3002_104

Date: **22_11_2016** Revision: **1.3**



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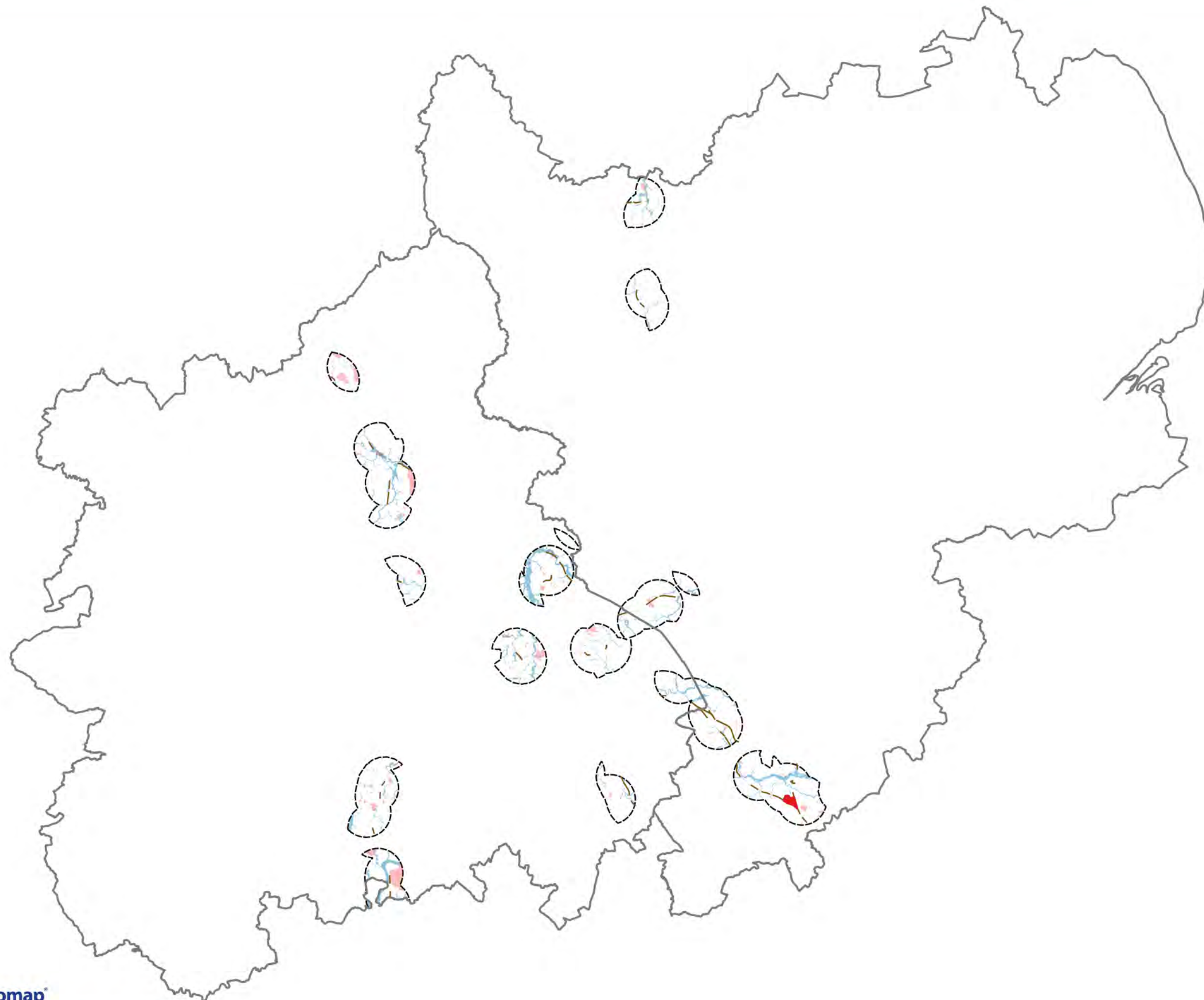
Appendix 5: Plan 5 – Key Environmental Designations








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-  Rail Central Site
-  Region
-  Flood Zone 2
-  Flood Zone 3
-  Key Environmental Designations
-  Search Area
-  Rail Gauge W8 and above / Greater than 795m

Client:
**Ashfield Land Management Limited and
Gazeley GLP Northampton s.à.r.l.**

Project:
Rail Central

Drawing:
Plan 5 - Key Environmental Designations

Scale:
NTS@A3

Status:
Draft

Project Number:
ASHA3002

Drawing Number:
3002_105

Date:
22_11_2016

Revision:
1.2



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

Appendix 6: Plan 6 – Excluding Environmental Designations

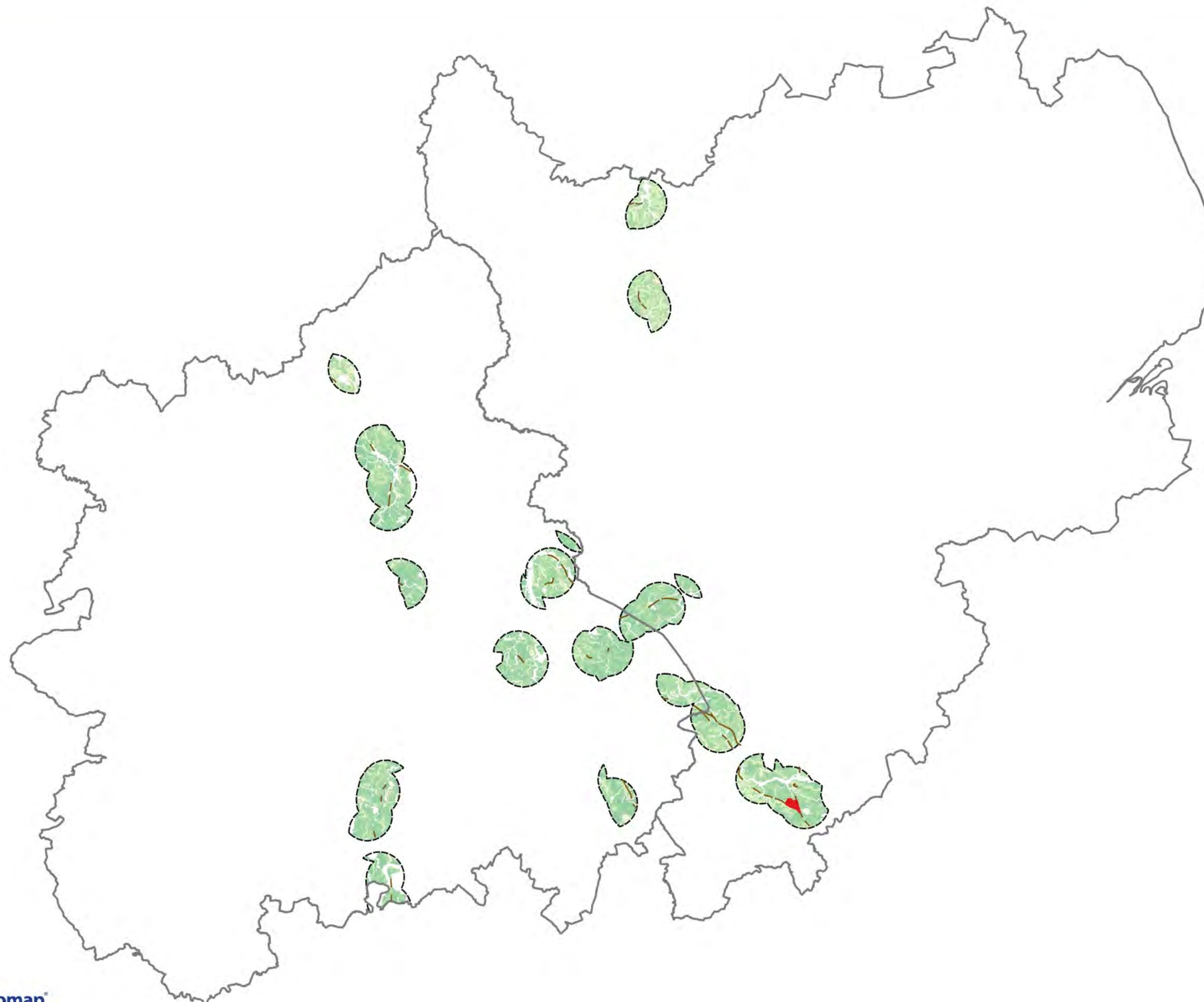
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-  Excluded Environmental Designations (White Areas)
-  Rail Central Site
-  Region
-  Search Area
-  Rail Gauge W8 and above / Greater than 795m



Client:
**Ashfield Land Management Limited and
Gazeley GLP Northampton s.à.r.l.**

Project:
Rail Central

Drawing:
**Plan 6 - Excluding Environmental
Designations**

Scale:
NTS@A3

Status:
Draft

Project Number:
ASHA3002

Drawing Number:
3002_106

Date:
22_11_2016

Revision:
1.1

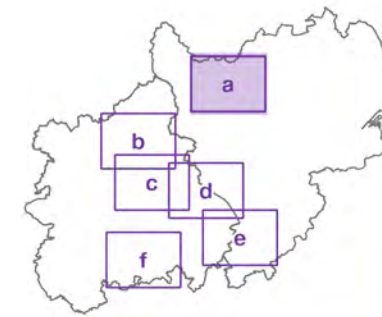
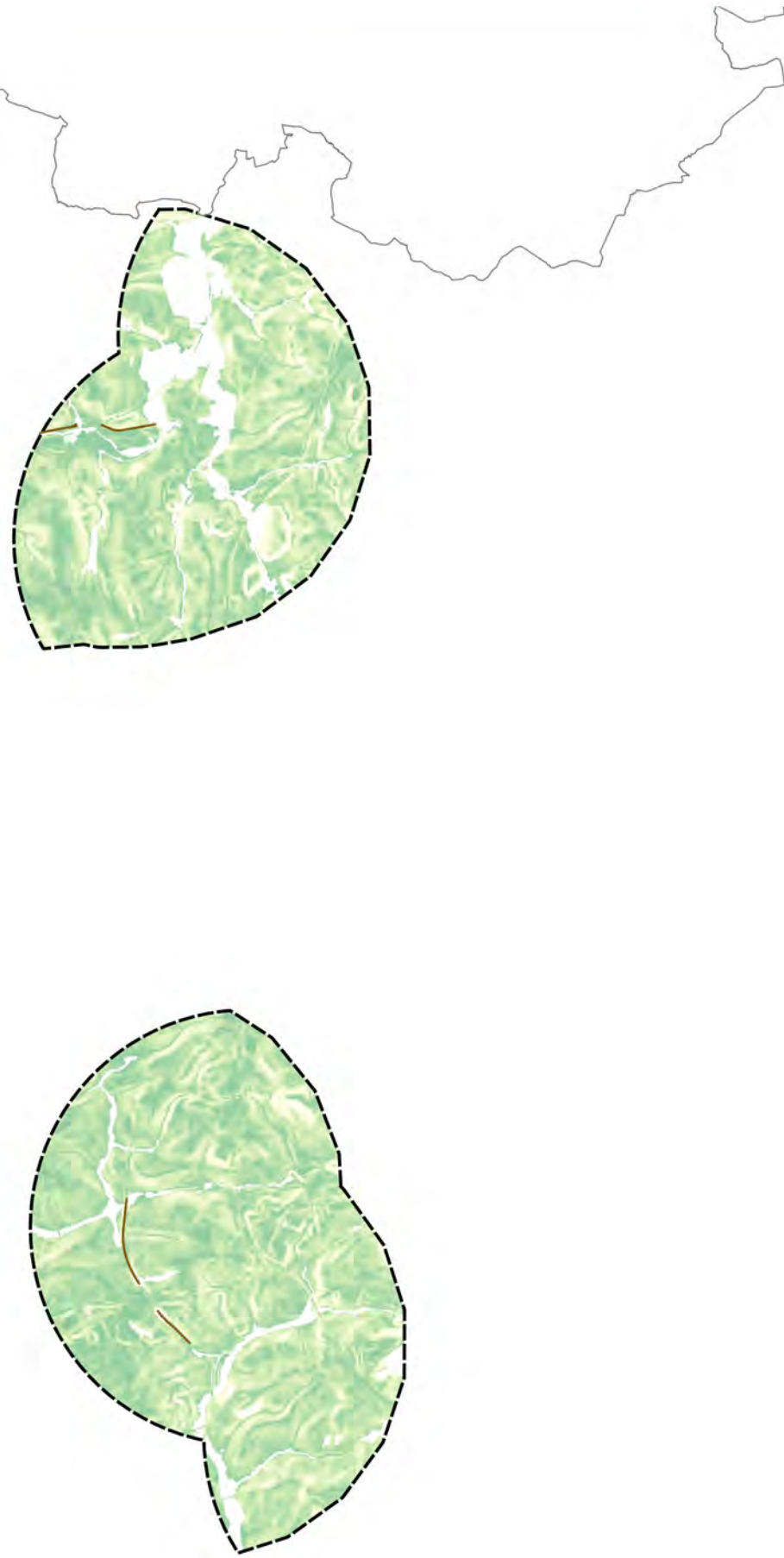
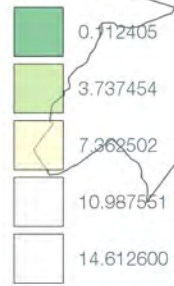


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**Appendix 7: Plans 6a – 6f – Excluding
Environmental Designations**

Slope



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-  Excluded Environmental Designations (White Areas)
-  Search Area
-  Region
-  Rail Gauge W8 and above / Greater than 795m

Client:
Ashfield Land Management Limited and Gazeley GLP Northampton s.à.r.l.

Project:
Rail Central

Drawing:
Plan 6a - Key Environmental Designations

Scale: **NTS@A3** Status: **Draft**

Project Number:
ASHA3002

Drawing Number:
3002_106

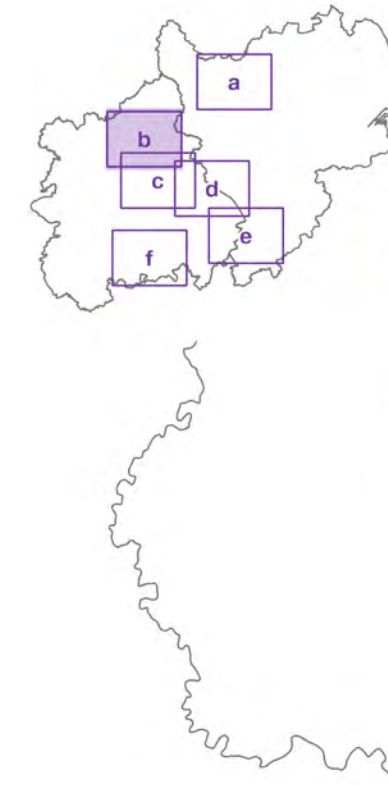
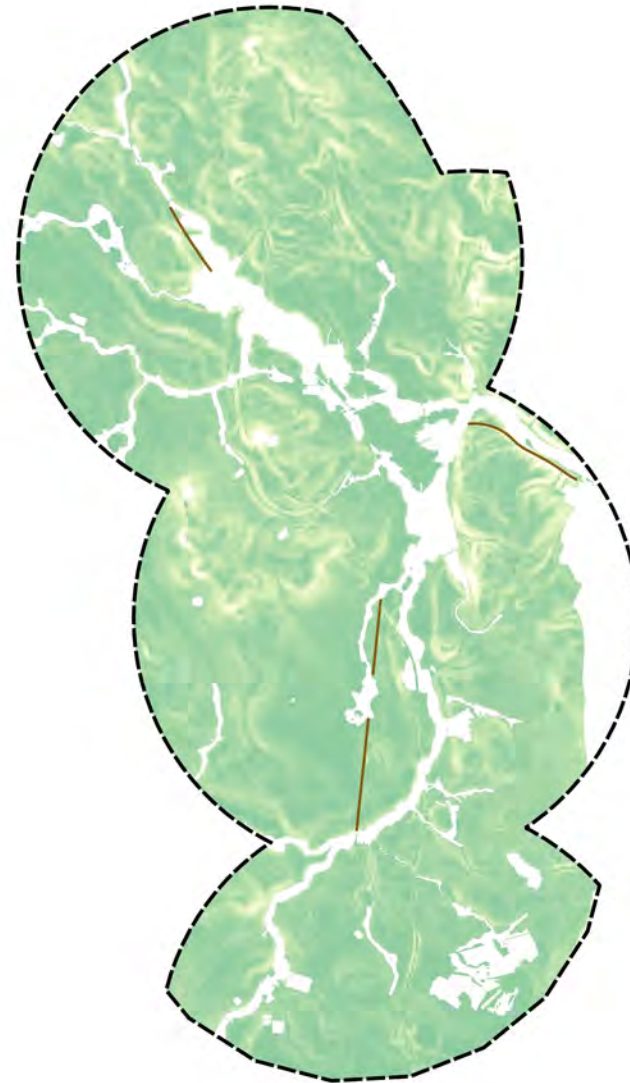
Date: **22_11_2016** Revision: **1.1**







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-  Excluded Environmental Designations (White Areas)
-  Search Area
-  Region
-  Rail Gauge W8 and above / Greater than 795m

Client:
Ashfield Land Management Limited and Gazeley GLP Northampton s.à.r.l.

Project:
Rail Central

Drawing:
Plan 6b - Key Environmental Designations

Scale: **NTS@A3** Status: **Draft**

Project Number:
ASHA3002

Drawing Number:
3002_106

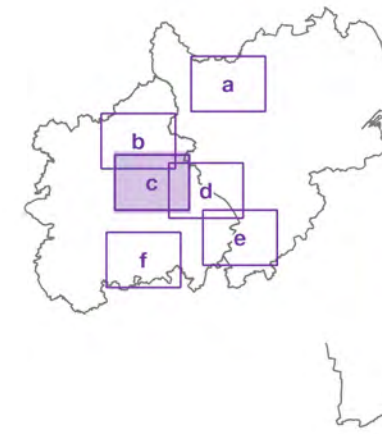
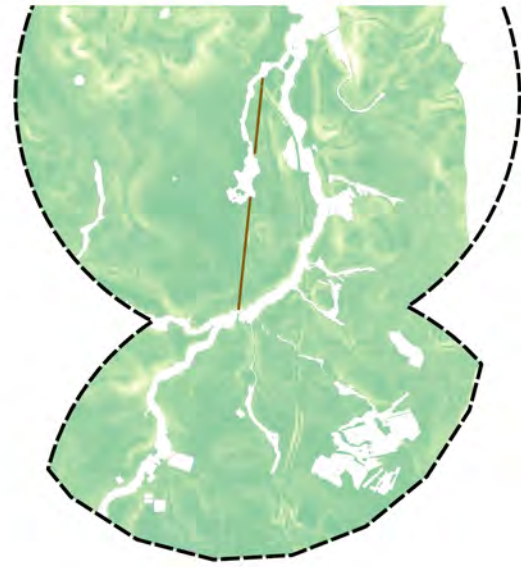
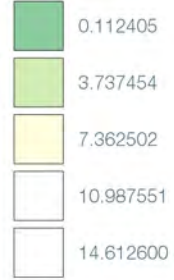
Date: **22_11_2016** Revision: **1.1**



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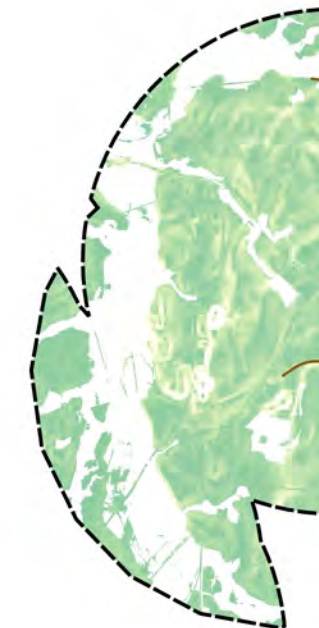


Slope



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- Excluded Environmental Designations (White Areas)
- Search Area
- Region
- Rail Gauge W8 and above / Greater than 795m



Client:
Ashfield Land Management Limited and Gazeley GLP Northampton s.à.r.l.

Project:
Rail Central

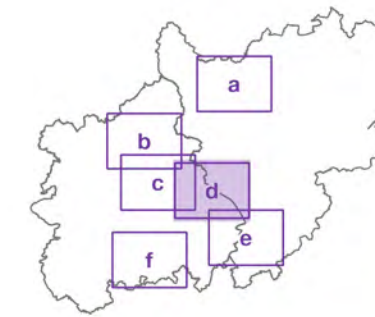
Drawing:
Plan 6c - Key Environmental Designations

Scale: **NTS@A3** Status: **Draft**

Project Number:
ASHA3002

Drawing Number:
3002_106

Date: **22_11_2016** Revision: **1.1**



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- Excluded Environmental Designations (White Areas)
- Search Area
- Region
- Rail Gauge W8 and above / Greater than 795m



Client:
Ashfield Land Management Limited and Gazeley GLP Northampton s.à.r.l.

Project:
Rail Central

Drawing:
Plan 6d - Key Environmental Designations

Scale: NTS@A3	Status: Draft
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Project Number:
ASHA3002

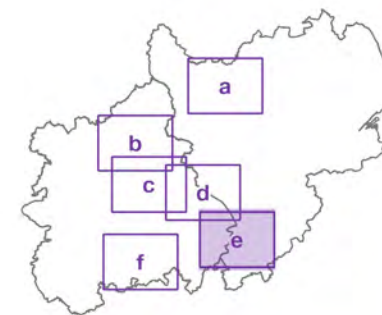
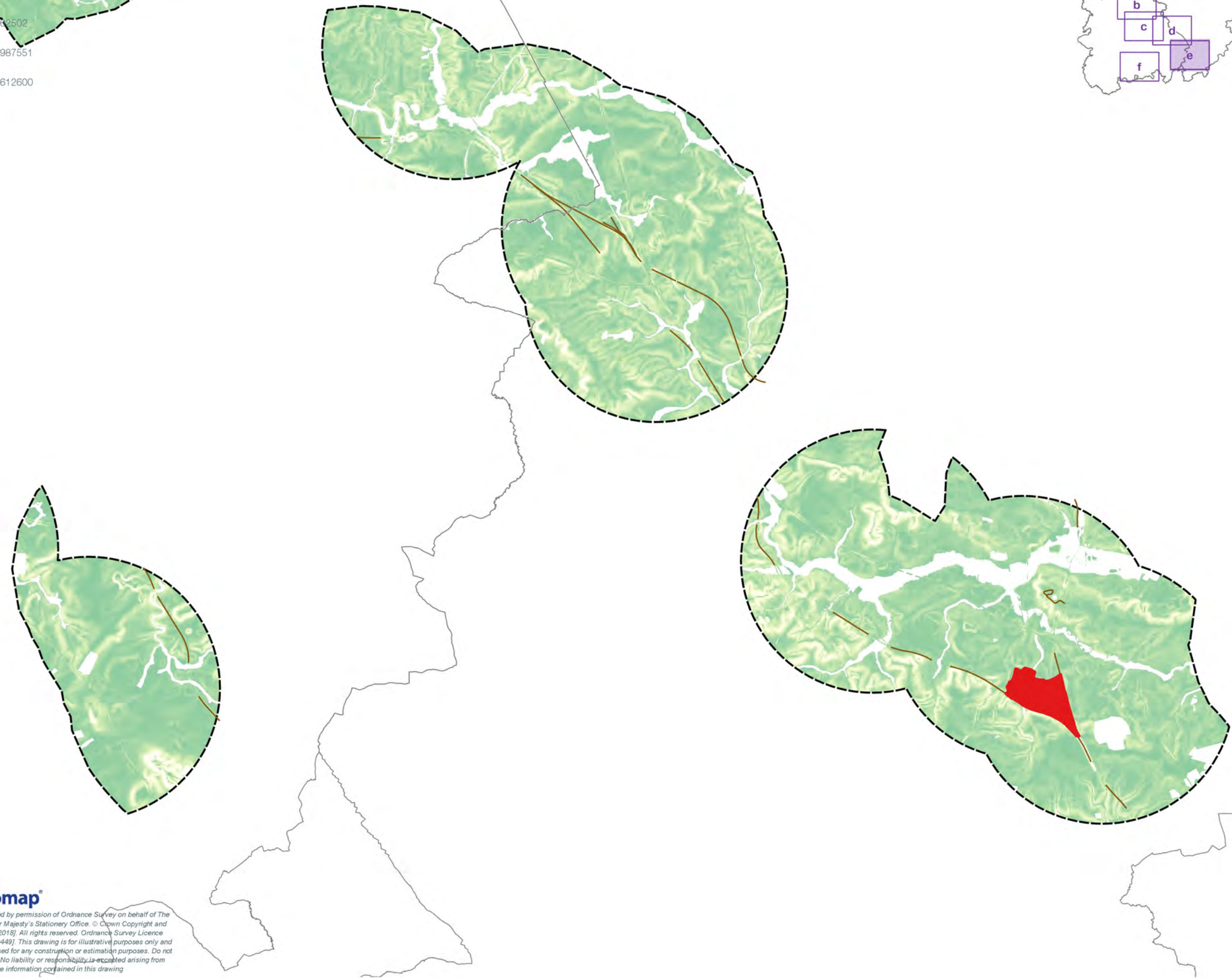
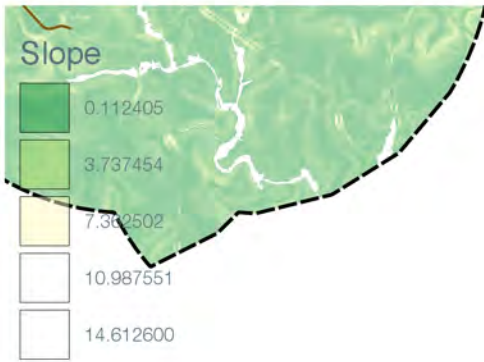
Drawing Number:
3002_106

Date: 22_11_2016	Revision: 1.1
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- Excluded Environmental Designations (White Areas)
- Search Area
- Rail Central Site
- Region
- Rail Gauge W8 and above / Greater than 795m

Client:
Ashfield Land Management Limited and Gazeley GLP Northampton s.a.r.l.

Project:
Rail Central

Drawing:
Plan 6e - Key Environmental Designations

Scale: **NTS@A3** Status: **Draft**

Project Number:
ASHA3002

Drawing Number:
3002_106

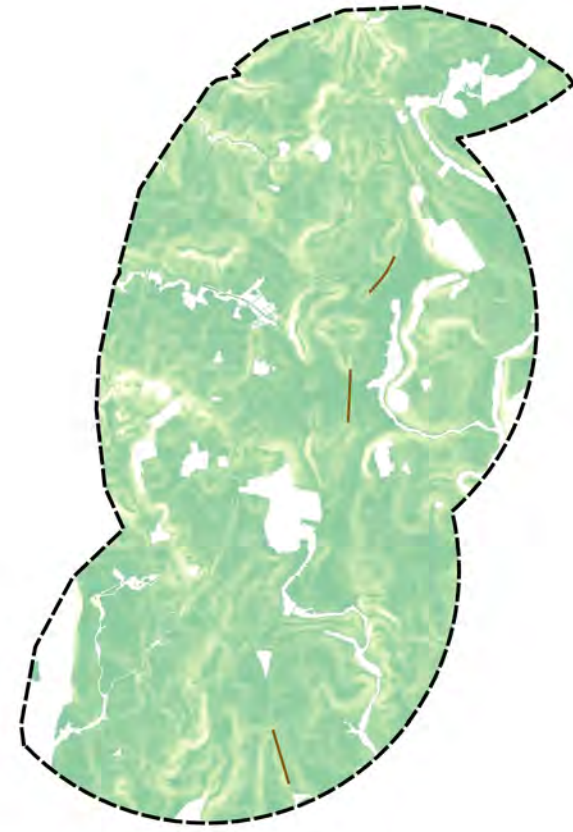
Date: **22_11_2016** Revision: **1.1**



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-  Excluded Environmental Designations (White Areas)
-  Search Area
-  Region
-  Rail Gauge W8 and above / Greater than 795m

Client:
Ashfield Land Management Limited and Gazeley GLP Northampton s.à.r.l.

Project:
Rail Central

Drawing:
Plan 6f - Key Environmental Designations

Scale: **NTS@A3** Status: **Draft**

Project Number:
ASHA3002

Drawing Number:
3002_106

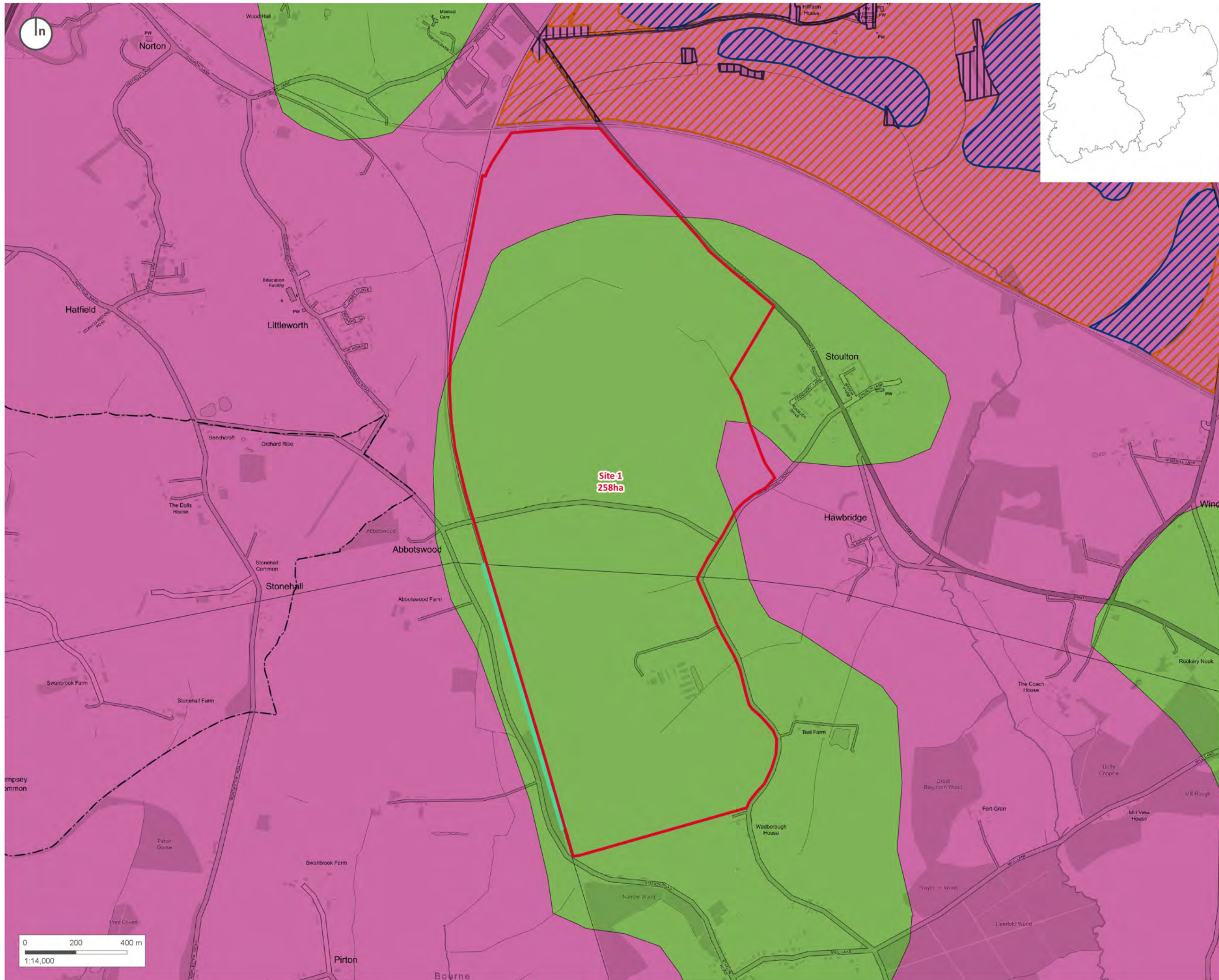
Date: **22_11_2016** Revision: **1.1**



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Appendix 8: Plans 7-1 to 7-25 Agricultural Land Classification



- Alternative Site
- Rail Gauge
- W8
- Background EA LIDAR (DSM)

- ALC
- Grade 2
- Grade 3
- ALC- sub
- Grade 3a
- Grade 3b
- Other

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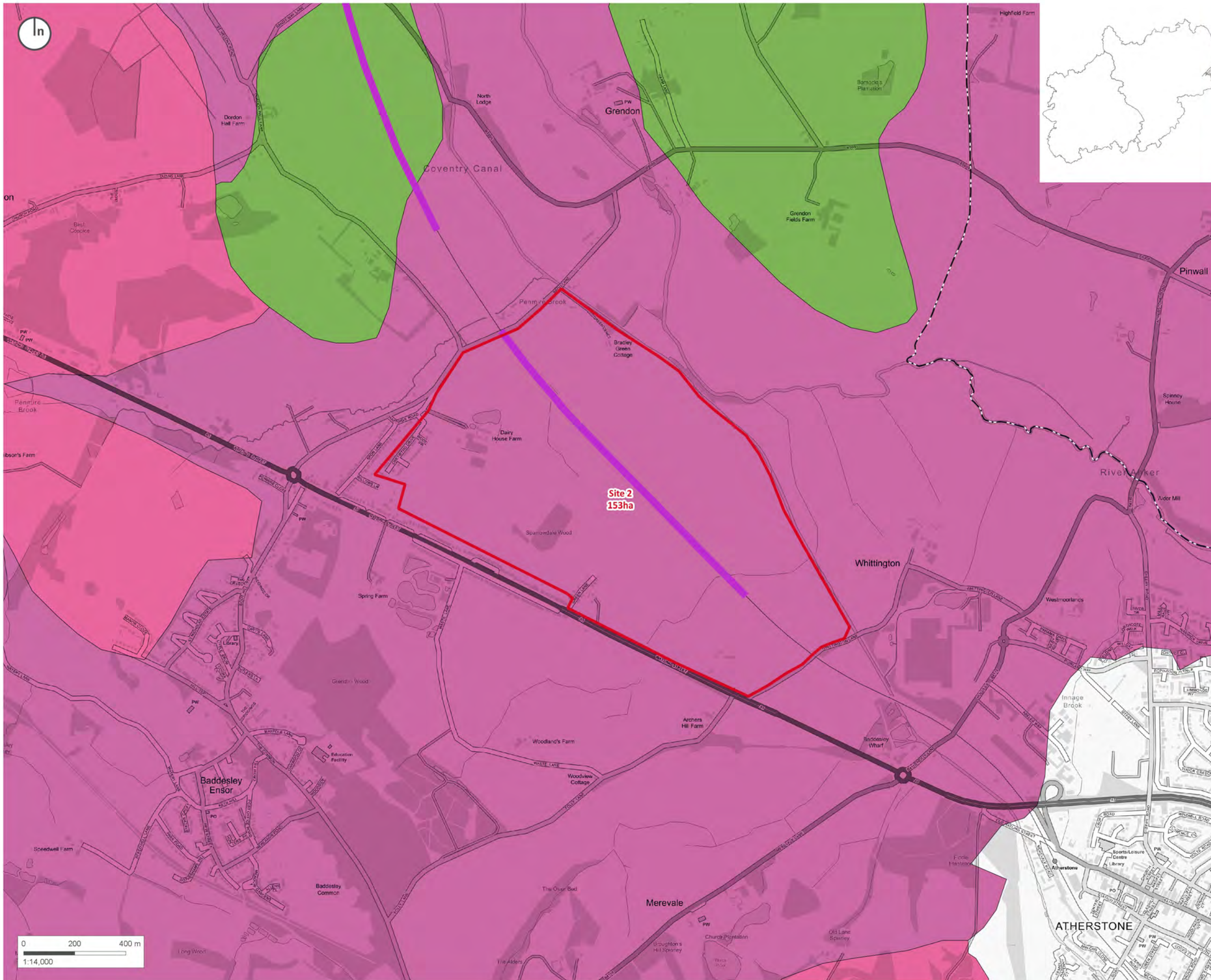
Project:
Rail Central, Northamptonshire

Document:
Environmental Statement

Title:
Alternative Sites Red Line (ALC) - Site 1 Wadborough Park Farm, near Stoulton, Worcestershire Site Area - 258ha

Figure No.
3002_108_(ALC) Plan 7-1

Revision:	Author:
1.2	MS
Date:	Scale:
March 2018	As shown (A3)



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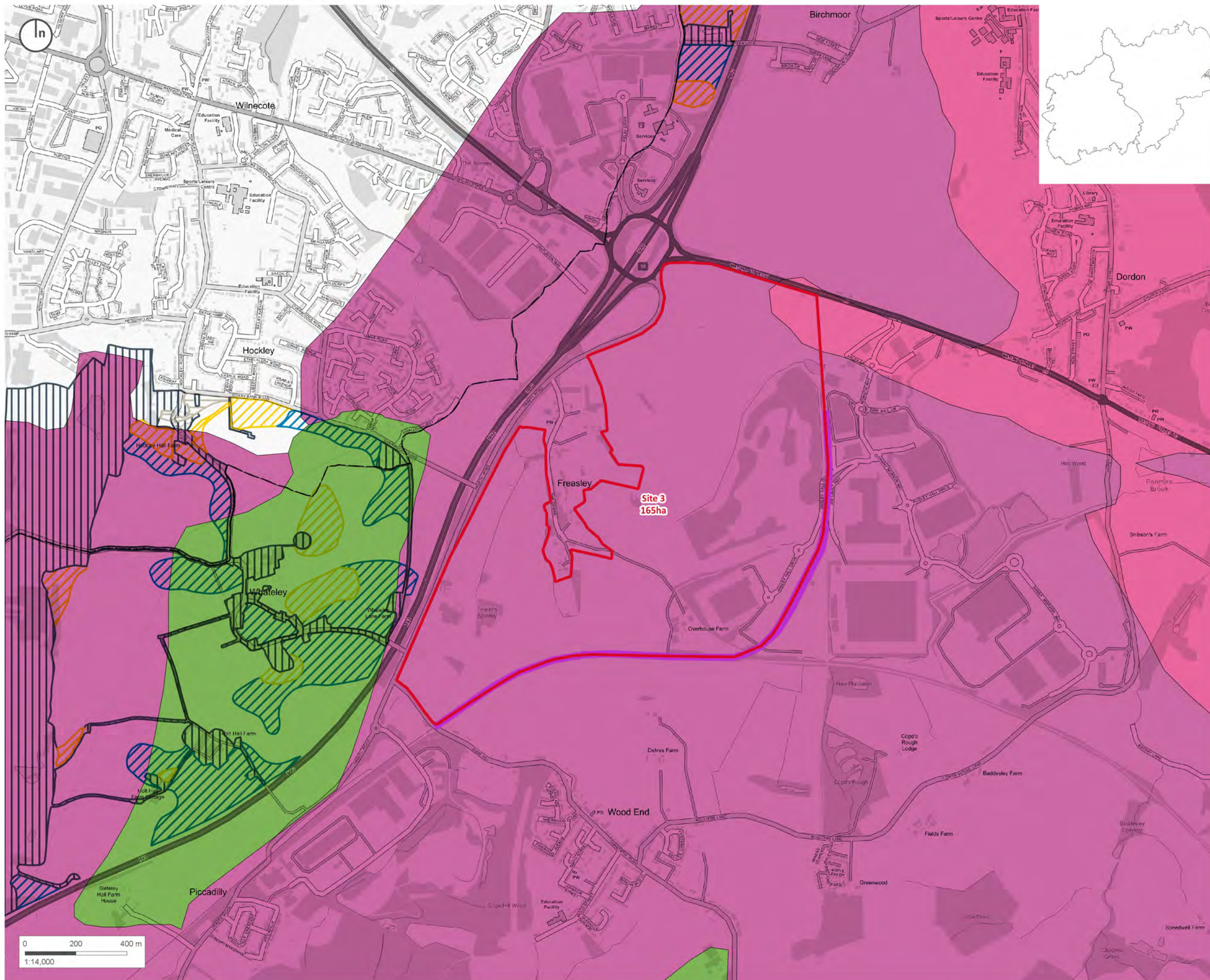
Project:
Rail Central, Northamptonshire

Document:
Environmental Statement

Title:
Alternative Sites Red Line (ALC) - Site 2 Dairy House Farm, Grendon, near Tamworth Site Area - 153ha

Figure No.
3002_108_(ALC) Plan 7-2

Revision: 1.2	Author: MS
Date: March 2018	Scale: As shown (A3)



- Alternative Site
- Rail Gauge
- W10
- Background EA LIDAR (DSM)

- ALC
- Grade 2
- Grade 3
- Grade 4
- Urban
- ALC- sub
- Grade 3a
- Grade 3b
- Not Surveyed
- Other

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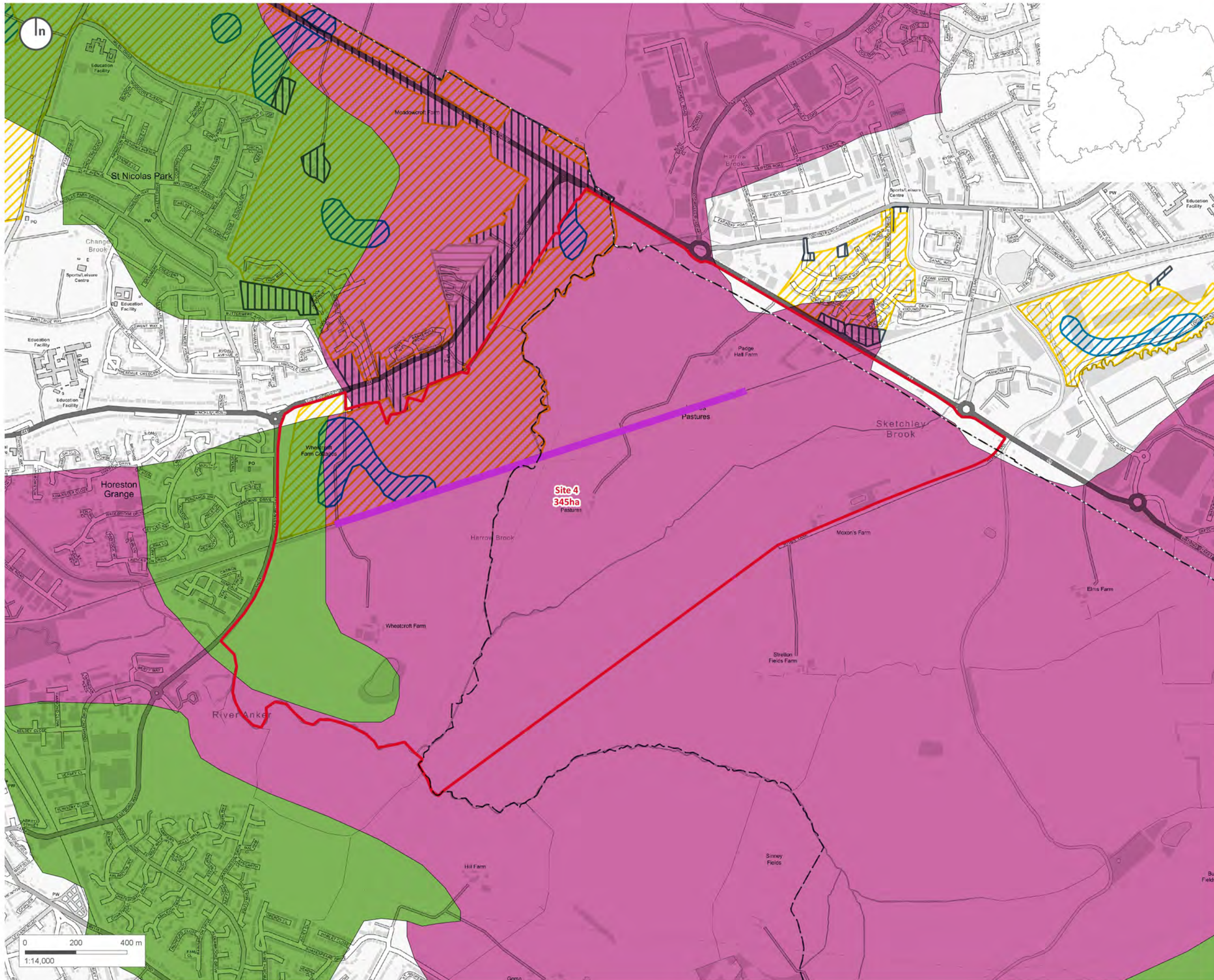
Project:
Rail Central, Northamptonshire

Document:
Environmental Statement

Title:
**Alternative Sites Red Line (ALC) - Site 3 Land adjacent to Birch Coppice, near Tamworth
 Site Area - 165ha**

Figure No.
3002_108_(ALC) Plan 7-3

Revision:	Author:
1.2	MS
Date:	Scale:
March 2018	As shown (A3)



- Alternative Site
- Rail Gauge
- W10
- Background EA LIDAR (DSM)

- ALC
- Grade 2
- Grade 3
- Urban
- ALC- sub
- Grade 3a
- Grade 3b
- Not Surveyed
- Other

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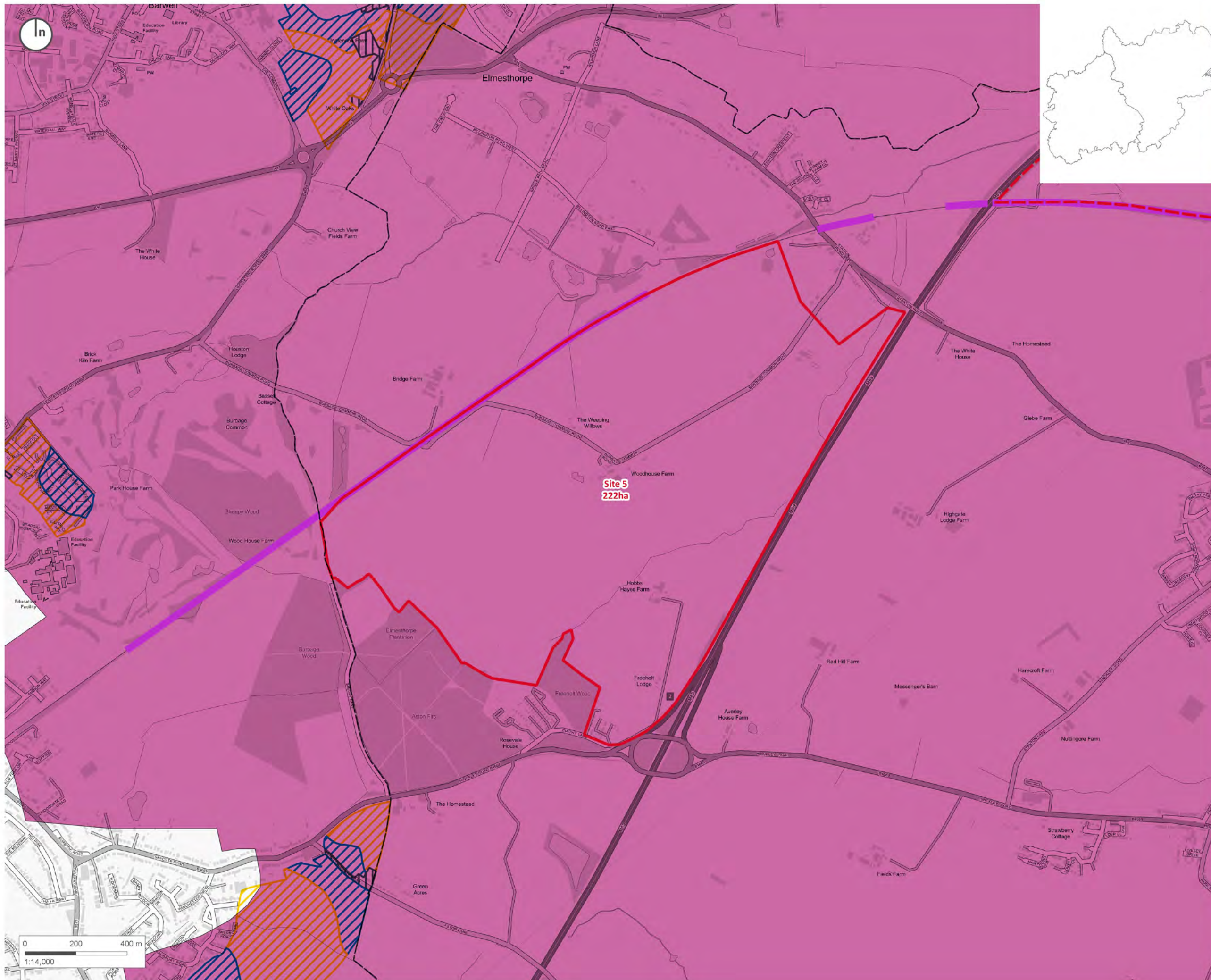
Project:
Rail Central, Northamptonshire

Document:
Environmental Statement






Title:
Alternative Sites Red Line (ALC) - Site 4 Land between Hinckley and Nuneaton Site Area - 345ha

Figure No.
3002_108_(ALC) Plan 7-4

Revision:	Author:
1.2	MS
Date:	Scale:
March 2018	As shown (A3)



-  Alternative Site
-  Other Alternative Sites
-  Rail Gauge
-  W10
-  Background EA LIDAR (DSM)

- ALC
-  Grade 3
-  Urban
- ALC- sub
-  Grade 3a
-  Grade 3b
-  Other

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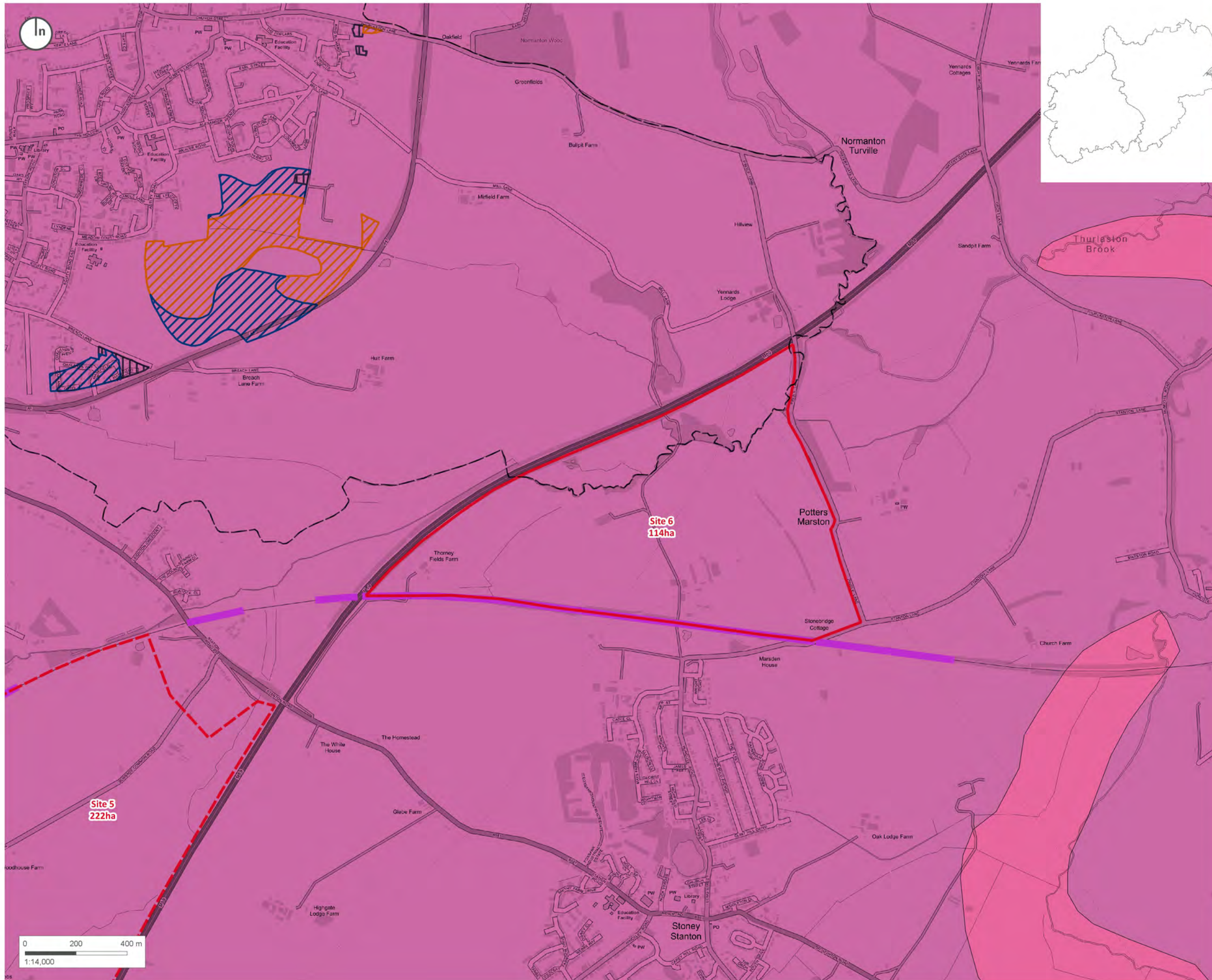
Project:
Rail Central, Northamptonshire

Document:
Environmental Statement






Title:
Alternative Sites Red Line (ALC) - Site 5 Land at Burbage Common, Hinckley Site Area - 222ha

Figure No.
3002_108_(ALC) Plan 7-5

Revision:	Author:
1.2	MS
Date:	Scale:
March 2018	As shown (A3)



-  Alternative Site
-  Other Alternative Sites
-  Rail Gauge
-  W10
-  Background EA LIDAR (DSM)

- ALC
-  Grade 3
 -  Grade 4
- ALC- sub
-  Grade 3a
 -  Grade 3b
 -  Other

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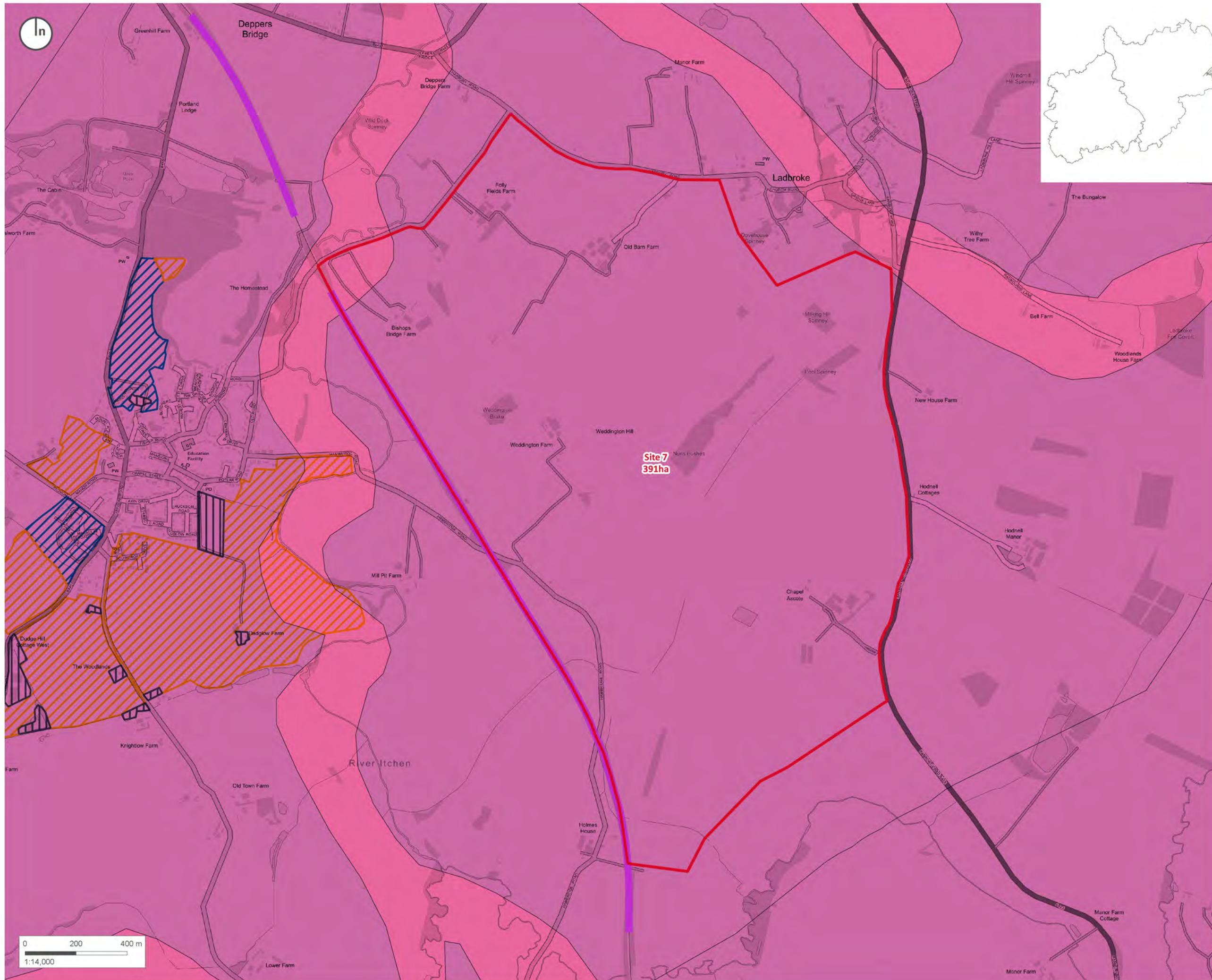
Project:
Rail Central, Northamptonshire

Document:
Environmental Statement

Title:
Alternative Sites Red Line (ALC) - Site 6 Land at Potters Marston Site Area - 114ha

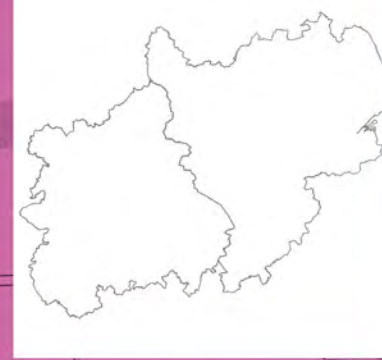
Figure No.
3002_108_(ALC) Plan 7-6

Revision:	Author:
1.2	MS
Date:	Scale:
March 2018	As shown (A3)



Alternative Site
 Rail Gauge
 W10
 Background EA LIDAR (DSM)

ALC
 Grade 3
 Grade 4
 ALC- sub
 Grade 3a
 Grade 3b
 Other



Site 7
391ha

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Project:
Rail Central, Northamptonshire

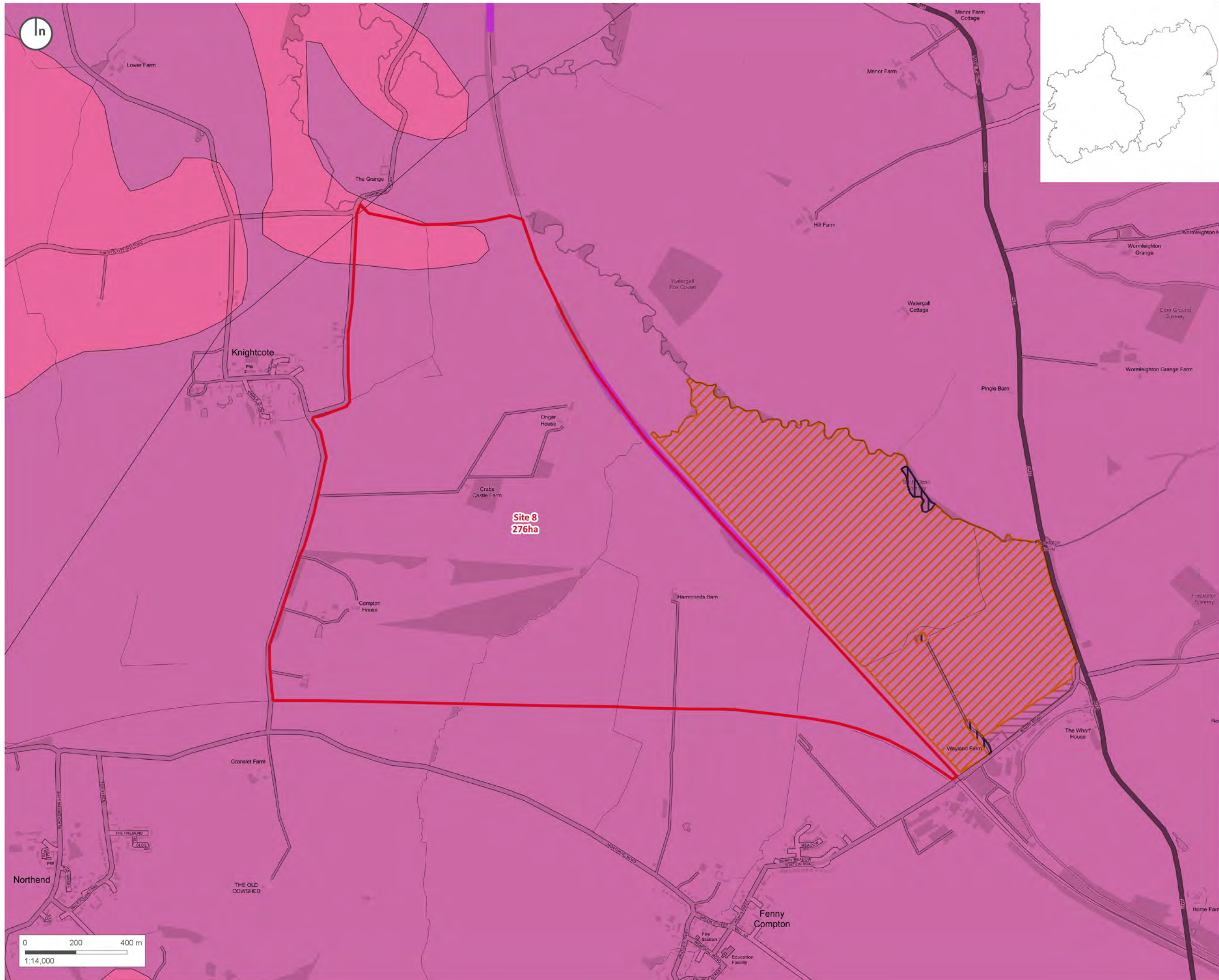
Document:
Environmental Statement

Title:
Alternative Sites Red Line (ALC) - Site 7 Land between Ladbroke and Bishops Itchington Site Area - 391ha






Figure No.
3002_108_(ALC) Plan 7-7

Revision:	Author:
1.2	MS
Date:	Scale:
March 2018	As shown (A3)

0 200 400 m
 1:14,000



-  Alternative Site
-  Rail Gauge
-  W10
-  Background EA LIDAR (DSM)

- ALC
-  Grade 3
-  Grade 4
- ALC- sub
-  Grade 3b
-  Not Surveyed
-  Other

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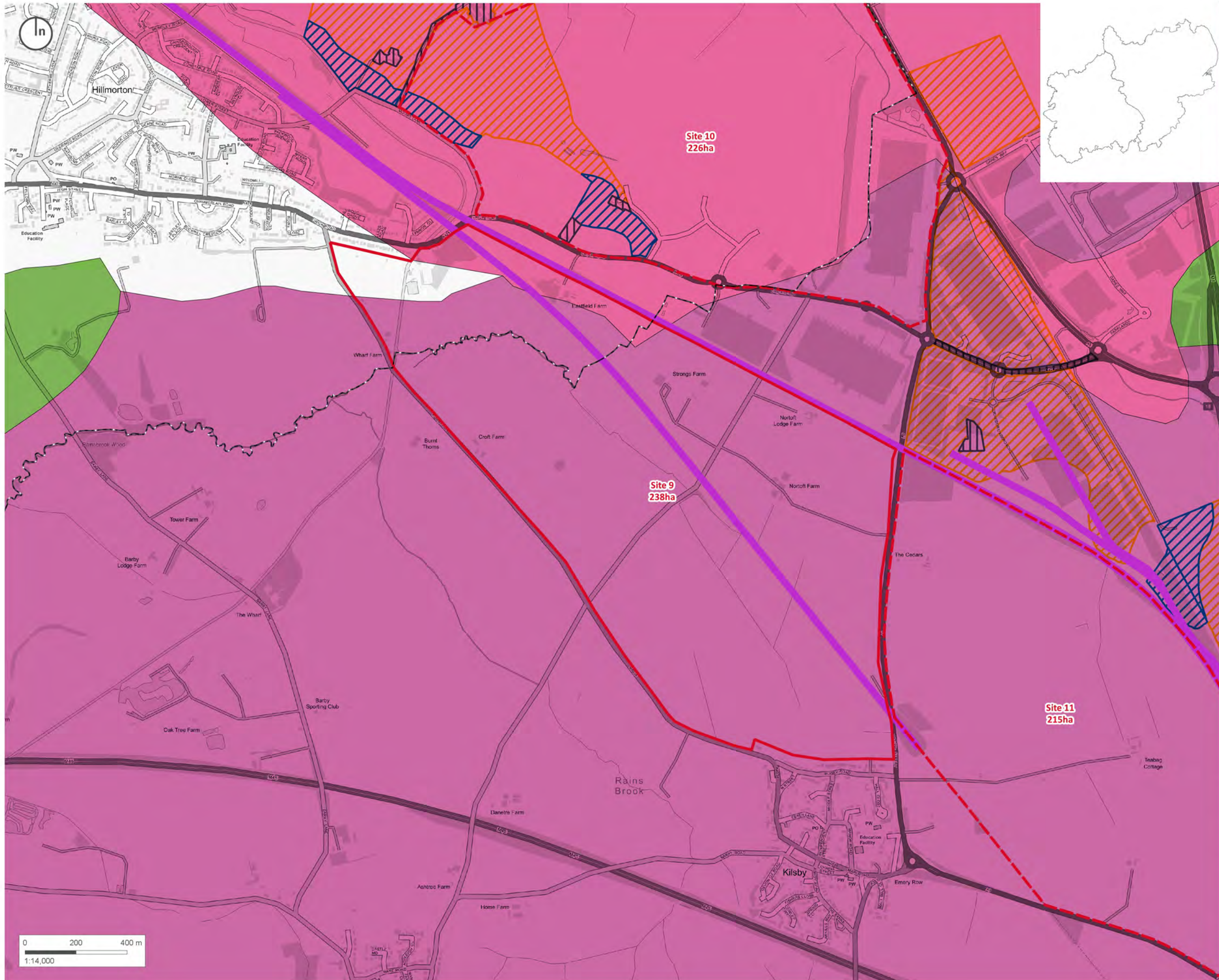
Project:
Rail Central, Northamptonshire

Document:
Environmental Statement

Title:
Alternative Sites Red Line (ALC) - Site 8 Land between Knightcote and Fenny Compton Site Area - 276ha

Figure No.
3002_108_(ALC) Plan 7-8

Revision:	Author:
1.2	MS
Date:	Scale:
March 2018	As shown (A3)



- Alternative Site
- Other Alternative Sites
- Rail Gauge
- W10
- Background EA LIDAR (DSM)

- ALC
- Grade 2
 - Grade 3
 - Grade 4
 - Urban
- ALC- sub
- Grade 3a
 - Grade 3b
 - Other

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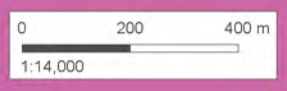
Project:
Rail Central, Northamptonshire

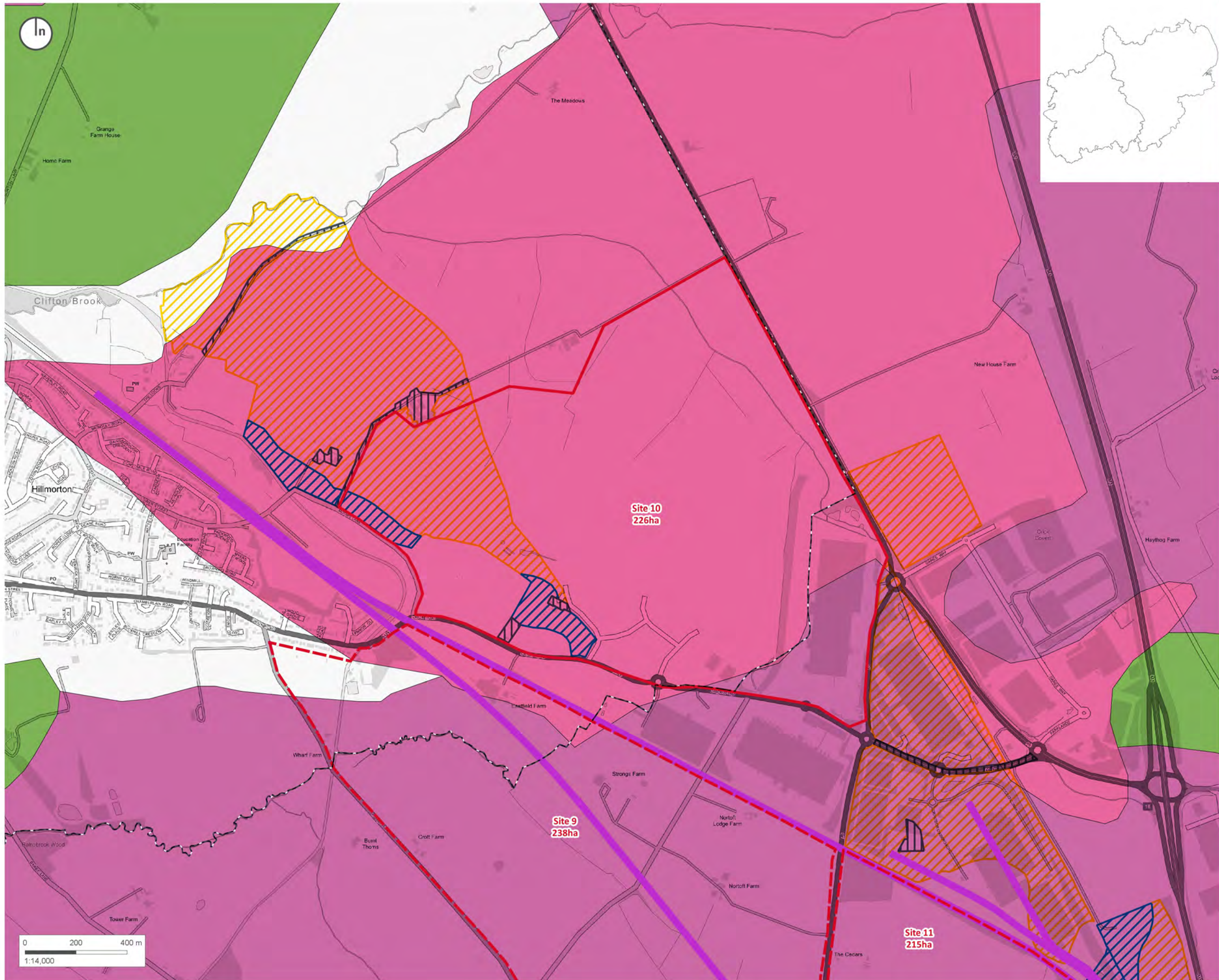
Document:
Environmental Statement

Title:
Alternative Sites Red Line (ALC) - Site 9 Kilsby North Site Area - 238ha

Figure No.
3002_108_(ALC) Plan 7-9

Revision:	Author:
1.2	MS
Date:	Scale:
March 2018	As shown (A3)





- Alternative Site
- Other Alternative Sites
- Rail Gauge
- W10
- Background EA LIDAR (DSM)

- ALC
- Grade 2
- Grade 3
- Grade 4
- Urban
- ALC- sub
- Grade 3a
- Grade 3b
- Other

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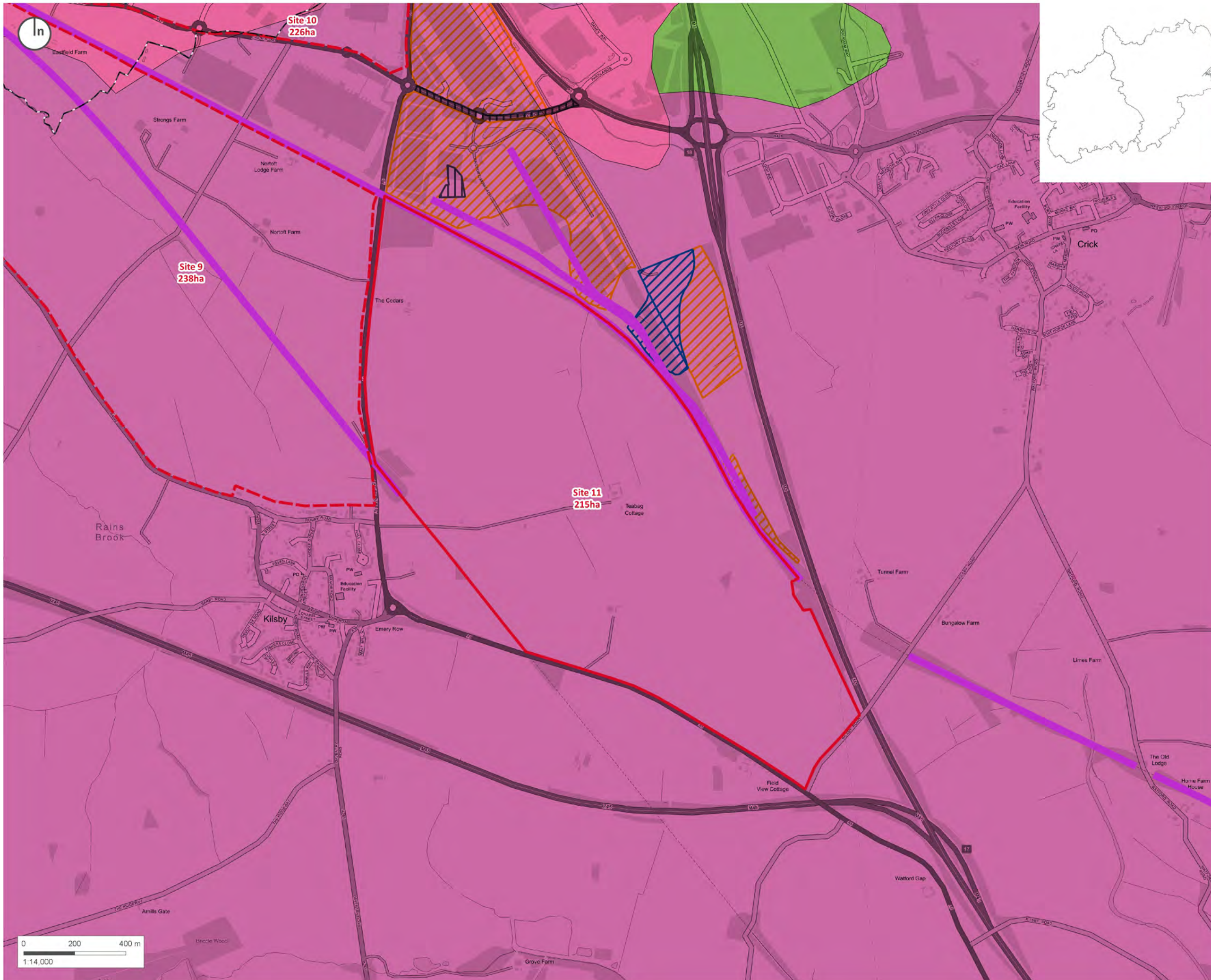
Project:
Rail Central, Northamptonshire

Document:
Environmental Statement

Title:
Alternative Sites Red Line (ALC) - Site 10 Part of Rugby Radio Station West Site Area - 226ha

Figure No.
3002_108_(ALC) Plan 7-10

Revision: 1.2	Author: MS
Date: March 2018	Scale: As shown (A3)



Alternative Site
 Other Alternative Sites
 Rail Gauge
 W10
 Background EA LIDAR (DSM)

ALC
 Grade 2
 Grade 3
 Grade 4
 ALC- sub
 Grade 3a
 Grade 3b
 Other

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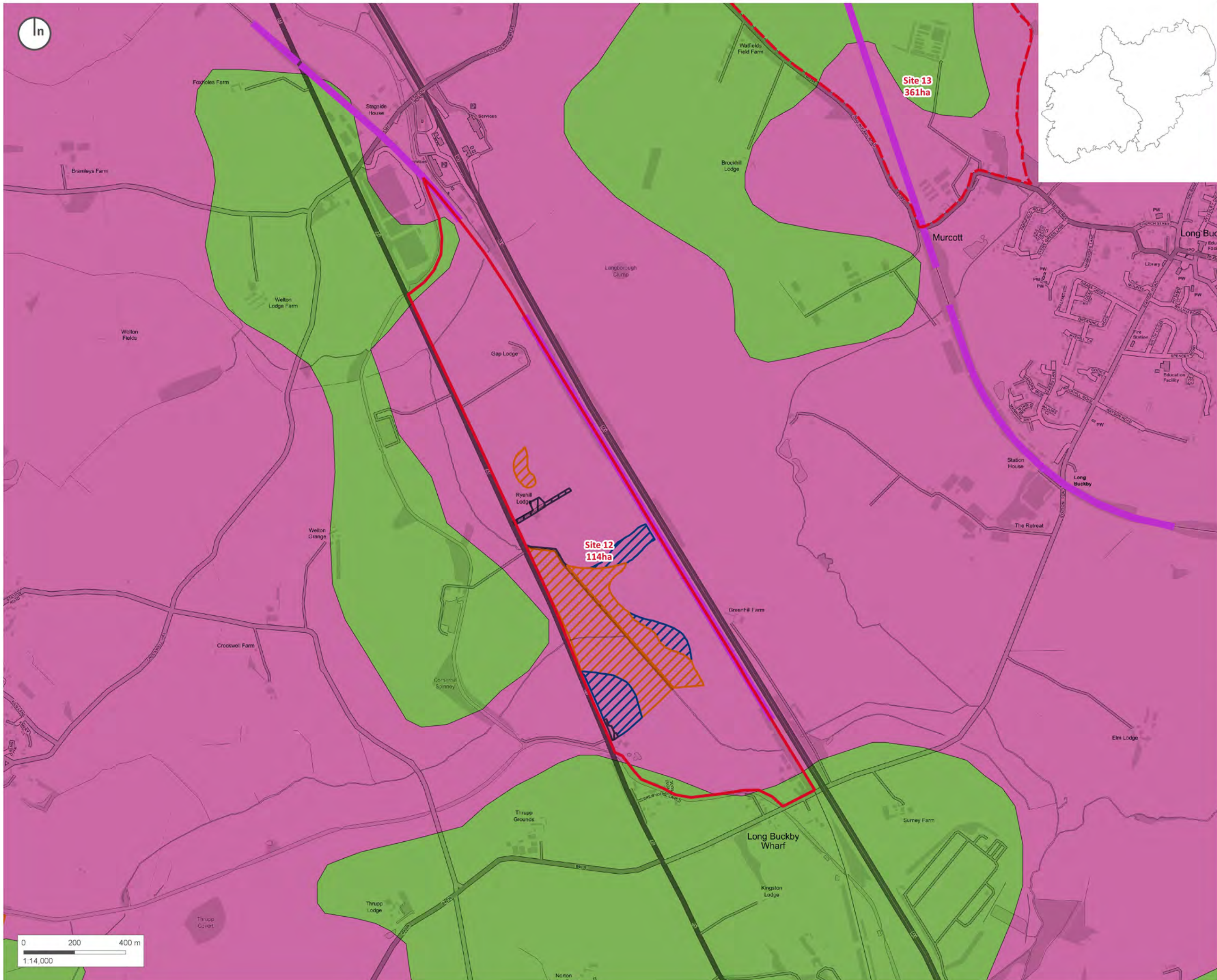
Project:
Rail Central, Northamptonshire

Document:
Environmental Statement

Title:
Alternative Sites Red Line (ALC) - Site 11 Kilsby East Site Area - 215ha

Figure No.
3002_108_(ALC) Plan 7-11

Revision:	Author:
1.2	MS
Date:	Scale:
March 2018	As shown (A3)



- Alternative Site
- Other Alternative Sites
- Rail Gauge
- W10
- Background EA LIDAR (DSM)

- ALC
- Grade 2
- Grade 3
- ALC- sub
- Grade 3a
- Grade 3b
- Other

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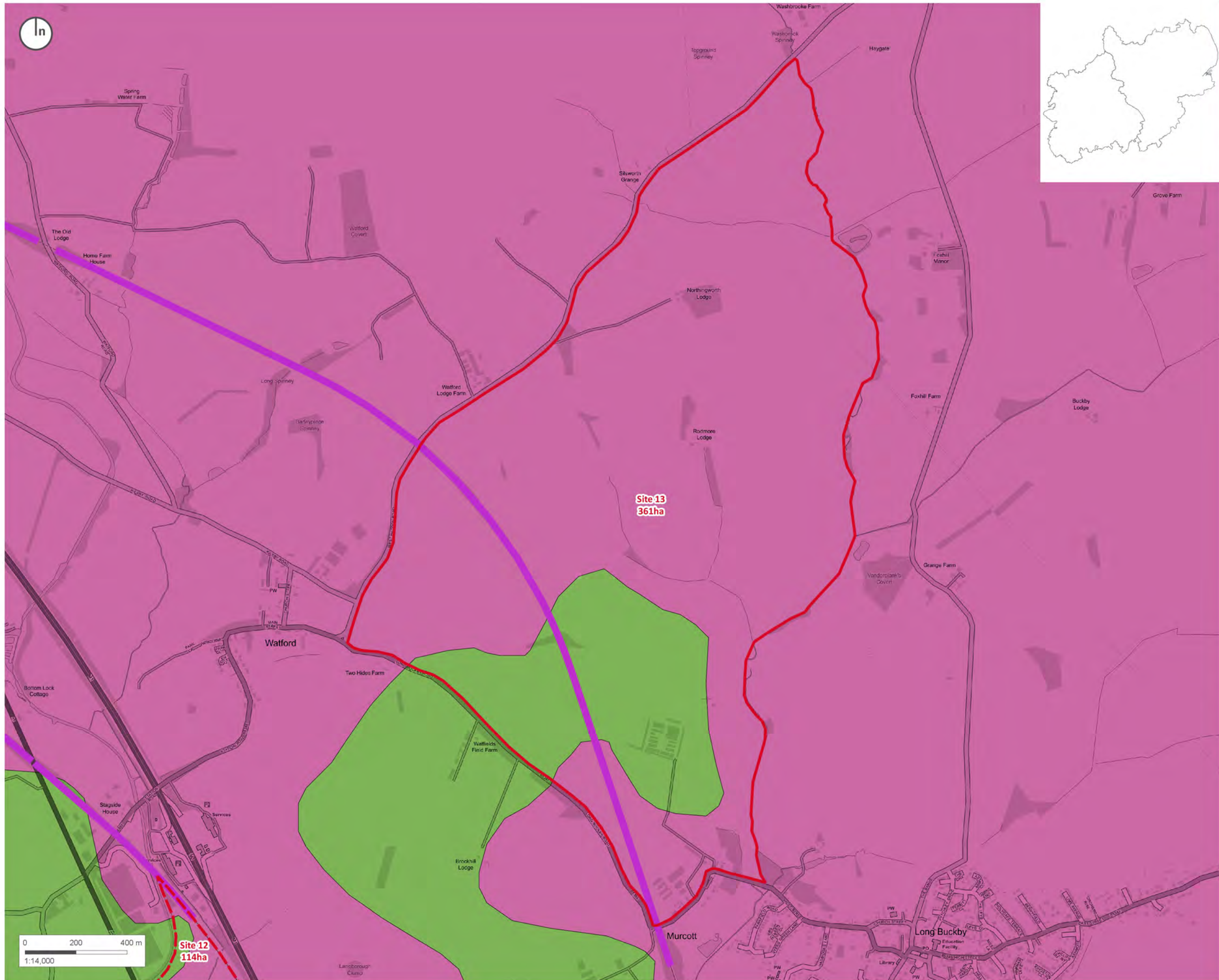
Project:
Rail Central, Northamptonshire

Document:
Environmental Statement

Title:
Alternative Sites Red Line (ALC) - Site 12 Land North of Long Buckby Wharfe Site Area - 114ha

Figure No.
3002_108_(ALC) Plan 7-12

Revision:	Author:
1.2	MS
Date:	Scale:
March 2018	As shown (A3)



- Alternative Site
- Other Alternative Sites
- Rail Gauge
- W10
- Background EA LIDAR (DSM)

- ALC
- Grade 2
 - Grade 3

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Project:
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Document:
Environmental Statement

Title:
Alternative Sites Red Line (ALC) - Site 13 Land to the North East of Long Buckby Site Area - 361ha

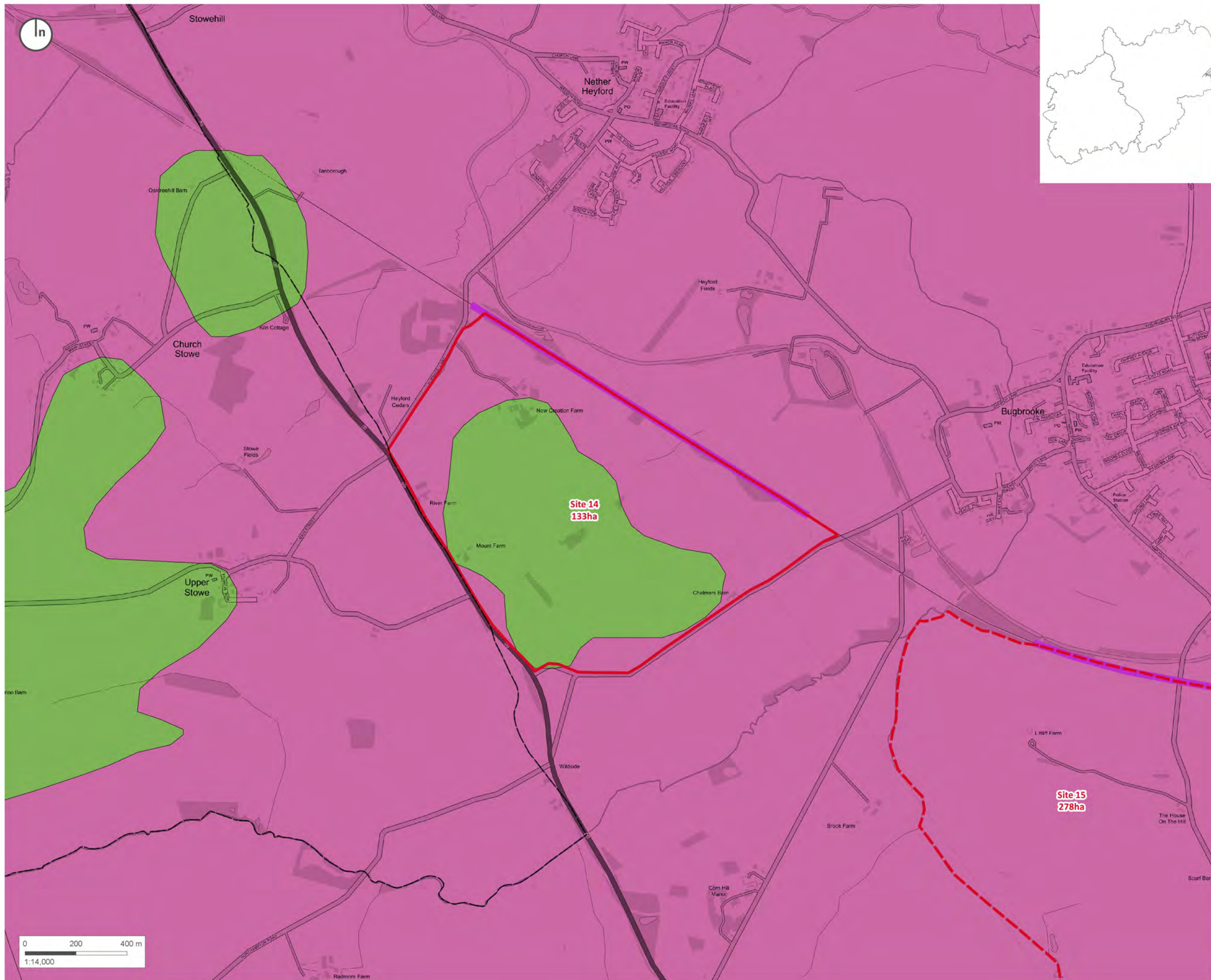
Figure No.
3002_108_(ALC) Plan 7-13

Revision: 1.2	Author: MS
Date: March 2018	Scale: As shown (A3)

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Site 12
114ha

Site 13
361ha



- Alternative Site
- Other Alternative Sites
- Rail Gauge
- W10
- Background EA LIDAR (DSM)

- ALC
- Grade 2
 - Grade 3

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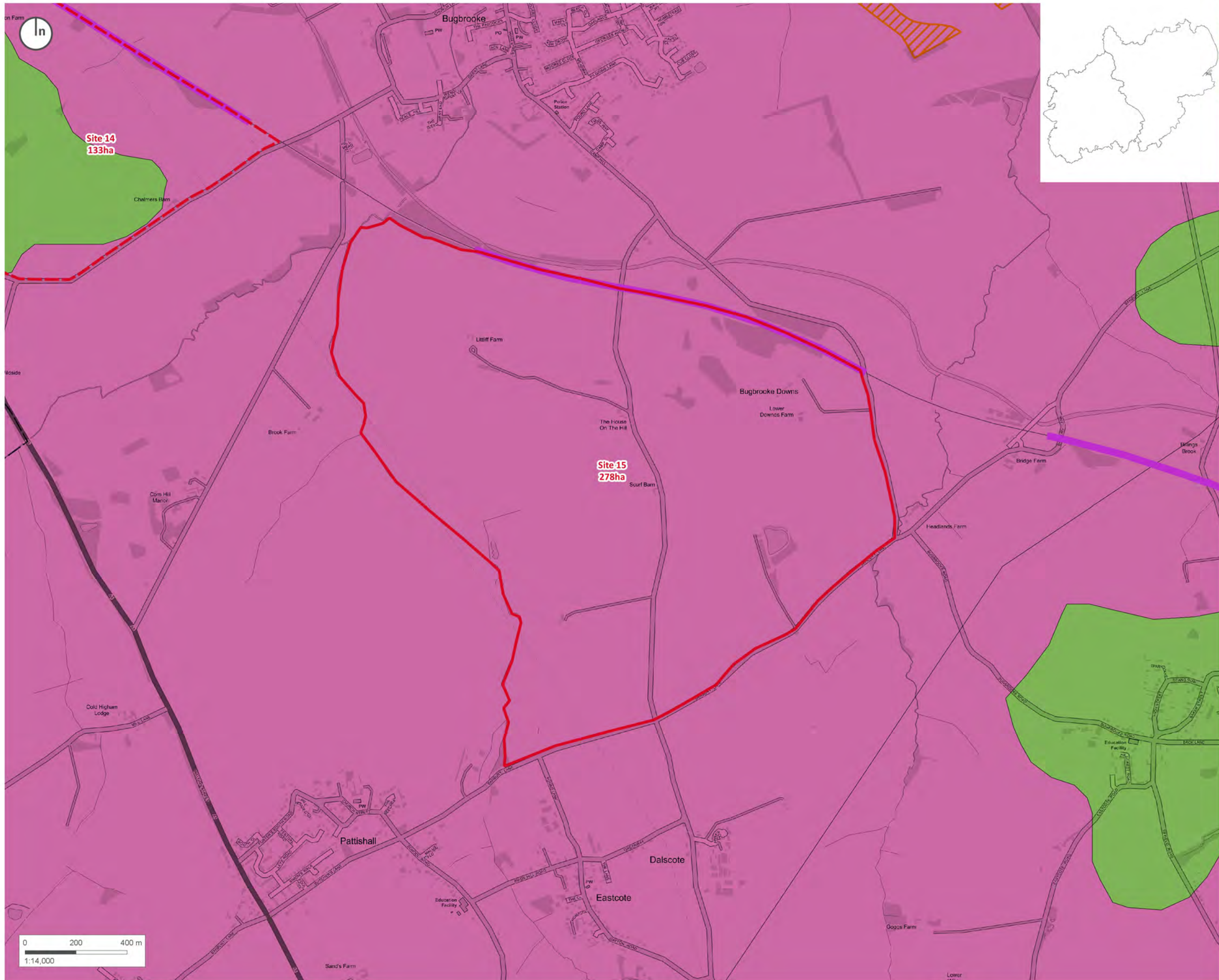
Project:
Rail Central, Northamptonshire

Document:
Environmental Statement

Title:
Alternative Sites Red Line (ALC) - Site 14 Land to the West of Bugbrooke and South of Nether Heyford Site Area - 133ha

Figure No.
3002_108_(ALC) Plan 7-14

Revision:	Author:
1.2	MS
Date:	Scale:
March 2018	As shown (A3)



-  Alternative Site
-  Other Alternative Sites
-  Rail Gauge
-  W10
-  Background EA LIDAR (DSM)

- ALC
-  Grade 2
-  Grade 3
- ALC- sub
-  Grade 3a
-  Grade 3b

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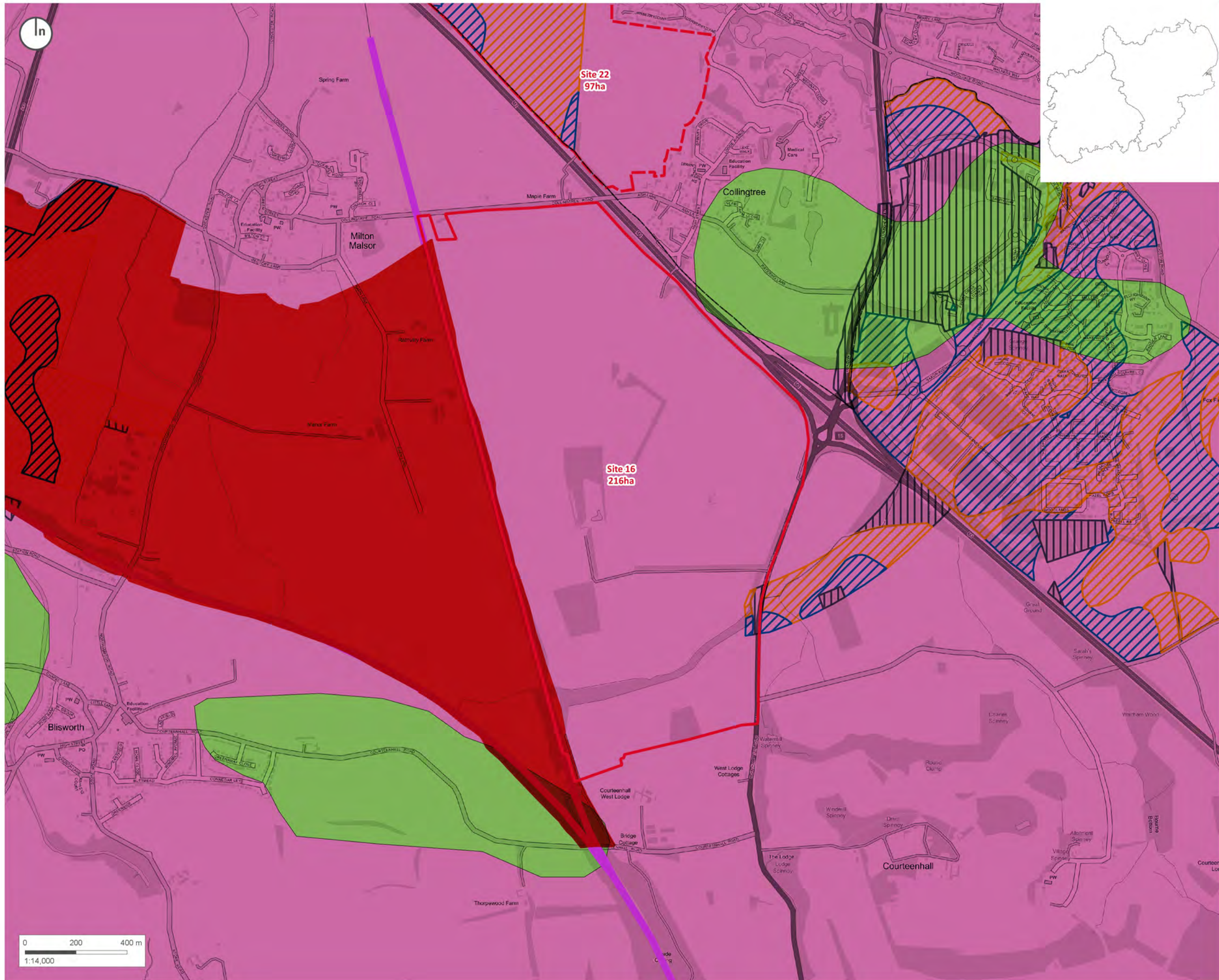
Project:
Rail Central, Northamptonshire

Document:
Environmental Statement

Title:
Alternative Sites Red Line (ALC) - Site 15 Land South of Bugbrooke Site Area - 278ha

Figure No.
3002_108_(ALC) Plan 7-15

Revision:	Author:
1.2	MS
Date:	Scale:
March 2018	As shown (A3)



- Alternative Site
- Other Alternative Sites
- Rail Central Site
- Rail Gauge
- W10
- Background EA LIDAR (DSM)

- ALC
- Grade 2
 - Grade 3
- ALC- sub
- Grade 3a
 - Grade 3b
 - Other

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Project:
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Document:
Environmental Statement

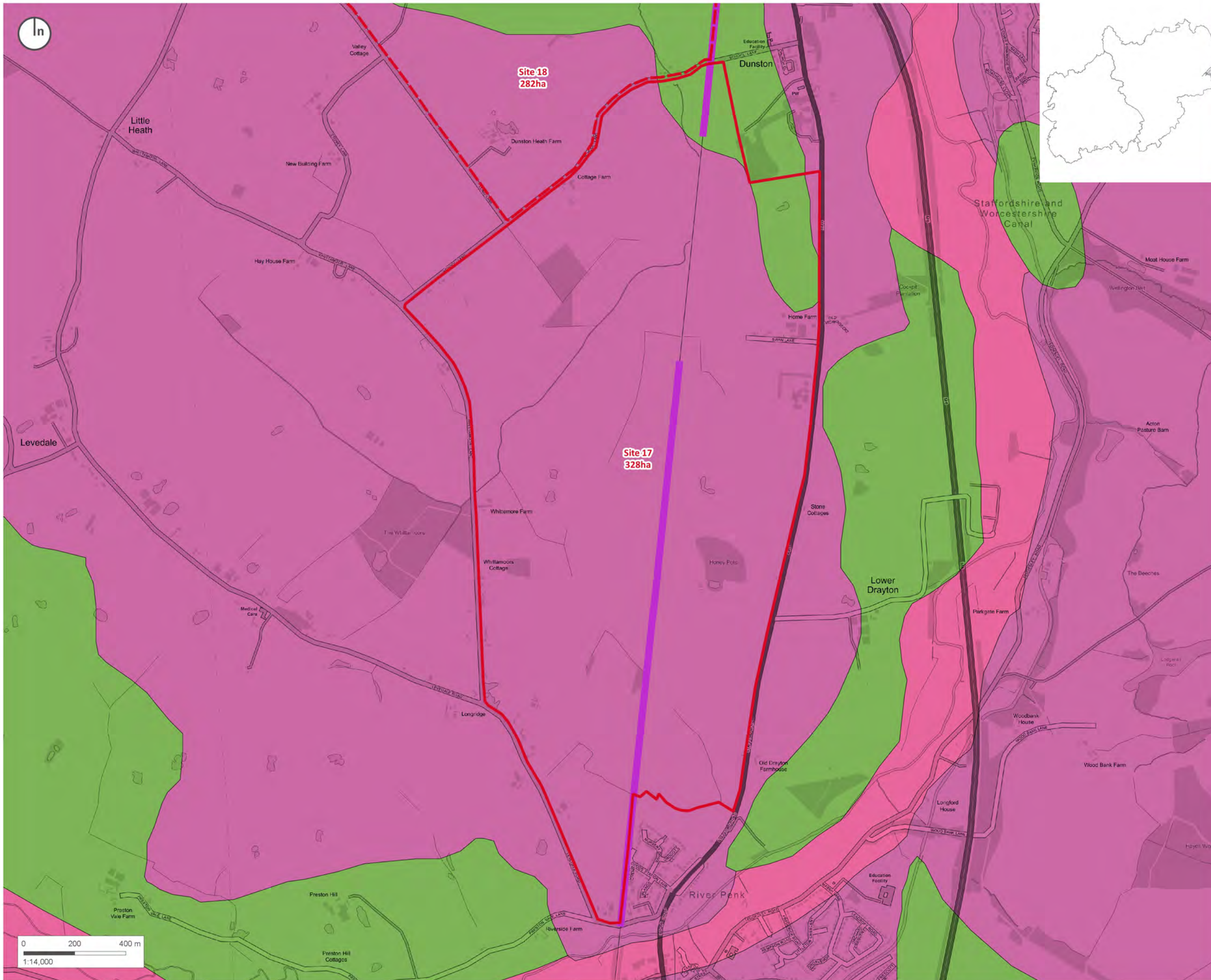
Title:
Alternative Sites Red Line (ALC) - Site 16 Northampton Gateway Site Area - 216ha

Figure No.
3002_108_(ALC) Plan 7-16




Revision:	Author:
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Date:	Scale:
March 2018	As shown (A3)

In

0 200 400 m
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-  Alternative Site
-  Other Alternative Sites
-  Rail Gauge
-  W10
-  Background EA LIDAR (DSM)

- ALC
-  Grade 2
 -  Grade 3
 -  Grade 4

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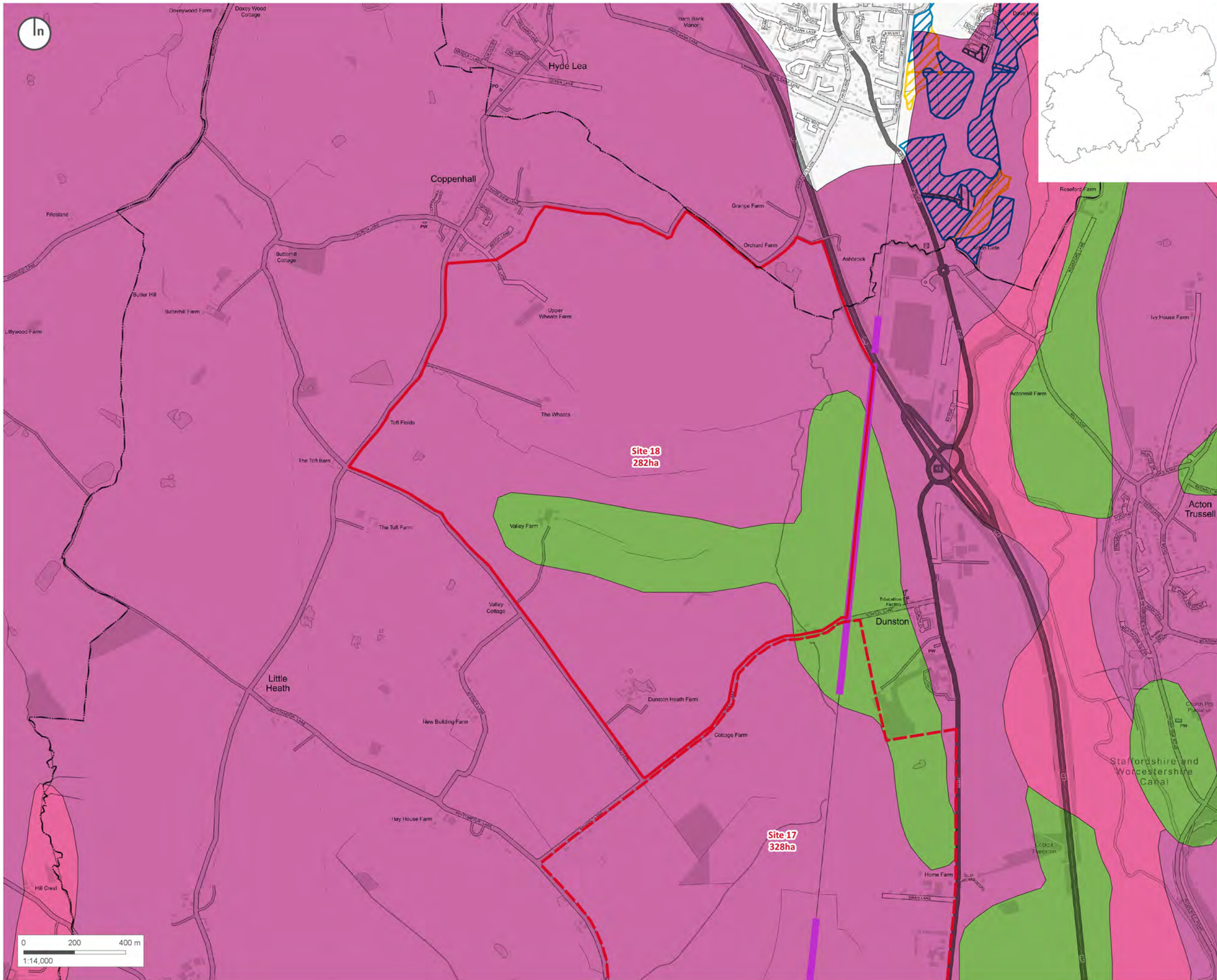
Project:
Rail Central, Northamptonshire

Document:
Environmental Statement

Title:
Alternative Sites Red Line (ALC) - Site 17 Land North of Penkridge Site Area - 328ha

Figure No.
3002_108_(ALC) Plan 7-17

Revision: 1.2	Author: MS
Date: March 2018	Scale: As shown (A3)



- Alternative Site
- Other Alternative Sites
- Rail Gauge
- W10
- Background EA LIDAR (DSM)

- ALC
- Grade 2
 - Grade 3
 - Grade 4
 - Urban
- ALC- sub
- Grade 3a
 - Grade 3b
 - Not Surveyed
 - Other

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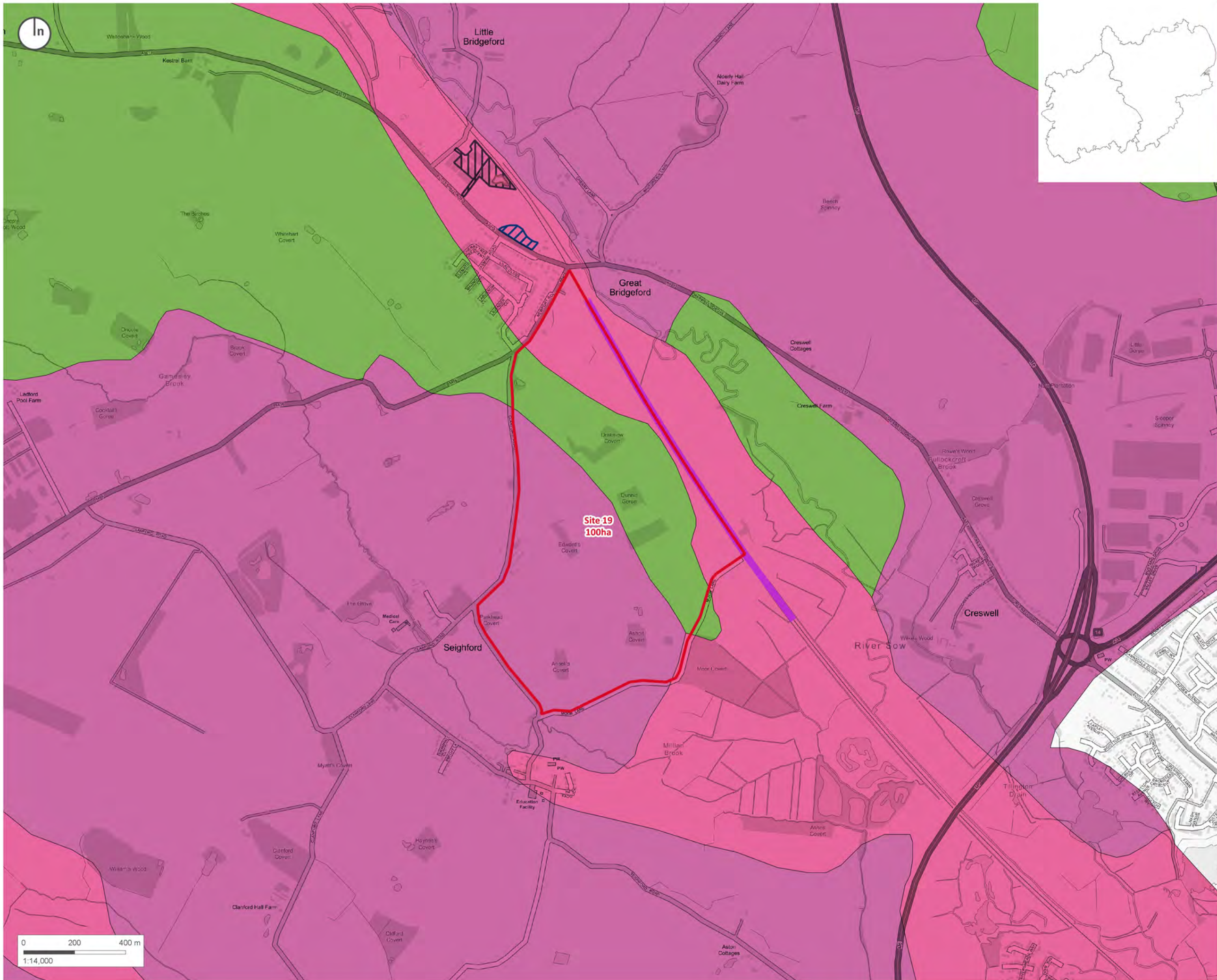
Project:
Rail Central, Northamptonshire

Document:
Environmental Statement

Title:
Alternative Sites Red Line (ALC) - Site 18 Land to the South of Stafford Site Area - 282ha

Figure No.
3002_108_(ALC) Plan 7-18

Revision:	Author:
1.2	MS
Date:	Scale:
March 2018	As shown (A3)



- Alternative Site
- Rail Gauge
- W10
- Background EA LIDAR (DSM)

- ALC
- Grade 2
- Grade 3
- Grade 4
- Urban
- ALC- sub
- Grade 3a
- Not Surveyed
- Other

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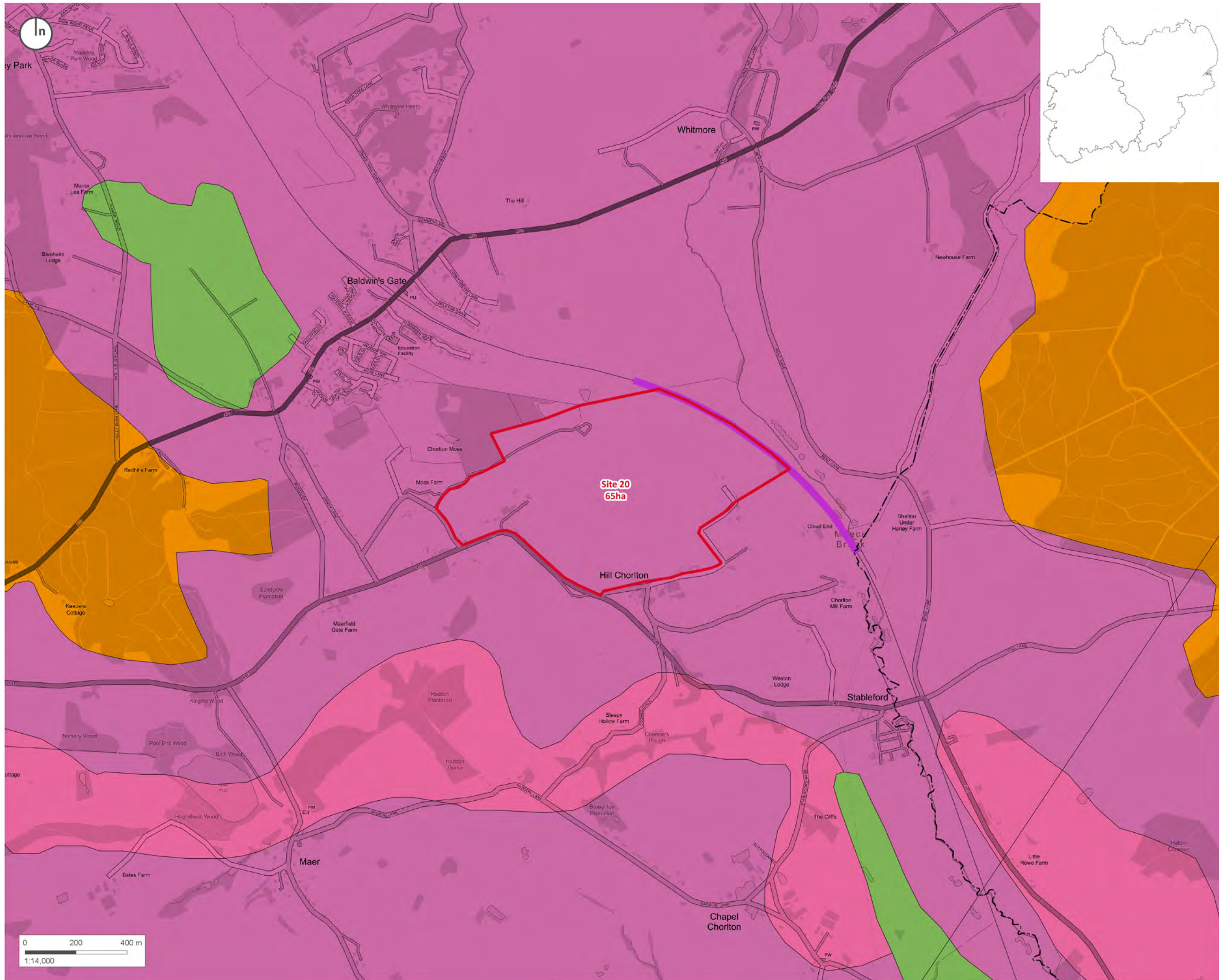
Project:
Rail Central, Northamptonshire

Document:
Environmental Statement

Title:
Alternative Sites Red Line (ALC) - Site 19 Land South of Great Bridgeford Site Area - 100ha

Figure No.
3002_108_(ALC) Plan 7-19

Revision:	Author:
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 Alternative Site
 Rail Gauge
 W10
 Background EA LIDAR (DSM)

ALC
 Grade 2
 Grade 3
 Grade 4
 Non Agricultural

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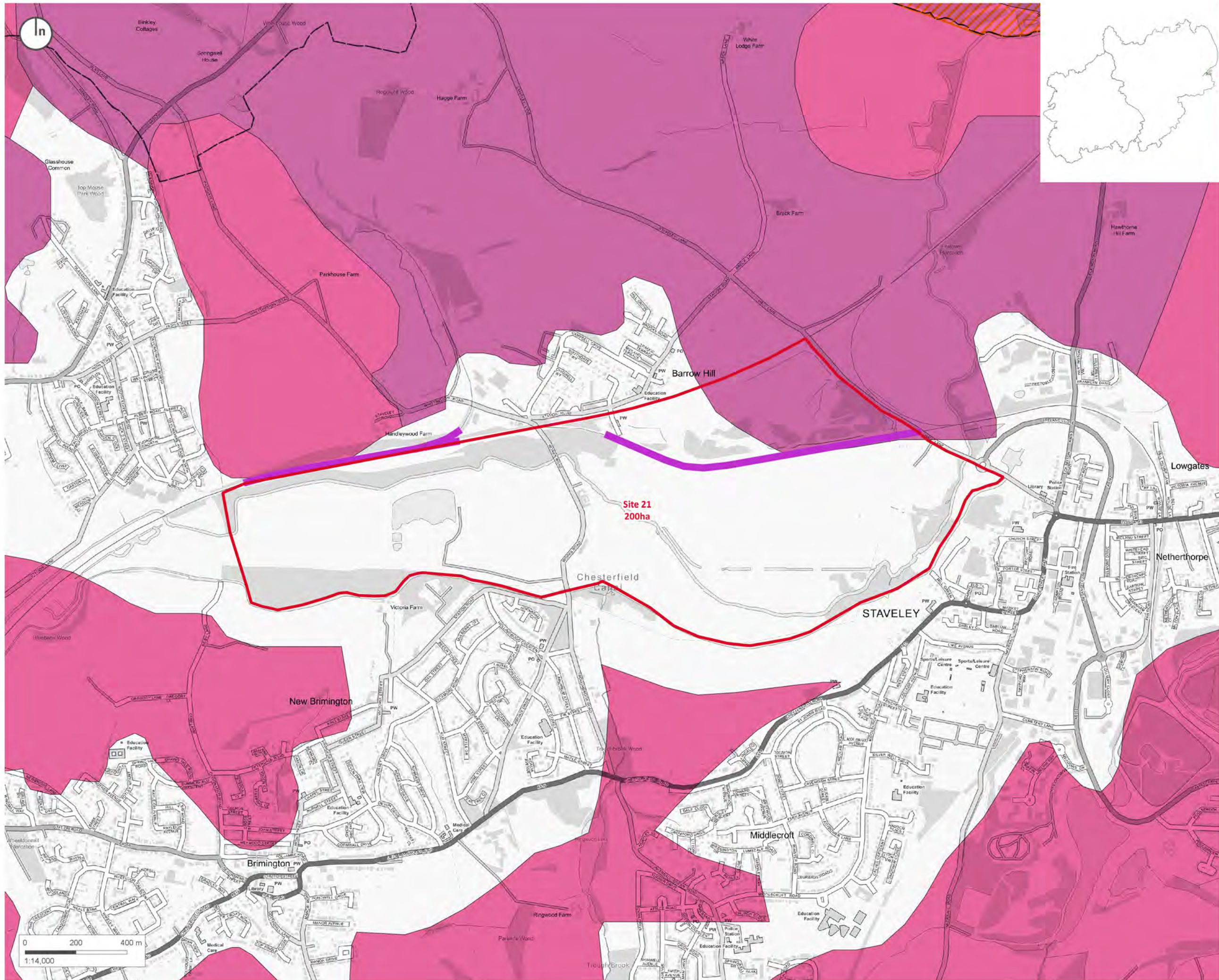
Project:
Rail Central, Northamptonshire

Document:
Environmental Statement






Title:
Alternative Sites Red Line (ALC) - Site 20 Land at Baldwin's Gate Site Area - 65ha

Figure No.
3002_108_(ALC) Plan 7-20

Revision:	Author:
1.2	MS
Date:	Scale:
March 2018	As shown (A3)



-  Alternative Site
-  Rail Gauge
-  W10
-  Background EA LIDAR (DSM)

- ALC
-  Grade 3
 -  Grade 4
 -  Urban
 - ALC- sub
 -  Grade 3b
 -  Other

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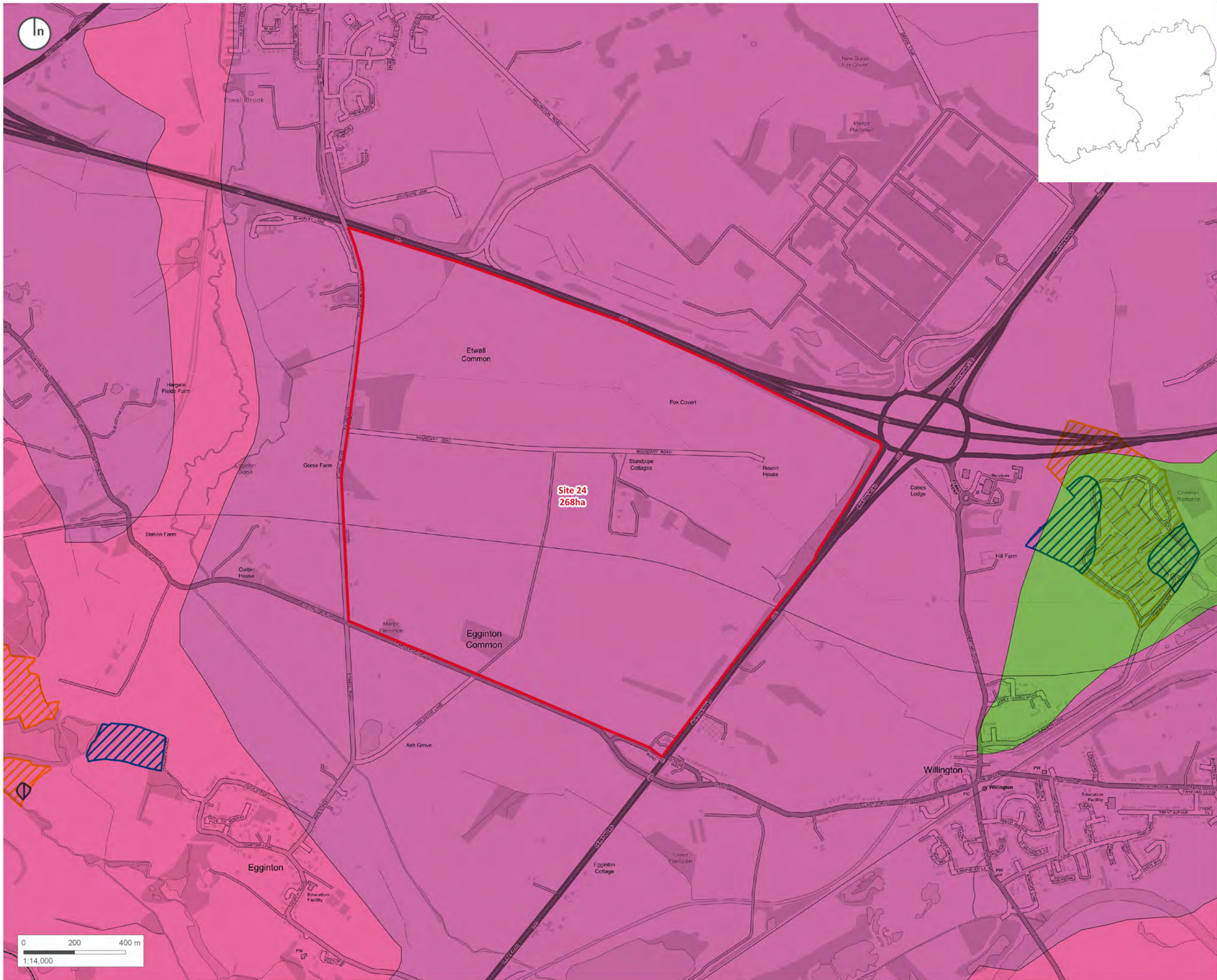
Project:
Rail Central, Northamptonshire

Document:
Environmental Statement

Title:
Alternative Sites Red Line (ALC) - Site 21 Covidien, Staveley Site Area - 200ha

Figure No.
3002_108_(ALC) Plan 7-21

Revision:	Author:
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Date:	Scale:
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Alternative Site
Background EA LIDAR (DSM)

- ALC
- Grade 2
 - Grade 3
 - Grade 4
- ALC- sub
- Grade 3a
 - Grade 3b
 - Other

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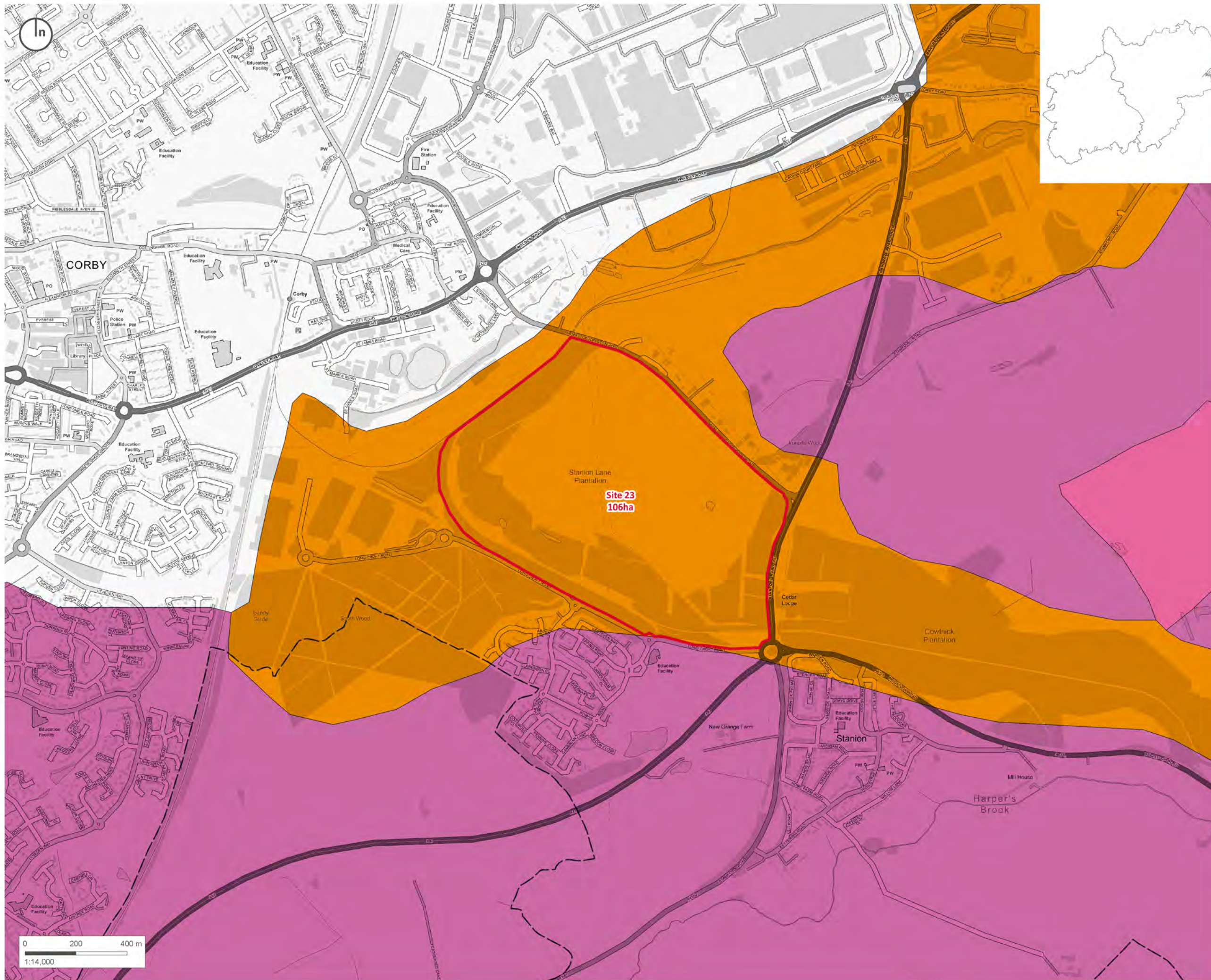
Document:
Environmental Statement

Title:
Alternative Sites Red Line (ALC) - Site 24 Etwall Common (East Midlands Intermodal Park) Site Area - 268ha

Figure No.
3002_108_(ALC) Plan 7-24

Revision:	Author:
1.2	MS
Date:	Scale:
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0 200 400 m
1:14,000



Alternative Site
Background EA LIDAR (DSM)

ALC

- Grade 3
- Grade 4
- Non Agricultural
- Urban

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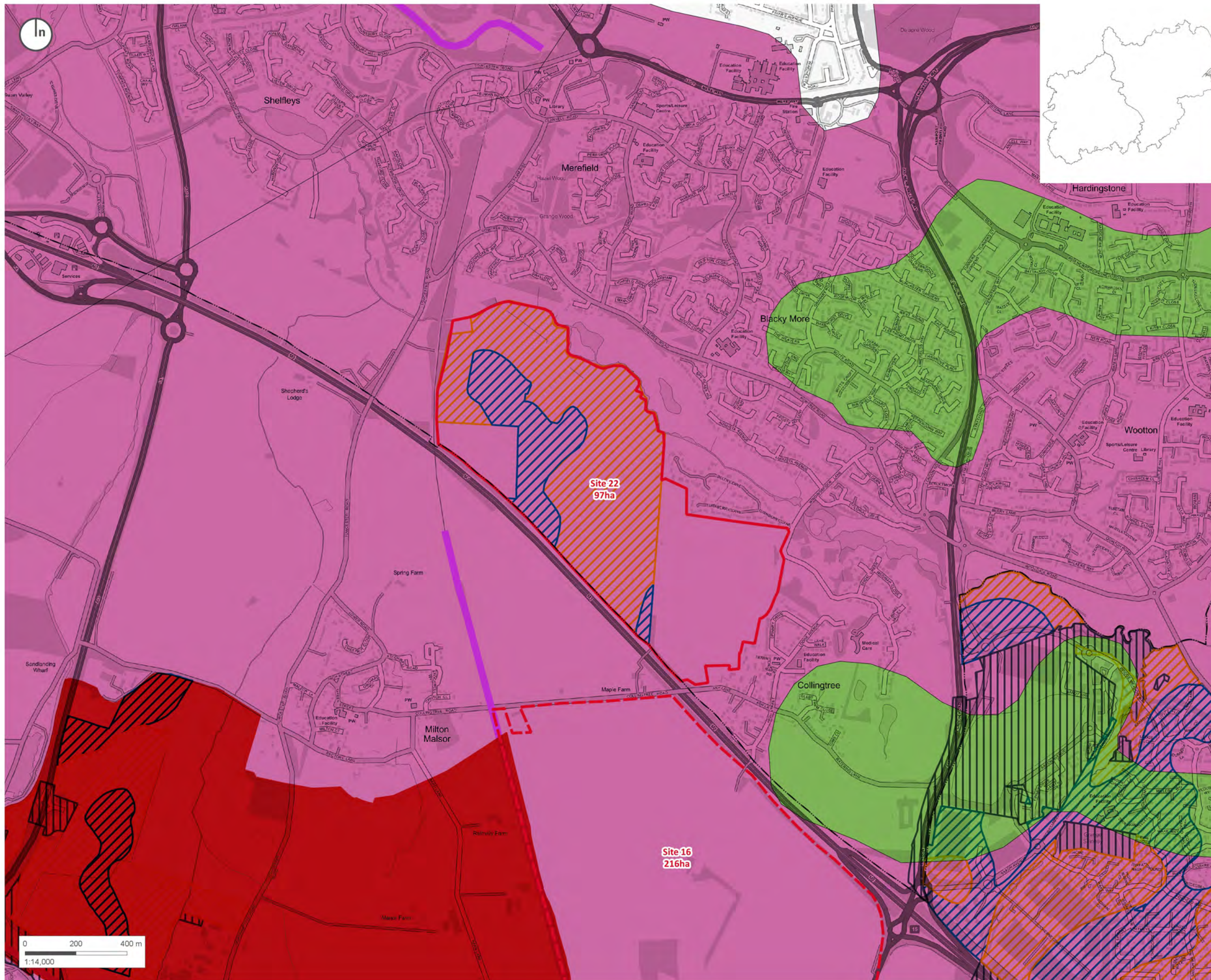
Project:
Rail Central, Northamptonshire

Document:
Environmental Statement

Title:
Alternative Sites Red Line (ALC) - Site 23 Eurohub, Corby Site Area - 106ha

Figure No.
3002_108_(ALC) Plan 7-23

Revision:	Author:
1.2	MS
Date:	Scale:
March 2018	As shown (A3)



- Alternative Site
- Other Alternative Sites
- Rail Central Site
- Rail Gauge
- W10
- Background EA LIDAR (DSM)

- ALC**
- Grade 2
- Grade 3
- Urban
- ALC- sub**
- Grade 3a
- Grade 3b
- Other

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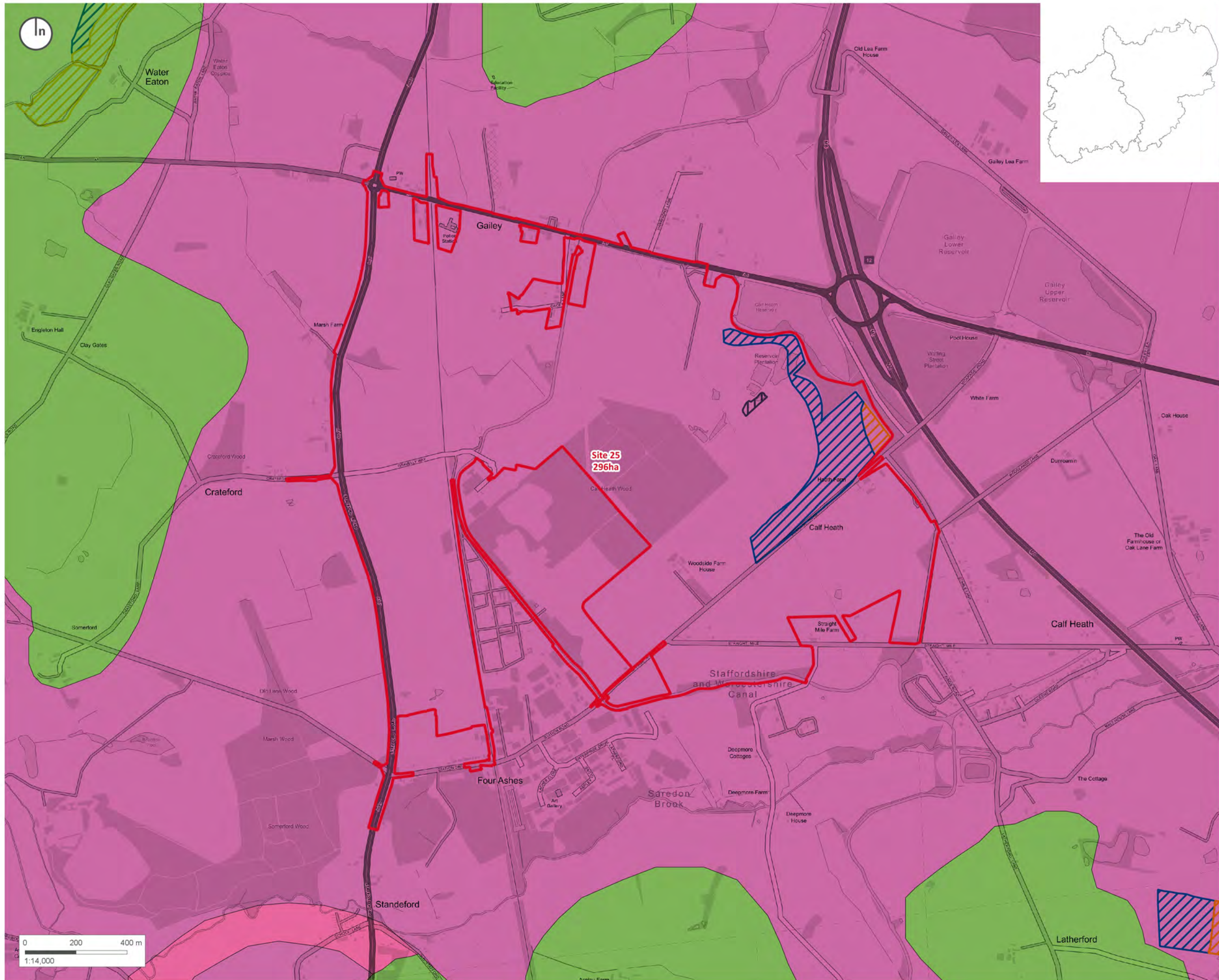
Project:
Rail Central, Northamptonshire

Document:
Environmental Statement

Title:
Alternative Sites Red Line (ALC) - Site 22 Land to the East of Northampton Loop, North of M1 (Northampton South SUE) Site Area - 97ha

Figure No.
3002_108_(ALC) Plan 7-22

Revision:	Author:
1.2	MS
Date:	Scale:
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Alternative Site
Background EA LIDAR (DSM)

ALC

Grade 2

Grade 3

Grade 4

ALC- sub

Grade 3a

Grade 3b

Other

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Project:
Rail Central, Northamptonshire

Document:
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Title:
Alternative Sites Red Line (ALC) - Site 25 West Midlands Interchange Site Area - 296ha

Figure No.
3002_108_(ALC) Plan 7-25

Revision:	Author:
1.2	MS
Date:	Scale:
March 2018	As shown (A3)

Appendix 9: Labour Market Availability Data

ID	Site Name	Local authority area	Contiguous local authorities	Total JSA claimants	Economically inactive people wanting a job
Site 1	Wadborough	Wychavon	Bromsgrove, Malvern Hills, Redditch, Worcester, Stratford-on-Avon, Wyre Forest, Cotswold, Tewkesbury	3,485	22,900
Site 2	Atherstone	North Warwickshire	Nuneaton and Bedworth, Lichfield, Tamworth, Birmingham, Coventry, Solihull, Hinckley and Bosworth, North West Leicestershire	29,900	61,900
Site 3	Freasley	North Warwickshire	Nuneaton and Bedworth, Lichfield, Tamworth, Birmingham, Coventry, Solihull, Hinckley and Bosworth, North West Leicestershire	29,900	61,900
Site 4	Nuneaton	Rugby	Nuneaton and Bedworth, Stratford-on-Avon, Warwick, Coventry, Blaby, Harborough, Hinckley and Bosworth, Daventry	5,645	35,200
Site 5	Hinckley	Blaby	Leicester, Rugby, Harborough, Charnwood, Oadby and Wigston, Hinckley and Bosworth	4,220	38,100
Site 6	Stoney Stanton	Blaby	Leicester, Rugby, Harborough, Charnwood, Oadby and Wigston, Hinckley and Bosworth	4,220	38,100
Site 7	Bishops Itchington	Stratford-on-Avon	West Oxfordshire, Bromsgrove, Redditch, Rugby, Warwick, Wychavon, Solihull, Cotswold, South Northamptonshire, Cherwell, Daventry	4,170	22,400
Site 8	Knightcote	Stratford-on-Avon	West Oxfordshire, Bromsgrove, Redditch, Rugby, Warwick, Wychavon, Solihull, Cotswold, South Northamptonshire, Cherwell, Daventry	4,170	22,400

ID	Site Name	Local authority area	Contiguous local authorities	Total JSA claimants	Economically inactive people wanting a job
Site 9	Kilsby	Daventry	Rugby, Stratford-on-Avon, Harborough, Northampton, South Northamptonshire, Wellingborough, Kettering	3,995	22,800
Site 9a	DIRFT 4 (Shed Only)	Rugby	Nuneaton and Bedworth, Stratford-on-Avon, Warwick, Coventry, Blaby, Harborough, Hinckley and Bosworth, Daventry	5,645	35,200
Site 10	Ashby St Ledgers	Daventry	Rugby, Stratford-on-Avon, Harborough, Northampton, South Northamptonshire, Wellingborough, Kettering	3,995	22,800
Site 11	Kilsby (East)	Daventry	Rugby, Stratford-on-Avon, Harborough, Northampton, South Northamptonshire, Wellingborough, Kettering	3,995	22,800
Site 12	Long Buckby Wharf	Daventry	Rugby, Stratford-on-Avon, Harborough, Northampton, South Northamptonshire, Wellingborough, Kettering	3,995	22,800
Site 13	Long Buckby	Daventry	Rugby, Stratford-on-Avon, Harborough, Northampton, South Northamptonshire, Wellingborough, Kettering	3,995	22,800
Site 14	South West of Long Buckby	Daventry	Rugby, Stratford-on-Avon, Harborough, Northampton, South Northamptonshire, Wellingborough, Kettering	3,995	22,800
Site 15	South of Nether Heyford	South Northamptonshire	Milton Keynes, Aylesbury Vale, Stratford-on-Avon, Northampton, Wellingborough, Cherwell,	6,070	33,400

ID	Site Name	Local authority area	Contiguous local authorities	Total JSA claimants	Economically inactive people wanting a job
			Daventry		
Site 16	South of Bugbrooke	South Northamptonshire	Milton Keynes, Aylesbury Vale, Stratford-on-Avon, Northampton, Wellingborough, Cherwell, Daventry	6,070	33,400
Site 17	Roxhill	South Northamptonshire	Milton Keynes, Aylesbury Vale, Stratford-on-Avon, Northampton, Wellingborough, Cherwell, Daventry	6,070	33,400
Site 18	Penkridge	South Staffordshire	Telford and Wrekin, Shropshire, Bromsgrove, Wyre Forest, Cannock Chase, Stafford, Dudley, Walsall, Wolverhampton	16,660	59,500
Site 19	Coppenhall	South Staffordshire	Telford and Wrekin, Shropshire, Bromsgrove, Wyre Forest, Cannock Chase, Stafford, Dudley, Walsall, Wolverhampton	16,660	59,500
Site 20	Great Bridgeford	Stafford	Stoke-on-Trent, Telford and Wrekin, Shropshire, Cannock Chase, East Staffordshire, Lichfield, Newcastle-under-Lyme, South Staffordshire, Staffordshire Moorlands	8,040	50,700
Site 21	Baldwins Gate	Newcastle-under-Lyme	Stoke-on-Trent, Shropshire, Stafford, Staffordshire Moorlands, Cheshire East	6,595	38,400
Site 22	Staveley	Chesterfield	Bolsover, North East Derbyshire	1,830	8,700

ID	Site Name	Local authority area	Contiguous local authorities	Total JSA claimants	Economically inactive people wanting a job
Site 23	Land to the East of Northampton Loop, North of M1 (Northampton South SUE)	Northampton	Daventry, South Northamptonshire, Wellingborough	2,945	14,400
Site 24	Eurohub, Corby	Corby	Harborough, Kettering, East Northamptonshire, Rutland	1,440	11,000
Site 25	Etwall Common (East Midlands Intermodal Park)	South Derbyshire	North West Leicestershire, East Staffordshire, Lichfield, Amber Valley, Derbyshire Dales, Erewash, Derby	4,285	26,700
Site 26	East Midlands Distribution Centre, Castle Donnington	North West Leicestershire	North Warwickshire, Charnwood, Hinckley and Bosworth, Lichfield, Erewash, South Derbyshire, Rushcliffe	2,920	19,100
Site 27	East Midlands Gateway	North West Leicestershire	North Warwickshire, Charnwood, Hinckley and Bosworth, Lichfield, Erewash, South Derbyshire, Rushcliffe	2,920	19,100
	Rail Central	South Northamptonshire	Milton Keynes, Aylesbury Vale, Stratford-on-Avon, Northampton, Wellingborough, Cherwell, Daventry	6,070	33,400

Turley Office
2 Bond Court
Leeds
LS1 2JZ

T 0113 386 3800

**Appendix 5: Cumulative Assessment in the RC ES
(Chapter 22)**

22. Cumulative Effects Summary

Purpose of the Assessment

- 22.1 The methodology for the assessment of inter and intra project cumulative effects in this ES are described in detail at **Chapter 7: EIA Assessment Methodology**. The purpose of this Chapter (**Chapter 22**) is to provide a high level overview and summary of the findings of the cumulative assessment for the Proposed Development and in particular to ensure that conclusions are drawn on the interaction of effects as a whole.
- 22.2 **Chapters 8-21** have identified the potential environmental effects arising from the Proposed Development on a topic by topic basis, with consideration of different effects from different topics on the same receptor and in-combination with other relevant projects at the receptor level. The level of assessment is specific to each of the Chapters. This is because the cumulative effects were based on residual effects remaining after the implementation of adaptive mitigation for each topic area (for intra-project effects) or each cumulative project (for inter-project effects). Where residual effects on identified shared receptors were not significant, the level of assessment was reduced compared to where significant, or “close to significant” effects were present. For the purpose of the methodology used herein, “minor” residual levels of effect were considered, on the assumption that several minor effects at a shared receptor could potentially result in an overall significant cumulative effect.
- 22.3 A summary of both intra and inter-related cumulative effects within each topic chapter is set out below, alongside an assessment of whether overall significant cumulative effects could arise. This is termed the Cumulative Impact Assessment (CIA).
- 22.4 Schedule 4 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 require “A description of the likely significant effects of the development on the environment resulting from, *inter alia*:
- (e) the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources.”*
- 22.5 The NPPG web-based resource also refers to the need for cumulative effects to be assessed as part of an ES.

Intra-Project Effects

- 22.6 The assessment of intra-project effects considers only those effects produced by the Proposed Development, and not those from other projects (which are considered via the inter-project process). The assessment of intra-relationships considers the likely significant effects of a proposed development on the same receptor. These occur (for example) when a number of separate effects, such as traffic noise and driver delay affect a single receptor, such as local residents.
- 22.7 In order for there to be an intra-project effect, there would need to be an adverse or beneficial residual effect identified on a receptor from across one of more topics, i.e. a minor effect or above. This assumes the implementation of all embedded and adaptive mitigation.

Lower levels of effect could not reasonably be expected to contribute to a significant cumulative effect. The threshold has been set at "minor" to address the potential for a number of insignificant effects to a receptor becoming significant when they are combined for a single receptor.

- 22.8 Whilst **Chapters 8-21** may include commentary on intra-project effects on a wider range of topics, only those that meet this criterion are evaluated and concluded upon within this Chapter. **Table 22.1** provides a summary in tabular form so the common receptors and multiple effects at the common receptors can be clearly understood.

Table 22.1: Matrix of Intra-Project Residual Effect interactions

Technical Topic	Common Sensitive Receptors				
	People (including human health)	Land and Soil	Heritage Assets	Biodiversity	Landscape Character
Air Quality	No residual effects of Minor or above identified.				
Agricultural Land	Loss of agricultural land. Loss or damage to soil resources.	Loss of agricultural land. Loss or damage to soil resources.	N/A	N/A	N/A
Archaeology	N/A	N/A	Loss of archaeological resource.	N/A	N/A
Built Heritage	N/A	N/A	Change in setting of assets.	N/A	Change in views.
Ground Conditions	No residual effects of Minor or above identified.				
Hydrology, Drainage and Flood Risk	No residual effects of Minor or above identified.				
Biodiversity	N/A	N/A	Loss of a hedges and hedgerow network.	Impacts on commuting and foraging bats. Loss of hedges and hedgerow network. Loss of mature and veteran trees.	Loss of hedges and hedgerow network. Loss of mature and veteran trees.
Landscape and Visual	Change in views.	N/A	Change in views. Change in landscape character.	N/A	Change in landscape character.

Technical Topic	Common Sensitive Receptors				
	People (including human health)	Land and Soil	Heritage Assets	Technical Topic	People (including human health)
Noise and Vibration	Increase in noise (various sources – road traffic and operational sources).	N/A	N/A	N/A	N/A
Highways and Transport	Change in likelihood of accidents and safety; hazardous loads; Severance; driver and pedestrian delay; and Pedestrian amenity.	N/A	N/A	N/A	N/A
Socio-Economics	Increase in jobs, economics productivity and business rate revenue. Reduction in unemployment.	N/A	N/A	N/A	N/A
Lighting	No residual effects of Minor or above identified.				
Waste	No common receptor (local and regional waste management facilities and the overall local and regional waste management infrastructure).				
Climate Change Mitigation	All relevant GHG emissions associated with other ES topics have been considered within Chapter 21: Climate Change Mitigation and Adaptation and no additional intra-project effects are considered likely.				

Climate Change Adaption	Change in temperatures and rainfall.	Changes in temperatures and rainfall.	N/A	Changes in temperatures and rainfall.	N/A
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People (including Human Health)

- 22.9 Residual effects during the construction phase of moderate adverse have been identified in **Chapter 9** (Agricultural Land) in respect of the loss of agricultural land, and minor adverse for loss of or damage to soil resources.
- 22.10 Residual effects during the construction and operational phase of major to minor adverse have been identified in **Chapter 15** (Landscape and Visual) in respect of the visual effects (change in views) caused by the Main SRFI Site as experienced by both residential receptors and users of the Public Right of Way (PROW) and/or local road network.
- 22.11 Residual effects during the construction and operational phase of minor adverse to negligible have been identified in **Chapter 16** (Noise and Vibration). These are associated with various sources of noise including: construction noise; road traffic and operational sources of noise. Residual effects during the construction phase of minor adverse to negligible have been identified in respect of vibration.
- 22.12 Residual effects during the operation phase of minor adverse to minor beneficial have been identified in **Chapter 17** (Highways and Transport). These relate to changes in likelihood of accidents and safety; hazardous loads; severance; driver and pedestrian delay; and pedestrian amenity.
- 22.13 Residual effects during the construction phase of minor to moderate beneficial have been identified in **Chapter 18** (Socio-Economics). During operation this is minor to major beneficial. This is in terms of an increase in jobs and economic productivity and during operation, an increase in business rate revenue. There is also a reduction in unemployment.
- 22.14 Residual effects of minor adverse to minor beneficial have been identified in **Chapter 21** (Climate Change Mitigation), albeit the residual adverse effects are likely to be managed through future design requirements and will therefore not significantly contribute to an intra-project effect to people.
- 22.15 The loss of agricultural land and the effect to people is associated with the potential loss of future food production. This type of effect is likely to interact with the beneficial effects associated with the increase in jobs and economic productivity. The key interaction for people is the combination of adverse effects of changing views and noise and the interaction of both adverse and beneficial effects associated with the change in the likelihood of accidents and safety; hazardous loads; severance; driver and pedestrian delay; and pedestrian amenity. It is considered that some of the beneficial effects will contribute to partially off-setting adverse effects when considered in-combination. However, **the level of effect is considered to be no greater than that identified in the individual Chapters.**

Land and Soil

- 22.16 Residual effects during the construction phase of moderate adverse have been identified in **Chapter 9** (Agricultural Land) in respect of the loss of agricultural land, and minor adverse in respect of loss of or damage to soil resources.
- 22.17 Residual effects of minor adverse to minor beneficial have been identified in **Chapter 21** (Climate Change Mitigation), albeit the residual adverse effects are likely to be managed

through future design requirements and will therefore not significantly contribute to an intra-project effect to people.

- 22.18 Whilst there is a common receptor and effect interaction, **the level of effect is considered to be no greater than that identified in the individual Chapters.**

Heritage Assets

- 22.19 A residual effect during the construction phase of minor adverse has been identified in **Chapter 10** (Archaeology) in respect of the loss of archaeological resource at the Main SRFI Site, J15a Site and A43/A5 Tove Roundabout (J14).
- 22.20 A residual effect during the construction and operational phases of moderate adverse has been identified in **Chapter 11** (Built Heritage) in respect of change in setting of heritage assets.
- 22.21 Residual effects during the construction and operational phase of major to minor adverse have been identified in **Chapter 15** (Landscape and Visual) in respect of the visual effects (change in views) caused by the Main SRFI Site as experienced by both residential receptors and users of the Public Right of Way (PROW) and/or local road network.
- 22.22 A residual effect of minor adverse has been identified in **Chapter 14** (Biodiversity) in respect of the loss of hedges and the loss of a hedgerow network.
- 22.23 None of the identified below-ground archaeological remains within **Chapter 10** (Archaeology) have been identified as having any form of historic, functional or visual connection with the above-ground built heritage assets assessed as part of **Chapter 11** (Built Heritage) and therefore an intra-project effect is unlikely.
- 22.24 **Chapter 10** (Archaeology), examines the potential effects to Important Hedgerows and assesses their cultural and heritage value. This indicated that the Important Hedgerows were relicts of hedges marking Parliamentary Enclosure boundaries; dating from the early 19th century and were assessed as having negligible archaeological significance. The “borderline” Important Hedges define the Rural District Boundary and have potentially been in place since the medieval period, and are of local importance and low archaeological significance. The loss of these features in the context of views has been assessed as part of **Chapter 15** (Landscape and Visual).
- 22.25 The key interaction for heritage assets is in terms of intra-project effects in relation to views and setting. Both **Chapter 11** (Built Heritage) and **Chapter 15** (Landscape and Visual) consider this intra-project effect in detail and it can be concluded that **the level of effect is no greater than that identified in the individual Chapters.**

Biodiversity

- 22.26 Whilst there are common receptors considered within **Chapter 14** (Biodiversity), there were no wider common receptors. Effects as a result of noise, lighting, dust and climate change on the biodiversity receptors are addressed in **Chapter 14** (Biodiversity). Similarly, loss of agricultural land in terms of habitat for species such as farmland birds is also considered. Chapter 8 (Air Quality) assesses the impacts of traffic-related air quality changes to ecological

receptors as not significant. Therefore, the level of effect is **considered to be no greater than that identified in Chapter 14.**

Landscape Character

- 22.27 A residual effect during the construction and operational phases of moderate adverse has been identified in **Chapter 11** (Built Heritage) in respect of change in setting of heritage assets.
- 22.28 Residual effects during the construction and operational phase of major to minor adverse have been identified in **Chapter 15** (Landscape and Visual) in respect of the visual effects (change in views) caused by the Main SRFI Site as experienced by both residential receptors and users of the Public Right of Way (PROW) and/or local road network.
- 22.29 A residual effect of minor adverse has been identified in **Chapter 14** (Biodiversity) in respect of the loss of hedges and hedgerow network and loss of mature and veteran trees.
- 22.30 The key interaction for landscape character in terms of intra-project effects is in relation to views and setting. Both **Chapter 11** (Built Heritage) and **Chapter 15** (Landscape and Visual) consider this intra-project effect in detail. Equally the loss of hedges, hedgerow network and loss of mature and veteran trees is a key interaction and has this intra-project effect has been assessed in detail in both **Chapter 14** (Biodiversity) and **Chapter 15** (Landscape and Visual).
- 22.31 It can be concluded that **the level of effect is no greater than that identified in the individual Chapters.**

Inter-Project Effects

- 22.32 Inter-project effects arise as a result of the Proposed Development interacting with other developments/projects in the vicinity. An example of an inter-project cumulative effect is construction activities of the Proposed Development and other developments/projects being seen from a single viewpoint location. This would be an example of a Visual inter-project cumulative impact (i.e. a shared receptor (a viewpoint in this case) would be affected by more than one cumulative project).
- 22.33 The approach and methodology for the selection of other developments/projects for the Inter-Project CIA is outlined in **Chapter 7 (EIA Assessment Methodology)**. The list of projects for consideration is within **Appendix 7.1**, and the locations shown on **Figure 7.1: Cumulative projects**.
- 22.34 Projects were considered within the Inter-Project CIA only where it is considered that sufficient detail is available with which to undertake a meaningful assessment. In the case of Northampton Gateway, which is being promoted by Roxhill, this has been included in the CIA for Rail Central. The Northampton Gateway application for development consent was accepted for examination on 15 June 2018 and the pre- application stage for both projects ran to similar timescales. At the time of conducting some of the impact assessments, the submitted application data for Northampton Gateway was not available. The assessment was therefore conducted on the basis of the data publicly available at that time, as presented in the Preliminary Environmental Information Report (PEIR) for the Stage 2 consultation for Northampton Gateway. A similar approach was taken by Northampton Gateway, whose

submitted CIA is based on the Rail Central PEIR data. However, the Applicant will continue to work with statutory consultees to ensure the CIA is as accurate as it can be. If appropriate in due course, the Applicant can consider any new data which is made available and can confirm the extent to which this alters (if at all) the conclusions of the CIA already undertaken. This approach complies with the relevant EIA Regulations and is consistent with that taken for other applications, where relevant environmental information has become available following preparation of the CIA.

- 22.35 The assessments provided at **Chapters 8-21** have assessed the likelihood on an inter- project cumulative effect based on there being a common receptor and a residual effect which is considered adverse or beneficial, i.e. a minor effect or above. This assumes the implementation of all embedded and adaptive mitigation. Lower levels of effect could not reasonably be expected to contribute to a significant cumulative effect. The threshold has been set at 'minor' to address the potential for a number of insignificant effects to a receptor becoming significant when they are combined for a single receptor.
- 22.36 Whilst **Chapters 8-21** may include commentary on inter-project effects on a wider range of topics, only those that meet this criterion are evaluated and concluded upon within this summary. **Table 22.2** provides a descriptive summary of the inter-project cumulative effects.

Table 22.2: Summary of Inter-Project Cumulative Effects by Technical Topic Chapter

Chapter 8: Air Quality	
Schemes assessed: CI.2, CI.4, CI.6, CI.33, CI.53 and CI.58.	
Construction	No residual effects of Minor or above were identified at shared receptors to the identified cumulative projects. No significant inter-project cumulative effects.
Operation	<p>Within the assessment presented in the ES, the increase in NO₂, PM₁₀ and PM_{2.5} concentrations from traffic has been based on traffic data which includes a range of approved and other projects. These are listed in Appendix G of the Transport Assessment in Appendix 17.1. As outlined in Chapter 8 (Air Quality), the residual effect of this was concluded as negligible.</p> <p>However, at this stage, the traffic data used did not include Northampton Gateway (as the information was not in the public domain at the time of running the relevant transport model) and supplementary assessment is yet to be completed. The “DS5” model used in the interim CIA for the transport assessment (summarised in Chapter 17 (Highways and Transportation)) was not an appropriate comparison for the Air Quality assessment, as different assumptions were made re: build out of the Proposed Development and the extent of highway works completed in 2021 and 2031, compared to the “Rail Central Only” scenarios in the main Air Quality model. The DS7 and DS7a cumulative scenarios are being run, and these will form the basis for the Air Quality cumulative assessment. This work is ongoing and will be submitted for consideration following the DCO submission. However, in the interim, consideration of the CIA undertaken by Northampton Gateway has been completed, which considered both Rail Central and Northampton Gateway . This concluded that there were no significant effects, partly because the access points to the strategic highways network are different. At this stage, the conclusions are assumed to remain as above.</p> <p>No significant residual cumulative effects were therefore identified.</p> <p>No significant inter-project cumulative effects.</p>
Chapter 9: Agricultural Land	
Schemes assessed: CI.1, CI.2, CI.4, CI.5, CI.8, CI.9, CI.10 , CI.19, CI.49 and CI.67.	

Construction Of the 35 projects considered, ten have the potential to lead to the cumulative loss of best and most versatile land in the locality. The remaining 25 projects do not involve the loss of a substantive area of agricultural land or soil resource.

The Proposed Development and schemes CI.2, CI.4, CI.6, CI.10 and CI.103 extend to over 800 hectares of land, and this relates to the loss of best and most versatile land and soil resources. The magnitude of effect remains high - however, overall the land and soil resource to be lost is not of high sensitivity.

The residual effect on best and most versatile land identified as moderate adverse remains and this is considered a **significant inter-project cumulative effect** (though the Rail Central project alone also results in such an effect). As only a minor effect on soil resources would be caused by Rail Central alone, given the implementation of a Soil Resources Management Plan, this is not considered to result in a significant adverse cumulative effect on the receptor of soil resources.

Significant inter-project cumulative effect (adverse) on Best and Most Versatile Agricultural Land only

Operation No residual effects of a level of effect of Minor or above were identified at shared receptors to the identified cumulative projects.

No significant inter-project cumulative effects.

Chapter 10: Archaeology

Schemes assessed: CI.2

Construction Northampton Gateway (CI.2), shares a common receptor with the Proposed Development. This is a group of likely associated archaeological remains of broadly comparable date and character.

In both cases, mitigation is proposed which includes excavation and recording of the identified archaeological remains and their preservation by record, where required.

The residual effects identified as minor adverse remain, but this is not considered a significant inter-project cumulative effect given the mitigation proposed by both projects..

No significant inter-project cumulative effects.

Operation No residual effects of a level of effect of Minor or above were identified at shared receptors to the identified cumulative projects..

No significant inter-project cumulative effects.

Chapter 11: Built Heritage

Schemes assessed: CI.1, CI.2, CI.4, CI.5, CI.6, CI.7, CI.8, CI.9, CI.10, CI.16, CI.17, CI.19, CI.33, CI.49 and CI.67

Construction No significant inter-project cumulative effects were concluded for all of the schemes assessed with the exception of CI.2. Northampton Gateway (CI.2) shares a number of common receptors with the Proposed Development. These are Milton Malsor Conservation Area (MM36) and Mortimers (MM10). Construction works such as the movement of materials and construction machinery, including the use of tall construction equipment may occur from CI.2 and the Proposed Development at the same time, increasing the magnitude of change. However, the level of effect at the receptor is unlikely to change from that assessed as part of the Proposed Scheme. The residual effect identified as moderate adverse remains and this is considered a **significant inter-project cumulative effect**, albeit at only two receptors. This level of effect would be generated by Rail Central alone as well as cumulatively with Northampton Gateway.

Significant inter-project cumulative effect (adverse) on Milton Malsor Conservation Area and Mortimers only

Operation No significant inter-project cumulative effects were concluded for all of the schemes assessed. The residual effects from Rail Central identified as moderate adverse during operation (2031) remain, but this is not considered a significant inter-project cumulative effect, given the presence of landscaping at both projects during operation, which act to screen Northampton Gateway from both receptors to a certain extent (unlike at construction).

No significant inter-project cumulative effects.

Chapter 12: Ground Conditions and Contamination

Schemes assessed: CI.2

Construction No residual effects of a level of effect of Minor or above identified at shared receptors to the identified cumulative projects.

No significant inter-project cumulative effects.

Operation No residual effects of a level of effect of Minor or above were identified at shared receptors to the identified cumulative projects.

No significant inter-project cumulative effects.

Chapter 13: Hydrology, Drainage and Flood Risk

Schemes assessed: None.

Construction No residual adverse effects of a level of effect of Minor or above were identified at shared receptors to the identified cumulative projects.

No significant inter-project cumulative effects.

Operation No residual adverse effects of a level of effect of Minor or above were identified at shared receptors to the identified cumulative projects. The positive effects identified due to a decrease in flood risk and an improvement of the foul drainage as a result of Rail Central are not anticipated to be increased by other cumulative projects, so there would be no additional cumulative benefit.

No significant inter-project cumulative effects.

Chapter 14: Biodiversity

Schemes assessed: CI.1, CI.2, CI.4, CI.5, CI.9, CI.10, CI.16, CI.19, CI.49, CI.85, and CI.98,

Construction Some of the Cumulative Schemes assessed (as outlined above) share a number of common receptors with the Proposed Development. These are: hedgerows (contributing to the wider network); foraging and commuting bats and farmland habitat (and farmland birds). It is considered that whilst the magnitude may increase, the level of effect identified remains as minor adverse. Therefore no significant residual cumulative effects have been identified.

Operation

No significant inter-project cumulative effects.

Chapter 15: Landscape and Visual

Schemes assessed: CI.2 and CI.4

Construction Northampton Gateway (CI.2) and CI.4 share a number of common receptors with the Proposed Scheme. These are: landscape character and visual receptors, particularly in-between Collingtree and Milton Malsor.

The inter-project cumulative effect is associated with the change from operational agricultural land and the loss of landscape features such as hedgerows and trees during site clearance. There is also the inter-project cumulative effect of construction machinery, tall construction equipment and wider construction activities such as the movement of materials.

The residual effects identified as up to major adverse remain and this is considered a **significant inter-project cumulative effect.**

Significant Inter-project effects (adverse) at shared receptors between Milton Malsor and Collingtree

Operation Northampton Gateway (CI.2) and CI.4 share a number of common receptors with the Proposed Scheme. These are: landscape character and Viewpoints 3 (representative of views to users of PRow RD3, RD6, KZ14 and RD22 located to the East of Blisworth), 4, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19.

CI.2 and the Proposed Scheme both individually and cumulatively demonstrate only a very limited level of intervisibility within the local landscape context and with each being relatively contained and separated by proposed mitigation. The inter-project cumulative effect associated with the change in landscape character (associated with the operation of Northampton Gateway and the Proposed Development) has residual effects identified as up to moderate adverse. These are considered to remain, and this is considered a **significant inter-project cumulative effect**.

The cumulative effect associated with the change in views at the Viewpoints outlined above has residual effects identified as up to moderate adverse at year 1, though this is decreased by Year 15 to minor or negligible. The presence of Northampton Gateway in these close-range views would create a cumulative effect which is considered a **significant inter-project cumulative effect** at Year 1 of operation. By year 15, due to the effectiveness of the landscape and visual mitigation, significant residual cumulative visual effects are limited to Blisworth Lodge (and this would reduce with the implementation of the S106 landscape fund if taken up). Therefore **No significant inter-project cumulative effects** are anticipated at Viewpoint 3 at Year 15

Significant Inter-project effects (adverse) identified at the shared receptors of “Landscape Character” and at up to 13 identified viewpoints at Year 1. This reduces to a significant cumulative effect at 1 viewpoint (at most) by Year 15.

Chapter 16: Noise and Vibration

Schemes assessed: CI.2, CI.4, CI.6, CI.33, CI.48 and CI.85-107.

Construction There is unlikely to be an inter-project cumulative effect with CI.48 and/or CI.85-107 due to the distance from the Schemes assessed to the Proposed Development.

Operation CI.2, CI.4, CI.6, and CI.33 share a number of common receptors with the Proposed Development. These include NSR 4 (Barn Lane, Milton Malsor) and NSR 5 (West Lodge Farm).

The residual effects identified as up to minor adverse remain but this is not considered a significant inter-project cumulative effect given controls to be put in place to control noise to acceptable levels at these NSRs.

No significant inter-project cumulative effects.

Chapter 17: Highways and Transportation

Schemes assessed: A range of approved and other projects as defined by the traffic model, as listed in Appendix G of the Transport Assessment in Appendix 17.1.

Construction The traffic model has included a number of approved and other projects and therefore cumulative effects have been assessed quantitatively in
Operation **Chapter 17** (Highways and Transport).

Of all of the junctions assessed (Main SRFI Site – A43; J15a of the M1; Four; Six; Seven; Fourteen; Fifteen; Nineteen; Twenty; Twenty Nine; and Thirty One), effects that are minor and beneficial have been concluded in relation to: severance; driver delay; pedestrian delay; pedestrian amenity; and accidents and safety. These can be considered as inter-project cumulative effects.

The residual effects identified as up to minor beneficial remain, but this is not considered a significant inter-project cumulative effect.

No significant inter-project cumulative effects.

Chapter 18: Socio-economics

Schemes assessed: CI .1, CI.2, CI.4, CI.5, CI.6, CI.7, CI.8, CI.9, CI.10, CI.16, CI.17, CI.74, CI.80, CI.97, CI.98, CI.101, CI.102, CI.103, CI.105

Construction Due to the type of receptor associated with socio-economics, i.e. local authority, economy and population, all of the Schemes assessed have
Operation common receptors with the Proposed Development.

Whilst the magnitude of change may increase, the residual effect at the local authority level and to the economy (through job creation) of up to major beneficial is likely to remain and this is considered a **significant inter-project cumulative effect** and is beneficial in nature.

The residual effects identified to the local population (in terms of labour force and job creation) of up to moderate beneficial remain and is considered a **significant inter-project cumulative effect** and is beneficial in nature.

Significant inter-project cumulative effects (beneficial).

Chapter 19: Lighting

Schemes assessed: CI.2

Construction No residual effects of a level of effect of Minor or above were identified at shared receptors to the identified cumulative projects.
No significant inter-project cumulative effects.

Operation No residual effects of a level of effect of Minor or above were identified at shared receptors to the identified cumulative projects.
No significant inter-project cumulative effects.

Chapter 20: Waste and Resource Efficiency

Schemes assessed: All.

Construction Due to the type of receptor associated with waste, i.e. local and regional waste management facilities and the overall local and regional waste management infrastructure, all of the Schemes assessed have common receptors with the Proposed Development.

Whilst the magnitude of change may increase, the residual effects identified of minor adverse remain but this is not considered a significant inter-project cumulative effect.

No significant inter-project cumulative effects.

Operation Due to the type of receptor associated with waste, i.e. local and regional waste management facilities and the overall local and regional waste management infrastructure, all of the Schemes assessed have common receptors with the Proposed Development.

Whilst the magnitude of change may increase, the residual effects identified of minor adverse remain but this is not considered a significant inter-project cumulative effect.

No significant inter-project cumulative effects.

Chapter 21: Climate Change Mitigation and Adaptation

Schemes assessed: All.

Construction Due to the type of receptor associated with climate, i.e. the climatic system, all of the Schemes assessed have common receptors with the Proposed Development.

Operation

Climate Change Mitigation

The assessment of GHG emissions are based on circumstances specific to the Proposed Development and there is insufficient data to assess the inter-project cumulative effects. However, the residual effect identified as moderate beneficial (construction and operational in-combination) remains and would **contribute in a beneficial way to any inter-project cumulative effect**. Therefore, the promotion of both Northampton Gateway and Rail Central as SRFIs, for example would increase the modal shift of road to rail – hence increasing the Climate Change Mitigation benefit, cumulatively.

Significant inter-project cumulative effects (beneficial).

Climate Change Adaptation

The residual effects to temperatures and rainfall identified as minor beneficial to minor adverse remain. It is assumed that measures to adapt to climate change will be controlled in a similar manner across the other Schemes assessed and this is not considered a significant inter-project cumulative effect.

No significant inter-project cumulative effects.

Summary

- 22.37 In summary, a number of intra-project effects have been identified at a number of common, sensitive receptors. These are people (including their health), land and soil, heritage assets, biodiversity and landscape character. The intra-relationships have been evaluated through the use of a matrix and for many intra-project effects detailed assessment has been an integral part of the technical assessments within the ES. The level of effect at the common, sensitive receptors is no greater than that identified individually within **Chapters 8-21**.
- 22.38 Inter-project effects have been considered for up to 35 cumulative projects. These have been evaluated if there are relevant residual effects to common, sensitive receptors. For air quality (operation) ; ground conditions; hydrology, drainage and flood risk; and lighting there are no adverse residual effects at a level of Minor or above at the project level and no significant inter-project cumulative effects. For air quality (construction); archaeology; built heritage (during operation); biodiversity; noise; highways and transportation; and waste and resource efficiency, there are no significant inter-project cumulative effects, albeit residual effects of Minor or above remain at the project level.
- 22.39 Significant residual effects and significant inter-project cumulative effects have been identified for the following:
- Loss of best and most versatile agricultural land during construction (adverse);
 - Change in setting of two heritage assets during construction (but not during operation) (adverse);
 - Changes in views and landscape character during construction and operation (at some sensitive receptors) (adverse) although the operational cumulative effect at the Viewpoints by Year 15 would be decreased to non-significant as landscaping matures;
 - An increase in job creation, economic productivity and business rate revenue and a reduction in unemployment (beneficial); and
 - A beneficial contribution towards climate change mitigation.

**Appendix 6: Conclusion Chapter in the RC ES
(Chapter 23)**

23. Conclusions

- 23.1 This Environmental Statement ('ES') has been prepared in accordance with the Infrastructure Planning (Environmental Impact Assessment Regulations 2017 (the 'EIA Regulations') (Ref.1.1). The ES accompanies the application for a development consent order (DCO) (the 'Application') for the construction and operation of a Strategic Rail Freight Interchange ('SRFI') and associated highway works including modification of Junction 15a of the M1 ('J15a') and Minor Highway Works.
- 23.2 The Proposed Development comprises two Nationally Significant Infrastructure Projects (NSIPs) and Associated Development (as outlined in **Chapter 5: The Proposed Development**). The NSIPs are the Main SRFI Site and works to J15a of the M1.
- 23.3 The Main SRFI Site falls within the administrative boundary of South Northamptonshire Council ('SNC'). The proposed works at J15a of the M1 span both SNC and Northampton Borough Council ('NBC') areas. Minor Highway Works also fall within both local authorities.
- 23.4 As described at **Chapter 5: The Proposed Development**, a SRFI is a large rail-served distribution park linked into both the rail and the strategic highway network, capable of accommodating the large warehousing necessary for the storage, processing and movement of goods for manufacturers, retailers and end consumers. The aim of an SRFI is to optimise the use of rail in the freight journey by maximising rail trunk haul and minimising some elements of the secondary distribution leg (final delivery) by road, through co-location of other distribution and freight activities.
- 23.5 SRFIs are a key element in reducing the cost to users of moving freight by rail and are important in facilitating the transfer of freight from road to rail, thereby reducing trip mileage of freight movements on both the national and local road networks.
- 23.6 The process by which the Order Limits for the Proposed Development have been defined is set out at **Chapter 3: Reasonable Alternatives**. A full assessment of the alternative sites that have been considered is provided in the separate 'Alternative Site Assessment'. The findings of this assessment, which are also described at **Chapter 3**, demonstrates the suitability of the Rail Central site with regard to other potential sites; some of which could be developed as acceptable SRFI sites in their own right and are likely to be required to meet government objectives. The selected site brought forward as the Main SRFI Site in the Proposed Development is considered to have exceptionally good rail links, due to having access to two rail lines of appropriate gauge, excellent site access directly from the A43 and less than 2 km from the M1 and owing to the size, topography and location of the site, potential for sensitive landscaping and mitigation to ensure that environmental impacts are minimised. It also benefits from having direct access to two railway lines (fast and slow lines) enabling a wide range of freight to be served and the creation of additional rail infrastructure and facilities within the site to deliver additional resilience to the rail network. This makes the Rail Central site one of the best performing SRFI locations.
- 23.7 Having selected the site, the design of development within the Main SRFI Site (and highways works required to deliver the SRFI) has evolved since 2015 in response to overarching design principles and consultation with relevant stakeholders. The Proposed Development is

considered to be an appropriate and acceptable option for development within the site and makes the best use of the resources available. It has had regard to constraints in terms of:

- landscape and visibility - through design of screening, proposed planting and size, massing and location of development within the site;
- public rights of way - through development of an improved network of footpaths and cycleways, and “informal” publicly accessible areas, such as the “pocket park” at Arm Farm;
- flood risk – through diversion of the Milton Malsor brook and development of an appropriate flood mitigation and drainage system on site including attenuation ponds;
- biodiversity - through proposed planting, landscaping and development of “informal” recreational areas, mitigation at J15a to mitigate habitat loss in the Main SRFI Site and restoration of existing derelict buildings to benefit bats and birds;
- proximity to residences and listed buildings – through development of screening bunding and acoustic screens on site, and allowing for planting in gardens through a “landscaping fund”, in addition to the bunding and screening forming part of the site design; and
- access – by ensuring the traffic accesses the Main SRFI Site from the trunk road network and not Northampton Road (or the identified listed railway bridge), and that currently constrained junctions on the surrounding network have their capacity and hence safety and free-flow of traffic improved.

23.8 The consultation which was undertaken is outlined in the Consultation Report and Statement of Community Consultation (SOCC) submitted as part of the DCO Application. This has included non-statutory consultation undertaken by the Applicant, as well as statutory consultation in accordance with the PA2008. Statutory consultation carried out with stakeholders and the local community under the 2008 Act (as set out in the SOCC) has included:

- Section 47 Community Consultation (April – October 2016); and
- Section 42 & Section 47 Consultation (‘Phase Two’) (March – April 2018):

23.9 Non statutory consultation has included Informal discussions with statutory consultees, local authorities and landowners.

23.10 The relevant EIA Regulations for this EIA and resulting ES are the Infrastructure Planning (Environmental Impact Assessment) (Amendment) Regulations 2017. The Scoping Report and subsequent Scoping Opinion for the Proposed Development were prepared and issued under the EIA Regulations 2009. The Scoping Request was made by the Applicant in December 2015 and the Planning Inspectorate (PINS) provided its formal Scoping Opinion in January 2016. As the Proposed Development was scoped in 2015/2016 in advance of the 2017 EIA Regulations coming into force (i.e. under The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended)) the Applicant benefits

from the transitional arrangements under the 2017 EIA Regulations, in that the DCO could be determined under the 2009 EIA Regulations. However, the Applicant has chosen to comply voluntarily with the 2017 Regulations to ensure that the DCO application is as robust as possible.

- 23.11 The remainder of this Chapter presents a summary of the residual effects, together with any recommended commitments, for each environmental topic assessed within the ES (Chapters 8-21), which are listed in **Table 23.1** below. The tables presented in each summary show predicted effects where the pre-adaptive-mitigation level of effect was moderate or major (i.e. Significant) – where the EIA Regulations require adaptive mitigation to be proposed. In addition, minor levels of effect are shown where adaptive mitigation is proposed to further reduce the identified effect. Where no minor, moderate or major pre-mitigation effects were present, the tables are empty.

Table 23.1: Technical topics assessed in the ES

ES Chapter No.	Topic
8	Air Quality
9	Agricultural Land
10	Archaeology
11	Built Heritage
12	Ground Conditions
13	Hydrology, Drainage and Flood Risk
14	Biodiversity
15	Landscape and Visual
16	Noise and Vibration
17	Highways and Transportation
18	Socio Economics
19	Lighting
20	Waste and Resource Efficiency
21	Climate Change Mitigation and Adaptation

- 23.12 A brief summary of the main findings of each of the technical topic assessments is provided below, along with an overview of the residual effects that remain following the application of embedded and adaptive mitigation and whether the effects are considered to be significant or not significant.

Air Quality (Chapter 8)

- 23.13 The air quality assessment considers the air quality impacts from the construction phase and the impacts once the Proposed Development is operational. To assess the effects on air quality during construction, all receptors within 350 m of the Order Limits were considered at the Main SRFI Site, at J15a and at the Minor Highway Works.
- 23.14 The assessment considered the air quality effects on these receptors that could potentially arise from increased levels of construction dust. This covers both the particulate matter (PM10) fraction that is suspended in the air that can be breathed, and the deposited dust that has fallen out of the air onto surfaces and which can potentially cause temporary annoyance effects.
- 23.15 The air quality effects associated with emissions from traffic generated during the construction and operational phases were assessed at sensitive human-health receptors at the Main SRFI Site, J15a, the Minor Highway Works and at affected Air Quality Management Areas (AQMAs). Locations representative of where concentrations of traffic-related pollutants are expected to be the highest or increase the most were selected, including sensitive receptors close to roads affected by the Proposed Development. The air quality impacts on ecological receptors at the Upper Nene Valley Gravel Pits SPA/SSSI/Ramsar site were also considered.
- 23.16 The Proposed Development has been designed to ensure these effects are reduced by implementation of good practice measures to control dust outlined in the Code of Construction Practice (COCP) and Outline Construction and Operational Environmental Management Plan (Outline CEMP).
- 23.17 Additional adaptive mitigation measures have also been recommended to further reduce the effects. These include measures within the Framework Travel Plan to allow for sustainable travel and incentives for low carbon modes of travel, measures in the landscape strategy (15 year Landscape Management and Maintenance Plan) relating to tree planting, and provision of an Air Quality and Dust Management Plan(s) for each phase of the Proposed Development
- 23.18 **Table 23.2** below identifies residual effects where they have been assessed as being minor or above. Following the implementation of embedded mitigation, the assessment of air quality impacts in 2021 and 2031 from the Proposed Development concluded that the effects on air quality would be negligible and not significant for the purposes of EIA. This being the case, no residual construction effects have been identified for inclusion within **Table 23.2**.

Table 23.2: Air Quality Residual Effects

Description of Impact	Level of Effect (Pre-Adaptive Mitigation)	Adaptive Mitigation	Residual effect	Significant /Not Significant
Construction				
Increase in suspended particulate matter concentrations and deposited dust	Minor adverse to negligible	No adaptive mitigation required	Minor adverse to negligible	Not Significant
Operation				
Increase in NO ₂ , PM ₁₀ and PM _{2.5} concentrations from traffic generated by the development	Minor Adverse to Negligible	Framework Travel Plan to allow for sustainable travel and incentives for low carbon modes of travel, measures in the landscape strategy (15 year Landscape Management and Maintenance Plan) relating to tree planting, and provision of an Air Quality and Dust Management Plan(s)	Negligible	Not Significant

Agricultural Land (Chapter 9)

- 23.19 The agricultural land assessment considers the agricultural resources and receptors that have the potential to be significantly affected during the construction and operation phases of the Proposed Development, particularly the quality of agricultural land, the nature of the soil resource and the scale and nature of the farm holdings within the Order Limits.
- 23.20 The potential effects on these receptors that arise from construction were considered to include the loss of best and most versatile (BMV) agricultural land which represents approximately one-quarter of the agricultural land affected; the potential damage to, and loss of, the soil resource; and the impacts on the viability of the residual farm holdings.
- 23.21 Taking into account the embedded mitigations measures, which include the implementation of a Soil Resources Management Plan (SRMP), the effect with regards to the permanent loss of agricultural land were assessed as ‘moderate adverse’ and are considered ‘significant’.
- 23.22 Adaptive mitigation measures are not available for the direct loss of agricultural land in the same location and to the same extent. With the implementation of the SRMP, the soils will be managed as appropriate to their relevant function within the Proposed Development, reducing the level of impact to very low and the effect on the resource to minor adverse. Impacts on the viability of the residual farm holdings would not be significant (negligible)

and would be mitigated through private agreements (or compensation in line with the statutory compensation code).

- 23.23 The assessment also considered the potential effects on neighbouring agricultural land throughout the operational phase of the Proposed Development. These effects relate to the increase in local traffic hindering farm vehicle movements. The traffic assessment concluded that with embedded mitigation, the Proposed Development would not have a material impact on accidents and safety, hazardous loads, severance and driver delay, such that these effects would not affect the viability of the farm businesses, or require changes in the day-to-day management of the farms. Such effects were assessed as negligible, which is considered not significant. **Table 23.3** sets out the residual effects for agricultural land.

Table 23.3: Agricultural Land Residual Effects

Description of impact	Level of Effect (Pre-Adaptive Mitigation)	Adaptive Mitigation	Residual effect	Significant/Not Significant
Construction				
Loss of agricultural land	Moderate Adverse	N/A	Moderate, Adverse	Significant
Loss of or damage to soil resources	Moderate Adverse	SRMP	Minor, Adverse	Not Significant
Loss of farmable area and/or farm infrastructure	Negligible	Statutory Compensation Code	Negligible	Not Significant
Operation				
Effects on neighbouring agricultural land	Negligible	No adaptive mitigation required	Negligible	Not significant

Archaeology (Chapter 10)

- 23.24 The archaeological assessment considered the potential impacts and effects of the construction and operation of the Proposed Development on archaeological sites and features (the archaeological resource). In respect of the Main SRFI Site and J15a, the environmental receptors were identified as being buried archaeological remains of later prehistoric and Romano-British settlement. At the Minor Highway Works locations, receptors include buried archaeological remains of Romano-British settlement around the A43/A5 Tove Roundabout.
- 23.25 As identified in the assessment there is the potential for environmental effects during the construction phase of the Main SRFI Site and reconfiguration of M1 J15a and the A43/A5 Tove Roundabout, involving the loss of archaeological resource. However, with embedded

mitigation it was considered that the Proposed Development would not give rise to operational effects on archaeological resources. As a result, operational effects in relation to archaeology were 'scoped out' of the assessment.

- 23.26 The Proposed Development has been designed to ensure that these effects on archaeological features during construction are avoided, reduced or offset by a programme of agreed embedded mitigation including set-piece excavations in areas where there is identified archaeological potential; a strip, map and sample strategy in areas where the archaeological remains are less concentrated; and archaeological investigations or watching briefs in areas where archaeological investigation has not yet taken place but where there is an identified archaeological sensitivity (J15a and A43/A5 Tove Roundabout). Where there is some uncertainty regarding the presence or absence of archaeological remains (J15a and A43/A5 Roundabout), embedded mitigation (to identify any potential remains present) and adaptive mitigation (to respond to the discovery of any remains identified) measures have been identified (through development of a Written Scheme of Investigation).
- 23.27 The assessment of effects on the archaeological resource as a result of the construction of the Proposed Development concluded that there would be no residual significant adverse effects on the archaeological resource.

Table 23.4: Archaeology Residual Effects

Description of impact	Level of Effect (Pre-Adaptive Mitigation)	Adaptive Mitigation Measures	Residual effect	Significant/Not Significant
Construction				
Loss of archaeological resource across the Main SRFI Site	Minor Adverse	N/A	Minor Adverse	Not Significant
J15a	Minor Adverse	If any archaeological remains are discovered during trial trench evaluation of the J15a construction compound and new link road a further programme of adaptive mitigation through set piece excavation or a strip, map sample strategy may be required – to be delivered through a Written Scheme of Investigation.	Minor Adverse	Not Significant

A43/A5 Tove Roundabout	Minor Adverse	If any archaeological remains are discovered during the watching brief at the A43/A5 Roundabout a further programme of adaptive mitigation through set piece excavation or a strip, map sample strategy may be required – to be delivered through a Written Scheme of Investigation.	Minor Adverse	Not Significant
Operation				
None	N/A	No adaptive mitigation required	N/A	N/A

Built Heritage (Chapter 11)

- 23.28 The environmental receptors considered at the Main SRFI Site consisted of 146 Listed Buildings, 8 Conservation Areas, 2 Scheduled Monuments, 1 Registered Park and Garden and 17 Non-Designated Heritage Assets. For J15a and the Minor Highway Works, the receptors included 26 Listed Buildings, 2 Conservation Areas and 1 Registered Battlefield.
- 23.29 Although there are some direct effects on the Grand Union Canal Conservation area, the potentially significant effects arising from the Proposed Development on Built Heritage will be indirect in nature having potential to affect the significance of the identified assets through change within their setting.
- 23.30 The Proposed Development has been designed to ensure that effects are avoided, reduced or offset by maintaining areas of open space and landscaping; construction of a native structural planting belt; introduction of a building limit line and introduction of native tree and shrub planting to visually screen the Proposed Development. The Proposed Development therefore has reduced the significant environmental impacts arising through site design.
- 23.31 As set out at **Table 23.5**, the assessment of effects on built heritage as a result of the Proposed Development concluded that there would be a residual ‘moderate adverse’ effect at operation on only 3 out of the 203 heritage assets assessed (and up to 5 during construction), which in EIA terms is considered ‘significant’. Other effects would be of slight level of effect, which is not significant.

Table 23.5: Built Heritage Residual Effects

Description of impact	Level of Effect (Pre-Adaptive Mitigation)	Adaptive Mitigation Measures	Residual effect	Significant/ Not Significant
Construction				
Effect on Grand Union Canal Conservation Area (GU18 / HW17) as a result of the visual and noise effects of the construction work within its setting.	Moderate Adverse	No adaptive mitigation available	Moderate Adverse	Significant
Effect on Milton House and Manor Cottage (MM9) as a result of the visual and noise effects of the construction work within its setting.	Moderate Adverse	No adaptive mitigation available	Moderate Adverse	Significant
Effect on Lock No 10 (HW12) and Lock No 11 (HW13) to the Grand Union Canal as a result of the visual and noise effects of the construction work within its setting.	Moderate Adverse	No adaptive mitigation available	Moderate Adverse	Significant
Effect on Milton Malsor Conservation Area (MM36) as a result of the visual and noise effects of the construction work within its setting.	Moderate Adverse	No adaptive mitigation available	Moderate Adverse	Significant
Effect on Mortimers (MM10) as a result of the visual and noise effects of the construction work within its setting.	Moderate Adverse	No adaptive mitigation available	Moderate Adverse	Significant
Effect on Lock No 6 (HW8), Lock No 7 (HW9), Lock No 8 (HW10) and Lock No 9 (HW11)	Slight Adverse	No adaptive mitigation required	Slight Adverse	Not Significant
Effect on the Railway Bridge over Northampton Road (B35)	Slight Adverse	No adaptive mitigation required	Slight Adverse	Not Significant

Operation

Effect on Grand Union Canal Conservation Area (GU18 / HW17) due to the extent of modern development and transport infrastructure within its setting.	Moderate Adverse	Preparation of a plan to provide details on the design and materials for the proposed bridge. Preparation of a plan to provide details on the design and materials for the proposed buildings.	Moderate Adverse	Significant
Effect on Milton Malsor Conservation Area (MM36) due to the extent of modern development and transport infrastructure within its setting.	Moderate Adverse	No adaptive mitigation available	Moderate Adverse	Significant
Effect on Mortimers (MM10) due to the extent of modern development and transport infrastructure within its setting.	Moderate Adverse	No adaptive mitigation available	Moderate Adverse	Significant
Effect on Lock No 10 (HW12) and Lock No 11 (HW13) to the Grand Union Canal due to the extent of modern development and transport infrastructure within its setting.	Moderate Adverse	Preparation of a plan to provide details on the design and materials for the proposed bridge.	Slight Adverse	Not Significant
Effect on Milton House and Manor Cottage	Slight Adverse	No adaptive mitigation required	Slight Adverse	Not Significant
Effect on Lock No 6 (HW8), Lock No 7 (HW9), Lock No 8 (HW10) and Lock No 9 (HW11) due to the extent of modern development and transport infrastructure within its setting.	Slight Adverse	Preparation of a plan to provide details on the design and materials for the proposed bridge.	Slight Adverse	Not Significant
Effect on the Railway Bridge over Northampton Road (B35) due to the extent of modern development within its setting.	Slight Adverse	Preparation of a plan to provide details on the design and materials for the proposed buildings.	Slight Adverse	Not Significant

Ground Conditions (Chapter 12)

- 23.33 The site investigations confirmed that there is no widespread presence of soil contamination at the Main SRFI Site, and the desk studies and reviews indicated that widespread contamination is not expected at the J15a or Minor Highway Works.
- 23.34 The environmental receptors considered at the Main SRFI Site, J15a and the Minor Highway Works were site preparation and construction workers, off-site populations, end users of the site, structures and construction materials, existing and proposed landscaping, the surrounding ecosystem including Road Cutting SSSI and controlled waters encompassing the groundwater environment and the surface water environment.
- 23.35 Environmental effects that could arise during the construction period include:
- Mobilisation of existing contamination:
 - a. Contamination within the soil and made ground, including heavy metals, metalloids, Polycyclic Aromatic Hydrocarbons (PAH), asbestos, Total Petroleum Hydrocarbons (TPH) and formaldehyde foam.
 - b. Leaching of contaminants present within soils and the resulting chemical and physical pollution of controlled waters via leaching, surface run-off, base flow and overland flow.
 - c. Presence of asbestos in existing buildings and in the soils and the potential for inhalation.
 - Inhalation of ground gases, vapours, fugitive dust and radon from the mobilisation of identified potential contaminants and from natural sources.
 - Adverse geotechnical ground conditions.
 - Site preparation and construction effects as a result of development for example fuel spills.
- 23.36 Environmental effects arising during the operational period include:
- Mobilisation of existing contamination present within the soil and made ground, including heavy metals, metalloids, PAH, asbestos, TPH and formaldehyde foam.
 - Impact of existing contamination on the existing and proposed landscape planting on site.
 - Inhalation of ground gases, vapours, fugitive dust and radon from the mobilisation of identified potential contaminants and from natural sources.
 - Operational effects for example fuel spills from vehicles using the site.
- 23.37 The Proposed Development has been designed to ensure these effects are avoided, reduced or offset by the proposed embedded mitigation measures, specifically, the implementation

of the Outline CEMP and COCP; this includes: having relevant permits and licences for undertaking operations, complying with relevant regulations, disposing of waste, managing protected species; a Remediation Method Statement (RMS) detailing the outline remedial objectives; how the remediation of the site will be undertaken and how the works will be validated and an Materials Management Plan (MMP) detailing the measures to be put in place to ensure excavated materials can be reused on site where possible.

- 23.38 In addition to the embedded mitigation described above, further adaptive mitigation has been proposed to reduce the environmental effects arising from adverse ground conditions and the identified risks to existing and proposed structures. Further investigation and specification of works will be undertaken as part of detailed design to mitigate the above potential identified risks. Geotechnical design will be undertaken to appropriate standards and published guidance documents and all geotechnical construction works will be undertaken in accordance with appropriate Geotechnical Design Reports and Specifications.
- 23.39 Following the implementation of the adaptive mitigation measures proposed for the Main SRFI Site, the J15a Site and Minor Highway Works, the potential effects identified as a result of adverse ground conditions were reduced to a 'Minor Adverse' level of effect, which is not significant.

Table 23.6: Ground Conditions Residual Effects

Description of impact	Level of Effect (Pre-Adaptive Mitigation)	Adaptive Mitigation Measures	Residual effect	Significant/ Not Significant
Construction				
Potential effects from ground and hazardous substances on existing and proposed structures at the Main SRFI Site, J15a and Minor Highway Works	Minor to Major Adverse	Further investigation and specification of works will be undertaken as part of detailed design to mitigate potential identified risks. Geotechnical design will be undertaken to appropriate standards and published guidance documents and all geotechnical construction works will be undertaken in accordance with appropriate Geotechnical Design Reports and Specifications.	Minor Adverse	Not Significant
Operation				
Potential effects from ground and	Negligible to Minor Adverse	No adaptive mitigation required	Negligible	Not Significant

Description of impact	Level of Effect (Pre-Adaptive Mitigation)	Adaptive Mitigation Measures	Residual effect	Significant/ Not Significant
hazardous substances on existing and proposed structures at the Main SRFI Site, J15a and Minor Highway Works				

Hydrology, Drainage and Flood Risk (Chapter 13)

- 23.40 The assessment identifies the existing hydrological, drainage and flood risk conditions within the Study Area, and assesses the potential effects on relevant identified receptors during the construction and operation phases of the Proposed Development
- 23.41 The environmental receptors considered at the Main SRFI Site, J15a and Minor Highway Works areas included: water quality, specifically in relation to water quality in the downstream watercourse catchment (including unnamed watercourses, the Milton Marsor Brook, the Wootton Brook, and Grand Union Canal), human health, and sites of ecological importance; flood risk, specifically in relation to flood risk in the downstream watercourse catchment; surface water drainage, specifically in relation to capacity / flood risk in the downstream watercourse catchment; and, foul water drainage, specifically in relation to capacity in the receiving Anglian Water sewer system / Blisworth Water Recycling Centre.
- 23.42 Environmental effects on these receptors that could arise from construction and operation included: production of contaminated run-off which could affect water quality in the downstream catchment; loss of floodplain storage and/or disruption to a flow route which could have the potential to increase flood risk in the downstream catchment; increase in the rate and volume of surface water run-off which could increase the flood risk posed to downstream areas; and the discharge of additional foul water to the Anglian Water foul sewer/treatment system which could result in system failure/surcharge.
- 23.43 The Proposed Development has been designed to ensure these effects are avoided, reduced or offset by the proposed embedded mitigation measures, specifically: management and operational systems detailed in the CEMP and COCP to minimise the potential effects posed to water quality during construction; provision of appropriate and proportionate pollution control apparatus within the proposed surface water drainage systems to ensure a high quality discharge; realignment and enlargement of watercourses within the Main SRFI Site; surface water drainage systems constructed, to ensure post-development peak run-off rates are not increased compared to the baseline situation; and a foul water drainage system constructed at the Main SRFI Site, which will include additional attenuation storage as required by Anglian Water.
- 23.44 As a result of the embedded mitigation summarised above, the residual effects with regards to water quality, surface water drainage and flood risk at J15a and the Minor Highway Works during the construction and operational phases are considered to be negligible.

- 23.45 At the Main SRFI Site the construction activities could have the potential to result in a loss of floodplain storage. However, through the embedded mitigation proposed (the realignment of both the Milton Malsor Brook and the Unnamed Watercourse with two-stage channels designed to provide suitable capacity to contain and convey flows for all flood events up to and including the 1 in 1,000 year ‘extreme’ flood event), there is a significant reduction in potential flood extent and level compared to the baseline scenario for both the Main SRFI Site and critically to third party land downstream. As a consequence, the residual effects with regards to flood risk, during both the construction and operational phases of the Main SRFI Site, are assessed as ‘Moderate Beneficial’.
- 23.46 It is also considered that the proposed system reinforcement works to the existing foul drainage network, along with a required additional 102m³ storage volume to be provided within the Order Limit boundary will lead to a ‘Moderate Beneficial’ level of effect at the Main SRFI Site. As indicated at Table 23.7 below, these ‘Moderate Beneficial’ effects on flood risk and foul water drainage at the Main SRFI Site are considered ‘Significant’.

Table 23.7: Hydrology Residual Effects

Description of impact	Level of Effect (Pre-Adaptive Mitigation)	Adaptive Mitigation Measures	Residual effect	Significant/ Not Significant
Construction				
Potential to decrease flood risk downstream of the Site within the Wootton Brook catchment as a result of construction activities at Main SRFI Site.	Moderate Beneficial (i.e. flood risk decreased)	No adaptive mitigation required	Moderate Beneficial	Significant
Potential effects on existing foul drainage system as a result of the significant volumes of foul water to be generated at the Main SRFI Site.	Moderate Beneficial (i.e. increase in foul water capacity)	No adaptive mitigation required	Moderate Beneficial	Significant
Operation				
Potential to decrease flood risk downstream of the Site within the Wootton Brook catchment as a result of the operation of the Main SRFI Site.	Moderate Beneficial	No adaptive mitigation required	Moderate Beneficial	Significant
Potential effects on existing foul drainage system as a result of the significant volumes of foul water to be generated at the Main SRFI Site	Moderate Beneficial	No adaptive mitigation required	Moderate Beneficial	Significant

Biodiversity (Chapter 14)

- 23.47 The Main SRFI Site comprises large fields most of which are arable, though semi-improved grassland is more common in the south-western and north-eastern parts of the site. The fields are mostly separated by relatively species-poor hedgerows, though there are a few more species-rich and therefore potentially older hedges along Towcester Road and elsewhere. There are 130 mature trees in the hedgerows and as lone field trees.
- 23.48 J15a includes a range of habitats. There are roads and associated hedges, verges and amenity plantings, a canal and a wetland on abandoned land. Farmland includes grazed pasture and arable land. Field boundaries are mainly hedges and there are two small streams. Semi-natural vegetation is limited to the abandoned land and wetland west of the A43.
- 23.49 The Minor Highway Works are all within adopted highways, with the exception of Junction 14 (J14) (Tove) and 15 (Abthorpe). Typical roadside habitat, which does include some trees exists on verges, roundabouts and embankments.
- 23.50 Protected species across the Order Limits include badgers, bats, and breeding birds.
- 23.51 Environmental effects on these receptors that could arise from construction include the permanent loss of farmland features used by birds and bats, and the removal of hedgerows, ancient and veteran trees and scarce plants.
- 23.52 Environmental effects on these receptors that could arise from the operation of the Proposed Development include noise, lighting and disturbance.
- 23.53 The Proposed Development has prevented significant environmental impacts arising through site design and procedures to be followed (good practice within the Outline CEMP and COCP). Adaptive mitigation will deliver potential benefits tailored to species that it is desirable to promote in the Northamptonshire context. In addition, it will ensure that any adverse impacts on biodiversity are more than counterbalanced by benefits from green infrastructure and ecological mitigation areas in accordance with planning policy. A separate Biodiversity Assessment has been undertaken to demonstrate the positive gain in the biodiversity value of the site arising from the Proposed Development.
- 23.54 Adaptive mitigation includes carrying out works in accordance with an Ecological Creation and Habitat Management Plan (HMP) (to be developed in advance of each phase of works). This will include a monitoring plan and details on who will be responsible for management works and set out how this will be funded. A template for this HMP is included in the Outline CEMP. A 15 year Landscape Management and Maintenance Plan will also be produced which will guide maintenance of the soft landscaping on the Main SRFI Site. The design of Milton Malsor Brook will also be undertaken in consultation with ecological consultants.
- 23.55 The assessment of effects on biodiversity as a result of the Proposed Development has concluded that with the implementation of appropriate mitigation there will be minor residual adverse effects related to construction, through the loss of important hedgerow features and hedgerow networks, loss of trees, including veteran and aged trees, and impacts on foraging and commuting bats, which are Not Significant for the purposes of the EIA Regulations. There will also be minor beneficial effects in terms of creation of new

habitats at J15a and on the Main SRFI Site. Other effects including those on roosting and hibernating bats, rerouting of Milton Malsor Brook, loss of habitat for farmland birds and barn owls and loss of partial areas of some locally important habitats, are negligible once adaptive mitigation is implemented.

Table 23.9: Biodiversity Residual Effects

Description of Impact	Level of Effect (Pre-Adaptive Mitigation)	Adaptive Mitigation Measures	Residual Effect	Significant/Not Significant
Construction				
Bats - Permanent, irreversible, loss of foraging habitat for commuting and foraging arising from land take for development	Moderate Adverse	Measures in the HMP will include maintenance and reinforcement of hedgerows, which will be monitored through the construction phase to ensure that bats are adopting these new routes.	Minor adverse	Not Significant
Bats – loss of roosting and hibernating habitat from small non-maternity roosts in four buildings.	Moderate Adverse	Creation of habitat through the barn renovation and development of bat boxes across the Proposed Development.	Negligible	Not Significant
Loss of 7 species-rich hedgerows (and 5 borderline species-rich hedgerows). permanent, irreversible	Moderate Adverse	Hedgerow planting in the buffer and compensatory habitat zones will offset, though not entirely mitigate the loss of Important hedges.	Minor adverse	Not Significant
Loss of 12.9km of hedge, permanent, irreversible	Moderate Adverse	Planting of wildlife hedge (10.9km) in the buffer and compensatory habitat zones will offset the loss, though not entirely replace the patterns of the existing network.	Minor adverse	Not Significant
Loss of mature and veteran trees (including notable and locally notable) at Main SRFI Site (loss of one locally notable tree at J15a is Minor Adverse pre-mitigation)	Moderate Adverse	Efforts have been made to avoid ancient and veteran trees wherever possible in the final site design. Adaptive mitigation will use important features of the trees (for example deadwood which is of value to invertebrates) in mitigation areas.	Minor Adverse/negligible	Not Significant

Rerouting of Milton Malsor Brook	Moderate Adverse	Incorporation of biodiversity protections and a beneficial structure/ riparian planting etc to the rerouted brook. Further detailed design of the brook corridor, and planting scheme will be developed in consultation with CIEEM registered ecologists.	Negligible	Not Significant
Loss of habitat for farmland birds	Moderate Adverse	The loss of farmland habitat will be mitigated through the creation of similar habitat at J15a	Negligible	Not Significant
Loss of habitat for barn owls in trees and buildings and foraging habitat, arising from vegetation clearance.	Major Adverse	Creation of habitat through the barn renovation and development of pole mounted nest boxes across appropriately placed in J15a and the Main SRFI Site.	Negligible	Not Significant
Loss of 0.5ha (approximately 10%) from pWS239 at J15a for the construction of the new A43 sliproad.	Moderate Adverse	Detailed design of the J15a ecology mitigation area (through the HMP) will be drawn up in discussion with ecologists and local stakeholders to promote relevant species from this PWS.The HMP will contain specific guidance for this area which will include monitoring.	Negligible	Not Significant
Bats – commuting and foraging at J15a (temporary noise and lighting at Grand Union Canal)	Moderate Adverse	The Detailed Construction Lighting Management Plan and Construction Noise and Vibration Management Plan (DCO Requirements) will contain measures to minimise the effect of lighting and noise on these species.	Negligible	Not Significant
Loss of Tall herb swamp at J15a	Moderate Adverse	Detailed design of the J15a ecology mitigation area (through the HMP) will be drawn up in discussion with ecologists and local stakeholders to promote relevant species from this habitat.The HMP will contain specific guidance for this area	Negligible	Not Significant

		which will include monitoring.		
Loss of habitat at pWSs 241, 240, Grand union Canal LWS, and semi-improved neutral agricultural grassland, and individual plant species	Minor Adverse	Detailed design of the J15a ecology mitigation area (through the HMP) will be drawn up in discussion with ecologists and local stakeholders to promote relevant species. The HMP will contain specific guidance for this area which will include monitoring.	Negligible	Not Significant
Breeding birds – loss of nesting habitat	Minor Adverse	Creation of diverse green infrastructure in the Main SRFI Site and at J15a, to mitigate habitat loss. This will be managed through the HMP and 15 year Management and Maintenance Plan.	Negligible/ Minor Beneficial	Not Significant
Breeding birds – provision of extensive nesting habitat in green infrastructure	Minor Beneficial	Development of HMP to further improve quality of habitat	Minor beneficial	Not Significant
Bats – temporary noise and lighting disturbance (Main SRFI Site)	Minor adverse	The Detailed Construction Lighting Management Plan and Construction Noise and Vibration Management Plan (DCO Requirements) will contain measures to minimise the effect of lighting and noise on these species.	Negligible	Not Significant
Great Crested Newt – pond off-site contains a medium population	Minor Adverse	N/A (if required, an EPS licence will be sought – as part of embedded mitigation)	Minor Adverse	Not significant
Provision of new green infrastructure	Minor Beneficial	Development of HMP to further improve quality of habitat	Minor beneficial	Not Significant
Invertebrates - Loss of 0.5ha wetland habitat at J15a with locally rare invertebrate species	Minor Adverse	Detailed design of the J15a ecology mitigation area (through the HMP) will be drawn up in discussion with ecologists and local stakeholders to promote relevant species. The HMP will contain specific guidance for this area which will include monitoring.	Negligible	Not Significant

Otters – lighting and noise effects along Grand Union Canal	Minor Adverse	The Detailed Construction Lighting Management Plan and Construction Noise and Vibration Management Plan (DCO Requirements) will contain measures to minimise the effect of lighting and noise on these species.	Negligible	Not Significant
Operation				
Foraging and commuting bats at J15a/ Grand Union Canal corridor – effect of noise and lighting arising from operational site	Moderate Adverse	The Detailed Operational Lighting Management Plan and Operational Noise and Vibration Management Plan (DCO Requirements) will contain measures to minimise the effect of lighting and noise on these species.	Negligible	Not Significant
Breeding birds – disturbance during operation	Minor Adverse	The HMP will include measures to ensure some habitat is prevented from disturbance, and the Detailed Operational Lighting Management Plan and Operational Noise and Vibration Management Plan (DCO Requirements) will contain measures to minimise the effect of lighting and noise on these species.	Negligible	Not Significant
Establishment of mixed habitat within green infrastructure for ecological amenity	Minor beneficial	Development of HMP to further improve quality of habitat	Minor beneficial	Not Significant
Traffic emissions affecting green infrastructure	Minor adverse	Measures in the Air Quality and Dust Management Plans (See Chapter 8: Air Quality) will minimise emissions.	Negligible	Not Significant

Landscape and Visual (Chapter 15)

- 23.56 A landscape and visual impact assessment (LVIA) has been undertaken to identify the likely landscape and visual effects of the Proposed Development. The LVIA considers the effects of the Proposed Development on both the landscape and on people's views and visual amenity. Landscape and visual effects have been considered for the construction phase, operational phase at Year 1 during Winter, and Years 7 and 15 during Summer (to take account of the effects once mitigation planting has developed and reached a level of maturity). Consideration has also been given to cumulative effects including a consideration of the

proposed Northampton Gateway strategic rail freight terminal and its associated infrastructure.

- 23.57 A study area around the Main SRFI Site has been defined and agreed with SNC as a 5.0 km radius. The study area for the Main SRFI Site includes the locations of a total of twenty-four representative viewpoints agreed with SNC. A study area of approximately 1 km has been defined for the J15a Works. This study area includes a total of five representative viewpoints. For the Minor Highway Works, study areas are limited to within approximately 500 m and no specific representative viewpoint locations are proposed due to the nature of the works and limited effects anticipated.
- 23.58 There are no national, regional or local landscape designations within the Main SRFI Site. The Main SRFI Site mainly consists of large scale arable farmland, with some smaller scale pastoral fields located in the north-east, just to the south of the village of Milton Malsor. There is a relatively low level of tree and hedgerow cover at the Main SRFI Site. Field boundaries generally have some hedgerow or intermittent tree cover and hedgerow boundaries with occasional mature trees are a feature of views across the Main SRFI Site.
- 23.59 Within the Main SRFI Site a total of 130 trees were recorded. Of these trees: six trees have been identified as Ancient; 17 trees have been identified as Veteran; six trees have been identified as Notable; and 27 have been identified as Locally Notable. Of these the proposed development of the Main SRFI Site will require the removal of four Ancient trees, ten Veteran trees, three Notable trees, and 21 Locally Notable trees. One further locally notable tree would require removal to facilitate the J15a Works. There are five Tree Preservation Order (TPO) trees within the Main SRFI Site. Two of these trees are to be retained within an area of proposed primary green infrastructure and proposed landscaped open space and no significant effects are anticipated to these trees. Three of these trees will be removed to facilitate the Proposed Development.
- 23.60 There are no national, regional or local landscape designations within the J15a Site. The J15a Site is relatively visually contained due to a combination of: natural undulations in the landform, man-made landforms, such as road embankments and intermittent vegetation cover. The Grand Union Canal Conservation Area runs through the J15a Site.
- 23.61 Mitigation measures have been identified and adopted as part of the evolution of the project design (embedded into the project design) to minimise landscape and visual effects including the use of landscape screening bunds and landscape planting. Landscape and visual mitigation together with ecological mitigation will be secured as a requirement of the DCO through the Outline CEMP and the production of a 15 Year Landscape Management and Maintenance Plan (Soft Landscape, Ecological Enhancement and Overall Management Plan). The Main SRFI site will have a series of landscape corridors focused around the periphery and adjacent to internal road corridors. Measures include: bunding and native structural planting; integrated drainage mitigation; retention and enhancement of existing vegetation; habitat connectivity using site and species specific habitat creation; and enhancement of the local footpath network creating new and connected footpath links. Adaptive mitigation will also assist with the screening and integration of the Main SRFI Site into the landscape. This adaptive mitigation will be secured through the detailed design of the Proposed Development, including the final design and appearance of buildings and infrastructure,

planting plans, management of specific retained vegetation and offsite planting. Acoustic mitigation is also adaptive. These will form part of the detailed plans to be submitted in advance of each phase of works. A landscaping fund is also introduced which will allow offsite planting to further reduce effects. This will be secured with SNC as a Section 106 agreement.

- 23.62 Construction phase effects relate to the introduction of construction operations, related structures, equipment, landform alterations and stockpiling of materials for a temporary period (10 years). The alteration in land cover due to the construction of the Main SRFI Site relates to a loss of arable land and a direct loss of other landscape elements such as hedgerows and hedgerow trees including some notable and veteran trees. Visual effects during construction relate to the introduction of new features for a temporary period and a direct loss of other landscape elements such as hedgerows.
- 23.63 Operational Phase effects, include the introduction of additional built form, and associated additional movement of gantry cranes, vehicles and freight trains into the landscape and the subsequent effects on landscape character that would form a prominent element within the local landscape. These will be mitigated as the vegetation associated with the landscaping matures.
- 23.64 The landscape and visual effects associated with the construction and operational phases of the Proposed Development are summarised in **Table 23.10** below. As stated above, the Applicant is providing a fund available to the residents and others affected by the Proposed Development, to enable the purchase and planting of trees, or management of existing hedgerows at affected properties. This fund will be secured through a section 106 obligation as part of the DCO application. If this fund is taken up, the introduction of this additional mitigation would have a significant benefit and would reduce adverse effects at affected properties to 'Not Significant' at Year 15. However, it is acknowledged that third parties may decide not to take up of this fund. Therefore the assessment of worst case residual visual effects is also stated in Table 23.10 below.
- 23.65 A 15 Year Landscape Management and Maintenance plan (Soft Landscape Maintenance, Ecological Enhancement and Overall Management Plan) has been prepared which outlines the proposed establishment monitoring, maintenance and management programme. Post-construction monitoring of new planting and habitat creation will be undertaken to ensure the planting successfully establishes and can achieve its intended function.
- 23.66 The proposed landscape scheme will provide a setting for the development with an expansive area of publicly accessible land to provide a landscape structure for the diverted footpath routes and additional footpath links. It will also provide an 'off road' cycle way connection between Blisworth to Milton Malsor. The publicly accessible land will feature numerous interpretation boards that explain local heritage features and also provide opportunities for use as an educational and recreational resource for the local community.
- 23.67 The introduction and the effectiveness of the proposed landscape and visual mitigation measures that can be agreed with SNC at the detailed design stage, as well as the implementation of the 15 Year Landscape Management and Maintenance Plan, mean that there are relatively few significant residual landscape and visual effects in the long term and that the Proposed Development can be integrated into the landscape in the medium to long term.

Table 23.10: Landscape and Visual Residual Effects

Description of Impact	Level of Effect (Pre-Adaptive Mitigation)	Adaptive Mitigation Measures	Residual Effect	Significant/ Not Significant
Construction Phase				
Main SRFI Site Landscape Effects				
Landscape Effects (Local Landscape Character)	Major Adverse	No adaptive mitigation available	Major Adverse	Significant
Landscape Effects (County landscape Character)	Minor Adverse	No adaptive mitigation required	Minor Adverse	Not Significant
Representative Receptors Visual Effects				
10 of 24 Viewpoint receptors ¹	Major Adverse	No adaptive mitigation available	Major Adverse	Significant
3 of 24 Viewpoint receptors ²	Moderate Adverse	No adaptive mitigation available	Moderate Adverse	Significant
6 of 24 Viewpoint Receptors ³	Minor Adverse	No adaptive mitigation required	Minor Adverse	Not Significant
6 of 31 Residential Receptors ⁴	Major Adverse	No adaptive mitigation available	Major Adverse	Significant
8 of 31 Residential Receptors ⁵	Moderate Adverse	No adaptive mitigation available	Moderate Adverse	Significant
4 of 31 Residential Receptors ⁶	Minor Adverse	No adaptive mitigation required	Minor Adverse	Not Significant

¹ VP1 – Barn Lane; VP2 - Public Right of Way KX13 ; VP3 - Public Right of Way RD6 ; VP4-Public Right of Way RD1 ; VP5 - Railway Cottages, Northampton Road; VP6 - Public Right of Way RD12; VP7 - Blisworth Arm; VP17 - Public Right of Way KX7 & KX8; VP18 - Milton Malsor R11; VP24 - Deveron House, Towcester Road (road users only – residents = minor adverse)

² VP13 - Courteenhall Road; VP14 - Hill Farm, Gayton Road; VP16 - Public Right of Way KX5,

³ VP8 - Milton Road, Gayton; VP12 - Grand Union Canal; VP15 - Public Right of Way RL5; VP19 - Public Right of Way KX10; VP21 - Northampton Road; VP23 - Walnut Tree Inn, Station Road

⁴ **R1** (Railways Cottages), **R2** (Willow Lodge), **R8a** (No. 1, 17 to 29, & 33 Rectory Lane); **R21** (Blisworth Arm) **R22** (Gayton Marina) and **R23** (Blisworth Marina)

⁵ **R5** (Hill Farm), **R8b** (Milton House, Rectory Lane), **R9** (No.1-25 Barn Lane), **R10** (Beech Croft and Beech Cottage, Collingtree Road), **R11a** (63 Collingtree Road), **R12b** (Gayton Way, Copper Beeches, and Woodbury, Towcester Road), **R18** (64-82 Courteenhall Road, Blisworth) and **R19** (Blisworth Lodge)

⁶ **R3a** (Springfield Northampton Road), **R4** (Deveron House), **R11b** (Maple House) and **R17b** (Westlodge Farm and Westlodge)

Description of Impact	Level of Effect (Pre-Adaptive Mitigation)	Adaptive Mitigation Measures	Residual Effect	Significant/ Not Significant
12 of 18 Recreational Route Receptors ⁷	Major Adverse	No adaptive mitigation available	Major Adverse	Significant
1 of 18 Recreational Route Receptors ⁸	Moderate Adverse	No adaptive mitigation available	Moderate Adverse	Significant
4 of 18 Recreational Route Receptors ⁹	Minor Adverse	No adaptive mitigation required	Minor Adverse	Significant
1 of 8 Road Receptors ¹⁰	Major Adverse	No adaptive mitigation available	Major Adverse	Significant
5 of 8 Road Receptors ¹¹	Minor Adverse	No adaptive mitigation required	Minor Adverse	Not Significant
Night time Receptors	Minor Adverse	No adaptive mitigation required	Minor Adverse	Not Significant
J15a Landscape Effects				
Landscape Effects	Minor Adverse	No adaptive mitigation required	Minor Adverse	Not Significant
J15a Visual Effects				
2 of 5 Viewpoint Receptors ¹²	Major Adverse	No adaptive mitigation available	Major Adverse	Significant
1 of 5 Viewpoint Receptors ¹³	Moderate Adverse	No adaptive mitigation available	Moderate Adverse	Significant
2 of 5 Viewpoint Receptors ¹⁴	Minor Adverse	No adaptive mitigation required	Minor Adverse	Not Significant
Minor Highway Works Landscape and Visual Effects				
Junction 6 A5076 / Hunsbury Hill Road Roundabout	Moderate Adverse	No adaptive mitigation available	Moderate Adverse	Significant

⁷ KX7, KX8, KX9, KX13, KX15, KX16, RD1, RD22, RD3, RD6, KZ14 and RD12

⁸ KX5

⁹ GUCW1, MSW, KX10 and RL5

¹⁰ Towcester Road (TRd)

¹¹ Courteenhall Road (CRd), Blisworth Arm (Bar), Milton Road (MRd), Gayton Road (GRd1) and Gayton Road (GRd2)

¹² Grand Union Canal (C), KX2 (PRoW)

¹³ Grand Union Canal (E)

¹⁴ LA1 and LA5 (PRoWs)

Description of Impact	Level of Effect (Pre-Adaptive Mitigation)	Adaptive Mitigation Measures	Residual Effect	Significant/ Not Significant
All other Minor Highway Works	Negligible to Minor Adverse	No adaptive mitigation required	Negligible to Minor Adverse	Not Significant
Operational Phase				
Main SFRI Site Landscape Effects				
Landscape Effects (Local Landscape Character) - Year 15	Moderate Adverse	Adaptive measures over and above the proposed embedded mitigation which may assist with the screening and integration of the proposed development into the landscape will be considered at the detailed design stage and agreed with SNC	Moderate Adverse	Significant
Landscape Effects (County landscape Character) – Year 15	Minor Adverse - Negligible		Minor Adverse - Negligible	Not Significant
Representative Receptors Visual Effects				
3 Of 24 Viewpoint Receptors – Year 15 ¹⁵	Major Adverse	Detailed design of the mitigation planting located on the screening bunds.	Major Adverse if S106 fund not taken up by third parties	Significant
		Targeted introduction of groups of large size feathered and semi mature deciduous and coniferous trees and	Major Adverse (2 receptors – KX13 and RD1)	Significant

¹⁵ Major - VP2 - Public Right of Way KX13; VP3 - Public Right of Way RD6; VP4 - Public Right of Way RD1;

Description of Impact	Level of Effect (Pre-Adaptive Mitigation)	Adaptive Mitigation Measures	Residual Effect	Significant/ Not Significant
		other evergreen species. Additional mitigation measures may be achieved by third party agreement to manage existing garden boundary hedgerows or offsite hedgerows to encourage top growth and maintain them at a taller height, and the provision of offsite planting within the gardens or its boundaries (Landscaping fund).	Minor Adverse (1 receptor – RD6)	
5 Of 24 Viewpoint Receptors – Year 15 ¹⁶	Moderate Adverse	As above	Moderate Adverse if S106 fund not taken up by third parties	Significant
			Minor Adverse or Negligible (4 receptors)	Not Significant
			Moderate Adverse (1 receptor - VP6)	Significant
7 Of 24 Viewpoint Receptors – Year 15 ¹⁷	Minor Adverse	As above	Minor Adverse	Not Significant

¹⁶ Moderate - VP5 – Railway Cottages (residents); VP6 - Public Right of Way RD12; VP13 – Courteenhall Road (residents); VP14 – Hill Farm Gayton Road (residents); VP19 - Public Right of Way KX10

¹⁷ Minor - VP1 - Barn Lane; VP7 – Blisworth Arm; VP8 – Milton Road Gayton; VP15 - Public Right of Way RL5; VP16 - Public Right of Way KX5, VP23 – Walnut Tree Inn (residents); VP24 – Deveron House (road users)

Description of Impact	Level of Effect (Pre-Adaptive Mitigation)	Adaptive Mitigation Measures	Residual Effect	Significant/ Not Significant
1 of 31 Residential Receptors – Year 15 ¹⁸	Major Adverse	As above	Major Adverse if S106 fund not taken up by third parties	Significant
			Negligible	Not Significant
4 of 31 Residential Receptors – Year 15 ¹⁹	Moderate Adverse	As above	Moderate Adverse if S106 fund not taken up by third parties	Significant
			Minor Adverse or negligible	Not Significant
8 of 31 Residential Receptors – Year 15 ²⁰	Minor Adverse	As above	Minor Adverse	Not Significant
6 of 18 Recreational Route Receptors – Year 15 ²¹	Major Adverse	As above	Major Adverse if S106 fund not taken up by third parties	Significant
			Major Adverse (3 receptors – KX13, RD1, RD22BC	Significant
			Minor Adverse (3 receptors – RD3, RD6, KZ14)	Not Significant

¹⁸ Major – R19 – Blisworth Lodge

¹⁹ Moderate – R1 – Railway Cottages; R5 – Hill Farm; R11a - 63 Collingtree Road ; R18 - 64-82 Courteenhall Road, Blisworth

²⁰ Minor – R2 – Willow Lodge; R3a - Springfield; R7b – Park Homes at Walnut Tree Inn; R8a - Nos. 1, 17 to 29, & 33 Rectory Lane; R11b - Maple House; R17b - Courteenhall West Lodge & West Lodge Cottages; R21 – Blisworth Arm; R22 Gayton Marina

²¹ Major - KX13; RD1 & RD22; RD3, RD6 & KZ14

Description of Impact	Level of Effect (Pre-Adaptive Mitigation)	Adaptive Mitigation Measures	Residual Effect	Significant/ Not Significant
4 of 18 Recreational Route Receptors – Year 15 ²²	Moderate Adverse	As above	Moderate Adverse if S106 fund not taken up by third parties	Significant
			Minor Adverse	Not Significant
2 of 18 Recreational Route Receptors – Year 15 ²³	Minor Adverse	As above	Minor Adverse	Not Significant
4 of 8 Road Receptors – Year 15 ²⁴	Minor Adverse	As above	Minor Adverse	Not Significant
6 of 8 Night time Receptors – Year 15	Minor Adverse	As above	Minor Adverse	Not Significant
J15a Landscape and Visual Effects				
Landscape Character	Minor Adverse to negligible	Introduction of 26ha landscape and ecological mitigation, managed in accordance with 15 year Landscape Management and Maintenance Plan	Moderate beneficial	Significant
2 of 5 Viewpoint Receptors – Year 15 ²⁵	Minor Adverse		Minor beneficial	Not Significant
Minor Highway Works				
Visual effects arising from junction works – Year 15	Negligible	No adaptive mitigation required	Negligible	Not Significant

Noise and Vibration (Chapter 16)

23.68 The significance of any construction phase effects have been established for both the Main SRFI Site and the J15a Works site based on calculations of impact at the nearest sensitive receptors. The calculations are based on a typical equipment list for each activity using noise data taken from measurements presented in Standards and manufacturers' specifications and assuming a typical worst case scenario where several activities are carried out simultaneously.

²² Moderate - KX5; KX10; KX16; RD12

²³ Minor – MSW; RL5

²⁴ Minor - Courteenhall Road; Milton Road; Gayton Road (Gayton to Blisworth); Northampton / Towcester Road

²⁵ VPC – Grand Union Canal

- 23.69 The Proposed Development has been designed to avoid or minimise the occurrence of adverse effects in the surrounding community resulting from noise and vibration emanating from activities arising on the site. The embedded mitigation is described in **Chapter 5: The Proposed Development** (as well as in the associated documents and plans including the COCP, Outline CEMP, Parameters Plan and Green Infrastructure Plans).
- 23.70 A number of mitigation measures have been proposed to reduce the effects of construction noise as far as is reasonably practicable. These are set out in the Outline CEMP. The most effective of the proposed mitigation methods would be to restrict the hours of noisy construction activities to daytime periods only.
- 23.71 The results of the construction noise assessment indicate that the effects are generally assessed as negligible at the majority of receptors. At receptors that would be close the boundary of the works, the effects during some of the phases of construction are considered Minor Adverse.
- 23.72 The potential for vibration impacts during construction have also been assessed. Vibration decays (reduces) rapidly with distance. Most receptors are more than 100m from proposed work areas at which point vibration would be negligible. There are some receptors that may be potentially nearer than this and the level of effect could rise to Minor Adverse. In any case, construction activities within 100m of a residential receptor should generally be accompanied by a programme of vibration monitoring. This would include notification of occupied affected residential NSRs, advising of the activity, its duration and likely effect and advising that monitoring will be undertaken.
- 23.73 The assessment of noise from operational activities considers noise generated by activities from within the Main SRFI Site as well as from road and rail traffic movements.
- 23.74 A computer based 3D noise model was created to predict the noise levels generated by operational activities from within the Main SRFI Site at nearby receptors. The number and type of noise sources input into the model represented a considered worst case scenario where the Proposed Development is operating at its full capacity. The noise output from each source has been based on manufacturers' data and measurements carried out for similar operational equipment at other similar sites.
- 23.75 The results of the model have indicated that mitigation would be required to reduce noise to acceptable levels at some receptors. The effectiveness of the proposed mitigation, which consists primarily of earth bunds and acoustic screens, has been tested in the model.
- 23.76 With the implementation of the mitigation detailed earlier in the assessment (and secured in the COCP and Outline CEMP, and in the Construction and Operational Noise and Vibration Management Plans developed within the Detailed CEMP), noise from operation of the Main SRFI Site would generate a negligible to minor level of effect depending on the receptor location. Vibration generated by operation of the site would be a negligible level of effect.

Table 23.11: Noise and Vibration Residual Effects

Description of impact	Level of Effect (Pre-Adaptive Mitigation)	Adaptive Mitigation	Residual effect	Significant/Not Significant
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Main SRFI Site

Construction				
Noise impacting receptors (construction noise/ nighttime noise, piling etc)	Negligible to minor adverse	Detailed CEMP/ Construction Noise and Vibration Management Plan	Negligible to minor adverse	Not Significant
Vibration impacting receptors	Negligible to minor adverse	Detailed CEMP – including piling rig use; vibration monitoring / Construction Noise and Vibration Management Plan	Negligible to minor adverse	Not Significant
Operation				
Main site noise impacting receptors	From negligible to major adverse depending on receptor location.	Detailed CEMP / Operational Noise and Vibration Management Plan.	Negligible to minor depending on receptor location.	Not Significant
Rail noise impacting receptors close to the public network	Negligible		Negligible	Not Significant
Road traffic noise impacting receptors close to the public network	Negligible to Minor Adverse		Negligible to Minor Adverse	Not Significant
Vibration impacting receptors	Negligible		Negligible	Not Significant

J15a

Construction				
Noise impacting receptors	Minor Adverse	Detailed CEMP/ Construction Noise and Vibration Management Plan	Minor Adverse	Not Significant
Vibration impacting receptors	Minor Adverse		Minor Adverse	Not Significant
Operation				
Road traffic noise impacting receptors	Negligible to Minor Adverse	Detailed CEMP/ Operational Noise and	Negligible to Minor Adverse	Not Significant

Vibration impacting receptors	Negligible	Vibration Management Plan.	Negligible	Not Significant
Minor Highway Works				
Construction				
Noise impacting receptors	Minor Adverse	Detailed CEMP/ Construction Noise and Vibration Management Plan	Minor Adverse	Not Significant
Vibration impacting receptors	Minor Adverse		Minor Adverse	Not Significant
Operation				
Road traffic noise impacting receptors	Negligible to Minor Adverse	Detailed CEMP/ Operational Noise and Vibration Management Plan.	Negligible to Minor Adverse	Not Significant
Vibration impacting receptors	Negligible		Negligible	Not Significant

Highways and Transportation (Chapter 19)

- 23.77 The Highways and Transportation assessment within the ES has been informed through consultation with stakeholders on an on-going basis, including the Secretary of State, local interested parties, Highways England and Northamptonshire County Council. The feedback from stakeholders forms the evidence for the assessment methodology adopted in the ES. In addition, this discussion and ongoing modelling has informed the design of the Proposed Development, as has the potential impact on the local highway network which has informed the need for modification of constrained junctions as part of the works proposed.
- 23.78 The study area for transport assessment work was also the subject of extensive discussions and subsequently agreed with Highways England and Northamptonshire County Council.
- 23.79 Baseline traffic flows were assessed for 2015 (as the modelled base year), 2021 (as the forecast opening year of the SRFI), and 2031 (the end of the local plan period and assuming full operation of the SRFI). The 2021 and 2031 flows have been derived using the Northamptonshire Strategic Transport Model (NSTM) including traffic growth associated with committed and allocated developments and committed infrastructure improvements set out in the Joint Core Strategy that are reasonably expected to be delivered by either 2021 or 2031.
- 23.80 The assessment was undertaken with reference to the IEA document 'Guidelines for the Environmental Assessment of Road Traffic' and was carried out for the 2021 and 2031 forecast years. This had regard for the forecast changes in traffic flows (magnitude of the impact) and the sensitivity of the various junctions. Potential environmental effects could include:
- severance;

- driver delay;
- pedestrian delay;
- pedestrian amenity;
- accidents and safety; and
- hazardous loads.

- 23.81 Effects on noise; vibration; dust and dirt; visual impact; air pollution; ecological impact; and heritage and conservation areas as a result of traffic changes are considered in the relevant chapters in the ES.
- 23.82 The assessment of effects was undertaken with consideration of embedded mitigation. This includes design of the works at J15a and the Minor Highway Works to mitigate the effects on traffic flows (as addressed in the Transport Assessment at Appendix 17.1) which has reduced the potential for the above effects to affect the relevant receptors. Other design features include the provision of public transport infrastructure and walking and cycling infrastructure to reduce the requirement for staff to travel by car. Principles within the COCP and Outline CEMP will also be followed, including principles preventing parking or reversing outside the Order Limits, access being taken from the A43 only, appropriate dust mitigation measures being in place, during construction, such as wheel washing, and restrictions on arrangements and timing of deliveries to the Main SRFI Site. The Proposed Development therefore has prevented significant environmental impacts arising through site design and the procedures to be followed.
- 23.83 The effects remaining will be further reduced by adaptive mitigation, including the implementation of a Construction Traffic Management Plan (CTMP - in accordance with the principles of the Framework CTMP) and Operational Traffic Management Plan (OTMP – in accordance with the principles of the Framework OTMP) to be developed in advance of construction and occupation of each phase of development respectively. A Framework Travel Plan will be developed to manage the arrival and departure of staff and encourage sustainable modes of travel including walking, cycling, car-sharing and public transport. These documents are submitted as separate DCO Documents (CTMP = Document 7.9a; OTMP= Document 7.9b; Framework Travel Plan = Document 7.8).
- 23.84 It is considered that the adaptive measures will reduce the effects on the highway network during construction of the Main SRFI Site, to minor adverse, which is not significant in EIA terms. Following the implementation of adaptive mitigation measures, it is also anticipated that construction effects arising at J15a and Minor Highways Works will also be reduced from minor adverse to negligible.
- 23.85 At the Operational phase, traffic flows were assessed as having an increase of >30% traffic flows (or >10% in sensitive areas, including residential areas) at the Main SRFI Site, J15a and the Minor Highway Works.
- 23.86 However, an assessment of the six measures listed above (severance, driver delay etc.) indicated that no impacts greater than minor adverse would occur on any measure. However, given the forecast increases in traffic flow, further adaptive mitigation would be

introduced as described above. Residual effects were assessed as being negligible at the above junctions, with some beneficial effects arising from introduction of the additional adaptive mitigation as outlined in **Table 23.12** below. Where it is anticipated that the residual effects will be negligible for the six measures listed above (severance, driver delay etc.), these have not been identified in the table below.

Table 23.12: Highways and Transportation Residual Effects

Description of Impact	Level of Effect (Pre-Adaptive Mitigation)	Adaptive Mitigation Measures	Residual Effect	Significant/Not Significant
Construction				
Main SRFI Site				
Effects of construction traffic on receptors around A43 from all Proposed Development (driver delay/ accidents & safety)	Moderate Adverse	Implementation of CTMP Public Transport Strategy and Pedestrian and Cycling Infrastructure	Minor Adverse	Not Significant
J15a				
Effects of construction traffic on receptors around J15a from all Proposed Development (driver delay/ accidents & safety)	Moderate Adverse	Implementation of CTMP Public Transport Strategy and Pedestrian and Cycling Infrastructure	Negligible	Not Significant
Minor Highway Works				
(All Junctions) Effects of construction traffic on receptors around junction from all Proposed Development (driver delay/ accidents & safety)	Minor Adverse	Implementation of CTMP Public Transport Strategy and Pedestrian and Cycling Infrastructure	Negligible	Not Significant
Operation				
Main SRFI Site				
Severance	Negligible	Implementation of OTMP, TP, Public Transport Strategy and Pedestrian and Cycling Infrastructure	Minor Beneficial	Not Significant
Driver Delay	Negligible		Minor Beneficial	Not Significant
Pedestrian Delay	Negligible		Minor Beneficial	Not Significant

Pedestrian Amenity	Negligible		Minor Beneficial	Not Significant
J15a				
Accidents and Safety	Negligible	Implementation of OTMP, TP, Public Transport Strategy and Pedestrian and Cycling Infrastructure	Minor Beneficial	Not Significant
Driver Delay	Negligible		Minor Beneficial	Not Significant
Minor Highway Works				
Accidents and Safety Junction 4 Junction 6 Junction 7 Junction 14 Junction 19 Junction 20 Junction 29 Junction 31	Negligible	Implementation of OTMP, TP, Public Transport Strategy and Pedestrian and Cycling Infrastructure	Minor Beneficial	Not Significant
Driver Delay Junction 4 Junction 6 Junction 7 Junction 14 Junction 19 Junction 20 Junction 29 Junction 31	Negligible		Minor Beneficial	Not Significant
Severance Junction 4 Junction 6 Junction 7 Junction 14 Junction 19 Junction 29 Junction 31	Minor Adverse	Implementation of OTMP, TP, Public Transport Strategy and Pedestrian and Cycling Infrastructure	Negligible	Not Significant
Severance Junction 15	Moderate Adverse		Minor Adverse	Not significant

Socio Economics (Chapter 18)

- 23.87 Socio-economic effects are assessed at various spatial scales, based on an understanding of relevant local and wider economic geographies and the extent to which socio-economic effects are likely to be contained within these geographies. For the purposes of the assessment, socio-economic effects were established within the following study areas:
- A local impact area (the district of South Northamptonshire);
 - A wider impact area (comprising Coventry, Daventry, Milton Keynes, Northampton, South Northamptonshire and Wellingborough); and
 - A National impact area (England).
- 23.88 Within these impact areas, it is envisaged that construction of the Proposed Development is likely to generate significant socio-economic effects that are beneficial in nature, resulting from the creation of jobs and increase in productivity in the local economy. There are therefore no significant adverse socio-economic effects arising during construction that require mitigation. Beneficial effects generated during the construction phase include:
- An estimated 410 full time equivalent (FTE) jobs every year over a construction period of ten years; and
 - An estimated £20.4 million in gross value added (GVA) to the national economy each year.
- 23.89 Once completed, operational and fully occupied, significant beneficial effects relating to jobs, productivity and business rate revenue are likely to be generated. No significant adverse effects are identified through the assessment that require mitigation.
- 23.90 Beneficial effects generated during the operational phase include:
- 8,090 gross FTE jobs;
 - An estimated 13,753 FTE jobs in the national economy when including those which are indirectly generated or induced;
 - £554.2 million in GVA nationally; and
 - £14.6 million in business rate revenue each year.
- 23.91 The assessment concludes that there are beneficial employment effects arising from the Proposed Development, and there is therefore no requirement for mitigation measures to be implemented. The benefits of employment for businesses and people can be enhanced through other measures including establishing a Logistics Institute of Technology (LIT) based in the East Midlands which will operate on a “hub and spoke” model. The Hub location for the LIT is proposed to be Magna Park Lutterworth (MPL), with training “spokes” being established in other locations such as East Midlands Airport. The main aim of the LIT is to attract, develop and retain the workforce that the logistics sector requires both now and in the future.
- 23.92 A Local Employment Scheme will also be developed, which will ensure that employment, skills and training benefits are delivered at key milestones, inclusive of investment in a training “spoke” facility. The Local Employment Scheme will include measures occurring at the construction and operational stages of the Proposed Development.

Table 23.13: Socio-Economic Residual Effects

Description of impact	Level of effect	Possible mitigation measures	Residual effect	Significant/Not Significant
Construction				
Jobs	Minor to moderate beneficial	None required	Minor to moderate beneficial	Significant
Housing and labour force	Minor beneficial	None required	Minor beneficial	Not Significant
Economic productivity	Minor to moderate beneficial	None required	Minor to moderate beneficial	Significant
Unemployment	Negligible to minor beneficial	None required	Negligible to minor beneficial	Not Significant
Skills	Negligible	None required	Negligible	Not Significant
Operation				
Jobs	Negligible to major beneficial	None required	Negligible to major beneficial	Significant
Housing and labour force	Minor beneficial to minor adverse	None required	Minor beneficial to minor adverse	Not Significant
Skills	Negligible	None required	Negligible	Not Significant
Unemployment	Negligible to minor beneficial	None required	Negligible to minor beneficial	Not Significant
Economic productivity	Minor to major beneficial	None required	Minor to major beneficial	Significant
Business rate revenue	Negligible to major beneficial	None required	Negligible to major beneficial	Significant
Crime	Negligible	None required	Negligible	Not Significant

Lighting (Chapter 19)

23.93 The lighting assessment considers the potential environmental effects of the Proposed Development in relation to temporary and permanent external lighting. It considers the following aspects of the development in isolation and as a whole:

- Main SRFI Site (including A43 access and all rail infrastructure);
- External lighting developments to J15a Works; and
- External lighting developments to all Main SRFI and J15a Proposed Development works (the Proposed Development as a whole).

- 23.94 A baseline survey of the existing lit nightscape was carried out in order to establish the existing, lit, baseline condition. Then, given the fact that the exact design details are not known at this stage, an 'Operational Lighting Parameters' lighting scheme was generated using a realistic 'worst case scenario' approach. From this, generic scheme an 'Illumination Impact Profile' (IIP) could then be generated, which shows the potential impact at the sensitive receptors.
- 23.95 The receptors considered as part of the assessment included residential properties, rail and highway users and the external environment at night (sky glow). The extent to which these receptors are impacted by lighting at night depends on a number of factors including: distance from site; the nature of luminaire position and relationship to receptor; the type of luminaire, its optical control and lamp type; its height above ground, mounting configuration (poll top / on a building, etc.); and the aiming angle.
- 23.96 In order to reduce the effects of lighting during the construction phase on sensitive receptors, best practice measures as recommended by the Institution of Lighting Professionals (ILP) Construction Industry Research and Information Association (CIRIA), Commission Internationale De L'Eclairage (CIE) and Health and Safety Executive (HSE) will be implemented as part of a COCP and Outline CEMP. Where appropriate, adaptive mitigation measures have been set out so that, when a lighting design scheme is undertaken at the detailed design stage, any residual effect from the lit site can be minimised. Adaptive mitigation methods would include:
- Change in luminaire position (height or location)
 - Change in light (luminous flux) output
 - Change in recommended lighting (lux) levels
 - The use of dimming methods in response to site use
- 23.97 Table 23.14 below identifies residual effects where they have been assessed as being minor or above. Following the implementation of the adaptive mitigation measures mentioned above, at all receptors the residual effects as a result of the Proposed Development are assessed as negligible, which is considered 'Not Significant' for the purposes of EIA. This being the case, no residual effects have been identified for inclusion within **Table 23.14**.

Table 23.14: Lighting Residual Effects

Description of Impact	Level off Effect (Pre-Adaptive Mitigation)	Adaptive Mitigation	Residual Effect
Construction			
Residential, Natural – Direct Sky Glow, Rail and Highway Users	Negligible	No adaptive mitigation required	Negligible
Operational			

Residential, Natural-Direct Sky Glow, Rail and Highway Users	Negligible	No adaptive mitigation required	Negligible
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Waste (Chapter 20)

- 23.98 Following the establishment of the baseline, the assessment identifies the significant waste streams that result from the various phases of the development.
- 23.99 The environmental receptors considered at the Main SRFI Site together with the J15a Works and the Minor Highway Works are the local and regional waste management facilities and the overall local and regional waste management infrastructure.
- 23.100 The potential environmental effects on these receptors that could arise from construction include the effects on local and regional composting capacity from site clearance waste, the effects on local and regional soil treatment facilities from excavated contaminated material and the effects on local and regional recycling facilities from general construction waste. During the operation the assessment has considered the potential environmental effects on local and regional recycling and waste treatment facilities from hazardous and non-hazardous operational wastes.
- 23.101 The Proposed Development has been designed to ensure these effects are avoided, reduced or offset by measures outlined in the COCP and the Outline CEMP, including the Outline Site Waste Management Plan (SWMP) and Outline Materials Management Plan (MMP). Within the COCP and Outline CEMP embedded mitigation measures relating to construction waste include:
- retaining all excavated material on-site where possible;
 - adhering to waste legislation for storage and handling on-site; and, transport and disposal / recycling / recovery off-site at all times;
 - ensuring that allocated waste storage areas and containers are clearly labelled so site workers know what wastes should be put there;
 - providing separate receptacles for dry recyclables, such as paper & cardboard, plastic, glass, wood and metal;
 - all transfers of waste off-site will be appropriately described on waste transfer notes or hazardous waste consignment notes (as appropriate);
 - the appointed contractors will identify staff responsible for waste management; and ensure that all contractor staff are aware of the appropriate re-use, recycling or disposal routes for each waste; and
 - deliveries will be on a 'just-in-time' basis to minimise potential damage and wastage of materials.

23.102 The Outline SWMP will be a live document, and will be kept on site along with all relevant waste documentation including waste carrier registrations and environmental permits. All operations will be undertaken in accordance with the CL:AIRE Definition of Waste Code of Practice.

23.103 The majority of mitigation actions for waste are embedded and will be to ensure that waste generated from the construction and operation of the Proposed Development is managed at the highest option in accordance with the waste hierarchy. Adaptive mitigation measures have been detailed in the assessment for the waste arisings, including the continual regular monitoring of uptake of segregation by site staff and contractors to ensure waste is segregated appropriately.

23.104 Following the implementation of the adaptive mitigation measures detailed above, it is anticipated that during the operational phases all identified waste impacts originally assessed as moderate adverse effects will be reduced to minor adverse.

Table 23.15: Waste Residual Effects

Description of Impact	Level of Effect (Pre-Adaptive Mitigation)	Adaptive Mitigation Measures	Residual Effect	Significant/Not Significant
Construction				
Main SRFI Site				
Waste from Site Clearance (Vegetation, excavated material, contaminated material)	Minor Adverse	No adaptive mitigation required	Minor Adverse	Not Significant
Contractor Waste	Minor Adverse	No adaptive mitigation required	Minor Adverse	Not Significant
Excess / Out of Specification Waste	Minor Adverse	No adaptive mitigation required	Minor Adverse	Not Significant
Waste Oil & Empty Drums	Minor Adverse	No adaptive mitigation required	Minor Adverse	Not Significant
Waste from Spillages	Minor Adverse	No adaptive mitigation required	Minor Adverse	Not Significant
Miscellaneous Hazardous Waste	Minor Adverse	No adaptive mitigation required	Minor adverse.	Not Significant
J15a / Minor Highway Works				

Site Clearance – Vegetation	Minor Adverse	No adaptive mitigation required	Minor Adverse	Not Significant
Carriageway Planings	Minor Adverse	No adaptive mitigation required	Minor Adverse	Not Significant
Operation				
Main SRFI Site				
Waste from Site Operatives	Moderate Adverse	Measures to be specified in Detailed SWMP, once amounts established - Toolbox talks to ensure site staff and contractors are aware of the measures in place to manage waste will be undertaken. Monitoring of waste will be undertaken and targets applied that encourage waste minimisation, reuse and recycling. Frequent collections of waste to ensure that quantities are not retained on-site for long periods.	Minor Adverse	Not Significant
Waste Oil and Empty Drums	Minor Adverse	Takeback schemes are available for some unused hazardous materials. Frequent collection of hazardous material to minimise total volume on-site at any one time.	Minor Adverse	Not Significant
Miscellaneous Hazardous Waste	Moderate Adverse	Bespoke mitigation measures for the different activities should be considered that aim to minimise waste and encourage reuse where possible. Takeback schemes are available for some unused hazardous materials. Frequent collection of hazardous material to minimise total volume on-site at any one time.	Minor Adverse	Not Significant

Climate Change (Chapter 21)

23.105 A climate change assessment has been undertaken to identify the effect of the Proposed Development upon the contribution of climate change and how climate change may impact the Proposed Development. The Assessment is structured into two specific categories:

- (i) Climate Change Mitigation – How the Proposed Development contributes to the cause of climate change through the emission or reduction of greenhouse gases (GHG) as a result of the Proposed Development; and

- (ii) Climate Change Adaptation – How the Proposed Development is affected by the projected changes to the future climate and whether measures are required to adapt to this changing climate.

Climate Change Mitigation

- 23.106 The environmental receptor considered common to the Main SRFI Site, J15a and Minor Highway Works was the climatic system.
- 23.107 The environmental effects on this receptor that could arise from construction include Greenhouse Gas (GHG) emissions resulting from the construction of the SRFI and associated works as would be expected from any development site. These emissions have been quantified utilising best practice and established data where possible based upon a number of worst case assumptions.
- 23.108 During operation the environmental effects on the climatic system that could arise include GHG emissions arising from activities on-site, and upstream and downstream of the Proposed Development. Again, this is to be expected as GHG emissions occur from all buildings that require energy, heat, cooling and transport to and from.
- 23.109 Critically however, significant GHG savings are predicted as a result of approximately 53million HGV-kms of road freight is transferred to rail with significantly lower emissions. from modal shift. Such savings is one of the principal requirements of a SRFI as clearly stated in national policy.
- 23.110 The effects upon the climatic system from Rail Central must therefore be considered based upon the total (in combination) GHG emissions arising from the development.
- 23.111 Although significant GHG emissions occur from the construction works, GHG savings from modal shift start to occur relatively quickly as buildings become operational in a phased manner. The savings from modal shift become significantly larger as more of the SRFI becomes operational and offset those emissions that occur from construction.
- 23.112 The assessment predicts that between the period of 2038-2050 there will be a significant reduction in total GHG emissions from rail central as a result of modal shift from road to rail relative to business as usual. Overall the assessment concludes that Rail Central will have a moderate beneficial impact (significant) on climate change mitigation which will support the governments carbon budget commitments.
- 23.113 For context, emission savings of this scale and significance are often only achieved by renewable energy projects thereby highlighting the importance of Rail Central in meeting the governments objectives of a low carbon economy.
- 23.114 To secure further GHG emissions and to ensure the Proposed Development has been designed with a number of measures which include:
- A commitment to BREEAM Excellent;
 - A commitment to reduce carbon emissions in the buildings by 20% above current building regulation requirements;

- Incorporating measures to monitor and assess the life-cycle GHG effects associated with materials used in construction;
- Adopting best practice measures in relation to reducing waste generation;

23.115 It can therefore be seen that the Proposed Development will result in a significant environmental benefit with regard to GHG emissions and the impact upon climate change.

Climate Change Adaptation

23.116 The environmental receptors considered common to the Main SRFI Site, J15a and Minor Highway Works included:

- Buildings, infrastructure and equipment;
- Construction employees;
- Habitats and species;
- Climatic system;
- Building occupants and site users; and
- Building operations.

23.117 The climatic effects on these receptors that could arise during construction included changes in temperature and rainfall which are anticipated between 2010 and 2039 (2020s). During the operation phase, climatic effects on these receptors that could arise included changes in temperature and rainfall which are anticipated between 2070 and 2099 (2080s); this was considered the worst-case assessment.

23.118 The Proposed Development has been designed to ensure adverse effects are avoided, reduced or offset by:

- Adopting best practice design approach in relation to the design of foundations, considering climatic effects on future ground conditions;
- Carrying out a dynamic assessment of overheating in buildings and adopting the cooling hierarchy, with a preference for passive design measures;
- Incorporating Sustainable Drainage Systems (SUDs) to reduce the risk of surface water flooding; and
- Providing measures to reduce water use in buildings.

23.119 In summary, significant adverse environmental impacts have been avoided through site design and requirements to follow certain procedures. Whilst the adaptive mitigation measures proposed will not reduce the overall significance of effects for all features, they are applied in accordance with the IEMA Hierarchy for Managing Project Related GHG Emissions and any reduction is considered beneficial.

Table 23.17: Climate Change Adaptation Residual Effects

Description of Impact	Level of Effect (Pre-Adaptive Mitigation)	Adaptive Mitigation Measures	Residual Effect	Significant/ Not Significant
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Main SRFI Site

Construction				
Increase in winter mean temperature improving working conditions for construction employees and equipment	Minor Beneficial	No adaptive mitigation required	Minor Beneficial	Not Significant
Increase in summer mean and maximum temperatures potentially increasing the risk of overheating for employees	Minor Adverse	No adaptive mitigation required	Minor Adverse	Not Significant
Operation				
An increase in winter mean temperatures will reduce heating requirements for buildings	Minor Beneficial	No adaptive mitigation required	Minor Beneficial	Not Significant
An increase in annual temperatures and changes in rainfall may impact on ground conditions and foundations.	Moderate Adverse	Use of best practice design and construction practices in line with relevant guidance, including the consideration of climate change.	Minor Adverse	Not Significant
Increased summer mean and maximum temperatures may impact on site electrical equipment	Minor Adverse	No residual mitigation required	Minor Adverse	Not Significant
An increase in summer mean and maximum temperatures may lead to an increase in risk to human health through overheating.	Moderate Adverse	Dynamic thermal modelling should be undertaken during detailed design to ensure overheating risks are identified and measures are put in place to reduce the	Minor Adverse	Not Significant

					risk of overheating in buildings. This should include the modelling of future climatic scenarios
An increase in summer mean and maximum temperatures may lead to an increased requirement for cooling and therefore an increase in GHG emissions	Minor Adverse	No residual mitigation required	Minor Adverse	Not Significant	
An increase in summer rainfall is anticipated to increase flood risk	Negligible	No residual mitigation required	Negligible	Not Significant	
A reduction in summer rainfall may have a negative impact on site biodiversity	Minor Adverse	Preparation of Habitat Management Plan which includes the consideration of climate change and reduced summer water availability	Minor Adverse	Not Significant	
A reduction in summer rainfall may lead to restrictions on water use, impacting on site operations.	Minor Adverse	Provision of measures to further reduce water use in the operation of the proposed buildings, achieving at least 2 water efficiency credits and a 25% reduction in water consumption.	Minor Adverse	Not Significant	
An increase in winter and summer temperatures are anticipated to impact on site habitats and species	Negligible/ Minor Adverse	No residual mitigation required	Negligible/ Minor Adverse	Not Significant	
J15a					
Construction					
Increase in winter mean temperature improving working	Minor Beneficial	No residual mitigation required	Minor Beneficial	Not Significant	

conditions for construction employees and equipment.				
Increase in summer mean and maximum temperatures potentially increasing the risk of overheating for employees	Minor Adverse	No residual mitigation required	Minor Adverse	Not Significant
Operation				
An increase in winter and summer temperatures are anticipated to impact on site habitats and species	Negligible/ Minor Adverse	No residual mitigation required	Negligible/ Minor Adverse	Not Significant
An increase in annual temperatures and changes in rainfall may impact on ground conditions and foundations.	Moderate Adverse	Use of best practice design and construction practices in line with relevant guidance, including the consideration of climate change.	Minor Adverse	Not Significant
A reduction in summer rainfall may have a negative impact on site biodiversity	Minor Adverse	Preparation of Ecological Creation and Habitat Management Plan which includes the consideration of climate change and reduced summer water availability	Minor Adverse	Not Significant

Cumulative Effects

23.120 The cumulative assessment identified the potential environmental effects arising from the Proposed Development on a topic by topic basis, with consideration of different effects from different topics on the same receptor and in-combination with other relevant projects at the receptor level.

Intra-project effects

23.121 The assessment of intra-project effects considers only those effects produced by the Proposed Development, and not those from other projects (which are considered via the inter-project process). In order for there to be an intra-project effect, there would need to be

an adverse or beneficial residual effect identified on a receptor from across one of more topics, i.e. a minor effect or above. This assumes the implementation of all embedded and adaptive mitigation. Lower levels of effect could not reasonably be expected to contribute to a significant cumulative effect.

- 23.122 The shared receptors identified (as groups) were: people (including human health), land and soil, heritage assets, biodiversity and landscape assets.
- 23.123 People were considered to have potential to be affected by changes in agricultural land (loss of land/ loss of soil resource), changes in landscape (views), increases in noise and vibration, changes in the likelihood of accidents/ driver delay/ pedestrian amenity and severance from highways, changes in jobs and economic changes, and changes in temperature and rainfall. Such changes could interact – for example the loss of agricultural land could interact with changes in land use due to climate, or changes in the socioeconomic factors. It is considered that some of the beneficial effects will contribute to partially off-setting adverse effects when considered in-combination. However, overall the level of effect is considered to be no greater than identified in the individual Chapters.
- 23.124 Land and soil were considered to have potential to be affected by changes in agricultural land (loss of land/ loss of soil resource) and climate change (changes in temperature and rainfall). However, the residual effects are likely to be managed through future design requirements. Therefore the level of effect is considered to be no greater than identified in the individual Chapters.
- 23.125 Heritage assets were considered to have potential to be affected by changes in the archaeological resource, changes in the built heritage resource, changes in the landscape resource (setting), and changes as a result of hedgerow loss. However, overall, there was little functional interaction between the above and below ground aspects (archaeology and built heritage), and little relationship between the hedgerows and their archaeological importance. Both the built heritage and landscape and visual assessments considered the intra-project effect in detail and it can be concluded that the level of effect is no greater than identified in the individual Chapters.
- 23.126 Biodiversity assets were considered to have potential to be affected by changes in shared no common receptors other than those assessed in the chapter (e.g. loss of hedges potentially having a landscape and heritage/archaeological effect, or biodiversity receptors being affected by noise and lighting). Therefore the level of effect on these is considered to be no greater than identified in **Chapter 14: Biodiversity**.
- 23.127 Landscape assets were considered to have potential to be affected through their interrelationship with the setting of heritage features as experienced by both residential receptors and users of the Public Right of Way (PROW) or/and local road network. This is assessed in **Chapter 15: Landscape and Visual** and **11: Built Heritage**. Loss of hedges and hedgerow network and loss of mature and veteran trees are assessed in **Chapter 14: Biodiversity**. It can be concluded that the level of effect is no greater than identified in the individual Chapters.

Inter-Project Effects

- 23.128 These effects arise from the Proposed Development interacting with other developments/projects in the vicinity.
- 23.129 The assessments provided at **Chapters 8-21** have assessed the likelihood on an inter-project cumulative effect based on there being a common receptor and a residual effect which is considered adverse or beneficial, i.e. a minor effect or above. This assumes the implementation of all embedded and adaptive mitigation. Lower levels of effect could not reasonably be expected to contribute to a significant cumulative effect. 35 potential cumulative projects were identified which had the potential of affecting receptors shared with Rail Central due to their location, nature and status.
- 23.130 A consideration of the Rail Central Proposed Development with Northampton Gateway SRFI was undertaken. Should the two projects be developed together, there would be slight changes to the landscaping to the east of the Northampton Loop Line (NLL), and changes to the phasing of the works at J15a. However, overall, both projects mitigate their own effects to an acceptable level. There will be different effects on different receptors should they both progress, but the cumulative effects on shared receptors were not significant (with the exception of agricultural land, two built heritage receptors as identified below and some landscape and visual receptors during construction, and at one receptor during operation before landscaping is fully mature – see below). There would also be significant cumulative positive effects on socio-economic receptors in terms of labour force and job creation, economic productivity and business rate revenue and a reduction in unemployment would occur. Residual effects in terms of climate change mitigation (shift of freight from road to rail) identified as moderate beneficial (construction and operational in-combination) remains and would contribute in a beneficial way to any inter-project cumulative effect.
- 23.131 Significant adverse impacts on landscape (remaining receptors), and built heritage (remaining receptors) would remain significant in cumulation with Northampton Gateway, but the additional effect in itself would not be cumulatively significant.
- 23.132 No significant adverse cumulative effects were identified for assessments (Northampton Gateway and the other 34 identified cumulative projects) as follows:
- Air quality - there would be cumulative construction dust and operational traffic, but as each project would mitigate its own effects, these would not be significant at the few shared receptors (especially given largely differing traffic routes followed on the road network by each cumulative project) and there would not therefore be a significant adverse cumulative effect.
 - Archaeology - the cumulative loss of archaeological resource is mitigated through mitigation of each project and there would not therefore be a significant adverse cumulative effect.
 - Ground conditions and Hydrology, drainage and flood risk – all projects would control their own effects and there would not therefore be a significant adverse cumulative effect.
 - Biodiversity – although there would be cumulative effects on receptors including hedgerows (contributing to the wider network); foraging and commuting bats and farmland habitat (and farmland birds) the level of effect identified would

remain as minor adverse although the magnitude may increase. Therefore there would be no significant cumulative effects.

- Noise and vibration - There is unlikely to be an inter-project cumulative effects due to the distance from the majority of cumulative projects. Northampton Gateway shares a number of common receptors with Rail Central including NSR 4 (Barn Lane, Milton Malsor) and NSR 5 (West Lodge Farm). The residual effects identified as up to minor adverse remain but this is not considered a significant inter-project cumulative effect.
- Highways and transportation - The traffic model which fed into assessments of operational traffic (also used within **Chapter 8: Air Quality, Chapter 16: Noise and Vibration**) was based on a model including traffic arising from the cumulative projects in Northamptonshire (though not Northampton Gateway specifically). Therefore traffic arising from the cumulative developments was included within the model. Residual effects identified as up to minor beneficial remain and but this is not considered a significant inter-project cumulative effect. The cumulative effect with Northampton Gateway is mitigated through the proposed alterations to the road network (creating beneficial individual effects) and that both projects access the relevant sites through different parts of the road network.
- Lighting – impact from each project on the shared receptors is mitigated through mitigation of each project and there would not therefore be a significant adverse cumulative effect.
- Waste and Resource Efficiency – all projects would minimise waste sent to landfill, so the cumulative impact on the waste facilities would not be significant.
- Climate Change Adaptation – The assessment of residual effects to temperatures and rainfall identified as minor beneficial to minor adverse remain are relevant to the Proposed Development. It is assumed that measures to adapt to climate change will be controlled in a similar manner across the other Schemes assessed but this is not considered a significant inter-project cumulative effect.

23.133 The assessment of agricultural land concluded that during construction there would be a moderate adverse cumulative effect arising from loss of best and most versatile land.. There would be no cumulative effect during operation.

23.134 The assessment of built heritage concluded that Milton Malsor Conservation Area (MM36) and Mortimers House (MM10) would experience a moderate level of effect from Rail Central and a negligible and slight effect from Northampton gateway respectively. Assuming both projects were constructed simultaneously, this could lead to a significant cumulative effect. There would be some screening of Northampton Gateway by landscaping (vegetation and bunds) around Rail Central (and vice versa for other views), but there would be some residual cumulative effect. Northampton Gateway would also occupy land to the east of Rail Central which which surround the village and Milton Malsor Conservation Area. Overall, therefore, there would be a cumulative effect on these two receptors as a result of both

projects during construction (before maturation of landscaping), which as a worst case could be significant. There would be no cumulative operational effects.

23.135 The assessment of landscape and visual effects concluded that there would be shared receptors at Rail Central and Northampton Gateway including landscape character and visual receptors, particularly in-between Collingtree and Milton Malsor (for Northampton Gateway – corresponding to Viewpoints 3 (representative of views to users of PRoW RD3, RD6, KZ14 and RD22 located to the East of Blisworth) and Viewpoints, 4, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19. There will be residual construction effects remaining at these, which will be increased as a result of the cumulative change from operational agricultural land and the loss of landscape features such as hedgerows and trees during site clearance. Construction equipment could also have a cumulative effect with Northampton Gateway at the identified receptors. This would result in a significant cumulative effect at these receptors, until landscaping of both schemes is established. However, there is a very limited level of intervisibility within the local landscape context, and with each project being relatively contained and separated by proposed mitigation at operation. Visual residual effects would remain during operation but these would only be significant at Viewpoint 3 at Year 1. No significant inter-project cumulative effects are anticipated at Viewpoint 3 at Year 15.

Summary of Significant Residual Effects

23.136 A summary of the significant residual effects, both adverse and beneficial, is provided below as **Table 23.17**.

Table 23.17: Summary of Identified Significant Residual Effects

Topic / Type of Effect	Receptor	Phase of Development
SIGNIFICANT RESIDUAL BENEFICIAL EFFECTS		
Moderate <u>Beneficial</u>		
Hydrology, Drainage and Flood Risk		
Flood risk - Potential to decrease flood risk downstream of the Site within the Wootton Brook catchment as a result of construction activities at Main SRFI Site.	Land downstream of Milton Malsor Brook (flood risk decreased due to watercourse engineering)	Construction and Operation
Foul water drainage - Potential effects on existing foul drainage system as a result of the significant volumes of foul water to be generated at the Main SRFI Site.	Foul water drainage system (increase in capacity)	Construction and Operation
Landscape and Visual		
Landscape Character	Landscape Effects (Year 15) (development of 26ha ecological	Operation

Topic / Type of Effect	Receptor	Phase of Development
(Main SRFI Site)	mitigation area at J15a)	
Socio-Economics		
Jobs	Jobs – Local Impact Area	Construction (and cumulative)
Economic Productivity	Economic Productivity – Local Impact Area	Construction (and cumulative)
	Economic Productivity – Wider Impact Area	Operation (and cumulative)
Climate Change		
Greenhouse gas (GHG) emissions	Quantity of GHG emissions	Operation (and cumulative)

Major Beneficial

Socio-Economics		
Jobs	Jobs – Local and Wider Impact Area	Operation, (and cumulative)
Economic Productivity	Economic Productivity – Local Impact Area	Operation (and cumulative)
Business Rate Revenue	Business Rate Revenue – Local Impact Area	Operation (and cumulative)

SIGNIFICANT RESIDUAL ADVERSE EFFECTS

Moderate Adverse

Agricultural Land		
Loss of agricultural land	Best and Most Versatile Land	Construction (and Cumulative)
Built Heritage		
Visual and noise effects of the construction work within setting	Receptors - Grand Union Canal Conservation Area, Milton House & Manor Cottage, Lock No 10 & Lock No 11, Milton Malsor Conservation Area and Mortimers	Construction
Extent of modern development and transport infrastructure within setting	Receptors - Grand Union Canal Conservation Area, Milton Malsor Conservation Area and Mortimers	Operation

Topic / Type of Effect	Receptor	Phase of Development
Cumulative (in combination with Northampton Gateway)	Millton Malsor Conservation Area And Mortimers	Cumulative
Landscape and Visual		
Landscape Effects (Local Landscape Character) – Year 15	Landscape Effects	Operation and Cumulative (in combination with Northampton Gateway)
Visual (viewpoint receptors)	3 of 24	Construction
	5 of 24 (if landscaping fund not taken up – only 1 of 24 if it is – remaining 4 not significant)	Operation – Year 15 ²⁶
Visual (residential receptors)	8 of 31	Construction
	4 of 31v(only if landscaping fund not taken up – no significant residual effects if it is)	Operation – Year 15
Visual (Recreational Route receptors)	1 of 18	Construction
	4 of 18 (only if landscaping fund not taken up – no significant residual effects if it is)	Operation – Year 15
Visual – J15a	1 of 5 – Grand Union Canal	Construction
Visual - Minor Highway Works	Junction 6	Construction
Cumulative Visual	Viewpoint 3	Cumulative (Construction and Operation year 1)

Major Adverse

Landscape and Visual		
Landscape Effects (Local Landscape Character)	Landscape Effects	Construction Cumulative (in combination with Northampton Gateway)
Visual (viewpoint receptors)	10 of 24	Construction
	3 of 24 (assuming Landscaping fund not	Operation – Year 15 ²⁷

²⁶ These effects (Operation Year 15) may be reduced to Not Significant, subject to Landscaping Fund being appropriately used.

Topic / Type of Effect	Receptor	Phase of Development
	taken up – 2 of 24 if landscaping fund taken up)	
Visual (residential receptors)	6 of 31	Construction
	1 of 31 (only if landscaping fund not taken up – negligible residual effect if it is)	Operation – Year 15
Visual (Recreational Route receptors)	12 of 18	Construction
	6 of 18 (only if landscaping fund not taken up – 3 of 18 if it is – remaining 3 Not significant residual effects)	Operation – Year 15
Visual (Road Receptors)	1 of 8	Construction
Visual – J15a	2 of 5 (Grand Union Canal and PROW)	Construction

²⁷ These effects (Operation Year 15) may be reduced to Not Significant, subject to Landscaping Fund being appropriately used.