

**East Midlands Gateway  
Phase 2 (EMG2)**

**Document DCO 6.12/MCO 6.12**

ENVIRONMENTAL STATEMENT

**Main Statement**

Chapter 12

# Cultural Heritage

October 2025

# 12

The East Midlands Gateway Phase 2  
and Highway Order 202X and The East Midlands Gateway  
Rail Freight and Highway (Amendment) Order 202X

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# 12. Cultural Heritage

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## 12.1. Introduction

12.1.1. This Chapter considers the potential significant environmental effects of the EMG2 Project upon cultural heritage assets. The assessment is based on the project description set out in **Chapter 3: Project Description (Document DCO 6.3/MCO 6.3)**, including the development parameters set out in **Table 3.5** of that Chapter.

12.1.2. In brief the EMG2 Project comprises three main components as follows:

**Table 12.1: The EMG2 Project Components**

| Main Component                                                      | Summary of Component                                                                                                                                                                                                                                                                                                                                                                                    | Works Nos.                                                                                                                                                                                                                                    |
|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>DCO Application made by the DCO Applicant for the DCO Scheme</b> |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                               |
| EMG2 Works                                                          | Logistics and advanced manufacturing development located on the EMG2 Main Site south of East Midlands Airport and the A453, and west of the M1 motorway. The development includes HGV parking and a bus interchange.<br><br>Together with an upgrade to the EMG1 substation and provision of a Community Park.                                                                                          | DCO Works Nos. 1 to 5 including relevant Further Works as described in the draft DCO ( <b>Document DCO 3.1</b> ).<br><br>DCO Works Nos. 20 and 21 including relevant Further Works as described in the draft DCO ( <b>Document DCO 3.1</b> ). |
| Highway Works                                                       | Works to the highway network: the A453 EMG2 access junction works (referred to as the EMG2 Access Works); significant improvements at Junction 24 of the M1 (referred to as the J24 Improvements), works to the wider highway network including the Active Travel Link, Hyam's Lane Works, L57 Footpath Upgrade, A6 Kegworth Bypass/A453 Junction Improvements and Finger Farm Roundabout Improvements. | DCO Works Nos. 6 to 19 including relevant Further Works as described in the draft DCO ( <b>Document DCO 3.1</b> ).                                                                                                                            |
| <b>MCO Application made by the MCO Applicant for the MCO Scheme</b> |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                               |
| EMG1 Works                                                          | Additional warehousing development on Plot 16 together with works to increase the permitted height of the cranes at the EMG1 rail-freight terminal, improvements to the public transport interchange, site management building and the EMG1 Pedestrian Crossing.                                                                                                                                        | MCO Works Nos. 3A, 3B, 5A, 5B, 5C, 6A and 8A in the draft MCO ( <b>Document MCO 3.1</b> ).                                                                                                                                                    |

12.1.3. In recognition that this chapter forms part of a single ES covering both the DCO Scheme and the MCO Scheme, it makes a clear distinction between the component parts and, consistent with the dual application approach, separately assesses the impacts arising from:

- the DCO Application (Section 12.5);

- the MCO Application (Section 12.6);
- the DCO Application and the MCO Application together as the EMG2 Project (Section 12.7);and
- the cumulative impacts of the EMG2 Project with other existing and, or approved developments (Section 12.8).

12.1.4. The assessment of the cumulative impacts of the EMG2 Project with other existing and, or approved developments in Section 12.8 has been prepared using the list of projects identified in **Appendix 21B to Chapter 21: Cumulative Impacts (Document DCO 6.21B/MCO 6.21B)**. A summary of the effect and their significance is provided in the summary and conclusions section at the end of this chapter.

12.1.5. This Chapter summarises relevant legislation, policy and guidance and describes the methods used to gather baseline information and assess effects. It then presents a summary of the currently available baseline based on built heritage and archaeological information in regards to both the DCO Scheme and the MCO Scheme. This includes assessments of the potential built heritage impacts, and assessments of previously unrecorded archaeological remains present, drawing upon a Desk Based Assessment and the results of a detailed programme of archaeological evaluation in relation to the DCO Scheme provided within **Appendices 12A-F (Document DCO 6.12A-F/MCO 6.12A-F)**. A detailed programme of archaeological evaluation and mitigation was previously undertaken in association with the EMG1 DCO which covers the land for the MCO Scheme and will be referred to where appropriate.

## 12.2. Scope and Methodology of the Assessment

### Methodology for Establishing Baseline Conditions

12.2.1. Baseline conditions have been established through a series of studies comprising the following technical appendices:

- Built Heritage Assessment of the EMG2 Project (**Appendix 12A – Document DCO 6.12A/MCO 6.12A**)
- Archaeological Desk-Based Assessment of the EMG2 Project (**Appendix 12B – Document DCO 6.12B/MCO 6.12B**)
- Geophysical Survey Report of the EMG2 Works (**Appendix 12C – Document DCO 6.12C/MCO 6.12C**)
- Geoarchaeological Report of the EMG2 Works (**Appendix 12D – Document DCO 6.12D/MCO 6.12D**)
- Fieldwalking Report of the EMG2 Works (**Appendix 12E – Document DCO 6.12E/MCO 6.12E**)
- Trial Trenching Report of the EMG2 Works (**Appendix 12F – Document DCO 6.12F/MCO 6.12F**)
- Heritage Receptors for the EMG2 Project (**Appendix 12G – Document DCO 6.12G/MCO 6.12G**)

12.2.2. The Built Heritage Assessment and Desk-Based Assessment drew upon the following sources:

- Geological and topographical information.
- Data from a 2km radius from the EMG2 Project held on the Leicestershire Historic Environment Record and National Heritage List for England.
- Historic map and documentary evidence.
- Online resources (Google Earth and Old Maps): background information.
- Site visits and walkover surveys: confirmation of known assets, identification of additional assets, consideration of setting issues for assets in surrounding area.

12.2.3. A Built Heritage Assessment, provided as **Appendix 12A (Document DCO 6.12A/MCO 6.12A)** was completed in January 2025. This report was undertaken to identify those built heritage receptors potentially affected by the EMG2 Project, and its component parts, assess their importance and sensitivity, assess the significance of any effects to this importance and identify suitable mitigation measures to be included in the design and master planning process.

12.2.4. The Archaeological Desk-Based Assessment, provided as **Appendix 12B (Document DCO 6.12B/MCO 6.12B)**, was completed in January 2025 and was undertaken to identify those archaeological receptors potentially affected by the EMG2 Project, and its component parts.

The assessments was completed in accordance with Chartered Institute for Archaeologists' 2020 *Standard and Guidance for Historic Environment Desk-Based Assessment*.

## **DCO Scheme**

### ***EMG2 Works***

- 12.2.5. The detailed programme of archaeological evaluation associated with the EMG2 Works comprised four distinct elements. The first phase of the evaluation programme consisted of a Geophysical Survey at **Appendix 12C (Document DCO 6.12C/MCO 6.12C)** which comprised a fluxgate gradiometer survey of all suitable areas.
- 12.2.6. The subsequent programme of geoarchaeological assessment, fieldwalking, and trial trenching were undertaken in immediate parallel to one another on site between September and November 2022. The Geoarchaeological Assessment, provided as **Appendix 12D (Document DCO 6.12D/MCO 6.12D)**, comprised the archaeological monitoring of fourteen selected geotechnical trial pits and boreholes. The Fieldwalking Assessment, detailed in **Appendix 12E (Document DCO 6.12E/MCO 6.12E)**, comprised an archaeological fieldwalking exercise covering eleven fields within the EMG2 Works, principally to the north of Hyam's Lane. The Trial Trenching, provided as **Appendix 12F (Document DCO 6.12F/MCO 6.12F)** comprised the excavation of 388 evaluation trenches across the full extent of the EMG2 Works. All archaeological fieldwork was undertaken in accordance with a Written Scheme of Investigation which was approved by the Leicestershire County Council Team Manager (Heritage).

### ***Highway Works***

- 12.2.7. Due to the presence of the existing road networks within the Highways Works area, no previous archaeological works have taken place. The exception to this is where the current Highway Works area overlaps with the previous EMG1 DCO area. The only concentration of features of archaeological interest found in this area of overlap was a possible Romano-British enclosure located approximately 50m to the southwest of Junction 24, detailed within **Appendix 12B (Document DCO 6.12B/MCO 6.12B)**. This is also discussed further at Paragraph 12.2.10 of this Chapter.

## **MCO Scheme**

- 12.2.8. In relation to the MCO Scheme area, as part of the process for securing consent and delivering the EMG1 DCO, a detailed programme of archaeological investigation was undertaken between July 2014 and September 2017. A programme of geophysical survey was undertaken across the majority of the MCO Scheme area with the survey recording the presence of anomalies of likely, probable and possible archaeological interest. A programme of archaeological fieldwalking was also undertaken within multiple fields recovering material dating from the 16<sup>th</sup> century onwards, which was also supported by a LiDAR survey identifying the presence of former field boundaries and areas of ridge and furrow within the western part of the MCO Scheme area. The geophysical survey and fieldwalking informed a subsequent programme of trial trenching across the MCO Scheme area, undertaken in multiple phases (**Appendix 12B (Document DCO 6.12B/MCO 6.12B)**).

- 12.2.9. Informed by the trial trenching, between December 2016 and September 2017, an extensive programme of archaeological mitigation was undertaken at the EMG1 site in the form of 14 separate open excavation areas. The earliest evidence of human activity consisted of worked flints potentially dating to the Mesolithic or Early Neolithic periods. The majority of the excavation areas show signs of activity associated with the Iron Age, with recorded features consisting of pit alignments, roundhouse ring gullies, enclosure ditches and field system remains. At least six discrete enclosures were discovered across the landscape, with field boundaries of Iron Age date recorded at a number of the other sites. Three of the excavation areas show signs of concerted activity in the Romano-British period relating to enclosures and the remains of field system (**Appendix 12B (Document DCO 6.12B/MCO 6.12B)**).
- 12.2.10. Archaeological mitigation at EMG1 also took the form of preservation *in-situ*. It was agreed that two groups of archaeological features would be preserved *in-situ* under the proposed landscape bund bounding EMG1 to the north and west. These features consisted of ditches and possible enclosures dating to the Iron Age referred to as Site A and Site B located within the MCO Scheme area. A third group of archaeological features in the eastern part of EMG1 located in Field 40 adjacent to the M1 motorway had been incorporated within the agreed programme of archaeological excavation, although it was ultimately determined that development would not need to take place in this location. As such, the archaeological features in this location consisting of possible Iron Age enclosures were retained *in-situ* (**Appendix 12B (Document DCO 6.12B/MCO 6.12B)**).

### **Significance Criteria**

- 12.2.11. The following section expands on the general significance criteria guidance set out within **Chapter 1: Introduction (Document DCO 6.1/MCO 6.1)**, with specific reference to heritage. The criteria have been used to establish the sensitivity of receptors, magnitude of impact and significance of effect.

### **Sensitivity**

- 12.2.12. The sensitivity of heritage assets to impacts depends on factors such as the condition of the asset and its perceived heritage value and importance. The sensitivity of the receptor (the heritage asset) is defined by its importance in terms of national, regional or local statutory or non-statutory protection and grading of the asset, as well as its condition. A degree of professional judgement is exercised in determining the sensitivity of some assets. **Table 12.2** below presents the criteria used in determining the sensitivity of heritage assets to impacts.

**Table 12.2: Methodology for Determining Sensitivity**

| Sensitivity   | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| High          | <p>World Heritage Sites</p> <p>Ancient monuments scheduled under the Ancient Monuments and Archaeological Areas Act 1979, or archaeological sites and remains of comparable quality, assessed with reference to the SoS's non-statutory criteria;</p> <p>Scheduled Monuments with standing remains;</p> <p>Grade I and II* Listed Buildings;</p> <p>Grade II listed building containing elements or fabric of high importance;</p> <p>Conservation Areas containing very important buildings;</p> <p>Undesignated buildings, structures or assets that can be shown to have exceptional qualities in their fabric or historical associations and are of clear national importance; and</p> <p>Undesignated assets of schedulable quality and importance.</p> |
| Moderate      | <p>Archaeological sites and remains which, while not of national importance, score well against most of the SoS's criteria;</p> <p>Grade II listed buildings;</p> <p>Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical associations;</p> <p>Conservation Areas containing buildings that contribute significantly to its historic character; and</p> <p>Historic Townscape or built-up areas with important historic integrity in their buildings; or</p> <p>Built settings (e.g. including street furniture, surfaces and other structures).</p>                                                                                                                                                  |
| Low           | <p>Archaeological sites that score less well against the SoS's criteria;</p> <p>'Locally Listed' buildings (identified by plan makers as non-designated heritage receptors);</p> <p>Historic (unlisted) buildings of modest quality in their fabric or historical association (potentially identified as non-designated heritage receptors);</p> <p>Historic Townscape or built-up areas of limited historic integrity in their buildings, or built settings (e.g. including street furniture, surfaces and other structures).</p>                                                                                                                                                                                                                           |
| No Importance | <p>Areas in which investigative techniques have produced no or only minimal evidence for archaeological remains, or where previous large-scale disturbance or removal of deposits can be demonstrated;</p> <p>Buildings of no architectural or historical note.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |



## ***Magnitude of impact***

- 12.2.13. Impacts result from change in the significance of the asset attributable to a proposed development, and the magnitude of impact reflects the degree of change in the asset's significance.
- 12.2.14. Change can arise as a result of construction on below-ground archaeological assets resulting in physical loss. Change can also affect the significance of a heritage asset through the alteration of their setting, caused by the visibility or proximity of new structures, by noise or dust, or other elements.
- 12.2.15. Such change can be adverse or beneficial, temporary or permanent, reversible or irreversible. **Table 12.3** below presents the guideline magnitude of impact criteria related to heritage assets.

**Table 12.3: Methodology for Assessing Magnitude**

| <b>Magnitude of Impact</b> | <b>Example of Adverse change</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Example of Beneficial Change</b>                                                                                                                                                                                       |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| High                       | <p>Total or substantial loss of the significance of a heritage asset.</p> <p>Substantial harm to a heritage asset's setting, such that the significance of the asset would be totally lost or substantially reduced (e.g. the significance of a designated heritage asset would be reduced to such a degree that its designation would be questionable or the significance of an undesignated heritage asset would be reduced to such a degree that its categorisation as a heritage asset would be questionable).</p> | <p>Prevention of further degradation of the asset consistent with safeguarding its heritage significance.</p> <p>Increase accessibility and understanding of visible assets by removal of visibly intrusive elements.</p> |
| Moderate                   | <p>Partial loss or alteration of the significance of a heritage asset.</p> <p>Considerable harm to a heritage asset's setting, such that the asset's significance would be materially affected/considerably devalued, but not totally or substantially lost.</p>                                                                                                                                                                                                                                                       | <p>Increase accessibility and understanding of visible assets by removal of visibly intrusive elements.</p>                                                                                                               |
| Low                        | <p>Slight loss of the significance of a heritage asset.</p> <p>This could include the removal of fabric that forms part of the heritage asset, but that is not integral to its significance (e.g. the demolition of later extensions/additions of little intrinsic value).</p> <p>Some harm to the heritage asset's setting, but not to the degree that it would materially compromise the significance of the heritage asset.</p>                                                                                     | <p>Reduce rate of current degradation.</p> <p>Improve setting.</p> <p>Enhance existing character.</p>                                                                                                                     |

| Magnitude of Impact | Example of Adverse change                                                                                                                                                                                                                                                                         | Example of Beneficial Change                                                                      |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
|                     | Perceivable level of harm, but insubstantial relative to the overall interest of the heritage asset.                                                                                                                                                                                              |                                                                                                   |
| Negligible          | <p>A very slight change to the significance of a heritage asset.</p> <p>This could include a change to a part of a heritage asset that does not materially contribute to its significance.</p> <p>Very minor change to a heritage asset's setting such that does not affect its significance.</p> | Very minor benefit to, or positive addition of, one or more characteristics, features or elements |

### ***Significance of effect***

- 12.2.16. Significance of effect has been determined with reference to the sensitivity of the asset affected and the magnitude of the impact. **Table 12.4** provides a matrix to act as a guide to determining significance.
- 12.2.17. The matrix is not intended to mechanise judgement of the significance of effect, but to act as a check to ensure that judgements regarding sensitivity, magnitude of impact and significance of effect are reasonable and balanced in order to allow for professional judgement. In some cases, the matrix allows a choice of significance of effect when a magnitude of impact and a value are combined. In these cases, the individual attributes of a specific asset, along with any relevant site-specific factors and consideration of other influencing elements, have been taken into account when considering which is the most appropriate significance of effect to apply.
- 12.2.18. Based on professional judgement, a “significant” effect in terms of the EIA Regulations is considered to be one of moderate significance or above. Such effects require mitigation. All effects that are considered to be significant with regard to the EIA Regulations are highlighted with an asterisk in **Table 12.4**.

**Table 12.4: Effect Significance Matrix**

| Magnitude         | Sensitivity                           |                                        |                                       |               |
|-------------------|---------------------------------------|----------------------------------------|---------------------------------------|---------------|
|                   | High                                  | Moderate                               | Low                                   | No Importance |
| <b>High</b>       | Major Adverse/<br>Beneficial*         | Major-Moderate Adverse/<br>Beneficial* | Moderate-Minor Adverse/<br>Beneficial | Negligible    |
| <b>Moderate</b>   | Moderate Adverse/<br>Beneficial*      | Moderate-Minor Adverse/<br>Beneficial  | Minor Adverse/<br>Beneficial          | Negligible    |
| <b>Low</b>        | Moderate-Minor Adverse/<br>Beneficial | Minor Adverse/<br>Beneficial           | Minor-Negligible                      | Negligible    |
| <b>Negligible</b> | Negligible                            | Negligible                             | Negligible                            | Negligible    |

12.2.19. Effects can be of different duration as defined in Table 12.5 below:

**Table 12.5: Duration of Impacts**

| Duration    | Definition                                                                                                       |
|-------------|------------------------------------------------------------------------------------------------------------------|
| Short term  | The effects would be of short duration and would not last more than 2-5 years from the commencement of the works |
| Medium term | The effects would take 5-15 years to be mitigated                                                                |
| Long term   | The effects would be reasonably mitigated over a long period of time (15 years or more)                          |

## Consultation

12.2.20. A summary of the key issues raised during consultation activities undertaken to date specific to the historic environment is presented in **Table 12.6** below, together with how these issues have been considered in the production of this Chapter. This includes the relevant comments received from statutory consultees during the statutory consultation process, which was undertaken over a six-week period between Monday 3<sup>rd</sup> February 2025 and Monday 17<sup>th</sup> March 2025, as well as the additional consultation over a four-week period between Tuesday 1<sup>st</sup> July and Tuesday 29<sup>th</sup> July and provides a response to the issues raised as required.

**Table 12.6: Summary of consultations**

| Date        | Consultee and Type of Response                                    | Issue Raised                                                                                                                                                                                                                                                                         | Response to Issued Raised                                                                                                                                                                                                                                                                                                                                                      |
|-------------|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| July 2024   | Initial Consultation - North West Leicestershire District Council | The Conservation Officer recommended that development at the EMG2 Main Site should not impact the ridge and furrow identified in the northwest of the site. Officer also requested assessment of viewpoints of parish Churches at Breedon & Diseworth & Diseworth Conservation Area. | In relation to the ridge and furrow at the EMG2 Works, neither the trial trenching ( <b>Appendix 12F</b> ) nor the desk-based study ( <b>Appendix 12B</b> ) identified upstanding ridge and furrow earthworks. On this basis such features do not contribute any significance to assessed built heritage assets as set out at paragraphs 4.48 to 4.56 of <b>Appendix 12A</b> . |
| July 2024   | Initial Consultation – North West Leicestershire District Council | The Conservation Officer also requested assessment of viewpoints of parish Churches at Breedon & Diseworth & Diseworth Conservation Area.                                                                                                                                            | Assessment of Churches at Breedon & Diseworth & Diseworth Conservation Area has been considered at paragraphs 4.13 to 4.56 of <b>Appendix 12A</b> .                                                                                                                                                                                                                            |
| August 2024 | Initial Consultation- FAS Heritage Position Statement             | FAS reported concerns regarding the loss of rural character and historic grain of parts of the Diseworth Conservation Area setting.                                                                                                                                                  | Mitigation measures introduced a “Community Park” addressing impacts to Diseworth Conservation Area in the western and southwestern parts of the EMG2 Works maintaining some of the landscape character of open fields and tree belts.                                                                                                                                         |
| August 2024 | Initial Consultation- FAS Heritage Position Statement             | FAS reported that the proposed development would alter the legibility of Diseworth Conservation Area from the EMG2 Main Site.                                                                                                                                                        | Creation of a “Community Park” would act as a buffer to the Conservation Area and retain this legibility. Views from Hyam’s Lane would remain largely intact.                                                                                                                                                                                                                  |

| Date           | Consultee and Type of Response                        | Issue Raised                                                                                                                                                                                                                                                                                                                            | Response to Issued Raised                                                                                        |
|----------------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| August 2024    | Initial Consultation- FAS Heritage Position Statement | FAS reported that scheme would alter the character of historic routes in proximity to the Diseworth Conservation Area.                                                                                                                                                                                                                  | Hyam's Lane will be retained.                                                                                    |
| September 2024 | The Planning Inspectorate - Scoping Opinion           | The Planning Inspectorate asked for justification for the selection of the study area.                                                                                                                                                                                                                                                  | This information is contained at paragraph 1.5 of <b>Appendix 12B</b> and paragraph 1.6 of <b>Appendix 12A</b> . |
| September 2024 | The Planning Inspectorate - Scoping Opinion           | The Planning Inspectorate asked whether the proposed development would affect the historic landscape character with cross reference to the LVIA.                                                                                                                                                                                        | This information is set out in Sections 12.5 and 12.8 of this Chapter.                                           |
| September 2024 | The Planning Inspectorate - Scoping Opinion           | The Planning Inspectorate requested that the ES demonstrate how the existing areas of preservation in-situ will be retained or how their ongoing preservation would be secured.                                                                                                                                                         | This information is set out in Section 12.5 and 12.6 of this Chapter.                                            |
| September 2024 | The Planning Inspectorate - Scoping Opinion           | The Planning Inspectorate stipulated that the ES should consider the effects of noise and vibration, air quality, light and proposed landscaping earthworks upon the Diseworth Conservation Area.                                                                                                                                       | This information is set out in Section 12.5 and 12.8 of this Chapter.                                            |
| September 2024 | The Planning Inspectorate - Scoping Opinion           | The Planning Inspectorate identified that the direct and indirect effects on heritage assets in the ES should include consideration of effects upon designated heritage assets, identification of all grades of Listed Buildings, and consideration of inter-visibility between historic sites. Cross reference to be made to the LVIA. | This information is set out in Section 12.5 of this Chapter.                                                     |
| September 2024 | Scoping Opinion – Historic England                    | The Ancient Monuments Inspector recommended that impacts to the historic landscape, historical/ archaeological fabrics, and designated assets be assessed.                                                                                                                                                                              | The full assessment of the proposed impacts on all relevant heritage assets within the study area is             |

| Date           | Consultee and Type of Response                         | Issue Raised                                                                                                                                                                                                                                                                                                                                                                                                            | Response to Issued Raised                                                                                      |
|----------------|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
|                |                                                        | <p>Archaeological potential, landscape amenity, and culminative impacts should also be assessed.</p> <p>The assessment of the following assets was highlighted:</p> <ul style="list-style-type: none"> <li>• Moated Site with Fishpond and Flood banks at Long Whatton SAM</li> <li>• GII* Langley Priory</li> <li>• Diseworth Conservation Area</li> <li>• St. Michael's Church</li> <li>• Old Hall Farm</li> </ul>    | contained within <b>Appendices 12A to 12F</b> .                                                                |
| September 2024 | Scoping Opinion-Leicestershire County Council          | The Archaeological officer has recommended that baseline assessments be submitted which assess potential impacts upon both built heritage assets, archaeological assets, and historic landscape. This assessment should consider the results from the previous programme of archaeological evaluation at EMG1 and the EMG2 Main Site. The need for any further archaeological evaluation required should be identified. | This information is contained within <b>Appendices 12B to 12F</b> .                                            |
| October 2024   | On site liaison meeting with FAS (instructed by NWLDC) | Statement of common ground requested.                                                                                                                                                                                                                                                                                                                                                                                   | A statement of common ground has been prepared and is currently under active consideration.                    |
| October 2024   | On site liaison meeting with FAS                       | Further information on built heritage and historic landscape features requested.                                                                                                                                                                                                                                                                                                                                        | Provided at paragraphs 4.13 to 4.56 of <b>Appendix 12A</b> .                                                   |
| October 2024   | On site liaison meeting with FAS                       | Detailed information on mitigation measures requested                                                                                                                                                                                                                                                                                                                                                                   | Relevant mitigation measures in relation to heritage is set out within Sections 12.5 and 12.6 of this Chapter. |
| October 2024   | On site liaison meeting with FAS                       | Built Heritage assessment to incorporate ZTV, wireframes and photomontages.                                                                                                                                                                                                                                                                                                                                             | This has been included as set out                                                                              |

| Date          | Consultee and Type of Response                                                                           | Issue Raised                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Response to Issued Raised                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | within <b>Appendix 12A</b> .                                                                                                                                                                                                                                                                                                                                                                                                        |
| October 2024  | On site liaison meeting with FAS                                                                         | Noise, vibration and lighting impacts to be included within assessment of development impacts to the Diseworth Conservation Area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | This information is set out in Section 12.5 and 12.8 of this Chapter.                                                                                                                                                                                                                                                                                                                                                               |
| October 2024  | On site liaison meeting with FAS                                                                         | Reference to ridge and furrow with EMG2 Main Site requested.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Provided at paragraphs 4.48 to 4.56 of <b>Appendix 12A</b> .                                                                                                                                                                                                                                                                                                                                                                        |
| December 2024 | Further Consultation- Leicestershire County Council                                                      | Full Ordnance Survey map coverage should be provided within the Archaeological Desk-Based Assessment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | This information has been provided within <b>Appendix 12B</b> .                                                                                                                                                                                                                                                                                                                                                                     |
| March 2025    | Statutory Consultation – Leicestershire County Council                                                   | As part of Leicestershire County Council's response to the statutory consultation, no additional comments were made in relation to Archaeology.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| April 2025    | FAS (on behalf of NWLDC) – Response to the Statutory Consultation and Draft ES Cultural Heritage chapter | <p>Loss of rural character and historic 'grain' of land close to Diseworth Conservation Area.</p> <p>Alteration of the character and legibility of Diseworth as a discrete settlement. This includes perception of its compactness when experienced approaching Diseworth on footpaths to the northeast and east; and</p> <p>Change to the character of historic routes, which reflect patterns of movement associated with Diseworth;</p> <p>Individual scoping of limited number of designated and non-designated heritage assets in Diseworth Conservation, including Old Hall Farmhouse;</p> <p>Quantification of EMG2 Main Site as small part of Diseworth Conservation Area's setting; and</p> | <p>12.4.47 and at 3.23 - 3.24, 3.29 and 4.51 – 4.52 and 5.7 of <b>Appendix 12A</b>.</p> <p>Set out at 12.4.47 – 12.4.52 and at 4.34, 4.39, 5.7 and 5.35 of <b>Appendix 12A</b>.</p> <p>Set out at 12.4.47 – 12.4.52 of <b>Appendix 12A</b>.</p> <p>Justified at 12.4.46 and at 4.10 and 4.40 – 4.42 of <b>Appendix 12A</b>.</p> <p>Set out at 12.4.47 – 12.4.52 and at 3.21, 4.43 – 4.47, 4.53 and 5.33 of <b>Appendix 12A</b>.</p> |

| Date      | Consultee and Type of Response                                                                                 | Issue Raised                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Response to Issued Raised                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |                                                                                                                | <p>More detail on the setting's contribution to significance of Diseworth Conservation Area.</p> <p>Lighting impacts on built heritage impacts.</p> <p>Noise and vibration impact on built heritage assets.</p> <p>Landscape mitigation measures and built heritage assets.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <p>Detailed at 12.4.47 – 12.4.52, 4.50 – 4.55 and 5.33 of <b>Appendix 12A</b>.</p> <p>Detailed at 5.9 – 5.13 of <b>Appendix 12A</b>.</p> <p>Detailed at 5.14 – 5.17 of <b>Appendix 12A</b>.</p> <p>Detailed at 5.18 – 5.24 of <b>Appendix 12A</b>.</p>                                                                                                                                                                                                                                                                                                                                                                |
| July 2025 | FAS (on behalf of NWLDC) – Response to the Further Consultation and Updated Draft ES Cultural Heritage chapter | <p>Loss of rural character and historic 'grain' of land close to Diseworth Conservation Area.</p> <p>Alteration of the character and legibility of Diseworth as a discrete settlement. This includes perception of its compactness when experienced approaching Diseworth on footpaths to the northeast and east; and</p> <p>Change to the character of historic routes, which reflect patterns of movement associated with Diseworth.</p> <p>More detail on the setting's contribution to significance of Diseworth Conservation Area.</p> <p>Cumulative impacts from nearby Isley Woodhouse development would further erode the rural heritage setting, contrary to claims of no cumulative heritage effects.</p> <p>Loss of rural character and historic 'grain' of land close to Diseworth Conservation Area.</p> <p>Alteration of the character and legibility of Diseworth as a discrete settlement. This includes perception of its compactness when experienced approaching Diseworth on footpaths to the northeast and east; and</p> <p>Change to the character of historic routes, which reflect</p> | <p>12.4.47 and at 3.23 - 3.24, 3.29 and 4.51 – 4.52 and 5.7 of <b>Appendix 12A</b>.</p> <p>Set out at 12.4.47 – 12.4.52 and at 4.34, 4.39, 5.7 and 5.35 of <b>Appendix 12A</b>.</p> <p>Set out at 12.4.47 – 12.4.52 of <b>Appendix 12A</b>.</p> <p>Detailed at 12.4.47 – 12.4.52, 4.50 – 4.55 and 5.33 of <b>Appendix 12A</b>.</p> <p>Set out at Section 12.8 of this ES Chapter and at 3.23 - 3.24, 3.29 and 4.51 – 4.52 and 5.7 of <b>Appendix 12A</b>.</p> <p>Set out at 12.4.47 – 12.4.52 and at 4.34, 4.39, 5.7 and 5.35 of <b>Appendix 12A</b>.</p> <p>Set out at 12.4.47 – 12.4.52 of <b>Appendix 12A</b>.</p> |



| Date | Consultee and Type of Response | Issue Raised                                                                                                                                                                                                                                                                                                                    | Response to Issues Raised                                                                                                            |
|------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
|      |                                | <p>patterns of movement associated with Diseworth.</p> <p>More detail on the setting's contribution to significance of Diseworth Conservation Area.</p> <p>Cumulative impacts from nearby Isley Woodhouse development would further erode the rural heritage setting, contrary to claims of no cumulative heritage effects.</p> | <p>Detailed at 12.4.47 – 12.4.52, 4.50 – 4.55 and 5.33 of <b>Appendix 12A</b>.</p> <p>Set out at Section 12.8 of this ES Chapter</p> |

## 12.3. Policy, Guidance and Legislative Context

- 12.3.1. The below provides a specific planning policy, guidance, and legislative context overview in respect of heritage. This section is common to both the DCO Scheme and the MCO Scheme.

### Legislation

#### Ancient Monuments and Archaeological Areas Act 1979

- 12.3.2. The Ancient Monuments and Areas Act 1979 (as amended by the National Heritage Act 1983 and the National Heritage Act 2002) provides protection to sites of national importance (Scheduled Monuments and other monuments considered by the Secretary of State to be of equivalent status).
- 12.3.3. There are no Scheduled Monuments within or close to the EMG2 Project (a number of distant scheduled monuments were initially considered as part of the Archaeological Desk-Based Assessment (**Appendix 12B (Document DCO 6.12B/MCO 6.12B)**)).

#### Planning (Listed Buildings and Conservation Areas) Act 1990

- 12.3.4. Where any development may affect certain designated heritage assets, there is a legislative framework to ensure proposed works are developed and considered with due regard to their impact on the historic environment. This is contained in primary legislation in the Planning (Listed Buildings and Conservation Areas) Act 1990 (1990 Act).
- 12.3.5. The relevant legislation in this case derives from sections 16 and 66 of the 1990 Act which states that special regard must be given by the decision maker, in the exercise of planning functions, to the desirability of preserving (i.e. keeping from harm) listed buildings and their setting.
- 12.3.6. Section 72 of the 1990 Act is not engaged in this case since no part of the EMG2 Project is on land within a conservation area.

### National Planning Policy

#### National Networks National Policy Statement

- 12.3.7. The National Networks National Policy Statement (NPS) (Department for Transport, 2024) sets out the UK Government's policy for the delivery of nationally significant road and rail networks. The NPS, at Paragraphs 5.204 – 5.226, recognises the need to consider heritage assets within the application and determination process given the construction and operation of national infrastructure has the potential to result in adverse impacts on the historic environment.
- 12.3.8. Paragraph 5.210 states that:

*The applicant should undertake an assessment of any significant heritage impacts of the proposed project and should describe the significance of any heritage assets*

*affected, including any contribution made by their setting. The level of detail should be proportionate to the asset's 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 a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, the applicant should include an appropriate desk-based assessment and, where necessary, a field evaluation.*

12.3.9. Paragraph 5.220 states that:

*Any harmful impact on the significance of a designated heritage asset should be weighed against the public benefit of development, recognising that the greater the harm to the significance of the heritage asset, the greater the justification that will be needed for any loss.*

### **National Planning Policy Framework (NPPF) 2024**

12.3.10. Section 16 of the NPPF, entitled 'Conserving and Enhancing the Historic Environment' provides policy on the conservation and investigation of heritage assets.

12.3.11. Paragraph 207 states that planning decisions should be based on the significance of the heritage asset, including any contribution made by their setting. The level of detail supplied by an applicant should be proportionate to the importance of the asset and should be no more than is sufficient to review the potential impact of the proposal on the significance of that asset. 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.

12.3.12. Paragraph 212 states that great weight should be given to a heritage asset's conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance.

12.3.13. Paragraph 214 states that 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 that (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.

- 12.3.14. Paragraph 215 states that 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.
- 12.3.15. Paragraph 216 states that where an application will affect the significance of a non-designated heritage asset, a balanced judgement is required, having regard to the scale of harm or loss and the significance of the heritage asset.
- 12.3.16. The assessment of the likely potential impacts of the EMG2 Project has been undertaken in accordance with the NPPF. Relevant designated assets surrounding the EMG2 Project and non-designated heritage assets on and surrounding the EMG2 Project have been identified and the likely potential impacts of the proposals assessed proportionately within the ES and baseline appendices.

## **National Planning Guidance**

- 12.3.17. In addition to relevant planning policy, a number of relevant national guidance documents have been considered during the assessment. These are summarised below.

### **Planning Practice Guidance**

- 12.3.18. The Planning Practice Guidance (PPG) supports the NPPF. It reiterates that conservation of heritage assets in a manner appropriate to their significance is a core planning principle. It also states that conservation is an active process of maintenance and managing change, requiring a flexible and thoughtful approach. Furthermore, it highlights that neglect and decay of heritage assets is best addressed through ensuring they remain in active use that is consistent with their conservation. Importantly, the guidance states that if complete or partial loss of a heritage asset is justified, the aim should then be to capture and record the evidence of the asset's significance and to make the interpretation publicly available.

### **Historic England**

#### ***Good Practice Advice in Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment (March 2015)***

- 12.3.19. This document provides advice on numerous ways in which decision making in the historic environment could be undertaken, emphasising that the first step for all applicants is to understand the significance of any affected heritage asset and the contribution of its setting to that significance. In line with the NPPF and PPG, the document states that early engagement and expert advice in considering and assessing the significance of heritage assets is encouraged. The advice suggests a structured, staged approach to the assembly and analysis of relevant information:
- Understand the significance of the affected assets;
  - Understand the impact of the proposal on that significance;
  - Avoid, minimise and mitigate impact in a way that meets the objectives of the NPPF;

- Look for opportunities to better reveal or enhance significance;
- Justify any harmful impacts in terms of the sustainable development objective of conserving significance balanced with the need for change; and
- Offset negative impacts to significance by enhancing others through recording, disseminating and archiving archaeological and historical interest of the important elements of the heritage assets affected.

### ***GPA3: The Setting of Heritage Assets (Second Edition; December 2017)***

- 12.3.20. This advice note focuses on the management of change within the setting of heritage assets in order to aid practitioners with the implementation of national legislation, policies and guidance relating to the setting of heritage assets found in the 1990 Act, the NPPF and PPG.
- 12.3.21. As with the NPPF, the document defines setting as *'the surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve'*. Setting is also described as being a separate term to curtilage, character and context. The guidance emphasises that setting is not a heritage asset, nor a heritage designation, and that its importance lies in what it contributes to the significance of the heritage asset, or the ability to appreciate that significance. It also states that elements of setting may make a positive, negative or neutral contribution to the significance of the heritage asset.
- 12.3.22. While setting is largely a visual term, with views considered to be an important consideration in any assessment of the contribution that setting makes to the significance of an asset, and thus the way in which an asset is experienced, setting also encompasses other environmental factors including noise, vibration and odour. Historical and cultural associations may also form part of the asset's setting, which can inform or enhance the significance of a heritage asset.
- 12.3.23. The advice note provides guidance on practical and proportionate decision making with regards to the management of change within the setting of heritage assets. It states that the protection of the setting of a heritage asset need not prevent change and that decisions relating to such issues need to be based on the nature, extent and level of the significance of a heritage asset, further weighing up the potential public benefits associated with the proposals. It is further stated that changes within the setting of a heritage asset may have positive or neutral effects.
- 12.3.24. The document also states that the contribution made to the significance of heritage assets by their settings will vary depending on the nature of the heritage asset and its setting, and that different heritage assets may have different abilities to accommodate change without harming their significance. Setting should, therefore, be assessed on a case-by-case basis.
- 12.3.25. Historic England recommends using a series of detailed steps in order to assess the potential effects of a proposed development on significance of a heritage asset. The five-step process is as follows:
- 1) Identify which heritage assets and their settings are affected;

- 2) Assess the degree to which these settings and views make a contribution to the significance of a heritage asset(s) or allow significance to be appreciated;
- 3) Assess the effects of the proposed development, whether beneficial or harmful, on the significance or on the ability to appreciate it;
- 4) Explore ways to maximise enhancement and avoid or minimise harm; and
- 5) Make and document the decision and monitor outcomes.

## Local Planning Policy

### North West Leicestershire Local Plan 2011- 2031 (November 2017, readopted March 2021)

12.3.26. The relevant Development Plan Policy is currently provided by North West Leicestershire District Council's Local Plan which was originally adopted in November 2017 and was re-adopted in March 2021 following a partial review. The Local Plan contains policy relating to heritage matters.

12.3.27. Policy HE1 (Conservation and Enhancement of North West Leicestershire's Historic Environment) states that:

*(1) To ensure the conservation and enhancement of North West Leicestershire's historic environment, proposals for development, including those designed to improve the environmental performance of a heritage asset, should:*

- a) Conserve or enhance the significance of heritage assets within the district, their setting, for instance significant views within and in and out of Conservation Areas;*
- b) Retain buildings, settlement patterns, features and spaces, which form part of the significance of the heritage asset and its setting;*
- c) Contribute to the local distinctiveness, built form and scale of heritage assets through the use of appropriate design, materials and workmanship;*
- d) Demonstrate a clear understanding of the significance of the heritage asset and of the wider context in which the heritage asset sits.*

*(2) There will be a presumption against development that will lead to substantial harm to, or total loss of significance of a designated heritage asset. Proposals will be refused consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh the harm or loss or all of the following apply:*

- The nature of the heritage asset prevents all reasonable uses of the site; and*
- no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and*
- conservation by grant-funding or some form of charitable or public ownership is demonstrably not possible; and*

- *The harm or loss is outweighed by the benefit of bringing the site back into use.*

*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 securing its optimum viable use.*

*(3) Where permission is granted, where relevant the Council will secure appropriate conditions and / or seek to negotiate a Section 106 Obligation to ensure that all heritage assets are appropriately managed and conserved.*

*(4) The District Council will support development that conserves the significance of non-designated heritage assets including archaeological remains.*

## 12.4. Approach to Assessment of Applications

12.4.1. In recognition that this chapter forms part of a single ES covering both the DCO Application and the MCO Application (as explained in Section 12.1 and in full within **Chapter 1: Introduction and Scope**) it makes a clear distinction between the component parts and, consistent with the dual application approach, assesses the impacts arising from the DCO Application and MCO Application separately and then together as the EMG2 Project in combination. An assessment of the cumulative impacts of the EMG2 Project with other existing and, or approved developments, has also been completed using the list of projects identified in **Appendix 21B to Chapter 21: Cumulative Impacts (Document DCO 6.21B/MCO 6.21B)**.

12.4.2. Accordingly the remaining sections of this Chapter are structured as follows:

- An Assessment of the DCO Scheme within Section 12.5;
- An Assessment of the MCO Scheme within Section 12.6;
- An Assessment of the EMG2 Project as a whole, comprising the DCO Scheme and MCO Scheme together, within Section 12.7;
- An Assessment of the EMG2 Project as a whole in combination with other planned development (i.e. the cumulative effects), within Section 12.8; and
- An overall summary and conclusions of the above within Section 12.9.



## 12.5. Assessment of DCO Application

12.5.1. As set out in Section 1 of this Chapter, and at **Table 12.1**, the DCO Scheme comprises of the following component parts:

- The EMG2 Works: Logistics and advanced manufacturing development located on the EMG2 Main Site together with the provision of a community park, HGV parking, a bus interchange, and an upgrade to the EMG1 substation;
- The Highway Works: Works to the highway network: the A453 EMG2 access junction works; significant improvements at Junction 24 of the M1 (referred to as the J24 Improvements) and works to the wider highway network including active travel works.

12.5.2. Within this Section, locational references to EMG2 Works exclude the upgrades to the EMG1 Substation except where these works are specifically referenced.

### Baseline Conditions

12.5.3. The technical appendices (Built Heritage Assessment (**Appendix 12A (Document DCO 6.12A/MCO 6.12A)**), Archaeological Desk Based Assessment (**Appendix 12B (Document DCO 6.12B/MCO 6.12B)**), Geophysical Survey (**Appendix 12C (Document DCO 6.12C/MCO 6.12C)**), Geoarchaeological Assessment (**Appendix 12D (Document DCO 6.12D/MCO 6.12D)**), Fieldwalking Assessment (**Appendix 12E (Document DCO 6.12E/MCO 6.12E)**), and Trial Trenching (**Appendix 12F (Document DCO 6.12F/MCO 6.12F)**)) identify the baseline conditions of the DCO Scheme in detail. Some of the appendices relate to the EMG2 Works only as further outlined below.

### Geology and Topography

12.5.4. The solid geology of the southern part of the EMG2 Works to the east of Diseworth is recorded as predominantly Gunthorpe Member - mudstone, with multiple fault lines resulting in narrow outcrops of Gunthorpe Member siltstone and Diseworth Sandstone also being present. Superficial deposits are present within the northern half of the study site consisting of Glaciofluvial Deposits and Oadby Member deposits, with narrow isolated head deposits present in the northwest and southeast of the study site infilling potential dry valleys. The geoarchaeological assessment work undertaken (**Appendix 12D (Document DCO 6.12D/MCO 6.12D)**) identified similar results.

12.5.5. The EMG2 Works are located in an area of south facing, gentle rising ground, with the southern boundary associated with the 60m-65m contour, and the northern boundary associated with the 85m-90m contour. The highest point lies at 93m above Ordnance Datum (aOD) and is associated with a trig point located adjacent to Hyam's Lane in the northeast corner of the EMG2 Works. The course of the Long Whatton Brook is located approximately 250m to the southwest, while a minor tributary of the Brook forms part of the western boundary.

- 12.5.6. With regard to the Highways Works, in proximity of Junction 24A of the M1, Edwalton Member mudstone deposits are recorded, with a mix of superficial head, Egginton Common Sand and Gravel Member, and Wanlip Member sand and gravel. To the south of Junction 24A along the M1 corridor the solid geology comprises Tarporley Siltstone Formation and Gunthorpe Member, with little in the way of superficial deposits recorded.
- 12.5.7. The course of the River Trent is located approximately 2km to the north of the DCO Scheme.

## **Heritage Assets within the Boundary of the DCO Scheme**

### ***Designated Heritage Assets***

- 12.5.8. There are no designated heritage assets within the DCO Scheme boundary.

### ***Non-Designated Heritage Assets***

- 12.5.9. The identified potential for non-designated heritage assets within the DCO Scheme is associated with the archaeological assets present. There are no non-designated built heritage assets present within the DCO Scheme.
- 12.5.10. This Chapter is supported by the findings of a detailed programme of archaeological evaluation (see paragraphs 12.2.6 and 12.2.7 above) which comprised both desk-based and field-based investigations.
- 12.5.11. These studies identified a number of archaeological receptors which could be affected by the DCO Scheme and these are discussed below. A plan showing the location of the archaeological receptors in relation to the DCO Scheme is provided in **Appendix 12G (Document DCO 6.12G/MCO 6.12G)**.

### ***EMG2 Works***

- 12.5.12. Archaeological Resource (AR1) comprises a low density of features potentially associated with the Middle to Late Iron Age period. This receptor was first identified during the geophysical survey (**Appendix 12C (Document DCO 6.12C)**), the trial trenching (**Appendix 12F (Document DCO 6.12F)**) subsequently confirming the presence of a series of linear and discrete features containing animal bone, slag, flint and pottery located within trial trenches 291-294, and 299. Such archaeological features appear to represent peripheral Iron Age settlement activity and therefore can be considered to be of Low sensitivity.
- 12.5.13. Archaeological Resource (AR2) comprises a low density of features potentially associated with the Middle to Late Iron Age and Roman periods. This receptor was first identified during the geophysical survey (**Appendix 12C (Document DCO 6.12C)**), the trial trenching (**Appendix 12F (Document DCO 6.12F)**) subsequently confirming the presence of a series of linear features containing animal bone, slag, and pottery located within trial trenches 97, 98, 101, 103, and 394. Such archaeological features appear to represent Iron Age and Roman agricultural activity and therefore can be considered to be of Low sensitivity.
- 12.5.14. Archaeological Resource (AR3) comprises three features (two ditches and a pit) dated by the recovery of pottery to the Post-Medieval period. This receptor was first identified within

trial trenches 206, 208, and 211 (**Appendix 12F (Document DCO 6.12F)**). Such archaeological features appear to represent former Post-Medieval field boundaries and agricultural activity and therefore can be considered to be of No Importance/sensitivity.

- 12.5.15. Archaeological Resource (AR4) comprises evidence for Post-Medieval ridge and furrow cultivation. Evidence of such activity is evident in the LiDAR data (**Appendix 12B (Document DCO 6.12B)**) and geophysical survey data (**Appendix 12C (Document DCO 6.12C)**), although no surviving evidence for such features were recorded during the trenched evaluation (**Appendix 12F (Document DCO 6.12F)**). The ridge and furrow earthworks (AR4) are of limited interest and considered to be of No Importance/sensitivity.
- 12.5.16. Archaeological Resource (AR5) relates to existing field boundaries within the EMG2 Works of likely Post-Medieval date that have been identified by the Archaeological Desk-Based Assessment (**Appendix 12B (Document DCO 6.12B)**) of historic interest, and of Low sensitivity.
- 12.5.17. Archaeological Resource (AR6) comprises a low density of features consisting of three undated ditches first identified within trial trenches 314, 315, and 317 (**Appendix 12F (Document DCO 6.12F)**). Such archaeological features appear to represent a single former field boundary and, therefore, can be considered to be of No Importance/sensitivity.

### ***Highways Works***

- 12.5.18. Archaeological Resource (AR9) comprises of a low density of Roman ditches, first identified during the programme of evaluation at EMG1, initially during the geophysical survey and then subsequently exposed during the trial trenching (**Appendix 12B (Document DCO 6.12B)**). As the construction of the development of EMG1 did not impact the area containing AR9, such features were preserved *in-situ* within existing agricultural land. Due to the peripheral agricultural character of such features, they can be considered to be of Low sensitivity.

## **Heritage Assets Beyond the Boundary of the DCO Application**

### ***Designated Heritage Assets - Archaeology***

- 12.5.19. The baseline Archaeological Desk-Based Assessment (**Appendix 12B (Document DCO 6.12B/MCO 6.12B)**) identified that two Scheduled Monuments were located within 2km of the DCO Scheme boundary. These assets will be unaffected by the DCO Scheme due to the lack of any visual, functional and known historic connection or association with the DCO Scheme.
- 12.5.20. The Bulwarks Scheduled Monument (AR10) located approximately 5km southwest of the DCO Scheme was also assessed due to its prominent landscape position and intervisibility.
- 12.5.21. The Bulwarks (AR10) is a heritage asset of high, national significance. The significance of the asset primarily derives from its evidential value due to the survival of upstanding earthworks associated with the Iron Age hillfort, as well below-ground archaeological remains that will have been preserved. Aesthetic value derives from appreciation of the

earthworks, with the prominent hilltop location providing extended views of the asset over a wide landscape. Due to the presence of public footpaths the monument retains a degree of communal value. Historical value is limited due to the lack of documentation relating to the hillfort itself.

- 12.5.22. The primary setting of the asset will comprise the immediate rural landscape, out to approximately 1km from the monument, where the earthworks can be viewed and appreciated, and original rural context of the asset can be understood. This immediate setting will strongly contribute to both the evidential and aesthetic values of the asset. Due to the prominent location of the Scheduled Monument the wider setting of the asset will encompass an extensive swath of the surrounding countryside as the monument, and the hill it is located upon, will be visible for an extended distance. This wider setting would contribute to a lesser degree to the aesthetic value of the asset.
- 12.5.23. The asset's importance primarily derives from its upstanding earthworks and buried archaeological remains, the aesthetic interest of its earthworks, and its communal value to its current level of accessibility. The wider setting, of which the application site is a very small part, provides a secondary level of contribution to the asset's importance. Consequently, the EMG2 Works as a limited part of the asset's wider landscape context, provides a very low level of contribution to the asset's heritage importance/sensitivity.
- 12.5.24. The Highway Works have been assessed as having no impact on off-site archaeological assets.

### ***Designated Heritage Assets - Built Heritage***

- 12.5.25. The baseline Built Heritage Assessment for the DCO Scheme (**Appendix 12A (Document DCO 6.12A)**) identified that multiple designated built heritage resources within 2km of the DCO Scheme. However, the majority of these will be unaffected by the DCO Scheme due to the lack of any visual, functional and known historic connection or association with the DCO Scheme.
- 12.5.26. A number of other built heritage receptors located beyond 2km of the DCO Scheme were initially considered during the survey work associated with the Built Heritage Assessment (**Appendix 12A (Document DCO 6.12A)**). These included Long Whatton Conservation Area and the built heritage assets therein (c.1.4 km to the southeast); Church of St Peter and St Paul, Belton (c. 4 km to the south); and the Church of St Hardulph (c.5.1 km to the west). All of these were discounted from further consideration due to their extended distance from the DCO Scheme and the lack of legibility of their heritage importance. In particular, Whatton Conservation Area is largely screened by the planted embankments of the M1 and A42.
- 12.5.27. Of the designated built heritage assets identified within the 2km search area of the DCO Scheme, specifically the EMG2 Works, that is considered to form part of the setting of, and thereby have the potential to affect, the asset, it is only the Grade II\* Church of St Michael and All Angels (BH1) in the centre of Diseworth, and the Diseworth Conservation Area (BH2) that are affected. The latter includes the consideration of, as individually appropriate, designated and non-designated built heritage assets within the Conservation Area.

### Church of St Michael and All Angels (BH1)

- 12.5.28. The Church of St Michael and All Angels (BH1) is located in the centre of Diseworth, approximately 350m from the southwest corner of the EMG2 Works. It is positioned to the immediate southeast of the crossroads to the village's four gate streets. The Church was designated December 1962 at Grade II\*. The listing citation notes that it is a:

*'Parish church. Eleventh to twelfth-century origin but substantially thirteenth century with a fourteenth-century tower. North porch dated 1661. Nineteenth and twentieth-century restorations. Rubble stone with ashlar tower and lead roofs. West tower, nave, south aisle, north porch, chancel. The west tower is of two stages with diagonal buttresses. Two-light traceried west window and wide arched single lights in double-chamfered surrounds to the bell chamber. Broach spire with a single tier of lucarnes. [...]'*

- 12.5.29. The Historic Environment Record notes that the Church is listed in the Matriculus of 1220. The west tower is noted as dating to c.1300. Pevsner [1984] notes the 'west tower of c.1300, with triple-chamfered bell openings, their tracery and cusping apparently removed. Spire with tall broaches and lucarnes'.
- 12.5.30. The Church of St Michael and All Angels (BH1) is a heritage asset of high, national significance. This is reflected in its statutory designation as a Grade II\* listed building. This marks the Church as being within the top 7% of England's most important historic buildings.
- 12.5.31. The architectural and historic importance of the Church is high. This arises from the architectural and aesthetic value of its medieval form and fabric and this fabric's age. The Church holds group value with the cemetery and the associated monuments. There is group value too with the historic core of Diseworth, and the individual historic buildings therein, which the Church serves.
- 12.5.32. The immediate setting of the asset comprises its cemetery and the immediate historic core of Diseworth. These elements of setting have a primary contribution to the asset's significance.
- 12.5.33. The broach spire to the Church is a prominent landmark within the historic core of Diseworth (the Conservation Area). It is noted in the Conservation Area Appraisal and Study as being visible in much of the approach to 'the Cross' along Hall Gate from the west. It is not noted as being prominent from any other location.
- 12.5.34. The wider setting, due to the Church's spire height extending higher than the roofscape of Diseworth, extends to the surrounding fields. From this area the Church is largely legible as an historic church set in the centre of an historic village. Views of the spire are largely available from most of the EMG2 Works excepting the far north-eastern field. The kinetic view of the spire, and its setting within the village, strengthen as one descends Hyam's Lane towards Diseworth.
- 12.5.35. Views of the Church's spire in the centre of Diseworth from the southwest of the village includes some of the upper fields of the EMG2 Works as a backdrop. However, these views include, as a skyline backdrop, some of the large-scale industrial units, warehousing, towers,

masts and associated infrastructure set on the ridge to the north, all part of or surrounding the East Midlands Airport.

- 12.5.36. There is no evidence of any direct historical association between the Church and the EMG2 Works, although it is clear that this agricultural land is part, albeit a small part, of the setting to this historic agricultural settlement in which it sits.
- 12.5.37. The asset's importance primarily derives from its historic medieval origins, the architectural and aesthetic interest of its fabric and form, and its historical association with the historic core of Diseworth (with the cemetery forming the asset's immediate setting). The wider setting, of which the EMG2 Works is a small part, provides a secondary level of contribution to the asset's importance. Consequently, the EMG2 Works, as a small part of the asset's wider historic agricultural, rural context, provides a low level of contribution to the asset's heritage importance/sensitivity.

#### **Diseworth Conservation Area (BH2)**

- 12.5.38. Diseworth Conservation Area (BH2) was first designated in February 1974. The Conservation Area boundary was revised and extended in April 2001.
- 12.5.39. The Conservation Area Appraisal and Study (CAA) sets out that the special character and appearance of the Area:

*'is derived from the informal grouping of farmhouses, outbuildings and the former tied cottages along the curvatures of the principal streets. Although modern infill housing development has been undertaken, the overall pattern of the pre-enclosure settlement remains largely evident'.*

- 12.5.40. The CAA goes on to conclude that most properties in the Area are of two storeys in height though some farmhouses have three storeys. Consequently, the one landmark building is the Church of St Michael and All Angels, although the spire is only noted as standing out from within the Area from the west along New Hall Gate.
- 12.5.41. There are 22 listed buildings in the Conservation Area predominantly dating from the sixteenth to the eighteenth centuries and these largely display local vernacular building traditions. The CAA also identifies nearly 50 'Unlisted Buildings of Interest'. Many of these buildings also reflect local vernacular traditions.
- 12.5.42. Excepting for the Church of St Michael and All Angels, the approximately 70 designated and non-designated historic buildings within the Area are largely subsumed within the built form of the village and screened from the EMG2 Works. This is to such a degree that none of these individual historic buildings' significance is meaningfully legible from the EMG2 Works and intervisibility is extremely limited. Therefore, in this case, the individual historic buildings (excepting the Church) are appropriately dealt with as a collective whole with the Conservation Area. This includes Old Hall Farm and other built heritage receptors along St Clement's Gate.
- 12.5.43. In terms of the Conservation Area's relationship with the surrounding landscape, therefore including the EMG2 Works as a small part of its wider setting, the CAA notes that:

*‘the agricultural land surrounding the village with its straight boundaries and surviving hedgerows appears to reflect the landscape created by the enclosure of Diseworth Parish in 1794. [...].*

*The location of the village within a shallow valley means that views out of the Area are restricted. [...] The curvature of the principal streets also presents a further restriction to views out of the Area’.*

- 12.5.44. The CAA only notes good views southwards out of the area to the surrounding countryside to the rear of properties on the southern side of Clements Gate over the Diseworth Brook. It is also noted that where views are afforded from the countryside south of the village, the backdrop includes industrial structures and buildings associated with the East Midlands Airport, including the recently completed control tower.
- 12.5.45. While there is some legibility of Diseworth as an historic village (the roofscape of the historic core) from many parts of the EMG2 Works, this legibility is mainly signified by the landmark presence of the Church spire.
- 12.5.46. The CAA also notes the twentieth-century residential infills along the gate streets. It was published, however, before the more extensive back land and rear residential development behind the eastern side of Grimes Gate. This includes, at the northern end, Old Hall Court. This small residential estate is on the south side of Hyam’s Lane as it enters Diseworth and screens the built heritage assets at Hall Farm to the west from the EMG2 Works. All the eastern back lands to Grimes Gate to the south of Old Hall Court, excluding a small area adjacent to the cricket pavilion, have been infilled with recent residential development, including Cheslyn Court accessed from Grimes Gate and Diseworth Grange accessed off the north side of Clements Gate.
- 12.5.47. All these recent developments on the north-eastern side of the village fall within the boundary of the Conservation Area and are all likely to fall in the setting of listed buildings in the Area. All these recent developments strengthen the screening of the individual designated and non-designated built heritage assets within the area from the EMG2 Works.
- 12.5.48. The character and appearance (importance/sensitivity) of the Conservation Area primarily relates to the medieval morphology of the four principal gate streets. It is the historic morphology of the village and the historic buildings therein that provides the primary contribution to the asset’s significance. The Area’s setting is formed by the open agricultural land within the shallow valley around the village. The historic core of the village is largely discrete within this setting. Views of the Church’s spire are largely available from most of the EMG2 Works excepting the far north-eastern field, although the site forms a small part of the Conservation Area’s setting, which itself provides a secondary level of contribution to the asset’s significance. Consequently, the EMG2 Works provides a low level of contribution to the heritage importance/sensitivity of Diseworth Conservation Area.
- 12.5.49. The Highway Works have been assessed as having no impact on off-site designated built heritage assets.

## ***Non-Designated Heritage Assets – Built Heritage***

- 12.5.50. The Diseworth Conservation Area (BH2) contains a number of buildings identified as non-designated heritage of interest in the CAA. The impact of the EMG2 Works in regard to these buildings has been incorporated into the assessment of the Diseworth Conservation Area as a whole.
- 12.5.51. The Highway Works have been assessed as having no impact on non-designated built heritage assets.

## **Summary of Heritage Assets**

- 12.5.52. Following the assessment work undertaken, the heritage assets which may be adversely affected by the DCO Scheme, and their recognised sensitivity, has been summarised in **Table 12.7** below.

**Table 12.7: Summary of Cultural Heritage Receptor Sensitivity**

| <b>Development Component</b>  | <b>Receptor</b>                                                   | <b>Sensitivity</b> |
|-------------------------------|-------------------------------------------------------------------|--------------------|
| <b>DCO Application/Scheme</b> |                                                                   |                    |
| EMG2 Works                    | AR1: Middle to Late Iron Age Peripheral Settlement Activity       | Low                |
|                               | AR2: Iron Age and Roman Agricultural Activity                     | Low                |
|                               | AR3: Post-Medieval Field Boundaries                               | No Importance      |
|                               | AR4: Post-Medieval Ridge and Furrow                               | No Importance      |
|                               | AR5: Existing Post-Medieval Field Boundaries of Historic Interest | Low                |
|                               | AR6: Undated Ditches                                              | No Importance      |
|                               | AR10: The Bulwarks Scheduled Monument                             | High               |
|                               | BH1: Grade II* Church of St Michael and All Angels                | High               |
|                               | BH2: Diseworth Conservation Area                                  | Moderate           |
| Highways Works                | AR9: Roman Agricultural Activity                                  | Low                |

## **Potential Impacts**

- 12.5.53. This section considers the potential construction and operational impacts arising from the DCO Scheme. The DCO Scheme may adversely affect heritage assets during the construction phase, when significance may be lost as a result of physical removal of a



heritage asset or as a result of change in the setting of the asset, and during its operational or post-construction phase, when significance may be lost as a result of change in setting.

## **Embedded Mitigation**

- 12.5.54. The embedded mitigation of relevance to this assessment is that associated with the DCO Scheme, comprising extensive bunding and structural landscaping provided along the western edge of the EMG2 Main Site and the Community Park to the west of that, along the western side of the EMG2 Works, together with the retention of Hyam's Lane in its existing form (with its hedgerows). The landscape planting within the Community Park will take the form of a continuous wildflower grassland with scattered scrub and trees and surface water drainage features whilst retaining its open landscape character. Furthermore, woodland planting is proposed at the apex and the upper slopes of the mitigation mounding; a more open mosaic of scrub on the lower slope; and a wild grassland margin towards the western boundary.

## **Construction Impacts**

### ***EMG2 Works***

- 12.5.55. Archaeological Resources (AR1-AR6) are all situated in areas proposed for development. The result of this would be the complete, or near complete, removal of these archaeological remains from the DCO Scheme. As such, a high magnitude impact would arise as a result of the development.
- 12.5.56. AR1, AR2, and AR5 are considered to be of Low sensitivity. As a result, a Moderate to Minor Adverse significance of effect would arise on these archaeological features.
- 12.5.57. AR3, AR4, and AR6 are considered to be of No Importance in terms of sensitivity. As a result, there would be a Negligible significance of effect on these archaeological features.
- 12.5.58. Due to their relative proximity to the EMG2 Works a degree of noise, airborne dust, and light-spill would be perceptible from receptors (BH1 Church of St Michael and All Angels) and (BH2 Diseworth Conservation Area) during construction. Receptor AR10 The Bulwarks, due to the extended distance between the asset and the EMG2 Works, impacts are likely to be limited to visual intrusion generated by the construction works taking place.
- 12.5.59. In respect to BH1, BH2 and AR10 this will result in no more than a short term, negligible magnitude of effect on these receptors, and thus a Negligible significance of effect.

### ***Highway Works***

- 12.5.60. Archaeological Resource AR9 is situated in an area proposed for development. The result of this would be the complete, or near complete, removal of these archaeological remains from the Highway Works. As such, a high magnitude impact would arise as a result of the development.
- 12.5.61. AR9 is considered to be of Low sensitivity. As a result, the Highway Works would result in a Moderate to Minor Adverse significance of effect on these archaeological features.

## **Operational Impacts - Archaeology**

### ***EMG2 Works***

- 12.5.62. Archaeological receptors (AR1-AR6) will have been removed from the EMG2 Works at the construction phase. The completed development will therefore have no effect on these receptors.
- 12.5.63. The operational development will result in negative changes to views of The Bulwarks (AR10) Scheduled Monument due to the introduction of modern built forms within some longer-distance views from the Scheduled Monument with the surrounding landscape intruding within the wider setting of the monument. Embedded mitigation in the form of extensive bunding and landscaping planting, will reduce the level of visual intrusion. Overall, the operational phase of the EMG2 Works will result in a long term, low magnitude of impact on receptor (AR10), and thus a Moderate to Minor adverse significance of effect.

### ***Highways Works***

- 12.5.64. Archaeological receptor AR9 will have been removed from the Highway Works at the construction phase. The completed development will therefore have no effect on this receptor.

## **Operational Impacts - Built Heritage**

### ***EMG2 Works***

- 12.5.65. Regarding the Church of St Michael and All Angels (BH1), the EMG2 Works will result in negative changes to views of the Church's spire from public views within the application site and to some longer-distance views from the surrounding landscape. The proposals will remove or alter these views, with the introduction of large-scale built form into this part of the Church's wider setting.
- 12.5.66. Notwithstanding the embedded mitigation in the form of extensive bunding and structural landscaping, the Community Park, and the retention of Hyam's Lane in its existing form (with its hedgerows), the proposals will diminish some of the rural setting of the Church and reduce the ability to appreciate its architectural interest from within the EMG2 Works and from within these wider rural surrounds. Overall, the operational phase will result in a short-medium term, moderate magnitude of impact on receptor (BH1), and thus a Moderate adverse significance of effect.
- 12.5.67. The character and appearance of Diseworth Conservation Area (BH2) is primarily derived from the historic morphology of the village and historic buildings therein. The EMG2 Works is a small part of the Conservation Area's setting, which itself, as a whole, provides a secondary level of contribution to the asset's significance. Consequently, the EMG2 Works provides a low level of contribution to the assets importance.
- 12.5.68. The effect of the proposed scheme will include changes to the rural approach to the Conservation Area from the northeast (as described in relation to BH1) and changes in views

from and to the Conservation Area and in parts of the wider landscape, resulting in the alteration of an element of the it's rural setting.

- 12.5.69. The operation phase will, therefore, affect a portion of the wider rural setting of the Conservation Area but will not affect the Area's character and appearance in itself. Therefore, the proposed development will result in a long term, low magnitude of impact on receptor (BH2), and thus a Minor adverse significance of effect.

### ***Highway Works***

- 12.5.70. There will not be any operational impacts to any Built Heritage asset generated by the Highway Works.

## **Mitigation Measures**

### **Archaeology**

#### ***EMG2 Works***

- 12.5.71. The assessment contained within this Chapter has identified that construction impacts in association with the EMG2 Works will result in a Moderate to Minor Adverse significance of effect in relation to receptors AR1, AR2, and AR5, and therefore indicates that a programme of archaeological investigation should be implemented to off-set the proposed impacts.
- 12.5.72. In relation to receptors AR3, AR4, and AR6, due to the Negligible adverse significance of effect or no impact assessed, no further mitigation measures are recommended.
- 12.5.73. In order to offset the recognised impacts to receptors AR1 and AR2, a programme of archaeological mitigation will be required. Implementation of the archaeological mitigation measures will give rise to a negligible significance of effect on the archaeological resource during construction and operation. The archaeological mitigation will be undertaken in advance of construction works commencing. This will comprise a targeted programme of archaeological excavation focusing on receptors AR1 and AR2.
- 12.5.74. The mitigation measures will be secured through the discharge of DCO requirements process which will require a Written Scheme of Investigation (WSI) to be approved (see Requirement 13 of the draft DCO (**Document DCO 3.1**)).
- 12.5.75. In terms of the adverse effects associated with receptor (AR5), it is recommended that any mitigation measures be co-ordinated with any ecological mitigation measures identified and controlled through the CEMP in **Appendix 3A** to this ES (**Document DCO 6.3A**) compliance with which is secured by Requirement 13 of the draft DCO (**Document DCO 3.1**).
- 12.5.76. The assessment contained within this Chapter has identified that construction impacts will result in no more than a short term, Negligible adverse significance of effect to receptor AR10, therefore no further mitigation measures are recommended in regard to the construction phase. Operational impacts to AR10 will result in a Moderate to Minor adverse significance of effect. As set out above in regard to the assessment of operational impacts,

embedded mitigation within the DCO Scheme, specifically in relation to the EMG2 Works, comprises extensive bunding and landscaping planting and a Community Park. This is set out within the Parameters Plan (**Document DCO 2.5**). No further mitigation measures are therefore proposed.

### ***Highway Works***

- 12.5.77. The assessment contained within this Chapter has identified that construction impacts associated with the Highways Works will result in a Moderate to Minor Adverse significance of effect in relation to receptor AR9 and therefore indicates that a programme of archaeological investigation should be implemented to off-set the proposed impacts. The archaeological mitigation will be undertaken in advance of construction works commencing. This will comprise a targeted programme of archaeological excavation focusing on receptor AR9.
- 12.5.78. The mitigation measures will be secured through the discharge of DCO requirements process which will require a Written Scheme of Investigation (WSI) to be approved (see Requirement 13 of the draft DCO (**Document DCO 3.1**)).

### **Built Heritage**

#### ***EMG2 Works***

- 12.5.79. The assessment contained within this Chapter has identified that construction impacts associated with the EMG2 Works will result in no more than a short term, Negligible adverse significance of effect to receptors (BH1 and BH2), therefore no further mitigation measures are recommended in regard to the construction phase.
- 12.5.80. In terms of operational impacts, the assessment within this Chapter has identified that the resultant impacts associated with the EMG2 Works will be a Moderate adverse significance of effect to receptor (BH1) and a Minor adverse significance of effect to receptor (BH2). As set out above in regard to the assessment of operational impacts, embedded mitigation within the EMG2 Works comprises extensive bunding and structural landscaping provided through a Community Park and the retention of Hyam's Lane in its existing form (with its hedgerows). The landscape planting within the Community Park will take the form of a continuous wildflower grassland with scattered scrub and trees and surface water drainage features whilst retaining its open landscape character. Furthermore, woodland planting is proposed at the apex and the upper slopes of the mitigation mounding; a more open mosaic of scrub on the lower slope; and a wild grassland margin towards the boundary of the application site. This is set out within the Parameters Plan (**Document DCO 2.5**). No further mitigation measures are proposed.

### ***Highway Works***

- 12.5.81. There will not be any impacts from the Highways Works during construction and operation to any Built Heritage assets. As a result, no mitigation measures are proposed.

## Residual Effects

- 12.5.82. This section details the final residual effects upon archaeological and built heritage receptors after all mitigation is applied to the DCO Scheme. The results of this assessment are set out in **Table 12.8** below.

### Archaeology

- 12.5.83. Preparation of an archaeological WSI and implementation of the associated archaeological mitigation measures as discussed in association with AR1, AR2, and AR5, above would give rise to a negligible residual effect on the archaeological resource during construction where effective mitigation strategies are undertaken.
- 12.5.84. The implementation of mitigation strategies would serve to further enhance the understanding of the region's archaeological record. The physical loss of buried archaeological remains would be offset through their preservation by record. As there would be no perceptible loss to the historic environment and the recording and analysis would fully realise their potential as sources of archaeological data, it is considered that the latter would fully address and mitigate the physical loss of such remains.
- 12.5.85. There will be a negligible residual effect on the remaining non-designated archaeological assets as all impacts will have been mitigated prior to the construction phase.
- 12.5.86. In terms of operational impacts, it has been identified that the resultant impacts will be a Moderate to Minor adverse significance of effect to receptor AR10. Embedded mitigation in the form of landscape planting will help reduce the visibility of the proposals. This embedded mitigation will, after fifteen years, reduce the magnitude of effect to receptor AR10 to a Negligible adverse significance of effect.

### Built Heritage

- 12.5.87. In terms of operational impacts, the assessment within this Chapter has identified that the resultant impacts will be a Moderate adverse significance of effect to receptor (BH1) and a Minor adverse significance of effect to receptor (BH2).
- 12.5.88. Embedded mitigation in the form of landscape mounding and planting and the Community Park within the EMG2 Works will help reduce the proposed buildings that will be visible. In particular, the planted mounding features will screen service yards, car parks and the lower parts of the building structures. The bunded forms and landscape planting will allow only filtered views of parts of the roofscape and upper parts of the built form in the views identified above. This embedded mitigation will, after fifteen years, reduce the magnitude of effect to receptor (BH1) to a Moderate-Minor adverse significance of effect and reduce the magnitude of effect to receptor (BH2) to a Minor-Negligible adverse significance of effect.

**Table 12.8: Summary of Residual Effects**

| Receptor                                                          | Sensitivity   | Magnitude of Impact | Significance of Effect    | Proposed Mitigation                                           | Residual Effects |
|-------------------------------------------------------------------|---------------|---------------------|---------------------------|---------------------------------------------------------------|------------------|
| <b>Construction Phase – DCO Application/Scheme</b>                |               |                     |                           |                                                               |                  |
| <b>EMG2 Works</b>                                                 |               |                     |                           |                                                               |                  |
| AR1: Middle to Late Iron Age Peripheral Settlement Activity       | Low           | High                | Moderate to Minor Adverse | Programme of archaeological fieldwork                         | Negligible       |
| AR2: Iron Age and Roman Agricultural Activity                     | Low           | High                | Moderate to Minor Adverse | Programme of archaeological fieldwork                         | Negligible       |
| AR3: Post-Medieval Field Boundaries                               | No Importance | High                | Negligible                | Not Applicable                                                | Negligible       |
| AR4: Post-Medieval Ridge and Furrow                               | No Importance | High                | Negligible                | Not Applicable                                                | Negligible       |
| AR5: Existing Post-Medieval Field Boundaries of Historic Interest | Low           | High                | Moderate to Minor Adverse | Co-ordinated with Ecological Mitigation Measures via the CEMP | Negligible       |
| AR6: Undated Ditches                                              | No Importance | High                | Negligible                | Not Applicable                                                | Negligible       |
| AR10: The Bulwarks Scheduled Monument                             | High          | Negligible          | Negligible                | Not Applicable                                                | Negligible       |
| BH1: Grade II* Church of St Michael and All Angels                | High          | Negligible          | Negligible                | Not Applicable                                                | Negligible       |
| BH2: Diseworth Conservation Area                                  | Moderate      | Negligible          | Negligible                | Not Applicable                                                | Negligible       |
| <b>Highway Works</b>                                              |               |                     |                           |                                                               |                  |
| AR9: Roman Agricultural Activity                                  | Low           | High                | Moderate to Minor Adverse | Programme of archaeological fieldwork                         | Negligible       |

| Receptor                                                          | Sensitivity   | Magnitude of Impact | Significance of Effect    | Proposed Mitigation                                                                                | Residual Effects          |
|-------------------------------------------------------------------|---------------|---------------------|---------------------------|----------------------------------------------------------------------------------------------------|---------------------------|
| <b>Operational Phase – DCO Application/Scheme</b>                 |               |                     |                           |                                                                                                    |                           |
| <b>EMG2 Works</b>                                                 |               |                     |                           |                                                                                                    |                           |
| AR1: Middle to Late Iron Age Peripheral Settlement Activity       | Low           | No Impact           | No Effect                 | Not Applicable                                                                                     | Negligible                |
| AR2: Iron Age and Roman Agricultural Activity                     | Low           | No Impact           | No Effect                 | Not Applicable                                                                                     | Negligible                |
| AR3: Post-Medieval Field Boundaries                               | No Importance | No Impact           | No Effect                 | Not Applicable                                                                                     | Negligible                |
| AR4: Post-Medieval Ridge and Furrow                               | No Importance | No Impact           | No Effect                 | Not Applicable                                                                                     | Negligible                |
| AR5: Existing Post-Medieval Field Boundaries of Historic Interest | Low           | No Impact           | No Effect                 | Not Applicable                                                                                     | Negligible                |
| AR6: Undated Ditches                                              | No Importance | No Impact           | No Effect                 | Not Applicable                                                                                     | Negligible                |
| AR10: The Bulwarks Scheduled Monument                             | High          | Low                 | Moderate to Minor Adverse | Embedded Mitigation in the Form of Extensive Bunding and Landscaping Planting with 15 yrs growth   | Negligible                |
| BH1: Grade II* Church of St Michael and All Angels                | High          | Moderate            | Moderate Adverse          | Embedded Mitigation in the Form of Extensive Bunding and Landscaping Planting with 15 years growth | Moderate to Minor Adverse |
| BH2: Diseworth Conservation Area                                  | Moderate      | Low                 | Minor Adverse             | Embedded Mitigation in the Form of Extensive Bunding and Landscaping Planting with 15 years growth | Minor to Negligible       |

| Receptor                         | Sensitivity | Magnitude of Impact | Significance of Effect | Proposed Mitigation | Residual Effects |
|----------------------------------|-------------|---------------------|------------------------|---------------------|------------------|
| <b>Highway Works</b>             |             |                     |                        |                     |                  |
| AR9: Roman Agricultural Activity | Low         | No Impact           | No Effect              | Not Applicable      | Negligible       |



## 12.6. Assessment of MCO Application

- 12.6.1. As set out in Section 1 of this Chapter, and at **Table 12.1**, the MCO Scheme comprises the EMG1 Works which in summary provide for additional warehousing development within Plot 16 of the EMG1 site together with works to increase the permitted height of the cranes at the EMG1 rail-freight terminal, improvements to the public transport interchange, site management building and the EMG1 Pedestrian Crossing.

### Baseline Conditions

- 12.6.2. The technical appendices (Built Heritage Assessment (**Appendix 12A (Document DCO 6.12A/MCO 6.12A)**)), and Archaeological Desk Based Assessment (**Appendix 12B (Document DCO 6.12B/MCO 6.12B)**)) identify the baseline conditions of the MCO Scheme in detail.

### Geology and Topography

- 12.6.3. The MCO Scheme overlies a solid geology consisting of Tarporley Siltstone Formation - siltstone, mudstone and sandstone. Superficial deposits in this area are limited to localised outcrops of head and Eagle Moor Sand and Gravel Member deposits.
- 12.6.4. The topography of the existing EMG1 development slopes, at first gently and then steeply upwards, from approximately 35-38m aOD up to just over 90m aOD to the west, where the study site abuts the plateau upon which East Midlands Airport is situated. The east-west slope is cut by a steep-sided valley draining from the plateau in a northerly direction, and the village of Lockington is sited to the north, where this valley reaches the Trent flood plain. This small valley creates a fairly steep east and west facing gradients within the general trend of the north-facing slope.
- 12.6.5. The course of the River Trent is located approximately 2km to the north of the MCO Scheme.

### Heritage Assets within the Boundary of the MCO Scheme

#### *Designated Heritage Assets*

- 12.6.6. There are no designated heritage assets within the MCO Scheme boundary.

#### *Non-Designated Heritage Assets*

- 12.6.7. The identified potential for non-designated heritage assets within the MCO Scheme boundary is associated with the archaeological assets present. There are no non-designated built heritage assets present within the MCO Scheme boundary.
- 12.6.8. This Chapter is supported by the findings of a detailed programme of archaeological evaluation (see paragraphs 12.2.8 and 12.2.10 above) which comprised both desk-based and field-based investigations.

- 12.6.9. These studies identified a number of archaeological receptors which could be affected by the MCO Scheme and these are discussed below. A plan showing the location of the archaeological receptors in relation to the MCO Scheme boundary is provided in **Appendix 12G (Document DCO 6.12G/MCO 6.12G)**.
- 12.6.10. Archaeological Resource (AR7) comprises a low to moderate density of features potentially associated with the Late Iron Age or Early Roman periods. This receptor was first identified during the programme of evaluation at EMG1, initially during the geophysical survey and then subsequently exposed during the trial trenching (**Appendix 12B (Document MCO 6.12B)**). These features were then subsequently preserved *in-situ* underneath the north-west landscape bund at EMG1. Such archaeological features appear to represent peripheral Iron Age or Early Roman agricultural activity and therefore can be considered to be of Low sensitivity.
- 12.6.11. Archaeological Resource (AR8) comprises a low density of features potentially associated with the Roman period. This receptor was first identified during the programme of evaluation at EMG1, initially during the geophysical survey and then subsequently exposed during the trial trenching (**Appendix 12B (Document MCO 6.12B)**). These features were then subsequently preserved *in-situ* underneath the north-west landscape bund at EMG1. Such archaeological features appear to represent peripheral Roman agricultural activity and therefore can be considered to be of Low sensitivity.

## **Heritage Assets Beyond the Boundary of the MCO Scheme**

### ***Designated Heritage Assets - Archaeology***

- 12.6.12. The baseline Archaeological Desk-Based Assessment (**Appendix 12B (Document DCO 6.12B/MCO 6.12B)**) identified that 5 Scheduled Monuments were associated with the 2km study area associated with the MCO Scheme boundary, a study area that was determined through a combination of a site visit and professional opinion. These assets will be unaffected by the MCO Scheme due to the lack of any visual, functional and known historic connection or association with the MCO Scheme.
- 12.6.13. The MCO Scheme has been assessed as having no impact on off-site archaeological assets.

### ***Designated Heritage Assets - Built Heritage***

- 12.6.14. The Church of St Andrew (BH3) is located c.1.32km to the east of the MCO Scheme. It is positioned within the historic core of the town of Kegworth in a relatively elevated position on the west side of the River Soar. Its spire is visible in glimpsed views across the MCO Scheme from some positions on top of the landscape bund to the northwest. The Church was designated in December 1962 at Grade II\*. The listing citation notes that it is a:

*'Parish church. Lower part of tower is C13, remainder of church all C14 and C15 clerestory. Restored 1859-60 by Joseph Mitchell of Sheffield. Further restoration to tower and spire 1875 and 1886. Ashlar, with lead roofs. Cruciform plan with west tower, aisled nave, and contemporary vestry to north of chancel. Fine large building*

*in Decorated style, with moulded plinth and sill strings, battlemented parapets, off-set buttresses, and large arched windows with restored reticulated tracery. Earlier west tower is of 4 stages with chamfered lancets to 2 lower stages, and C13 2-light openings with colonnette mullions to third stage. New bell-chamber added C14 with 2-light traceried openings, embattled parapet, and fine octagonal spire. Spire has 2 tiers of lucarnes. C19-C20 door with Caernarvon arch inserted into south side of tower. Nave has C15 clerestory with 6 bays of rectangular 3-light windows, all with ogee tracery. Remainder of church is in Decorated style [...]’.*

- 12.6.15. The Church of St Andrew (BH3) is a heritage asset of particularly high, national significance. This is reflected in its statutory designation as a Grade II\* listed building. This marks the Church as being within the top 7% of England’s most significant historic buildings.
- 12.6.16. The architectural value of the Church is particularly high. This arises from its medieval fabric, and the decorative features and monuments in the interior of the Church. The Church also holds high historic value. The Church is the historic parish church to a medieval town and is probably the site of a Saxon precursor. The town of Kegworth is associated with the last Saxon king. The current Church includes later medieval and nineteenth-century modifications.
- 12.6.17. The Church holds group value with the non-designated monuments in the Church’s cemetery and the cemetery itself. There is group value too with heritage assets in the historic core of Kegworth, particularly the adjacent, to the south, medieval former market site.
- 12.6.18. The immediate setting of the asset comprises its cemetery (group value of associated monuments is noted above) and the adjacent historic former market place. These elements of setting have a significant contribution to the asset’s significance.
- 12.6.19. The wider setting, due to the Church’s relatively elevated position above the River Soar with its enclosure by the built form of the town of Kegworth and rising ground to the east, mainly extends to the northeast, east and southeast, comprising the river valley and the largely open countryside to the east of the town. The Church’s spire is a notable landmark from most of these areas. There are no direct meaningful views of the Church from any part of the MCO Scheme site. There are some limited views of the spire in views from parts of the landscape bund to the northwest. In these views the asset is legible as an historic place of worship of no later than a nineteenth-century date, at the centre of and serving Kegworth.
- 12.6.20. There is no evidence of any historical association between the Church and the MCO Scheme area.

### ***Non-Designated Heritage Assets***

- 12.6.21. The MCO Scheme has been assessed as having no impact on non-designated built heritage assets.

## Summary of Heritage Assets

- 12.6.22. Following the assessment work undertaken, the heritage assets which may be adversely affected by the MCO Scheme, and their recognised sensitivity, has been summarised in **Table 12.9** below.

**Table 12.9: Summary of Cultural Heritage Receptor Sensitivity**

| Development Component | Receptor                                      | Sensitivity |
|-----------------------|-----------------------------------------------|-------------|
| EMG1 Works            | AR7: Iron Age and Roman Agricultural Activity | Low         |
|                       | AR8 Roman Agricultural Activity               | Low         |
|                       | BH3: Church of St Andrew                      | High        |

## Potential Impacts

- 12.6.23. This section considers the potential construction and operational impacts arising from the MCO Application. The MCO Scheme may adversely affect heritage assets during the construction phase, when significance may be lost as a result of physical removal of a heritage asset or as a result of change in the setting of the asset, and during its operational or post-construction phase, when significance may be lost as a result of change in setting.

## Embedded Mitigation

- 12.6.24. There are no embedded mitigation measures relevant to the assessment of the MCO Scheme.

## Construction Impacts

- 12.6.25. The MCO Scheme will only encroach into the area where Archaeological Resource AR7 is located by a short distance, leaving the greater proportion of AR7 retained underneath the existing landscape bund which is to be retained. As such, a low magnitude impact would arise as a result of the development. AR7 is considered to be of Low sensitivity. As a result, a Minor Adverse significance of effect would arise on these archaeological features.
- 12.6.26. Archaeological Resource AR8 although located within the MCO Scheme will not be impacted by the development proposals, being located outside of the footprint of the proposed buildings and protected by means of a fenced enclosure. As such there would be no impact to the asset.
- 12.6.27. In respect of BH3 (Church of St Andrew) due to the extended distance between the asset and the MCO Scheme, impacts are likely to be limited to visual intrusion generated by the construction works taking place.
- 12.6.28. In respect to BH3 this will result in no more than a short term, negligible magnitude of effect on this receptor, and thus a negligible significance of effect.

## Operational Impacts

- 12.6.29. Archaeological receptors AR8 and the greater proportion of AR7 will have been retained *in-situ* and will be retained during the operational phase of the MCO Scheme. Due to below-ground buried nature of the receptors the completed development will have no effect on these receptors.
- 12.6.30. There will not be any operational impacts to any Built Heritage asset generated by the MCO Scheme.

## Mitigation Measures

### Archaeology

- 12.6.31. The assessment contained within this Chapter has identified that construction impacts associated with the MCO Scheme will result in a Minor to Negligible Adverse magnitude of effect in relation to receptor AR7 and therefore indicates that a programme of archaeological investigation should be implemented to off-set the proposed impacts. The archaeological mitigation will be undertaken in association with construction works. This will comprise a targeted programme of archaeological monitoring focusing on receptor AR7.
- 12.6.32. The mitigation measures will be secured through the discharge of requirements process under the EMG1 DCO which will require a Written Scheme of Investigation (WSI) to be approved (see Requirement 13 of the EMG1 DCO).

### Built Heritage

- 12.6.33. Due to limited construction or operational impacts to any Built Heritage assets generated by the MCO Scheme, no mitigation measures are proposed.

## Residual Effects

- 12.6.34. This section details the final residual effects upon archaeological and built heritage receptors after all mitigation is applied to the MCO Scheme. The results of this assessment are set out in **Table 12.10** below.

### Archaeology

- 12.6.35. Preparation of an archaeological WSI and implementation of the associated archaeological mitigation measures as discussed in association with AR7, as above would give rise to a negligible residual effect on the archaeological resource during construction where effective mitigation strategies are undertaken.
- 12.6.36. The implementation of mitigation strategies would serve to further enhance the understanding of the region's archaeological record. The physical loss of buried archaeological remains would be offset through their preservation by record. As there would be no perceptible loss to the historic environment and the recording and analysis would fully

realise their potential as sources of archaeological data, it is considered that the latter would fully address and mitigate the physical loss of such remains.

## Built Heritage

12.6.37. In terms of operational impacts, the assessment in this Chapter has identified no resultant impacts to any built heritage receptor, including the identified BH3.

**Table 12.10: Summary of Residual Effects**

| Receptor                                           | Sensitivity | Magnitude of Impact | Significance of Effect | Proposed Mitigation                   | Residual Effects |
|----------------------------------------------------|-------------|---------------------|------------------------|---------------------------------------|------------------|
| <b>Construction Phase – MCO Application/Scheme</b> |             |                     |                        |                                       |                  |
| AR7: Iron Age and Roman Agricultural Activity      | Low         | Low                 | Minor Adverse          | Programme of archaeological fieldwork | Negligible       |
| AR8 Roman Agricultural Activity                    | Low         | No Impact           | No Effect              | Not Applicable                        | Negligible       |
| BH3: Church of St Andrew                           | High        | Negligible          | Negligible             | Not applicable                        | Negligible       |
| <b>Operational Phase – MCO Application/Scheme</b>  |             |                     |                        |                                       |                  |
| AR7: Iron Age and Roman Agricultural Activity      | Low         | No Impact           | No Effect              | Not Applicable                        | Negligible       |
| AR8 Roman Agricultural Activity                    | Low         | No Impact           | No Effect              | Not Applicable                        | Negligible       |
| BH3: Church of St Andrew                           | High        | No Impact           | No Effect              | Not Applicable                        | Negligible       |

12.6.38. There will be no residual effects to archaeological and built heritage receptors in relation to the MCO Scheme.

## **12.7. Assessment of EMG2 Project**

- 12.7.1. As set out in Section 1 of this Chapter, and at **Table 12.1**, the EMG2 Project as a whole is the combination of the DCO Scheme and the MCO Scheme which have been assessed in Sections 12.5 and 12.6 of this Chapter.

### **Baseline Conditions**

- 12.7.2. The baseline conditions have been described at Section 12.5 in respect of the DCO Scheme and at Section 12.6 for the MCO Scheme.

### **Potential Impacts**

- 12.7.3. The potential impacts of the EMG2 Project as a whole remain as set out at Section 12.5 with regard to the DCO Scheme and at Section 12.6. for the MCO Scheme. The assessment has taken account of the embedded mitigation measures set out in paragraph 12.5.54 of this chapter. The assessment has identified that the DCO Scheme and MCO Scheme will have potential impacts on different heritage receptors, as such there will be no in combination impacts between the two schemes.

### **Mitigation Measures**

- 12.7.4. A number of mitigation measures will be applied to the two applications as set out at Paragraphs 12.5.71 – 12.5.78 for the DCO Scheme and Paragraphs 12.6.32 – 12.6.33 for the MCO Scheme. As there will be no in combination impacts between the two schemes, there will be no requirement for additional mitigation measures.

### **Residual Impacts**

- 12.7.5. As there will be no in combination impacts between the two schemes, residual impacts will remain unaltered as per those set out in **Table 12.8** and **Table 12.10**.

## 12.8. Cumulative Effects

### Intra Project Effects

- 12.8.1. In regard to intra-project effects, no effects have been identified elsewhere in this ES which would apply to heritage receptors.

### Inter Project Effects

- 12.8.2. In regard to inter-project effects, the cumulative effects from other development sites which are in proximity to the site and listed within **Chapter 21: Cumulative Impacts (Document DCO 6.21/MCO 6.21)**. A review of the developments listed indicate that the project at Isley Woodhouse (Ref 12) should be considered for cumulative impacts.
- 12.8.3. The Landscape and Visual Impact Assessment (LVIA) in **Chapter 10: Landscape and Visual (Document DCO 6.10/MCO 6.10)** identifies that the proposed development at Isley Woodhouse, located to the west of Diseworth, would contribute to cumulative impacts on the surrounding landscape character.

### Cumulative Construction Impacts

- 12.8.4. The Isley Woodhouse project (Ref 12) is anticipated to be under construction concurrently with the EMG2 Project. This overlap is expected to prolong and amplify the construction-related impacts on the rural character of the landscape located to the west of the EMG2 Works and the Diseworth Conservation Area (BH2). As assessed within the EIA for the Isley Woodhouse, it is anticipated that associated construction activity would result in a low magnitude of impact on this asset of moderate sensitivity, resulting in a short term, Minor significance of effect. Such a significance of effect would be taken into consideration with the residual Negligible significance of effect assessed for the EMG Project.
- 12.8.5. Consequently, if the primary construction phases and activities of both projects coincide, a Minor cumulative adverse construction impact is probable, affecting the rural setting to both the east and west of the Diseworth Conservation Area (BH2). This is not significant in EIA terms.
- 12.8.6. If concurrent, the construction of the Isley Woodhouse project is also anticipated to impact the rural setting of The Bulwarks Scheduled Monument (AR10) located to the west of the EMG2 Works and to the east of the asset. As assessed within the EIA for the Isley Woodhouse, it is anticipated that construction activity would result in a low magnitude of impact on this asset of high sensitivity, resulting in a short term, Moderate to Minor adverse significance of effect. Such a significance of effect would be taken into consideration with the residual Negligible significance of effect assessed for the EMG Project.
- 12.8.7. If the primary construction phases and activities of both projects coincide, a Moderate to Minor cumulative adverse construction impact is probable, affecting the rural setting of The Bulwarks Scheduled Monument (AR10). This is not significant in EIA terms.



## Cumulative Operational Impacts

- 12.8.8. There is potential for cumulative operational effects resulting from the DCO Scheme, particularly the EMG2 Works, in combination with the Isley Woodhouse project. This combined development is likely to contribute to the progressive erosion of the rural setting surrounding the Diseworth Conservation Area (BH2), notably along its eastern, western, and southern approaches. the Isley Woodhouse project is also likely to contribute to the progressive erosion of the rural setting of The Bulwarks Scheduled Monument (AR10).
- 12.8.9. Where views of both the EMG2 Main Site and Isley Woodhouse project are experienced from these vantage points, either simultaneously or in sequence (such as along the A453 corridor), the rural character of the setting for the Diseworth Conservation Area (BH2) will be cumulatively diminished. As assessed within the EIA for the Isley Woodhouse, it is anticipated that associated operational activity would result in a low magnitude of impact on this asset of moderate sensitivity, resulting in a long term, Minor adverse significance of effect. Such a significance of effect would be taken into consideration with the residual Minor to Negligible adverse significance of effect assessed for the EMG Project.
- 12.8.10. As a result, a Minor adverse cumulative operational effect on the Diseworth Conservation Area is anticipated, primarily due to the ongoing erosion of its rural context. This is not significant in EIA terms.
- 12.8.11. The Isley Woodhouse project may also generate a potential cumulative operational effect in relation to The Bulwarks Scheduled Monument (AR10). Where views of both the EMG2 Main Site and Isley Woodhouse project are experienced from the asset the rural character of the setting for the monument will be cumulatively diminished. As assessed within the EIA for the Isley Woodhouse, it is anticipated that associated operational activity would result in a low magnitude of impact on this asset of high sensitivity, resulting in a long term, Moderate to Minor adverse significance of effect. Such a significance of effect would be taken into consideration with the residual Negligible adverse significance of effect assessed for the EMG Project.
- 12.8.12. As a result, a Moderate to Minor adverse cumulative operational effect on The Bulwarks Scheduled Monument is anticipated, primarily due to the ongoing erosion of its rural context. This is not significant in EIA terms.

## Summary of Cumulative Impacts

- 12.8.13. No intra-project effects on heritage receptors have been identified. However, inter-project cumulative effects, particularly from the nearby Isley Woodhouse development, have been considered.
- 12.8.14. **Table 12.11** below summarises the potential cumulative effects in relation to the Diseworth Conservation Area (BH2) and The Bulwarks Scheduled Monument (AR10) in association with the proposed Isley of Woodhouse project.

**Table 12.11: Summary of Cumulative Impacts**

| Receptor                              | Sensitivity | Residual Significance of Effect (EMG2 Project) | Significance of Effect (Isley Woodhouse) | Assessed Cumulative Impact |
|---------------------------------------|-------------|------------------------------------------------|------------------------------------------|----------------------------|
| Construction Impacts                  |             |                                                |                                          |                            |
| AR10: The Bulwarks Scheduled Monument | High        | Negligible Adverse                             | Moderate to Minor Adverse                | Moderate to Minor Adverse  |
| BH2: Diseworth Conservation Area      | Moderate    | Negligible Adverse                             | Minor Adverse                            | Minor Adverse              |
| Operational Impacts                   |             |                                                |                                          |                            |
| AR10: The Bulwarks Scheduled Monument | High        | Negligible Adverse                             | Moderate to Minor Adverse                | Moderate to Minor Adverse  |
| BH2: Diseworth Conservation Area      | Moderate    | Minor to Negligible Adverse                    | Minor Adverse                            | Minor Adverse              |

## **12.9. Summary of Effects and Conclusions**

- 12.9.1. This Chapter has considered the likely significant effects of the EMG2 Project, and its component parts, upon cultural heritage receptors (both archaeological and built heritage) during its construction and operation.

### **DCO Scheme**

- 12.9.2. Following the implementation of mitigation measures associated with the DCO Scheme comprising a programme of archaeological works, it is considered that there will be no significant effects upon archaeological receptors; the programme of works will offset the physical loss of archaeological remains within the DCO Order Limits. The programme of works will be secured by an appropriately worded requirement within the draft DCO (see Requirement 13 of the draft DCO (**Document DCO 3.1**)).
- 12.9.3. Following the inclusion of embedded mitigation measures it is considered that, after a fifteen-year period, development associated with the DCO Scheme will have no significant effects upon designated built heritage or archaeological receptors.

### **MCO Scheme**

- 12.9.4. Following the implementation of mitigation measures associated with the MCO Scheme comprising a programme of archaeological works, it is considered that there will be no significant effects upon archaeological receptors; the programme of works will offset the physical loss of archaeological remains within the MCO Order Limits. The programme of works will be secured by the existing requirement 13 within the EMG1 DCO.

### **EMG2 Project**

- 12.9.5. Following the implementation of mitigation measures comprising a programme of archaeological works, it is considered that the EMG2 Project will have no significant effects upon archaeological receptors; the programme of works will offset the physical loss of archaeological remains within the limits of the DCO Scheme and the MCO Scheme. The programme of works can be secured by an appropriately worded requirement within the draft DCO (please see Requirement 13) and the existing EMG1 DCO requirement for the MCO Application.
- 12.9.6. Following the inclusion of embedded mitigation measures it is considered that, after a fifteen-year period, that development associated with the DCO Scheme will have no significant effects upon designated built heritage or archaeological receptors.

### **Cumulative Effects**

- 12.9.7. No intra-project effects on built heritage receptors have been identified. A review of inter-project effects associated with the EMG2 Project has identified potential low adverse cumulative construction effects to the Diseworth Conservation Area (BH2) and The Bulwarks Scheduled Monument (AR10) due to the potential overlap in construction with the Isley

Woodhouse project. The assessment has also identified potential cumulative operation effects associated with Isley Woodhouse project comprising of a low adverse cumulative effect in relation to the Diseworth Conservation Area (BH2), and a low to moderate adverse cumulative effect in relation to The Bulwarks Scheduled Monument (AR10) which is not significant.

**Table 12.12: Summary of Effects**

| Receptor                                                          | Sensitivity   | Magnitude of Impact | Significance of Effect    | Proposed Mitigation                                           | Residual Effects | Cumulative Impacts        |
|-------------------------------------------------------------------|---------------|---------------------|---------------------------|---------------------------------------------------------------|------------------|---------------------------|
| <b>Construction Phase – DCO Application/Scheme</b>                |               |                     |                           |                                                               |                  |                           |
| <b>EMG2 Works</b>                                                 |               |                     |                           |                                                               |                  |                           |
| AR1: Middle to Late Iron Age Peripheral Settlement Activity       | Low           | High                | Moderate to Minor Adverse | Programme of archaeological fieldwork                         | Negligible       | Not Applicable            |
| AR2: Iron Age and Roman Agricultural Activity                     | Low           | High                | Moderate to Minor Adverse | Programme of archaeological fieldwork                         | Negligible       | Not Applicable            |
| AR3: Post-Medieval Field Boundaries                               | No Importance | High                | Negligible                | Not Applicable                                                | Negligible       | Not Applicable            |
| AR4: Post-Medieval Ridge and Furrow                               | No Importance | High                | Negligible                | Not Applicable                                                | Negligible       | Not Applicable            |
| AR5: Existing Post-Medieval Field Boundaries of Historic Interest | Low           | High                | Moderate to Minor Adverse | Co-ordinated with Ecological Mitigation Measures via the CEMP | Negligible       | Not Applicable            |
| AR6: Undated Ditches                                              | No Importance | High                | Negligible                | Not Applicable                                                | Negligible       | Not Applicable            |
| AR10: The Bulwarks Scheduled Monument                             | High          | Negligible          | Negligible                | Not Applicable                                                | Negligible       | Moderate to Minor Adverse |
| BH1: Grade II* Church of St Michael and All Angels                | High          | Negligible          | Negligible                | Not Applicable                                                | Negligible       | Not Applicable            |
| BH2: Diseworth Conservation Area                                  | Moderate      | Negligible          | Negligible                | Not Applicable                                                | Negligible       | Minor Adverse             |

| Receptor                                                          | Sensitivity   | Magnitude of Impact | Significance of Effect      | Proposed Mitigation                   | Residual Effects | Cumulative Impacts        |
|-------------------------------------------------------------------|---------------|---------------------|-----------------------------|---------------------------------------|------------------|---------------------------|
| <b>Highway Works</b>                                              |               |                     |                             |                                       |                  |                           |
| AR9: Roman Agricultural Activity                                  | Low           | High                | Moderate to Minor Adverse   | Programme of archaeological fieldwork | Negligible       | Not Applicable            |
| <b>Construction Phase – MCO Application/Scheme</b>                |               |                     |                             |                                       |                  |                           |
| AR7: Iron Age and Roman Agricultural Activity                     | Low           | Low                 | Minor to Negligible Adverse | Programme of archaeological fieldwork | Negligible       | Not Applicable            |
| AR8 Roman Agricultural Activity                                   | Low           | No Impact           | No Impact                   | Not Applicable                        | Negligible       | Not Applicable            |
| BH3: Church of St Andrew                                          | High          | No Impact           | No Impact                   | Not Applicable                        | Negligible       | Not Applicable            |
| Receptor                                                          | Sensitivity   | Magnitude of Impact | Magnitude of Effect         | Proposed Mitigation                   | Residual Effects | Cumulative Effects        |
| <b>Operation Phase – DCO Application/Scheme</b>                   |               |                     |                             |                                       |                  |                           |
| <b>EMG2 Works</b>                                                 |               |                     |                             |                                       |                  |                           |
| AR1: Middle to Late Iron Age Peripheral Settlement Activity       | Low           | No Effect           | No Effect                   | Not Applicable                        | Negligible       | Not Applicable            |
| AR2: Iron Age and Roman Agricultural Activity                     | Low           | No Effect           | No Effect                   | Not Applicable                        | Negligible       | Not Applicable            |
| AR3: Post-Medieval Field Boundaries                               | No Importance | No Effect           | No Effect                   | Not Applicable                        | Negligible       | Not Applicable            |
| AR4: Post-Medieval Ridge and Furrow                               | No Importance | No Effect           | No Effect                   | Not Applicable                        | Negligible       | Not Applicable            |
| AR5: Existing Post-Medieval Field Boundaries of Historic Interest | Low           | No Effect           | No Effect                   | Not Applicable                        | Negligible       | Not Applicable            |
| AR6: Undated Ditches                                              | No Importance | No Effect           | No Effect                   | Not Applicable                        | Negligible       | Not Applicable            |
| AR10: The Bulwarks                                                | High          | Low Adverse         | Moderate to Minor Adverse   | Embedded Mitigation in the Form of    | Negligible       | Moderate to Minor Adverse |

| Receptor                                           | Sensitivity | Magnitude of Impact | Significance of Effect | Proposed Mitigation                                                                                | Residual Effects            | Cumulative Impacts |
|----------------------------------------------------|-------------|---------------------|------------------------|----------------------------------------------------------------------------------------------------|-----------------------------|--------------------|
| Scheduled Monument                                 |             |                     |                        | Extensive Bunding and Landscaping Planting with 15 years growth                                    |                             |                    |
| BH1: Grade II* Church of St Michael and All Angels | High        | Moderate Adverse    | Moderate Adverse       | Embedded Mitigation in the Form of Extensive Bunding and Landscaping Planting with 15 years growth | Moderate to Minor Adverse   | Not Applicable     |
| BH2: Diseworth Conservation Area                   | Moderate    | Minor Adverse       | Minor Adverse          | Embedded Mitigation in the Form of Extensive Bunding and Landscaping Planting with 15 years growth | Minor to Negligible Adverse | Minor Adverse      |
| <b>Highway Works</b>                               |             |                     |                        |                                                                                                    |                             |                    |
| AR9: Roman Agricultural Activity                   | Low         | No Effect           | No Effect              | Not Applicable                                                                                     | Negligible                  | Not Applicable     |
| <b>Operation Phase – MCO Application/Scheme</b>    |             |                     |                        |                                                                                                    |                             |                    |
| AR7: Iron Age and Roman Agricultural Activity      | Low         | No Effect           | No Effect              | Not Applicable                                                                                     | Negligible                  | Not Applicable     |
| AR8 Roman Agricultural Activity                    | Low         | No Effect           | No Effect              | Not Applicable                                                                                     | Negligible                  | Not Applicable     |
| BH3: Church of St Andrew                           | High        | No Effect           | No Effect              | Not Applicable                                                                                     | Negligible                  | Not Applicable     |