



# Cottam Parkway Railway Station

**Environmental Statement**

**Volume 2: Main Statement**

**Chapter 7: Cultural Heritage**

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## 7 Cultural Heritage

ES Chapter Number	Environmental Topic	Relevant Appendices
7	Cultural Heritage	Appendix 7.1: Desktop Survey Report Appendix 7.2: Geophysical Survey Report

### 7.1 Introduction

7.1.1 As identified in the glossary of the National Planning Policy Framework (the NPPF) (MHCLG), 2021) the historic environment includes: *‘all aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora’*.

7.1.2 The Design Manual for Roads and Bridges (DMRB) has been used to inform the study and assessment of cultural heritage assets which have the potential to undergo impact as a result of the Scheme as it represents a set of best practice considerations and standardises practice to ensure a robust assessment. Within DMRB, LA 106 Cultural Heritage Assessment (LA 106) and LA 104 Environmental Assessment and Monitoring (LA 104) provide the key considerations for cultural heritage.

7.1.3 For the purposes of this ES cultural heritage assets have been grouped into three sub-topics as follows:

- Archaeological remains (which include ‘historic monuments’ and ‘historic sites’ from LA 106): which are the material remains of human activity from the earliest periods of human evolution to the present.

These may be buried traces of human activities, sites visible above ground, or moveable artefacts;

- Historic buildings: these are architectural, designed or other structures with a significant historical value. These may include structures that have no aesthetic appeal or structures not usually thought of as buildings, such as milestones or bridges; and,
- Historic landscape: this is the current landscape whose character is the result of the action and interaction of natural and / or human factors. The historic landscape has been considered using the historic landscape types (HLT) devised by the Lancashire County Council Historic Landscape Characterisation Programme (Ede & Darlington, 2002; Historic England, 2018a) to facilitate assessment. HLTs are historic landscape parcels with a common character such as land use or field pattern.

## 7.2 Relevant Legislative, Plans, Policies and Background

### National Planning Policy

- 7.2.1 National planning policies for the conservation of this factor are set out in Section 16 of the NPPF (MHCLG, 2021). The NPPF confirms that heritage assets are an irreplaceable resource which should be conserved in a manner appropriate to their significance.
- 7.2.2 Paragraph 194 states *'local planning authorities should require an applicant for planning permission to provide a description of the significance of any affected heritage assets including any contribution of its setting'*. It goes on to state that *'the level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary'*. The NPPF further explains the level of appraisal or assessment that a would be required

should a heritage asset be present or be potentially present. Paragraph 195 confirms what a local authority should take into account when assessing the impact of a proposal on heritage assets and their significance.

## Local Planning Policy

- 7.2.3 The Central Lancashire Adopted Core Strategy (Preston City Council et al., 2012) includes Policy 16 which aims to '*Protect and seek opportunities to enhance the historic environment, heritage assets and their settings*'.
- 7.2.4 The Preston Local Plan (Preston City Council, 2015) includes objectives and policies which are focused on the appropriate management of cultural heritage and the historic environment. The key Core Strategy relevant to the historic environment is Objective 16 (SO16) which aims to '*protect, conserve and enhance Preston's places of architectural and archaeological value and the distinctive character of its landscape*'. Objective 16 of the Preston Local Plan is supported primarily by Policy EN8 which outlines how decision making is undertaken regarding proposals affecting a heritage asset or its setting.

## 7.3 Methodology

### Study Area

- 7.3.1 The two study areas utilised to establish the baseline for the desk-based study (Appendix 7.1 in volume 3 of this ES) have also been used in this assessment and comprise:
- A 300m study area extending in all directions from the site area which was used to identify non-designated and designated cultural heritage assets that could potentially be physically affected by the footprint of the Scheme, and which may experience significant impacts on their setting during its construction and operation; and,

- A 1km study area extending in all directions from the site area which was used to identify designated cultural heritage assets that may experience impacts to their setting during construction or operation of the Scheme.

7.3.2 These study areas are considered appropriate to the sensitivity of the receiving environment and the potential impacts of the project in line with the guidance in LA 106.

### **Data Gathering**

7.3.3 The Cultural Heritage Desk-Based Study in Appendix 7.1 outlines the key data sources that were used to compile the cultural heritage baseline including:

- The National Heritage List for England (NHLE) for information on designated cultural heritage assets;
- The Lancashire Historic Environment Record (HER) for information on non-designated cultural heritage assets;
- Lancashire Historic Landscape Characterisation Programme (Ede & Darlington, 2002) for information on historic landscape types;
- Open source aerial photography, historic mapping and LiDAR; and,
- Grey literature reports on neighbouring and historic developments.

7.3.4 A full list of the sources consulted to inform the baseline are presented in Appendix 7.1.

7.3.5 When the desk-based study (Appendix 7.1) was prepared, it was not possible to visit the site due to travel restrictions associated with the COVID-19 pandemic. When restrictions were relaxed, a walkover survey was conducted in April 2021 and the results used to inform this assessment.

- 7.3.6 A geophysical survey using magnetometry was conducted in March 2021 and covered all suitable and accessible parts of the site area (Headland Archaeology 2021) and the report is presented as Appendix 7.2 in volume 3 of this ES.
- 7.3.7 Consultation was undertaken with other disciplines including Chapter 5 'Landscape and Visual', Chapter 10 'Soils and Geology', Chapter 9 'Noise and Vibration' and, Chapter 11 'Water Environment'.

### **Assumptions and Limitations**

- 7.3.8 There is an underlying assumption that publicly held archaeological data are reliable. The data itself may have limitations; for example, data held in the HER may be limited by an absence of fieldwork in the locality, or lack of certainty about the reporting of the data (inaccurate grid references) and of the date of sites (especially records of 18th, 19th and early 20th century discoveries).
- 7.3.9 The Scheme design continued to evolve during the preparation of this ES and consequently the geophysical survey in Appendix 7.2 did not cover the entire site area. An area of approximately 2.08 hectares was not included because of ongoing investigations. Taking the distribution and types of known assets into account, the potential for this area to contain unknown archaeological remains is considered to be low. All other areas were included.

### **Assessment of Value, Magnitude of Impact and Significance**

- 7.3.10 In order to determine the significance of an impact the Scheme may have on a cultural heritage asset, it is necessary to first establish the sensitivity (value) of each asset and determine the magnitude of impact that may occur to the asset (physical change or change to its setting) during construction and or operation.

## Value

7.3.11 Significance is defined by the NPPF as '*the value of a heritage asset to this and future generations because of its heritage interest*' (MHCLG, 2021, p. 71). This significance may be related to archaeological, architectural and artistic or historic elements, and may also derive from the setting of a heritage asset. This chapter uses the term 'value' in place of the NPPF 'significance' in order to avoid confusion with the terminology for the EIA, in particular, 'significant effects' as commonly used in an environmental assessment.

7.3.12 The assessment of value of cultural heritage assets in the baseline has been undertaken using professional judgement and guidance contained within LA 104 and LA 106 and takes into account the designation of cultural heritage assets where relevant. A more detailed account of the methodology and criteria applied to the assessment of value is presented in the desk-based study (Appendix 7.1).

## Magnitude of Impact

7.3.13 Magnitude of impact is the degree of change that would be experienced by a cultural heritage asset and its setting if the Scheme was completed, as compared with a 'do nothing' situation. Magnitude of impact is assessed without reference to the value of the receptor and may include physical impacts upon the cultural heritage asset or impacts upon its setting or amenity value.

7.3.14 The criteria used to guide the assessment of magnitude of impact on cultural heritage assets were developed taking account of guidance from LA 104 and LA 106 and are presented in Table 7.1.



**Table 7.1 Criteria for assessing magnitude of impact on cultural heritage assets**

Magnitude of impact	Typical description
Major	<p>Considerable material change to the asset's key characteristics, features or elements such that it is totally modified and the integrity of the asset is totally altered.</p> <p>Comprehensive changes to setting of the asset, such that it is completely altered.</p>
Moderate	<p>Measurable material change to a number of the assets characteristics, features or elements, such that the asset is clearly modified. However, the integrity of the asset is not affected.</p> <p>Measurable changes to setting of the asset, such that it is clearly modified.</p>
Minor	<p>Minor material change to one or more of the assets attributes, characteristics, features or elements, such that the asset is slightly altered.</p> <p>Minor material change to the setting of the asset (visual and/or audible), such that it is noticeably changed.</p>
Negligible	<p>Very minor/slight material change to one or more of the assets characteristics, features or elements, so the change is limited.</p> <p>Very minor/slight change to the setting of the asset (visual and/or audible), so the setting is virtually unchanged.</p>
No change	<p>No material change, loss or alteration to the assets characteristics, features or elements.</p> <p>No change to the setting of the asset (visual and/or audible).</p>

7.3.15 The methodology to assess the contribution of setting to the value of cultural heritage assets, and the potential for effects on setting to affect heritage value was informed by Historic England's guidance The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3 Second Edition (2017).

## Significance of Effect

7.3.16 The significance of a potential effect on cultural heritage assets is determined by combining the sensitivity of a receptor and the magnitude of a potential impact. Table 4.2 provides a matrix showing this combination and professional judgement is used to ascertain the significance of effect. For the purposes of the ES and in line with DMRB, significant effects '*typically comprise effects that are within the moderate, large or very large categories*' (DMRB LA 104), while effects that are within neutral or slight categories are considered to be not significant.

## 7.4 Baseline Description and Evaluation

### Baseline conditions

7.4.1 All cultural heritage assets within the baseline have been provided with a unique 'asset number' from 1 through to 60. A number of assets that fall within the study area of this ES were identified during walkover survey and LiDAR survey of the Preston Western Distributor Road and East West Link Road scheme (Oxford Archaeology North, 2019a) and these asset numbers have been maintained for ease of reference with the original report. The asset numbers used for these heritage assets which fall within the present study area range from 114 to 202 but are not wholly consecutive. All HLTs have been provided with a unique asset number preceded by 'HLT' from HLT 1 through to HLT 5. This is the same numbering used in the desk-based study (Appendix 7.1).

7.4.2 A total of 69 cultural heritage assets have been identified in the baseline comprising 38 archaeological sites, 26 historic buildings or structures including 6 Grade II Listed Buildings, and 5 historic landscape types. The locations of all cultural heritage assets in the baseline are shown in Figures 1 and 2 of Appendix 7.1. A breakdown of the cultural heritage assets and their distribution between the site area and study areas is presented in Table 7.2.

**Table 7.2 Cultural Heritage Assets in the baseline**

<b>Cultural Heritage Subtopic</b>	<b>Within site area boundary</b>	<b>300m Study Area</b>	<b>1km Study Area</b>	<b>Total</b>
Archaeological Remains	17	21	0	38
Historic Buildings	5	19	2	26
Historic Landscape	2	3	0	5
Total	24	43	2	69

### Archaeological Remains

7.4.3 A total of 38 archaeological sites and findspots have been identified within the study area. No scheduled monuments are situated within the study area or wider study area. Full details are presented in Appendix 7.1 and a summary of the assets and their value is presented below in Table 7.3 and the following paragraphs.

**Table 7.3 Summary of Archaeological Remains Baseline**

<b>Asset Number</b>	<b>Name</b>	<b>Designation</b>	<b>Value</b>
1	Findspot of crucifix figure, Lea, near Preston	Non-designated	Negligible
5	Site of Railway Signal box adj. to Cotty Brook P.H., Lea Road, Lea	Non-designated	Low
6	Possible Road near Valentine House, Lea	Non-designated	Medium
7	Site of Lea Road Station, Preston	Non-designated	Low
8	Ridge and Furrow 1	Non-designated	Low
9	Ridge and Furrow 2	Non-designated	Low
10	Marl Pit Southwest of Quaker's Bridge, Darkinson Lane, Lea	Non-designated	Negligible
14	Roman Road 703 Ribchester - Poulton-le-Fylde	Non-designated	Medium
16	Site of Lancaster Canal Swing Bridge west of Lea Road, Lea	Non-designated	Low
18	Field Boundary 6a (Geophysical Survey)	Non-designated	Negligible
19	Field Boundary 7a (Geophysical Survey)	Non-designated	Negligible
20	Site of Danes Pad, Lea	Non-designated	Negligible
21	Site of Malt Kiln, near Danes Pad Farm, Lea	Non-designated	Low
23	Undetermined infilled pits (Geophysical	Non-designated	Negligible

Asset Number	Name	Designation	Value
	Survey)		
26	Site of Canal Warehouse, north side of Lancaster Canal adj. Lea Road, Lea	Non-designated	Low
27	Ridge and Furrow 3	Non-designated	Low
28	Marl Pit Southwest of Earl's Farm, Sidgreaves Lane, Lea	Non-designated	Negligible
31	Clock House Farm, Lea Road, Lea	Non-designated	Low
32	Fiddler's Fold, Lea Road, Lea	Non-designated	Low
36	Site of Clock House Barn, Lea	Non-designated	Low
41	Site of Clamp Kiln 1 (K4)	Non-designated	Low
42	Site of Clamp Kiln 2 (K2)	Non-designated	Low
43	Site of Clamp Kiln 3 (K3)	Non-designated	Low
44	Site of Clamp Kiln 4 (K1)	Non-designated	Low
45	Site of Marl Pit (IP1)	Non-designated	Negligible
46	Site of Clamp Kiln 5 (K10)	Non-designated	Low
47	Site of Clamp Kiln 6 (K5)	Non-designated	Low
48	Site of Clamp Kiln 7 (K6)	Non-designated	Low
49	Site of Clamp Kiln 8 (K7)	Non-designated	Low
50	Site of Clamp Kiln 9 (K8)	Non-designated	Low
51	Site of Clamp Kiln 10 (K9)	Non-designated	Low
141	Ridge and Furrow, Bryers Farm (east of), Lea 3	Non-designated	Low
142	Marl Pit, Darkinson Lane, Lea (off) 3	Non-designated	Negligible
143	Field Boundary, Quaker Lodge (south of), Sidgreaves Lane, Lea	Non-designated	Negligible
146	Marl Pit Quaker Lodge (south of), Sidgreaves Lane, Lea	Non-designated	Negligible
200	Field Boundary, Quaker Lodge, Sidgreaves Lane, Lea 2	Non-designated	Negligible
201	Earthwork near Quaker Lodge, Sidgreaves Lane, Lea 3	Non-designated	Low
202	Field Boundary, Quaker Lodge, Sidgreaves Lane, Lea 4	Non-designated	Negligible

7.4.4 The baseline does not contain any prehistoric (before AD 43), early medieval (AD 410 to 1066) archaeological sites. It is possible that this reflects the absence of systematic archaeological study within the study area rather than a true absence of remains from these periods.

- 7.4.5 Two non-designated cultural heritage assets of Roman (AD 43 to 410) date were identified. A series of indistinct earthworks east of Lea Road and north of the railway (Asset 6), and the route of Roman Road 703 Ribchester - Poulton-le-Fylde (Asset 14) is believed to cross the site area south of the Lancaster Canal and west of Sidgreaves Lane. Geophysical survey of this area did not identify any linear anomalies believed to represent the Roman Road and it is considered likely that it passes north or south of the site area. Assets 6 and 14 are both non-designated and have been assessed to be of medium value because of their archaeological interest.
- 7.4.6 Asset 1 is the findspot of a crucifix figure, and the only medieval (AD 1066 to 1540) archaeological find in the baseline. It was found near Clock House Farm, Lea in the 1970s. Taking its limited evidential interest into account, the value of Asset 1 has been assessed to be negligible. Four areas of ridge and furrow earthworks indicative of medieval and post-medieval farming techniques (Assets 8, 9, 27, 141) may also date from this period. The value of these three assets has been assessed to be low.
- 7.4.7 The majority of the archaeological remains in the baseline are of post-medieval date (AD 1540 to 1900) and represent types which reflect the rural location of the study area including marl pits (Assets 10, 23, 28, 45, 142, 146), former field boundaries (Assets 18, 19, 143, 200, 202) and the sites of farmhouses and agricultural buildings (Assets 21, 31, 36). Post-medieval transport routes in the form of demolished canal and railway structures are represented by the sites of a canal swing bridge and warehouse (Assets 16, 26) and the former Lea Road Station and nearby signal box (Assets 5, 7). These assets are all of types that are common at a local and regional scale, and that are well understood and have been assessed to be of low or negligible value.
- 7.4.8 The geophysical survey (Appendix 7.2) identified magnetic anomalies believed to indicate the presence of archaeological remains associated with ten brick kilns or clamps (Assets 41, 42, 43, 44, 46, 47, 48, 49, 50, 51). Clamp firing bricks was a common technique in Britain from the Roman

period until the 19th century when improvements in manufacturing methods made it easier to produce them consistently on an industrial scale (Miller 2003, 8). It is thought likely that the examples within the baseline are of post-medieval date and would have exploited clay dug from the numerous marl pits in the surrounding fields. It is possible that they were the result of local brick making to construct houses and farm buildings, or even elements of contemporary canal or rail infrastructure. The value of all ten assets has been assessed to be low.

## Historic Buildings

7.4.9 A total of 26 historic buildings and structures have been identified within the study area, 6 of which are designated as Grade II Listed Buildings. Full details are presented in Appendix 7.1 and a summary of the assets and their value is presented below in Table 7.4 and the following paragraphs.

**Table 7.4 Summary of Historic Buildings Baseline**

Asset Number	Name	Designation	Value
2	Leyland Bridge Barn, Lea Road, Lea, Preston	Non-designated	Low
3	Leyland Bridge Farmhouse, Lea Road, Lea	Grade II Listed Building	High
4	Railway Mile Post to west of Lea Road, near Cotty Brook P.H., Lea	Non-designated	Low
11	Canal Bridge Number 17 Valentine House Bridge	Grade II Listed Building	High
12	Yew Tree Cottage (Westleigh Cottage), Lea	Non-designated	Medium
13	Westleigh House, Lea	Non-designated	Low
15	Bridge Adjacent To The Lancaster Canal, Lea	Non-designated	Medium
17	Lancaster Canal Culvert, Lea 1	Non-designated	Medium
22	Quaker's Bridge, (No.19), Darkinson Lane, Lea	Grade II Listed Building	High
24	Canal bridge No.22, Lea Town, Newton with Clifton	Grade II Listed Building	High
25	Canal Bridge, (No.18), Lea Road, Lea	Grade II Listed Building	High
29	Bridge House (formerly Lea Holme), Lea Road, Lea	Non-designated	Low

Asset Number	Name	Designation	Value
30	Quaker Lodge, Sidgreaves Lane, Lea 1	Non-designated	Low
33	Earl's Farm, Sidgreaves Lane (off), Lea	Non-designated	Low
34	Clock House, Lea Road, Lea	Grade II Listed Building	High
35	Wayside Cross, Clock House Farm, Lea	Non-designated	Medium
37	Lea School, Lea Road, Lea	Non-designated	Low
38	Lane Ends Farm, Lea Road, Lea	Non-designated	Low
39	Lancaster Canal	Non-designated	Medium
40	Preston and Wyre Railway	Non-designated	Low
52	Possible Railway Milestone	Non-Designated	Negligible
53	Railway Cottages, Sidgreaves Lane	Non-Designated	Low
139	Bryers Farm (east of), Lea 1	Non-designated	Low
140	Bryers Farm (east of), Lea 2	Non-designated	Low
144	Darkinson Lane, Lea (off) 1	Non-designated	Low
145	Darkinson Lane, Lea (off) 2	Non-designated	Low

7.4.10 A wayside cross near Clock House Farm, Lea (Asset 35) is the only medieval historic building in the baseline. It is believed to have been moved at least twice from its original location since the 1920s, and now stands on a large modern base south-east of the junction between Lea Road and Cottam Way. Despite being removed from its original context, taking its historical and communal interest into account, the value of Asset 35 has been assessed to be medium.

7.4.11 The remaining post-medieval buildings include many typical of the rural location of the study including farmsteads, farmhouses and barns (Assets 2, 3, 12, 30, 33, 38), gateways with stone posts (Assets 139, 140, 144, 145), as well as buildings typical of rural villages like houses and cottages (Assets 29, 34), and a village school in Lea (Asset 37). Assets 3 and 24 are Grade II listed buildings of high value; the value of Yew Tree Cottage (Asset 12) has been assessed to be medium on account of its higher status architecture; and the remainder have been assessed to be of Low value.

7.4.12 The growth of transport links during the post-medieval period is reflected in a number of buildings and structures related to the canal and railway network.

The Lancaster Canal (Asset 39) was constructed in the late 18th century, and a number of structures remains including four Grade II listed bridges (Assets 11, 22, 24, 25) assessed to be of high value, and a non-designated accommodation bridge and culvert (Assets 15,17) of medium value. Buildings associated with the 19th century Preston and Wyre Railway (Asset 40) include two mileposts (Assets 4, 52) assessed to be of low and negligible value respectively due to the relatively poor condition of the latter.

- 7.4.13 Westleigh House (Asset 13) was constructed in the 19th century for a wealthy mill owner. Having remained in the same family until 1956, it was bought by Lancashire County Council to house as an emergency response centre in the event of nuclear war. The control centre was maintained until 2007 when the site was sold. Taking its historic interest as evidence of Cold War preparations its value has been assessed as low.

### Historic Landscape

- 7.4.14 A total of five non-designated HLT been recorded within the study area. No Registered Parks and Gardens are situated within the study area or wider study area. Full details are presented in Appendix 7.1 and a summary of the assets and their value is presented below in Table 7.5 and the following paragraphs.

**Table 7.5 Summary of Historic Landscape Baseline**

Asset Number	Name	Designation	Value
HLT1	Ancient Enclosure	Non-designated	Medium
HLT2	Post-Medieval Enclosure	Non-designated	Low
HLT3	Modern Settlement	Non-designated	Low
HLT4	Modern Recreation	Non-designated	Negligible
HLT5	Modern Ornamental (Westleigh House, Lea)	Non-designated	Medium

- 7.4.15 Ancient Enclosure (HLT 1) and Post-medieval Enclosure (HLT 2) reflect the predominantly rural location of the study area. Both are relatively common within the county and taking their relative complexity and time depth into account have been assessed to be of medium and low value respectively.



7.4.16 The landscaped grounds of Westleigh House (Asset 13) form the Modern Ornamental type (HLT 5) and has been assessed to be of medium value. Modern Recreation (HLT 4) is represented by the Ashton and Lea golf course assessed to be of negligible value due to its lack of time depth.

7.4.17 The Modern Settlement type (HLT 3) is defined by the northern edge of Lea, south of the railway. A number of ongoing developments at the north of the study area are an indication of the continuing growth of this type which has been assessed to be of low value based on its communal value.

## **7.5 Impacts – Construction**

7.5.1 Construction of the Scheme would have the potential to impact heritage assets in the following ways:

- Partial or total removal / damage of cultural heritage assets;
- Compaction of archaeological deposits by construction traffic and structures; and,
- Effects on the setting of heritage assets including visual and noise intrusion, severance and adverse impacts on amenity as a result of construction works.

7.5.2 The potential effects that the construction of the Scheme would have on each of the cultural heritage assets in the baseline are presented in Table 7.6.

### Archaeological Remains

7.5.3 Construction of the Scheme would have a potential adverse impact on 17 of the 38 archaeological sites assessed as part of the baseline. 21 archaeological remains would have no significant change to their baseline conditions.

7.5.4 The potential adverse impacts on archaeological remains which would result during construction of the Scheme comprise:

- Removal of archaeological remains associated with 14 non-designated archaeological sites of low value resulting an effect of moderate significance (Assets 8, 9, 14, 27, 41, 42, 43, 44, 46, 47, 48, 49, 50, 51); and,
- Removal of archaeological remains associated with three non-designated archaeological sites of negligible value resulting an effect of moderate significance (Assets 45, 142, 143).

7.5.5 Of these, the impacts on Assets 8, 9, 14, 27, 41, 42, 43, 44, 46, 47, 48, 49, 50 and 51 are considered to be significant (i.e. of moderate significance of effect).

7.5.6 In conjunction with the potential impacts on known archaeological remains, there is the potential for impacts to unknown archaeological remains which may result in significant effect.

7.5.7 The desk-based study (Appendix 7.1) concluded that there is a moderate potential for unknown archaeological remains dating to the Prehistoric, Roman and Post-medieval periods and a low potential for remains dating to the medieval period within the site area. Measures to identify such remains and to mitigate impacts upon them are proposed at Section 7.9 below.

#### Historic Buildings

7.5.8 Construction of the Scheme would have a potential adverse impact on six of the 26 historic buildings assessed as part of the baseline. Twenty historic buildings would have no significant change to their baseline conditions.

7.5.9 The potential adverse impacts on historic buildings which would result during construction of the Scheme comprise:

- Visual and noise impacts on the setting of Grade II listed Quaker's Bridge, (No.19), Darkinson Lane, Lea (Asset 22) during construction of the access road bridge;
- Visual and noise impacts on the setting of the non-designated Lancaster Canal (Asset 39) during construction of the access road bridge;
- Temporary removal of non-designated possible railway milepost (Asset 52) during construction of the railway station building and car park;
- Temporary visual and noise impacts on the setting of non-designated Railway Cottages, Sidgreaves Lane (Asset 53) during construction of the railway station building and car park; and,
- Removal of two pairs of post-medieval stone gateposts adjacent to Darkinson Lane (Assets 144, 145) during realignment of the road.

7.5.10 Of these, temporary removal of the possible railway milepost (Asset 52), and temporary impacts on the setting of Grade II listed Quaker's Bridge, (No.19), Darkinson Lane, Lea (Asset 22) and the Lancaster Canal (Asset 39) are considered to be significant (i.e. of moderate significance of effect).

#### Historic Landscape

7.5.11 Construction of the Scheme would have a potential adverse impact on two of the five HLT assessed as part of the baseline. Three HLT would have no significant change to their baseline conditions.

7.5.12 The potential adverse impacts on HLT which would result during construction of the Scheme comprise:

- Removal of sections of field boundaries and truncation of land parcels associated with the Ancient Enclosure (HLT 1) and Post-Medieval Enclosure (HLT 2) types.

The impacts on HLT 1 and HLT 2 have been assessed to be of slight significance and are not considered to be significant (i.e. of moderate or greater significance of effect).

## **7.6 Impacts – Operation**

7.6.1 Operation of the Scheme would have the potential to impact heritage assets in the following ways:

- Effects on the setting of heritage assets including visual and noise intrusion, and severance.

7.6.2 The potential effects that the operation of the Scheme would have on each of the cultural heritage assets in the baseline are presented in Table 7.7.

### Archaeological Remains

7.6.3 None of the archaeological sites in the baseline have settings considered to contribute to their value. After mitigation of those impacts assessed at construction, operation of the Scheme would not have an adverse impact on the 38 archaeological remains assessed as part of the baseline, and would result in no significant change to their baseline conditions.

### Historic Buildings

7.6.4 Operation of the Scheme would have a potential adverse impact on three of the 26 historic buildings assessed as part of the baseline, and a potential beneficial impact on one. Twenty-two historic buildings would have no significant change to their baseline conditions.

7.6.5 The potential adverse impacts on historic buildings which would result during operation of the Scheme comprise:

- Visual impact on the setting of Grade II listed Quaker's Bridge, (No.19), Darkinson Lane, Lea (Asset 22) from the proximity of the access road bridge within its setting;
- Visual and noise impacts on the setting of the non-designated Lancaster Canal (Asset 39) from traffic using the access road bridge; and,
- Visual and noise impacts on the setting of non-designated Railway Cottages, Sidgreaves Lane (Asset 53) from during operation of the railway station building and car park.

7.6.6 Of these, only the impact on Grade II listed Quaker's Bridge, (No.19), Darkinson Lane, Lea (Asset 22) is considered to be significant (i.e. of moderate or greater significance of effect).

#### Historic Landscape

7.6.7 No adverse impacts on the historic landscape are predicted during operation of the Scheme and five HLT would have no significant change to their baseline conditions.

## **7.7 Cumulative Effects**

7.7.1 The PWDR viaduct (currently under construction) would further the affect the setting of the Lancaster Canal (Asset 39) west of the study area.

7.7.2 The proposed Lea Road residential development would remove archaeological remains associated with two non-designated archaeological sites affected by the proposed scheme: Ridge and Furrow 1 (Asset 8) and Roman Road 703 Ribchester - Poulton-le-Fylde (Asset 14). This would not result in an increased significance of effect on either asset.

## 7.8 Mitigation

7.8.1 Impacts to the setting of cultural heritage assets can be mitigated through embedded mitigation, comprising both design and construction control measures, which seek to reduce noise and visual intrusion impacts during both construction and operation.

7.8.2 Examples of embedded mitigation within the design would include:

- Confining the haul routes within the site area where practicable;
- Retention of vegetation where practicable;
- Positioning the construction compounds so they are not located directly adjacent to cultural heritage assets with settings susceptible to noise and visual impacts;
- Positioning of the borrow pits so they would not result in physical impacts on cultural heritage assets;
- Limiting the height of the vertical alignment where practicable;
- Appropriate selection of plant and equipment, construction methods and programming;
- Plant would be operated and maintained appropriately, with due regard for manufacturer recommendations (may include use of exhaust silencers). Construction plant would be maintained in good condition and switched off when not in use;
- Use of appropriate noise abatement site hoardings and screens, where appropriate; and,
- Careful selection of routes and programming for the transport of construction materials, spoil and personnel.

7.8.3 Where there is the potential for a significant adverse impact on archaeological remains, a programme of archaeological evaluation and mitigation would be submitted to and agreed with the local authority archaeological advisors.

7.8.4 The scope and scale of appropriate archaeological mitigation for impacts on archaeological remains would be informed by a programme of archaeological evaluation and may comprise a combination of:

- Detailed archaeological excavation prior to construction of the Scheme;
- Strip map and sample excavation prior to construction of the Scheme;
- Palaeoenvironmental and / or geoarchaeological assessment prior to construction of the Scheme; and / or,
- Watching brief during construction of the Scheme.

## **7.9 Residual Impacts**

7.9.1 Assessments of residual impacts of the Scheme on cultural heritage assets are presented below for construction (Table 7.6) and operation (Table 7.7).

**Table 7.6 Summary of Residual Construction Impacts**

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
<b>Archaeological Remains</b>									
1	Findspot of crucifix figure, Lea, near Preston	Negligible	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
5	Site of Railway Signal box adj. to Cotty Brook P.H., Lea Road, Lea	Low	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
6	Possible Road near Valentine House, Lea	Medium	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
7	Site of Lea Road Station, Preston	Low	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral



Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
8	Ridge and Furrow 1	Low	Permanent	Construction of the railway station would remove archaeological remains associated with approximately 30% of the total area of this asset.	Major	Moderate	Archaeological earthwork survey to Historic England Level 1; Archaeological evaluation; Development of a targeted archaeological mitigation strategy during detailed design	Moderate	Slight
9	Ridge and Furrow 2	Low	Permanent	Construction of the Scheme and an associated haul road west of Sidgreaves Lane would remove archaeological remains associated with approximately 50% of the total area of this asset.	Major	Moderate	Archaeological earthwork survey to Historic England Level 1; Archaeological evaluation; Development of a targeted archaeological mitigation strategy during detailed design	Moderate	Slight
10	Marl Pit Southwest of Quaker's Bridge, Darkinson Lane, Lea	Negligible	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
14	Roman Road 703 Ribchester - Poulton-le-Fylde	Medium	Permanent	No trace of this asset was detected in the geophysical survey, however, it is possible that it could still be affected by construction of the Scheme during construction works west of Sidgreaves Lane.	Moderate	Moderate	Archaeological evaluation;  Development of a targeted archaeological mitigation strategy during detailed design	Moderate	Slight
16	Site of Lancaster Canal Swing Bridge west of Lea Road, Lea	Low	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
18	Field Boundary 6a (Geophysical Survey)	Negligible	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
19	Field Boundary 7a (Geophysical Survey)	Negligible	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
20	Site of Danes Pad, Lea	Negligible	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
21	Site of Malt Kiln, near Danes Pad Farm, Lea	Low	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
23	Undetermined infilled pits (Geophysical Survey)	Negligible	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
26	Site of Canal Warehouse, north side of Lancaster Canal adj. Lea Road, Lea	Low	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
27	Ridge and Furrow 3	Low	Permanent	Construction of the proposed junction with the Cottam Link Road and a pond would remove archaeological remains associated with approximately 30% of the total area of this asset.	Moderate	Moderate	Archaeological evaluation; Development of a targeted archaeological mitigation strategy during detailed design	Moderate	Slight
28	Marl Pit Southwest of Earl's Farm, Sidgreaves Lane, Lea	Negligible	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
31	Clock House Farm, Lea Road, Lea	Low	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
32	Fiddler's Fold, Lea Road, Lea	Low	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
36	Site of Clock House Barn, Lea	Low	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
41	Site of Clamp Kiln 1 (K4)	Low	Permanent	Construction of a haul road associated with the Scheme would result in removal of this heritage asset.	Major	Moderate	Archaeological evaluation;  Development of a targeted archaeological mitigation strategy during detailed design	Moderate	Slight
42	Site of Clamp Kiln 2 (K2)	Low	Permanent	Construction of a haul road associated with the Scheme would result in removal of this heritage asset.	Major	Moderate	Archaeological evaluation;  Development of a targeted archaeological mitigation strategy during detailed design	Moderate	Slight
43	Site of Clamp Kiln 3 (K3)	Low	Permanent	Construction of a haul road associated with the Scheme would result in removal of this heritage asset.	Major	Moderate	Archaeological evaluation;  Development of a targeted archaeological mitigation strategy during detailed design	Moderate	Slight

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
44	Site of Clamp Kiln 4 (K1)	Low	Permanent	Construction of the Scheme south of the Lancaster Canal would result in removal of this heritage asset.	Major	Moderate	Archaeological evaluation;  Development of a targeted archaeological mitigation strategy during detailed design	Moderate	Slight
45	Site of Marl Pit (IP1)	Negligible	Permanent	Construction of The Scheme would result in removal of this heritage asset. Marl pits are extractive sites and their date and function is well understood, and their archaeological remains of limited interest.	Major	Slight	None	Major	Slight
46	Site of Clamp Kiln 5 (K10)	Low	Permanent	Widening of Sidgreaves Lane to the west would result in the removal of this asset.	Major	Moderate	Archaeological evaluation;  Development of a targeted archaeological mitigation strategy during detailed design	Moderate	Slight

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
47	Site of Clamp Kiln 6 (K5)	Low	Permanent	Construction of the railway station and car park would result in the removal of this asset.	Major	Moderate	Archaeological evaluation;  Development of a targeted archaeological mitigation strategy during detailed design	Moderate	Slight
48	Site of Clamp Kiln 7 (K6)	Low	Permanent	Construction of the railway station and car park would result in the removal of this asset.	Major	Moderate	Archaeological evaluation;  Development of a targeted archaeological mitigation strategy during detailed design	Moderate	Slight
49	Site of Clamp Kiln 8 (K7)	Low	Permanent	Construction of the railway station and car park would result in the removal of this asset.	Major	Moderate	Archaeological evaluation;  Development of a targeted archaeological mitigation strategy during detailed design	Moderate	Slight
50	Site of Clamp Kiln 9 (K8)	Low	Permanent	Construction of the railway station and car park would result in the removal of this asset.	Major	Moderate	Archaeological evaluation;  Development of a targeted archaeological mitigation strategy during detailed design	Moderate	Slight

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
51	Site Of Clamp Kiln 10 (k9)	Low	Permanent	Construction of the railway station and car park would result in the removal of this asset.	Major	Moderate	Archaeological evaluation;  Development of a targeted archaeological mitigation strategy during detailed design	Moderate	Slight
141	Ridge and Furrow, Bryers Farm (east of), Lea 3	Low	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
142	Marl Pit, Darkinson Lane, Lea (off) 3	Negligible	Permanent	Construction of the proposed north abutment of the access road bridge would result in removal of this heritage asset. Marl pits are extractive sites and their date and function is well understood, and their archaeological remains of limited interest.	Major	Slight	None	Major	Slight
143	Field Boundary, Quaker Lodge (south of), Sidgreaves Lane, Lea	Negligible	Permanent	Construction of the Scheme west of Sidgreaves Lane would result in removal of approximately 50% of the total length of this asset.	Major	Slight	None	Major	Slight

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
146	Marl Pit Quaker Lodge (south of), Sidgreaves Lane, Lea	Negligible	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
200	Field Boundary, Quaker Lodge, Sidgreaves Lane, Lea 2	Negligible	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
201	Earthwork near Quaker Lodge, Sidgreaves Lane, Lea 3	Low	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
202	Field Boundary, Quaker Lodge, Sidgreaves Lane, Lea 4	Negligible	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
<b>Historic Buildings</b>									
2	Leyland Bridge Barn, Lea Road, Lea, Preston	Low	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
3	Leyland Bridge Farmhouse, Lea Road, Lea	High	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral



Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
4	Railway Mile Post to west of Lea Road, near Cotty Brook P.H., Lea	Low	Short-term	The value of this asset is derived from its modest evidential value, which would not be affected by construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
11	Canal Bridge Number 17 Valentine House Bridge	High	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
12	Yew Tree Cottage (Westleigh Cottage), Lea	Medium	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
13	Westleigh House, Lea	Low	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
15	Bridge Adjacent To The Lancaster Canal, Lea	Medium	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
17	Lancaster Canal Culvert, Lea 1	Medium	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
22	Quaker's Bridge, (No.19), Darkinson Lane, Lea	High	Short-term	This asset is located inside the construction area of the Scheme. No physical impact is predicted, however, the visual impact from noise and plant movement associated with a construction site would be noticeable in its setting. The proposed realigned road and new crossing of the Lancaster Canal will form prominent elements of modern infrastructure within the setting of this asset.	Moderate	Large	Photographic survey to Historic England Level 1	Moderate	Moderate
24	Canal bridge No.22, Lea Town, Newton with Clifton	High	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
25	Canal Bridge, (No.18), Lea Road, Lea	High	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
29	Bridge House (formerly Lea Holme), Lea Road, Lea	Low	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
30	Quaker Lodge, Sidgreaves Lane, Lea 1	Low	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
33	Earl's Farm, Sidgreaves Lane (off), Lea	Low	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
34	Clock House, Lea Road, Lea	High	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
35	Wayside Cross, Clock House Farm, Lea	Medium	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
37	Lea School, Lea Road, Lea	Low	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
38	Lane Ends Farm, Lea Road, Lea	Low	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
39	Lancaster Canal	Medium	Short-term	The realignment of Sidgreaves Lane and construction of the new bridge would result in a temporary impact on the setting of this asset from the visual and noise effects of a construction site in its setting, as well as introducing a new element of infrastructure. This would be prominent in views from the canal and towpath from the west.	Moderate	Moderate	Photographic survey to Historic England Level 1	Moderate	Moderate
40	Preston and Wyre Railway	Low	Short-term	The value of this asset is derived from its modest evidential value, which would not be affected by construction of the Scheme.	Negligible	Neutral	None	Negligible	Neutral
52	Possible Railway Milestone	Negligible	Short-term	Construction of the railway station and car park would result in the removal of this asset.	Major	Moderate	Photographic survey to Historic England Level 1; Careful removal, storage, and reinstatement after construction	Moderate	Slight

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
53	Railway Cottages, Sidgreaves Lane	Low	Short-term	There would be no physical impact on this asset. The value of this asset is derived from its modest evidential and aesthetic value, and its relationship with the nearby railway line, neither of which would be affected by construction of the Scheme. Noise and visual effects associated with the presence of a construction site close to this asset would be noticeable within its setting.	Minor	Slight	None	Minor	Slight
139	Bryers Farm (east of), Lea 1	Low	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
140	Bryers Farm (east of), Lea 2	Low	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
144	Darkinson Lane, Lea (off) 1	Low	Permanent	Construction of the northern abutment of the access road bridge would result in the removal of this asset.	Major	Moderate	Photographic survey to Historic England Level 1	Moderate	Slight

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
145	Darkinson Lane, Lea (off) 2	Low	Permanent	Construction of the northern abutment of the access road bridge would result in the removal of this asset.	Major	Moderate	Photographic survey to Historic England Level 1	Moderate	Slight
<b>Historic Landscape</b>									
HLT1	Ancient Enclosure	Medium	Permanent	Construction of the Scheme would result in the removal of sections of field boundaries and truncation of land parcels associated with this type. This would create a small loss of integrity of the type within the study area.	Minor	Slight	Historic Landscape Recording to Historic England Level 1	Minor	Slight
HLT2	Post-Medieval Enclosure	Low	Permanent	Construction of the Scheme would result in the removal of sections of field boundaries and truncation of land parcels associated with this type. This would create a small loss of integrity of the type within the study area.	Minor	Slight	Historic Landscape Recording to Historic England Level 1	No Change	Neutral
HLT3	Modern Settlement	Low	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral
HLT4	Modern Recreation	Negligible	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	No Change	Neutral

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
HLT5	Modern Ornamental	Medium	Short-term	No impact is predicted for this asset during construction of the Scheme.	No Change	Neutral	None	Minor	Slight

**Table 7.7 Summary of Residual Operation Impacts**

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
<b>Archaeological Remains</b>									
1	Findspot of crucifix figure, Lea, near Preston	Negligible	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
5	Site of Railway Signal box adj. to Cotty Brook P.H., Lea Road, Lea	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
6	Possible Road near Valentine House, Lea	Medium	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
7	Site of Lea Road Station, Preston	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
8	Ridge and Furrow 1	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
9	Ridge and Furrow 2	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
10	Marl Pit Southwest of Quaker's Bridge, Darkinson Lane, Lea	Negligible	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral



Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
14	Roman Road 703 Ribchester - Poulton-le-Fylde	Medium	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
16	Site of Lancaster Canal Swing Bridge west of Lea Road, Lea	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
18	Field Boundary 6a (Geophysical Survey)	Negligible	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
19	Field Boundary 7a (Geophysical Survey)	Negligible	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
20	Site of Danes Pad, Lea	Negligible	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
21	Site of Malt Kiln, near Danes Pad Farm, Lea	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
23	Undetermined infilled pits (Geophysical Survey)	Negligible	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
26	Site of Canal Warehouse, north side of Lancaster Canal adj. Lea Road, Lea	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
27	Ridge and Furrow 3	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
28	Marl Pit Southwest of Earl's Farm, Sidgreaves Lane, Lea	Negligible	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
31	Clock House Farm, Lea Road, Lea	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
32	Fiddler's Fold, Lea Road, Lea	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
36	Site of Clock House Barn, Lea	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
41	Site of Clamp Kiln 1 (K4)	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
42	Site of Clamp Kiln 2 (K2)	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
43	Site of Clamp Kiln 3 (K3)	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
44	Site of Clamp Kiln 4 (K1)	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
45	Site of Marl Pit (IP1)	Negligible	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
46	Site of Clamp Kiln 5 (K10)	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
47	Site of Clamp Kiln 6 (K5)	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
48	Site of Clamp Kiln 7 (K6)	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
49	Site of Clamp Kiln 8 (K7)	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
50	Site of Clamp Kiln 9 (K8)	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
51	Site Of Clamp Kiln 10 (k9)	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
141	Ridge and Furrow, Bryers Farm (east of), Lea 3	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
142	Marl Pit, Darkinson Lane, Lea (off) 3	Negligible	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
143	Field Boundary, Quaker Lodge (south of), Sidgreaves Lane, Lea	Negligible	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
146	Marl Pit Quaker Lodge (south of), Sidgreaves Lane, Lea	Negligible	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
200	Field Boundary, Quaker Lodge, Sidgreaves Lane, Lea 2	Negligible	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
201	Earthwork near Quaker Lodge, Sidgreaves Lane, Lea 3	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
202	Field Boundary, Quaker Lodge, Sidgreaves Lane, Lea 4	Negligible	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
<b>Historic Buildings</b>									
2	Leyland Bridge Barn, Lea Road, Lea, Preston	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
3	Leyland Bridge Farmhouse, Lea Road, Lea	High	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
4	Railway Mile Post to west of Lea Road, near Cotty Brook P.H., Lea	Low	Long-term	The value of this asset is derived from its modest evidential value, which would not be affected by operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
11	Canal Bridge Number 17 Valentine House Bridge	High	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
12	Yew Tree Cottage (Westleigh Cottage), Lea	Medium	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
13	Westleigh House, Lea	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
15	Bridge Adjacent To The Lancaster Canal, Lea	Medium	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
17	Lancaster Canal Culvert, Lea 1	Medium	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
22	Quaker's Bridge, (No.19), Darkinson Lane, Lea	High	Long-term	Noise and movement of traffic using the realigned road and new crossing of the Lancaster Canal, as well as from associated lighting and signage will be noticeable within the setting of this asset.	Minor	Moderate	Considerate design of the access road bridge	Negligible	Slight

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
24	Canal bridge No.22, Lea Town, Newton with Clifton	High	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
25	Canal Bridge, (No.18), Lea Road, Lea	High	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
29	Bridge House (formerly Lea Holme), Lea Road, Lea	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
30	Quaker Lodge, Sidgreaves Lane, Lea 1	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
33	Earl's Farm, Sidgreaves Lane (off), Lea	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
34	Clock House, Lea Road, Lea	High	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
35	Wayside Cross, Clock House Farm, Lea	Medium	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
37	Lea School, Lea Road, Lea	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
38	Lane Ends Farm, Lea Road, Lea	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
39	Lancaster Canal	Medium	Long-term	The visual effects of traffic movement, and the presence of new lighting would be noticeable new elements within the setting of this asset, particularly in views from the canal and towpath from the west.	Minor	Slight	Sensitive lighting design to minimise prominence of the access road bridge at night.	Minor	Slight
40	Preston and Wyre Railway	Low	Long-term	The value of this asset is derived from its modest evidential value, which would not be affected by operation of the Scheme.	Negligible	Neutral	None	Negligible	Neutral
52	Possible Railway Milestone	Negligible	Long-term	The setting of this asset is defined by its relationship with the railway line. Replacement as close as possible to its original location would retain that relationship in a slightly modified form. This would not affect the understanding of the asset or its value.	Negligible	Neutral	None	Negligible	Neutral

Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
53	Railway Cottages, Sidgreaves Lane	Low	Long-term	The value of this asset is derived from its modest evidential and aesthetic value, and its relationship with the nearby railway line, neither of which would be affected by operation of the Scheme. Noise and changes in lighting associated with the Scheme would be noticeable within the setting of this asset.	Negligible	Slight	Landscape planting	Negligible	Slight
139	Bryers Farm (east of), Lea 1	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
140	Bryers Farm (east of), Lea 2	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
144	Darkinson Lane, Lea (off) 1	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
145	Darkinson Lane, Lea (off) 2	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
<b>Historic Landscape</b>									
HLT1	Ancient Enclosure	Medium	Long-term	No impact is predicted for this asset during operation of the Scheme.	Negligible	Neutral	Landscape planting	Negligible	Neutral



Asset No.	Name	Value	Impact Duration	Impact Description	Impact Magnitude	Impact Significance	Mitigation Measures	Residual Magnitude	Residual Significance
HLT2	Post-Medieval Enclosure	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	Negligible	Neutral	Landscape planting	Negligible	Neutral
HLT3	Modern Settlement	Low	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
HLT4	Modern Recreation	Negligible	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral
HLT5	Modern Ornamental	Medium	Long-term	No impact is predicted for this asset during operation of the Scheme.	No Change	Neutral	None	No Change	Neutral

## 7.10 Summary

7.10.1 A total of 69 cultural heritage assets have been identified in the baseline comprising 38 archaeological sites, 26 historic buildings or structures including 6 Grade II Listed Buildings, and 5 historic landscape types.

7.10.2 Significant adverse effects during construction of the Scheme have been identified on 14 archaeological sites (Assets 8, 9, 14, 27, 41, 42, 43, 44, 46, 47, 48, 49, 50, 51) and two historic buildings (Assets 22, 39). Significant effects during operation of the Scheme have been identified on one Historic building (Asset 22).

7.10.3 Measures to mitigate impacts on cultural heritage assets have been proposed comprising one or more of the following:

- Archaeological earthwork survey to Historic England Level 1;
- Careful removal of the Possible Railway Milestone (Asset 52), safe storage, and reinstatement after construction;
- Evaluation through archaeological investigation; and,
- Development of a targeted archaeological mitigation strategy during detailed design.

## 7.11 References

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