

# THE SETTING OF WOOLSTHORPE MANOR



Prepared by Fiona Fyfe Associates with Pre-Construct Archaeology

On behalf of the National Trust

**FINAL REPORT**  
September 2018

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## 1.0 INTRODUCTION

### 1.1 Background and purposes

1.1.1 Recent years have seen an increased awareness and articulation of the importance of setting to the understanding and experience of National Trust properties. Woolsthorpe Manor is no exception, and the recently- completed *Conservation Management Plan* for the property (April 2018) recommended in Policy 16 that *The National Trust will seek to work with South Kesteven District Council, Colsterworth Parish Council and Historic England in the preparation of a setting study for the Manor House*. This Setting Study was commissioned in response to that recommendation. The survival of its Woolsthorpe Manor's setting before the National Trust took ownership was largely down to good fortune, although there has been some development in the vicinity since the mid-20<sup>th</sup> Century which has been detrimental to the setting of the property.

1.1.2 The purposes and scope of the Setting Study, as outlined in the brief, are as follows:

*National Trust intends to commission a small-scale study of the setting of the Manor and the contribution that the setting makes to the significance and experience of the property. This will help to avoid adverse change and to identify opportunities for mitigation and enhancement.*

1.1.3 The Setting Study was undertaken by Fiona Fyfe Associates with Pre-Construct Archaeology between May and September 2018. The project steering group included Kim Miller, National Trust Planning Adviser (project manager); Rachael Hall, National Trust Archaeologist and Consultancy Manager; Jennifer Johns, National Trust (Woolsthorpe) Conservation Manager and Simon Chesters-Thompson, National Trust Curator. In addition, input was received from Ian Wright, South Kesteven District Council Conservation Officer; Margaret Winn, local historian and research volunteer at Woolsthorpe Manor; and Janine Dykes, Historic England Inspector of Historic Buildings and Areas.

## 1.2 Format of the Setting Study

1.2.1 Following this introduction, Section 2.0 summarises the contribution of the setting to the significance of Woolsthorpe Manor. This is followed by a description of the key elements of the setting (Section 3.0). The next 3 sections describe its visual context (Section 4.0), cultural and historical context (Section 5.0) and landscape and experiential context (Section 6.0). Section 7.0 continues the experiential theme with an analysis of the approaches to Woolsthorpe Manor. The final part of the report examines issues within the setting (section 8.0) and provides recommendations to pro-actively protect and enhance the setting (Section 9.0). Section 10.0 contains a recommended list of monitoring viewpoints in order to record future changes within the setting.

1.2.2 It is important to note that the Setting Study is not intended to replicate or critique any existing documents, although it has been informed by them. Therefore, the Setting Study should be read alongside the following documents:

- *Conservation Management Plan for Woolsthorpe Manor* (Edgar, April 2018) [particularly *Chapter 3: Understanding the setting of the Manor House, the farm buildings and the collection*]
- National Trust *Spirit of Place Statement for Woolsthorpe Manor*
- *Colsterworth and District Neighbourhood Plan* (September 2017)
- *Draft [final when published] Woolsthorpe-by-Colsterworth Conservation Area Appraisal and Management Plan* (2018)
- *The Historic Character of the County of Lincolnshire* (English Heritage, 2011)
- *South Kesteven Landscape Character Assessment* (2007)
- Historic England, *The Setting of Heritage Assets. Historic Environment Good Practice Advice in Planning Note 3 (Second Edition)* (December 2017)

### 1.3 Defining 'Setting'

1.3.1 Government Planning Policy Guidance defines 'setting' as follows: *The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral*<sup>1</sup>.

1.3.2 Guidance from Historic England provides further detail of what should be considered within thinking about setting: *The extent and importance of setting is often expressed by reference to visual considerations. Although views of or from an asset will play an important part, the way in which we experience an asset in its setting is also influenced by other environmental factors such as noise, dust and vibration from other land uses in the vicinity, and by our understanding of the historic relationship between places. For example, buildings that are in close proximity but are not visible from each other may have a historic or aesthetic connection that amplifies the experience of the significance of each.*

*The contribution that setting makes to the significance of the heritage asset does not depend on there being public rights or an ability to access or experience that setting. This will vary over time and according to circumstance.*

*When assessing any application for development which may affect the setting of a heritage asset, local planning authorities may need to consider the implications of cumulative change. They may also need to consider the fact that developments which materially detract from the asset's significance may also damage its economic viability now or in the future, thereby threatening its on-going conservation*<sup>2</sup>.

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<sup>1</sup> DCLG National Planning Policy Framework, March 2012, Annex 2: Glossary p.56

<sup>2</sup> Historic England, *The Setting of Heritage Assets. Historic Environment Good Practice Advice in Planning Note 3 (Second Edition)* December 2017. p.2

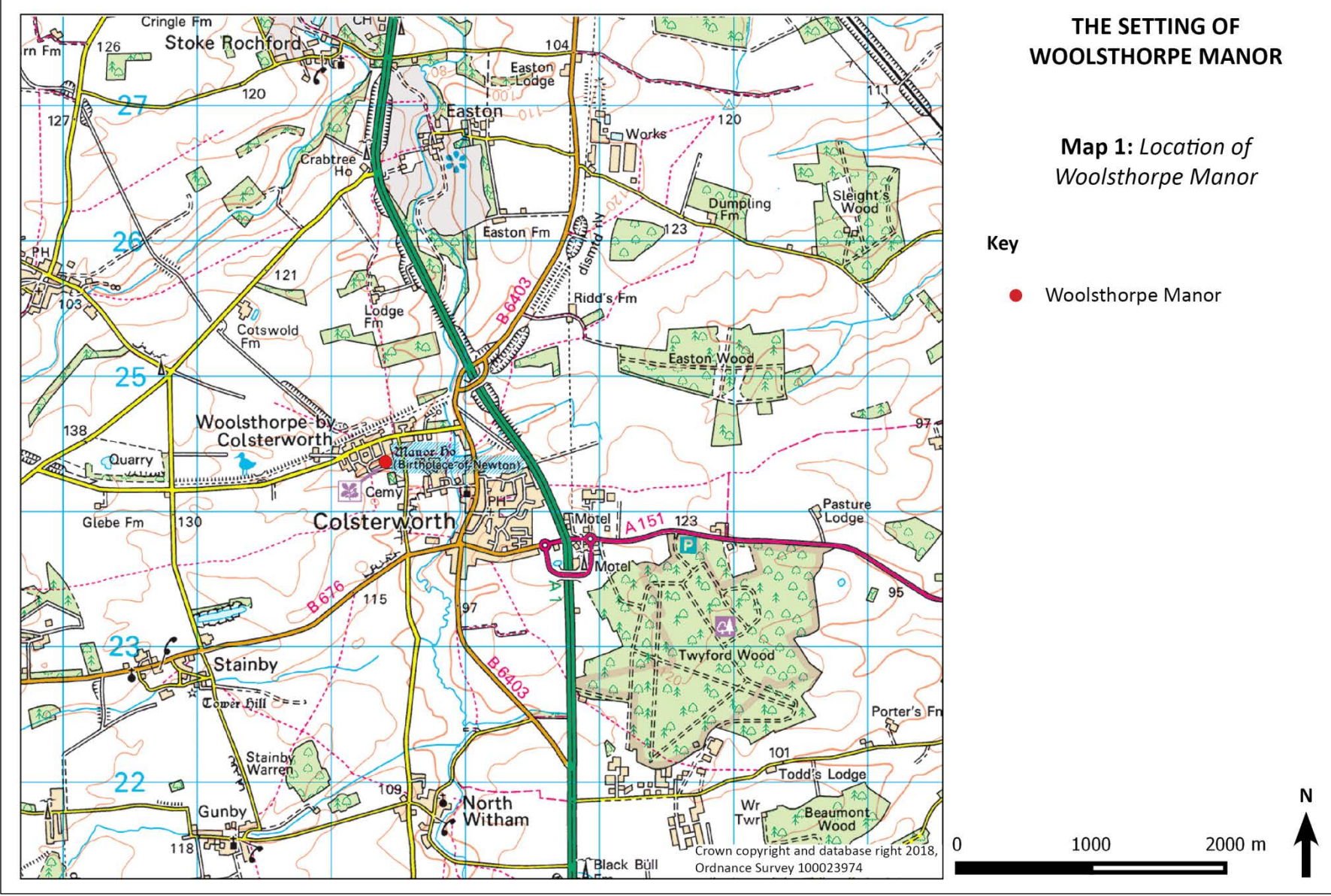
## 1.4 Methodology

1.4.1 This Setting Study has drawn information from a wide variety of sources, and comprises five key phases of work, as follows.

Stage 1: Project start-up	Agreement of project timetable Scoping and agreement of content Data exchange Initial site visit with client and consultant teams
Stage 2: Desk studies	Background reading of relevant reports/ literature (see list in section 1.2.2) Historic map analysis Development of GIS database and maps Creation of ZTV maps
Stage 3: Fieldwork	Extensive fieldwork around the property and within the wider setting Analysis of approaches on foot and by vehicle Photography to illustrate study Identification of monitoring viewpoints
Stage 4: Consultation	Presentation of initial findings to wider stakeholders and client team Agreement of monitoring points on site
Stage 5: Writing-up	Compilation of information gathered in previous sections into single report Draft report submitted for client/ stakeholder comment Comments incorporated into final version of report.

## 1.5 Woolsthorpe Manor

- 1.5.1 The property is located in the hamlet of Woolsthorpe, approximately 0.5 miles west of the village of Colsterworth and eight miles south of Grantham. The location of the property is shown on Map 1. Woolsthorpe Manor is associated with Sir Isaac Newton, who undertook several of his key scientific experiments there, and was born (in a house) on the site. It is reputed to have been an apple falling from a tree in the orchard at Woolsthorpe which inspired Sir Isaac Newton's thoughts on gravity. Subsequent owners of Woolsthorpe Manor, particularly the Turnor family (of the nearby Stoke Rochford Estate) raised awareness of the building's connections with Isaac Newton, and encouraged people to visit. As a result, Woolsthorpe has become a place of pilgrimage for scientists and members of the public for several centuries. It is marked on the First Edition Ordnance Survey maps (1824) as 'Manor House, The Birthplace of Newton.'
- 1.5.2 The main property was conveyed to the National Trust in 1943 (outbuildings were acquired at a later date). It comprises Woolsthorpe Manor, associated farmbuildings and outbuildings, an adjacent orchard (containing 'Newton's apple tree' and a walled field; a former orchard / kitchen garden which has recently been replanted). The farm buildings house a cafe, bookshop, offices, shop, toilets (rebuilt on footprint of an earlier building) and Discovery Centre. The site remains popular with visitors, including school groups. The house is Grade 1 listed and is thought to date from the mid 17<sup>th</sup> Century, with a later 17<sup>th</sup> Century rear wing creating a T-shaped plan. It is constructed of coursed local stone, with a stone roof. Please see the *Conservation Management Plan (2018)* for a full description of the property and grounds.
- 1.5.3 The relationship of the Manor with Sir Isaac Newton remains a key part of its significance, and is also fundamental to its spirit of place, as identified in the *Spirit of Place Statement*. The setting of the property helps to reinforce that significance by providing the geographic and socio-economic circumstances of Newton's birth (i.e. his Lincolnshire rural farming background), as well as contributing to the visitors' experience when visiting the property.





## 2.0 THE CONTRIBUTION OF THE SETTING TO THE SIGNIFICANCE OF WOOLSTHORPE MANOR

### 2.1 The Conservation Management Plan

- 2.1.1 The Conservation Management Plan states that *The Manor House and hamlet of Woolsthorpe have, historically, been set in an **open, agricultural landscape**, distinct from the ‘town’ of Colsterworth. The remaining **open landscape** is important to the setting of both historic settlements and to the understanding of the historic Manor House site and its immediate surroundings. **It helps to explain the geographic and socio-economic circumstances of Newton’s birth and upbringing** – he walked the footpaths and the fields, hid in the hedges, built water wheels in the brooks, derived his income from the produce of the fields, sought to preserve his right to use the commons and saw the post mills. **Today this setting is experienced by visitors from all over the world.**<sup>3</sup>*

### 2.2 How the setting contributes to the significance of the site

- 2.2.1 This Setting Study demonstrates how the setting contributes to the significance of Woolsthorpe Manor in four key ways:
- 2.2.2 **It provides the historic rural context for the site, and helps to build a picture of how the site may have appeared in Newton’s time.** This can be appreciated in the immediate environs of the property, which include the farmyard, the orchards to the west and north of the house, and also extend beyond its curtilage on the east and south sides to include the neighbouring fields of Stoke Rochford Field (also known as Beeson’s Close or Newton’s Close) and the fields to the south of Water Lane and east of Old Post Lane. Elements of the historic rural context can also be appreciated beyond the immediate environs, including the historic core of Woolsthorpe, historic roads and footpaths, and surviving remnants of the pre-enclosure field system and ridge and furrow earthworks which would have been known by Newton. The wider landscape also helps to provide historic rural context, particularly in terms of the view east from the manor as described by Stukeley in 1721. The church at Colsterworth contains the Newton family chapel, and visitors are able to visit the church and walk the footpath between Colsterworth and Woolsthorpe, thereby gaining some kind of physical connection with Newton. All these elements of the setting help to explain the geographic and socio-economic circumstances of Newton’s birth and upbringing.

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<sup>3</sup> Woolsthorpe Manor Conservation Management Plan (2018) p.88 Emphasis added.

- 2.2.3 **It contributes to the approach to the property, and provides the physical context in which it is seen.** The wider setting demonstrates to the visitor that this is a rural, agricultural area. Although there is some suburbanisation and insensitive development on approaches to the property, its immediate rural context has largely been preserved on the main approach. The positive ‘arrival’ view of the property across Stoke Rochford Field/ Beeson’s Close from the junction of Old Post Lane and Water Lane is a key part of visitors’ experience of the property.
- 2.2.4 **It provides a backdrop to the property as experienced by visitors.** Visitors to the house can look out of the windows and see the orchard, farmyard and fields outside, and the wider countryside beyond to the east. These views complement the indoor rooms, and also add an element of seasonal change. They further enable the context of the property to be appreciated, and are a constant reminder of its rural, agricultural surroundings.
- 2.2.5 **It demonstrates the development of Woolsthorpe Manor as ‘heritage’ to be celebrated and marketed.** The strong association between the local area and Sir Isaac Newton is an interesting aspect of the cultural context of the property, which goes back almost 200 years to the erection of the Stoke Rochford obelisk, and has continued through street names, road signs etc. to the present day. This cultural element of the setting helps to explain how Woolsthorpe Manor has become a place of pilgrimage for scientists, famous visitors and members of the public.

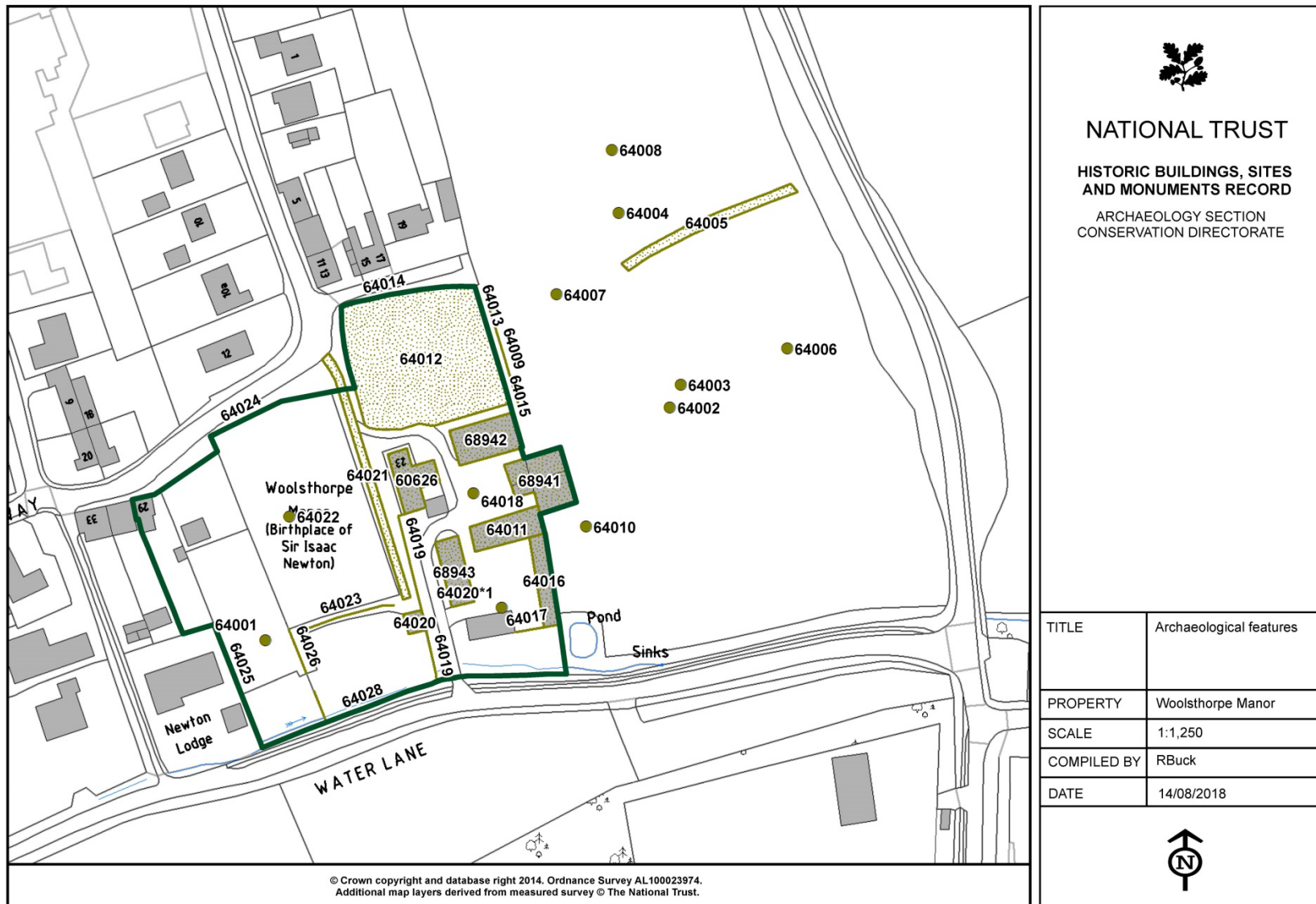
### 3.0 KEY ELEMENTS OF THE SETTING

#### 3.1 The immediate setting

3.1.1 The immediate setting of Woolsthorpe Manor is shown on Map 3. It comprises the grounds of the property (carpark, farmyard, orchard and former orchard/ kitchen garden) grounds and adjacent fields. Within the immediate setting are a number of heritage features, listed below, which are included in the National Trust Historic Buildings Sites and Monuments Record (NT HBSMR). Corresponding NT HBSMR numbers are included on Map 2<sup>1</sup>.

SMR No.		SMR No.	
60626	Woolsthorpe Manor	64017	Southern boundary wall
64001	Hollow way	64018	Farmyard
64002	Platform, Stoke Rochford Field	64019	Wall
64004	Earthwork (oval depression) Stoke Rochford Field	64020*1	Site of pre-1727 dove house
64005	Hollow Way cutting across Stoke Rochford Field towards Old Post Lane	64020	Post 1727 dove house
64006	Terraced platform, Stoke Rochford Field	64021	Former lane running in front of the farmhouse
64007	Site of Widow Newton's House, Stoke Rochford Field	64022	Hollow
64008	Hollow, Stoke Rochford Field	64023	Earthwork (possibly lynchet)
64009	Trackway, Stoke Rochford Field, aligned north-south	64024	Wall
64010	Terraced Platform, Stoke Rochford Field	64025	Western boundary wall
64011	Barn (4 bay weatherboarded with stone foundations)	64027	Wall west of modern car park
64012	Orchard and former Kitchen Garden	64028	Southern boundary wall
64013	Part of the east wall of former orchard	65026	Wall
64014	Wall on north side of the orchard	68941	Cartshed
64015	Wall on east side of farmyard	68942	Stables and wagon hovel
64016	Barn, west elevation fronted onto farmyard	68943	Stables

<sup>1</sup> Descriptions of the monuments can be found at <https://heritagerecords.nationaltrust.org.uk>



Map 2: Heritage features within the immediate setting of Woolsthorpe Manor. The extent of National Trust ownership is in dark green.



### 3.1.2 Northern immediate setting



*Photo 1: The immediate setting of the property to the north comprises a fairly open walled area. It was formerly an orchard or kitchen garden, and has recently been replanted with apple trees. With the exception of the overhead wires and pole, this is a rural view without modern features. A copse can be seen behind the house and forms the horizon.*

### 3.1.3 Eastern immediate setting



*Photo 2: The immediate setting to the east comprises the farmyard (including a more modern wooden structure) and the sloping ground of Stoke Rochford Field (also known as Beeson's Close). As shown on Map 2, Stoke Rochford Field contains numerous NT HBSMR sites (earthworks), including two hollow ways, and the site of Widow Newton's House, which was contemporary with Sir Isaac Newton, and which was located to the north-east of the existing farmyard. The field provides an important undeveloped setting to the property, as well as having strong connections with it. An historic footpath crosses the field from Woolsthorpe to Colsterworth.*

### 3.1.4 Southern immediate setting



*Photo 3: The immediate setting of the property to the south comprises open fields to the south of Water Lane. The main carpark is located to the right of the view in this picture. From this relatively low viewpoint, the Manor House and farm buildings form the horizon, and at the time of the survey during summer the modern houses along Woolsthorpe Road are not apparent. The open fields and hedgerows provide an important rural setting to the property, and the viewer is not aware of the proximity of more recent development.*

### 3.1.5 Western immediate setting



*Photo 4: The immediate setting to the west comprises the current orchard, which includes the celebrated 'Newton's Apple Tree' surrounded by a low wicker fence. The orchard contains several mature apple trees, as well as paths and a bench. In some views the farmyard is visible beyond the house, and there are also glimpses of the roofs of properties along Woolsthorpe Road, seen across Stoke Rochford Field/ Beeson's Close.*

### 3.2 The intermediate setting

3.2.1 The intermediate setting of the property comprises the settlement of Woolsthorpe and parts of Colsterworth, as well as the fields, roads, copses and footpaths which make up their environs. There are some designated heritage assets, including listed buildings and Woolsthorpe Conservation Area, but much of the area is not designated. They also contain an industrial legacy and some areas of modern development which have more of a suburban than a rural feel. The intermediate setting is shown on Map 5, and is described below as a series of themes.

3.2.2 The hamlet of **Woolsthorpe** has its historic core to the west of Woolsthorpe Manor, but the settlement has expanded since the Mid-20<sup>th</sup> Century and now extends up to the property boundary. It has also spread as linear development along Woolsthorpe Road, creating a more suburban feel. The historic core of Woolsthorpe is a Conservation Area and contains several listed buildings (See Map 4). Woolsthorpe Manor is within the Conservation Area, and an extension has been proposed to include Stoke Rochford Field/Beeson's close.

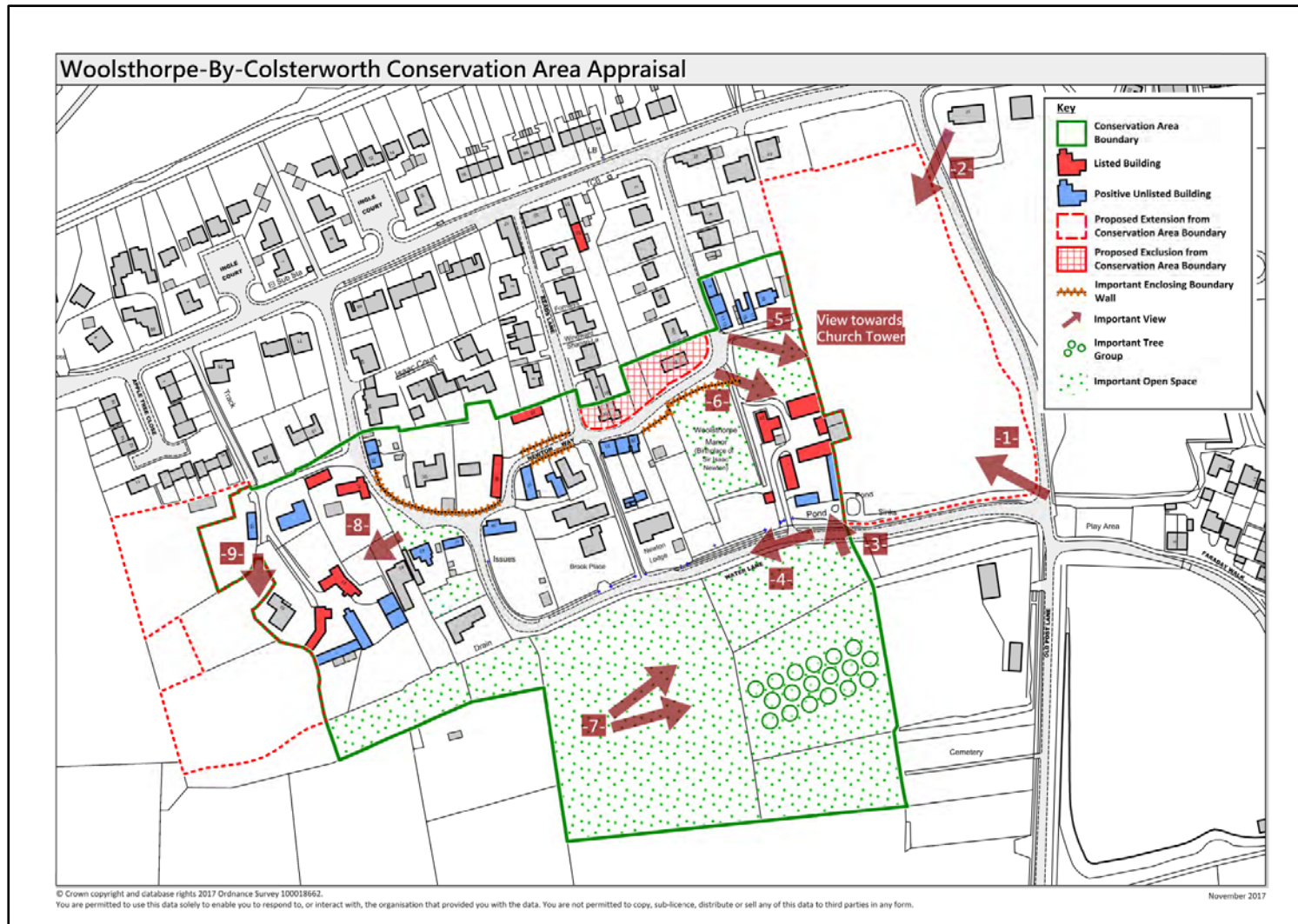
3.2.3 Summary of special interest from the Draft Conservation Area Appraisal:

- Association of the village with Sir Isaac Newton.
- Woolsthorpe Manor, birthplace of Sir Isaac Newton, makes a significant contribution as a heritage asset of exceptional interest.
- Open space to the south and east of the conservation area forming an important part of its setting.
- Trees providing a picturesque backdrop to the Conservation Area, such as Easton Wood, which lies to the north-east.
- Traditional vernacular buildings made of stone, with pantile or Collyweston roofs typical of the Conservation Area.
- Visual continuity created by boundary walls with pantile copings delineating boundaries and linking buildings.
- Traditional craftsmanship embodied in original building materials and architectural features.
- Use of ironstone and limestone making a prominent contribution on vernacular buildings.

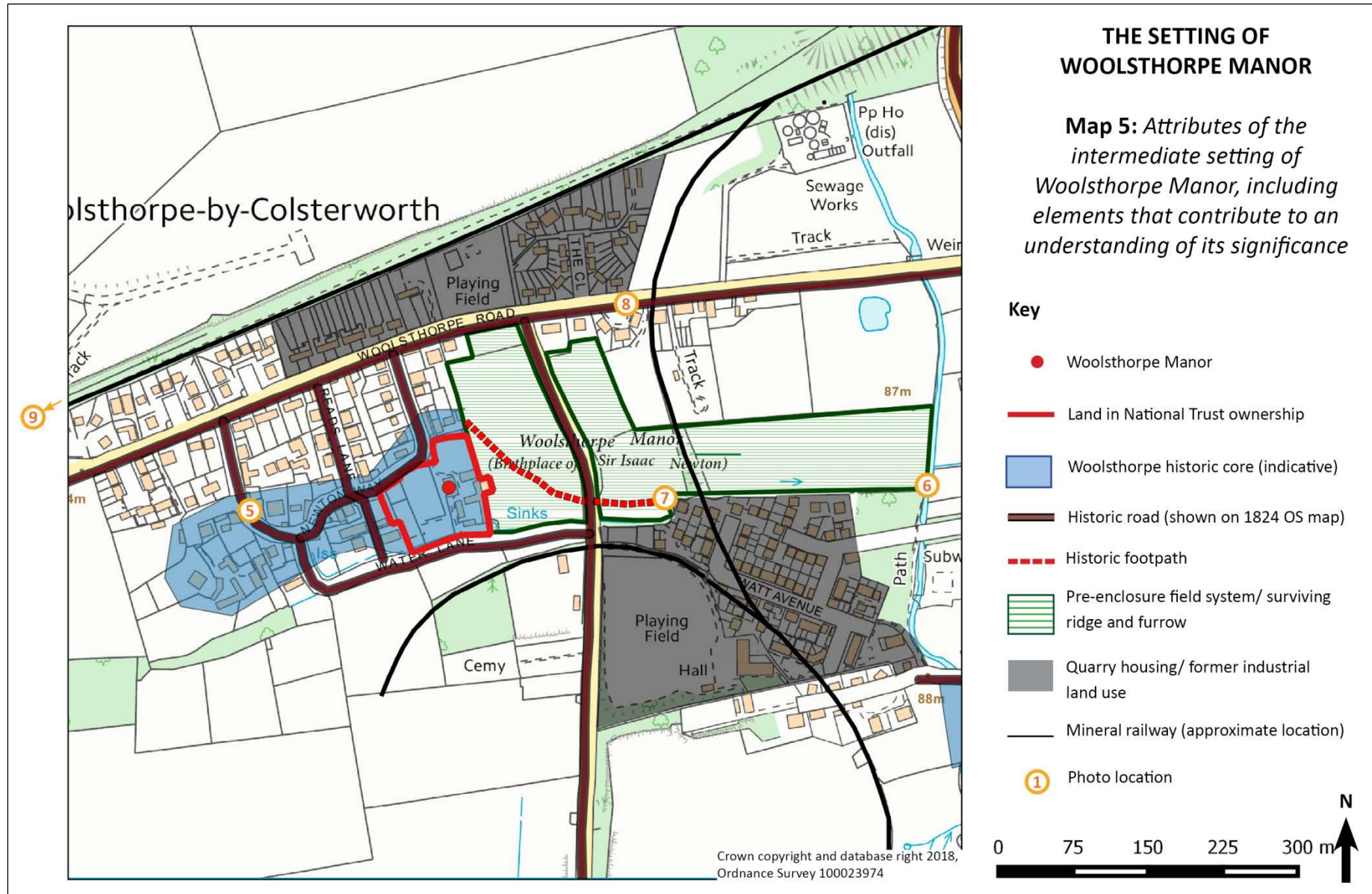


*Photo 5 Woolsthorpe historic core*





Map 4: Woolsthorpe Conservation Area (and proposed extension), listed buildings and important views.  
From Woolsthorpe-By-Colsterworth Conservation Area Appraisal and Management Plan Review (2018) Draft for Consultation.  
NOTE – proposed revisions to the boundary are subject to confirmation.



- 3.2.4 The intermediate setting contains a number of **historic routes** (both roads and footpaths, shown on Map 5). These include the lanes which make up the historic core of Woolsthorpe, as well as Old Post Lane, Woolsthorpe Road, Water Lane and the footpath across Stoke Rochford Field/ Beeson's Close towards Colsterworth. The latter route would almost certainly have been used by Isaac Newton when walking to Colsterworth Church. Some parts of these routes retain their rural appearance, whilst others have changed in character since Newton's time, and now have a more suburban feel. This is discussed in more detail in Section 7.0.
- 3.2.5 Also within the intermediate setting are some surviving **historic fields** (shown on Map 5). Fieldwork, aerial photos and map regression studies suggest that these fields have not been affected by either Parliamentary enclosure or subsequent opencast ironstone quarrying, and are therefore surviving remnants of the landscape which would have been familiar to Newton as he walked between Woolsthorpe and Colsterworth. One field (which was subdivided during Parliamentary enclosure) has surviving ridge and furrow earthworks, which can be seen in aerial photographs, although they were not visible from ground level at the time of survey due to long summer grass.
- 3.2.6 The twentieth century saw significant changes within the intermediate setting of Woolsthorpe Manor due to **opencast quarrying** of ironstone between 1921-1973. There were extensive areas of quarrying to the south of the Manor, which removed the original field boundaries. Although some hedgerows and trees have been reinstated as part of the ground restoration, they do not precisely follow the field boundaries as shown on early 20<sup>th</sup> Century maps. Housing for quarry workers and their families was constructed along Woolsthorpe Road, along with a recreation ground. Railway lines were built to transport the iron ore, and survive as embankments or paths. One has been re-used as a walking route and nature reserve. A former industrial area (originally used for iron ore distribution) on the western side of Colsterworth was redeveloped as the Newton Grange housing estate between 2009-2012. These houses are visible from Woolsthorpe Manor and grounds, and from various roads and footpaths, including the historic footpath between Woolsthorpe and Colsterworth.
- 3.2.7 The **copse** of woodland to the south of Water Lane (to the south of Woolsthorpe Manor) was planted during the period of ironstone quarrying as a tree nursery. It contains a range of species, including some evergreens. As shown in the cover photograph, it provides a backdrop to the Manor House as seen from within the orchard. To the east of the copse, between the copse and Old Post Lane, is a line of non-native pine trees which screen a small agricultural yard containing utilitarian buildings.



*Photo 6: Footpath between Colsterworth and Woolsthorpe, looking west. The field to the right of the path contains surviving medieval ridge and furrow earthworks visible in aerial photographs*



*Photo 7: Footpath across historic field between Colsterworth and Woolsthorpe, looking west towards Old Post Lane.*



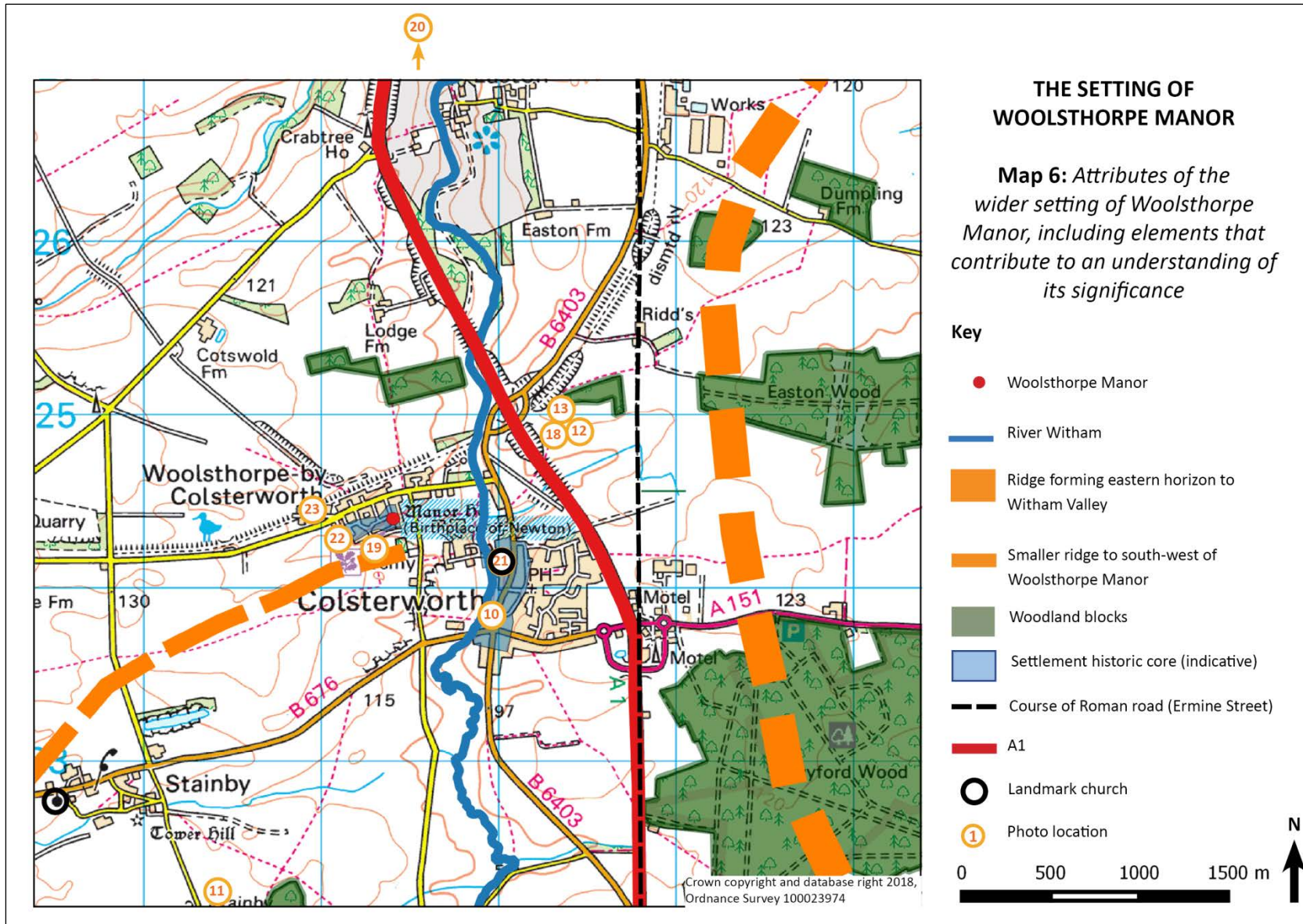
*Photo 8: Mid-20<sup>th</sup> Century housing, Woolsthorpe Road*



*Photo 9: Former mineral railway line, now a footpath and nature reserve.*

### 3.3 The wider setting

- 3.3.1 Elements which contribute to the wider setting of Woolsthorpe Manor (including those which contribute to an understanding of its significance) are shown on Map 6, and are described below as a series of themes.
- 3.3.2 The village of **Colsterworth** has its historic core along High Street. It expanded rapidly as a coaching town following construction of the Turnpike between London and the North in 1752, and contains numerous buildings from this time, constructed from local limestone. The village was bypassed by the A1 in 1926. Since the mid-20<sup>th</sup> Century Colsterworth has expanded and several estates of houses now almost fill the gap between the historic core of the village and the A1 to the east.
- 3.3.3 The square tower of Colsterworth **Church** is a local landmark, and can be seen from the upper floor of Woolsthorpe Manor, as well as from the surrounding area. The spire of Stainby church is also a landmark, visible on the western horizon in views from higher land across the Witham valley.
- 3.3.4 In terms of **topography**, the north-south ridge to the east of the Witham Valley is a key feature, forming the eastern horizon in views, and marking the watershed between the Witham and West Glen river systems. It is a broad, fairly flat ridge, containing several large blocks of **woodland** including Twyford Wood and Easton Wood, and a smaller block called The Holt. These woodlands are important features on the horizon and (along with the fields between them) contribute to the wider setting of Woolsthorpe Manor, as part of the rural setting and undeveloped ridge. The Manor sits within a small side valley of the River Witham. This small valley is bounded by a low ridge on its southern side, and this ridge contributes to the Manor's setting, and its sense of visual containment.
- 3.3.5 There are key historic and current **transport routes** within the wider setting of Woolsthorpe Manor, including the Roman Road of Ermine Street which ran along the main watershed described above. Today, the A1 runs slightly to the west of the Roman Road. Moving traffic on the A1 is visible from higher parts of the property, particularly in winter when tree screening is reduced, and the road can be audible, depending on wind direction. Some street lighting along the A1 is also apparent at night.





*Photo 10: Stamford Road, Colsterworth, formerly the main coaching route between London and the North*



*Photo 11: Long view looking east across the Witham Valley from near Stainby*



*Photo 12: Ridge to east of Witham Valley, showing The Holt, Easton Wood and the line of Ermine Street (runs along centre of photograph)*



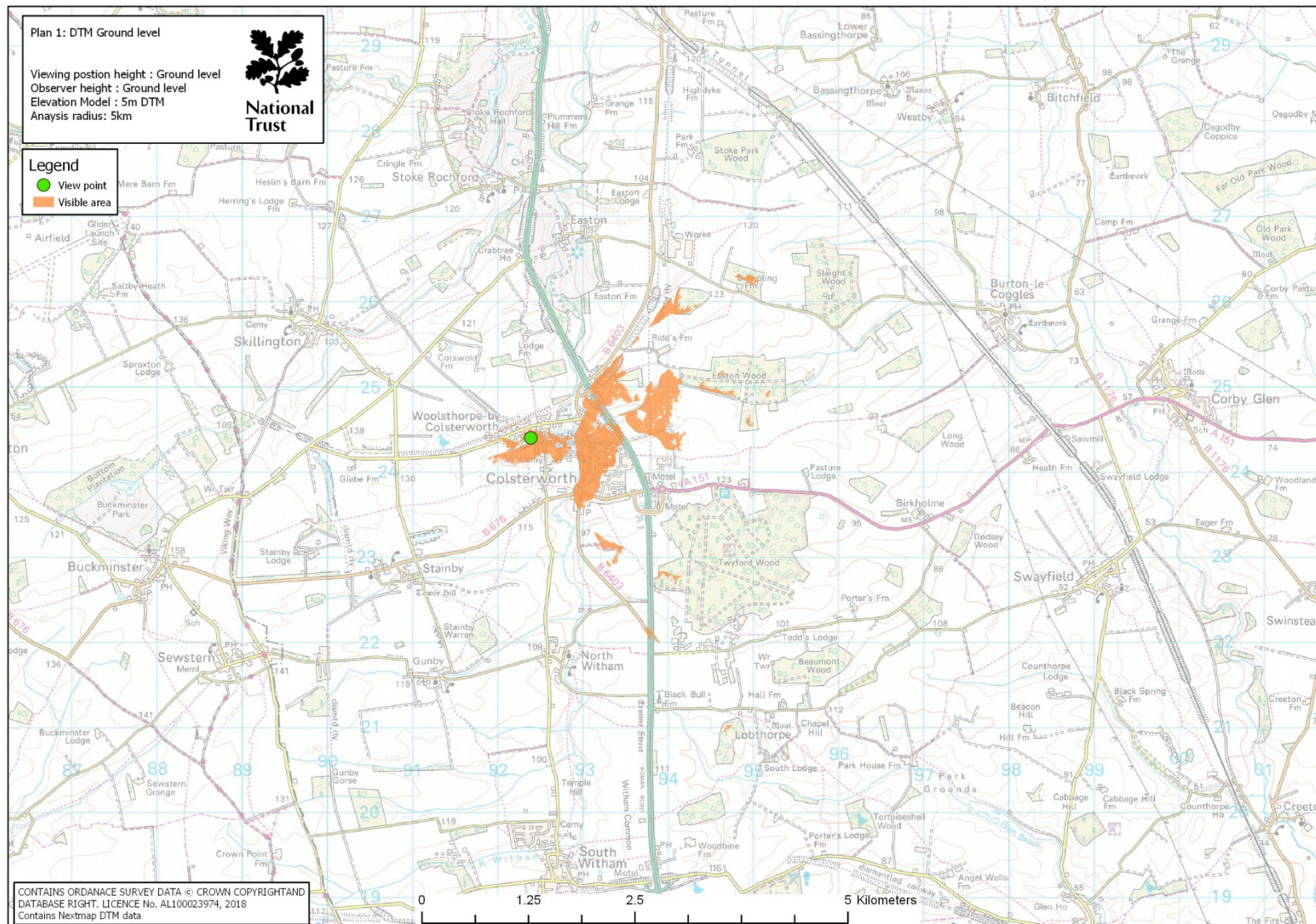
*Photo 13: View looking west across the A1 to Colsterworth.*

## 4.0 VISUAL CONTEXT

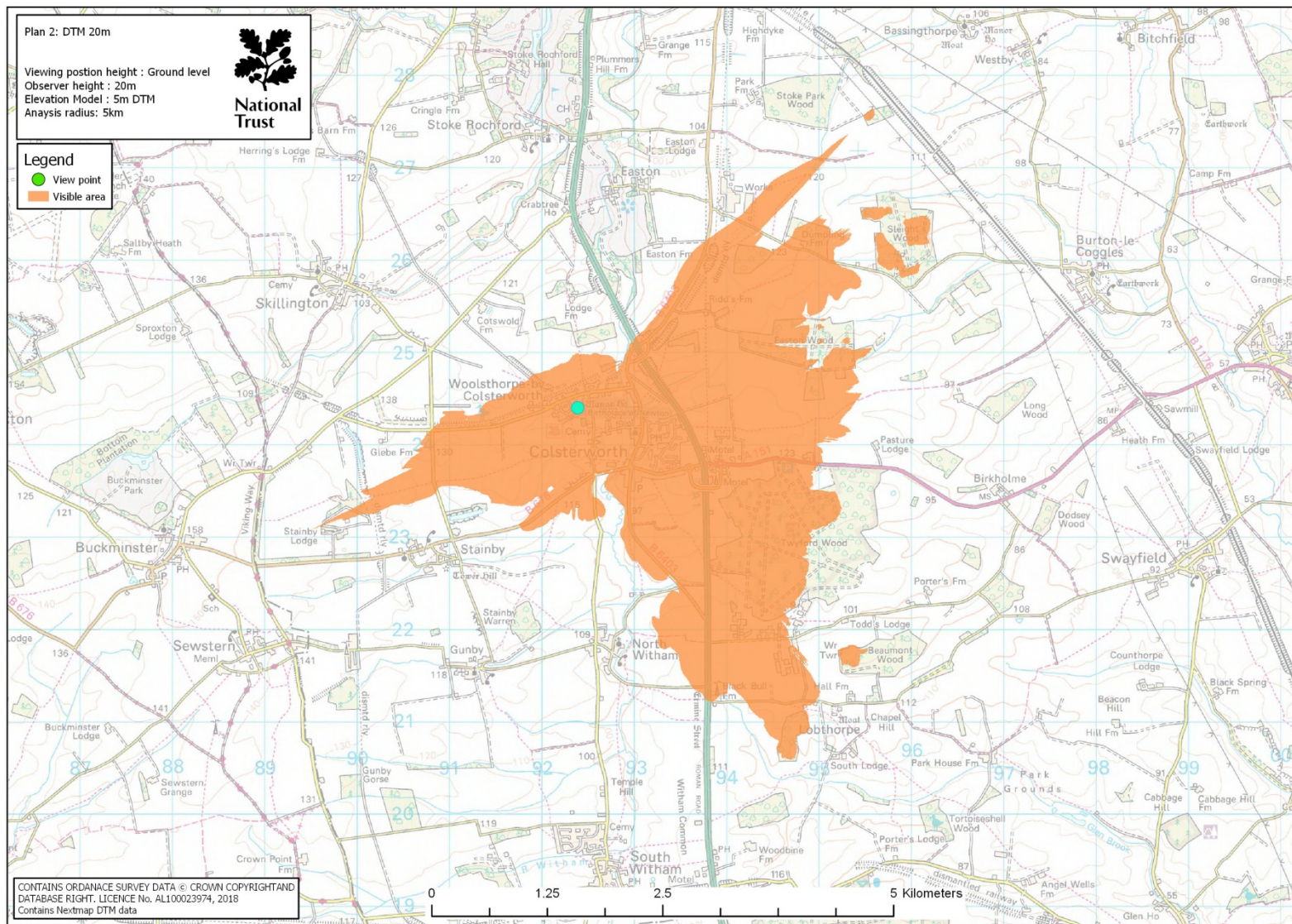
### 4.1 Extent of visibility

- 4.1.1 This section of the Setting Study describes the visual setting of Woolsthorpe Manor, i.e. the extent from which the property can be seen/ the area visible from the property. Maps 7-10 are computer-generated drawings which show the area of theoretical visibility (in orange). Two different types of drawings are shown here- Maps 7 and 8 have been created using a digital terrain model (DTM) which uses contour information only. Maps 9 and 10 have been created using a digital surface model (DSM) which also takes account of vegetation blocks and buildings. Plans are shown for ground level and roof height of the Manor House. Note that they do not take into account smaller vegetation features such as hedgerows and individual trees, and that in practise the actual visibility is likely to be much smaller than shown in these theoretical drawings. These drawings are nevertheless very helpful in identifying potential viewpoints and view extents which can then be checked on the ground through fieldwork.
- 4.1.2 The drawings show that visibility is very limited to the north of the property by an area of high land between Woolsthorpe and Stoke Rochford. Landform also restricts views southwards along the Witham Valley. The most extensive views are to/ from the east, which cover the high ridge of land to the east of the Witham Valley, beyond the A1. This area includes the line of the Roman Road (Ermine Street) which follows the ridge, and two significant blocks of woodland (Easton Wood and Twyford Wood). These features are shown on Map 6.
- 4.1.3 The following sections describe the views from the house and towards the house as they are seen in practise. As would be expected, they are less extensive than shown on the theoretical drawings.

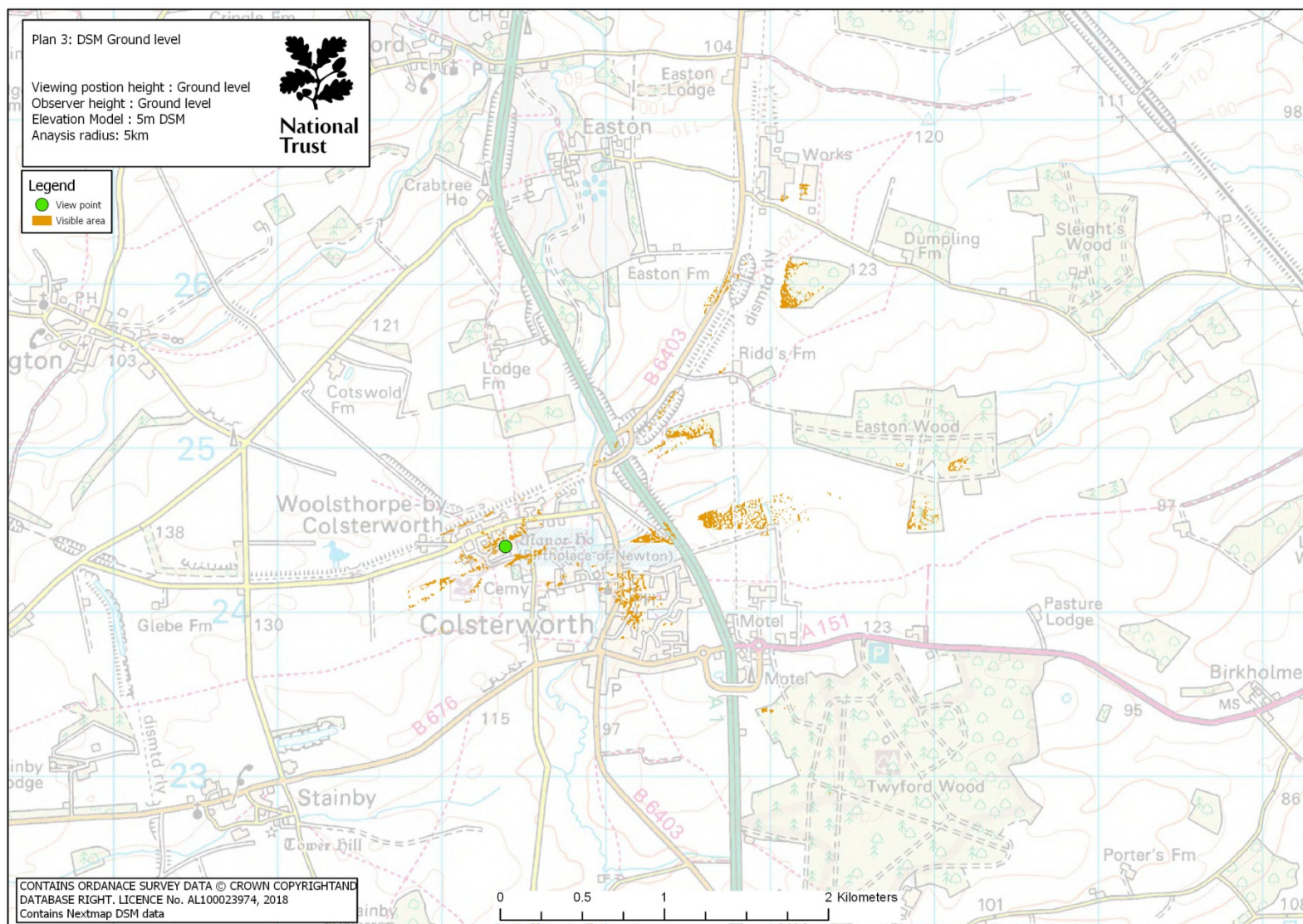




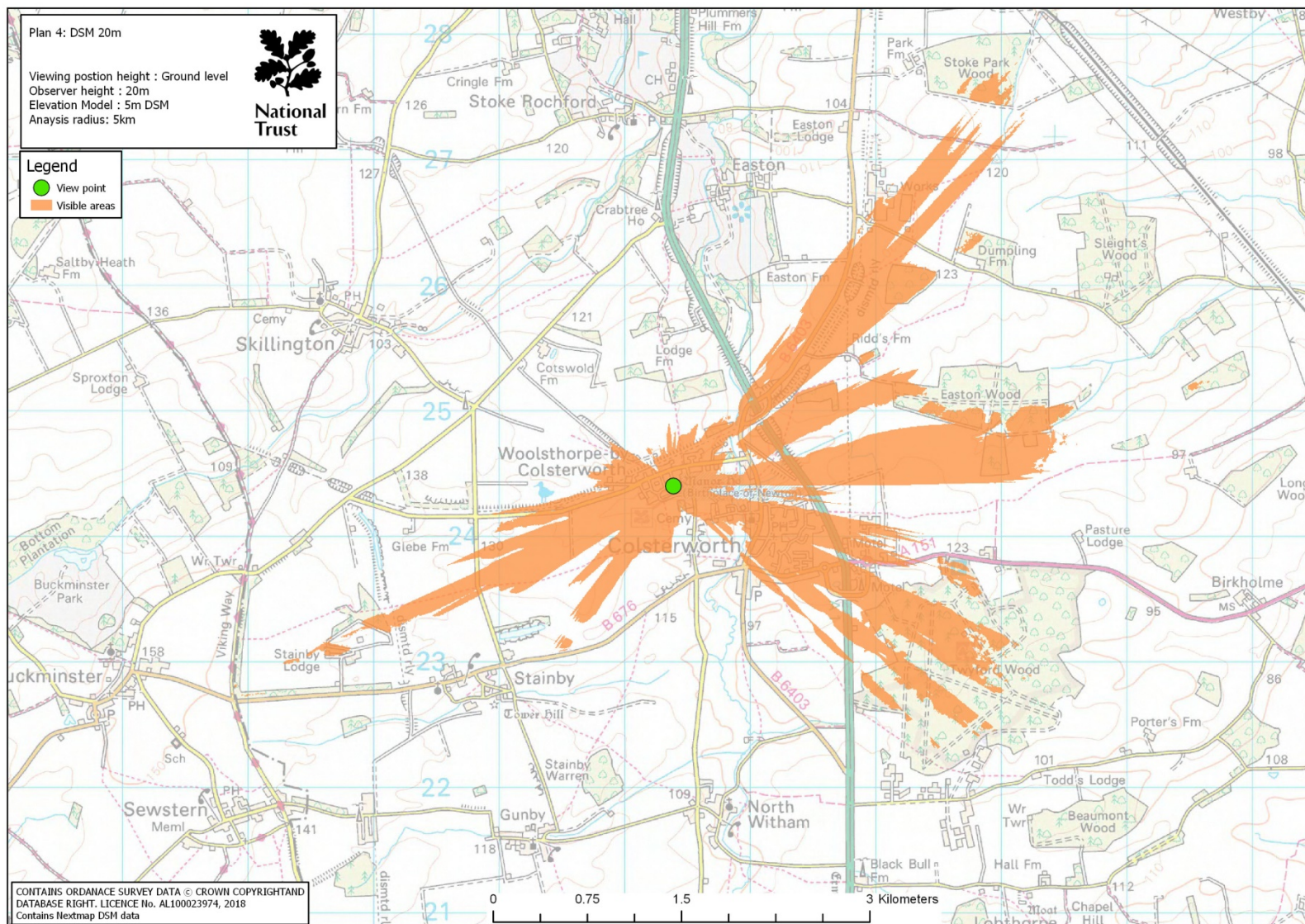
Map 7: DTM ground level (theoretically-visible area shown orange)



Map 8: DTM roof level (theoretically-visible area shown in orange)



Map 9: DSM ground level (theoretically-visible area shown orange)



Map 10: DSM roof level (theoretically-visible area shown in orange)

## 4.2 Views from the property

- 4.2.1 This section describes the views as seen by visitors to the property. The accompanying photographs are all taken from publicly-accessible windows of the Manor House, looking north, south, east and west. The views from the windows are an important part of the experience of visiting the property. They are a reminder to visitors of the world outside the Manor House, and also provide context and seasonal variety. Ideally, the views from the windows should complement the interiors of the rooms. At the least, the external views should not distract from the interiors.
- 4.2.2 As would be expected, views from the higher floors are longer than those from the lower floors. Therefore in the lower views, features such as buildings or telephone poles can appear more prominent as they are seen against a backdrop of sky, rather than land.



*Photo 14: The west-facing windows look over the orchard and Newton's apple tree. This is probably the most direct link between the contents of the house and the surroundings. It is a very short view, being blocked by the hedgerow along the orchard boundary.*



*Photo 15: The north-facing windows look over the former orchard/kitchen garden towards cottages at the southern end of Newton Way. In this summer view, leaves restrict the visibility of more modern dwellings in Newton Way, and aid the impression of being in an historic and rural settlement. The gate and path to Newton Way is also visible.*



*Photo 16: The east-facing windows have the longest views. They look over the farmyard towards Stoke Rochford Field/ Beeson's Close and Colsterworth. The wooded ridge which forms the eastern skyline is just visible. This is the longest of the publicly-accessible views from the property.*



*Photo 17: Publicly-accessible south-facing views from the property are very limited. The stable and entrance driveway can be seen in this view from the ground floor, along with fields to the south of Water Lane, and a copse beyond.*

### **4.3 Views towards the property**

4.3.1 The screening effects of landform, buildings and trees (particularly at the time of survey in summer) mean that there are limited views of Woolsthorpe Manor from surrounding roads and footpaths. The two best examples are shown below. Closer views of the property from Old Post Lane and Water Lane are described in later sections of the Setting Study.



*Photo 18: This view is taken looking west from the public footpath between The Holt and the A1. The A1 runs beyond the hedge across the centre of the picture. The roof and attic gable of Woolsthorpe Manor can be seen in the centre of the picture, with more modern housing along Woolsthorpe Road visible to the right. This is one of the very few public viewpoints from which the property can be seen and appreciated in its wider landscape context.*



*Photo 19: This photograph is taken from the footpath between Buckminster and Woolsthorpe. The chimneys of Woolsthorpe Manor can be seen above the trees in the centre of the picture. More of the house would be visible in winter. In this view, Beeson's Close and the fields south of Water Lane make important contributions to the open surroundings of the property, but it is still seen in the context of modern development in Woolsthorpe and along Woolsthorpe Road.*

## 5.0 CULTURAL AND HISTORICAL CONTEXT

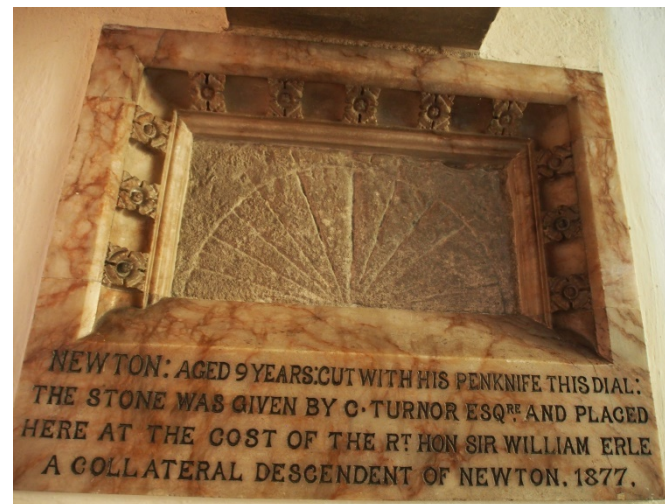
### 5.1 Cultural references beyond the site

- 5.1.1 The Woolsthorpe and Colsterworth area is full of references to Sir Isaac Newton, and in this way awareness of his importance and local connection spreads beyond the visual setting or immediate surroundings of Woolsthorpe Manor. In consequence, there is a strong local awareness of a 'cultural setting' associated with Sir Isaac Newton. This has been in existence since soon after Newton's death in 1727, when visitors began to visit the site and it became a place of pilgrimage.
- 5.1.2 The obelisk on the Stoke Rochford estate (approx. 3 miles north of Woolsthorpe) was constructed by Charles Turnor in 1847. The plaque on the obelisk reads: *IN HONOUR OF SIR ISAAC NEWTON, WHO WAS BORN AT WOOLSTHORPE, A NEIGHBOURING HAMLET, AND ACQUIRED HIS FIRST RUDIMENTARY EDUCATION IN THE PARISH OF STOKE. THIS OBELISK IS ERECTED BY CHARLES TURNOR, PREBENDARY OF LINCOLN A.D.1847. May the inhabitants of the surrounding district recollect with pride, that so great a philosopher drew his first breath in the immediate neighbourhood of this spot, and may such feeling long be perpetuated by this monument.*
- 5.1.3 Colsterworth Church also contains a display about Sir Isaac Newton, including a sundial which he created as a child and was later donated to the church. An ongoing Heritage Lottery Fund project aims to celebrate the connections between Colsterworth Church and Sir Isaac Newton through restoration of the Newton family chapel.
- 5.1.4 Throughout the area there are numerous street names dedicated to Sir Isaac Newton, including Newton Way, Apple Tree Close, Newton Court and the Newton Grange Estate, which contains road names commemorating other scientists. Portraits of Sir Isaac Newton also feature on village signs.





*Photo 20: Obelisk commemorating Sir Isaac Newton on the Stoke Rochford Estate*



*Photo 21: Sundial created by a young Newton, with commemorative plaque, in Colsterworth Church*



*Photo 22: Woolsthorpe Street Sign*



*Photo 23: Sign at entrance to Woolsthorpe village*

## 5.2 Historic images and descriptions of the setting of Woolsthorpe Manor

- 5.2.1 The earliest written description of the setting of Woolsthorpe Manor is provided by the antiquarian William Stukeley, who visited in 1721. The prospect eastwards from the Manor is still recognisable today:

*It stands in a pleasant little hollow, or convallis, on the west side of the valley of the river Witham, which rises near there: one spring whereof in this hamlet of Wulsthorp. It has a good prospect eastward, and sees the Roman road, the Hermine Street, going over the fields to the east of Colsterworth. There cannot be a finer country than this.*

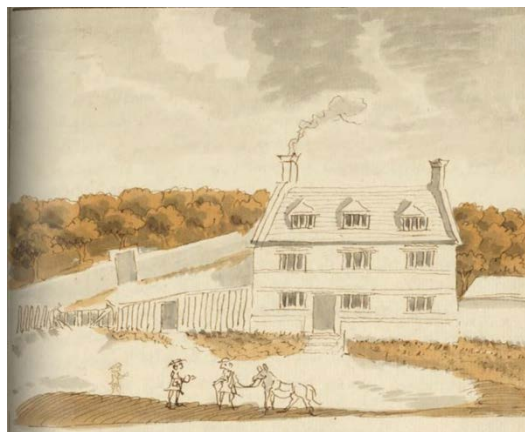
Right: View from the Woolsthorpe Manor attic looking east. The arrow marks the approximate location of the Roman road across the fields, which are partly obscured by the summer vegetation.



- 5.2.2 A slightly later description comes from Spence in 1755, who wrote: *The pretty close, with the winding stream and spring, which we passed, is called Bucely. The river Witham has its source (at a town of the same name) about two miles SW of Colsterworth: it is fed by a number of springs from Sir Isaac's hill; and meanders on... to Grantham, and goes by Lincoln and Boston to the sea. You pass close by one of these springs as you go to the house where Sir Isaac was born; with two or three ash trees and hawthorns, about the head of it.*
- 5.2.3 There are also a number of historic sketches of Woolsthorpe Manor, some of which contain useful information about its setting. However, some of these images should be treated with caution, as they were not intended to be an accurate representation and contain significant quantities of artistic licence. The *Conservation Management Plan* contains detailed analysis of the most accurate drawings which help to explain both the setting of the Manor, and the sequence of building phases in the house and farmyard. The

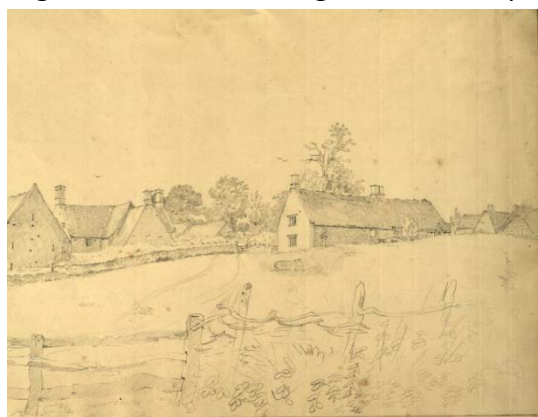
following pages contain three examples of illustrations showing the setting of Woolsthorpe Manor, together with photographs which represent as closely as possible the equivalent view as seen today. All images are reproduced with permission of the copyright holder.

5.2.4 Fig. 1: Stukeley's Drawing of Woolsthorpe Manor, October 1721 (from William Stukeley, memoirs of Sir Isaac Newton's life 1752, Royal Society archive, MS/142. © The Royal Society)



This image shows the front wall of the house, and is drawn looking east from the location of the current orchard. It shows the ground to be open in front of the house, but with access for horses, possibly along a lane which may have run past the front of the house. There are no trees shown on the site of the current orchard, but there are trees shown behind the house.

5.2.5 Fig. 2: Barrow's Drawing of Woolsthorpe Manor 2, 1797 (From J.D. Forbes scrapbook, msdep69, University of St Andrews Library)



This image shows the farmyard as seen from the footpath from Colsterworth, looking north-west across Stoke Rochford Field/Beeson's Close. In the 1797 image the end wall of the barn, and the back of the Manor House can be seen behind a wall. Hannah Smiths house (built for Newton's mother) can be seen within Stoke Rochford Field. The house platform can be seen as an earthwork today.

5.2.6 Fig. 3: *Master Isaac Newton in his garden at Woolsthorpe in the Autumn of 1665*. Robert Hannah (1812-1909) (Courtesy of the Royal Institution of Great Britain)



This is a representation of Sir Isaac Newton in the orchard at Woolsthorpe. Presumably the artist sketched the background on site, then completed the portrait in a studio. The orchard is shown in its current position to the west of the Manor House. Beyond the orchard there are glimpses of the surrounding landscape, including a windmill which is shown on 19<sup>th</sup> Century maps.

### 5.3 Historic maps showing changes to the setting of Woolsthorpe over time

- 5.3.1 Fig. 4 (1808) enclosure map from 1808 shows the subdivision of the open fields around Woolsthorpe. These open fields would have been known to Sir Isaac Newton. The areas in green were not affected by Parliamentary Enclosure, and therefore their boundaries remained unchanged. These include Stoke Rochford Field/ Beeson's Close, the field to the east of Old Post Lane, and the fields to the south of Water Lane. Note Hannah Smith's House is still extant in Stoke Rochford Field.
- 5.3.2 Fig. 5 (1824) is an extract from the 1<sup>st</sup> Edition Ordnance Survey Map, showing the wider area. The woodland blocks of Easton Wood and Witham (now Twyford) wood can be seen on the eastern ridge, and Ermine Street is marked to the north of Colsterworth. Several windmills are shown, including the one to the south of Woolsthorpe shown in the painting above.
- 5.3.3 Fig. 6 (1888) is an extract from the 12 inch Ordnance Survey Map showing Woolsthorpe. Several features lost during later quarrying can be seen, including a windmill and houses to the south of Water Lane. The footpath between Colsterworth and Woolsthorpe can be seen following its present line, and there are also some buildings along Old Post Lane (now removed). A clay pit and brick yard occupy the site of Newton Grange housing estate.

5.3.4 Fig. 7 (1950) is another 12 inch Ordnance Survey extract, showing Woolsthorpe at the height of the quarrying activities. Pits are shown on both sides of Old Post Lane and field boundaries have been removed. There are several mineral railway lines shown, and new houses and a recreation ground along Woolsthorpe Road.



Fig. 4: 1808 Enclosure map of Woolsthorpe

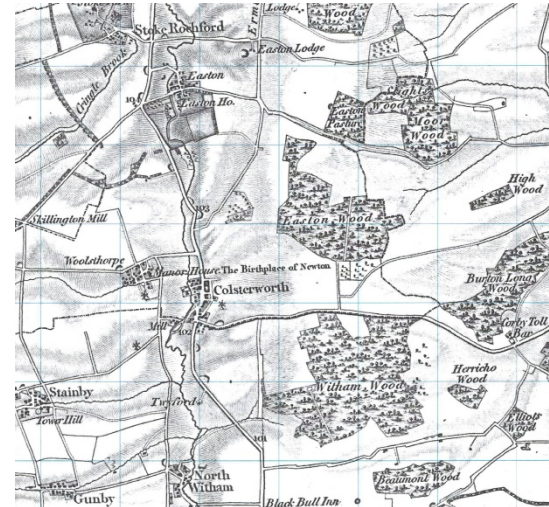


Fig. 5: 1824 First Edition Ordnance Survey map



Fig. 6: 1888 12 inch Ordnance Survey map of Woolsthorpe



Fig. 7: 1950 12 inch Ordnance Survey map of Woolsthorpe

## 6.0 LANDSCAPE AND EXPERIENTIAL CONTEXT

### 6.1 The relationship between the property and its surroundings

- 6.1.1 The Manor House is located within a sheltered valley and feels relatively enclosed, with the only long view from the property towards the east. The Manor House is not located in a dominating or prominent position within the landscape; rather, it has a functional relationship with its surroundings – a vernacular farmhouse sitting comfortably within its agricultural setting.
- 6.1.2 The rural feel continues into the wider surroundings, even though there are some suburban influences between the wider surroundings and the immediate surroundings of the property.

### 6.2 Landscape Character

6.2.1 Landscape Character Assessment is a helpful way of analysing and describing landscape. The Assessment divides the landscape into Landscape Character Areas, each of which has a distinctive sense of place. When identifying and describing Landscape Character Areas, Landscape Character Assessments take into account the physical, cultural and perceptual qualities of the landscape. In the South Kesteven Landscape Character Assessment (2007), Woolsthorpe is located within the Kesteven Uplands Character Area. Its key characteristics are as follows:

- A relatively unified, simple, medium-scale agricultural landscape, with a high proportion of historic woodland.
- Undulating landform based around the valleys of the rivers Witham and East and West Glen and the Welland to the south.
- Picturesque villages built of local limestone, with Collyweston slate roofs to the south, and pantiles to the north.
- High concentration of houses and parks, with areas of farmland under estate management.
- A dispersed, nucleated settlement pattern, mostly following the river valleys.
- Enclosed mostly by hedgerows, with hedgerow trees.
- Modern human influences include airfields and the A1 Great North Road.

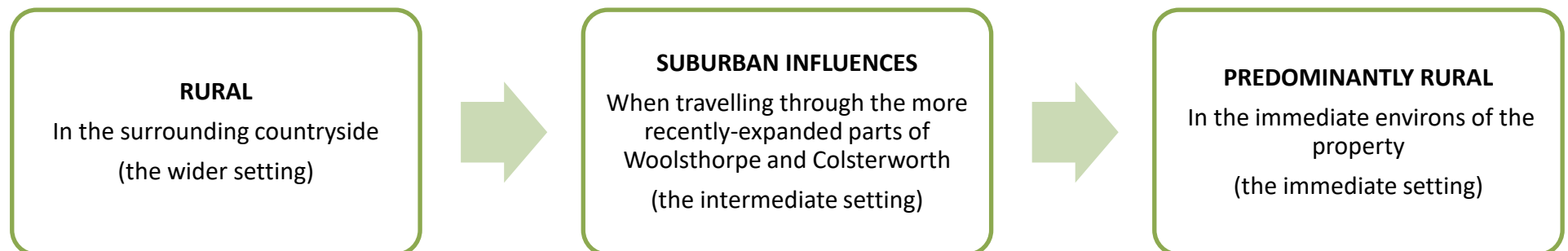
## 7.0 APPROACHING WOOLSTHORPE MANOR

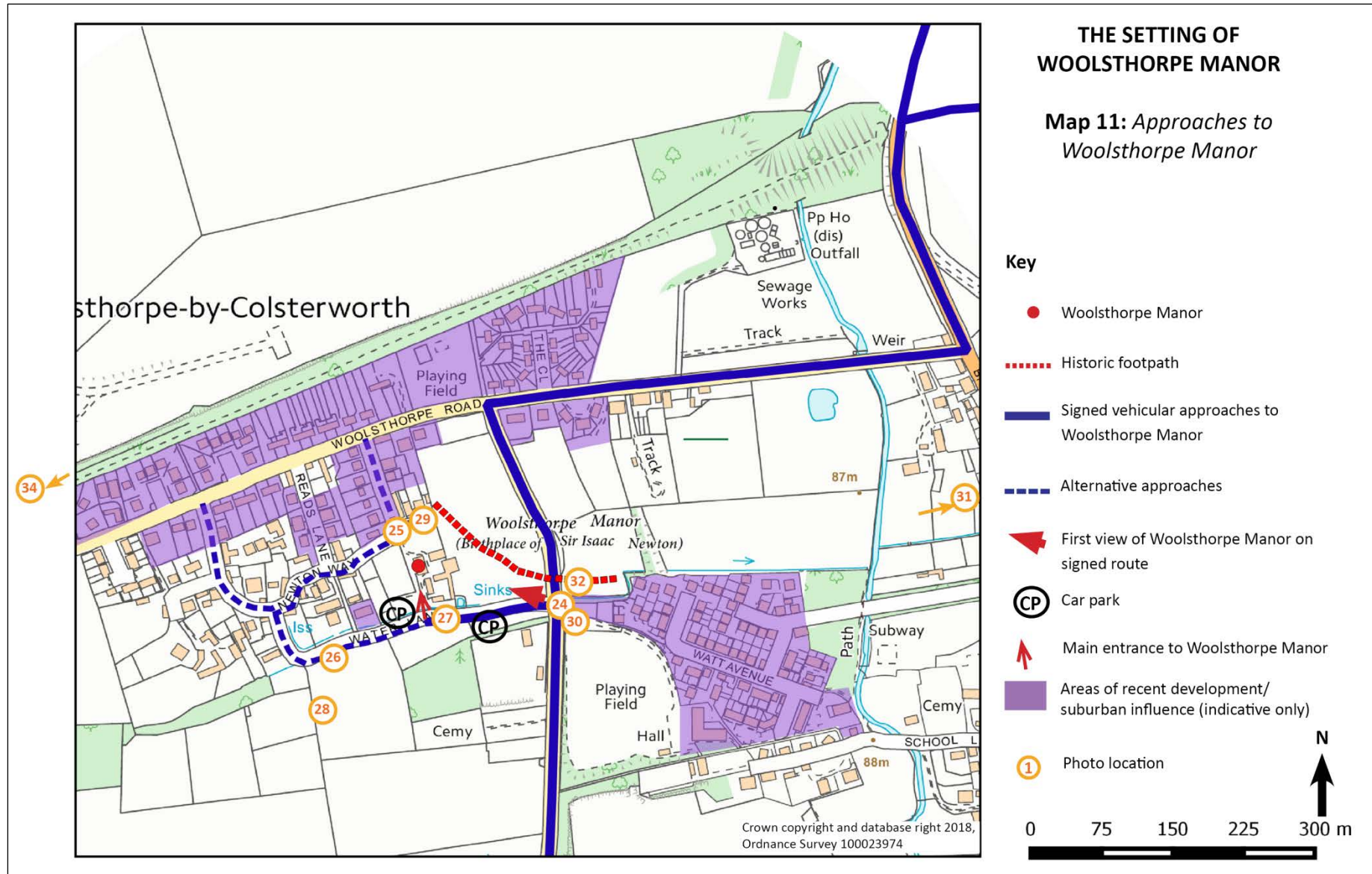
### 7.1 Approaches to Woolsthorpe Manor

- 7.1.1 The majority of visitors approach by car along signed routes from the A1 (north or south) the B676 from Melton Mowbray from the west or the A151 from the east. They are then signed along Old Post Lane, and then along Water Lane. It is at the junction of Old Post Lane and Water Lane that most visitors get their first view of the property (shown with an arrow on Map 11). In this view, the house is seen in a predominantly rural setting across Stoke Rochford Field/ Beeson's Close. Visitors then park in the main or additional car park (both accessed off Water Lane) before entering the property through the shop/ ticket office.
- 7.1.2 Other approaches to the property (particularly for visitors arriving on foot) are from the north along Newton Way, or from the west along Water Lane. If visitors approaching from the north wish to enter the property they must follow Newton Way then Water Lane to reach the main entrance.

### 7.2 The impacts of suburban-style development on approaches to Woolsthorpe Manor

- 7.2.1 From the mid-20<sup>th</sup> Century, suburban-style expansion has taken place around Woolsthorpe, which impacts on the rural feel when approaching the property. Map 11 shows approaches to Woolsthorpe Manor (historic and more recent), together with an indication of where the approaches have suburban influences. In general, the following sequence is felt when approaching the property:









*Photo 24: First view of Woolsthorpe Manor from the junction of Old Post Lane and Water Lane. It is seen in a rural context, but with some suburban influences along Woolsthorpe Road*



*Photo 25: First view of Woolsthorpe Manor approaching from the north along Newton Way. The gate is not open to the public.*



*Photo 26: Approach from the west past increasingly suburban-style properties and frontages on Water Lane*



*Photo 27: The main entrance to the property on Water Lane*

## 8.0 FORCES FOR CHANGE AFFECTING THE SETTING OF WOOLSTHORPE MANOR

### 8.1 Types of forces for change

8.1.1 There are a number of issues causing changes to the setting of Woolsthorpe Manor. The changes may be large scale (e.g. a new industrial building) or small scale (e.g. changes to a garden wall). They may occur in a single phase (such as a new house) or be incremental (e.g. gradual loss/replacement of traditional property boundaries). The changes could be natural (e.g. tree loss due to disease) or man-made (e.g. street light columns). This section describes the forces for change which are already apparent in the setting of Woolsthorpe Manor, and those which may occur in the future. Section 9.0 presents a series of measures to address the impacts of the forces for change, and section 10.0 describes a series of monitoring viewpoints from where the changes and the measures to address them can be observed and recorded.

### 8.2 Examples of existing forces for change

8.2.1 **Ribbon and infill development** has occurred around Woolsthorpe and Colsterworth since the Mid-20<sup>th</sup> Century. This has created a sense of suburbanisation when approaching Woolsthorpe Manor (as described in Section 6.0). It also has direct impacts on the immediate setting of Woolsthorpe Manor. The greatest impact is from the houses and bungalows on both sides of Woolsthorpe Road to the east and west of the junction with Old Post Lane. These properties affect the immediate setting of the Manor when it is seen across Stoke Rochford Field/ Beeson's close. This is a key view when arriving at Woolsthorpe Manor. It is also a view recorded in historic sketches, and which would have been experienced by Newton as he walked from Colsterworth to Woolsthorpe. The properties along Woolsthorpe Road are also visible in views from Woolsthorpe Manor. Their modern style detracts from the overall historic character of the immediate setting. They are not fully screened by vegetation in high summer, and in winter they are even more apparent.

8.2.2 **Larger scale development** has also occurred in recent years. This includes the Newton Grange housing estate between Woolsthorpe and Colsterworth, which can be seen from Woolsthorpe Manor and the footpath across Stoke Rochford Field/ Beeson's Close. It is partially screened by trees in summer, but more apparent in winter. Large scale industrial development includes the Easton Cold Store on the ridge top north-east of Colsterworth. It is not currently visible from Woolsthorpe Manor (at least in summer), but can be seen on the horizon in views towards Woolsthorpe Manor from the footpath south of Woolsthorpe.

- 8.2.3 **Vertical features** are apparent in the immediate setting of Woolsthorpe Manor. These include the poles carrying overhead lines across Stoke Rochford Field/ Beeson's Close and the new street lighting column on the corner of Old Post Lane/ Water Lane. These features appear incongruous and detract from views of the property, and also views from it.
- 8.2.4 Small-scale incremental changes to **property boundaries** in the vicinity of Woolsthorpe Manor also impact on its setting. Although they are small details they affect the historic character of the setting and approaches to the property. Examples include the concrete garden wall along the northern edge of the orchard (which replaced a stone wall visible in old photographs), and the suburban-style garden landscaping of properties along Water Lane.
- 8.2.5 Night-time impacts on the setting include **light pollution** from nearby settlements and the A1. **Traffic noise** from the A1 can form a non-visible impact on the setting (depending on wind direction).



*Photo 28: View from footpath showing Woolsthorpe Manor, linear suburban development, and Easton Cold Store on horizon (marked with arrow)*



*Photo 29: Concrete wall of orchard*



*Photo 30: Street light column, overhead wires and poles and modern properties along Woolsthorpe Road, seen in view of Woolsthorpe Manor from junction of Old Post Lane & Water Lane*

### 8.3 Examples of potential forces for change

- 8.3.1 Development pressure continues within Woolsthorpe and Colsterworth. The level of impact of any future development on the setting of Woolsthorpe Manor will depend on the development's location, design and the effectiveness of its screening. New development has the potential to appear in views from the property, affect views of the property, or to increase the sense of suburbanisation on approaches to the property. It could also destroy the surviving historic fields which provide the open rural context of the property, and which survive from Newton's time. These fields also contribute to the gap between the settlements of Woolsthorpe and Colsterworth.
- 8.3.2 New features on horizons have the potential to impact on skylines within the setting. Any structures on the ridge-tops which contribute to the setting would be particularly apparent in views from the property, and also in views of the property in its wider landscape setting. Examples of structures which could appear on prominent ridgelines are mobile communications masts and wind turbines. The expansion of Easton Cold Store could also increase its impact on the setting of Woolsthorpe Manor.
- 8.3.3 Land-use change could also impact on the rural context of Woolsthorpe Manor, particularly on the ridge to the east which forms the long view east from the Manor (as described by Stukeley in 1721). Changes in land use from the existing fields to – for example - a solar farm would impact on the rural context and undeveloped ridge which forms the wider setting of the property.
- 8.3.4 Tree loss due to disease and/ or climate change may impact on the setting in the future, by changing the structure of the landscape (e.g. through loss of hedgerow trees and woodlands) and also through the loss of screening vegetation. Ash trees are currently very vulnerable to ash dieback disease (*Chalara fraxinea*), which is likely to spread throughout the UK in the next decade. Other species including oak and horse chestnut trees are currently vulnerable to tree disease. Climate change is likely to result in warmer, wetter winters and hotter, drier summers, as well as an increase in the frequency and intensity of storms. This is likely to impact on trees, particularly those such as beech with relatively shallow root systems. The changing climate will also enable different pests to survive here.



*Photo 31: Development continues in the Colsterworth area*



*Photo 32: Footpath across field to the east of Old Post Lane, which was not affected by Parliamentary enclosure. The Newton Grange housing estate is on the right of the picture.*



*Photo 33: View east from Woolsthorpe Manor towards the Roman road along the ridge top*



*Photo 34: Ash trees with some dead branches along the Woolsthorpe Line Nature Reserve*

## **9.0 RECOMMENDATIONS TO PRO-ACTIVELY PROTECT AND ENHANCE THE SETTING OF WOOLSTHORPE MANOR**

### **9.1 Protecting the immediate setting and historic rural context**

9.1.1 In order to retain the open, historic and rural character of the property it is necessary to protect the following parts of the setting from development:

- Stoke Rochford Field/ Beeson's Close
- The fields to the south of Water Lane
- The field to the east of Old Post Lane (currently protected by Policy 3 of Neighbourhood Plan)

This will protect views of the property and from the property. It will also help retain the remnant historic field systems which have survived since Newton's day.

### **9.2 Avoiding further suburbanisation on the approaches to the property**

9.2.1 Work closely with the Local Planning Authority and Parish Council to ensure that any further developments around Woolsthorpe or Colsterworth are sited, designed and screened in such a way that they do not extend areas of suburban influence on the main approaches to the property. These approaches may be by road (Woolsthorpe Road/ Old Post Lane/ Water Lane) or by footpath (from Colsterworth).

9.2.2 Work with designers and the Highways Agency to minimise light pollution from streetlights and signage associated with any new developments, or lighting schemes within existing settlements or roads.

### **9.3 Protecting the wider eastern setting to the property**

- 9.3.1 Resist land use change (such as solar farm development) which would impact on the existing rural, agricultural character of the ridge to the east of the Witham Valley (around the line of the Roman Road).
- 9.3.2 Resist new structures such as telecommunication masts or pylons which would appear on the horizon when viewed from the property.
- 9.3.3 Work with the Local Planning Authority and Parish Council to ensure that any future expansion of Easton Cold Store is well designed and screened to minimise its impact in views from Woolsthorpe Manor, or in views where it would be seen in conjunction with the Manor. Screening may require new woodland planting.

### **9.4 Practical tasks**

- 9.4.1 The following measures will make immediate improvements to the setting of Woolsthorpe Manor in terms of views to and from the property, and will enhance the visitor experience.
  - Replace the concrete wall along the north side of the orchard with a local stone wall with brick or tile coping.
  - Consider removal of the wood/ asbestos barn, or its replacement with an alternative structure with more sympathetic roofing materials.
  - Underground the wires across Stoke Rochford Field/ Beeson's Close (in trenches along Old Post Lane/ Woolsthorpe Road in order to minimise impact on buried archaeology) and remove the poles.
  - Move the street lighting columns along Water Lane to the south side of the road, where they will be less intrusive in key views of the property.
  - Plant occasional trees along the northern and eastern boundaries of Stoke Rochford Field/ Beeson's Close to filter views of ribbon development along Woolsthorpe Road.
  - Work with the landowner to plant a new native hedgerow/ tree row which will replace the line of pine trees behind the car park when they reach maturity.
  - Encourage visitors to walk the footpath through the surviving historic fields to Colsterworth Church.

## 10.0 MONITORING VIEWPOINTS

These six viewpoints have been selected to represent different parts of the setting, as well as a range of directions, and distances from the property. They were agreed on site with members of the project steering groups and wider stakeholders, and are intended to form a baseline from which changes within the setting can be measured. They can be used to record the processes of change within the setting, and also the effectiveness and progress of the recommendations to protect and enhance the setting. It is recommended that the viewpoints are photographed and recorded annually. Their locations are shown on Map 12.

### **Monitoring Point 1: East wing attic window of Woolsthorpe Manor**

Shows ridge on eastern side of Witham Valley (around the line of the Roman road), which forms the horizon in views from the property

Arc of view: north-east to south-east





**Monitoring Point 2: Orchard**

Shows the adjacent properties along Newton Way, Stoke Rochford Field/ Beeson's Close, Woolsthorpe Manor, Newton's Apple Tree; orchard.

Arc of view: east to south

Grid reference: SK92383 24410



**Monitoring Point 3: Site of Hannah Smith's House, Stoke Rochford Field/ Beeson's Close**

Shows properties along Woolsthorpe Road; Old Post Lane; Stoke Rochford Field; Woolsthorpe Manor; orchard

Arc of view: east to south

Grid reference SK92431 24459



**Monitoring Point 4: Old Post Lane/ Footpath junction**

Shows Fields to south of Water Lane; Woolsthorpe Manor and farm buildings; Stoke Rochford Field/ Beeson's Close; properties along Woolsthorpe Road; hedge along Old Post Lane

Arc of view: west to north                  Grid reference: SK92547 24390



**Monitoring Point 5: Car park along Water Lane**

Shows fields to south of Water Lane; Woolsthorpe Manor and farm buildings; Stoke Rochford Field/ Beeson's Close; Water Lane; Car park

Arc of view: west to north-east                  Grid reference: SK92547 24390



**Monitoring Point 6: Footpath between The Holt and the A1 (near line of Roman Road)**

Shows Colsterworth village and church tower; the A1; west side of Witham Valley; Stainby church spire; Woolsthorpe Manor; planting along A1; Woolsthorpe

Direction of view: South-west to north-west

Grid Reference SK93395 24900



