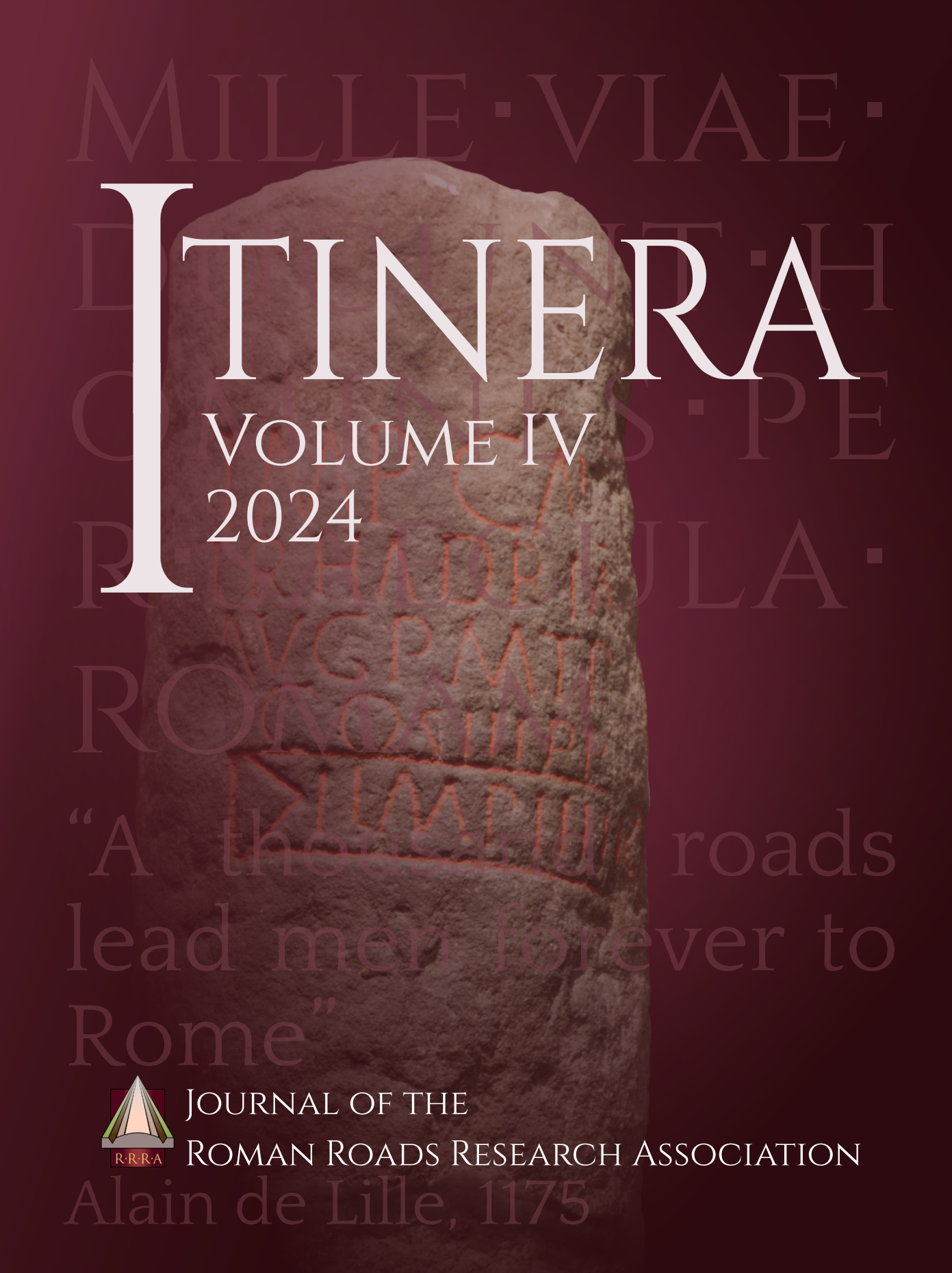


ITINERA

Volume IV
2024

"A thousand roads lead men forever to Rome"

Alain de Lille, 1175

Journal of the
Roman Roads Research Association

ITINERA

THE JOURNAL OF THE
ROMAN ROADS RESEARCH ASSOCIATION

VOLUME IV, 2024

Published by the Roman Roads Research Association



ITINERA
VOLUME IV

Published by the Roman Roads Research Association
Ellerbeck Cottage, Ellerbeck, Northallerton, North Yorkshire, UK. DL6 2RY
A charity registered in England and Wales No. 1163854

ISSN 2635-1579 (print)
ISSN 2635-1578 (online pdf)
ISBN 978-1-8383918-3-6

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About the Association

by Mike Haken



The late Hugh Toller and I founded the Roman Roads Research Association to provide a focal point for what we thought was a fairly small group of individuals with an interest in the study of Roman roads and connectivity throughout the former Roman province of Britannia. I'm not sure that Hugh, who sadly died in 2016, could have imagined that at the end of April 2024 we would have an international membership totalling 556, a figure that continues to grow. We are a very broad church, ranging from those with just a general interest in the Roman period, through to professional archaeologists from both commercial and academic sectors, not forgetting those those like myself who have had a lifelong passion for the subject (some might say obsession!). The Association welcomes all new members, whatever their background.

The continuing growth in membership may well have been fuelled, at least in part, by some of the things we have achieved. For example, we have just concluded the fourth season of our online lecture series, which we launched in 2021 during the pandemic. As part of our key policy of ensuring that our work is always made as accessible as possible, our talks are open to everyone, are always free of charge, and regularly attract audiences of 200 people or more from across the world. Another excellent programme for our fifth season is being prepared by our Secretary, Dave Armstrong, and details will be released soon. You can catch up with previous seasons on our YouTube channel.

Since 2018, we have conducted over 200 Ha of geophysical survey with our own gradiometer cart, accurately identifying the course of many roads and examining Roman period sites along them. Our most recent survey, assisted by a group of local volunteers from Southwell (SCAG), was near East Stoke (*Ad Pontem*) in Nottinghamshire. This confirmed the location of the junction of RR59(x) from Ancaster with the Fosse Way, making the existence of RR59(x) now beyond dispute. We always welcome suggestions for other potential survey sites, no matter where in the country they might be.

Above all, however, our greatest achievement is *Itinera*, the only journal in the world dedicated to the study of Roman roads and transportation infrastructure. Published entirely in house by our large team of volunteers, we are proud that our standards are as high as most academic publishing houses. Indeed, As Rob Entwistle points out in the following Editorial, it is a measure of our growing credibility that *Britannia*, a journal of the Roman Society, guides authors of reports on Roman roads that would have previously been published in *Britannia* towards *Itinera* instead.

Looking forwards, the wealth of new research and discoveries that have been reported by *Itinera* have, if nothing else, highlighted the urgent need for an accurate map that reflects the true state of knowledge of the Roman road network in Britain, and the sites it served, since the national maps that do exist are either decades out of date or simply inaccurate and misleading. To rectify this situation we will soon be recruiting volunteers to assist with a nationwide project which aims to accurately redraw the map. In line with our Open Access policy, the results will all be made freely available.

Finally, I am sure that our enthusiastic membership will enable us to continue to expand and develop our activities, ensuring that the next decade is even more productive than our first decade has been.

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ITINERA IV, 2024
Journal of the Roman Roads Research Association
Web page: www.romanroads.org/itinera.html

Editorial

Robert Entwistle



The late Hugh Toller, co-founder of the RRRA with Mike Haken, was sadly lost to Roman road research when the Association was only a year old. Earlier I had become aware of his work through his part in identifying the long-sought line of the Lune valley Roman road out of Lancaster, my native town. Identifying it through Lidar and on foot, he followed its route up and over Lancaster Ridge towards Caton and the southern flank of the Lune valley.

It is therefore a pleasure to see David Ratledge's contribution to this volume of *Itinera*, a memorial to Hugh's work in the Exeter region, developed in the light of further studies. It is appropriate that this same volume contains a significant paper by Mike Haken identifying *viae vicinales* in the north-east Midlands which perhaps should no longer be regarded as somehow 'lesser' or 'minor'.

Itinera has a record of examining different aspects of Roman road studies, not necessarily restricted to our corner of the Roman empire. The 2024 volume sees a new contribution from the Spanish archaeologist and presenter, Isaac Moreno Gallo: the first publication in English of his work analysing road construction methods and transport development. His trenchant views provide a counterbalance to other accounts, reminding us that the evidence of the trowel is always subject to interpretation.

A new departure for this volume is the incorporation of a 'Focus' section with multiple papers exploring a single theme. The subject is the Devil's Causeway – a road which branches off Dere Street just north of Hadrian's Wall to head (via Learchild fort) determinedly towards modern-day Berwick and the mouth of the Tweed – where no Roman site is known. This theme originated in a 2023 conference held in Berwick-upon-Tweed and coordinated by Dr Lindsay Allason-Jones and the Border Archaeology Society with support from the RRRA, exploring the riddle of the road. Expert presentations have been developed into these papers. We would be happy to repeat, in future volumes, similar suites of papers focused upon a single theme or aspect: suggestions for themes and contributors would be welcomed by the Editor.

As always, this volume treats different geographical parts of Britannia, ranging from the south-west (Exeter) to the north-east (Berwick). Paul Booth explores aspects of the Roman road network in the Oxford area, Mike Holmes considers issues around the River Glynde in East Sussex, and Nigel Rothwell examines the possibilities for a Thames crossing linking St Albans and Silchester.

In a full volume, however, we regret the lack of papers on Wales and Scotland, even though these countries are represented in our annual round-up across Britain. Potential contributors suggesting interesting papers on these areas of would find us warmly receptive. *Itinera* continues to welcome every submission from contributors established or new, and if necessary, will endeavour to advise authors where further work is needed for key improvements. A short proposal to the Editor of what is intended, before making a full submission, is often helpful.

Editorial

We take pride in a professional standard of production maintained entirely through the work of volunteers: our editorial board (Mike Haken, Dave Armstrong, Mike Bishop and Paul Booth, all of whom contribute endless hours to the production of each volume); our academic advisor (Pete Wilson); our index compiler (Chester Forster); and postmaster (Chris Webb). Without the dedicated work of the whole team Roman studies would be the poorer.

We are greatly heartened by the respected position that *Itinera* has achieved in the short period of its existence. The long-established journal, Britannia, acknowledges this in specifying that submissions on Roman roads for their annual update section should be limited to brief summaries of the main points of interest if accounts are also published in *Itinera*, with our journal cited for those fuller reports.

An important part of our role, alongside publicising research, is (through the RRRA) the regulation and classification of new discoveries, as Margary's original system of nomenclature strains to adapt to an expanding known road network. This volume therefore contains a list of newly attributed numbers and a proposal from Mike Haken on the classification of non-standard Roman roads.

This year we have taken the decision to slightly reduce the font size to bring *Itinera* more into line with other similar journals and to control printing costs. Even so, readers will find that 2024 marks a bumper issue: the largest volume we have yet produced.

We trust that RRRA members and all readers will enjoy and profit from this 2024 volume of *Itinera*.

Robert Entwistle

(Hon Editor, *Itinera)*

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ITINERA IV (2024), 175-218
Journal of the Roman Roads Research Association
Web page: www.romanroads.org/itinera.html
Itinera (print): ISSN 2635-1579
Itinera (online pdf): ISSN 2635-1587

Viae Vicinales in the Northeast Midlands

by Mike Haken
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Abstract

This paper presents the results of a study which reassessed Roman roads in part of the northeast Midlands, primarily in Lincolnshire and eastern Leicestershire. Its purpose is not to merely create a revised and accurate map of the road network in that region but primarily to assess whether some commonly held perceptions about Roman roads and who built and maintained them are actually correct. In particular, it will attempt to identify the viae vicinales, the local roads, and in so doing challenges the way scholars in Britain have tended to regard all the straight and engineered Roman roads as being a single homogeneous network. The results suggest that the picture is probably much more complex, and if analysed in a different way is one that can potentially reveal much about the administration of Roman Britain.

Abbreviations used in the text

CIL : Corpus Inscriptionum Latinorum

CTh.: Codex Theodosianus

dig.: Digest of Justinian

Liv.: Titus Livius (Livy), History of Rome

PAS: Portable Antiquities Scheme

RIB: Roman Inscriptions of Britain

Introduction

When we use the term "Roman road", what exactly do we mean? Whilst readers of this journal may have a slightly more nuanced view than others, it remains likely that 'Roman road' conjures an image of an engineered and surveyed road built in straight lengths on a cambered agger with at least one pair of ditches. This acceptance of a common morphology is fairly universal, although many scholars have acknowledged the probability that some Roman roads are versions of Late Iron Age roads and trackways and therefore do not always display the expected regularity of planning and straight construction (e.g. Margary 1973, 18-19). Indeed, whilst accepting the notion of

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a common morphology, Margary's numbering system did of course attempt to rank roads in order of perceived importance, with main routes, principal branches and minor branches (1973, 32-3), although it must be said that his ranking is entirely subjective without taking into account potential differences in function, legal status, or administrating body. In any case, it is unlikely to accurately reflect any perceptions of relative importance that existed two millennia ago, if indeed any really did exist.

When it comes to considering who built, maintained and used these roads, M.C. Bishop's view that "By and large, roads were built by the army, maintained by civil authorities, and used by everybody" (2014, 45), is a brief but eloquent summary of received wisdom. Whilst they may have started life as military roads (*viae militares*), there is a general assumption amongst scholars, usually implicit but occasional explicit (e.g. Kolb 2019) that all Roman roads, including *viae militares*, were regarded as public (*viae publicae*). Whilst it has always been recognised that there was a further network of roads and tracks beyond the *viae publicae* which served local needs, i.e. the *viae vicinales*, which were also public (Ulpian, Sabinus bk.33, dig. 43.7.3), these have generally been assumed to have been secondary, in terms of their planning, construction, and significance.

There is, therefore, a perceived homogeneity both of morphology and legal status, which is well represented by the maps with which we are so familiar; those of Codrington (1903), Margary (1973) and the Ordnance Survey (2016), such maps presenting all Roman roads as the same. It could be argued that this perception of homogeneity has had a divisive effect, with those roads assumed to be *viae publicae* being represented as true Roman roads, and all others as less important, something 'else' and variously described as local, secondary, tertiary, minor, indigenous or Romanised prehistoric tracks.

In recent years though, a few studies have been published that emphasise the importance of local networks (e.g. Knott 2021; Rothwell and Peveler 2023; Holmes, this volume), and could be seen to begin to challenge the received wisdom of a primary and superior network of engineered Roman roads based on former *viae militares* dominating rather crude local networks of trackways. Indeed, it has been suggested that we may be seeing, at least in some parts of Britain, a unified system which integrated pre-existing late Iron Age routeways (some formalised into roads, some not), Roman campaign and military roads which became *viae publicae*, and those roads built later in an entirely civilian context to support and connect nucleated settlements, not necessarily just major towns (e.g. Parcero-Oubina et al., 2023).

In the new model, it is suggested that local roads (*viae vicinales*) may have played as important a role as those roads perceived today as principal or major, and some may well have been constructed to the same standards as a 'typical' *via publica*, although perhaps with less traffic.

This leaves us with two important questions about the Roman road network as we usually perceive it.

1. Are all the roads currently simply described as 'Roman roads' actually *viae publicae*, or could some be *viae vicinales*?
2. Do all public roads of the Roman period, particularly *viae vicinales*, actually comply with the 'accepted' notion of a common morphology?

In order to attempt to find answers, a study area was sought which was controlled by the Roman army for a short time in the early years of occupation, before a civil administration was imposed. It was also necessary that both the road network and the distribution of Roman period settlement be reasonably

well understood. For ease of mapping, a rectangular area was selected which is mainly the eastern part of the territory of the Corieltauvi; in modern terms Lincolnshire and eastern Leicestershire, with small parts of Nottinghamshire, Northamptonshire and South Yorkshire. Roads that extend beyond the rectangular study area were not considered in the study

The Roman Understanding of Different Types of Road

Clearly though, in order to conduct a study designed to identify potential v*iae vicinales*, we must first understand what that term may have meant to Rome and how Rome's understanding of the various different classes of road, *viae militares, viae publicae, viae vicinales* and *viae privatae/agrariae* relates to the modern perceptions of homogeneity. To do this, we need to go back to the surviving sources, in order to understand how roads were perceived, classified, and administered.

With regard to the modern notion of morphology helping to define a Roman road, there is no evidence at all to suggest that the same was true in the Roman world. Indeed, constructional methods are not mentioned once in any of the juridical works that survive, other than references to road surfacing. Despite this, several modern works suggest, perhaps unintentionally, that there was some sort of classification of roads according to their type of surface (e.g. Laurence 1999, 67; Staccioli 2003, 105-6, van Tilburg 2007, 15; Rodriguez Morales 2010, 119), specifically *viae terrenae* (earth roads), *viae glarea stratae* (roads surfaced with gravel) and *viae silice stratae* (roads surfaced with stone). In reality, the original source had no intention of giving this impression, he was merely stipulating that whatever material was used to surface a road must also be used for its repair (Ulpian, Edict Book 68, *dig.* 43.11.1). Roman law applied equally to all *viae publicae*, with no distinctions made according to a road's perceived importance or its mode of construction or surfacing. Despite that fact, some writers (e.g. Martinez 2018) have taken this further, observing that only *viae glarea stratae* and *viae silice stratae* were what most scholars consider Roman roads today, which is generally true. There is, however, nothing in surviving juridical works that suggests a *via terrana*, an earth or surface road, could not also be a *via publica*. The real question is whether or not that was ever the case? In Britannia at least, it probably was, since we have occasional archaeological evidence for unmetalled roads beneath fully engineered Roman roads for example the road heading southwest from Richborough, Kent (Hicks, 1998), suggesting that roads may have existed as temporary *viae terranae* until such a time as they could be constructed. John Poulter has observed lapses in time of up to 30 years between the initial long-distance planning and the actual construction of Dere Street (2010, 45-6), yet it is inconceivable that such a strategically important route would have remained unused in the interim. A temporary *via terrana*, which would presumably have incorporated pre-existing trackways in places, would leave little trace in the archaeological record.

All this is not to say that roads weren't classified, they certainly were, although this was primarily to determine the responsibilities of repair and maintenance, and to an extent the rights to use them. It is well understood that Roman law recognised four main categories of road; *viae militares*, *viae publicae*, *viae vicinales* and *viae privatae* attested by two primary sources; the 2nd century jurist Ulpian (Edict *dig.* 43.8.2.22), and the land surveyor Siculus Flaccus (*Corpus Agrimensorum Romanorum*).

Viae militares and viae publicae

The difference between *viae militares* and *viae publicae* is not exactly clear. It is generally accepted that military roads were public (Chevallier 1976, 65; Bishop 2014, 45), although this belief is challenged by a letter from Constantine (in AD326) to the Praetorian Prefect Acindynus. The letter suggests, quite

surprisingly, that even the *cursus publicus* may not have been allowed to use military roads without a permit, at least not in the 4th century. The letter grants Acindynus permission when using the cursus publicus to move from a public road to a military road, even though he had no permit in place for the latter (*CTh.* 8.5.3.2). Perhaps, therefore, it may be more accurate to say that roads became public once the military had passed responsibility on to a civil administration. In Britannia, especially in the north and in Wales, it is likely that that the main roads were originally built primarily for military use. Whilst a few may have remained *viae militares* throughout much of the Roman period (e.g. the Military Way, RR86), most are thought to have become *viae publicae* quite quickly, and open to use by all. Ulpian makes it clear that '...military roads terminate at the seashore, in cities, public rivers, or another military road.' (Sabinus Bk.33 *dig.* 43.7.3), giving the clear impression that they were perceived as part of a long-distance network, as, by extension, public roads would have been.

Beyond Rome, the responsibility for maintaining *viae publicae* seems to have fallen to the towns and cities, most commonly the *civitas*; more specifically the *ordo* (town council) of each *civitas* centre. In Britain we have only scraps of evidence for this, provided by milestones; for example the stone dedicated to Severus Alexander (AD222-223) found in Langwathby, Cumbria in 1993, whose inscription ends .... C(ivitas) CAR(vetiorvm) LVG(vvalio) M(ilia) P(assvvm) - '...the Civitas of the Carvetii (set this up), from Carlisle 19 miles' (Edwards and Shotter 2005; RIB3526). As far as we know, the town councils of *municipi*a and *coloniae*, despite being towns of higher status, were only responsible for the roads within their respective territories, although if the city laws of Urso in Spain were similar to those of all *coloniae* and *municipia*, all roads and paths within their *territorium* were public; 'Respecting public roads and footpaths within the boundaries assigned to the colony, all such thoroughfares, roads, and footpaths, which exist or shall exist or have existed in the said territories, shall be public property.' (Lex Coloniae Genetivae Juliae [CIL I2 594] LXXIIX). In Britain, only one *municipium* is recorded, Verulamium (St. Albans), with four *coloniae* known at Colchester, Gloucester, Lincoln and York: the extents of the *territoria* of all these towns remain unknown.

Viae vicinales

Viae vicinales on the other hand, are quite different and decidedly local, since some of them 'lead into military roads, and others trail off with no way out.' (Ulpian, Sabinus Bk.33 *dig*. 43.7.3). Ulpian also describes local roads as those that "are in villages (*vici*) or lead to villages" and were public if the land they are on was public (Edict. *dig.* 43.8.2.22). They derive their name from *vicus*, a village or small town dependent on a town of civitas status or higher, a word which often described the main settlement of a *pagus* (Mattingly 2006, 287), a rural district forming the smallest administrative unit of empire. The word *vicus* has become extensively used (particularly in Britain) to describe a civilian settlement outside a Roman fortification, which has unfortunately led to a tendency to ignore the fact that every settlement of lesser status than a *civita*s was also a *vicus*.

Siculus Flaccus (in the *Corpus Agrimensorum Romanorum*) provides similar detail as Ulpian, stating that *viae vicinales* '...turn off the public highways into the fields and often lead back to other public highways...' (L. 145.8; Campbell 2000, 113). Crucially, he also tells us that they '...are maintained in a different way, by *pagi*, that is, by the officials (*magistri*) of the *pagi*, who normally demand labour from the landholders for their upkeep.' These descriptions suggest, therefore, that roads leading from a *via publica*/*via militaris* to another *via publica* or to a *vicus*, or linking one *vicus* to another, or leading from a *vicus* or *via publica*/*via militaris* and apparently going nowhere, were all considered *viae vicinales* and the responsibility of the local rural district. This will become very pertinent later in this paper.

Viae privatae

Viae privatae, sometimes described as *viae agrariae* (Ulpian Edict *dig.* 43.8.2.22) were, as both names together suggest, private roads that often ran over fields of one owner to reach those of another. Too many modern scholars have assumed that their name implies that their use was private and restricted, but this was not always so; rather they were defined as private solely because they passed over private land. According to Ulpian (Edict. *dig.* 43.8.2.21), the use of private roads was open to all, although this was clearly at a user's own risk (Paul, Sabinus Book 10, *dig.* 9,2,31).

Methodology

Before any analysis of potential road classification could take place, it was necessary to ensure that the map being used was as accurate and up to date as possible, not only in the mapping of Roman roads but also of the Roman military installations and nucleated Romano-British settlement (*vici*) that the roads served. To this end, new mapping was created using QGIS. In order to be able to accurately assess the likelihood that previously claimed roads, or road-like features identified on lidar were real, and to appreciate where and previously unidentified roads were likely to be, it was essential to understand the distribution of settlement and Roman military installations first.

Base data for settlement and military sites was drawn mainly from the relevant Historic Environment Records (HERs) within the study area, specifically Leicestershire and Rutland, Lincolnshire, North Lincolnshire, North East Lincolnshire, Northamptonshire and Nottinghamshire, along with Historic England research material such as results of the National Mapping Programme, and aerial imagery from Google Earth and Bing. The Portable Antiquities Scheme was also consulted in order to identify major concentrations of Romano-British finds, potentially indicative of settlement.

Only sites where evidence suggested nucleated or agglomerated settlement over an area in excess of three hectares were plotted in an attempt to eliminate small farmsteads or villa complexes. The only exception was South Ferriby /Ferriby Cliffs, where a combination of coastal erosion and modern housing has made determination of the size of settlement impossible. All available literature related to sites identified was also consulted. This provided a list of sites that (with the exception of Perlethorpe) had all previously been recorded as either probable Romano-British small towns or roadside settlement, although many have never been properly investigated or published. It is important to understand that apart from *Lindum* (Lincoln), *Ratae* (Leicester) and *Petuaria* (Brough, East Yorkshire), every settlement mapped here would have been described as a *vicus*.

Base data for the Roman road network was drawn from two primary sources; the HERs and the Ordnance Survey's linear files of Roman roads. The latter, whilst 40 years old or more, remain an invaluable resource and the RRRA hold digital copies (England only). As with settlement, all available literature relating to the Roman roads was also consulted, as were the various sources of aerial photography. These were then compared with evidence of linear features from lidar imagery, using data from the Environment Agency's 1m DTM Composite 2022 processed using QGIS. Traditional 'hillshade' visualisation was combined with a Local Relief Model overlay, which provided excellent results, with the many linear features being more readily visible than by using hillshade alone. The results, including any segments of 'new' roads identified, were then plotted as individual layers on QGIS (alongside the settlements), using the rating system previously proposed by the current author (Haken 2021), which is itself based upon that developed by the Welsh archaeological trusts.

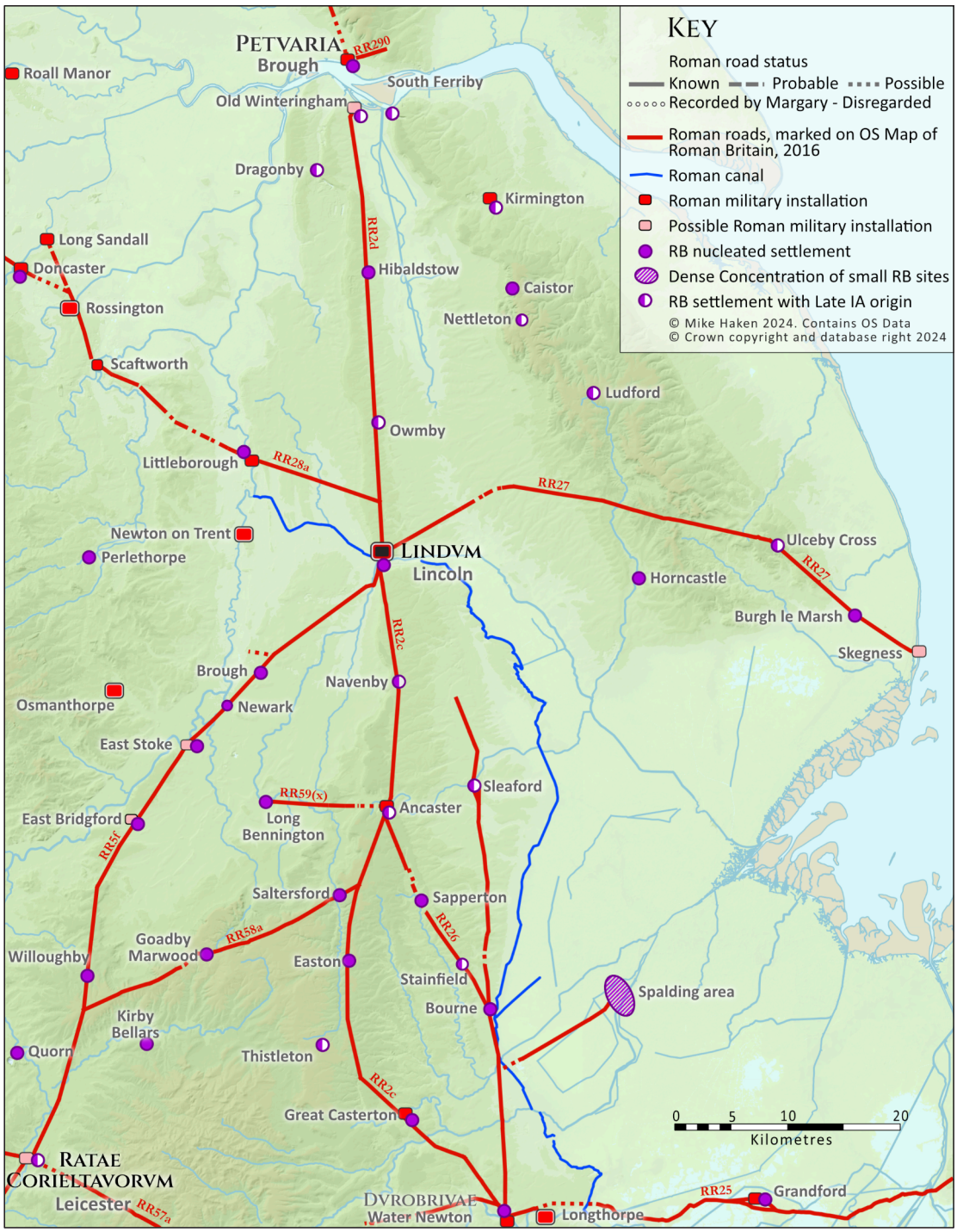


Figure 1. Roman roads marked on the Ordnance Survey's map of Roman Britain (6th edition), last revised 2010. Known and highly probable Romano-British nucleated settlement has been added, mainly from HER & PAS data.

In addition, roads or tracks not displaying classic characteristics of Roman roads but which have previously been claimed to have been either 'Romanised' prehistoric trackways, or prehistoric routes that remained in use during the Roman period, were all re-examined and compared with evidence from lidar imagery to confirm their routes. Assessment was then made as to their likely use during the Roman period based mainly on their relationship (or lack of) with Romano-British settlement. Those sinuous roads/tracks that appeared to run for long distances from nucleated/agglomerated settlements were then mapped as layers in the QGIS project. In order to distinguish these sinuous routes from more typical Roman roads, they have been awarded with numbers according to Margary's system, but with a new prefix – RBW, for Romano-British Way (Haken, this volume).

Since it is impossible to know how long these routeways remained in use, any sinuous branches from either type of road which appear to lead only to medieval settlement were not recorded. Similarly, no attempt was made to plot every potential trackway that related to a Romano-British site, since lidar imagery (especially on the Wolds) reveals a complex web of linear features, many as likely to be boundary features as they are routeways. As Steve Malone observed regarding the palimpsest of routeways in the Lincolnshire fens, 'Short contemplation of the maze of lanes, trackways and droves evident within the cropmark evidence for the fenland, is sufficient to reinforce the point that the full pattern of local communication can hardly ever be known to us' (Malone 2010, 4).

The Roads

It is beyond the scope of this paper to discuss every road in the study area in detail, however those roads whose existence has previously been questioned, or where crucial new evidence has emerged, are described below with sufficent detail to establish their routes and status. Readers who have little interest in these details may wish to skip this section and move on to the Discussion.

Roads which appear on the current 6th edition of the Ordnance Survey's Map of Roman Britain (2016) (within this specific study area) are already very well recorded and their existence beyond doubt. Lidar analysis has resulted in the odd minor amendment here and there but these have no impact on the results of the study and the roads are not discussed here. These fourteen roads are illustrated in Figure 1, as are all the known Roman military sites (excluding temporary camps) and Roman period nucleated or linear settlement within the study area, some of which are also not marked on the current OS map, such as the possible fort at Kirmington and several settlements. There is a single exception, RR590. This road is less than 3 km long, and is supposed to branch from the Fosse Way north of Newark to a Roman bridge discovered in the 19th century, over the R. Trent near Collingham, although there is no known physical evidence for the road itself. Timber recovered from the bridge piers in 1884 has been dated by dendrochronology not to the Roman period, but to the early 8th century (Salisbury 1995). Whilst it remains possible that the timber was from Mercian repairs to a Roman structure, the location of the bridge and supposed road makes little sense in a Roman context and whilst shown on Figure 1, it is therefore disregarded in all subsequent mapping.

It is immediately apparent that most of the roads illustrated by the Ordnance Survey were originally *viae militares*, since only three have no known military installations along them; RR58a linking the Fosse Way to Ermine Street, RR260 from Bourne through Sleaford, and RR290 east of *Petuaria*. However, it is equally apparent that four Roman *castra* and no fewer than ten settlements have no road leading to them, which seems highly improbable. As will be shown, this lack of connectivity can

be resolved when further roads are added to the map. These 'new' roads fall broadly into three categories:

- recently discovered Roman roads
- previously recognised Roman roads rejected by the Ordnance Survey and others due to a perceived lack of evidence, but which can now be reinstated due to clear evidence from lidar imagery.
- roads of the Roman period which do not conform to typical Roman road morphology

Each of those roads will be briefly discussed, with sufficient evidence presented to justify their inclusion, however these are not intended to be full accounts. The descriptions will only be illustrated if the work has not been published elsewhere.

Recently discovered roads

Some of this lack of connection is immediately resolved when seven recently discovered roads or extensions to known roads are added to the map. In reality, all bar two of these have been known or suspected for some time, but without the evidence needed to gain general acceptance. A possible eighth identified from lidar imagery on the MOD firing range near Beckingham on a line between *Crococalana* (Brough, near Newark) and Ancaster is not mapped, since fieldwork is required to exclude a possibility that it is actually a natural gravel deposit.

RR282(x) Osmanthorpe – Rossington

The existence of a Roman road heading north through Ollerton (Nottinghamshire) to Blyth and into Yorkshire, essentially the Roman A1, had been suspected for a century or more, part of this supposed route being given the number RRX104 by the Ordnance Survey. Several scraps of potential evidence had been recorded over the years, especially near its southern end, however, the first firm evidence over any distance was the identification of cropmarks indicative of a Roman road running south for over three kilometres from Rossington (S. Yorks) (Roberts *et al.* 2010, 68). A decade earlier, part of the road had actually been excavated over 35 kilometres (22 miles) to the south at Belle Eau Park, Bilsthorpe (Challis *et al.* 2002), but no-one joined the dots (the current author included).

The release of National Lidar Programme data by the Environment Agency changed everything, and the road was soon spotted by Tim Jeffery and the current author (Jeffery and Haken 2021a), and independently by Steve Malone (Malone, 2021). The full length of the road could be traced with confidence heading NNW from the so-called vexillation fortress at Osmanthorpe, then changing alignment near Bilsthorpe church to head north through Ollerton, past Perlethorpe, Clumber Park and Ranby, then through Blyth to Rossington and probably further north, though the route is lost in modern Doncaster.

The road almost certainly forms part of the earliest Roman route north into Yorkshire, providing a clear link from Ermine Street without the need to go as far north as Lincoln. Indeed, it seems the road remained in use throughout the Roman period, judging from the dates of the 233 Roman period finds reported to the PAS where the road crosses the R. Meden near Perlethorpe, clearly indicating a substantial settlement (Portable Antiquities Scheme data).

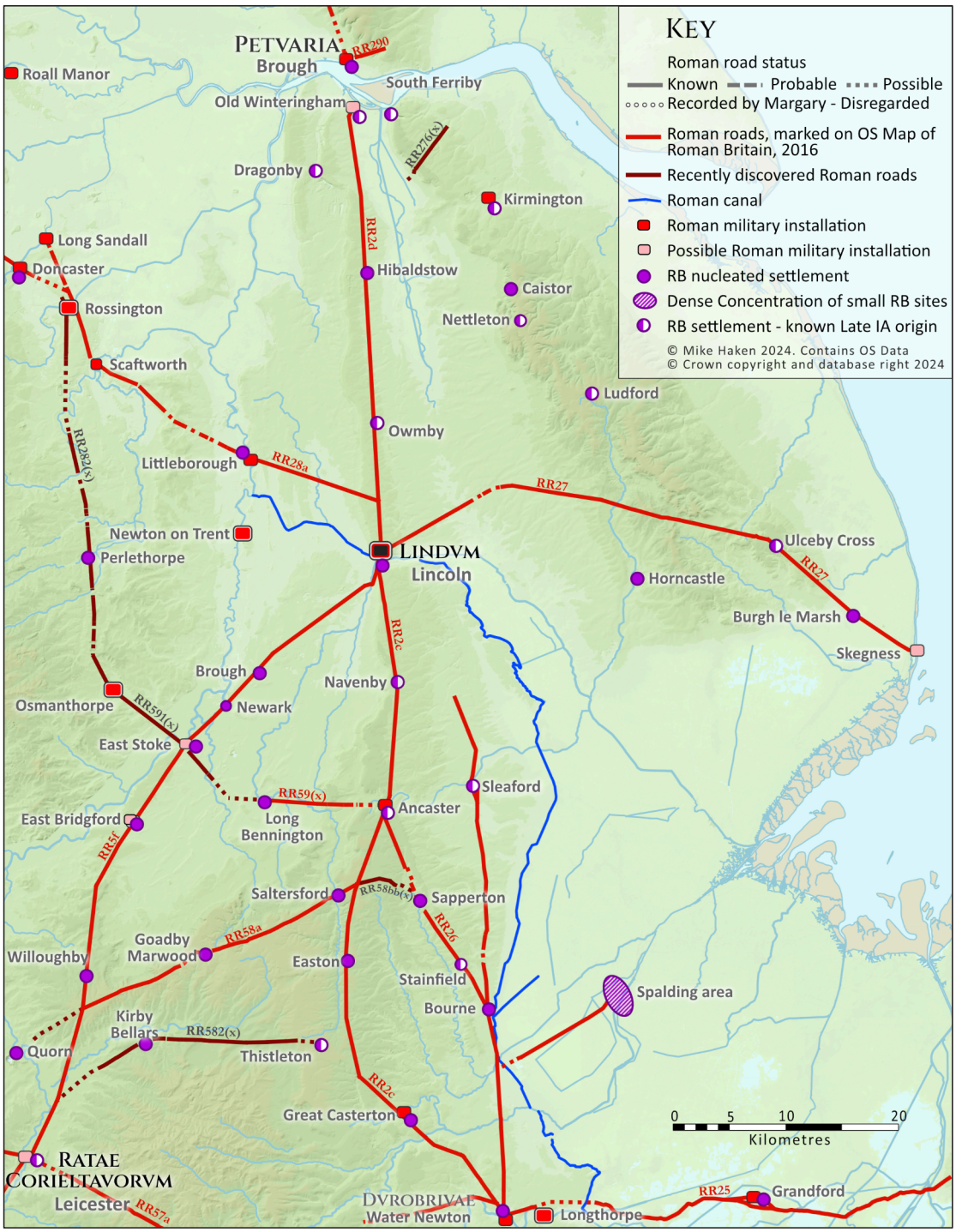


Figure 2. The same map as Figure 1, with the addition of six roads (marked in brown) established by analysis of lidar imagery and recent aerial photography.

RR591(x) East Stoke (Ad Pontem) – *Osmanthorpe*

The name *Ad Pontem*, meaning 'at the bridge', confirms the former presence of a road crossing the Trent and heading roughly northwest up the Greet valley (Bishop and Freeman 1993, 163). The route of the road is thought to be followed by Newark Road through the centre of Southwell, and then broadly represented by Lower Kirklington Road northwest of the town, which has drifted a little south-west of the Roman line. The road was traced as a clear linear band of gravel across five fields north of the modern road in 1963 (Notts. HER no. M2767).

The confirmation of RR282(x) from Osmanthorpe to Rossington makes the existence of this road certain, although it must be stressed that despite forming parts of the same route, the two roads either side of Osmanthorpe do not exhibit any common planning and should be considered as different roads, despite clearly forming part of the same route.

RR59(x) Ancaster - East Stoke (Ad Pontem)

The OS Roman Britain map shows this road running west from Ancaster as far as the roadside ribbon settlement at Long Bennington and lidar imagery has confirmed the route in a few places, notably as a broad spread *agger* between SK 9048 4369 and SK 8965 4375 immediately east of Marston (Jeffery and Haken, 2021b; Walas 2022, 438-440). However, it was always clear that the road cannot simply stop at what is, after all, a roadside settlement. Whilst there is no trace on lidar imagery on the same alignment west of Long Bennington, there is no reason to think that any deviation from the alignment was made, especially as a barrow at SK 8063 4433 appears to have been used as a sighting point. The barrow was also used to sight the road to *Ad Pontem*. Several features have been recognised on the alignment over the years (see Nottinghamshire HER M1437), but none is completely conclusive, however recent lidar imagery and Google Earth Pro aerial imagery from October 2021 leave no doubt (Fig. 3, opposite).

RR58a – western extension Six Hills – Barrow/Quorn

Margary recognised that this road could be traced as a trackway at least from Barrow-on-Soar, although he suggested that formal Roman layout only ran east from Six Hills, on the Fosse Way (Margary 1973, 222-3). However, it is likely that in fact Roman construction extended south west of the Fosse Way, not as a track but along a single straight alignment fossilised in places by the modern Paudy Lane, heading not just to Barrow-on-Soar but crossing the river to reach the large probable Roman small town between Barrow and Quorn (Leicestershire and Rutland HER MLE8775; Liddle 2004, 64). It may even have continued on further as has often been suggested (e.g. Bellairs 1901, 273-4), although there is currently no evidence of this. Unfortunately, neither aerial photography nor lidar imagery is particularly helpful, suggesting the road may be entirely ploughed away here. Whilst the route was almost certainly part of a medieval saltway, this characterisation has created much confusion, masking a Roman origin and as will be shown later in this paper, creating the illusion that it continued east of Ermine Street. Phillips' claim of a prehistoric origin for the entire Salt Way (1933, 147) has no evidential basis, but remains generally repeated. No major late Iron Age settlements are known along the route and claims for Iron Age ironworking at Goadby Marwood are similarly without evidential foundation.

RR58bb(x) Junction of RR58 & Ermine Street – Ropsley – Sapperton(?)

RR58 climbs from Saltersford, on the R. Witham just south of Grantham to meet Ermine Street at Cold Harbour (SK 9505 3477). Using lidar imagery, a 'new' Roman road has been identified during this study



Figure 3. Map showing RR59(x) approaching Ad Pontem*, with inset details of a clear parchmark created by ploughed out road material visible on aerial photography from 2021, where there is no visible trace on lidar imagery. A second inset illustrates evidence of badly truncated agger surviving to the south-east.*



Figure 4. Lidar visualisation showing the newly discovered road (RR58bb(x)) which can be traced between Cold Harbour (the junction of Ermine Street and RR58) and Ropsley.

heading east from the junction, possibly to the small town at Sapperton, on King Street (Fig. 4). Close to its first change of alignment, immediately east of Ropsley Rise Wood, there is a dense concentration of Roman finds indicative of settlement (at SK 972 352, Lincolnshire HER 11579). The road turns again at what seems to be a Romano-British farmstead (SK 985 348) near Ropsley. It cannot be traced east of Ropsley, although it is presumably heading to a third known site east of Ropsley (Lincolnshire HER 34936) and then potentially onwards to King Street. Whilst the road's planning in a series of straight lengths is clearly Roman, if it were simply heading towards the settlement at Sapperton, it could have taken an almost straight course. It seems conceivable therefore that it may have been designed to join several farmsteads or land holdings, and whilst it seems improbable that this was ever a *via publica*, whether the road was legally a *via vicinalis* or a *via privata* is unclear. The first 4 km (2.5 miles) of this road seems well preserved, although the possible route to Sapperton is quite speculative (see Fig. 2). Certainly, from the junction on Ermine Street a further probable *via privata* heads north-west towards modern Grantham, although its destination is currently unknown.

RR276(x) Worlaby

This rather curious road was discovered during the course of this study and seems to be one of just two typical 'Roman roads' in the northern Lincolnshire Wolds. It can be traced on lidar imagery (Fig. 5) as a raised straight linear feature from TA 0155 1458 at the top of the scarp above Worlaby, northeast for 3.5 km to TA 0362 1739, where it merges on the same alignment with the modern road (B1206) for a further 1200 m. The line then runs along the bottom of the valley (which almost certainly rules out a military origin) represented today by modern access roads past Deepdale Farm and cannot be traced beyond a point just northeast of Burnham Road. It may well have continued as far as the area of Romano-British settlement near Barrow Water Treatment works (North Lincolnshire. HER 22024). Returning to the scarp above Worlaby, it seems likely that the road



Figure 5. Map and lidar inset showing the single alignment of RR276(x). The feature is hard to see and is not visible without the aid of lidar. Known areas of Romano-British settlement, some of which have a clear relationship with the road, are marked in purple.

descended to the south-west past the area of Romano-British settlement although the precise route is unknown. A linear feature visible on lidar imagery just south of Carr Lane may represent it, and if so it would seem probable that it is heading to a wharf on a former inlet (now a roddon) of the R. Ancholme,.

The road has no clear relationship with any other road of the period (see Fig. 7), however it does appear to have a relationship with at least four Romano-British settlements northeast of Worlaby (Fig. 5). Worlaby itself has evidence of Romano-British settlement over quite an area, although it is unclear whether this represents a few farmsteads fairly close together or a true nucleated settlement.

R582(x) – Thistleton - Kirby Bellars – Leicester

The idea that the general line of Kirby Lane (south of Melton Mowbray) and Sawgate Lane a little further to the east might represent a Roman road from the Late Iron Age/Romano-British settlement near Thistleton to the settlement at Kirby Bellars has been around for some time (Leicestershire and Rutland HER 5508; Liddle 2004, 64). However, until recently there has been very little firm evidence for it, hence it is not generally well known and it does not appear, for example, in mapping for the Roman period in the most recent East Midlands Historic Environment Research Framework (Taylor 2024).

Its course south-west of Melton Mowbray was confirmed by geophysical survey in 2011 (Leicestershire and Rutland HER MLE8839; Thomas 2012, 232). In 2001, remains of 'cobbled' road structure were identified at SK 781 172 either side of Burton Brook, Burton Lazars, and suggested to be possibly part of this road (Leicestershire and Rutland HER MLE20549). Lidar imagery now reveals a straight linear feature south of Sawgate Road, partly beneath medieval rig and furrow which tends to support the identification (see Figure 6, inset B). The first 2.7 km (1.7 miles) from the Romano-British settlement at Thistleton has been lost to ironstone mining, however west of that, a Roman road can now be traced on lidar imagery following a single alignment almost due west from Thistleton as far as the Roman small town at Kirby Bellars.

Unfortunately, the HER then conflates the genuine Roman road with the well recorded medieval road from Melton to Leicester known as Le Strete in 1396 (now largely the A607), due to the old (and now thought to be erroneous) belief that 'Street names normally refer to Roman roads'. In fact, rather than the sinuous line taken by Le Strete to Leicester, lidar imagery suggests that the Roman road probably passed through the settlement at Kirby Bellars and then took a direct route, as illustrated in Figure 6 (inset C). The medieval Le Strete did eventually take up the Roman line, but only from what is today the roundabout south of East Goscote, after which Melton Road follows a generally straight course through Syston for c3.2 km (two miles), to its junction with the Fosse Way.

The suggestion made in the Victoria County History of Rutland Vol. 1. (1908) p.88 of a road linking Thistleton to Market Overton, included in the HER entry 5508, is a red herring, since it is on a completely different bearing and has no relevance.

Roads currently disregarded by the Ordnance Survey and rejected in this study

No fewer than nine roads mapped by Margary (1973) are absent from the Ordnance Survey's map of Roman Britain. All have been reassessed and are discussed below in two parts, firstly those with no

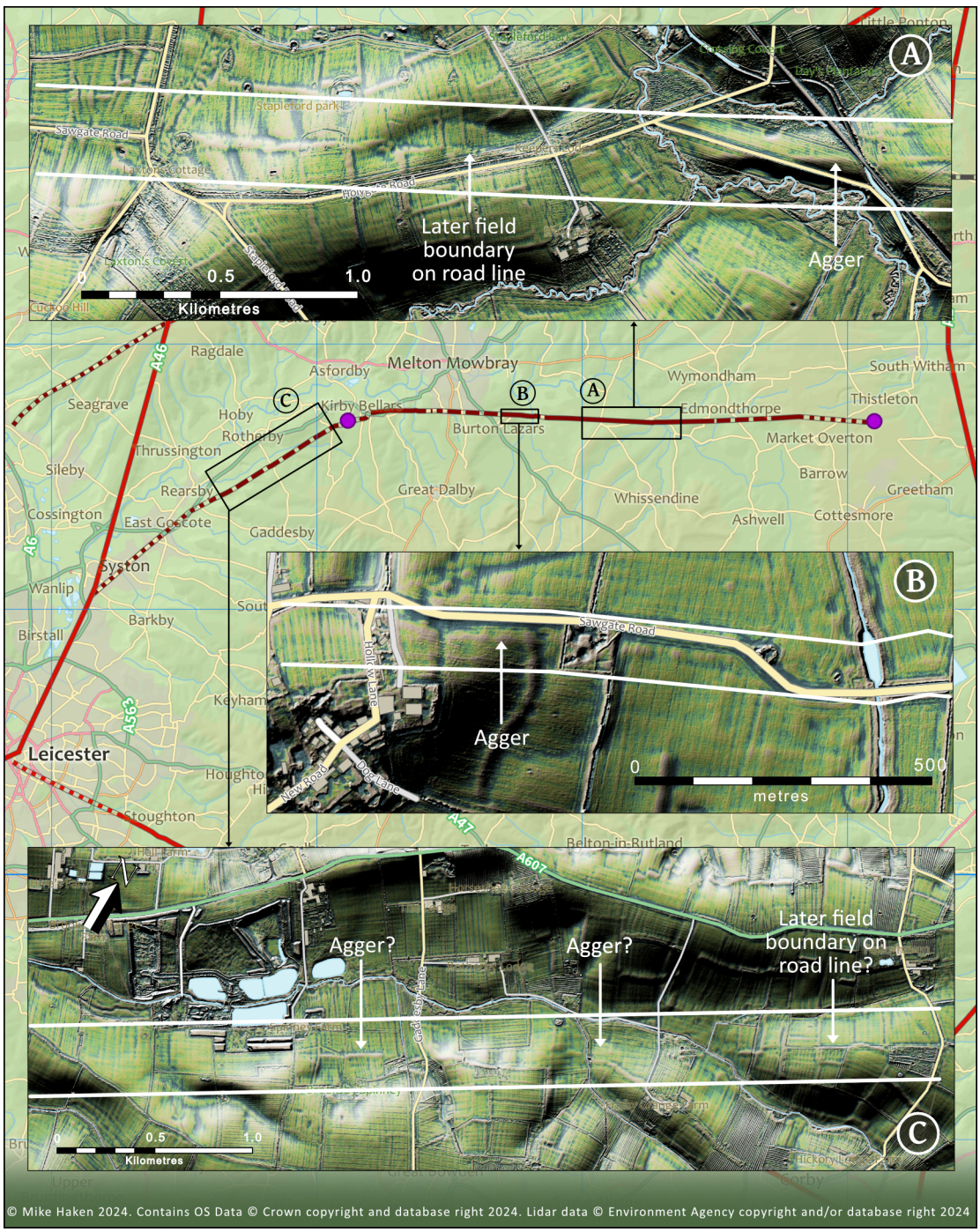


Figure 6. Evidence from lidar of the probable course of the long suspected Roman road (RR582(x)) linking the Roman small towns of Thistleton and Kirby Bellars to Leicester.

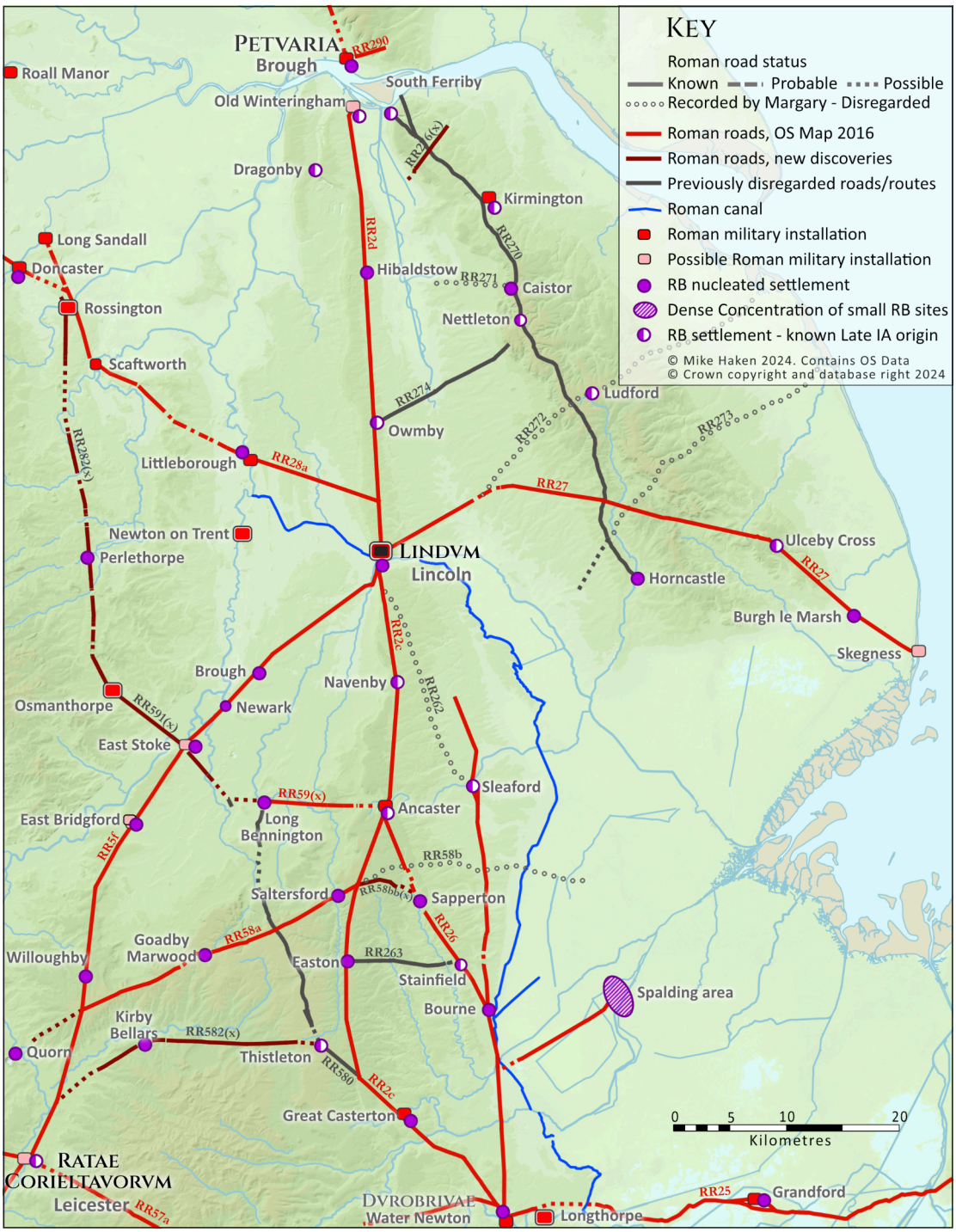


Figure 7. Further revised map after analysis of Roman roads recorded by Margary but disregarded by the most recent Ordnance Survey map of Roman Britain (6th Edition).

evidence to support them, and secondly those which do. These, along with roads previously discussed, are plotted on Figure 7.

RR58b – Saltersford (Grantham) to Donington

This supposed road, marked almost entirely by part of the modern A52, was generally accepted in the 20th century, based on the idea that both it and RR58a, a road with certain Roman origins, formed part of a medieval Salt Way (hence the name 'Saltersford') which according to Phillips 'was certainly in use in Roman times' (1934, 112). Unfortunately, there is no evidence to support Phillips' assertion. Margary himself recognised that the two roads had a quite different character (1973, 223), RR58a being well surveyed and set out using straight alignments, something not at all apparent for RR58b, except for the 2.5 km leading up from the R. Witham at Saltersford to Ermine Street, most of which is clearly visible on lidar and certainly Roman in character. It is unfortunate that Margary's numbering splits RR58 at the crossing of the R. Witham, rather than at Ermine Street, since west of Ermine Street the Roman origin is clear and incontrovertible. East of it, on the other hand, there is no trace whatsoever of a Roman ancestor to the modern A52; not on lidar, aerial photography, or from archaeological investigation, despite many claims to the contrary (e.g. Whitwell 1992, 49).

The death knell for this supposed Roman road finally sounded with the discovery in 1998 of a Roman period road (Lincolnshire HER 90882) leading from the Haceby villa site (Lincolnshire HER 60730, TF 019 368), immediately south of the A52 and the supposed RR58b, and heading south-west towards King Street (RR26). Had RR58b actually existed, it would have made no sense to build a 1.5km link to King Street when RR58b was only about a hundred metres away. The link road has been shown by geophysics to continue north of the A52, presumably to give access to a second 'villa' or farmstead.

RR262 Sleaford to Lincoln

This road was proposed by Margary (1957, 276-7), based on the notion that a more direct link between Sleaford and Lincoln was likely and that the modern A15 '*runs in notably straight lengths which frequently change direction on high points, and it is much raised generally.*' That is insufficient to claim a Roman road, even with a status regarded merely as possible. Since no recognisably Roman features can be seen at any point, and no sign of an old road was found on the supposed line when the Sleaford bypass was built in the early 1970s (OS linear file for RR262, Historic England archive), this supposed road continues to be disregarded.

RR271 Caistor to North Kelsey

This road was also identified by Phillips (1934, 115), and runs straight along the modern North Kelsey Road and Caistor Road for four kilometres due west from Caistor (formerly a Roman small town) as far as North Kelsey Moor, and then continues west for another 1775m along roughly the same alignment, marked by Station Road.

In 1985, a note was added to the Ordnance Survey's file on the road that it 'appears to be associated with the enclosure of Caistor Moor in 1814' and this seems to be borne out by the Russells' work on enclosures near Caistor and North Kelsey (1987, 53-64), which also records the planning of the new Caistor Road, along with objections to it, in 1813 (ibid., 125). Whilst suggestions made by the Russells and by Whitwell (1992, 54) that the new Caistor road deliberately avoided the House of Industry (later the Caistor Union Workhouse) and therefore cannot be Roman, do not bear scrutiny (as Albone (2016, 343) pointed out), the simple fact remains that there is not a single shred of evidence to suggest that

a straight road existed before the Enclosures of 1814. Indeed, in 1780, Andrew Armstrong, a cartographer keen to record Roman roads on his maps, produced a map of Lincolnshire which shows a sinuous road in roughly the same place. If a straight road had existed over such a distance, it is hard to see how Armstrong might have overlooked it, and indeed why anyone would have objected in 1813 to an improved road being built along its precise course.

To misquote a well known saying concerning swallows and summer, *a single straight road doth not a Roman one make*, and therefore RR271 must remain disregarded until such time as any positive evidence is discovered.

RR272 Bullington to Grainthorpe

The notion of a possible road extending the line of RR27 from Lincoln, which turns sharply eastward after Bullington, was first suggested by Codrington (1903, 148-9). However, it is worth noting that Margary only described this road (and RR273) as being of 'possible Roman origin' (1973, 241), suggesting he may have had his doubts.

At first sight, the change in alignment of RR27 after Bullington might seem hard to explain unless it is actually a junction but if RR27 had taken a direct course from Lincoln to Ulceby Cross, it would have been forced to cross the wetlands in the floodplain of the R. Witham and Barlings Eau east of Fiskerton for a distance of around four kilometres (2.5 miles). Instead, the route taken is actually quite pragmatic, avoiding not only the wetlands but also some of the more undulating terrain east of Horncastle. Therefore, the primary reasoning for suspecting the existence of a road heading northeast from Bullington is probably invalid. Furthermore, the various stretches of modern track and road that Margary suggests as being the route are discontinuous and mainly sinuous, and do not suggest Roman surveying. Indeed, intense analysis of lidar imagery has not revealed any trace of a potential straight Roman road at any point along the route, and not even any former stretches of sinuous road filling the many gaps.

Finally, Phillips points out (1934, 113) that parts of the supposed route were utilised by seven wapentakes as a boundary which was certainly true at the time of Domesday (see Brookes 2020), but this is not in a continuous chain. Phillips argued that about 12 km (7.5 miles) at the eastern end (Pear Tree Lane) across the Lindsay Marshland, which is entirely followed by wapentake boundaries, is 'at least as old as Anglo-Saxon times and therefore probably Roman'. His argument might hold were this straight, however it follows a curving route, deviating from a straight line by 900 m at its greatest; not at all the trait of an engineered Roman road.

Therefore, with no positive evidence to support it, RR272 has been disregarded.

Other supposed routes

In recent decades several Roman road lines have been suggested in north-eastern Lincolnshire. These include a road from Caistor to a hypothetical Saxon shore fort site at Cleethorpes, with a branch heading northeast to the Humber estuary and actually continuing on the Yorkshire side (Oliver 2006). The evidence for both is speculative, and neither lidar nor aerial photography shows any sign of long distance roads or routes along the suggested courses. Similarly, various hypothetical roads have been suggested by Owen (1997), none having any substantive evidence to support them. None of these roads have been mapped for this study.

Roads currently disregarded by the Ordnance Survey and reinstated in this study

When compared with Margary's map, four roads are now absent, where no evidence could be found to confirm a road of Roman date, or in two cases (RR272 and RR273) a continuous road of any date. Three further roads included by Margary (1973) but currently omitted by the Ordnance Survey will be demonstrated to have more than sufficient evidence from lidar imagery to regard them as proven Roman roads showing typical planning and construction. A fourth road is partially reinstated, since there is some evidence to suggest that a short part of it may be Roman in origin. A fifth, deliberately left until last, shows no signs of typical Roman construction, and yet was demonstrably an important artery in the Roman period. Summaries of the new evidence are provided below and all five have been reinstated on this study's mapping (see Fig. 12).

RR580 Ermine Street to Thistleton and potentially to Ad Pontem *(Sewstern Lane / The Drift)*

Phillips recognised that Sewstern Lane and The Drift formed an ancient (rather than Roman) road (1933, 147). However, there is no evidence that it originally branched from Ermine Street, as he assumed. It can traced as a continuous and sinuous linear trackway from just north of the Romano-British small town at Thistleton, thought to have late Iron Age origins (Leicestershire and Rutland HER MLE5765) as far as the point where it meets the former Great North Road, immediately south of the Romano-British settlement at Long Bennington. The latter settlement was not known in Phillips's day (Boutwood 1998), otherwise he would have recognised that the road is simply connecting the two sites. It is still largely in use as a track and road, although there is now a gap near Woolsthorpe by Belvoir created when the Woolsthorpe branch of the Great Northern Railway was built in the 19th century. Prior to that, it was still in use as a drove road, hence the name for the much of the road south of Woolsthorpe, 'The Drift'.

Phillips later reported (1934, 111-112) on the discovery of a 'properly engineered junction between Ermine Street and the track known as Sewstern Lane which, taken in conjunction with the Roman sites around Thistleton and Market Overton in Rutland, proves the Romanisation of the southern part of the lane and allows a strong presumption that the whole of it was in use.' The feature Phillips described (spotted from the air by O.G.S. Crawford in 1930, between SK 9520 1347 and SK 9402 1447) runs from the bend in Ermine Street to Wood Lane, which then fossilises the Roman line as far as the former RAF Cottesmore, where it can be picked up again on lidar imagery (Fig. 8, overleaf). However, Phillips's description seems to have been inaccurate, there being no evidence to suggest that the southern section was ever 'Romanised'. Rather, there seem to be two separate roads, Sewstern Lane/ The Drift branching from a typical Roman road where today The Drift becomes Fosse Lane (SK 8993 1914), suggesting that the Roman road came first. For clarity, it is suggested that The Drift/ Sewstern Lane is numbered RBW580, the engineered road remaining RR580. It seems likely that RR580 was intended to run to the sharp bend in RR59(x) west of Long Bennington but there is no sign of the road for 24 km (14.9 miles) north of SK 8921 2070, except for a probable 950 m length of almost ploughed out agger just visible on lidar imagery at the northern end. The logical conclusion is that the road was started but not completed, construction being abandoned in the late 1st century, possibly when the Roman military focus shifted northwards in the Flavian period. At a slightly later point, the sinuous road developed (or was created) between the two settlements. Despite neither settlement surviving into the early medieval period, much of the route has remained in use ever since.

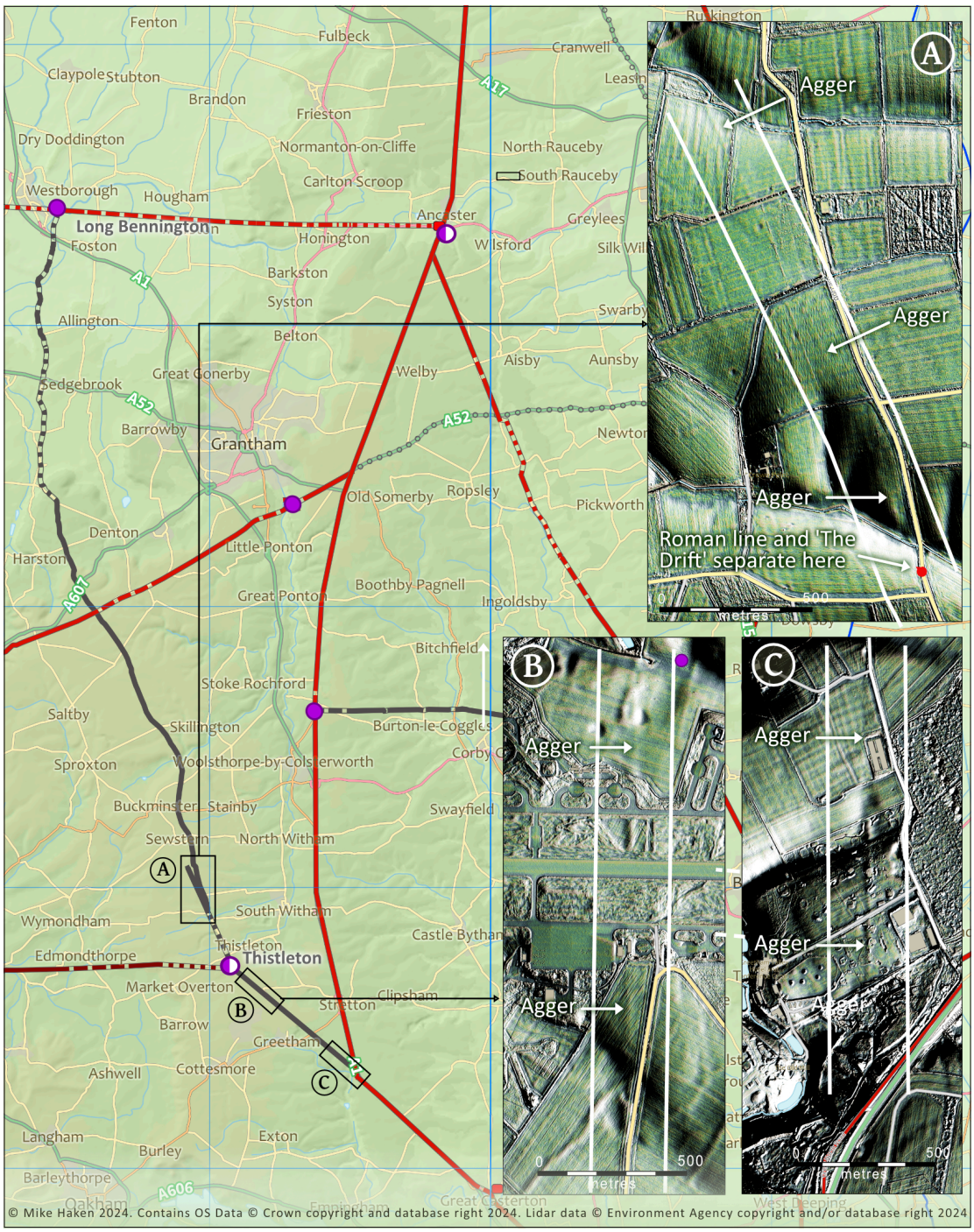


Figure 8. Map showing evidence from lidar for the typically 'Roman' section of RR580 from Ermine Street through the Roman small town of Thistleton. The blue grid is 10km squares.

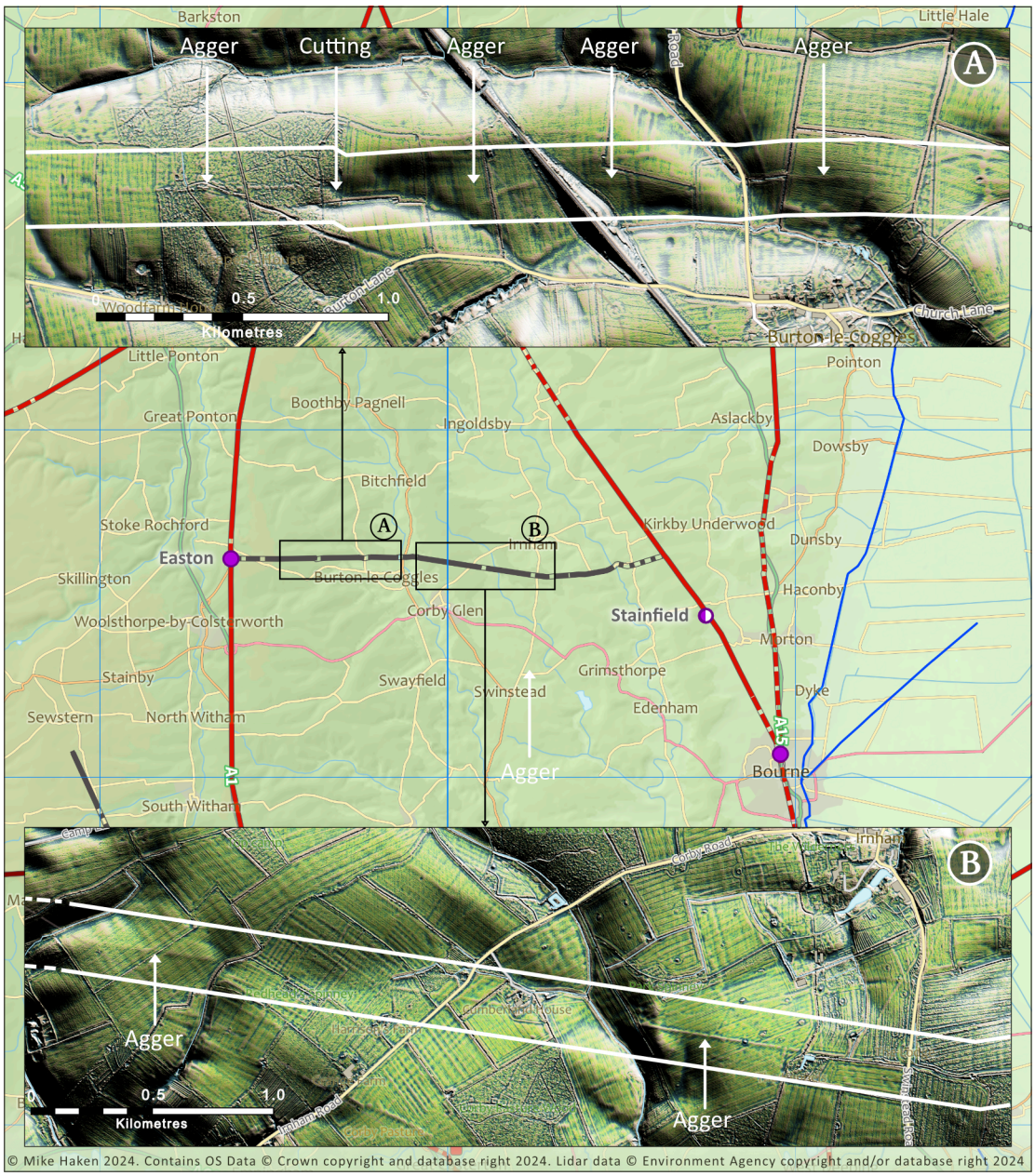


Figure 9. Map and lidar visualisations of RR263 heading east from the Roman roadside settlement near Easton. The blue grid is 10km squares.

Ironically, the feature Crawford spotted in 1930 is actually responsible for the road's later exclusion from OS mapping. In 1965 an OS field investigator, B.H. Seaman, mistakenly described it as a buried pipeline (OS linear file for RR580 – Historic England archive). There is indeed a pipeline running along Wood Lane, however it does not maintain a straight course where the lane bends, as Seaman assumed.

This was checked using the online facility Linesearchbeforeudig, a search of all current and historic pipeline operators coming back negative, not just at this point, but at all points where the road can be seen on lidar. Furthermore, the road was probably observed in 1996 at SK 943 142 during an archaeological watching brief (Leicestershire and Rutland HER SLE2692) and can be seen clearly on lidar exactly where Crawford spotted it.

RR263 Easton to Stainfield?

This road was apparently first observed by Thomas Leman in 1818 (Whitwell 1992, 48) but was largely overlooked until 1958 when Margary rediscovered it and later included it in his second edition of *Roman Roads in Britain* (1967, 236). Both Margary and the Ordnance Survey (Linear file for RR263, Historic England Archive) could only trace the road for about a third of its length, between TF 0044 2612 and TF 0415 2587, and whilst both suspected it was heading east to join King Street (RR62) near the possible settlement at Stainfield, they could find no clear evidence for this. In fact, it seems more likely that it joins King Street some 2 km (1.2 miles) north of the Stainfield settlement. To the west, Margary thought the alignment of the central section near Burton le Coggles continued heading WNW to Ermine Street, citing a visible ploughed out agger at SK 972 271, however he was mistaken. In fact, lidar imagery (Fig. 9) shows clearly that the road turns due west at about SK 9914 2633 to head directly to the Romano-British roadside settlement on Ermine Street at Easton. Given the previous uncertainties, it is perhaps unsurprising that this road has been somewhat ignored, but most of its route is now known with confidence, although the agger is being increasingly ploughed out. The easternmost part of its course remains unclear, but it seems most likely that it was effectively a link between the two settlements.

RR274 Owmby Cliff to Normanby le Wold and High Street

A short stretch of this road was identified from aerial photographs near Osgodby in the mid 20th century, and it appeared on the 3rd edition of the Ordnance Survey's Map of Roman Britain (1956), and was included by Margary (1957; 1973). However, F.R. Harper, an Ordnance Survey field investigator who visited the road in 1963 was highly sceptical, and went so far as to describe the eastern extension of the road through Normanby le Wold as 'topographically impossible' and he thought it doubtful that the road as a whole 'ever existed in any made-up form'. Needless to say, the road did not appear on the 4th edition of the Map of Roman Britain, or on any subsequent editions.

Harper was wrong on both counts. Thanks to lidar imagery (Fig. 10), it is very clear that the road does exist, running from the settlement at Owmby Cliff along a generally straight course to Normanby le Wold, where there is significant evidence of Roman habitation, although it is unclear as to whether or not this constituted a nucleated (or agglomerated) settlement. Whilst it is certainly true that the road would have provided the Roman pottery industry near Claxton and Walesby (North Lincolnshire HER nos. MLI50123, MLI51828, MLI51861) with a link to Ermine Street, this was clearly not its primary function. Rather, the road runs into a natural valley which, contrary to Harper's comment, allows a relatively easy ascent on to the Wolds, the steepest part of the modern lane being about 1 in 6 for 200m – unusual but not extreme for a Roman engineered road (Armstrong D. 2023, 64). Whether it actually made the full ascent is uncertain, however it seems to connect to what becomes a fan of raised and sinuous trackways (Fig. 10) most of which appear to run towards High Street (RR270), with two apparently heading to the Romano-British roadside settlement at Nettleton Top (Chris Pedley, pers. comm. email August 2020).

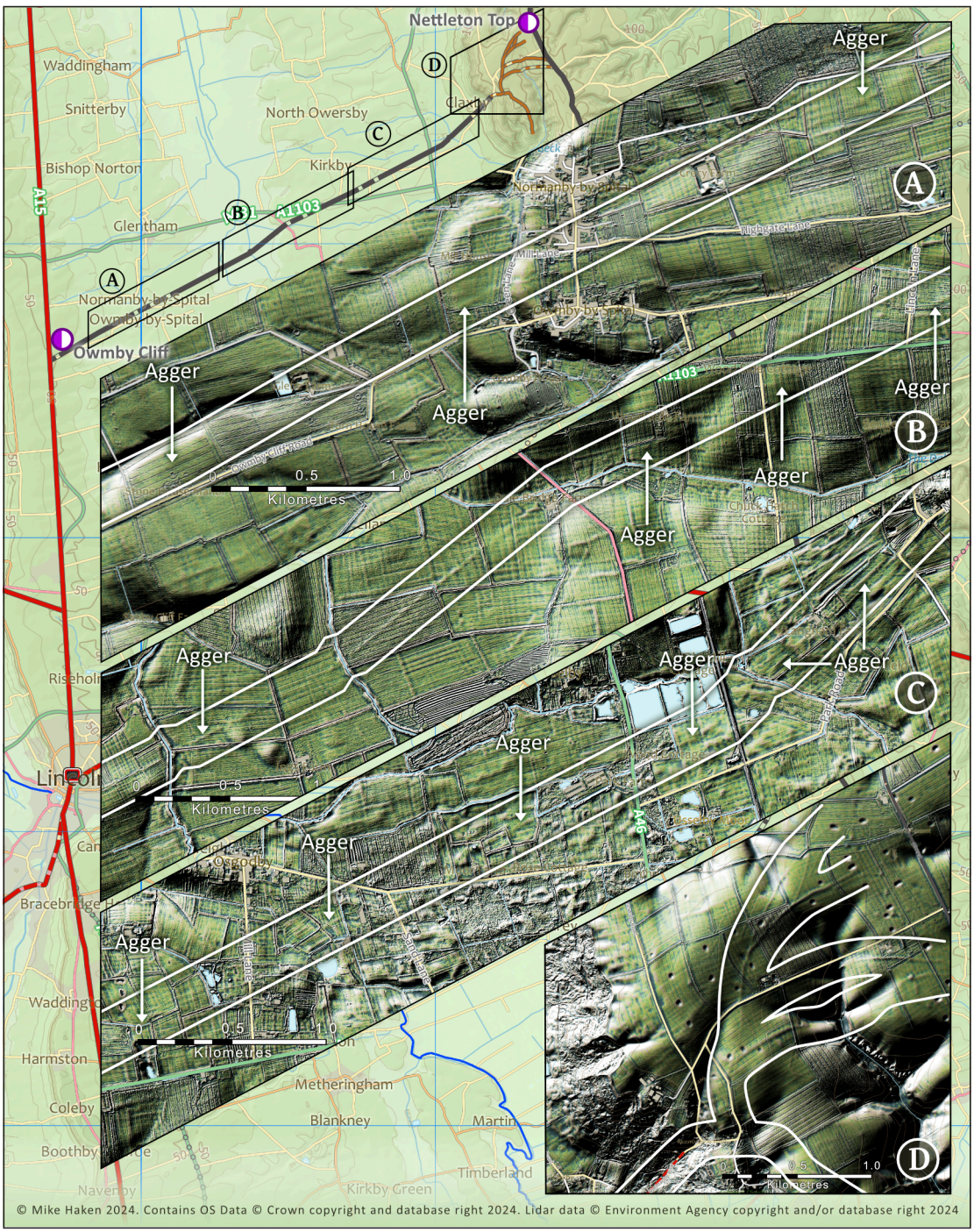


Figure 10. Map and lidar visualisations showing RR274 from the settlement at Owmby Cliff on Ermine Street to Normanby le Wold. Lidar evidence for trackways mainly linking to High Street are also shown.

RR273 Stixwould to Saltfleetby

This road is about 12km (7.5 miles) to the south east of the supposed line of RR272 and runs roughly parallel to it. Albone dismissed it on similar grounds to those for rejecting RR272 (2016, 360), and it is certainly true that north of Hemingby there is no evidence that there was ever a continuous road of any date. However, its original identification by Phillips (1934, 113-114) was due to its southernmost section of some 7 km (4.5 miles), from Stixwould in the Witham valley to the point where it meets High Street (RBW270) being straight. Phillips confused the issue by suggesting that this straight section continued north beyond RR27, which it doesn't. The southern segment would be better described as set out along a straight line, since it does deviate either side of the line quite frequently, but never by more than about 25 m. Over half of it formed part of the boundary between the wapentakes of Gartree and Wraggoe in 1086 (see Brookes 2020) and indeed the northern part of it is still known as Mere Baulk Lane, i.e. the lane on the boundary bank. If taken in isolation, we must consider the possibility that the segment may actually be a branch from High Street dating from the Roman period, despite having no obvious destination or function. Alternatively, it remains just as possible that this part of the wapentake boundary was surveyed as a straight line, with a lane developing along the boundary bank. Either way, the segment cannot be ruled out and is regarded as possible, whereas the rest of the supposed road is disregarded due a total lack of evidence.

RBW270 High Street

High Street, as the name suggests, is the modern name for a ridgeway, linking the Roman small towns of Horncastle and Caistor, and then heading north to the settlement at South Ferriby. Clear evidence that High Street was in use during the Roman period was provided by the discovery of a Romano-British roadside settlement at Nettleton Top (Willis 2013; Lincolnshire HER 50481). Despite this, its sinuous nature and lack of typical Roman characteristics have variously led to it being described as a prehistoric trackway (Phillips 1933, 149; May 1976, 9), an unimproved routeway (Albone 2016, 345) and occasionally Romanised (OS linear file for RR270) with 'some signs of straightening' (Margary 1973, 240). As a result, it has been disregarded by many (e.g. the Ordnance Survey Map of Roman Britain) as not being a true Roman road. However, as pointed out in the Introduction to this paper, such a distinction based on construction and surveying is probably not one that would have been recognised in the Roman period, certainly not in Roman law. It is therefore suggested that it should retain its number awarded by Margary but with the new prefix RBW (for Romano-British Way), proposed earlier in this paper.

Its route between Horncastle and Caistor is primarily a ridgeway along the western scarp of the Wolds represented today by the modern B1225. Between Burgh on Bain and Caistor it is followed continuously by parish boundaries defining parts of 17 parishes over 20km (12.5 miles). As Albone points out (2016, 82), it is impossible to know whether or not the modern line has moved from its original course at any point but the parish boundaries along it suggest that it probably hasn't moved far.

North of Caistor there has been much confusion about the possible route, since no early 20th century writers such as Codrington (1903, 146) or Phillips (1933, 149) felt able to describe the route north of Caistor in any detail. Most writers, including Margary (1973, 240) have therefore assumed that it continued as a ridgeway along the western scarp of the Wolds as far as South Ferriby, mainly represented by the modern road Middlegate Lane, known by this name since at least the 17th century (Bryant 2006, 14). If so, there is no clear evidence for it between the point where it supposedly

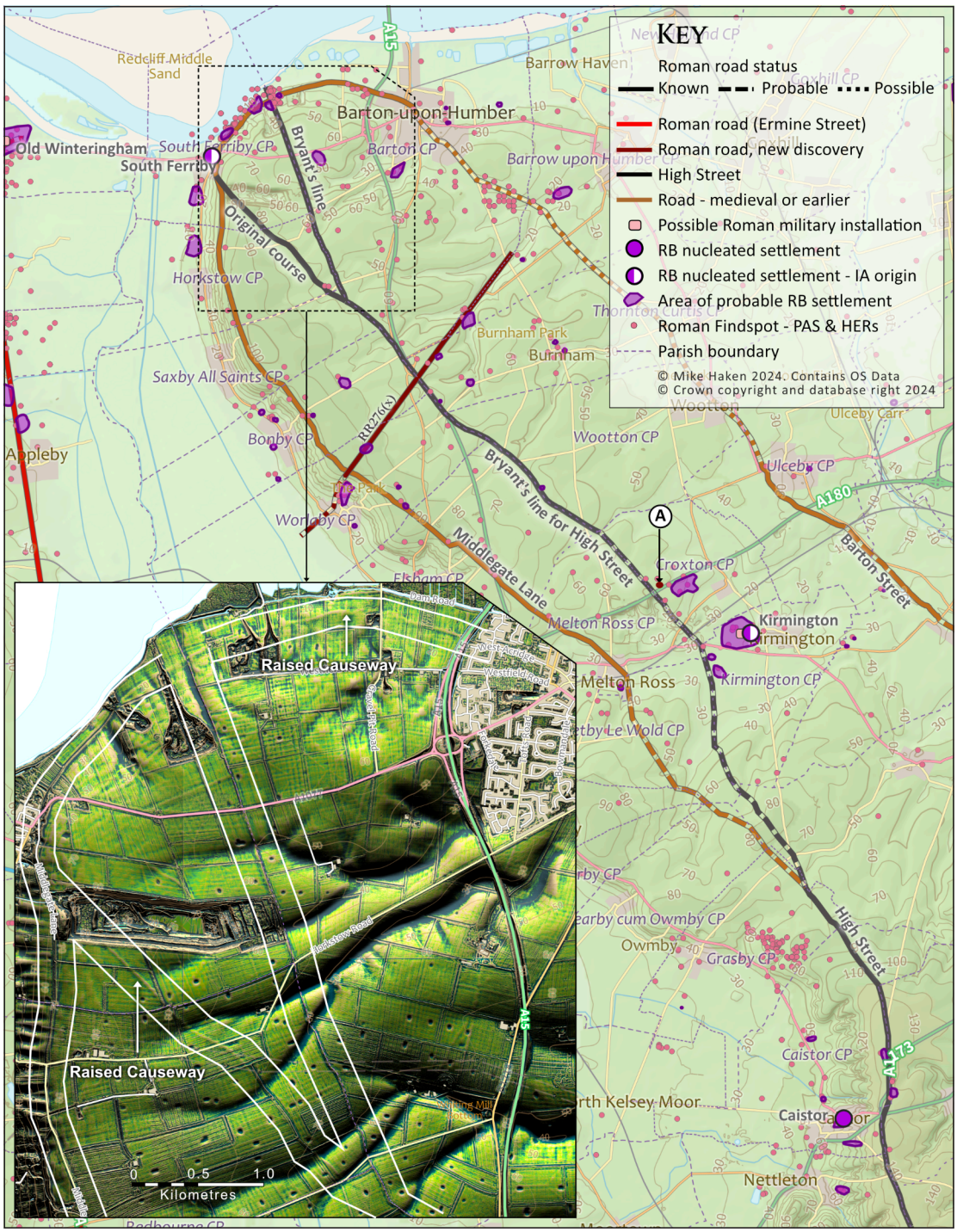


Figure 11. Map showing the probable course of High Street north of Caistor identified by Bryant in 2006 with the newly recognised link to South Ferriby. Lidar imagery reveals how the ancient routes of Middlegate Lane and Barton Street probably form a continuous loop.

diverges north-west from a point at TA 1097 0615 for 6.5 km to the end of the modern Middlegate Lane in Melton Ross, other than a hypothetical and somewhat contrived line mainly comprising straight enclosures period field boundaries and tracks.

Three kilometres north-west of Melton Ross, a large Anglo-Saxon cremation cemetery north of Middlegate Lane was excavated in 1976 close to the intersection with the A15 (TA 046 125), which was found to continue beneath the modern road (although no excavation took place south of the lane). The excavators concluded that since Middlegate Lane is prehistoric in origin, the original routeway must have been slightly further southwest (Webster and Cherry 1977, 209-10), treading perilously close to circular argument. Whilst their suggestion remains possible, the excavators (nor anyone else since) do not appear to have considered the more logical possibility that Middlegate Lane is not of prehistoric origin at all and could actually be later medieval, created above the cemetery long after it had gone out of use. Middlegate Lane has little known Romano-British activity along it, and does not form a parish boundary at any point (other than a couple of short lengths in the hypothetical section), quite surprising given the extensive use of High Street as a boundary marker south of Caistor.

Geoffrey Bryant (2006) proposed a different and more convincing route for High Street well to the east of Middlegate Lane, that forms part of the boundaries of fifteen parishes and passes close to the late Iron Age and Romano-British settlement at Kirmington. This route is for the most part no longer a road, although half of it remains part of the Viking Way footpath from TA 0693 1322 to TA 0047 1921 (9 km). The route as Bryant recorded, and the boundaries along it, has clearly been straightened in places to accommodate 18th/19th century Enclosure Awards, for example where it forms the boundary between Croxton and Melton Ross parishes (near the hillfort of Yarborough Camp). Here, a short length of Roman period road about 225m north east of Bryant's line (TA 0803 1232, marked Point A on Figure 11), potentially representing the original line, was discovered during archaeological monitoring (Murray 2012, 5, fig. 8 and plate 13).

At the northern end, where Bryant's route makes a sharp turn northwards at TA 0156 1815 to then follow a generally straight line towards the Romano-British settlement near Poor Farm (also known as Bluecoat Charity Farm), he was actually conflating two roads, although he couldn't have identified this at the time. Lidar imagery (Fig. 11 inset) shows very clearly that the original road continued on its previous course towards South Ferriby, merging with Middlegate Lane at about SE 9890 2072. The straight road alignment Bryant identified is actually a branch road which has since been confirmed as a Roman road by geophysical survey, and thus confirms that the original sinuous road which it joins must have been in use in the Roman period.

North of the point where Middlegate Lane meets or merges with High Street, now part of the modern Middlegate Lane, the road then swings around to the northeast following the shoreline and is clearly heading directly to the known area of Late IA/RB settlement at South Ferriby Cliff (Price and Wilson 1988, 55-7). In fact, lidar imagery (Fig. 11 inset) shows that it doesn't stop at the settlement, rather it continues past other areas of known Romano British settlement and enters modern Barton on Humber, were its line is taken up the modern road West Acridge. The causeway was previously recognised from aerial photography, but incorrectly interpreted as a boundary earthwork (North Lincolnshire HER 26360). Most interestingly, it seems to form a continuous loop with another well recognised ancient route known as Barton Street (Lincolnshire HER MLI116141), which runs down the eastern edge of the Wolds. The precise route of Barton Street at its northern end approaching Barton on Humber is unknown, but the simple fact that the name of the road occurs as far south as Louth demonstrates that it existed in the medieval period. However, like Middlegate Lane, there is no

evidence for Barton Street being in use earlier than the medieval period, although a prehistoric origin is generally presumed (e.g. Phillips 1934, 149; May 1976, 9). Whilst it is certainly possible to trace it southwards close to the late Iron Age settlement at Ulceby Cross, this could be mere coincidence, hence Middlegate Lane, the northern loop, and Barton Street are marked as 'medieval or earlier' on Figures 11 and 12.

In summary, no evidence could be found to support four of the nine roads included by Margary but excluded from the Ordnance Survey's Map of Roman Britain, and they have been rejected by this study. About 80% of the fifth 'road' also has no evidence to support it. Three of the remaining four have been reinstated on the map since lidar imagery clearly demonstrates typical Roman construction. The final one of the nine, the most notable omission, is High Street, Margary's route 270, which links the Roman small towns of Horncastle and Caistor to the Humber estuary. It appears to have been excluded because it does not conform to the common morphology of Roman roads with a raised *agger*, parallel ditches, and straight alignments, despite having a proven Roman roadside settlement beside it at Nettleton. Since there is no evidence from the Roman period to presume that it was regarded in any different way to a 'conventional' Roman engineered road, it is similarly reinstated.

In this section, we have in effect added ten roads to the map and extended another southwestwards (RR58a). This gives a total of 23 roads, at least in terms of awarded numbers, of which all bar two exhibit the accepted standard morphology of a Roman road. The inclusion of High Street and Sewstern Lane as roads with demonstrable Roman period use, raises the very serious question of what is, and what is not, a Roman road, as was briefly discussed earlier in this paper. It also forces us to consider that if there are two sinuous metalled roads, could there be more, something which will be assessed following an analysis of the 'typical' Roman roads.

Engineered Roads - Analysis and Discussion

As has already been discussed, the earliest phase of development of the road network will undoubtedly have been entirely a military one. M.C. Bishop suggests that we can divide network development into four stages, listed below (2014, 41-3). In addition, there will of course be some existing routes and roads that remain in use or become adapted and developed in any of the four phases.

1. Military roads derived from the main lines of advance during campaign
2. Military cross routes linking the main lines together
3. Interaction of the civilian sphere with the military, possibly happening quite quickly
4. Evolution of the network, new roads added as required, and some going out of use

Conventional wisdom states that most Roman roads in Britain belong to phases one and two, and many of those in phase four also being military roads. However, can that be demonstrated in the study area? Clearly if a road belongs to the first two military phases, it would be expected that they have military installations either at their termini or along their course. Table 1 (overleaf) lists all roads mentioned so far and uses the same symbols as in Figure 12 to visually demonstrate which roads have military sites (or probable military sites) and nucleated or agglomerated settlement at their termini or along their length.

There are ten roads of typical Roman construction which have military sites (or suspected ones) at both termini, and they can safely be regarded as *viae militares* that will have become *viae publicae* when the army moved north in the Flavian period. One slight qualification to this comes with King Street (RR26), since it is known that the construction between Water Newton and Bourne was substantial and early, while excavation of the northern Bourne to Ancaster section suggested that the road was no more than an earth trackway until the late 3rd century at the earliest, when it was metalled in a quite basic fashion (Archaeological Project Services 1995, 57). It is possible that the Roman army planned the road at Stage 1 or 2, but only completed it as far as Bourne, possibly because priorities shifted west to Ermine Street. Whether King Street northwest of Bourne was ever a *via publica* can probably never be determined with full confidence, but as discussed in the Introduction, the fact that it was at first a *via terrana* does not rule that out.

In addition, there are three others. The first is the short road (RR290) heading east from Brough (*Petuaria*, *civitas* capital of the Parisi) on the north shore of the Humber, which will certainly have been a *via publica* irrespective of whether it had any military function, simply by virtue of its origin being

Margary No.	Start and End Points	Sites at Start	Sites at End	Sites along route	Stage	Length	Via
RR2c	Water Newton (*Durobrivae*) to Lincoln (*Lindum*)				1	83km	*publica*
RR5f	Leicester (*Ratae*) to Lincoln (*Lindum*)				2	80km	*publica*
RR59(x)	Ancaster to East Stoke (*Ad Pontem*)				2	25km	*publica*
RR591(x)	East Stoke (*Ad Pontem*) to Osmanthorpe				1	10km	*publica*
RR282(x)	Osmanthorpe to Rossington				1	43km	*publica*
RR2d	Lincoln (*Lindvm*) to Old Winteringham				3	50km	*publica*
RR28a	Scampton to Doncaster (*Danum*)				2	51km	*publica*
RR281	Rossington to Long Sandall				2	6km	*publica*
RR580	RR2c to Thistleton to RR59(x) (uncompleted)				2	35km	*publica*
RR26	Water Newton (*Durobrivae*) to Ancaster				2	48km	*publica*
RR27	Lincoln (*Lindum*) to Skegness				2	66km	*publica*
RR290	Brough (*Petuaria*) to Swanland				3 or 4	4km	*publica*
RR261	Baston to Spalding				3 or 4	14km	*vicinalis*
RR582(x)	Thistleton to Kirby Bellars to Syston				3 or 4	32km	*vicinalis*
RR58a	Quorn? to Ermine Street				3 or 4	42km	*vicinalis*
RR58bbx	Sapperton (*Causennis?*) to Ermine Street				4	7km	*vicinalis*
RR263	Easton to Stainfield?				3 or 4	13km	*vicinalis*
RR260	Bourne to ?				3 or 4	36km	*vicinalis*
RR273	High Street to Stixwould				3 or 4	7km	*vicinalis*
RR274	Owmby Cliff to Normanby le Wold			?	3 or 4	18km	*vicinalis*
RR276(x)	Worlaby	?			4	7km	*vicinalis*

Table 1. A review of all roads listed so far, showing graphically the type of sites they run from and to, and the sites along them. The network stages (M.C. Bishop's model), lengths and probable legal designation are listed.

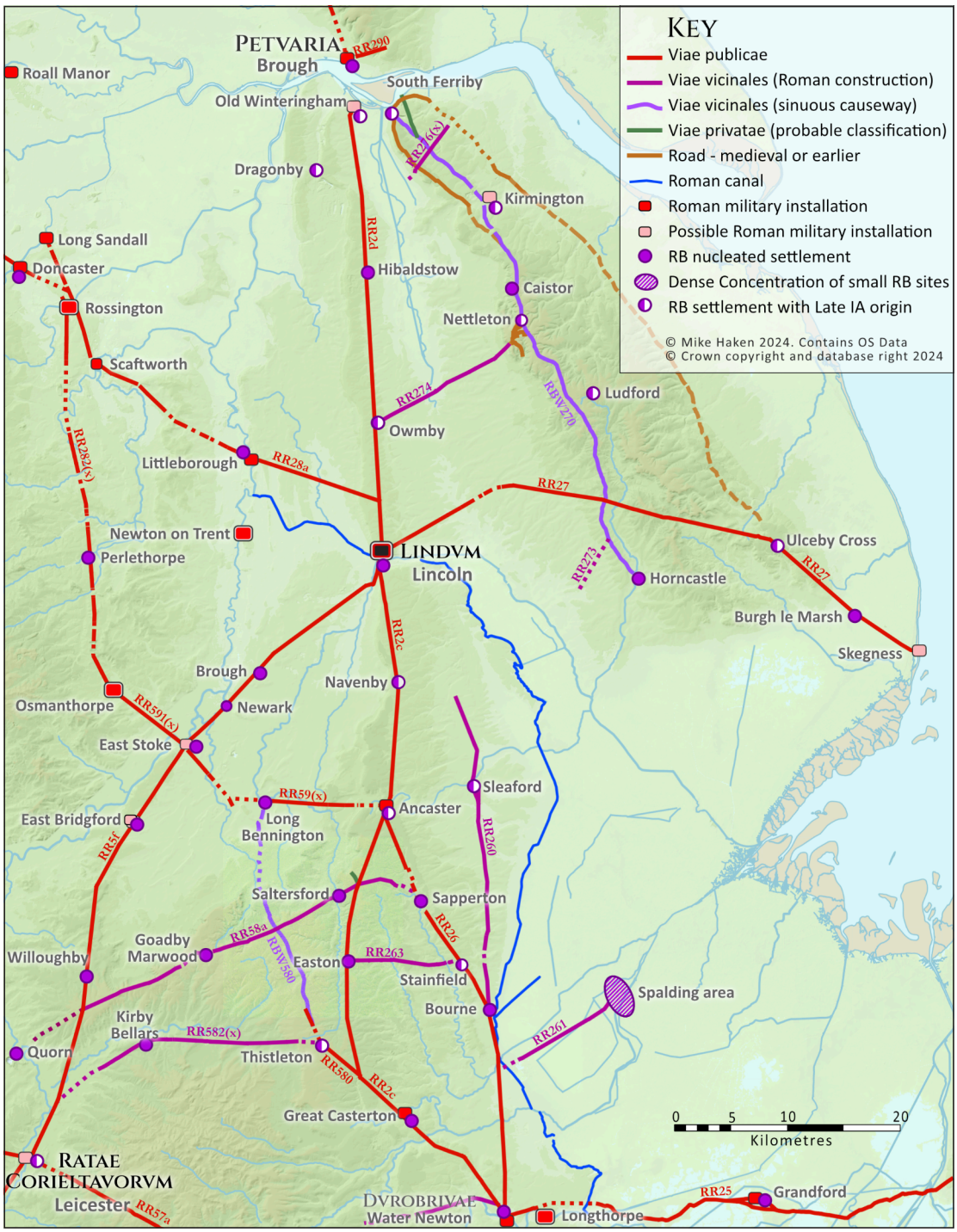


Figure 12. Revised map of Roman roads in the North East Midlands, showing the probable classifications of viae publicae *and* viae vicinales, *including the sinuous routes of Sewstern Lane/The Drift and High Street*

a *civitas*. Next there is RR580 through Thistleton, which appears to never have been completed, but only really makes sense as providing a link between Great Casterton on Ermine Street and the so-called vexillation fortress at Osmanthorpe, via East Stoke (*Ad Pontem*) on the Fosse Way. There are therefore twelve roads which we can confidently conclude were *viae militares* that eventually became *viae publicae*.

Whilst all these roads (excepting RR290) belong to Stage 1 or 2 of Mike Bishop's proposed model, they all also served nucleated civilian settlements that sometimes already existed and often developed along them, sometimes originally associated with military sites, sometimes not. However, there are nine other roads which clearly did not have any association with military sites yet are constructed in standard fashion and only appear to serve the needs of settlement along their route. Interestingly, all bar one (RR276(x) through or from Worlaby, where a settlement is possible) appear to have settlement at one end and a road junction at the other. This includes RR274, with an area of settlement, possibly nucleated, at Normanby le Wold, and even the rather peculiar RR260 north from Bourne via Sleaford which seems to simply stop near Ashby de la Launde, where the PAS database records a cluster of Roman findspots around the northern end of RR260, possibly suggesting a currently unknown settlement. Finally, these nine roads are much shorter than the previously discussed *viae militares*, averaging just 19.56 km long as opposed to 41.75 km for the *viae militares*, later *viae publicae.*

The obvious conclusion here (excepting RR276(x)) is that these roads are designed to link a specific settlement with a specific road, sometimes crossing other roads in the process. They clearly correspond with those roads that Ulpian says 'lead to villages' and described as 'leading into military roads'. In other words, they are *viae vicinales*, not *viae publicae*. There can be little doubt that these were never *viae militares* and yet they appear to have been built in the same way, sometimes surviving much better. It is hard to see why the Roman army would have any interest in such development, although it is conceivable that if these roads were Bishop's stage three, they could represent cooperation between state and local population if only by providing a few skilled men to oversee a local workforce. For roads which connect Romano-British settlement which developed from a late pre-Roman Iron Age precursor, this seems a sensible explanation, although it would probably mean such roads were quite early. Alternatively, especially if built later in the Roman period, commercial contractors (possibly with former military experience) may well have been used. Whilst there is no surviving direct evidence of contractors carrying out road building in Roman Britain, the phenomenon is well attested elsewhere in the Empire, and it seems logical that they would have been used here. Unfortunately, without approximate dates for the construction of individual roads, it is impossible to know which of the two scenarios is correct.

At this point we must turn to the final two roads discussed so far, which were not planned or engineered in classic Roman fashion, but were unquestionably in use during the Roman period, namely High Street (RBW270 and Sewstern Lane/The Drift (RBW580). Whilst High Street may have a military installation close to it (Kirmington), this merely illustrates the Roman army's willingness to use pre-existing roads or tracks. Neither road was built by the Roman military and any straightened stretches probably belong to the 18th/19th century rather than the Roman period. Both have settlements at their termini, although only Sewstern Lane/The Drift meets a *via publica* and does so at each end. They seem to exist primarily to provide connectivity to nucleated settlements; connecting settlement to the greater Roman road network seems to be a secondary function (see Table 2). In Roman legal terms, these roads are also clearly *viae vicinales*, but they are also quite different from the

engineered roads previously discussed, hence they are represented in Figure 12 by a slightly different colour.

Other Sinuous roads from the Roman period

The question as to whether there may be other sinuous roads in use in the Roman period within the study area has already been posed and the logical answer is almost certainly yes. For example, Figure 12 shows how the important settlements at Dragonby and Ludford appear isolated. The real questions should be how many, where, and how sure can we be that they were in use in the Roman period?

Nearly a century ago, C.W. Phillips identified several routeways that he identified confidently as being 'ancient trackways' (1933, 147), implying, without definitively stating so, that they were prehistoric in origin. Not all stand up to scrutiny, but Sewstern Lane and High Street certainly do, and he also included Barton Street, Bluestone Heath Road, and the route that follows the Lincoln Edge, known as Middle Street north of Lincoln, and Pottergate between Lincoln and Ancaster, which have often been regarded to be part of the supposed 'Jurassic Way' (e.g. Grimes 1951; May 1976 fig. 4). Barton Street has already been mentioned, and whilst certainly no later than medieval, there is little evidence to suggest an earlier date, other than the apparent continuity with Middlegates Lane and/or High Street as it seems to loop around past several Romano-British sites near the Humber estuary.

Apart from High Street and Sewstern Lane, three of Phillips's suggested routes are likely to have been in use in the Roman period, plus King Street Lane in Leicestershire and Nottinghamshire, along with two more identified during this study. Each one is briefly described below.

King Street Lane (RBW581)

This road can be easily traced as a continuous route almost entirely along modern lanes, which only makes sense as a single route when one realises that it connects three important Romano-British settlements, namely Thistleton, Goadby Marwood, and East Bridgeford (*Margidunum*). It is known as King Street Lane between Thistleton and Stonesby, also passing through Waltham-on-the-Wolds, Harby, Langar and Bingham. It has previously been recognised by a few scholars (e.g. Liddle 2004, Figure 1) as potentially Romano-British (Leicestershire and Rutland HER MLE2814), but never universally accepted. The original causeway can be seen on lidar imagery cutting across bends in the modern lane in a couple of places, for example between SK 8349 2365 and SK 8307 2395, and between SK 8211 2452 and SK 8125 2473.

Thistleton to Bourne (RBW583(x))

This was identified from lidar imagery (during this study) branching from RR582(x) at about SK 8736 1721 and can be traced easily as a continuous string of field boundaries, trackways, and linear features visible on lidar imagery for 10km to SK 9717 1909 west of Castle Bytham. It skirts around the north of the Romano-British settlement at Thistleton, where King Street Lane appears to branch from it, although the precise location has been destroyed by works related to Ironstone mining. It then crosses Ermine Street (before which it forms the county boundary between Rutland and Lincolnshire), raising the possibility that it actually pre-dates the Roman road, and continues eastwards. East of Castle Bytham its precise course is less clear, however the settlement at Bourne

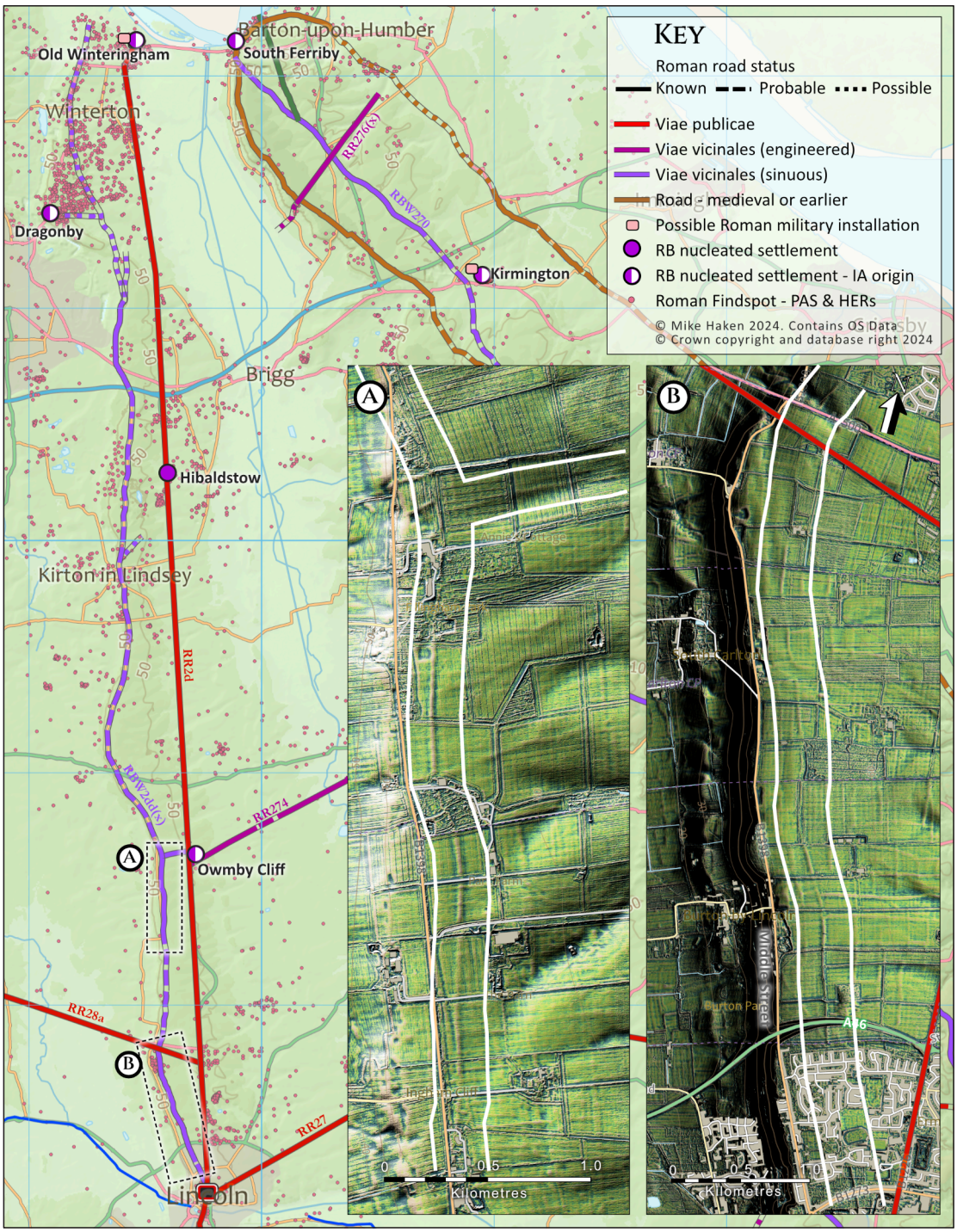


Figure 13. The route of the so-called Jurassic Way (RBW2dd(x)) north of Lincoln, showing the distribution of Roman period findspots recorded both in HERs and in PAS

would be the logical destination, if, of course, the road was in use in the Roman period, and here we risk circular argument. On balance, it is more likely than not that it was, but this cannot be regarded as certain.

Pottergate (RBW2cc(x)) and Middle Street (RBW2dd(x)); part of the so-called Jurassic Way

Pottergate (south of Lincoln) and Middle Street (north of Lincoln) run along the crest of the limestone scarp from Ancaster to the Humber via Lincoln, some 82 km (51 miles). They were certainly medieval roads and are often claimed to have prehistoric origins (May 1976, 7; Whitwell 1992, 45; Lincolnshire HER MLI91063), running to the west of Ermine Street and never more than 3.5km (2.2 miles) away from it. It is quite possible that Pottergate and Middle Street actually represent parts of the same routeway (as they will be treated here), indeed the two roads have frequently suggested to be part of a supposed long-distance routeway from the Humber to the Bristol Channel known as the Jurassic Way (Grimes 1951; Crawford 1953, 81-4).

The Jurassic Way was debunked by Christopher Taylor (1979, 32-6) but this does not mean that some elements of it may not be genuine, they had just been conflated into an artificial whole. However, the use of either Pottergate or Middle Street during the Roman period is by no means generally accepted. For example, whilst the Lincolnshire HER accepts the possibility that Pottergate between Ancaster and Navenby may have prehistoric origins (MLI91063), none of the route north of Navenby is currently recorded as potentially pre-medieval in the HER. It is worth noting that in the report that first established an Iron Age origin for the Romano-British settlement at Navenby, the excavators suggested that Ermine Street 'may be the formalisation of a more ancient trackway' (Palmer-Brown 1994, 23), without considering the possibility that said trackway was on the western side of the settlement, not the east.

North of Lincoln, the route is again ignored by the Lincolnshire HER, but regarded as prehistoric in the North Lincolnshire HER (no. 20003). One partial explanation for this disparity is the assumption that the modern road named Middle Street is always on its original course. For example, when the B1398 was excavated at Burton but revealed only post medieval construction (Lincolnshire HER MLI70106), this was taken as evidence that the entire road was post-medieval. Lidar imagery now shows that this assumption is probably false, with the original line (sometimes fragmentary) being visible east of the modern road in a few places (Fig. 13). The present author identified parts of the original road almost a decade ago but must now admit to an error, since it was suggested that this was an engineered Roman road cutting the corner between RR2d and RR28a; it clearly isn't. Instead, it is sinuous for its entire length, and crucially can be traced appearing to cross RR28a suggesting it may pre-date the Roman road.

The route at its northern end is largely hypothetical, although it would be logical for it (or a branch) to serve the settlement at Dragonby and the dense area of settlement between Dragonby and Winteringham. Indeed, the Lincolnshire and North Lincolnshire HERs along with PAS data show greater evidence of small-scale settlement along the limestone scarp near Pottergate and Middle Street than along Ermine Street itself and those farmsteads would have needed access to major markets (see Fig. 13). For local purposes at least, the road would have served far better than Ermine Street. Indeed, there is circumstantial evidence suggesting that north of RR28, Middle Street may have taken that role. Excavation of Ermine Street near Scampton showed that the Roman road north

of its junction with RR28 (Tillbridge Lane) went out of use for a period some time after the mid 2nd century due to a lack of maintenance (Brett and Clay 2002). Local traffic along this important route must have gone somewhere and Middle Street, or more accurately the road that preceded it, is the only known alternative.

Finally, several short lengths of causeway connecting Ermine Street with its sinuous cousin to the west provide clear evidence that both were in simultaneous use. One link in particular appears to connect Middle Street directly to the settlement at Owmby Cliff, which if proven would demonstrate the Roman period use of the western road.

This road makes no sense as a medieval or even post-medieval road, since in over 82 km (51 miles) it only runs through three Saxon, medieval or post-medieval villages, whilst a further 26 are just to the west of it and three just to the east. Whilst this is not proof, the accumulated evidence strongly suggests that this road was in use during the Roman period and probably before, providing a vital link from the Humber to the southern part of Corieltauvian territory prior to Ermine Street being built.

Bluestone Heath Road (RBW275(x))

The road known today as Bluestone Heath Road was identified as an ancient trackway by Phillips (1933, 148). Lidar imagery suggests it branches from the Ulceby to Mablethorpe road (RBW278(x) as described below, next to the Romano-British settlement at Ulceby Cross, heading to the Romano-British settlement at Ludford and on to meet High Street. There is no clear evidence that it originated further south at Burgh le Marsh as is often claimed, although the modern name has been applied to the Roman road (RR27) between Burgh and Ulceby since at least the mid 19th century. It is a ridgeway, and takes an easy if very winding course entirely beneath the modern road until TF 2561 8611. Here the modern road heads just east of north to meet the A157, however lidar imagery shows clearly that the original causeway headed more north-westerly towards the Romano-British settlement (and modern village) at Ludford (Fig. 14), and then on to meet High Street, as had previously been suspected.

As far as the author has been able to determine, this is the only sinuous Romano-British road in the study area that has been observed in section, albeit only in a narrow service trench (Lindsey Archaeological Services 1997, 17-18). There was apparently only evidence of one pre-modern road, just 2.5 m wide and of a single build of tipped chalk a maximum of 0.2 m deep. This is somewhat at odds with the substantial causeway that can be seen either side of Ludford (Fig. 14 insets), where it survives as a spread feature up to 0.3 m high and 18 m across.

Ulceby Cross to Mablethorpe (RBW278(x))

This road was identified during this study, as a result of analysis of lidar imagery near the settlement at Ulceby Cross. This revealed that where the Roman road from Burgh le Marsh turns to the west, a raised causeway can be seen continuing the alignment onwards, then turning northwards before its line is taken up by the modern lane to Aby (Fig. 16). The impression is also given that the Bluestone Heath Road originally branched from this road at TF 3985 7523, the point where it also meets Barton Street. An earlier route is suggested by lidar for about a kilometre between TF 4041 7727 and TF 4093 7810, with a further 400 m missing section at Withern. Chalk Lane takes up the line at Withern, after which the route is marked by the modern lane all the way to the northwestern edge of Mablethorpe,

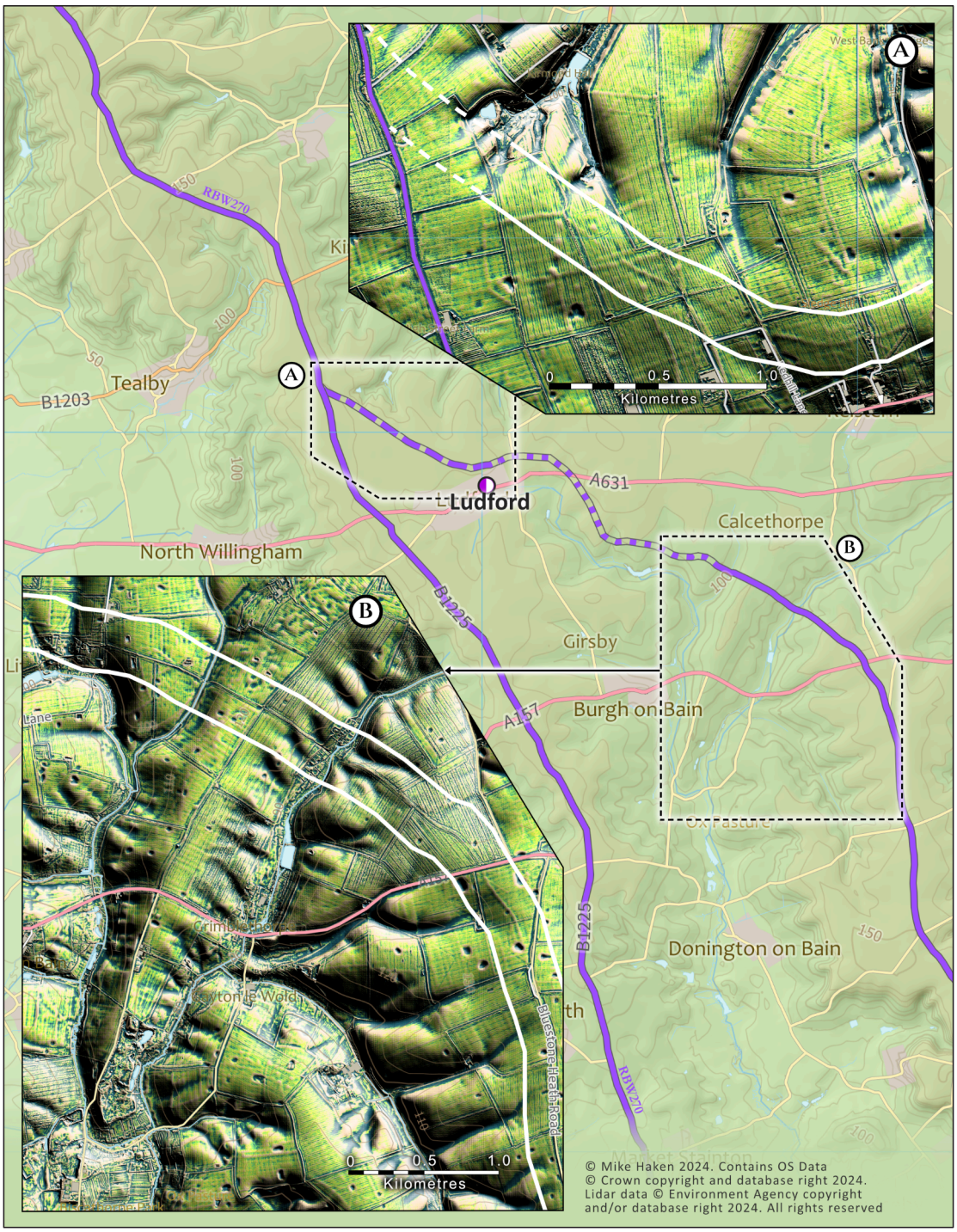


Figure 14. The northern part of the Bluestone Heath Road, showing previously unrecognised evidence for the road from lidar imagery.

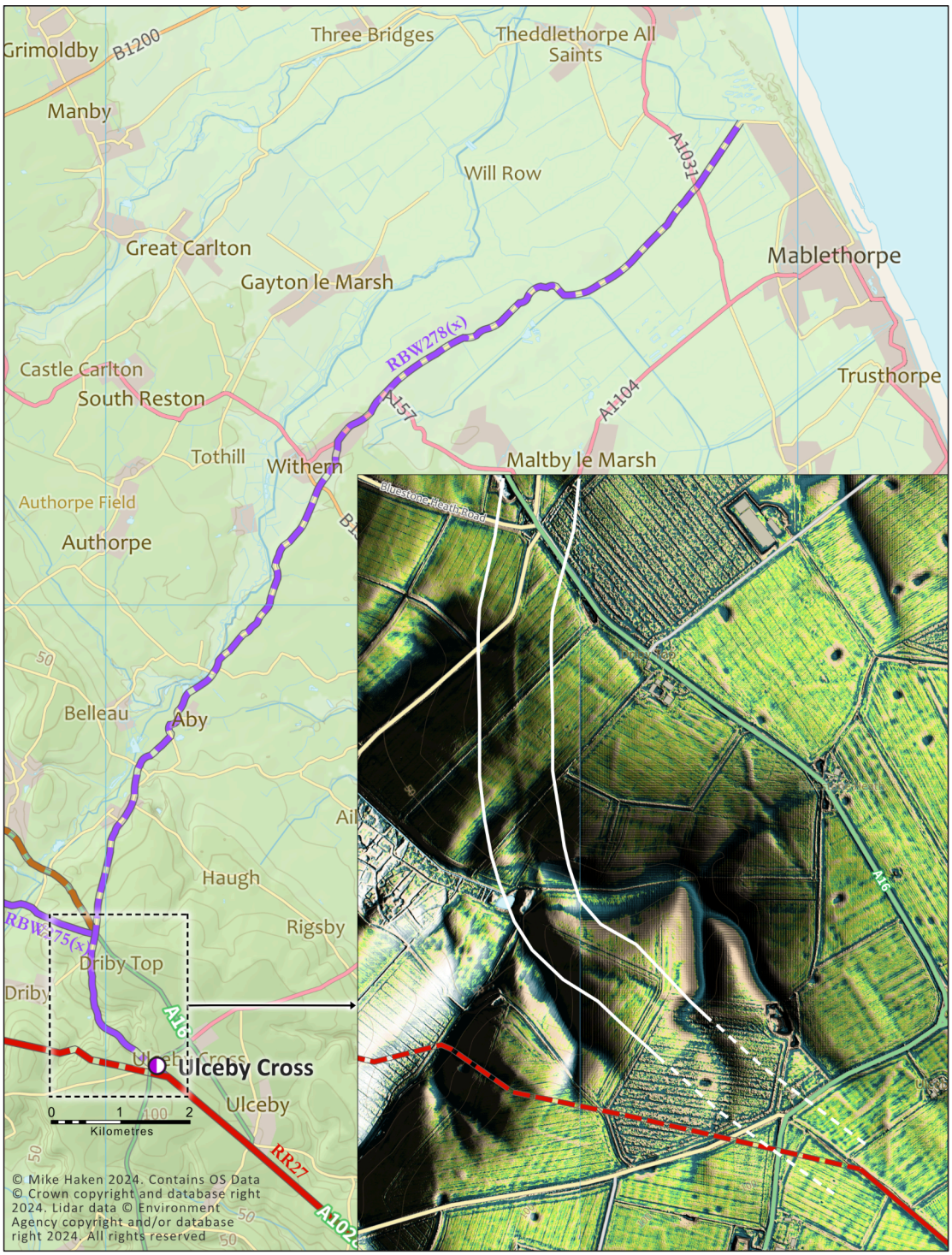


Figure 15. The probable course of a Romano-British way between Ulceby Cross and Mablethorpe.

Margary No.	Start and End Points	Sites at Start	Sites at End	Sites along route	Stage	Length	Via
RBW581	Thistleton to East Bridgeford (*Margidunum*)	◐	●	●	4	33km	*vicinalis*
RBW583(x)	Thistleton to Bourne	◐	●		4	23km	*vicinalis*
RBW2cc(x)	Ancaster to Lincoln (*Lindum*)	◐	●	◐	N/A	25km	*vicinalis*
RBW2dd(x)	Lincoln (*Lindum*) to Dragonby & the Humber	●	◐	◐	N/A	52km	*vicinalis*
RBW275(x)	Ulceby Cross to High Street (via Ludford)	◐		◐	N/A	31km	*vicinalis*
RBW278(x)	Ulceby Cross to Mablethorpe	◐	●?	◐ ●	N/A	19km	*vicinalis*
RBW580	Thistleton to Long Bennington	◐	●		N/A	27km	*vicinalis*
RBW270	Horncastle to South Ferriby	●	◐	● ▢	N/A	62km	*vicinalis*

Table 2. A review of all sinuous roads running from Romano-British settlement in the study area, showing graphically the type of sites they run from and to, and the sites along them. The network stages (M.C. Bishop's model), lengths and probable legal designation are listed.

where it is represented by Stain Lane and Kent Avenue. Scatters of Romano-British artefacts have often been found at low tide on Mablethorpe beach, suggestive of settlement that is now lost to the sea (Lincolnshire HER MLI41439). The finds are insufficient to be able to determine the nature of the settlement, but potentially lends support to the idea that the road was linking two nucleated Romano-British settlements.

Returning to the beginning of this road, heading south-east where it in effect continues as the engineered Roman road RR27, after about 1.5 km a sinuous causeway diverges to the south of the Roman line, to run roughly parallel. There is therefore a suspicion of a parallel road running to Burgh le Marsh, a similar situation to Middle Street, however here the road presents as if it is actually two roads crossing at TF 4412 6962 east of Skendleby, rather than a single direct link. This means that it is not yet possible to claim with any confidence that this is a link between two Romano-British sites, hence it is currently omitted from the map.

Summary

A good case can be made that each of these roads was in use during the Roman period, based on no other reason than the fact that they link two or more Roman settlements or areas of settlement and in every case other than High Street, at least one terminal settlement did not persist into the medieval period (ie Thistleton and Ulceby Cross). Whilst that is not proof, it is difficult to interpret these features in any other way. They are, however, quite different from the probable *viae vicinales* already discussed, and not only in their planning and construction. Table 2 follows the same design as Table 1, and all the sinuous roads so far discussed are included, Pottergate and Middle Street being treated individually. Where eight of the nine engineered *viae vicinales* previously discussed had settlement at just one end, clearly linking settlement into the network, seven out of eight sinuous roads have settlement at both ends, and it could even be argued that Ludford is so close to High Street that the Bluestone Heath Road should also be regarded in the same way. Linking settlement to the Roman network is clearly not a priority. All these roads have a settlement with Iron Age origin at one end and three of them, Pottergate, Middle Street and Bluestone Heath Road could well be prehistoric in origin, as Phillips (1933), May (1976) and Whitwell (1992) all surmised. However, we have to be

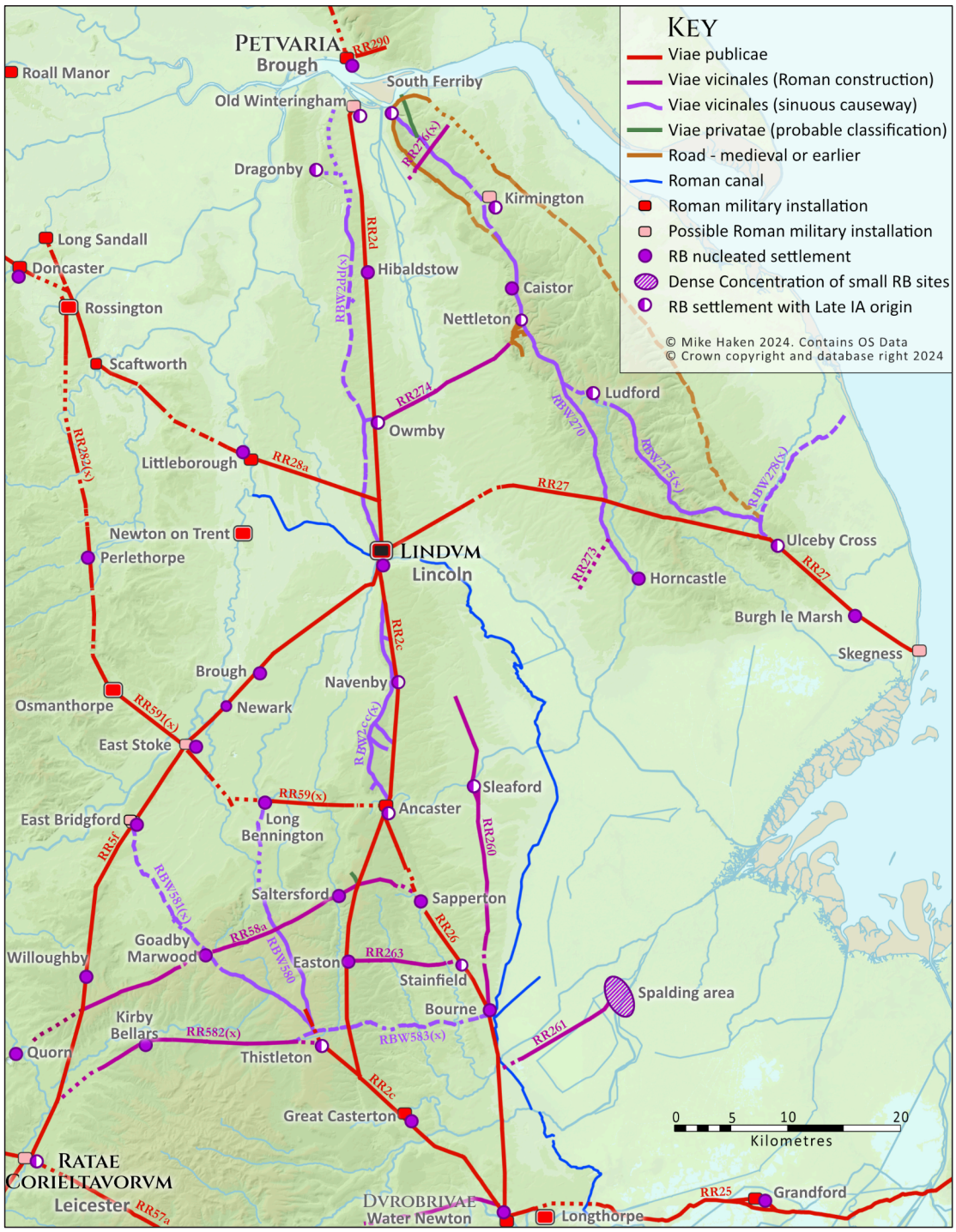


Figure 16. Probable network of Roman roads and Romano-British ways in the in the North East Midlands, showing the probable classifications of viae publicae *and* viae vicinales.

slightly cautious about drawing conclusions based on whether or not a settlement did or did not have a late Iron Age antecedent, since so many settlements have not been thoroughly investigated and the evidence on which such assessments have been made is often very weak. Jeffrey May's claim that 'most major centres of Romano-British population were also population centres in the late Iron Age' (1984, 18) has not been vindicated, although he may yet be proved correct. The final observation here, and an important one, is that the average length of one of these roads is 34km (treating each half of the Jurassic Way as an individual road), as compared to an average length of just 19.5km for the typically Roman *viae vicinales*: these sinuous roads are not insignificant little country lanes.

Final Discussion and Conclusions

The Introduction to this paper set out two key questions; whether or not we should be regarding all Roman roads as being *viae publicae*, and whether all *viae publicae* and *viae vicinales* share the common morphology of a 'typical' Roman road. After analysing the roads and the sites along the roads the simple answers are that we should not and they do not.

It is evident that within the study area, roads that were originally *viae militares* form the core of the road network, representing Bishop's development stages 1 and 2 (marked in red on Figures 12 and 16). These roads will have become public relatively quickly since most military installations in the area (south of the Humber and the R. Don catchment) were abandoned before or during the military push northwards in the AD70s, and the movement of the Legio II Adiutrix from the legionary fortress at Lincoln to Chester in c.AD77-78. Maintenance of existing roads will then have passed to the *civitas* administration at *Ratae* (Leicester) with *Lindum* (Lincoln) playing a part within its own *territorium*, certainly after it became a *colonia* in about AD86. In total, there are 501 km (311 miles) of public roads (roads running off the edge of the map are excluded), and it seems highly unlikely that any more will now be discovered within the study area.

The only road whose legal status as a *via publica* may potentially be uncertain is King Street (RR26). It is marked on Figures 12 and 16 as a *via publica* because it links two military installations, however it has always seemed a little odd, appearing largely to duplicate Ermine Street. King Street is a very well engineered road from Water Newton to Bourne but archaeological investigation suggests that from Bourne to Ancaster there was merely an earthen trackway (*via terrana*) until it was thinly metalled in the late 3rd century. It is possible that it was all planned as a whole, but that original construction never finished beyond Bourne because the army moved north. If so, it was a *via militaris* (later a *via publica)* and would be the only known example in Britain of a *via publica* persisting as an unmade road for over two centuries. On the other hand, could the post-medieval name 'King Street' actually conflate two roads? If so, one, or even both, may only have been constructed to link the settlement at Bourne into the network, making them by definition *viae vicinales*.

As was shown in Table 1, military/public roads stand out as having a military installation at each end, the only exception being RR290, which in any case was probably built when *Petuaria* was already a *civitas* centre. The remainder of surveyed and engineered roads total some 176 km (109 miles); these generally have a settlement at one end only and connect to another road at the other end with no obvious military connection. It remains possible that the military assisted with their construction, in which case these would be part of Bishop's stage 3, although if contractors had been commissioned to undertake their construction, which is possible, they would fall into Bishop's stage 4. Applying what

we know from Ulpian and Siculus Flaccus regarding road administration, these roads link *vici* to *viae militares/publicae*, and are therefore by definition *viae vicinale*s, and would have been the responsibility of the *magistri* of the *pagus* and not administered by either *Ratae* or *Lindum*. Crucially, it is very clear from the archaeological evidence that these roads are in no way lesser or inferior, as has been previously assumed. If the northern half of King Street truly was a public road, that only serves to emphasise this point.

The study has shown that there are 272 km (169 miles) of road within the study area which do not exhibit classic Roman engineering (29% of the total), and which are all too often rejected as being Roman roads as a result. Some, such as Middle Street and Pottergate (part of the supposed Jurassic Way), may have prehistoric origins, however others, such as King Street Lane between Thistleton and *Margidunum* (East Bridgeford), appear to have been created during the Roman period. Yet they present as a uniform group, always linking two Romano-British settlements one of which always seems to have pre-Roman Iron Age origins. Their very nature makes them much harder to identify with any confidence, and it is therefore likely that there are several more waiting to be added to the list. We might predict, for example, that there could be roads from Sleaford to Ancaster and Navenby, and from Ulceby Cross to Horncastle, and from both Navenby and Ancaster to *Crococalana* (Brough, near Newark).

Legally, all this latter group of roads would also have been *viae vicinales*, and administered by the *pagi* through which they ran. Despite this equality of administration, they were quite different from the previously discussed group of viae vicinales, since they utilise a different form of construction, and their main intent seems to be to link settlements together, joining the main Roman road network being mainly an unintended (but beneficial) consequence.

This apparent separation between the two groups of *viae vicinales* may have a cultural explanation. Settlements along the *viae publicae*, including ones which have older origins such as Owmby Cliff, would have much more cosmopolitan populations, were in more regular contact with Roman cultural influence, and were consequently generally much quicker to accept a degree of *romanitas*. Hence, roads built by these settlements were of typical Roman construction.

Away from the *viae publicae*, things may have been very different. In the north of Lincolnshire, May (1984) noted the relatively even spacing between the major later Iron Age settlements of Dragonby, Kirmington, Owmby, Ludford and Ulceby Cross, adding Horncastle and Lincoln to that list (the existence of such major settlements at Lincoln or Horncastle has not actually been confirmed, but cannot be ruled out). May postulated that each had its own administrative area of roughly between 24 km and 32 km (15 to 20 miles) across, and it is quite reasonable to suggest that such an arrangement may have continued through the Roman period, with each area effectively becoming a *pagus*. Southwest of the Wolds, the picture is less clear since fewer major late Iron Age centres have been identified. However, Ancaster is 28 km (17 miles) from Lincoln, and Thistleton 27 km from Ancaster, and Leicester 34 km (21 miles) from Thistleton. All three could be argued to fit May's pattern.

With regard to road administration, it is important to remember that *viae vicinales* were the responsibility of the *pagi*, and it hardly seems likely that roads would have been built unless they served the vicus at the heart of each *pagus*. In other words, the roads will provide strong clues as to the *vici* forming the centres of *pagi*. Thistleton is a clear candidate for being such a *vicus,* as is Bourne.

It is conceivable that some of these *vici*, especially those well away from the *viae publicae*, maintained a degree of cultural continuity into the Roman period, and simply continued to construct their roads

in the same way they always had. If so, a clear implication would be that some of these roads may be pre-Roman, the favourite candidate being the Jurassic Way. Cultural continuity may also explain why the Jurassic Way continued in use during the Roman period, despite the creation of Ermine Street. A modern parallel might be seen in Yorkshire, where the creation of the A1(M) has left the old Great North Road running alongside it between Melmerby and Scotch Corner; local traffic largely continues to use the old road, and long distance traffic the A1(M).

The Ordnance Survey's Roman Britain map shows just 487 km (302 miles) of Roman road in the study area (excluding roads that go off the map), compared with 949 km (590 miles) of road identified by this study, almost double, clearly illustrating the inadequacies of that map in its current form. Just under half (448 km - 278 miles) should be regarded as *viae vicinales*, the proportion being likely to increase if aditional sinuous Romano-British ways are discovered. Of course, this study has only been covering about three quarters of the area typically ascribed to the Corieltauvi. Does the remainder of Corieltauvian territory display the same phenomena or are there marked differences? More importantly, if this exercise is repeated across the rest of England outside the militarised zones, would results be similar or would the proportions of *viae publicae* and *viae vicinales* vary significantly?

Whatever the answer to those questions may be, the study has shown that in the North-east Midlands at least, the actual network of main roads used during the Roman period is not well represented by our current simplistic use of the term 'Roman road'. It has demonstrated that the classic Roman road, a well engineered *via publica* built in a series of straight lengths, actually accounts for only half the full network. The idea that the other half (i.e. the *viae vicinales*), were all inferior in their construction has been shown to be false, a misconception which probably arose from the general understanding that *vicus* refered to a small village, whereas in reality the term probably applied to any settlement less important than a civitas, and thus included small towns such as Horncastle and Caistor.

Unfortunately, this study has highlighted a second major issue, namely a major lack of archaeological investigation on both the roads themselves and the settlements they serve. Of the five previously identified sinuous Romano-British ways, all known for 90 years and High Street for much more, none has ever been subject to pro-active archaeological investigation of any kind. The only known observation of the construction of one of these roads was of the Bluestone Heath Road, and that was only possible due to a service trench being dug across it. In order to truly understand the differences between these features and what others regard as true Roman roads, targeted excavation is essential. Similarly, most settlements are so poorly understood that it is not clear how the roads and Romano-British ways truly relate to them, and as a consequence, leaves us unable to prove whether or not these roads were in use during the Roman period. We can only hope that in the coming decades there will be a renewed interest in conducting fieldwork on and around these vitally important sites.

Acknowledgements

This paper would not have been written had it not been for the influence of two individuals. First, Bev Knott, whose persistent questioning of the received wisdom that Roman roads were built mainly by the military, forced me to reconsider the evidence. Second, but of no less importance, Chris Pedley, who first alerted me to the fact that RR274 and High Street (RBW270) east of Normanby le Wold were linked by sinuous raised causeways and not a conventional 'Roman road'. It was Chris's discovery that made me wonder if Bev's assertions could be supported by the evidence, and instigated the research that was eventually to form this paper.

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