



CHESTER NORTHGATE REDEVELOPMENT DRAINAGE PROPOSALS

Archaeological Desk-
based Assessment



Oxford Archaeology North

July 2016

**Cheshire West and Chester
Council**

Issue No: 2016-17/1745
OA North Job No: L10790
NGR: SJ 4039 6638

Document Title: CHESTER NORTHGATE REDEVELOPMENT DRAINAGE PROPOSALS

Document Type: Archaeological Desk-based Assessment

Client Name: Chester West and Chester Council

Issue Number: 2016-17/1745

OA Job Number: L10790

National Grid Reference: SJ 4039 6638

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CONTENTS

| | |
|---|-----------|
| SUMMARY | 3 |
| ACKNOWLEDGEMENTS..... | 5 |
| 1. INTRODUCTION | 6 |
| 1.1 Circumstances of the Project | 6 |
| 1.2 Legislation, Policy and Guidance | 6 |
| 1.3 Location, Geology and Topography | 8 |
| 2. METHODOLOGY | 10 |
| 2.1 Assessment Scope | 10 |
| 2.2 Sources of Information | 10 |
| 2.3 Archaeological Characterisation and Zoning | 11 |
| 2.4 Archive..... | 11 |
| 3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND | 12 |
| 3.1 Introduction..... | 12 |
| 3.2 Previous Archaeological Work..... | 12 |
| 3.3 The Prehistoric Period (to <i>c</i> AD 74) | 12 |
| 3.4 The Roman Period (<i>c</i> AD 74- <i>c</i> AD 410) | 13 |
| 3.5 The Early Medieval Period (<i>c</i> AD 410-1066) | 16 |
| 3.6 The Later Medieval Period (1066-1540) | 17 |
| 3.7 The Post-medieval Period (From <i>c</i> 1540)..... | 20 |
| 4. SIGNIFICANCE AND IMPACT | 23 |
| 4.1 Introduction..... | 23 |
| 4.2 Significance Criteria | 25 |
| 4.3 Depth and Thickness of Archaeological Deposits | 27 |
| 4.4 Potential Impact and Implications..... | 33 |
| 4.5 Conclusions and Recommendations | 36 |
| 5. BIBLIOGRAPHY | 37 |
| 5.1 Cartographic Sources | 37 |

| | |
|---|-----------|
| 5.2 Secondary Sources | 37 |
| APPENDIX 1: GAZETTEER OF EVENTS | 40 |
| APPENDIX 2: GAZETTEER OF MONUMENTS | 43 |
| ILLUSTRATIONS | 52 |
| Figures..... | 52 |
| TABLES | |
| Table 1 Summary of Chester Archaeological Character Areas lying partially within the study areas..... | 11 |

SUMMARY

This report presents the results of an archaeological desk-based assessment undertaken by OA North in late June/early July 2016 for two study areas adjacent to the Chester Northgate development site (centred on SJ 4039 6638), one extending broadly south and west from the development's south-west corner, the other north-west of the development boundary, on behalf of Chester West and Cheshire Council. The study areas were assessed for their archaeological significance in order to inform proposals for the possible construction of new surface water drains for the proposed development, potentially emptying into the Shropshire Union Canal and/or the River Dee. Overall, five potential routes were assessed, three extending north and west of the development site, one of which drains into the canal, the other two into the river, and two extending from the south-west corner of the site (one running south, the other broadly west), both draining directly into the Dee. The report includes an outline of the archaeological and historical background of the assessment areas, covering all periods, which provides a context for the results of the archaeological study. The assessment examined all available relevant primary and secondary sources; all sites identified during the course of the work were listed in a gazetteer and plotted onto maps of the study areas.

The study areas lie partially within Chester's Area of Archaeological Importance (AAI), within which all significant archaeological remains are afforded statutory protection under the terms of the Ancient Monuments and Archaeological Areas Act (1979). Additionally, they encompass parts of 14 of the city's Archaeological Character Areas, as defined by the Chester Archaeological Characterisation as part of the Chester Urban Archaeological Database (UAD) Project. The Character Areas form an integral part of the Chester Archaeological Plan, which was endorsed by the Cheshire West and Chester Local Development Framework Panel as a key Evidence Base Document supporting the preparation of the Chester Local Plan.

In total, 142 Monuments of archaeological or historical significance, and 39 archaeological interventions, or Events (as defined and recorded in the Chester Urban Archaeological Database), were identified within, or immediately adjacent to, the study areas. One of the Monuments is prehistoric, 41 are Roman in date, there are two assigned to the early medieval ('Saxon') period, 32 are later medieval, and 66 are attributed to the post-medieval period.

The Roman Monuments relate both to the legionary fortress, principally elements of the western defences, and the civil settlement (*canabae legionis*) that grew up outside the fortress. Early medieval sites are limited to a possible gravel road surface and the discovery of a coin hoard, whilst the late medieval and post-medieval monuments are associated with the development of the city from the twelfth century to modern times. A significant proportion of the post-medieval sites relate to the development of the Old Port and the Shropshire Union Canal during the eighteenth- to nineteenth century.

The study has indicated that there is the potential for the survival of significant archaeological deposits across much of the study areas, though preservation is likely to be highly variable and much damage has probably already been done to archaeological remains beneath the modern roads, as a result of roadworks and the

insertion of services beneath the carriageways. The paucity of data pertaining to levels of preservation beneath the roads in particular, and the lack of information currently available on the nature and depth of groundworks required for the insertion of any new drainage infrastructure, means that the potential impact of the proposals on buried archaeological remains is difficult to gauge. However, it seems probable that, unless substantial use can be made of existing service trenches, significant ground disturbance will be unavoidable, and sensitive archaeological deposits will be damaged or destroyed in some areas.

ACKNOWLEDGEMENTS

OA North would like to thank Magnus Theobald, Senior Construction Project Officer at Cheshire West and Chester Council (CWaC), for commissioning the assessment, and Mark Leah, Development Control Archaeologist for the Cheshire Archaeological Planning Advisory Service (CAPAS) at CWaC, for advice and assistance. Thanks are also expressed to the staff of the Cheshire Historic Environment Record (HER), and in particular Rob Edwards, for much assistance and information, and the rapidity with which it was provided.

For OA North, John Zant carried out the desk-based assessment and produced the report, assisted by Ian Smith, who was responsible for gathering much of the baseline data. The illustrations were prepared by Mark Tidmarsh, who also formatted and produced the Events and Monuments gazetteers. The project was managed by Rachel Newman, who also edited the report.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

1.1.1 The city of Chester is renowned as a place of immense historic significance, in recognition of which the buried archaeological remains across much of the historic city centre are afforded statutory protection (*Section 1.2.1*). In view of this, the Development Control Archaeologist for the Cheshire Archaeological Planning Advisory Service (CAPAS) requested that an archaeological desk-based assessment (DBA) be undertaken in respect of the Chester Northgate development, a mix of retail, residential and leisure development situated in the heart of the city's historic core (Fig 1). Oxford Archaeology North (OA North) was commissioned to produce this document (OA North 2016), a copy of which formed a technical appendix to a planning application that was submitted to CWaC in respect of the Northgate development at the end of May 2016. Subsequent to the submission, however, the need for a specific strategy for the removal of surface water was identified and a series of five options for the construction of substantial new surface-water drains connecting the development site with the River Dee and the Shropshire Union Canal was put forward. In all cases, the routes suggested for these extend through areas of potentially high archaeological sensitivity that were not covered by the original Northgate DBA, since they lie outside the development boundary. Consequently, the Development Control Archaeologist at CAPAS requested that a further DBA be undertaken of two study areas, encompassing all five of the possible routes. In late June 2016, Oxford Archaeology North (OA North) was commissioned by CWaC to undertake the assessment, which was completed in early July 2016.

1.2 LEGISLATION, POLICY AND GUIDANCE

1.2.1 **Legislation:** with regard to the below-ground archaeological resource within the study areas, the key piece of national legislation is the Ancient Monuments and Archaeological Areas Act (1979), as amended by two revisions of the National Heritage Act (1983; 2002). Under the terms of the Act, Chester's historic city centre was designated an Area of Archaeological Importance (AAI), one of only five such areas in the country, signifying that the city's archaeology is of national significance. Within the boundaries of the AAI (Fig 1), all archaeological remains are treated in the same way as Scheduled Monuments; consequently, Historic England (HE) is a statutory consultee in all matters pertaining to the archaeology within the AAI. Additionally, the city walls themselves (including, it should be noted, both upstanding and buried elements of this nationally significant heritage asset) are afforded statutory protection in their own right as a Scheduled Monument (SM 1006785). Chester Castle is also scheduled (SM1006773), but, although one of the possible route options passes close to the castle, it does not impinge upon the scheduled area (*Section 3.6.6*).

1.2.2 **National planning policy:** the *National Planning Policy Framework (NPPF)*, published in 2012 by the Department for Communities and Local Government

(DCLG 2012), includes a section (section 12) relating to *Conserving and Enhancing the Historic Environment*. This states that sustainable development should contribute to protecting and enhancing the historic environment, and highlights the need for local planning authorities to require applicants to describe and assess the significance of any heritage assets affected by a proposed development (*op cit*, P128). Where sites do, or may, contain assets of archaeological interest, planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, commission a field evaluation (*ibid*). The *Framework* further stresses that great weight should be given to the conservation of heritage assets (*op cit*, P132), especially those assessed as being of high importance, since significance can be harmed or lost through damage or destruction of heritage assets, which are themselves irreplaceable. The document goes on to set out a series of criteria local planning authorities should use in weighing the impact of a development on heritage assets against the public benefits of the development (*op cit*, P133, P134, P135).

- 1.2.3 Advice on good practice in implementing historic environment policy as set out in the NPPF is provided in Historic England's Historic Environment Good Practice Advice in Planning Note 2: *Managing Significance in Decision-Taking in the Historic Environment* (Historic England 2015). This includes guidance for assessing the significance of heritage assets, the use of appropriate expertise and the use of appropriate historic environment records.
- 1.2.4 **Local planning policy:** the Chester District Local Plan, adopted by Chester West and Chester Council (CWaC) in 2006, underwent revision in January 2015, with some policies being deleted or replaced. Policies retained in the 2015 version of the Plan include that pertaining to sustainable development, section 10 of which covers the local authority's policy regarding the historic environment and archaeological interest (CwaC 2015, 47-8). This states (section 10.3) that 'in city centre locations, consideration should be paid to preserving any archaeological remains that lie beneath the surface' (*op cit*, 47), whilst Key Principal 10 aims to 'protect and enhance the District's historic, cultural and archaeological value' (*op cit*, 12). The Council's policy relating to the impact of proposed developments on heritage assets of national, regional/county, and district/local significance, is set out in Policies Env 31, Env 33 and Env 34 of the Plan.
- 1.2.5 **Chester Archaeological Plan:** the Chester Archaeological Plan (Beckley and Campbell 2014) was funded by English Heritage (now Historic England) as part of the Chester Urban Archaeological Database (UAD) Project (*Section 2.2.1*). The Plan was endorsed by the Cheshire West and Chester Local Development Framework Panel as a key Evidence Base Document supporting the preparation of the Local Plan (M Leah *pers comm*). It includes a series of guidance notes pertaining to development within the city's Archaeological Character Areas, which were also defined as part of the UAD Project (*Section 2.3.1*).

1.3 LOCATION, GEOLOGY AND TOPOGRAPHY

- 1.3.1 The solid geology of the immediate area is characterised as Triassic sandstone and conglomerate sedimentary bedrock (BGS 2015). The overlying drift geology is characterised as alluvium, comprising a mix of clay, silt and sand, forming slightly acidic loamy clayey soils (Cranfield University 2015).
- 1.3.2 All five of the potential drainage routes (designated, for the purposes of this assessment, as the Canal Route and routes R1, R2, R3 and R4) lie wholly within the boundaries of Chester's AAI (Fig 2). They begin within the historic city centre, as defined by the medieval walls, but extend south and west of the medieval defences (their location in terms of Chester's ancient topography is considered in *Section 3*). For the most part, they utilise existing roads, and for this reason the archaeological study areas are largely focused tightly on the carriageways of the roads in question and not on the areas immediately adjacent (except in those (limited) areas where the routes diverge from the roads), since it is only the carriageways that are likely to be impacted upon by any groundworks associated with the construction of the drains. However, archaeological interventions and features of potential significance lying close to the boundaries of the study areas have been included in the assessment.
- 1.3.3 On the north, the Canal Route (Fig 2), approximately 300m long in total, follows St Martin's Way northwards from its junction with Hunter Street, which forms the north-west corner of the Northgate development boundary, to St Martin's Gate, where the road crosses the line of the medieval north wall (the wall itself was destroyed above ground at this location by the construction of St Martin's Way in the 1960s, but any buried remains that may survive form part of the Scheduled Monument). The route then turns west through an open area bounded on the south by the (upstanding) city wall and on the north by the canal, running parallel to, but north of, the wall itself. At the south-east end of South View Road, immediately west of the Chester to Holyhead railway line, the route terminates at the canal basin. Routes R2 and R3 essentially represent two options for the westward extension of the Canal Route to the river (Fig 2). The latter, c 325m long, extends along the length of South View Road to the junction with Sealand Road, which it crosses east to west in a more-or-less direct line to the east bank of the river. Route R2 (c 270m in length) takes a more southerly route from the canal basin, initially extending south-westwards along Tower Road. At the junction with New Crane Street, it turns sharply north to extend along the latter for a short distance, reaching the canal at the Dee Lock, close to the point where it joins the river. R2 also includes a short alternative section (R2b) that 'straightens out' the route between the south-east end of South View Road and Tower Road.
- 1.3.4 To the south, Route R1 extends for approximately 670m from a location on the west side of St Martin's Way, southwards along this major road to its junction with Watergate Street (Fig 2). It then turns west along Lower Watergate Street, crossing the medieval town defences at or near the site of the now vanished Water Gate, where, as at St Martin's Gate (*Section 1.3.3*), the line of the medieval defences also falls within the boundary of the Chester Walls Scheduled Monument. From there it follows the line of New Crane

Street north-westwards to its junction with New Crane Bank, which it then follows, crossing a modern car park to reach the east bank of the River Dee. Route R4, the longest of the routes at c 770m, begins at the same locale as R1 but extends south along St Martin's Way and Nicholas Street to the Grosvenor Roundabout, from where it turns to the south-west along Grosvenor Road (Fig 2). On Grosvenor Road, R4 crosses the line of the medieval town wall, though the line of the wall is seemingly not scheduled beneath the carriageway itself (*Section 4.1.4*). At the junction with Castle Drive there are currently two route options. One leaves the line of Grosvenor Road, dog-legging first to the south and then to the south-west through a surface car park, reaching the north bank of the Dee immediately east of the Grosvenor Road bridge, whilst the other (R4b) extends east from Grosvenor Road along Castle Drive before turning south-east for a short distance to the river. Castle Drive skirts the site of the medieval castle, which is a scheduled monument, but is not included within the scheduled monument boundary.

2. METHODOLOGY

2.1 ASSESSMENT SCOPE

2.1.1 The present assessment is concerned with the below-ground archaeological remains that lie within the boundaries of the study areas (Fig 2; *Sections 1.3.2-4*). With the exception of sections of the extant (though heavily restored) medieval town walls, which are traversed by the Canal Route and routes R1 and R4, there are no known upstanding features of archaeological significance within the tightly defined boundaries of the study areas. Numerous listed buildings are located in close proximity to some sections of the study areas, particularly in the eastern section of R1, along Watergate Street, and at the western ends of R1, R2 and R3, all of which traverse the historically and archaeologically significant environs of the Old Port of Chester (*Section 3.7.6*). However, the listed buildings are excluded from the present assessment, since it is assumed that the impact of groundworks associated with the construction of the proposed drains (regardless of which route or routes are chosen) will not extend to the buildings themselves. It should be noted, though, that no information on the likely character and extent of groundworks (*eg* depth and width of pipe trenches) was available during the preparation of this assessment. Chronologically, the assessment is concerned principally with the period from the Roman occupation (*c* AD 75-410), to which the earliest evidence for intensive human activity within the study areas is dated, to the eighteenth/nineteenth century.

2.2 SOURCES OF INFORMATION

2.2.1 ***Cheshire Historic Environment Record (HER)***: the Cheshire HER, held and maintained by the Cheshire Archaeological Planning Advisory Service (CAPAS), represented the principal source of information for the present assessment. In particular, the Chester Urban Archaeological Database (UAD), which forms a subset of the HER, was of the greatest importance to the study, since it synthesises all available information on the city's archaeological resource and can therefore be regarded as the baseline for all such data. The UAD holds records of all known archaeological interventions ('Events') within the city, each identified by a unique Event Number, and also of the principal archaeological and historical features ('Monuments', each referenced by a Monument Number) recorded by these Events. The UAD also defines a series of Character Areas, or zones of archaeological and historical significance, covering the historic city and its suburbs (*Section 2.3.1*).

2.2.2 Information pertaining to each Event and Monument located within the study areas, obtained from the UAD, has been collated. This is presented in two gazetteers, with accompanying plans, which are appended to this document (*Appendix 1; Appendix 2*).

2.2.3 ***Other repositories***: an internet search was made of any freely available historical photographic images of the study areas, and of any historical maps, dating from the late sixteenth century to the mid-nineteenth century. The main

sources of information used were the Cheshire Image Bank (<http://www.cheshireimagebank.org.uk>) and Chester Walls (<http://www.chesterwalls.info/gallery/oldmaps/index.html>).

2.3 ARCHAEOLOGICAL CHARACTERISATION AND ZONING

2.3.1 *Archaeological Character Areas*: the Chester UAD Project included the Chester Archaeological Characterisation, which established a series of Archaeological Character Areas covering the city's main Conservation Areas (Beckley and Campbell 2014, 9-11). These were created by consolidating a period-based characterisation of Chester's archaeological resource, in terms of the predominant archaeological remains within each zone and their significance. A summary statement was created for each zone, highlighting its archaeological character, significance and potential, and key considerations for future development. In total, 14 Character Areas fall partially within the study areas (Fig 3; Table 1), though in several cases only a very small area lies within the study boundary.

| Character Area No | Character Area Name |
|-------------------|------------------------|
| 1 | The Deanery Fields |
| 3 | King Street |
| 4 | St Martin's Fields |
| 8 | The Chester Rows |
| 9 | Cuppin Street |
| 14 | Infirmity Fields |
| 15 | Nicholas Street |
| 16 | Chester Castle |
| 17 | Grosvenor Street |
| 53 | Roodee Racecourse |
| 54 | Chester Harbour |
| 56 | Sealand Road |
| 59 | Shropshire Union Canal |
| 60 | Ellesmere Port Canal |

Table 1: Summary of Chester Archaeological Character Areas lying partially within the study areas

2.4 ARCHIVE

2.4.1 Any archives generated during compilation of the DBA will be produced to professional standards in accordance with national guidelines (Walker 1990; CifA 2014), and will be deposited with the Grosvenor Museum, Chester. A copy of this DBA will also be deposited with the Cheshire HER.

3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.1 INTRODUCTION

3.1.1 The following section provides a summary of the historical and archaeological background of Chester, in order to locate and contextualise the study areas within the historic cityscape. Some of the Monuments of historical/archaeological significance identified, from the Chester UAD, as being located within the study areas, and which are listed in the relevant gazetteer (*Appendix 2*), have been integrated into the summary (all numbers refer to those given in the UAD). The summary has been compiled largely from secondary sources, and is intended to provide a context for the results of the DBA.

3.2 PREVIOUS ARCHAEOLOGICAL WORK

3.2.1 A considerable amount of archaeological work has been carried out within Chester's historic core (*ie* within the medieval defences) over the last 100 years or so, though much of this was undertaken under extremely unfavourable conditions during earlier phases of redevelopment, especially in the 1960s. Consequently, although quite large areas have seen at least some archaeological investigation, the data recovered are of extremely variable quality, and much remains unpublished, being available (if at all) in summary form in 'grey literature' reports. Indeed, even published accounts (*eg* Ward 1994) frequently lack information pertaining to such things as the depth of significant archaeology below the modern ground surface, or the overall thickness of archaeological strata. Some reports may also only present the evidence pertaining to a particular chronological period (*eg* the occupation of the Roman fortress), whilst ignoring (or, at best, summarising) the data pertaining to other phases of activity. Outside the medieval walls, archaeological works have, in general, been more limited, being restricted, for the most part, to relatively small-scale evaluations and watching briefs carried out over the last 15 years or so.

3.2.2 A full listing of all archaeological interventions undertaken within (and, in some cases, immediately adjacent to) the study areas, together with a plan, can be found in the *Events Gazetteer* appended to this assessment (*Appendix 1*), whilst the Monuments are fully listed, and located on a series of period-based plans, in the *Monuments Gazetteer* (*Appendix 2*).

3.3 THE PREHISTORIC PERIOD (TO *c* AD 74)

3.3.1 Evidence for prehistoric occupation within the study areas is limited to a chance find of a flint artefact from the vicinity of Weaver Street (Monument **6975**), probably to the east of the line of route R4, though finds of 'stone axes' and a prehistoric flint are known from within the Northgate development site itself (Beckley and Campbell 2013, 11; OA North 2016, 15). This, together with the discovery, elsewhere in the city, of neolithic pottery and flints, Bronze Age artefacts and traces of Iron Age roundhouses and

ploughing (Beckley and Campbell 2013, 11-13; Ward 2009, 5), means that the possible existence of other prehistoric remains within the areas under consideration cannot be completely discounted.

3.4 THE ROMAN PERIOD (c AD 74-c AD 410)

- 3.4.1 **Possible pre-fortress activity:** in view of Chester's strategically important position relative to early Roman campaigning in Wales and northern England, it is likely that a Roman military presence was established before the foundation of the legionary fortress (Shotton 2002; Mason 2002, 33). Several features certainly pre-dating the earliest fortress buildings, perhaps representing two phases of early military activity, were identified in the 1960s at a location towards the centre of the Northgate development site (Mason 2012, 35-6; OA North 2016, 15), and it is conceivable that these relate to one or more camps or forts associated with Roman military campaigns in north Wales in the late AD 50s/early AD 60s (Mason 2012, 45, fig 15). However, this cannot (yet) be proven, and there is no evidence that these putative installations extended into any of the areas that form the subject of the present assessment, though the possibility cannot be ruled out.
- 3.4.2 **The legionary fortress:** the fortress (Monument **8552**; Fig 4) was established by *Legio II Adiutrix*, probably in c AD 74-5 (Mason 2012, 49-50; Beckley and Campbell 2013, 17), and was occupied more-or-less continuously to the middle of the fourth century AD at least (Mason 2007, 14). Over its ramparts, the installation covered 24.4ha (just over 60 acres), some 20% bigger than the near-contemporary fortresses at York and Caerleon (*op cit*, 54-7), though it is comparable to the unfinished fortress at Inchtuthil, in Scotland (Beckley and Campbell 2013, 23). The extra space was, it has been suggested, required for the imperial governor of Britain and his staff (Mason 2001, 91-5, fig 93; 2002, 47, fig III IV.14; 2012, 102-8), though its actual significance remains a matter for debate. Certainly, the plan of the fortress as a whole gives the impression of a standard layout modified and distorted to accommodate these structures, presumably for some very specific, and highly important, purpose, whilst the stone wall enclosing the fortress also seems to have been unusually elaborate (Mason 2012, 97).
- 3.4.3 In the AD 80s, *Legio II Adiutrix* was replaced in garrison by *Legio XX Valeria Victrix*. However, for the greater part of the second century, much of the Twentieth was itself absent from Chester, employed either in building Hadrian's Wall or in the construction and garrisoning of the Antonine Wall, with the result that large areas of the fortress became derelict (Mason 2012, 164). It was, however, extensively rebuilt and refurbished in the early third century, as part of a more general reorganisation of the northern frontier (*op cit*, 177), though some elements of the legion continued to be outstationed. It is possible that the legion as a whole was withdrawn, or even ceased to exist, sometime in the fourth century (*op cit*, 217), but, in fact, the fate of the garrison at the end of the Roman period is not known, and it is conceivable that a residual military presence continued later than has been suggested. Certainly, the paucity of late Roman military equipment from Chester cannot

be taken, of itself, as proof of an absence of soldiers, since this is also the case at other late Roman military sites in Britain (Hoffmann 2002, 85-6).

- 3.4.4 *The study areas within the Roman fortress*: three of the five potential routes under consideration (the Canal Route and routes R1 and R4) begin on St Martin's Way, a large, modern iteration of Crofts Lane, a north/south-aligned medieval and post-medieval street that lay in close proximity to the line of the Roman fortress's western defences. These route options therefore have the potential to impact adversely upon any features and deposits associated with the western defences that may survive beneath St Martin's Way (*Section 3.4.5*).
- 3.4.5 Initially, the fortress defences comprised an earth and timber rampart (Monument **8213**) fronted by a ditch (Monument **8215**) with a road or 'patrol track' (Monument **8328/8539**) on its outer lip (Mason 2012, 109), but later a stone wall was built (Monument **8214**). Towers (*eg* Monuments **8239**, **8240**, on the western perimeter) were built at regular intervals along the defensive perimeter. A road, often referred to as the '*via sagularis*' (Monument **8280**), ran around the inside of the defences, and this 'intervallum area' also commonly held other features and structures, including so-called 'rampart-back buildings' (*eg* Monument **8180**; *Appendix 2*).
- 3.4.6 *The Roman civil settlement (canabae legionis)*: during the course of the Roman period, an important settlement grew up outside the fortress, principally, it would seem, to the south and west (Fig 4), adjacent to the River Dee (Mason 2012; Beckley and Campbell 2013, 17). This grew to a considerable size and was occupied for much the same length of time as the fortress itself (*Sections 3.4.2-3*). As in the fortress, most early buildings appear to have been timber-built, but later increasing use was made of stone, much of which may have come from sandstone quarries on the southern arm of the River Dee (Mason 2012, 116). In order to deny cover to potential enemy attackers, the military authorities prevented extramural buildings from encroaching too close to the fortress by maintaining a *cordon sanitaire* around the defences. This was *c* 50m wide on the west, but appears to have been considerably wider to the south (*op cit*, 109-10, fig 59), since there is little evidence for intensive Roman activity in the area between the southern defences and the line of modern Castle Street and St Olave's Lane (*op cit*, 116).
- 3.4.7 On the south, the most intensive activity was probably focused on the main road leading from the fortress's south gate, which was approximately on the line of modern Lower Bridge Street, to the bridge over the River Dee. The latter is thought to have been located close to the modern bridge, which itself dates back to the medieval period (*ibid*). East of the road, early Roman cremation burials have been found, though later in the Roman period substantial houses appear to have occupied much of the area immediately above the north bank of the river. What was probably a large *mansio*, providing accommodation for officials and military personnel on government business, was discovered west of the road in the 1970s (*ibid*), and further work in this area in 2007 revealed extensive remains of buildings, roads and other occupation features dating from the late first century AD to the later

Roman period. Further burials were also found on the western periphery of this settled zone (*op cit*, 117).

- 3.4.8 To the west, the River Dee lay much closer to the fortress in Roman times, the east bank of the river being, perhaps, only 170m or so from the western defences (Mason 2012, 117), whilst the space available for settlement was further reduced by the *cordon sanitaire* maintained by the military around the fortress (*Section 3.4.6*). Despite this, the area west of the fortress was already densely occupied by buildings by the early second century AD (*ibid*), and a similar level of intensive activity was maintained throughout the Roman period, resulting in the formation of complex sequences of archaeological deposits representing multiple phases of construction and occupation of both timber and (later) stone buildings. The most intensive activity was probably focused upon a road extending west from the fortress's west gate (*porta principalis dextra*) to a harbour in the area now occupied by the Roodee, the line of which appears to have lain a little to the south of modern Lower Watergate Street (*ibid*). On the north side of this road was a very substantial stone-built 'public' building, the so-called Watergate Baths, elements of which have been recorded on the north side of Lower Watergate Street (towards the western end of the street) since the eighteenth century (*op cit*, 118). Relatively little is known of the Roman harbour itself, though iron-sheathed oak piles, discovered in the late nineteenth century close to the present riverbank, suggest the existence of a substantial timber jetty, perhaps extending from the Roman river bank to the main river channel across intertidal mudflats (*op cit*, 125, fig 68). In the later Roman period, a substantial stone wall, conventionally known as the 'quay wall' (Monument **8039/3**), was built some distance west of, and roughly parallel to, the fortress defences. The interpretation of this as the remains of a Roman quay has, however, been called into question, and it is possible that it actually served as a defensive wall enclosing the western part of the civil settlement (*op cit*, 206-7).
- 3.4.9 *The study areas within the Roman civil settlement*: immediately north-west of the fortress, in the area traversed by the Canal Route and the eastern ends of routes R2 and R3 (Fig 4), there is limited archaeological evidence for settlement during the early Roman period (Mason 2012, 110, fig 59, 121). From the third century AD, however, much of this area may have been occupied by cemeteries (*op cit*, 192, fig 115, 201-2).
- 3.4.10 Within the fortress, the main east/west road, which extended between the west and east gates, lies beneath modern Watergate Street (Mason 2012, 54). The westward extension of this road (Monument **8562**), from the west gate of the fortress, lies just to the south of, and broadly parallel to, Lower Watergate Street, along which the proposed route R1 extends. In view of the fact that this road extended from one of the fortress's main gates down to the probable harbour at the Roodee (*Section 3.4.8*), it is highly probable that the street frontage would have been a major focus for activity within the civil settlement, a fact that has been amply demonstrated by antiquarian observations and archaeological investigations on both sides of Lower Watergate Street (see especially Mason 2012, 199, fig 124). These works have

also shown that elements of Roman buildings on the north side of the road, including the Watergate Baths (Monument **8038**), extend into the modern road, at least in places. Further to the west, along New Crane Street and beyond, R1 is likely to traverse what were probably tidal flats adjacent to the Roman river channel itself, and the same can also be said of the western sections of routes R2 and R3. However, there is also the potential for the existence of the buried remains of Roman jetties and other harbour facilities in these areas (Monument **8039**), as has been demonstrated by earlier discoveries (*Section 3.4.8*). To the south, route R4 traverses the southern part of the *canabae legionis* (Fig 4), which, excavation has shown, was also densely occupied for much of the Roman period (*Section 3.4.7*), though a wide area extending south of the fortress defences appears to have been left open (*Section 3.4.6*).

3.5 THE EARLY MEDIEVAL PERIOD (C AD 410-1066)

- 3.5.1 The nature of settlement at Chester in the earlier post-Roman period is difficult to determine. In view of its long history as a major Roman military and civil centre, and its position at the hub of a system of roads, the settlement may well have persisted as the principal military and commercial centre of the region (Mason 2012, 233), possibly (though evidence is entirely lacking) serving as the administrative centre of a sub-Roman polity that eventually passed under the control of the British kingdom of Powys (Ward 1994, 115; 2009, 23). That Chester may have also developed importance as an ecclesiastical centre is suggested by the fact that the settlement was chosen to host a major synod of the British church in *c* AD 601 (Mason 2007, 29-30; Ward 2009, 23). The fact that a significant battle, demonstrating the growing power of the kingdom of Northumbria, took place nearby in AD 616, adds to this hypothesis (Mason 2007, 38)
- 3.5.2 The documented history of the Anglo-Saxon town begins in AD 907, with its refortification as a stronghold (*burh*; Fig 5) by Aethelflaed, Lady of the Mercians. This was seemingly a reaction to Viking activity in the Wirral, connected to the expulsion of Ingimund from Dublin in AD 902 (Mason 2007, 79-80). There is evidence for the refortification of parts of the Roman fortress defences, including the western perimeter, and much of the modern street plan probably originated at this time (Ward 1994, 7), when Chester seemingly prospered as an administrative and trading centre (Ward 2009, 28). However, this period of prosperity and stability did not last, being ended by the onset of wars between the English king, Ethelred II ('the Unready'), and the kings of Denmark. More settled times returned in the first half of the eleventh century, under Cnut, and later, the restored English king, Edward the Confessor, and the ealdormen of Mercia again became important figures (*ibid*). On the eve of the Norman Conquest, the *burh* had a well-developed legal code (Mason 2007, 136-9) and, according to the Domesday Survey of 1086, contained 487 houses (*op cit*, 145).
- 3.5.3 ***The study areas in the early medieval period:*** at all points where the route options follow, or cross, the line of the Roman fortress defences (*Section 3.4.4*), there is the potential (in theory at least) for evidence pertaining to early

medieval refurbishment of the Roman fortifications (*Section 3.5.2*), associated with the establishment of the *burh*, to be encountered. Outside the fortress, the nature of early medieval activity is almost entirely unknown within the study areas, and the present assessment has identified only two Monuments of this period within the areas under consideration (*Appendix 2*): a coin hoard (Monument **9013/14**), found on what is now Nicholas Street, along which route R4 extends; and a possible early medieval gravel road surface (Monument **9039**) at Pemberton House, just inside the medieval town wall, east of St Martin's Gate. However, that intensive occupation did occur in some areas beyond the fortress is clear from investigations on Lower Bridge Street, to the east of route R4, where an area of land seems to have been subdivided into cultivation strips sometime before a group of quite substantial timber buildings was constructed over the area in the tenth century (Mason 2007, 64, fig 15, 67-8). The western part of the study areas, adjacent to the modern channel of the River Dee, would probably still have been located within the intertidal zone during the early medieval period. However, silting of the Roodee had already begun, a small island (from which the area takes its name) having formed by the late Saxon period (Mason 2012, 122).

3.6 THE LATER MEDIEVAL PERIOD (1066-1540)

- 3.6.1 Following the Norman invasion of 1066, Cheshire initially became a focus for Mercian resistance, with the result that the region was laid waste when king William I and his army marched west from Yorkshire in the winter of 1069-70 (Mason 2007, 144; Ward 2009, 34). William consolidated his hold by building a castle at Chester, in the south-west corner of the Saxon *burh* (Mason 2007, 145), and by establishing a powerful earldom there (Ward 2009, 34). Medieval Chester was, to modern eyes, small and compact (Lewis 2011, 42-3) but was, by contemporary standards, a fairly substantial settlement, perhaps ranking in the top 20-30 of the largest towns in England, and, as the dominant commercial, administrative and religious centre for many miles, it enjoyed a prominence greater than its size might suggest (*ibid*). The medieval town was also the second largest port on the west coast of England (after Bristol), and regularly served as an important military base for campaigns into Wales or Ireland (*ibid*).
- 3.6.2 The city walls, fronted by a ditch, were constructed by the earls of Chester during the twelfth century, the circuit perhaps being completed first during the 1160s (Laughton 2008, 60; Lewis 2011, 43). On the north and east these followed the line of the Roman fortress defences and those of the Saxon *burh*, but to the south they extended to the river front, along which a wall was built (Ward 2009, 37), whilst the western wall lay over 150m west of the fortress defences, though it was aligned roughly parallel with the earlier defensive line (Mason 2007, 13, fig 1). It was also during the twelfth century that Chester received its full complement of nine parish churches, together with the Benedictine nunnery of St Mary's (*op cit*, 45-6). Three friaries were also established at Chester during the thirteenth century (*op cit*, 51-2).
- 3.6.3 Chester reached the peak of its prosperity and importance (both military and political) in the late thirteenth-early fourteenth century (Laughton 2008, 17),

in large part due to its role as a base for Edward I's campaigns in north Wales (*op cit*, 19), but subsequently suffered decline, its importance thereafter being largely regional (*op cit*, 17). As elsewhere, the town doubtless suffered badly during the first half of the fourteenth century, when England was struck by a series of famines, and by the arrival of the Black Death in 1348-9, though few records of the effects of these disasters have survived (Ward 2009, 55). By the mid-fourteenth century, too, silting of the Dee was becoming a problem, making it increasingly difficult for ships to reach the quays, and nearby Liverpool had already begun to emerge as a rival by the end of the fifteenth century (*op cit*, 17). Consequently, during the mid-late fifteenth century, the town's economic fortunes slumped, though a modest revival occurred during the reign of Henry VII, to whom the citizens of Chester had given 'good and laudable service' (Laughton 2008, 38). In 1506, Henry also granted Chester its 'Great Charter', which, amongst other things, formalised its constitution and gave the town county status (*op cit*, 39).

3.6.4 ***The study areas in the late medieval period:*** in terms of Chester's medieval topography (Fig 6), the north/south arm of the Canal Route, together with the eastern ends of R1 and R4, extend along Crofts Lane (Monument **10428**; later re-named Linenhall Street, on the south, and St Martin's Fields, to the north), which was obliterated during the 1960s when St Martin's Way was constructed along its line. The extent to which Crofts Lane was built-up during the medieval period is unknown; the earliest maps of Chester, dating from the late sixteenth century (*Section 3.7.5*), show the frontages occupied by buildings, but whether this is an accurate representation, or a stylistic convention, is unclear. Certainly, the western street frontage is unlikely to have been built-up during the thirteenth century and later, since this area was occupied, from the late 1230s, by the Franciscan Friary (*Section 3.6.5*). The southern (north/south-aligned) arm of the Canal Route crosses the northern town wall (Monument **12000**) at St Martin's Gate, before turning west through approximately 90° to run parallel with the defences, to the north of the wall. At St Martin's Gate, all above-ground traces of the wall were destroyed when St Martin's Way was built, but whether buried remains of this Scheduled Monument (SM 1006785) survive at this locale is uncertain. Also of significance in this regard is the ditch fronting the wall, which investigations elsewhere on the defensive circuit have shown to be substantial and multi-phase, with some of the lower fills containing waterlogged organic remains (Ward 2009, 40). Route R2b, the alternative option for the eastern end of R2 (*Section 1.3.3*) passes north of the Water Tower (Monument **12000/1**), originally known as the New Tower, which was built in the early 1320s at the western end of a spur of the town wall that, in the medieval period, extended into the river from the north-west angle of the defences, in order to protect the harbour and quays to the south (*op cit*, 38)

3.6.5 Route R1 extends west along Lower Watergate Street (Monument **10002**), a principal medieval thoroughfare leading to the Water Gate (Monument **12000/42**), the site of which, at the junction of Watergate Street and New Crane Street, it also crosses (the gate itself does not survive above ground). From the 1230s, the road was flanked by friaries (Fig 6), that of the Dominicans (Black Friars), on the south (Monument **10317**), being

established in 1236, with the Franciscan Friary (Grey Friars), on the north (Monument **10318**), following in 1237-8 (Ward 2009, 51, 54, fig 64). Despite being located within the walls and adjacent to the main road leading (probably) to the harbour, both sites appear to have been largely open before the arrival of the friars, perhaps because they were located in a part of the town, west of the Roman fortress, that had only been enclosed comparatively recently, during the mid-twelfth century (*Section 3.6.2*). In its central and north-western sections, R1 traverses the Roodee, where the medieval harbour may have been located, perhaps in the vicinity of the Water Gate. This was already well-established by the time of the Domesday Survey in 1086 (Ward 2009, 43), but later suffered severely from the effects of silting, which caused the head of the estuary to move downstream from the Roodee during the course of the later medieval period. This process was so rapid that, by the late fifteenth century, it was said that ships were unable to reach the city (Reid 2011, 1). For much of their length, routes R2 and R3 are also likely to traverse areas that, in the medieval period, were largely alluvial flats, formed as a result of this process of silting, that were subject to frequent inundation.

- 3.6.6 Like R1, route R4 begins by extending south along medieval Crofts Lane (Fig 6). South of Watergate Street, the north/south line of this lane was continued in the medieval period by St Nicholas Lane (Monument **10425**) and, further south still, Nun's Lane (Monument **10431**). Both of these were, like Croft's Lane itself, replaced on approximately the same line by St Martin's Way and Nicholas Street, along the length of which R4 extends south to the Grosvenor Roundabout. The extent to which these lanes were built-up during the medieval period is unclear, though, like Crofts Lane, the frontages are depicted as being densely built-up on the earliest maps of Chester, dating from the late sixteenth century (*Section 3.7.5*). On the east side of St Nicholas Lane, towards its southern end, lay the church of St Martin of the Ash (Monument **10073**), which stood opposite the south-east corner of the Dominican Friary precinct. Nun's Lane took its name from St Mary's Priory (Monument **10319**), a Benedictine nunnery, also located in this part of the town, which was established during the twelfth century on the west side of the lane, to the north-west of the castle (Ward 2009, 54, fig 64). Each of these religious establishments would have comprised a complex of different structures and other features, including associated burial grounds, and, indeed, many burials within the cemetery of St Mary's Priory were found during excavations at the former Police Headquarters site, on the west side of the Grosvenor Roundabout (Earthworks Archaeology 2004; I Smith *pers comm*). From the roundabout, the site of which corresponds broadly to the medieval intersection of Nun's Lane and Castle Lane (now Castle Street), R4 passes, approximately, along the south-eastern boundary of the nunnery, though the precise extent of the nunnery in this direction is not certain. The route crosses the line of the medieval town wall in the carriageway of Grosvenor Road, to the south-west of the castle, with R4b extending along Castle Drive, which skirts the southern edge of the medieval castle (Monument **10870**) but does not impinge upon that part of the castle which is designated as a scheduled monument.

3.7 THE POST-MEDIEVAL PERIOD (FROM C 1540)

- 3.7.1 In Chester, the Dissolution of the Monasteries, ordered by Henry VIII, passed off peacefully, with all three friaries, St Werburgh's Abbey and the nunnery being surrendered without incident between August 1538 and January 1540 (Ward 2009, 58). The abbey itself was subsequently reconstituted as a cathedral for the new diocese of Chester, so the abbey church and other buildings survived the Dissolution (*op cit*, 60). The other religious establishments, including the Franciscan and Dominican friaries and St Mary's Priory (*Section 3.6.6*), passed into private ownership and their buildings were ultimately wholly or largely demolished, though some were retained for a time, being used for other purposes (*op cit*, 62).
- 3.7.2 Despite continued silting of the River Dee, Chester remained quietly prosperous during the sixteenth century and the first half of the seventeenth century, with the housing stock being regularly rebuilt or refurbished (Ward 2009, 59). During the English Civil Wars, the city was an important Royalist stronghold and extensive outworks were constructed around the suburbs on the northern and eastern sides of the medieval walled city (*op cit*, 65, fig 78). Chester developed as a prosperous county market town throughout the eighteenth century, being little affected by the Jacobite rising of 1745 (*op cit*, 73-4). The dilapidated city walls were renovated in the early eighteenth century and turned into a fashionable promenade (Lewis and Thacker 2003). Many of the existing timber-built medieval/early post-medieval buildings on the main street frontages were refaced in the Georgian style with brick or stone, though the rest of the structure was often left largely unchanged. Subsequently, many buildings were constructed or modified in the 'black and white' style of the late Victorian Gothic revival, which was considered appropriate for Chester's emerging reputation as a pleasant, historic, place to visit, and which created the appearance and character of much of the modern city (Ward 2009, 86-7).
- 3.7.3 For the most part, the Industrial Revolution of the late eighteenth- and nineteenth centuries passed Chester by, and the city lost its position as the largest and most important settlement in the county to growing industrial centres, such as Macclesfield and Stockport (*op cit*, 93). The Chester to Nantwich Canal (later part of the Shropshire Union Canal), opened in 1779, was connected to the Mersey in 1795 (*op cit*, 88-9), and the railways arrived in 1840, when lines to Birkenhead and Crewe were opened (*op cit*, 90). As elsewhere, the nineteenth century saw a great expansion in population, from 15,000 in 1801 to over 38,000 by the end of the century, and the city rapidly expanded beyond its medieval boundaries during the second half of the century in particular. During the course of the twentieth century, many of the city's traditional industries, such as leather-working, linen and shipbuilding, died away, to be replaced by new ones associated with engineering and the railways, but these did not continue to expand and much of Chester's prosperity at this time derived from its role as a centre for retail, service and, increasingly, tourism (*op cit*, 102-3).
- 3.7.4 The inner ring road, built in the 1960s, destroyed many historic buildings, and cut through the city's north wall (*op cit*, 115). The area behind the Town Hall

was cleared for the Forum, completed in 1972, which contained shops, the market, council offices and car parks (*ibid*). This and other developments led to the destruction of large areas of Chester's below-ground archaeological heritage, though the precise extent of much of this destruction is unclear.

- 3.7.5 ***The study areas in the post-medieval period:*** Crofts Lane, the medieval street (later re-named Linenhall Street/St Martin's Fields; *Section 3.6.4*) along which the southern arm of the Canal Route and the eastern ends of routes R1 and R4 extend, together with St Nicholas Lane (later Nicholas Street) and Nun's Lane (later Castle Esplanade), to the south, survived until the 1960s, when they were swept away by the construction of St Martin's Way. As already noted (*Section 3.6.6*), the earliest surviving maps of Chester, produced in the late sixteenth century (Braun and Hogenburg c 1580 (Fig 7); Smith 1585 (Fig 8)), show the frontages of these streets as densely built up, with, on Smith's map at least, numerous structures seemingly within the backlands, as well as on the street frontages. West of the lanes, the former sites of the Grey Friars and Black Friars, and also of St Mary's Priory, are largely open, apart from a few buildings of uncertain purpose that may or may not include surviving elements of the medieval religious houses. The circuit of the medieval town wall is clearly shown on both plans, complete with its gates and towers. Perhaps unsurprisingly, the ditch fronting the wall is not depicted, though the 1580 map shows what appears to be a road immediately outside the north wall and the north-east corner, including the location at which the Canal Route crosses the wall. The River Dee extends up to the north-west corner of the defences on both maps, the Water Tower still stands within the river channel, and the river flows adjacent to the Water Gate (boats are shown moored close to the gate in the plan of 1580). Further south, however, the river loops to the west of the Roodee, some distance from the city walls.
- 3.7.6 By 1745, when the first really detailed map of Chester was published by the engineer and surveyor, Alexander de Lavaux (de Lavaux 1745; Fig 9), the main river channel had been canalised to its present position by Nathaniel Kinderley, who constructed the 'New Cut' between 1733 and 1737 (Reid 2011, 2). This was in response to the rapid silting of the Dee during the seventeenth- to early eighteenth century, which saw the river channel move west some 200m from its former position adjacent to the Water Tower and the Water Gate to its present location (Hewitson and Scuby 2011, 21). Somewhat earlier, a series of flood defence embankments, known collectively as The Cop (Monument **10998**), had been constructed on the east bank of the river (*ibid*; Reid 2011, 2). These works permitted large areas of land to be reclaimed and enclosed, and a new port (now known as the Old Port; Monument **10970**) was rapidly developed south-west of the Water Tower (now completely landlocked). The development of this area is illustrated on a series of eighteenth- to early nineteenth-century maps, including those of de Lavaux (1745), John Stockdale (Stockdale 1795; Fig 10), Thomas Batenham (Batenham 1816; Fig 11) and John Wood (Wood 1833; Fig 12), and is discussed in some detail by Reid (2011).
- 3.7.7 Beyond the Water Gate, route R1 follows the line of New Crane Street, which was established in the early/mid-eighteenth century and quickly developed

into a major focus for activity associated with the port. The western ends of routes R2 and R3 also cross the northern part of the Old Port area, the limit of which was effectively defined by the Shropshire Union Canal (Monument **10101**), the first part of which opened in 1779 as the Chester to Nantwich Canal (Reid 2011, 3). The canal itself subsequently became a focus for industrial development, especially in the vicinity of the Dee Basin. Several archaeological investigations carried out on New Crane Street and further to the north-west, in the area of the Old Port, have revealed evidence for a broadly consistent stratigraphic sequence characterised by accumulations of alluvial silts (indicative of the rapid silting of the river channel in the late medieval/early post-medieval period) overlain in some places by probable land reclamation deposits and in others by the remains of The Cop (*op cit*, 5). These are in turn invariably overlain by structural remains associated with the development of the Old Port and its associated infrastructure from the eighteenth century onwards.

- 3.7.8 The Chester UAD records a large number of post-medieval Monuments associated with both the Old Port and the canal, some of which extend within, or lie immediately adjacent to, the study areas (*Appendix 2*), particularly in the central and north-western sections of route R1, along New Crane Street, and at the western ends of R2 and R3. Some of these survive today as standing buildings or structures, which are not considered as part of the present assessment since it is assumed that they will not be directly affected by the proposed drainage works, though others have vanished above ground and might, therefore, be impacted upon by the project.

4. SIGNIFICANCE AND IMPACT

4.1 INTRODUCTION

- 4.1.1 The desk-based assessment has identified a total of 39 archaeological interventions (Events) and 142 features or sites of archaeological significance (Monuments) located either within, or in close proximity to, the study areas. There is one Monument of prehistoric date and 41 are Roman, the latter relating both to the legionary fortress and the associated civil settlement (*canabae legionis*). Only two early medieval sites were identified, but 32 Monuments are of late medieval (c twelfth-mid-sixteenth century) date, and 66 are attributable to the post-medieval period.
- 4.1.2 From the results of the archaeological investigations that have been conducted in the area (*Appendix 1*; Fig 13), it is clear that there is good potential for the survival of archaeological deposits over much of the study areas. Although there is no evidence for prehistoric activity directly on the line of the five route options under consideration, the possibility that prehistoric remains might be encountered almost anywhere cannot be completely ruled out. For the Roman period, it is clear that the Canal Route, together with much of routes R1 and R4, have the potential to impact on significant remains associated both with the legionary fortress and the adjacent civil settlement. On St Martin's Way, such remains may well include components of the western defences of the fortress (*Section 3.4.5*), particularly the ditch fronting the rampart/curtain wall, which may be affected by all three route options. The Canal Route also passes just outside the north-west corner of the defences, whilst R1 and R4 both pass close to the site of the *porta principalis dextra*, the fortress's west gate (*Section 3.4.8*). In the civil settlement, the greatest potential impact is probably in that part of route R1 that passes along Lower Watergate Street. This street lies close to the line of the main Roman road from the fortress to the river, and was clearly a focus for intensive activity throughout the Roman period, as observations and archaeological works on both sides of the street have demonstrated (*Section 3.4.10*). Route R4 also traverses an intensively settled area on the south side of the fortress (*Section 3.4.7*), whilst the Canal Route passes through an area that may have seen comparatively limited early Roman occupation prior to the possible establishment of a cemetery in the third century (*Section 3.4.9*). The possibility that evidence pertaining to the putative Roman harbour to the west of the fortress (*Section 3.4.8*) may be encountered at the western end of routes R1, R2 and R3, though perhaps unlikely, cannot be completely dismissed.
- 4.1.3 On St Martin's Way, it is conceivable that evidence for the refurbishment of the Roman fortress defences during the early medieval period might survive (*Section 3.5.2*), though the assessment found very limited evidence for pre-Norman activity within, or adjacent to, the study areas. Here, and further to the south, on Nicholas Street, it is also possible that features and deposits relating to three major late medieval religious houses, namely the Franciscan and Dominican friaries and St Mary's Priory, which occupied sites to the west (*Sections 3.6.5-6*), could extend into the western part of the carriageway.

However, the extent to which archaeological levels of all periods were damaged or destroyed during the construction of this road in the 1960s remains unclear, for, whilst it seems certain that ground levels must have been altered, perhaps (in some places at least) quite markedly, information is lacking.

- 4.1.4 Elsewhere, three of the proposed route options (the Canal Route and routes R1 and R4) cross the line of the medieval town wall, which is a Scheduled Monument (*Section 1.2.1*). At the point where R4 crosses the line of the wall, beneath the carriageway of Grosvenor Road, the line of the wall beneath the road is excluded from the boundary of the scheduled area on a plan accessed on Historic England's website (<http://www.historicengland.org.uk>). However, this appears to be somewhat at odds with the results of an archaeological watching brief conducted during the renewal of a gas main in 2010, which recorded the quite substantial remains of the levelled medieval wall beneath the carriageway of Grosvenor Road at this precise location (Earthworks Archaeology 2010, 12-16). At the other two locations, namely at St Martin's Gate (the Canal Route) and at the west end of Lower Watergate Street (R1), the line of the wall does lie within the scheduled monument boundary, and Scheduled Monument Consent would therefore be required for any groundworks within the boundary at these locales. Additionally, all three of these route options have the potential to impact upon other elements of the medieval defences, particularly the ditch fronting the wall and, in the case of route R1, any buried remains of the Water Gate that might survive at the western end of Lower Watergate Street. All three of these route options may also impact upon other elements of the medieval and early post-medieval townscape, including several streets (*eg* Crofts Lane, St Nicholas Lane, Nun's Lane and Lower Watergate Street) and, potentially at least, elements of the many buildings, tenements and burgage plots that must have fronted these roads. Of particular importance are the churches of St Martin's and St Bridget's, which lay on the east side of modern Nicholas Street, since parts of the burial grounds associated with both these establishments could extend beneath the present carriageway, directly on the line of route R4.
- 4.1.5 For the later post-medieval period (*c* eighteenth/nineteenth century), the most significant potential impact of the project is likely to be on below-ground deposits associated with the Old Port and, to a lesser extent, the Shropshire Union Canal. It is clear from the Chester UAD, and from historical mapping, that many Monuments relating to the origins and development of the port are located in the western part of the study area, adjacent to, and in the area immediately to the east of, the present river channel (*Sections 3.7.6-7*). In terms of the various route options, remains of this type are most likely to be encountered along the central and western parts of route R1 (along New Crane Street and the riverbank immediately to the north-west), and in the central and western parts of routes R2 and R3. The latter two route options also have the greatest potential to impact upon features and monuments associated with the western end of the canal, from the Dee Basin westwards, although the northern (east/west) arm of the Canal Route also runs parallel with, and in close proximity to, the canal between St Martin's Way and the railway line.

- 4.1.6 It must be stressed that desk-based assessment can only identify sites that are already known, principally, in this case, from the Chester UAD. Such an assessment cannot locate sites of archaeological and historical importance that are currently wholly unknown (*ie* for which no records, be they documentary, cartographic or archaeological, exist). By collating and assessing relevant information from the surrounding area, it can, however, provide a clear indication of the archaeological and historical potential of a given site, and thus produce a model of these archaeological deposits, even if there is little or no direct evidence pertaining to the site itself.

4.2 SIGNIFICANCE CRITERIA

- 4.2.1 There are several different methodologies used to assess the archaeological significance of sites; that to be used here is the ‘Secretary of State’s criteria for scheduling ancient monuments’ included as *Annex 1* of the Department for Culture, Media and Sport’s (DCMS’s) *Policy Statement on Scheduled Monuments* (DCMS 2010). The Monuments listed were each considered using these criteria; a gazetteer of these monuments is presented in *Appendix 2* (Fig 14).
- 4.2.2 **Period:** the 41 Roman-period sites identified within the study area relate both to Chester’s origins as a major Roman military centre and the development of the adjacent civil settlement, and are, therefore, highly important. Moreover, the fact that some of these remains can be related to the development of what was the largest (and one of the longest-lived) legionary fortress in the province of *Britannia*, whilst others were associated with one of the few settlements to have been established outside a legionary fortress in the province (*Section 4.2.3*), means that these remains are of at least national significance. Again, given the significance of Chester as a major urban centre and port during the Middle Ages and the early post-medieval period, the evidence for later medieval and post-medieval occupation (comprising, respectively, 32 and 66 Monuments) is of high regional significance, though the medieval walls are of national importance, as evidenced by their status as a Scheduled Monument. The very limited data pertaining to activity during the prehistoric and early medieval periods are, by contrast, of relatively low significance.
- 4.2.3 **Rarity:** the legionary fortress at Chester, as one of only nine such installations established by the Roman army in Britain (Webster 1985) and one of only three, together with York and Caerleon, that was occupied for a prolonged period, is demonstrably of national significance, as is the associated civil settlement that grew up around it. Similarly, the medieval town walls are also of national importance, with York (and, to a lesser degree, Southampton) being the only other English urban centres where medieval defences of comparable significance have survived. The archaeological evidence for the development of the study areas in the later medieval period can be regarded as being of high regional importance, in view of the fact that the North West saw the development of very few major urban centres during the medieval period. For the post-medieval period, there are a large number of Monuments recorded on the Chester UAD within, or adjacent to, the study areas

(Appendix 2). Many of these relate to the Old Port, the development of which can be regarded as being of regional significance.

- 4.2.4 **Documentation:** the historical development of the study area from the eighteenth century can be traced in broad terms from a wide range of cartographic sources. More detailed documentary research, beyond the scope of the present assessment, may furnish additional evidence, pertaining to both the medieval and post-medieval occupation of the study areas, although this is unlikely to alter the outline presented in this assessment. In the case of those sites subject to archaeological investigation, particularly those pertaining to Roman and medieval settlement remains, there is an extensive documentary archive of primary and processed data to aid in the understanding of these sites.
- 4.2.5 **Group Value:** of the many Monuments identified within the study area, those pertaining to the Roman legionary fortress and the *canabae legionis* form clear and intrinsically linked groups in terms of their functional relationships, which further enhances their academic value. The same can also be said of the post-medieval Monuments associated with the Old Port and the canal. However, it can also be argued that the later medieval and post-medieval Monuments relating to the development of the historic core are integrated elements of the townscape within each period. As such, the placement of these remains within the wider context of those scientific archaeological investigations undertaken within Chester as a whole enhances their significance.
- 4.2.6 **Survival/Condition:** the possible degree of preservation of archaeological remains within the study area is considered in *Section 4.3*. In summary, evidence from archaeological investigations undertaken in and adjacent to the study areas suggests that there is good potential for survival of significant deposits in at least some areas. However, much of the available data comes from sites immediately adjacent to the roads along which the various route options extend, there being relatively little information on the condition of archaeological remains beneath the carriageways of the roads themselves. Nevertheless, whilst it seems highly likely that preservation will be extremely patchy and variable, and that much will have been lost through truncation associated with road construction/resurfacing and the insertion of sewers and other deep services, the potential for the survival of significant archaeological deposits almost anywhere within the study areas is clear.
- 4.2.7 **Fragility/Vulnerability:** details of the extent and depth of groundworks required for the construction of the proposed new drains are not yet available (*Section 2.1.1*). This, together with the difficulties inherent in predicting the likely survival of archaeological remains in any detail (*Section 4.2.6*), means that the extent to which significant archaeological strata may be vulnerable to damage or destruction is difficult to gauge. However, it seems certain that the insertion of major drainage infrastructure will entail significant ground disturbance (unless pipes can be laid within existing service trenches), and that any surviving archaeological remains on the line of the new drain (or drains) would be extremely vulnerable to such disturbance.

4.2.8 **Potential:** encompassing a wealth of regionally, and, in the case of the medieval walls and the remains of the Roman legionary fortress, nationally, significant archaeology, the study areas clearly have good potential for the preservation of highly significant archaeological remains. Archaeological investigation and recording of any such remains revealed during the construction of any of the proposed drains has the potential to expand and develop existing knowledge of human occupation within the study areas, and of its relationships with the wider settlement.

4.3 DEPTH AND THICKNESS OF ARCHAEOLOGICAL DEPOSITS

4.3.1 Within the study areas, data pertaining to the thickness of archaeological strata and the depth of the latest archaeological levels beneath the modern surface are highly variable, depending upon whether or not any modern archaeological investigations have been undertaken within, or in the immediate vicinity of, the various route options. The following section collates some of the most pertinent data obtained from a number of archaeological sites adjacent to the roads along which the five route options extend, together with more limited information generated by archaeological records made within the road carriageways themselves, principally during works such as the insertion of new gas mains and other services. As a caveat, it should be remembered that the survival of archaeological strata within the study areas, as in all modern urban environments, is notoriously site-specific. Frequently, survival is dependent upon very localised factors that are difficult or impossible to predict, such as the presence or absence of large, modern features or truncation of the uppermost archaeological deposits by levelling preparatory to construction works.

4.3.2 **The Canal Route:** because very few archaeological investigations have been undertaken in that part of Chester traversed by the Canal Route, little information is available on the character and depth of the below-ground archaeology on the line of this route. However, limited information is available from a number of small-scale works, mostly carried out on, and in the immediate vicinity of, St Martin's Way.

4.3.3 **Roman activity:** limited excavations in 1987 beside the pavement near No 6 King's Buildings, on the east side of St Martin's Way and to the north of Hunter Street (le Quesne 1999, 66-7), demonstrated that the early Roman west rampart lay beneath the pavement at this location. It was thought that the later stone curtain wall (which was not observed) would have been in the vicinity of the pavement kerb, though it was considered likely that the wall had been destroyed when St Martin's Way was built. Where best-preserved, the rampart survived to a height of up to 2m (*op cit*, 66), but the published report provides no indication of the depth at which the top of the rampart was encountered beneath the modern surface. However, further archaeological works at the same property in 1998 and 2006 found deposits interpreted as forming part of the rampart, possibly partly overlain by other Roman layers, approximately 1m below the modern surface, at 23.87m above Ordnance Datum (aOD) (Price 1998; Crowe 2006). Further to the north, limited trial-trenching at Pemberton House, north of King Street and east of St Martin's Way, found

traces of the *via sagularis*, the road extending around the inside of the fortress defences, approximately 1.8m below the surface, with other Roman remains further to the east at a similar depth (Gifford 1989), but no absolute heights aOD are given in the ‘grey literature’ report on this work.

- 4.3.4 *Late medieval/post-medieval activity*: in 2002, observations were made of two narrow trenches in St Martin’s Way during the insertion of closed-circuit television cables (UMAU 2002, 9-10), though no absolute heights are given in the report. A trench extending roughly north to south across the line of the medieval town wall at St Martin’s Gate, at or close to the point where the proposed route would itself cross the wall, recorded a layer of mixed brick rubble and sandy material containing some sandstone blocks directly beneath the modern pavement and the underlying bedding material. This was at least 1.1m deep, and was interpreted as a modern levelling deposit. No *in situ* remains of the medieval wall, or any other deposits that might be associated with it, were recorded, though it is possible that such remains might have survived beneath the rubble deposit, which was not bottomed. It was considered that the sandstone blocks within the rubble may have derived from the demolished town wall. The second trench, extending north to south across the open area in front (*ie* north of) the medieval wall encountered only modern deposits, though it was excavated to a maximum depth of only 0.6m (*op cit*, 10).
- 4.3.5 **Route R1**: the amount of data pertaining to the character of archaeological remains on R1 is larger than for the Canal Route, since a considerable amount of archaeological work has been undertaken adjacent to the route, principally on St Martin’s Way and Lower Watergate Street, where most of the available data relate to the Roman period, and on New Crane Street, where post-medieval remains have been recorded. However, accurate information on the thickness and depth (below the modern surface) of archaeological deposits is sparse, since many of the reports presenting the results of these investigations (including published and unpublished sources) do not include absolute heights aOD.
- 4.3.6 *Roman activity*: on St Martin’s Way, at the eastern end of R1, excavations in the late 1940s (Webster 1956), and again in the early 1960s (Thompson 1969), exposed sections of the Roman fortress’s western defences on the east side of Linenhall Street, before this road was swept away when St Martin’s Way was constructed. On the south, adjacent to Holy Trinity Church, most elements of the defences may lie to the east of St Martin’s Way, since excavations there demonstrated that the rampart and stone curtain wall, together with the ditch and the ‘patrol track’ on the outer lip of the ditch, extend beneath the church, which still stands (Thompson 1969, 1, fig 1). Further north, however, the outer elements of the defensive system, namely the track and the ditch, probably extend beneath the eastern (southbound) carriageway of St Martin’s Way, since the road does not share precisely the same alignment as the Roman defences, the latter being aligned more to the north-west/south-east than the road. In 1961-2, the top of Roman archaeology lay no more than 1m below the surface (seemingly at an even shallower depth in some places), and the rampart survived up to *c* 1.7m in height (Thompson

1969, 7). However, the construction of St Martin's Way a few years later is likely to have resulted in significant changes to the ground level along the line of the road. This, together with the fact that the reports detailing the results of the investigations undertaken in the 1940s and 1960s include no absolute height data, means that it is not possible to know what might now survive beneath the carriageway, nor can the depth of any surviving archaeology below the modern surface be estimated. However, the Roman ditch was found to be *c* 8m wide and *c* 3.2m deep, which makes it highly likely that at least the lower part of this feature still survives beneath the modern road (specifically, in respect of R1, beneath the eastern carriageway).

- 4.3.7 Lower Watergate Street, the full length of which is traversed by R1, lies slightly to the north of a Roman road leading from the west gate of the fortress to the presumed site of a harbour on the River Dee (*Section 3.4.8*). Part of the road metalling, 0.23m thick, was observed close to the junction of Watergate Street and St Nicholas Mews during gas improvement works (Balfour Beatty 2012, 130), though the depth at which this occurred beneath the modern surface is unclear. This road was clearly a major focus for occupation within the *canabae legionis*, as evidenced by discoveries on both sides of the modern road (*Section 3.4.8*). However, despite this, there are only very limited data available for the thickness and depth of Roman remains adjacent to the road, since much information derives from antiquarian records or from more recent excavations that are either not fully published or where absolute heights are not given in the published accounts. Some useful data are, however, presented in an account of excavations undertaken in 1959 at Watergate House, on the south side of the street, at its western end (Kelly 1965). There, a complex sequence of deposits relating to successive phases of Roman timber and (later) stone buildings was found, dating from the late first century AD to (perhaps) the late second/third century. No absolute heights are recorded, but section drawings indicate that the top of the latest Roman levels lay approximately 1m below the 1959 ground surface, with a total thickness of Roman archaeology in the region of 1-1.5m. To what extent the ground level in 1959 corresponds to the present surface in this area is, however, unknown.
- 4.3.8 *Early medieval activity*: the excavations undertaken on the western defences of the Roman fortress on Linenhall Street in 1961-2 (Thompson 1969; *Section 4.3.6*), revealed a series of large post-pits, linked by a shallow trench, cut into the top of the Roman rampart (*op cit*, 9; Mason 2007, 92-3). Whilst this feature is not closely dated, it is generally accepted that it represents the remains of a substantial timber palisade, relating, perhaps, to a refurbishment of the Roman defences associated with the establishment of the Mercian *burh* in AD 907 (*ibid*). Absolute heights are not available, but this feature presumably lay no more than 1m below the 1961-2 ground surface (*Section 4.3.6*). How this might relate to the present surface of St Martin's Way is, however, impossible to determine, in the absence of information on the extent to which the construction of this road altered pre-existing ground levels.

- 4.3.9 *Late medieval activity*: at the eastern end of R1, on St Martin's Way, a few medieval features were found during the excavations undertaken on the Roman fortress's western defences in 1961-2 (Thompson 1969). These presumably relate to activity on the east side of Linenhall Street, which followed the line of medieval Crofts Lane. The published report provides no absolute height data pertaining to these features, but they were invariably dug into Roman levels, and probably, therefore, lay *c* 1m or so below the 1961-2 ground surface. There is very little information on the character and preservation of later medieval archaeology elsewhere on R1, though it might be supposed that some remains of this period survive along Lower Watergate Street, which was a major thoroughfare during the medieval period. The possibility that groundworks along this route might encounter human remains is suggested by the discovery of human bones in 1994 at No 86 Watergate Street (Nenk *et al* 1995, 190). These are thought to have come from the cemetery of the Carmelite Friary (White Friars), which was located nearby, the bones having been disturbed and re-interred in the eighteenth century (*ibid*).
- 4.3.10 *Post-medieval activity*: the best evidence for the character and depth of post-medieval deposits along the line of R1 comes from a series of archaeological investigations along, and in the vicinity of, New Crane Street, which developed from the eighteenth century as a road leading from the Water Gate to the Old Port (*Section 3.7.7*). In 2002, trial-trenching and borehole observations were carried out in a surface car park on the north side of the road (Gifford 2002), north-west of the site of the medieval Water Gate. There, the remains were found of post-medieval buildings, some cellared, which occupied the site from the mid-late eighteenth/early nineteenth century, when cartographic evidence suggests that the area was first developed (*op cit*, 12), to the 1960s, when the area was cleared and re-planned. In places, these remains were no more than 0.3m below the present surface, and were seen to overlie, or cut into, dumped materials (perhaps representing an episode of land reclamation), up to 3m thick, containing seventeenth-century pottery and artefacts. These in turn overlay organic-rich alluvial silts, 3.5-4m below the surface, which yielded sixteenth-century pottery (*ibid*). A very similar developmental sequence was recorded during a watching brief on the south side of New Crane Street the following year (Gifford 2003). There too, the remains of late post-medieval buildings lay close to the modern surface and overlay probable land reclamation deposits, at least 1m thick, containing seventeenth-century artefacts. However, the report presenting the results of this work gives no absolute heights.
- 4.3.11 Further to the north-west, close to the east bank of the River Dee, excavations in 2004 on the former gasworks site, *c* 150m south-west of the line of R1, revealed an accumulation of alluvial silts beneath remains associated with an eighteenth/nineteenth-century workhouse (Poole 2011, 85). The top of the silting levels lay at approximately 6.2m aOD, these deposits being at least 2m thick, whilst the remains of the workhouse appear to have lain just below the modern surface, though some of the wall foundations were *c* 1.5-2m deep (*op cit*, 91). The investigations also revealed part of The Cop, a flood defence bank originally constructed in the early eighteenth century (*Section 3.7.6*),

though the excavated segment formed part of a realigned section of the earthwork that was taken around the workhouse, following the construction of the latter in 1758-9 (*op cit*, 97). The top of deposits associated with the bank lay directly beneath modern demolition levels at *c* 6m aOD, and extended down to at least 4m aOD. South-west of the workhouse, a short section of a sandstone dock wall associated with the Old Port was also revealed. The top of this lay at *c* 4.4m aOD, but the wall extended down to at least 2.6m aOD (*ibid*).

- 4.3.12 Elsewhere, few post-medieval deposits of note were recorded along the line of R1. At the extreme western end of Lower Watergate Street, at its junction with New Crane Street, observations in the road during gas improvement works (Balfour Beatty 2012, 19-20) revealed a substantial sandstone wall, *c* 1.2m below the road surface (11.06m aOD). This was interpreted as part of a post-medieval tollhouse, which was demolished in 1782 (*op cit*, 127-8). Further evidence for the development of the Old Port and its environs from the eighteenth century, and for the accumulation of alluvial silts pre-dating this, were also recorded along New Crane Street during the same phase of works (*ibid*).
- 4.3.13 **Routes R2 and R3:** except (perhaps) at their extreme eastern ends, these route options traverse an area that would have lain largely within the channel of the River Dee prior to *c* 1600 (*Section 3.7.5*). Consequently, the few archaeological interventions carried out in the vicinity of R2 and R3, all of which were located towards the western end of these routes (*ie*, close to the present river bank and within the earlier river channel) have revealed evidence pertaining to the development of the area in the post-medieval period only, with no deposits of Roman or medieval date recorded. Immediately south of the western end of R3, archaeological investigations in 2003-4 at Tilston's Yard, opposite the junction of New Crane Street and South View Road, recorded an accumulation of late seventeenth/early eighteenth-century alluvial silts at *c* 5-5.25m aOD (Nash *et al* 2011, 71-2). These were in excess of 1.25m thick, and were overlain by the remains of The Cop flood defence embankment. The top of this survived at *c* 6.25m aOD, but at a location just to the north of R3 the crest of the bank lies at 7.1m aOD (Matrix Archaeology 2000). Subsequent developments included the construction of a small wharf and other features associated with the development of the Old Port in the nineteenth century (*op cit*, 74-7). A very similar sequence was recorded during a phased programme of test-pitting, evaluation trenching and excavation over a larger area slightly further to the south, bounded by the river, on the west, New Crane Street, on the east, the Shropshire Union Canal (Dee Lock), on the north, and New Crane Bank, to the south, close to the western ends of both R2 and R1 (Matrix Archaeology 2000; Hewitson and Scruby 2011). There, an accumulation of silts analogous to those recorded at Tilston's Yard (and elsewhere in the vicinity) was recorded, *c* 2.1m below the modern surface (absolute heights are not given in the publication report), above which were the remains of The Cop, the top of which survived, in places, *c* 0.95m below the surface (*op cit*, 24-32). There too, stratigraphically later remains of buildings and other features associated with the development

of the Old Port from the eighteenth century onwards were recorded (*op cit*, 34-42).

- 4.3.14 **Route R4:** although R4 is the longest of the five potential route options (*Section 1.3.4*), there is very little information available on the character and (especially) the thickness and depth (below the modern surface) of archaeological deposits along its line, except at its extreme northern end, on St Martin's Way. There, R4 follows the same line as R1, so the information pertaining to the depth and survival of archaeological remains in this area (see *Sections 4.3.6; 4.3.8-9*) applies equally to both route options.
- 4.3.15 *Roman activity:* apart from excavations on the western defences of the Roman fortress along what is now St Martin's Way (*Section 3.4.5*), the best evidence for Roman activity adjacent to R4 comes from excavations on the site of the former Police Headquarters (now occupied in part by the offices of CWaC) on Nicholas Street. There, on a site located in close proximity to the line of R4 as it crosses from Nicholas Street to Grosvenor Road via the Grosvenor Roundabout, a complex of Roman remains dating from the late first/early second century AD to the third century at least was excavated in 2007 (Mason 2012, 117, 196-7). The results of this project (and of more limited work undertaken on the site in the 1960s) remain unpublished, and no height data are available. However, the remains included timber buildings associated with a road, which were later replaced by stone structures. Roman burials were also found on the western periphery of the area (*op cit*, 117). Since R4 traverses the southern part of the Roman civil settlement for almost its entire length, it is highly likely that similar remains survive below ground elsewhere along its line, though information is lacking.
- 4.3.16 *Medieval activity:* as already noted (*Section 3.6.6*), R4 crosses the line of the medieval town wall in the carriageway of Grosvenor Road, south-west of the Grosvenor Roundabout, where all above-ground traces of the wall were removed during the construction of the road. Elsewhere, for example at St Martin's Gate, where the Canal Route crosses the northern town wall (*Section 3.6.4*) and on Lower Watergate Street, where R1 crosses the site of the medieval Water Gate (*Section 3.6.5*), the wall lies within the boundary of the Chester Walls scheduled monument, even though no above-ground remains survive at these locations. However, in Grosvenor Road, the line of the wall is seemingly excluded from the scheduled monument boundary (*Section 4.1.4*). This is despite the fact that remains of the town wall were exposed at this exact location in 2010, during an archaeological watching brief maintained on works associated with the renewal of gas mains beneath the road (Earthworks Archaeology 2010). The wall, aligned north-west to south-east, was 1.8m wide and survived at least five courses (1.2m) in height, the top of the wall being *c* 0.5m below the modern road surface, at approximately 16m aOD (*op cit*, 15-16, 21-2, figs 20, 21, 22).
- 4.3.17 Elsewhere, very few data are available. Investigations on the site of the former Police Headquarters on Nicholas Street, which lies in close proximity to the line of R4 in the vicinity of the Grosvenor Roundabout (*Section 4.3.15*), found deposits associated with St Mary's Priory (Mason 2012, 117), a Benedictine

nunnery established in the twelfth century (*Section 3.6.2*), including burials located within the cemetery on the south side of the main priory complex (Earthworks Archaeology 2004; I Smith *pers comm*). Route option R4b, which extends along Castle Drive, lies in close proximity to the medieval town wall, but it should be possible to avoid the scheduled monument boundary at this locale. Furthermore, although Castle Drive skirts the south side of the site of the medieval castle, parts of which are protected as a scheduled monument (*Section 1.2.1*), neither the road nor R4b impinge upon the scheduled monument boundary.

4.4 POTENTIAL IMPACT AND IMPLICATIONS

4.4.1 The following section provides a summary of the potential archaeological impact of each of the five route options, as these are presently understood, and the possible implications for the drainage project, based on the data gathered by the present assessment. It should be noted that details of the extent of the groundworks required for the construction of the proposed drains (*eg* the depth and width of pipe trenches) were not available during the preparation of the assessment. It is also the case that, in many areas traversed by the routes, very limited data are available concerning the character and (especially) the thickness and depth (below the modern surface) of archaeological remains. However, it is assumed that the drains will be of a sufficient size and depth to cause significant damage to any extant archaeological remains that survive within the proposed routes, since, over much of the study area, archaeological deposits of varying degrees of significance probably lie approximately 1m or less (perhaps, in some areas, considerably less) beneath the modern surface.

4.4.2 ***The Canal Route:*** on the evidence gathered during the assessment, it seems highly probable that the Canal Route has the potential to impact upon below-ground archaeological remains of Roman, medieval and post-medieval date and possibly (though far less certainly) of the early medieval period also. The most significant points can be summarised as follows:

- where the route crosses the line of the medieval town wall at St Martin's Gate, Scheduled Monument Consent *will* be required in respect of any groundworks proposed within the boundary of the Chester Walls Scheduled Monument (*Section 1.2.1*), which includes the line of the wall beneath the carriageway of St Martin's Way;
- the route lies wholly within Chester's Area of Archaeological Importance (AAI), within which archaeological remains are treated in the same way as for a scheduled monument. Historic England is a statutory consultee in all matters pertaining to the archaeology within the AAI;
- north-west of the medieval wall, the route traverses the area of a Roman cemetery (*Section 3.4.9*), and the discovery of human remains might, therefore, be anticipated. Consequently, a licence will be required from the Ministry of Justice, in accordance with section 25 of

the Burial Act (1857) for the removal of any human remains exposed by groundworks;

- other significant archaeological remains that the route will potentially impact upon include the western defences of the Roman legionary fortress, which are of national significance (*Section 4.2.3*), the ditch fronting the medieval town wall, which is at least of regional importance (*Section 3.6.4*), and deposits associated with the Shropshire Union Canal (*Section 4.1.5*), also arguably of regional significance.

4.4.3 **Route R1:** the potential impact of groundworks associated with the construction of a major drain on the line of route R1, and the possible archaeological implications in respect of the scheme, can be summarised as follows:

- where the route crosses the line of the medieval town defences at the western end of Lower Watergate Street, Scheduled Monument Consent *will* be required in respect of any groundworks proposed within the boundary of the Chester Walls Scheduled Monument (*Section 1.2.1*), which includes the line of the wall, and the site of the medieval Water Gate, beneath the carriageway of Lower Watergate Street;
- the route lies wholly within Chester's Area of Archaeological Importance (AAI), within which archaeological remains are treated in the same way as for a scheduled monument. Historic England is a statutory consultee in all matters pertaining to the archaeology within the AAI;
- other significant archaeological remains that the route will potentially impact upon include the western defences of the Roman legionary fortress and remains associated with the adjacent civil settlement (*canabae legionis*), all of which are of national significance (*Section 4.2.3*), the ditch fronting the medieval town wall and other elements of the medieval urban centre, which are of at least regional importance (*Section 3.6.4*), and deposits associated with the development of the Old Port and its environs in the eighteenth/nineteenth century (*Section 4.2.3*), which are also of regional significance.

4.4.4 **Routes R2 and R3:** routes R2 and R3 represent two options for the extension of the Canal Route from the Shropshire Union Canal to the River Dee (*Section 1.3.3*) and cannot, therefore, be constructed independent of that route. Consequently, the potential archaeological impact of these routes must be considered in conjunction with the potential impact of the Canal Route (*Section 4.4.2*). In summary, the most significant points are as follows:

- both R2 and R3 lie wholly within Chester's Area of Archaeological Importance (AAI), within which archaeological remains are treated in the same way as for a scheduled monument. Historic England is a

statutory consultee in all matters pertaining to the archaeology within the AAI;

- the alternative line for the eastern end of route R2 (R2b) is in close proximity to the Water Tower, a fourteenth-century addition to the medieval defences (*Section 3.6.4*) that forms part of the Chester Walls Scheduled Monument. If this route option was to be adopted, care would be needed to ensure that all works were carried out outside the scheduled monument boundary. If groundworks within the boundary proved to be unavoidable, an application for Scheduled Monument Consent would be required;
- it is possible (though not certain) that the extreme eastern ends of both routes lie within the Roman cemetery that is known to exist north-west of the medieval defences (*Section 3.4.9*). Consequently, a licence will be required from the Ministry of Justice, in accordance with section 25 of the Burial Act (1857) for the removal of any human remains exposed by groundworks;
- other significant archaeological remains that the routes will potentially impact upon are likely to be restricted largely to the development of the Old Port and the Shropshire Union Canal in the eighteenth/nineteenth century (*Section 4.2.3*), which can be considered to be of regional significance.

4.4.5 **Route R4:** the potential impact of groundworks associated with the construction of a major drain on the line of route R1, and the possible archaeological implications in respect of the scheme, can be summarised as follows:

- where R4 crosses the perimeter of the medieval town defences in the carriageway of Grosvenor Road, the line of the medieval wall does not appear to be included within the boundary of the Chester Walls Scheduled Monument (*Section 4.1.4*). However, substantial remains of the wall were revealed at precisely this location in 2010, and were retained *in situ* (*Section 4.1.4*). Consequently, if R4 is adopted as the preferred route option, it is strongly recommended that Historic England is consulted, in order to clarify the situation and determine whether or not Scheduled Monument Consent is required in respect of any groundworks undertaken at this locale;
- the route lies wholly within Chester's Area of Archaeological Importance (AAI), within which archaeological remains are treated in the same way as for a scheduled monument. Historic England (HE) is a statutory consultee in all matters pertaining to the archaeology within the AAI;
- the route traverses several areas where discoveries of human remains have been made, most notably on Nicholas Street, which passes close to, or impinges upon, the burial grounds associated with the churches of St Martin's of the Ash and St Bridget's (*Section 4.1.4*), and the

cemetery of St Mary's Priory, a medieval nunnery (*Section 3.6.6*). Consequently, since the discovery of human remains might reasonably be anticipated, a licence will be required from the Ministry of Justice, in accordance with section 25 of the Burial Act (1857), for the removal of any such remains exposed by groundworks;

- other significant archaeological remains that the route will potentially impact upon include the western defences of the Roman legionary fortress and elements of the associated civil settlement (*canabae legionis*), which are of national significance (*Section 4.2.3*), the ditch fronting the medieval town wall, together with deposits within the medieval urban core, which are of at least regional importance (*Section 3.6.4*).

4.5 CONCLUSIONS AND RECOMMENDATIONS

4.5.1 The assessment has considered data recovered from 39 archaeological interventions (Events) located within, or immediately adjacent to, the study areas, in addition to other sources of information, including historical mapping. In total, 142 Monuments of archaeological and historical significance have been identified from the Chester UAD as lying within, or close to, the study areas. The work has demonstrated that archaeological remains, including many that are of certain or probable national and regional significance, are likely to survive along all five of the route options currently under consideration, though the degree of preservation beneath the carriageways of the modern roads is difficult to assess. All five routes lie, in their entirety, within Chester's Area of Archaeological Importance, and the line of the medieval town wall, a Scheduled Monument, is crossed in three places (on the Canal Route and in R1 and R4), though at one of these locales (R4) the line of the wall does not seem to be included within the scheduled monument boundary. In addition to the walls themselves, remains of certain or possible national significance under possible threat of disturbance include the defences of the Roman legionary fortress and deposits associated with the adjacent civil settlement. Regionally significant archaeology that may suffer an adverse impact includes the ditch fronting the medieval defences, elements of Chester's medieval urban core, and remains associated with the development of the Old Port and its environs in the eighteenth/nineteenth century. Route R4, and possibly (though less certainly) the Canal Route, traverse areas where human remains have been found, and a licence will therefore be required from the Ministry of Justice, in accordance with section 25 of the Burial Act (1857), in anticipation of encountering and removing such remains during the course of construction works.

4.5.2 In view of the above, it is recommended that an appropriate archaeological strategy be developed in order to mitigate the effects of the proposed drainage scheme on any surviving below-ground archaeology, since it seems clear that, whichever of the route options is chosen, there is a high probability that groundworks will result in damage to, or destruction of, archaeological remains of sufficient importance to warrant excavation and recording.

5. BIBLIOGRAPHY

5.1 CARTOGRAPHIC SOURCES

Batenham, G, 1816 *A plan of the city of Chester with the recent improvements*, London

Braun, G, and Hogenburg, F, c 1580 *Civitates orbis terrarum*, **3**, Cologne

de Lavaux, A, 1745 *Plan of the city and castle of Chester*, Chester

Smith, W, 1585 *The particular description of England. With the portratures (sic) of certaine of the chieffest citties and townes*, BL Harley MS 1046, fol 173

Stockdale, J, 1795 *A plan of Chester*, London

Wood, J, 1833 *Plan of the city of Chester*, London

5.2 SECONDARY SOURCES

Balfour Beatty, 2012 *Chester city centre, Cheshire, gas improvement works: archaeological watching brief*, unpubl rep

Beckley, R, and Campbell, D, 2013 *An archaeological research framework for Chester* (www.cheshirearchaeology.org.uk/wp-content/uploads/Chester_Archaeological_Research_Framework.pdf)

Beckley, R, and Campbell, D, 2014 *Chester Archaeological Plan* (www.cheshirearchaeology.org.uk/wp-content/uploads/Chester_Archaeological_Plan.pdf)

British Geological Society (BGS), 2015 Geological web-based map, accessed May 2015 (www.mapapps.bgs.ac.uk/geologyofbritain/home.html)

Chartered Institute for Archaeologists (CIfA), 2014 *Standard and guidance for the creation, preparation, transfer and deposition of archaeological archives*, Reading

Chester West and Chester Council (CWaC), 2015 *Chester District Local Plan*, Chester

Cranfield University, Soils and Agrifood Institute, 2015 Soilscape mapping, accessed May 2015 (www.landis.org.uk/soilscales/)

Crowe, CJ, 2006 *6 King's Buildings, Chester: archaeological excavation report*, unpubl rep

Department for Communities and Local Government (DCLG), 2012 *National Planning Policy Framework*, London

Department for Culture, Media and Sport (DCMS), 2010 *Policy Statement on Scheduled Monuments*, London

Earthworks Archaeology, 2004 *Proposed redevelopment at the Police Headquarters building, Nun's Road, Chester: an archaeological evaluation*, unpubl rep

Earthworks Archaeology, 2010 *Gas main renewal at Nun's Road and Grosvenor Street, Chester: an archaeological watching brief*, Earthworks Archaeol Rep, **E917**, unpubl rep

Gifford, 1989 *A report assessing the archaeological implications of redevelopment at Pemberton House, Chester*, unpubl rep

Gifford, 2002 *New Crane Street car park, Chester: report on an archaeological evaluation*, unpubl rep

Gifford, 2003 *Budget Hotel, Chester Racecourse: report on an archaeological watching brief*, unpubl rep

Hewitson, C, and Scruby, A, 2011 The development of the waterfront on the River Dee: excavations at New Crane Street, Chester, *J Chester Archaeol Soc*, **82**, 21-66

Historic England, 2015 *Managing significance in decision-taking in the historic environment*, Historic Environment Good Practice Advice in Planning Note, **2**, London

Hoffmann, B, 2002 Where have all the soldiers gone? Some thoughts on the presence and absence of soldiers in fourth-century Chester, in P Carrington (ed), *Deva Victrix: Roman Chester re-assessed*, Chester, 79-88

Kelly, DB, 1965 Excavations at Watergate House, Chester, 1959, *J Chester Archaeol Soc*, **52**, 1-21

Laughton, J, 2008 *Life in a late medieval city: Chester 1275-1520*, Oxford

Le Quesne, C, 1999 *Excavations at Chester. The Roman and later defences, Part 1: investigations 1978-1990*, Chester Archaeol Excavation Survey Rep, **11**, Chester

Lewis, CP, 2011 Framing medieval Chester: the landscape of urban boundaries, in CAM Clarke (ed), *Mapping the medieval city: space, place and identity in Chester c 1200-1600*, Cardiff, 42-56

Lewis, CP, and Thacker, AT (eds), 2003 Topography 900-1914: early modern and Georgian, 1550-1840, in CP Lewis and AT Thacker (eds), *A history of the county of Chester*, **5/1: The city of Chester: general history and topography, London, 220-9**

Lilley, K, 2011 Urban mappings: visualizing late medieval Chester in cartographic and textual form, in CAM Clarke (ed), *Mapping the medieval city: space, place and identity in Chester c 1200-1600*, Cardiff, 19-41

Mason, DJP, 2001 *Excavations at Chester. The Elliptical Building: an image of the Roman world?*, Chester Archaeol Excavation Survey Rep, **12**, Chester

- Mason, DJP, 2002 The foundation of the legionary fortress, in P Carrington (ed), *Deva Victrix: Roman Chester re-assessed*, Chester, 33-51
- Mason, DJP, 2007 *Chester AD 400-1066: from Roman fortress to English town*, Stroud
- Mason, DJP, 2012 *Roman Chester: fortress at the edge of the world*, Stroud
- Matrix Archaeology, 2000 *River wall restoration, Old Port, Chester: archaeological assessment and watching brief (interim report)*, unpubl rep
- Nash, G, Owen, P, and Martin, G, 2011 Archaeological investigations at Tilston's Yard, New Crane Street, Chester, *J Chester Archaeol Soc*, **82**, 67-83
- Nenk, BS, Margeson, S, and Hurley, M, 1995 *Medieval Britain and Ireland*, 1994, *Medieval Archaeol*, **39**, 180-293
- Oxford Archaeology North (OA North), 2016 *Chester Northgate redevelopment: archaeological desk-based assessment*, unpubl rep
- Poole, BS, 2011 The River Dee, Roodee Cop and the workhouse: recent excavations, *J Chester Archaeol Soc*, **82**, 85-107
- Price, J, 1998 *6 King's Buildings, Chester: archaeological evaluation*, unpubl rep
- Reid, ML, 2011 The early modern port of Chester, *J Chester Archaeol Soc*, **82**, 1-20
- Shotter, DCA, 2002 Chester: early Roman occupation, in P Carrington (ed), *Deva Victrix: Roman Chester re-assessed*, Chester, 25-31
- Thompson, FH 1969 Excavations at Linenhall Street, Chester, 1961-2, *J Chester Archaeol Soc*, **56**, 12-22
- University of Manchester Archaeological Unit (UMAU), 2002 *Closed-circuit television installation works, Chester: an archaeological watching brief*, unpubl rep
- Walker, K, 1990 *Guidelines for the preparation of excavation archives for long-term storage*, UKIC, London
- Ward, S, 1988 *Excavations at Chester, 12 Watergate Street 1985: Roman headquarters building to medieval row*, Grosvenor Museum Archaeol Excavation Survey Rep, **5**, Chester
- Ward, S, 1994 *Excavations at Chester, Saxon occupation within the Roman fortress: sites excavated 1971-1981*, Chester Archaeol Serv Excavation Survey Rep, **7**, Chester
- Ward, S, 2009 *Chester: a history*, Chichester
- Webster, G, 1956 Excavation of the Roman remains east of Trinity Street, 1950-1953, *J Chester Archaeol Soc*, **43**, 27-34
- Webster, G, 1985 *The Roman Imperial army*, 3rd edn, London

APPENDIX 1: GAZETTEER OF EVENTS

| Event | Easting | Northing | Description |
|--------------|----------------|-----------------|---|
| ECH2403 | 340158.43 | 366205.02 | Recorded remains found during construction work, Watergate Street, 1779 (Chester) |
| ECH2434 | 340159.81 | 366281.67 | Recorded remains found during construction work, 1874 (Chester) |
| ECH3221 | 340172.03 | 366187.29 | Investigations at Watergate House, Chester, in 1959 |
| ECH3601 | 340189.67 | 366581.27 | An evaluation excavation at Chester Royal Infirmary, March 1992 (Infirmary site) |
| ECH3897 | 339855.64 | 366489.48 | Watching brief at Victoria Works, Walls Avenue, Chester, in 2001 |
| ECH3921 | 340027.14 | 366268.50 | Evaluation at New Crane Street Car Park, Chester, in 2002 |
| ECH3955 | 340243.22 | 366537.90 | Evaluation on land to the rear of 6 King's Buildings, Chester, 2002 (King's Buildings site) |
| ECH4161 | 340234.10 | 366552.34 | 6 King's Buildings, Chester: archaeological excavation report (King's Buildings site) |
| ECH4182 | 339827.08 | 366432.49 | Archaeological watching brief on land at Old Port, Chester, in 2004 |
| ECH4287 | 340242.31 | 366531.67 | 6 King's Buildings, Chester: archaeological evaluation (King's Buildings site) |
| ECH4445 | 340343.46 | 365702.08 | Watching brief at Castle Drive, Chester, in 2007 |
| ECH4685 | 339932.21 | 366409.87 | Electricity Buildings site, Old Port, Chester: watching brief |
| ECH4691 | 340221.50 | 365949.39 | Gas main renewal at Nun's Road and Grosvenor Street, Chester: watching brief in 2006 |
| ECH4764 | 340169.76 | 366211.44 | Cellar refurbishment works at 98 Watergate Street, Chester: watching brief in 2010 |
| ECH4780 | 340296.06 | 365686.55 | Archaeological watching brief at Little Roodee Car Park, Chester |
| ECH4795 | 339797.44 | 366594.80 | Archaeological investigation at Tilston's Yard, Chester, in 2004 |
| ECH4872 | 339740.75 | 366608.81 | River wall restoration, Old Port, Chester: archaeological assessment and watching brief |
| ECH4893 | 340248.79 | 366603.03 | Archaeological investigations at Pemberton House, Chester, in 1989 |
| ECH4896 | 339962.02 | 366271.90 | Budget Hotel, Chester Racecourse: watching brief |
| ECH4900 | 339803.80 | 366523.61 | Archaeological excavation at New Crane Street, Chester, in 2002 |
| ECH4924 | 340203.56 | 366209.99 | Recorded remains at Stanley Street, Chester, in 1845 (Watergate Baths site) |

| Event | Easting | Northing | Description |
|--------------|----------------|-----------------|---|
| ECH4937 | 340168.45 | 366189.83 | Recorded remains discovered during construction work in 1887 (Chester) |
| ECH4960 | 340241.53 | 366535.21 | Excavations to the rear of 6 King's Buildings, 1921 (King's Buildings site) |
| ECH4981 | 340151.37 | 366180.17 | Recorded remains found on Watergate Street, Chester, 1932 |
| ECH5025 | 340205.17 | 366543.43 | Excavations at Chester Royal Infirmary in 1998 (Infirmary site) |
| ECH5067 | 340201.65 | 366590.16 | Watching brief at Water Tower Street, Chester, in 1998 |
| ECH5081 | 340235.80 | 366213.02 | Salvage investigations at 86 Watergate Street, Chester, in 1994 |
| ECH5111 | 340377.31 | 366036.59 | Further excavations at Cuppin Street, Chester, in 1987 |
| ECH5172 | 340221.16 | 366637.28 | Roman remains noted during the construction of the Chester Canal |
| ECH5186 | 340363.48 | 365857.05 | Excavations at the main entrance, Chester Castle, 1939 (Chester) |
| ECH5188 | 340146.54 | 366178.84 | Observations made in Watergate Street, Chester, in 1866 (Watergate Baths site) |
| ECH5374 | 340461.79 | 367055.94 | Chester city centre: watching brief on gas installation |
| ECH5393 | 340320.88 | 365747.25 | Chester Imagemakers: watching brief |
| ECH5416 | 339985.19 | 366607.07 | Excavations at Dee Basin, Chester, in 1996 |
| ECH5441 | 340333.03 | 365988.52 | Archaeological watching brief during work at St Martin's Lodge, Chester, in 2012 |
| ECH5517 | 340037.85 | 366594.57 | Archaeological watching brief at Tower Road, Chester, in 2012 |
| ECH5594 | 340322.57 | 365747.18 | Archaeological watching brief at Chester (Little Roodee, Roman Gardens and The Groves), in 2013 |
| ECH5702 | 340368.99 | 365861.85 | Limited watching brief outside the Police HQ Building, Chester, in 2006 |
| ECH6144 | 340173.52 | 366352.85 | Archaeological attendances during geotechnical investigations, Linenhall, Chester |

APPENDIX 2: GAZETTEER OF MONUMENTS

| HER No. | Easting | Northing | Monument ID | Description | Type |
|---------|-----------|-----------|-------------|--|--|
| 6975 | 340351.99 | 366064.48 | MCH18236 | Prehistoric flint from Weaver Street | findspot |
| 8030/56 | 340400.00 | 365860.00 | MCH450 | Roman finds, outer bailey, Chester Castle | findspot |
| 8030/57 | 340390.02 | 365950.01 | MCH456 | Roman altar and finds, junction of Grosvenor Street and Castle Esplanade | findspot |
| 8038 | 340112.40 | 366281.91 | MCH16620 | Roman extramural baths site, Watergate Street | bath house, colonnade, arch, hypocaust, drain, floor, wall, mosaic, shrine |
| 8039 | 340113.83 | 366208.07 | MCH11175 | Roman harbour at the Roodee | wharf, quay, harbour, port |
| 8040 | 340227.71 | 366417.13 | MCH12463 | Infirmiry Fields Roman cemetery | inhumation, cemetery, cist, tomb, gravestone, grave, cremation |
| 8042/2 | 340250.41 | 366200.33 | MCH481 | Roman pottery from Stanley Palace | findspot |
| 8042/4 | 340290.00 | 366220.00 | MCH289 | Roman coin of Vespasian found on Watergate Street | findspot |
| 8042/6 | 340230.00 | 365580.00 | MCH447 | Roman coin of Maximian near Grosvenor Bridge | findspot |
| 8042/12 | 340050.00 | 366200.00 | MCH485 | Roman finds from Crane Street | findspot |
| 8042/19 | 340148.89 | 366596.32 | MCH16644 | Roman statue from Pemberton's Parlour | findspot |
| 8042/22 | 340322.80 | 366096.23 | MCH16647 | Wooden pipe from Nicholas Street | findspot |
| 8042/26 | 340167.30 | 366208.40 | MCH16653 | Roman finds from 98 Watergate Street | findspot |
| 8042/28 | 340330.00 | 366100.00 | MCH315 | Roman coin of Nero found near Nicholas Street | findspot |

| HER No. | Eastings | Northing | Monument ID | Description | Type |
|---------|-----------|-----------|-------------|---|-------------------------------------|
| 8042/29 | 340070.60 | 366221.64 | MCH18821 | Roman finds from New Crane Street | findspot |
| 8042/31 | 340356.47 | 366008.46 | MCH19270 | Roman pottery from Nicholas Street | findspot |
| 8042/33 | 340318.06 | 365755.42 | MCH18724 | Roman finds from Grosvenor Road | findspot |
| 8069 | 340153.83 | 366180.14 | MCH469 | Roman road south of the Water Gate | metalled area, road |
| 8070/2 | 340155.24 | 366178.66 | MCH470 | Roman stone building at Watergate House | wall, building, rubbish pit |
| 8075 | 340160.83 | 366177.87 | MCH16682 | Roman tank and drain at Watergate House | water tank, drain, |
| 8093 | 340400.00 | 365860.00 | MCH453 | Tessellated pavement, Chester Castle | mosaic, hard standing |
| 8180 | 340258.60 | 366483.20 | MCH18491 | Roman rampart building (No 29) at Hunter Street | wall, beam slot, rampart building |
| 8201 | 340230.44 | 366610.35 | MCH18495 | Evidence of the Roman north rampart at Water Tower Street | rampart, fortification |
| 8202/1 | 340240.96 | 366625.00 | MCH18496 | Evidence of the Roman north wall at Water Tower Street | rampart, fortification |
| 8207 | 340590.82 | 366735.00 | MCH22993 | Northern and north-eastern fortress defensive ditch | ditch, fortification |
| 8213 | 340240.68 | 366525.57 | MCH18388 | Evidence of the west rampart at King's Buildings | rampart, fortification |
| 8215 | 340358.59 | 366046.62 | MCH18518 | Evidence of the Roman west ditch at Weaver Street | ditch, fortification |
| 8239 | 340248.38 | 366494.82 | MCH18389 | Roman interval tower west wall 6 at St Martin's Way | interval tower, fortification, wall |
| 8240 | 340236.53 | 366554.82 | MCH18540 | Roman interval tower west wall 7 | fortification, interval tower |
| 8241 | 340219.51 | 366611.00 | MCH534 | Roman north-west angle tower at Water Tower Street | fortification, angle tower |
| 8246 | 340239.84 | 366540.09 | MCH18436 | Industrial activity at King's Buildings | layer |

| HER No. | Easting | Northing | Monument ID | Description | Type |
|---------|-----------|-----------|-------------|---|---------------------------------|
| 8260 | 340367.70 | 366012.62 | MCH18010 | Earth rampart at Cuppin Street, possible annex of the fortress defences | rampart, fortification |
| 8274 | 340250.22 | 366524.29 | MCH18559 | Roman pits at King's Mews, St Martin's Way | pit |
| 8389 | 340241.49 | 366535.25 | MCH18339 | Roman layer at King's Buildings | occupation layer |
| 8552 | 340616.10 | 366740.83 | MCH12485 | Deva Roman fortress | legionary fortress |
| 8562 | 340233.18 | 366205.71 | MCH19266 | Roman road surface at Watergate Street | road |
| 8563 | 340359.21 | 366017.23 | MCH19267 | Roman layer at Nicholas Street | layer |
| 8585 | 340333.15 | 365988.66 | MCH21018 | Possible Roman wall at St Martin's Lodge | wall |
| 8606 | 340363.24 | 365893.01 | MCH21032 | Roman ditch at Nun's Field | ditch |
| 8611 | 340206.17 | 366528.12 | MCH16712 | Roman occupation evidence from Chester Infirmary site | posthole, road |
| 8653 | 340326.45 | 365999.90 | MCH21306 | Roman drain at St Martin's Lodge | drain |
| 8654 | 340325.76 | 366000.46 | MCH21308 | Possible Roman road at St Martin's Lodge | road? |
| 9013/14 | 340329.31 | 365979.48 | MCH840 | Saxon coin hoard, St Martin's Lodge | findspot |
| 9039 | 340229.85 | 366602.43 | MCH18683 | Possible evidence of Saxon gravel roadway, Pemberton House | road? |
| 10002 | 340482.49 | 366268.92 | MCH18741 | Watergate Street | road |
| 10006 | 340436.12 | 366602.61 | MCH18745 | King Street | road |
| 10015 | 340565.87 | 366073.46 | MCH18754 | Cuppin Street | road |
| 10018 | 340571.91 | 365938.71 | MCH18757 | Castle Street | road |
| 10034 | 340335.28 | 366053.02 | MCH18773 | White Friars | road |
| 10047 | 340414.24 | 365955.95 | MCH18783 | New Church of St Bridget's, Grosvenor Road | parish church, cemetery, school |
| 10073 | 340343.55 | 366049.90 | MCH1183 | Church of St Martin | church |

| HER No. | Easting | Northing | Monument ID | Description | Type |
|------------|-----------|-----------|-------------|---|---|
| 10100/39 | 340239.51 | 366539.82 | MCH18922 | Post-medieval finds at King's Buildings | findspot |
| 10101/1/0 | 340613.90 | 366727.70 | MCH20280 | Chester Canal Company branch | canal, canal lock |
| 10101/1/16 | 340169.19 | 366632.77 | MCH19899 | Northgate Lock | canal lock |
| 10101/3/0 | 339990.60 | 366566.60 | MCH19906 | Union Dee branch (nineteenth century) | canal |
| 10101/3/1 | 339806.00 | 366538.25 | MCH19911 | Dee Lock | tidal lock |
| 10101/3/2 | 339843.57 | 366547.34 | MCH19910 | Swing bridge | swing bridge |
| 10101/3/3 | 339854.66 | 366596.77 | MCH19909 | Dee Basin | canal basin |
| 10101/3/4 | 339984.93 | 366609.04 | MCH19908 | Bridge Lock | canal lock |
| 10101/3/4 | 339987.60 | 366633.63 | MCH19908 | Bridge Lock | canal lock |
| 10101/4/0 | 339877.63 | 367211.91 | MCH20281 | Ellesmere Port Canal Company branch | canal |
| 10194 | 340350.41 | 366079.95 | MCH18967 | Post-medieval housing at Weaver Street | house, cellar, wall, cultivation marks |
| 10317 | 340158.46 | 366141.99 | MCH777 | Dominican Friary (Black Friars) | Dominican friary, precinct, church, courtyard, cemetery, burial, cloister |
| 10318 | 340109.04 | 366339.39 | MCH1251 | Franciscan Friary (Grey Friars) | Franciscan friary, precinct, church, bakehouse, brewhouse, courtyard, cemetery, burial, infirmary, cloister |

| HER No. | Easting | Northing | Monument ID | Description | Type |
|----------|-----------|-----------|-------------|---|---|
| 10319 | 340329.87 | 366004.60 | MCH1253 | St Mary's Priory (Benedictine nunnery) | nunnery, precinct, church, cemetery, burial, gate, courtyard, alley |
| 10320/3 | 340167.30 | 366208.40 | MCH18880 | Medieval pottery, 98 Watergate Street | findspot |
| 10320/4 | 340167.30 | 366208.40 | MCH18881 | Post-medieval pottery and finds, 98 Watergate Street | findspot |
| 10320/11 | 340164.99 | 366189.25 | MCH19326 | Seventeenth/eighteenth-century clay pipe, Watergate Street | findspot |
| 10320/13 | 340356.47 | 366008.47 | MCH19379 | Post-medieval pottery, Nicholas Street | findspot |
| 10324 | 340203.23 | 366542.52 | MCH18814 | Medieval cultivation horizon, gullies and possible surface, Royal Infirmary | gully, pit, posthole, hard standing |
| 10325 | 340203.23 | 366542.52 | MCH18815 | Post-medieval wall foundation, Royal Infirmary | wall, layer |
| 10328 | 340181.12 | 366339.36 | MCH18827 | Linen Hall | cloth hall, cheese market |
| 10329 | 340318.71 | 365945.66 | MCH18873 | Mid-nineteenth-century militia barrack buildings, Nun's Road | barracks |
| 10355 | 340203.23 | 366542.52 | MCH19240 | Great barn of St Werburgh's Abbey | tithe barn |
| 10357 | 340203.23 | 366542.52 | MCH18953 | Medieval road with median drain, Royal Infirmary | road, drain |
| 10360 | 340203.23 | 366542.52 | MCH18959 | Post-medieval drain and wall, Royal Infirmary (North) | wall, drain |
| 10364 | 340342.96 | 366087.10 | MCH18985 | Medieval garden soils at Weaver Street | cultivation marks |
| 10424 | 340247.79 | 366410.65 | MCH19135 | Linen Hall Street / Crofts Lane | road |
| 10425 | 340324.57 | 366049.80 | MCH19136 | Nicholas Street | road |
| 10426 | 340327.91 | 366032.06 | MCH19146 | Blackfriars (Street) | road |
| 10427 | 340207.91 | 365977.01 | MCH19149 | Greyfriars (Street) | road |

| HER No. | Easting | Northing | Monument ID | Description | Type |
|---------|-----------|-----------|-------------|--|---------------------------------|
| 10428 | 340245.01 | 366412.84 | MCH19133 | St Martin's in the Fields / Crofts Lane (Street) | road |
| 10430 | 340331.73 | 366007.82 | MCH19137 | St Martin's Ash (Street) | road |
| 10431 | 340344.36 | 365972.83 | MCH19141 | Castle Esplanade / Nun's Lane | road |
| 10432 | 340174.06 | 366399.33 | MCH19134 | St Chad's Lane | road |
| 10433 | 340213.52 | 366546.04 | MCH19244 | Fletcher's almshouses, St Martin's in the Fields | building, almshouse |
| 10435 | 340276.49 | 366238.22 | MCH19246 | Smithies, Linen Hall Street | building |
| 10439 | 340329.01 | 366085.45 | MCH19248 | Hastings School, Nicholas Street | school |
| 10620 | 340202.10 | 366207.82 | MCH19314 | Post-medieval cobbled surface, junction of Watergate Street and Stanley Street | cobbled road |
| 10621 | 340235.18 | 366198.54 | MCH19317 | Eighteenth/nineteenth-century culvert, north end, Nicholas Street Mews | culvert |
| 10622 | 340234.21 | 366202.67 | MCH19319 | Large eighteenth-century pit, north end, Nicholas Street Mews | rubbish pit |
| 10623 | 340130.07 | 366185.16 | MCH19321 | Wall overlying post-medieval dumped material, Watergate | wall |
| 10624 | 340130.07 | 366185.16 | MCH19323 | Seventeenth/eighteenth-century dumped material, Watergate | layer, midden |
| 10625 | 340130.07 | 366185.16 | MCH19325 | Wall and cobble surface, possibly demolished tollhouse, Watergate | wall, hard standing, tollhouse? |
| 10626 | 340360.35 | 366019.53 | MCH19345 | Post-medieval wall, surface and levelling layer, Nicholas Street | wall, floor, building, layer |
| 10627 | 340312.00 | 366086.48 | MCH19401 | Sandstone wall, possible part of precinct wall of Dominican Friary | wall, well?, tower?, friary? |
| 10631 | 340327.69 | 366030.01 | MCH19398 | Sandstone wall, possible part of precinct wall of Dominican Friary | wall, precinct wall? |

| HER No. | Easting | Northing | Monument ID | Description | Type |
|-----------|-----------|-----------|-------------|--|------------------------|
| 10637 | 340372.14 | 365809.11 | MCH19408 | Possible disturbed moat feature, Grosvenor Road | layer, moat? |
| 10638/1 | 340370.67 | 365809.98 | MCH19409 | Unstratified post-medieval finds, Grosvenor Road, Castle Gardens | findspot |
| 10864 | 340188.87 | 365197.32 | MCH19884 | Chester Tramway (Chester to Saltney line) | tramway |
| 10877 | 340505.54 | 365791.65 | MCH20033 | Castle - Harrison rebuild | castle |
| 10892 | 340036.74 | 366568.60 | MCH20523 | Gloverstone (stone) | stone, boundary |
| 10969 | 340233.43 | 365597.05 | MCH20128 | Medieval port of Chester | port |
| 10970/0/0 | 340200.95 | 365574.45 | MCH825 | Port of Chester | port |
| 10970/1/0 | 339793.41 | 366389.53 | MCH20252 | Port wall | port, revetment |
| 10970/1/2 | 339793.41 | 366389.53 | MCH20131 | Port wall at New Crane Wharf | port, revetment |
| 10970/2/0 | 339711.57 | 366032.48 | MCH20139 | Former river front at the Port of Chester | port |
| 10970/2/5 | 339794.77 | 366359.01 | MCH20144 | Former inlet at TS Deva | port, natural feature? |
| 10970/2/6 | 339791.26 | 366414.35 | MCH20145 | Former inlet at New Crane Wharf | port, natural feature? |
| 10970/2/8 | 339811.83 | 366485.58 | MCH20260 | Former inlet at Dee Lock Wharf | port, natural feature? |
| 10970/2/9 | 339800.01 | 366549.53 | MCH20147 | Former inlet at Tilston's Yard | port, natural feature? |
| 10970/4/0 | 339798.93 | 366332.12 | MCH20150 | New Crane Wharf, Chester Port | port, wharf |
| 10970/4/1 | 339792.61 | 366409.04 | MCH20151 | The New Crane, Chester Port | port, wharf, crane |
| 10970/5/0 | 339802.37 | 366537.95 | MCH20153 | Tilston's Yard, Chester Port | port, wharf, boat yard |
| 10974 | 339813.43 | 366598.34 | MCH20169 | Dee Wharf (north), Dee Basin | wharf |
| 10975 | 339847.77 | 366536.56 | MCH20170 | Dee Wharf (south), Dee Basin | wharf |
| 10990 | 340061.95 | 366287.89 | MCH20250 | Timber yard at New Crane St | timber yard |
| 10991 | 340083.35 | 366238.27 | MCH20188 | Post-medieval features at New Crane St | pit, layer, wall |

| HER No. | Easting | Northing | Monument ID | Description | Type |
|----------|-----------|-----------|-------------|--|--------------------------------------|
| 10994 | 339906.14 | 366345.77 | MCH20191 | Electric lighting station | facade |
| 10997 | 340035.41 | 366575.70 | MCH20194 | Water Tower baths | slipper baths |
| 10998 | 339779.74 | 366604.42 | MCH20195 | The 'Cop', eighteenth-century flood defences | flood defences, earthwork, revetment |
| 11003 | 339814.64 | 366486.31 | MCH20210 | Boat yard | boat yard |
| 11015 | 340099.87 | 366197.26 | MCH20241 | Seventeenth-century reclamation soil at New Crane Street car park | land reclamation |
| 11016 | 340100.07 | 366197.46 | MCH20244 | Eighteenth- to nineteenth-century terraced housing at New Crane Street | terrace |
| 11017 | 339982.77 | 366251.29 | MCH20243 | Seventeenth-century reclamation soil at New Crane Street | land reclamation |
| 11018 | 340045.00 | 366577.62 | MCH20246 | Cotton works at the canal | cotton mill |
| 11048 | 340022.11 | 366283.73 | MCH20221 | Seventeenth-century layers at Queen's School playing field | land reclamation |
| 11079 | 340209.72 | 366202.64 | MCH1252 | Friars of the Sack | friary, town wall |
| 11129 | 339756.51 | 366650.59 | MCH20427 | Lower King's Ferry Turnpike Trust | toll road |
| 11326 | 340242.24 | 366531.57 | MCH20996 | Post-medieval pit, King's Buildings | pit |
| 11399 | 340393.67 | 366726.84 | MCH21171 | Whipcord Lane | road |
| 11400 | 340039.68 | 366574.29 | MCH21170 | Quarry at the Water Tower | quarry |
| 11436 | 340327.45 | 365997.09 | MCH21322 | Possible medieval wall at St Martin's Lodge | wall |
| 12000 | 340001.02 | 366542.91 | MCH748 | Chester city walls | town defences |
| 12000/42 | 340140.60 | 366177.25 | MCH766 | Chester city walls – Water Gate | gully, pit, post hole, hard standing |
| 12501 | 340204.34 | 366644.50 | MCH1221 | Royalist outworks | bank, dyke, ditch, |
| | | | | | |
| | | | | | |

ILLUSTRATIONS

FIGURES

- Figure 1: Site location
- Figure 2: Plan of the Northgate development drainage route options
- Figure 3: The study areas and Chester's Archaeological Character Areas
- Figure 4: The drainage route options relative to the Roman legionary fortress and the civil settlement (after Mason 2012, fig 115))
- Figure 5: The drainage route options overlaid on a speculative plan of the Saxon *burh* (after Ward 1988, fig 31)
- Figure 6: The drainage route options within late medieval Chester, *c* 1500 (after Laughton 2008, frontispiece)
- Figure 7: Detail from Braun and Hogenburg's map of Chester, *c* 1580
- Figure 8: Detail from William Smith's map of Chester, 1585
- Figure 9: Detail from de Lavaux's map of Chester, 1745,
- Figure 10: Detail from Stockdale's map of Chester, 1795
- Figure 11: Detail from Batenham's map of Chester, 1816
- Figure 12: Detail from Wood's map of Chester, 1833
- Figure 13: Location plan of archaeological Events within, and adjacent to, the study areas
- Figure 14: Location plan of Monuments within, and adjacent to, the study areas

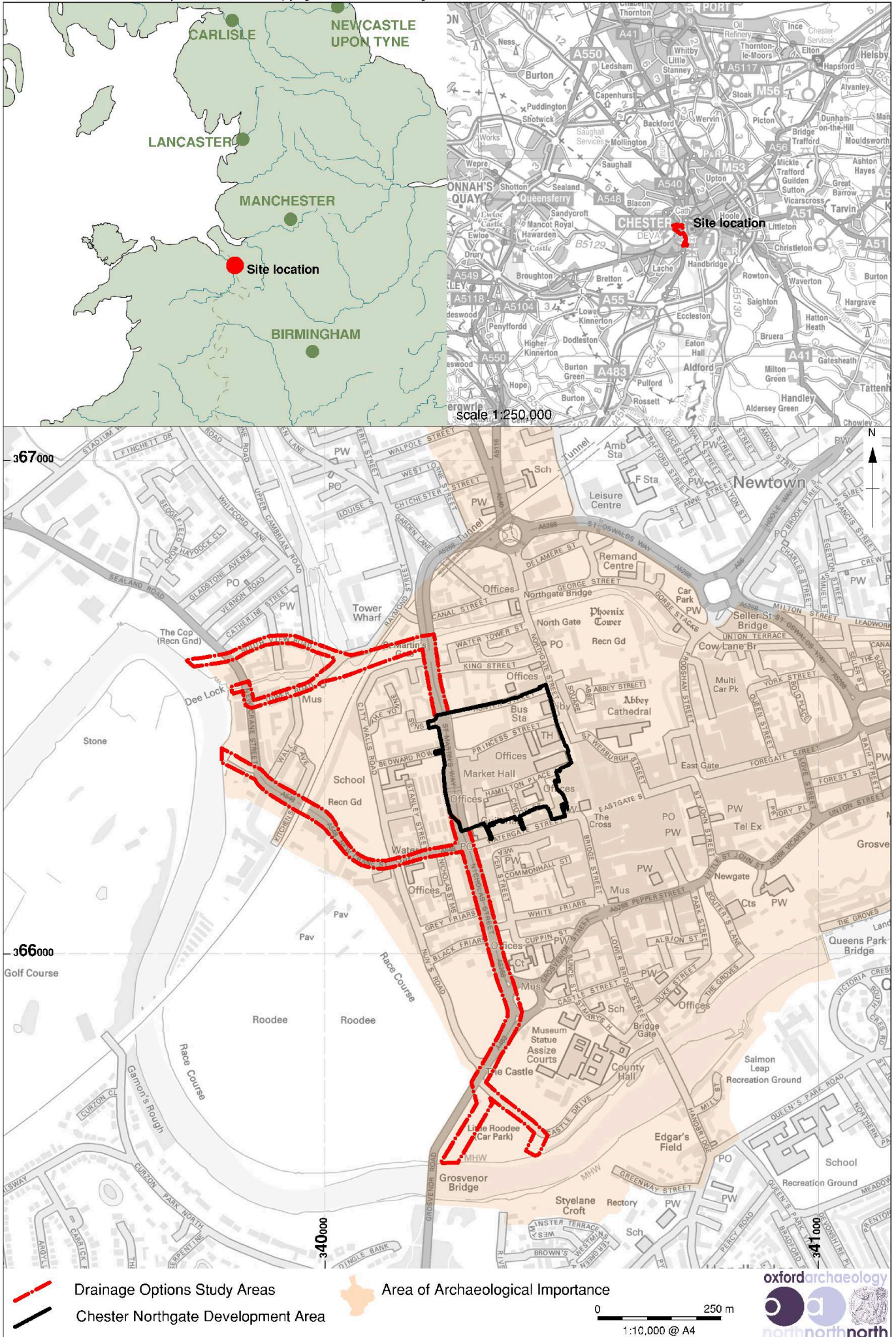


Figure 1: Site location

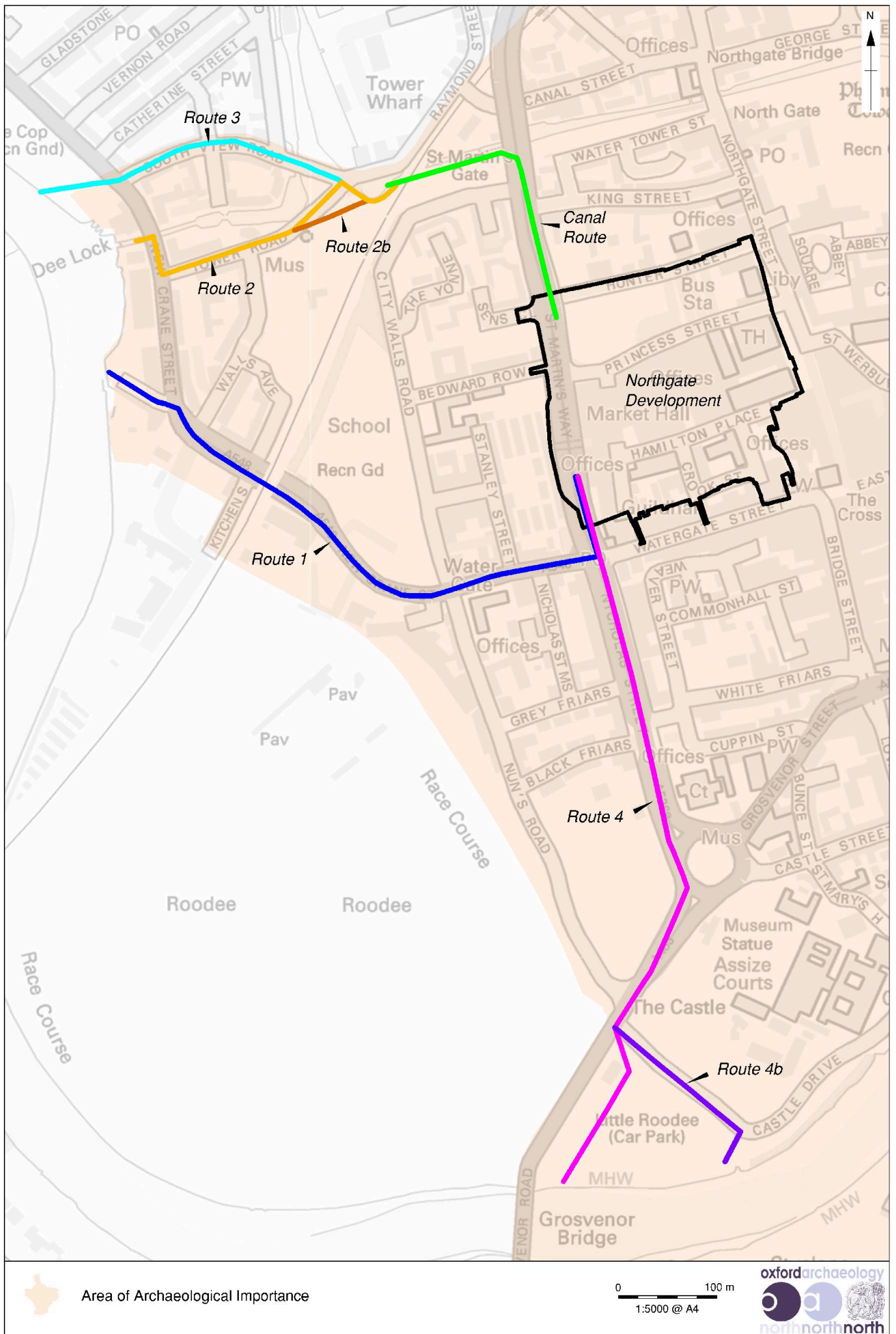


Figure 2: Plan of the Northgate development drainage route options

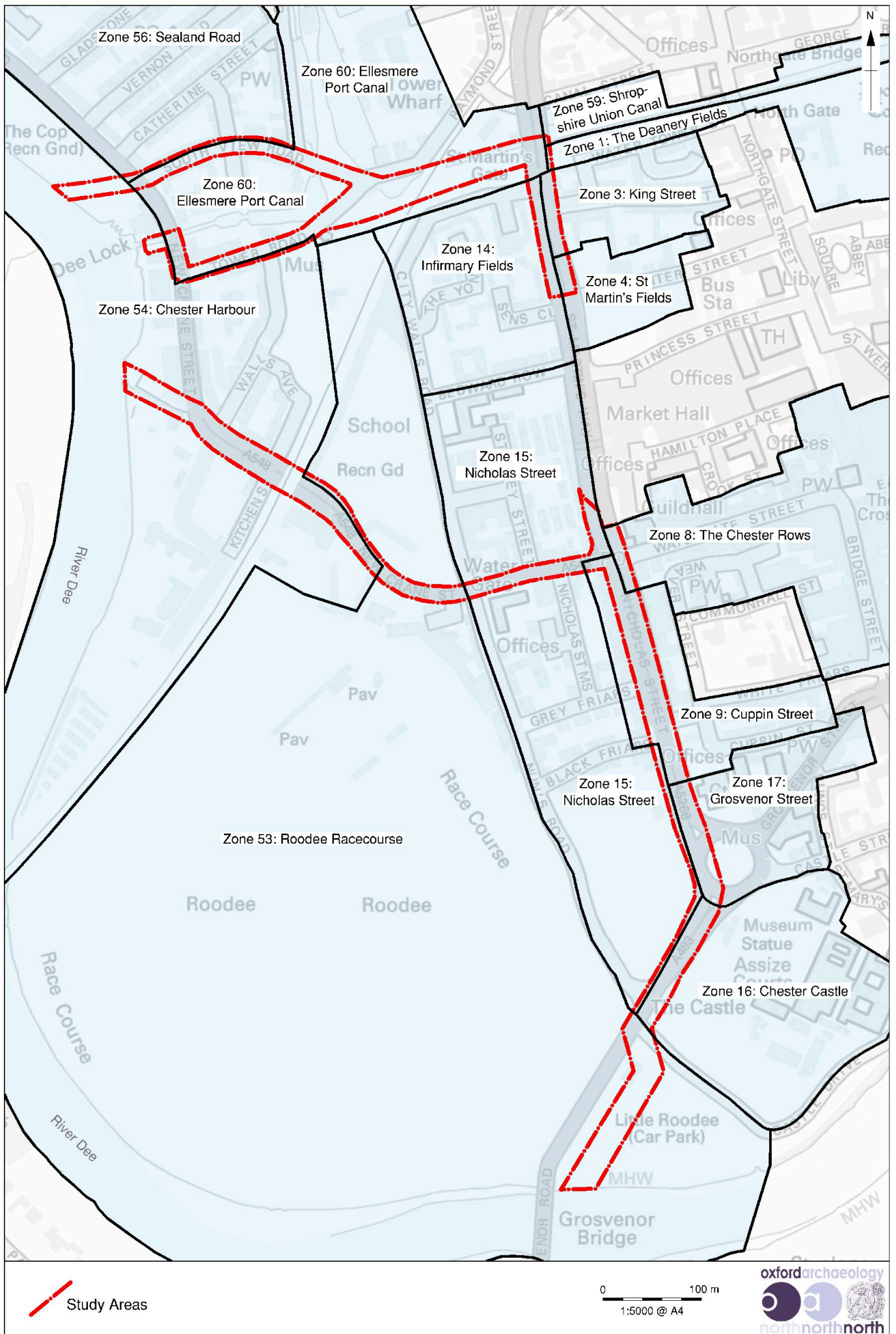


Figure 3: The study areas and Chester's Archaeological Character Areas

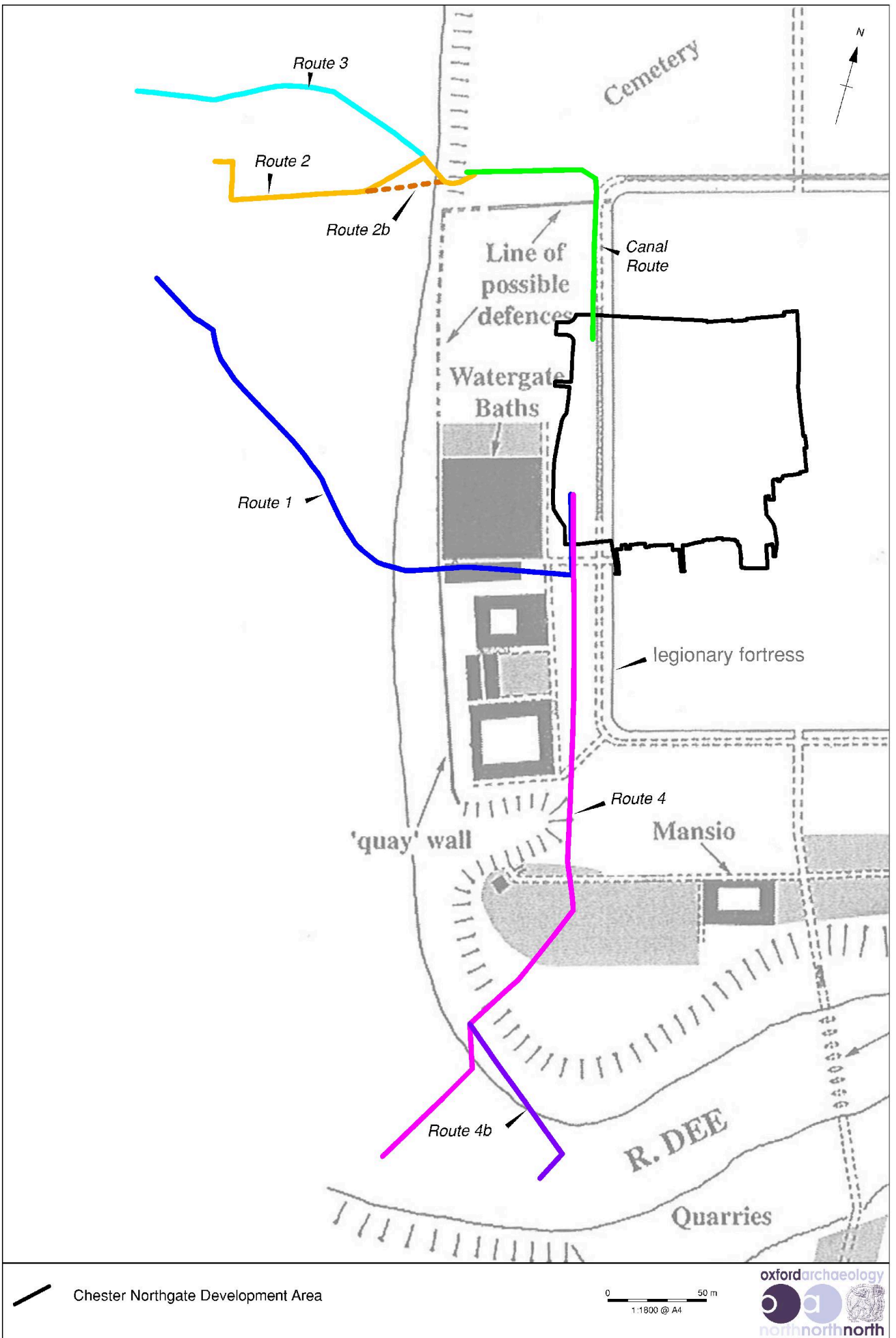
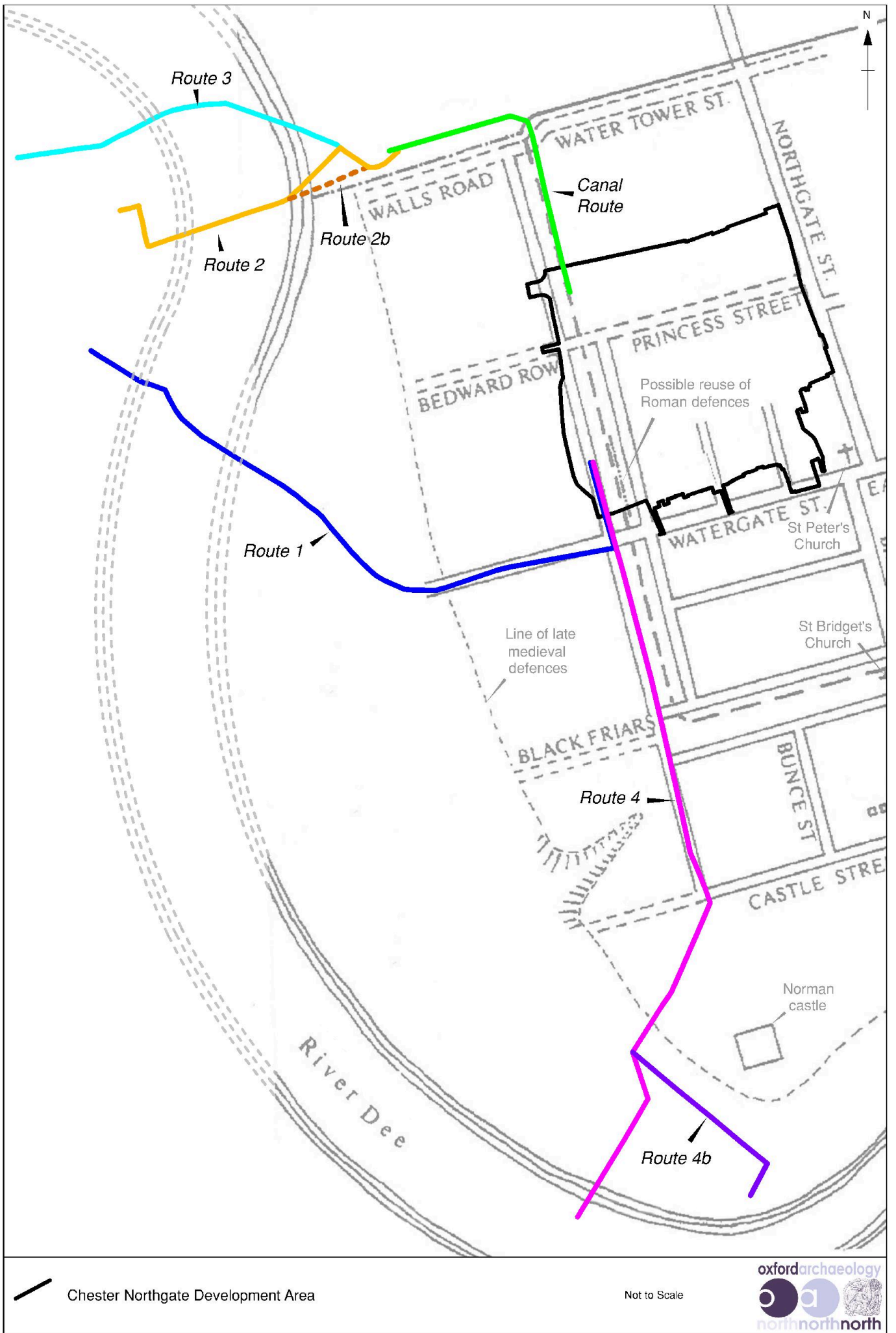


Figure 4: The drainage route options relative to the Roman legionary fortress, and the civil settlement (after Mason 2012, fig 115)



RN*L10790*MAT*July 2016

Figure 5: The drainage route options overlaid on a speculative plan of the Saxon *burh* (after Ward 1988, fig 31)

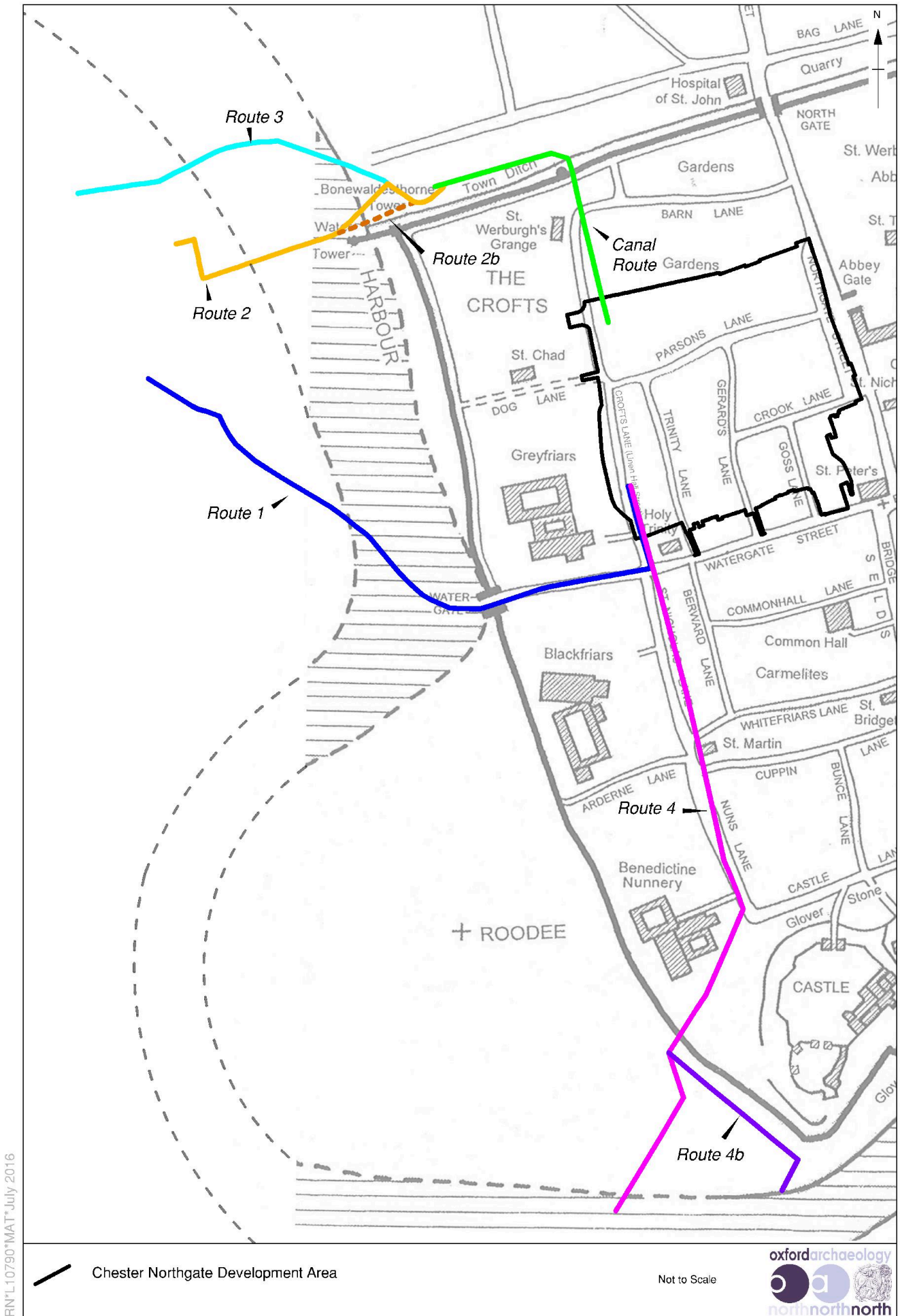
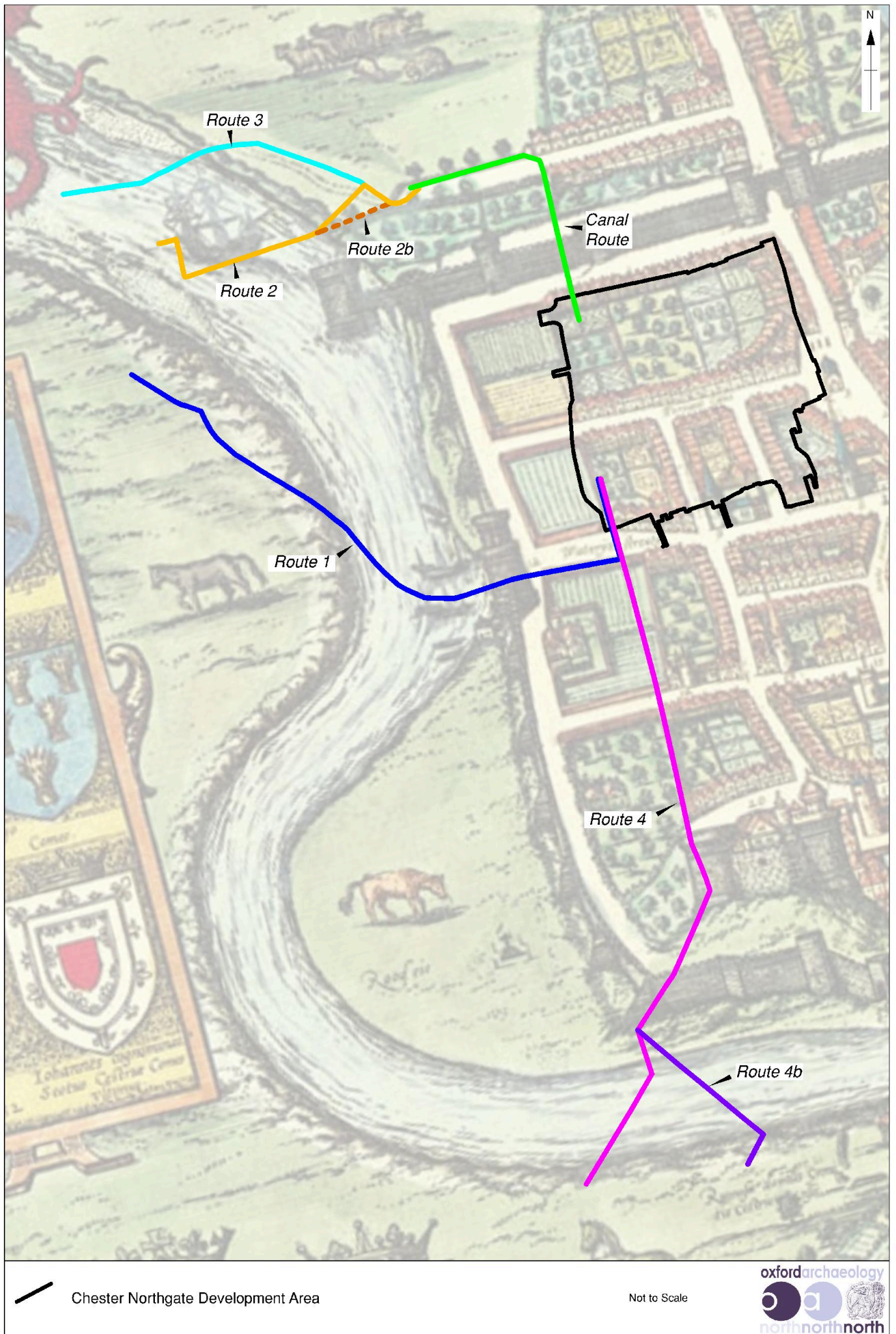


Figure 6: The drainage route options within late medieval Chester, c 1500 (after Laughton 2008, frontispiece)



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Figure 7: Detail from Braun and Hogenburg's map of Chester, c 1580

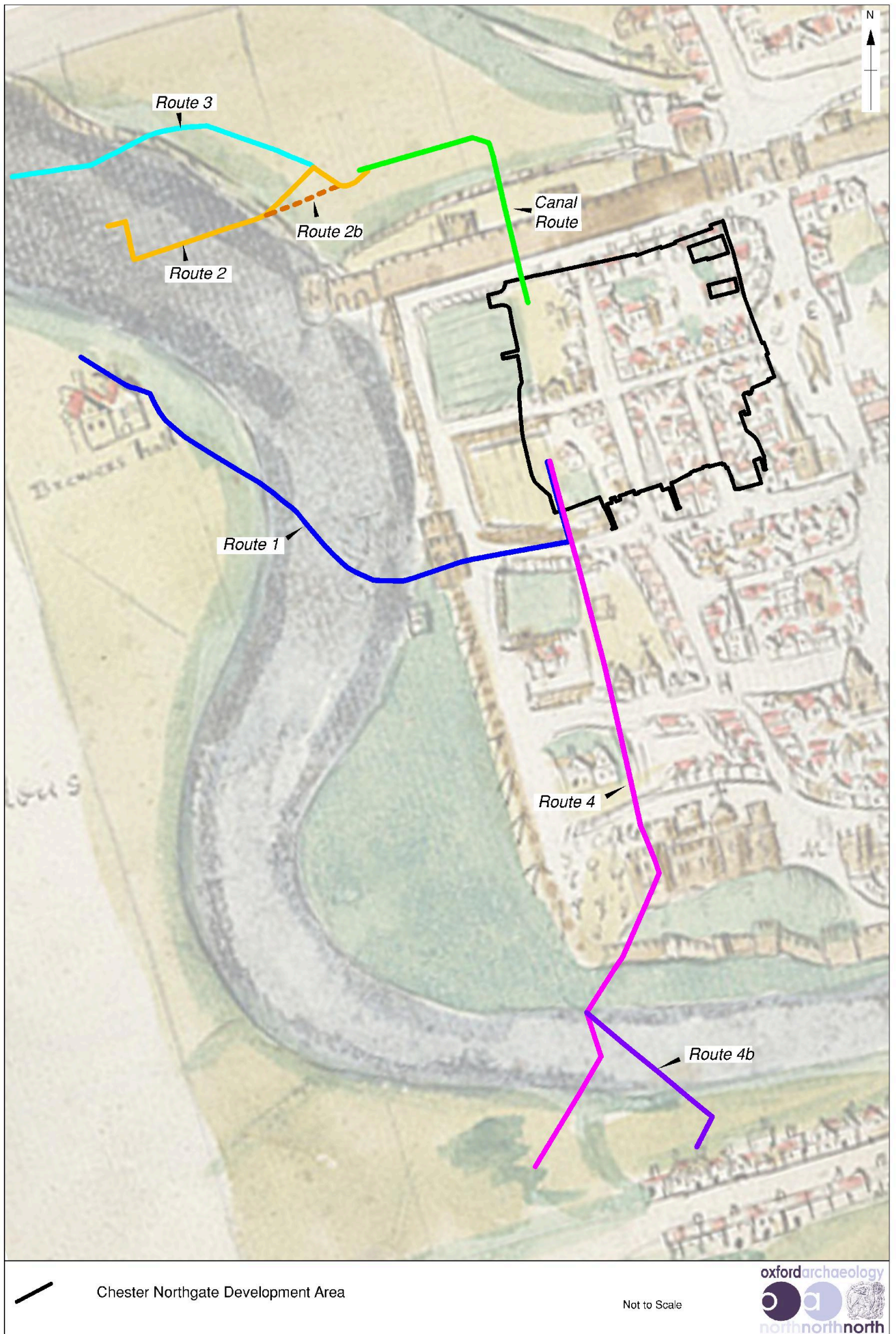
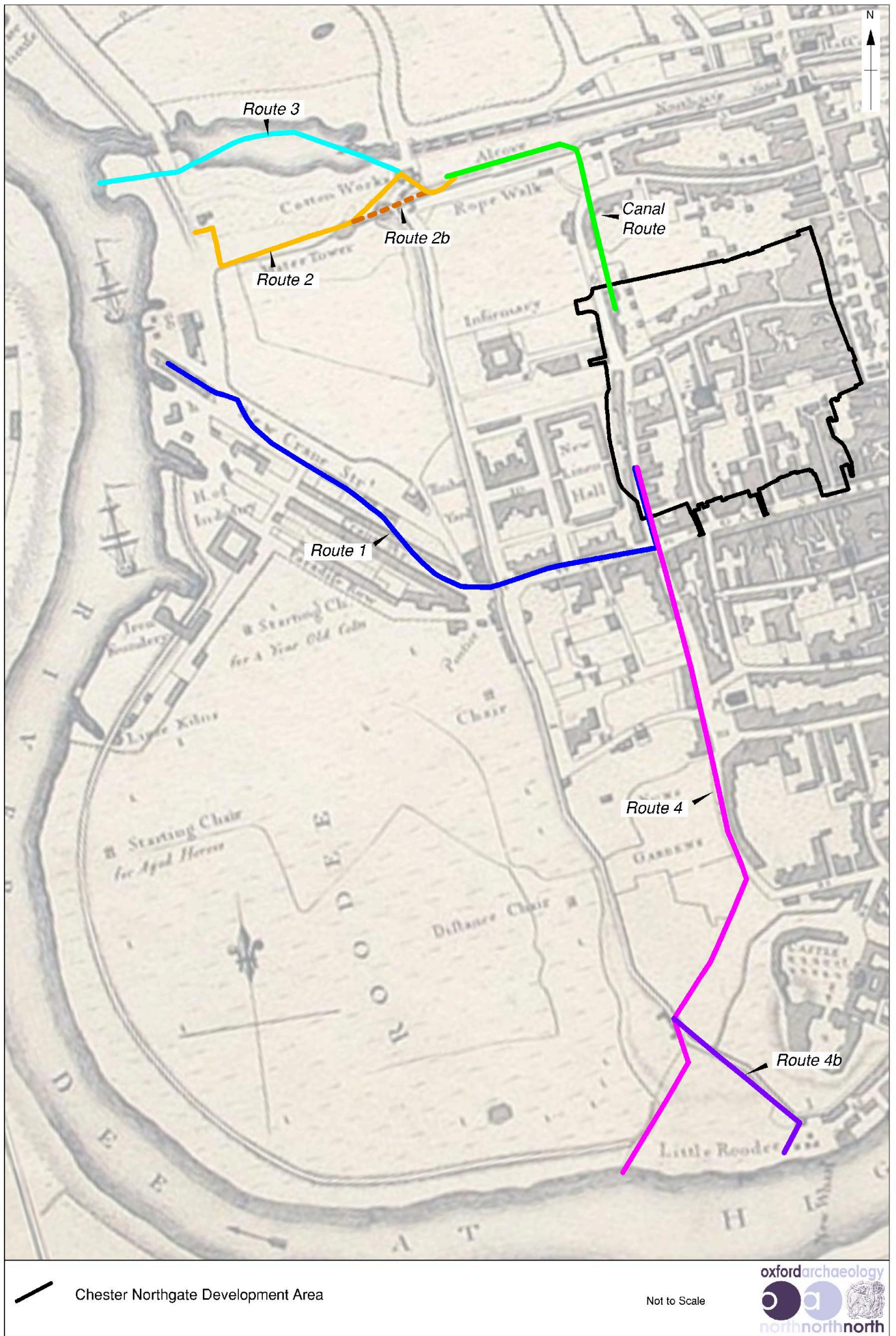


Figure 8: Detail from William Smith's map of Chester, 1855



Figure 9: Detail from Lavaux's map of Chester, 1745



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Figure 10: Detail from Stockdale's map of Chester, 1795

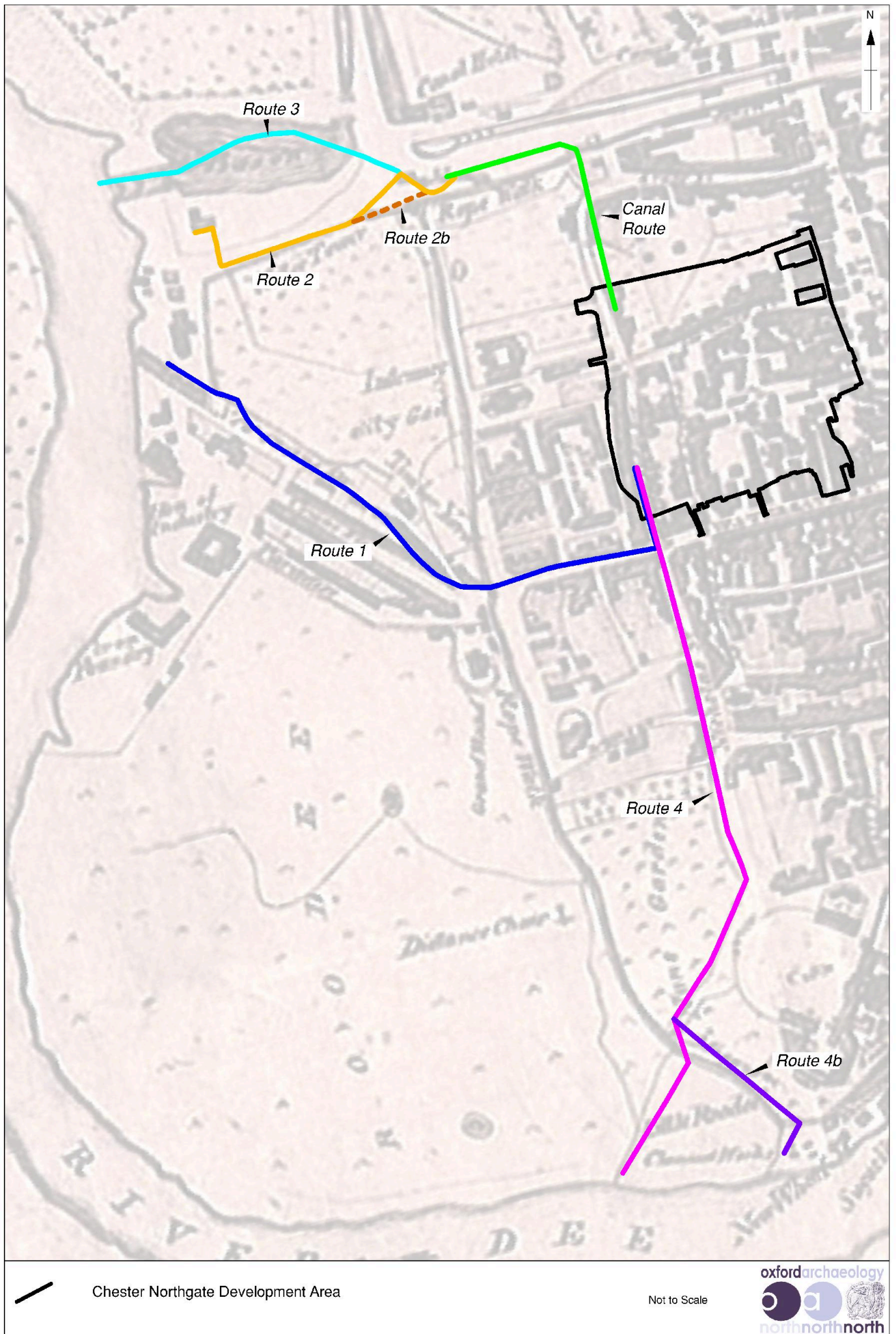


Figure 11: Detail from Batenham's map of Chester, 1816

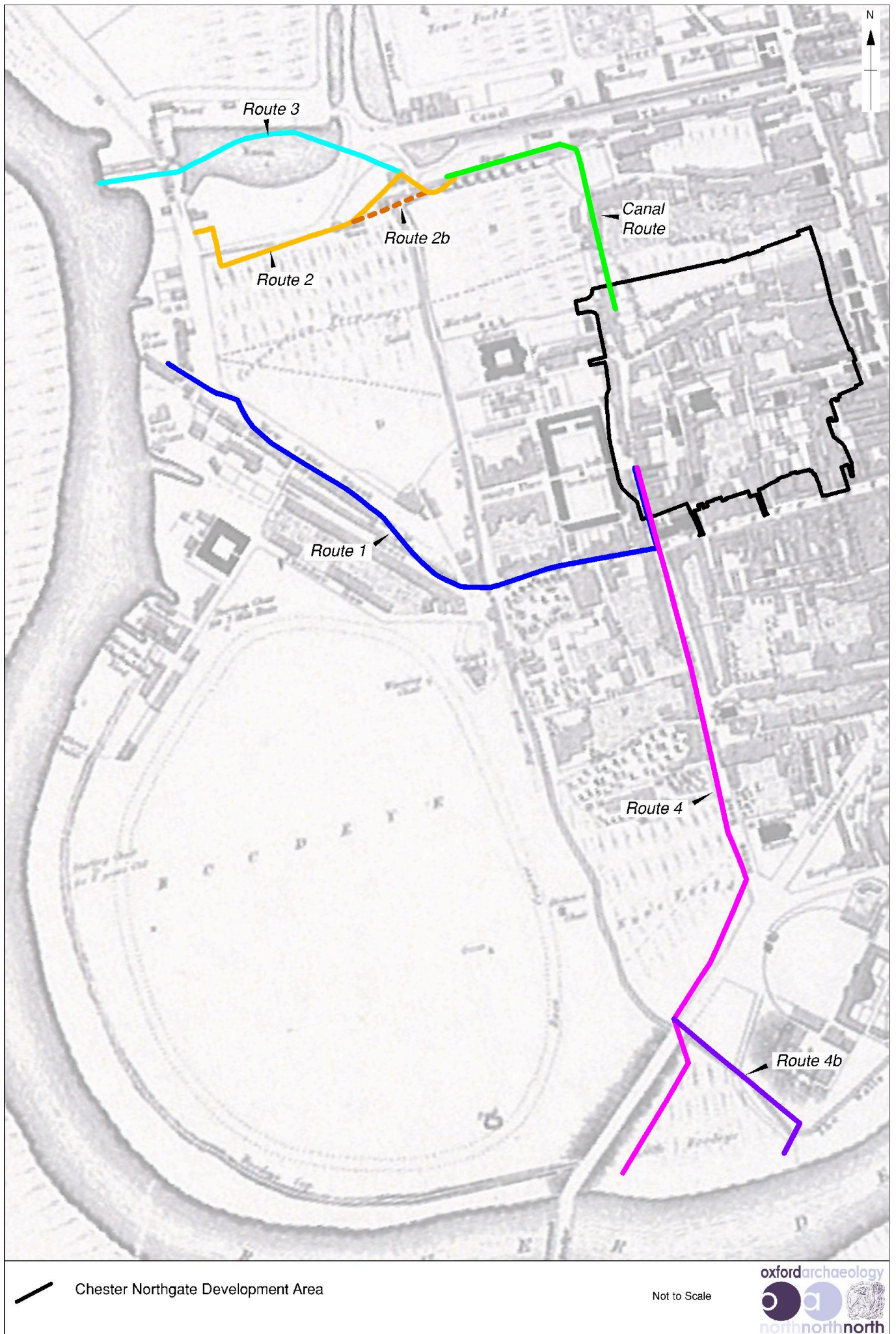


Figure 12: Detail from Wood's map of Chester, 1833

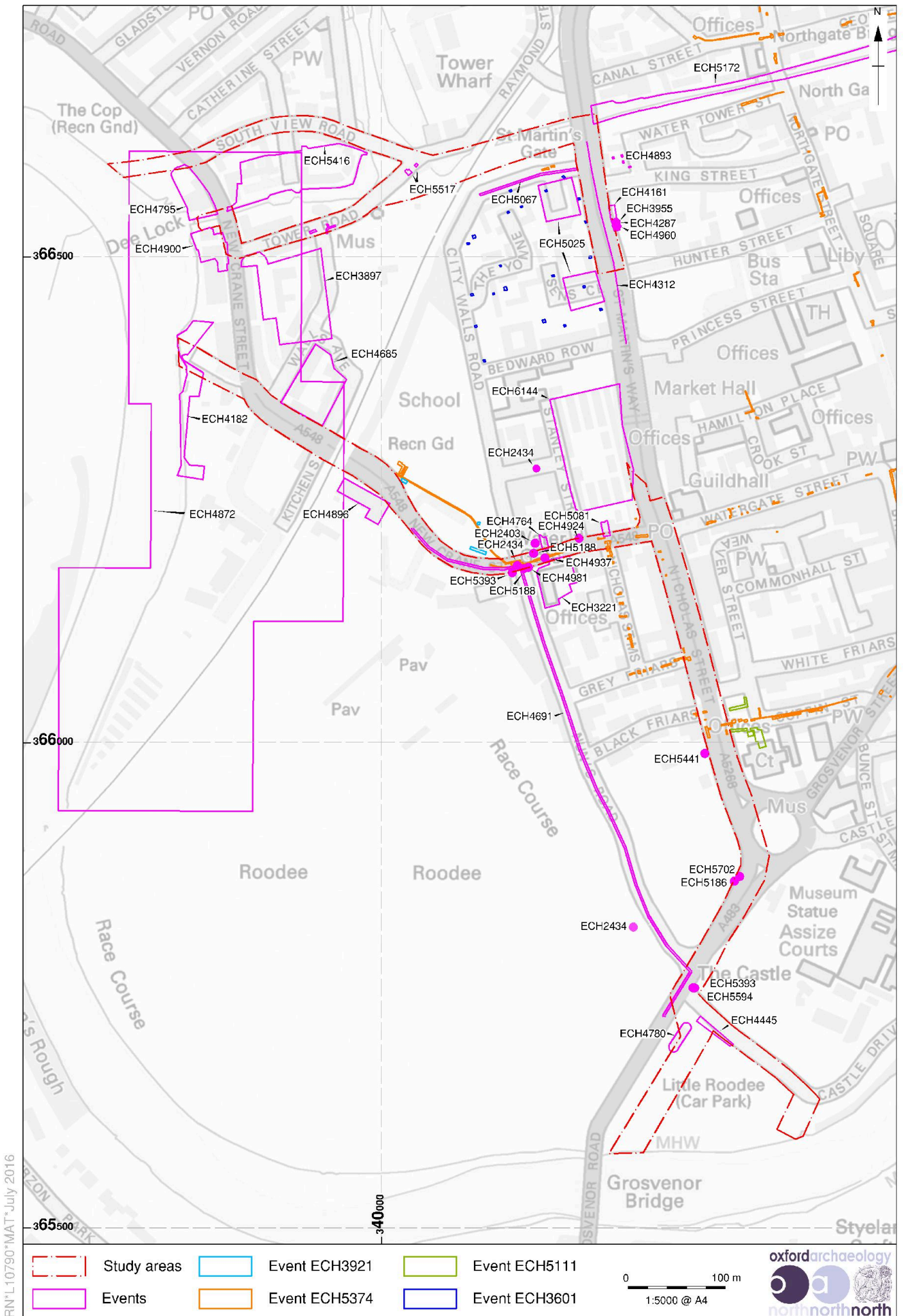


Figure 13: Location of Archaeological Events within, and adjacent to, the study areas

PN*L10790*MAT* July 2016

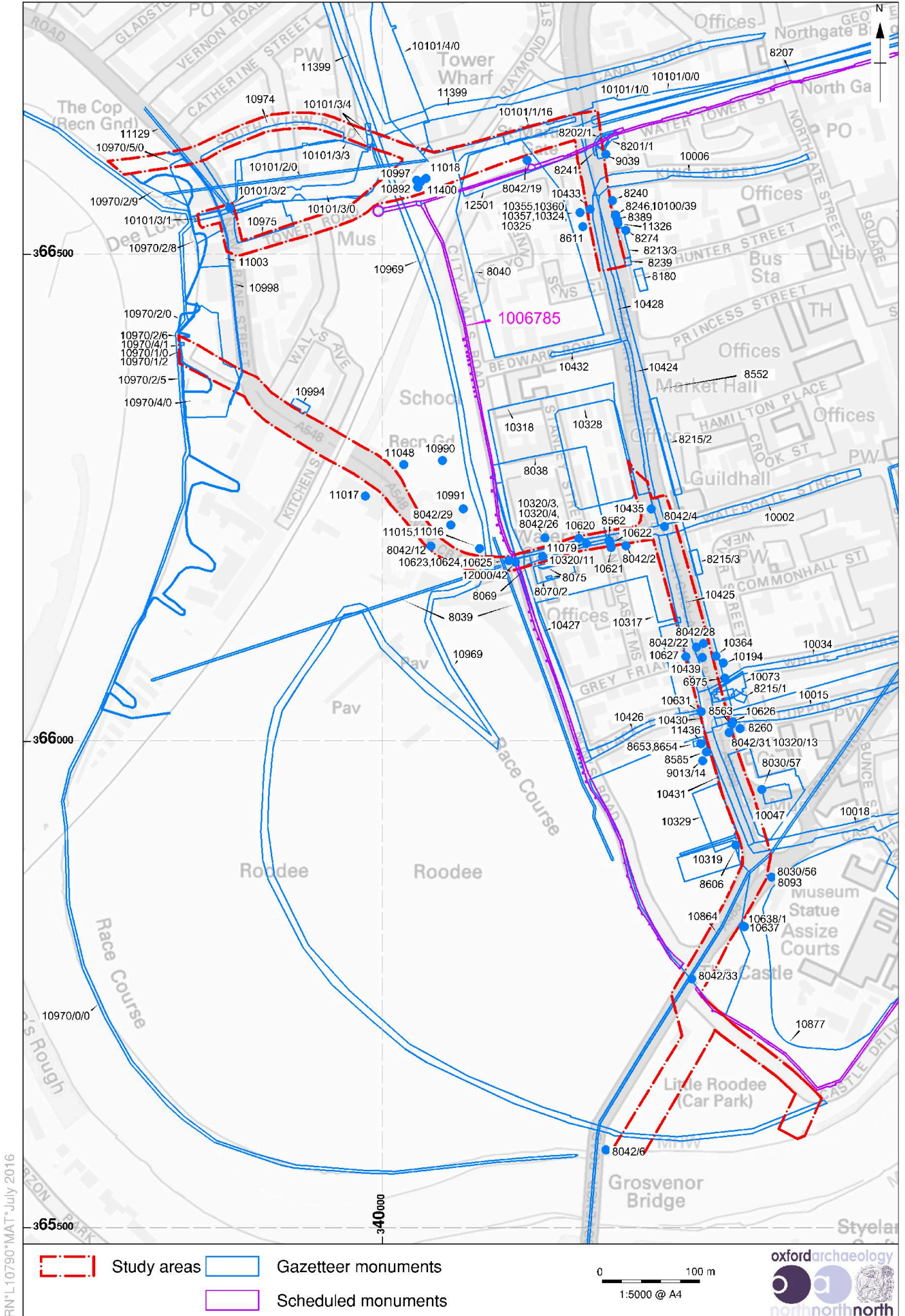


Figure 14: Location of Monuments within, and adjacent to, the study areas



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