

Report 2155



nau archaeology

## An Archaeological Watching Brief at The St. Augustine's Street Gyratory Scheme, Norwich

ENF124556  
SAM 10



**Prepared for**  
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Location:	Bakers Road, St. Augustine's Street, Edward Street, Botolph Street, Norwich
District:	Norwich
Grid Ref.:	TG 2300 0964
HER No.:	ENF 124556
SM No.:	SAM 10
OASIS Ref.:	88938
Client:	Norfolk County Council
Dates of Fieldwork:	21 January to 16 August 2010

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## **Summary**

*An archaeological watching brief was conducted for the Norfolk County Council Environment, Transport and Development division during groundworks associated with the St. Augustine's Gyratory road scheme.*

*The groundworks monitored included works across the line of the city wall (at St. Augustine's Gate and Esdelle Street) and across the ditch associated with it (Bakers Road, St. Augustine's Gate and Esdelle Street). One remnant of probably in situ masonry belonging to the city wall was recorded - at the north end of Esdelle Street just below the current ground surface. The shape of this masonry suggests that it may have formed part of one of the five mural towers situated between Magdalen and St. Augustine's Gates but whose exact location is not known.*

*The notable absence of any other remains of wall masonry suggests that the redevelopment of this area for residential use in the late 19th century and the construction of the modern roads severely impacted upon its survival. Nonetheless in the limited areas where it does survive below ground, it is quite close to surface level (e.g. at Esdelle Street).*

*The city ditch was not observed as groundworks did not penetrate deeply enough to expose this feature.*

*A well was discovered at Botolph Street, which may have been medieval in origin.*

## **1.0 INTRODUCTION**

The reconfiguration of the road system in the area of St Augustine's Street and Magpie Road (the St. Augustine's Street Gyratory road scheme) is planned to ease traffic congestion in this part of the north Norwich road system. The works involved relatively shallow groundworks on Baker's Road, Edward Street and Botolph Street with the potential to impact upon the buried remains of the medieval city wall and other subsurface deposits.

This work was undertaken to fulfil a planning condition set by Norwich City Council (Ref. 08/01037/C) and a Brief issued by Norfolk Historic Environment Service (NHES), formerly Norfolk Landscape Archaeology, Ref. CNF41642). The work was conducted in accordance with a Project Design and Method Statement prepared by NAU Archaeology (Ref. BAU2155). This work was commissioned and funded by Norfolk County Council Planning and Transportation.

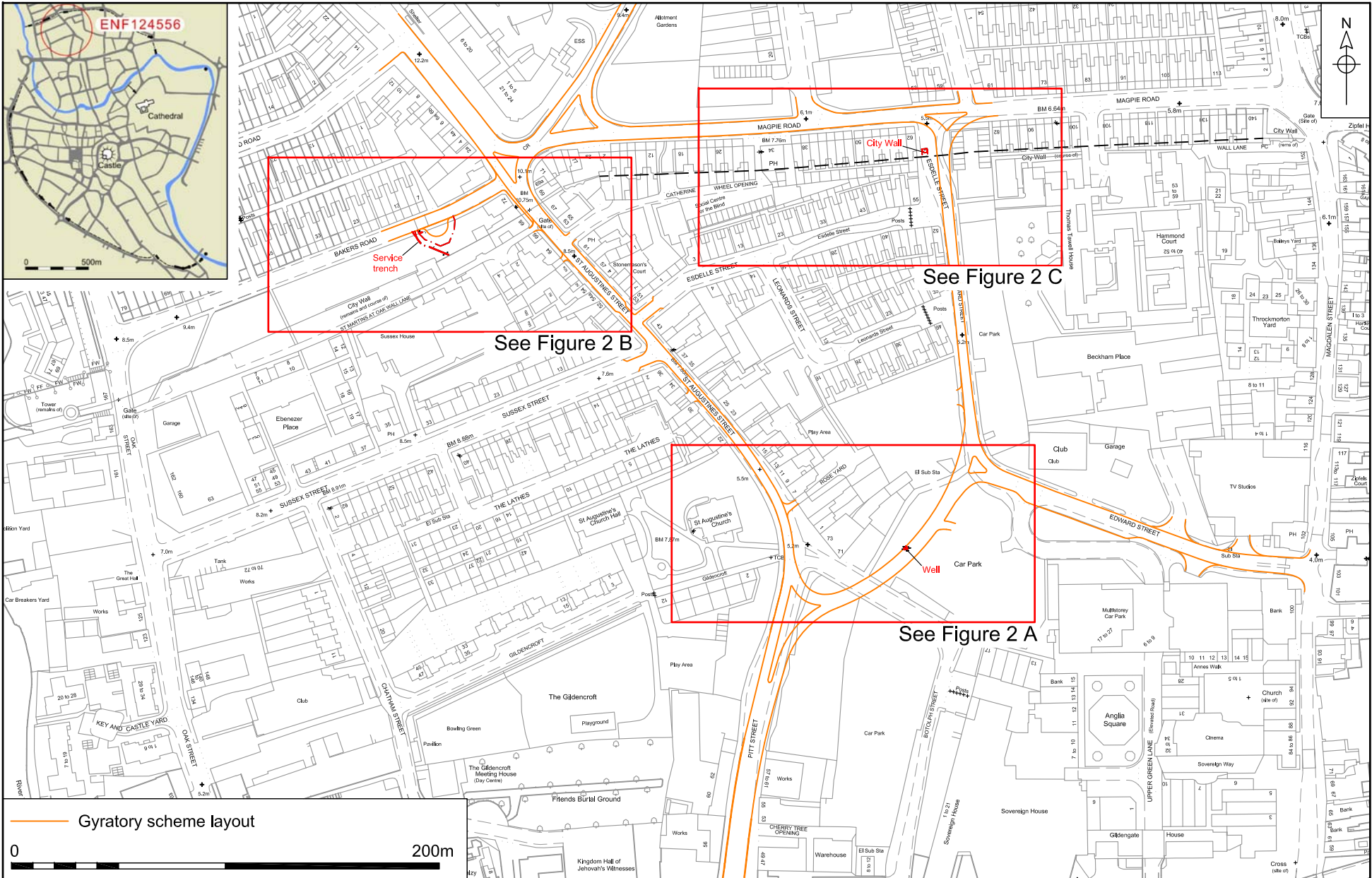


Figure 1. Site location. Scale 1:2500

This programme of work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, following the guidelines set out in *Planning and Policy Guidance Note 16: Archaeology and Planning* (Department of the Environment 1990).

The site archive is currently held by NAU Archaeology and on completion of the project will be deposited with the Norfolk Museums and Archaeology Service (NMAS), following the relevant policies on archiving standards.

## **2.0 GEOLOGY AND TOPOGRAPHY**

The site is located within the northernmost part of the historic city, defined by the city wall, and is situated between St. Martin's Street to the west and Magdalen Street to the east.

The natural deposits in this area of Norwich are river sand and gravel terrace deposits over chalk (BGS).

The ground slopes gently down to the east and south, towards the River Wensum at a height of 9.4m to 5.5m OD. The area is now a mainly urban residential area with occasional retail outlets.

## **3.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND**

The main aim of this project was to record any disturbance that the groundworks might make to the buried remains of the city wall and associated ditch and other subsurface deposits. Accordingly, this section only focuses on that part of the city wall between St. Martin's Gate and Magdalen Gate and other archaeological remains in the vicinity. The Norfolk Historic Environment Record (NHER) and the Norwich City Wall survey (1999-2002) have been consulted.

### **The City Walls**

The medieval city of Norwich was defended on its north, west and south sides by a high flint wall and a deep outer ditch. Documentary evidence indicates that construction of the flint wall in its present form and on its present line began around 1294 and was completed by the middle of the 14th century. There were towers at regular intervals along the wall, linked by a wall walk, and eleven substantial gateways built across each of the main streets leading into the city. Brick and stone were used for strengthening the angles of the flint walls and for features such as doorways, arrow loops and crenulations.

There was a lane on the outside of the ditch and a route around the inside of the wall marked on 16th- and 17th-century maps as 'the way under the wall', which was kept clear of buildings. These lanes, the line of the ditch and all the streets running out to and through the gates can still be seen in the street plan of modern Norwich.

By the 1790s there was pressure by merchants and the council to open up the city to encourage trade. Most of the gateways were demolished in 1793 and 1794. Ber Street gate was dismantled in 1807 and the last gate to survive, that at Magdalen Street, was removed in 1808.

The outer ditch of the city walls had been poorly maintained and had been gradually silting up or filling with rubbish for at least two centuries. During the 19th

century the surviving lengths of ditch were filled in and buildings gradually encroached on either side of the wall. Some sections of the wall collapsed or were plundered for building materials. In the middle of the 20th century, parts of the wall were demolished in advance of redevelopment and road widening schemes (<http://www.norwich.gov.uk/webapps/citywall>)

### **Baker's Road**

Cunningham's map or view of 1558 shows clearly two towers between St Martin's and St Augustine's gates.

Morant's map of 1873 shows buildings along the south side of Baker's Road and the first edition of the Ordnance Survey map of 1885 shows terraced houses along the south side of Baker's Road over the ditch. These houses were demolished in July 1973.

Baker's Road follows the line of the lane outside the ditch (survey drawing 11-01 map <http://www.norwich.gov.uk/webapps/citywall>). Houses on the north side of the road date from the late 19th or early 20th century. The south side of the road, along the line of the ditch is open and grassed as a broad verge with some tree planting. The line of the wall is marked by a narrow band of cobbles. There are no remains of either the wall or the intermediate tower visible above ground.

Demolition of housing to the west of the watching brief area in 1972 (NHER633) produced no archaeological remains or artefacts earlier than the late post-medieval period.

At the western end of Bakers Road lies the site of the medieval St.Martin's Gate (NHER26172). It was rebuilt in 1760, and then demolished in the 19th century.

A 15th-century jetton was found here in 1988 (NHER821).

### **St. Augustine's Street**

An engraving of the outside of the gateway by Henry Ninham, based on the drawings made by John Kirkpatrick in the 1720s, shows that the gate was set forward of the flanking walls. The wall to the west of the gate is clearly shown with a high ramped parapet protecting the steps leading down from the chamber to the wall walk. This early view shows blank walls flanking the gate implying that there was not an arcade to support the wall walk at least immediately either side of the gate (<http://www.norwich.gov.uk/webapps/citywall>).

At the northern end of St.Augustine's Street lies the site of the medieval town gate. It was built of brick on a flint base (NHER 322).

Observation of foundation trenches dug to the rear of the Magpie Printers in 1997 revealed parts of the city wall and ditch (NHER1516).

In 1760 a Roman copper alloy lamp was found at St Augustine's Gate (NHER648).

A medieval steelyard weight was found here in 1852 (NHER666).

### **Esdelle Street**

The stretch of wall between St.Augustine's Gate and Magdalen Gate contained five semicircular mural towers. By 1910 there was no visible evidence for the position of the first three towers westwards of Magdalen Gate as a survey carried out at the time shows. The survey states that 'The only evidence of the City wall in



Magpie Road is to be found at the Magpie public house, about one-third of the way from St Augustine's Street to Magdalen Street. It is a small piece of the foundation cropping out the ground against the East wall of the house this was possibly also the site of the second tower East of St Augustine's Gates' (Collins, 1910).

The public house survives but there is now no external evidence of surviving wall although it is said that part of the wall is visible in the cellar and that may be part of the base of a tower.

King's map of 1766 shows buildings along the south side of the lane inside the wall encroaching from each end. Although the map shows only four towers, it does show clearly that the tower at the west end, close to St Augustine's Gate, was on the angle of the wall where it turned from an east-west alignment to run to the south-west where it joined the gateway. This is the same tower that survives in part in the Magpie Road printing works.

By 1789 (the date of Hochstetter's map) there were buildings hard against the wall on both the inside, on the line of the inner lane, and on the outside, actually over the ditch, which must, by that stage, have been infilled.

By 1885, the year of the 1st edition of the Ordnance Survey map, there were terraced houses along the full length of Magpie Road, all built over the line of the ditch (<http://www.norwich.gov.uk/webapps/citywall>).

An excavation in 2009, 20m north-west of the northern end of Esdelle Street, produced post-medieval features and artefacts, as well as one sherd of Roman pottery (NHER52926).

A sewer trench dug through the city ditch to the east of Esdelle Street produced two sherds of post-medieval pottery and an 18th century clay pipe bowl (NHER420).

The City Engineers in 1957 found the city wall behind 134 Magpie Road at a depth of 0.15-0.23m. It was composed of flint and mortar (NHER26155).

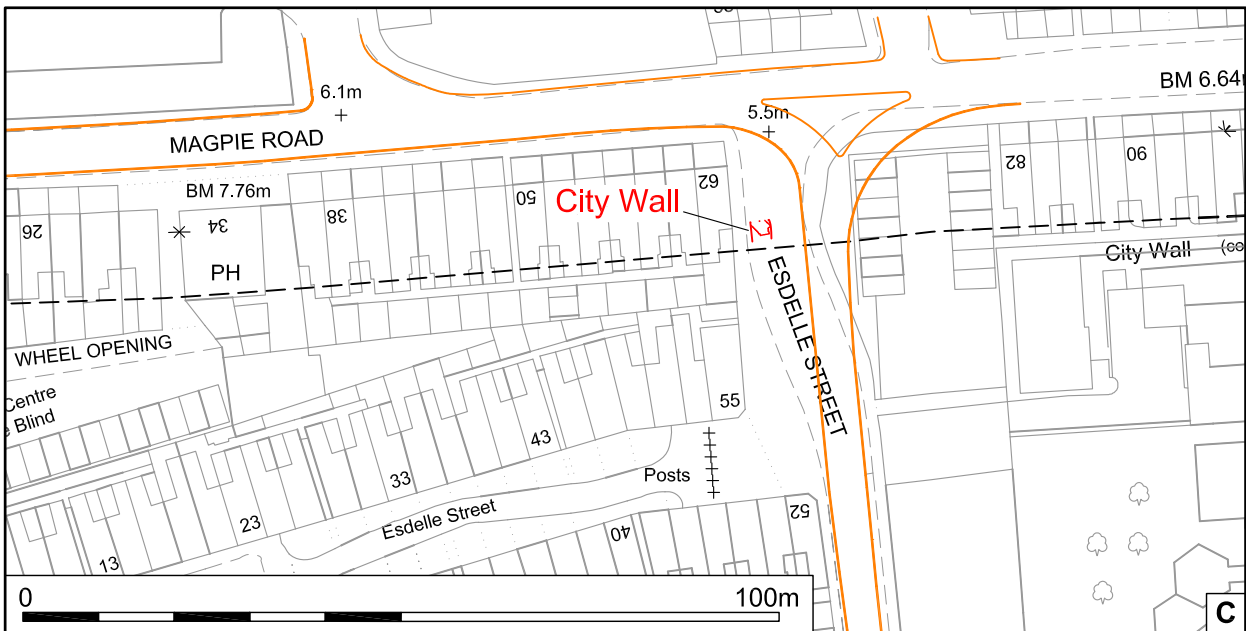
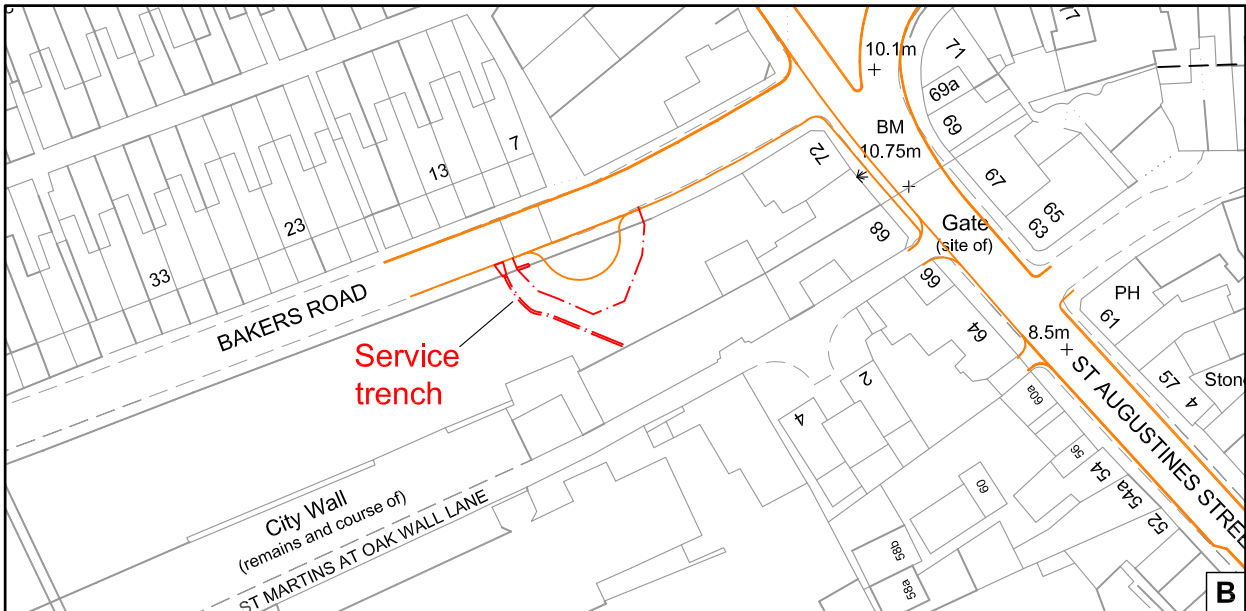
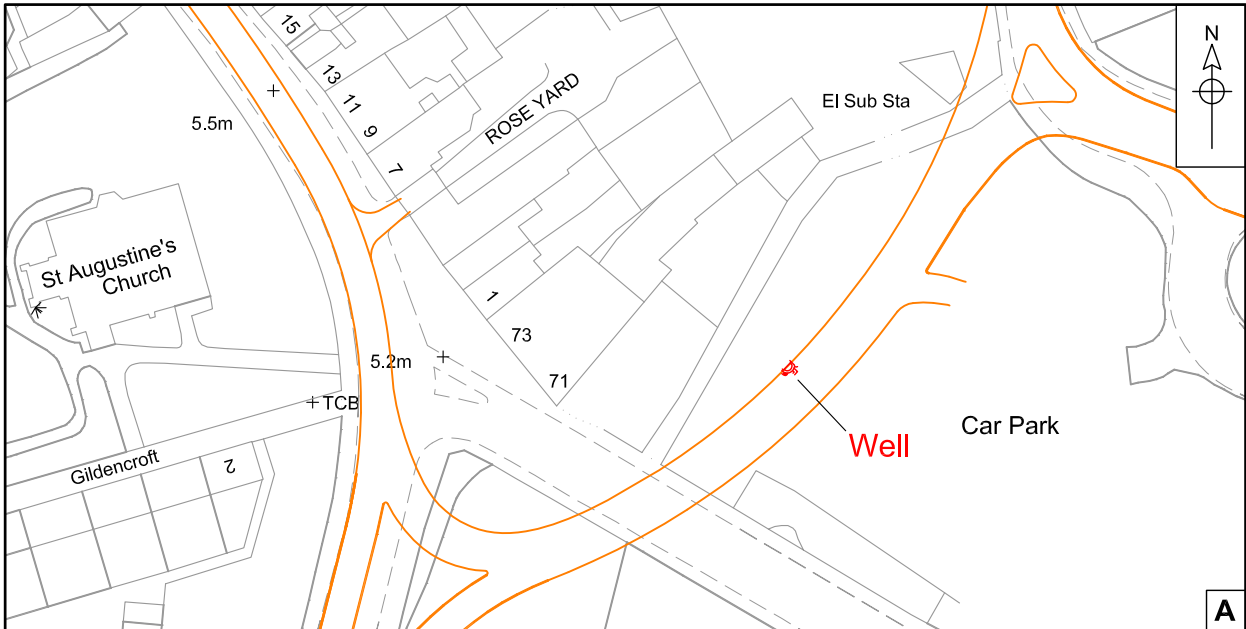
## **4.0 METHODOLOGY**

The objective of the watching brief monitoring was to record and excavate, where feasible, elements of the city wall, ditch, foundations and other associated and archaeological features that may have been exposed during site works associated with the gyratory scheme.

The Brief required that any groundworks within 10m of the line of the city wall be monitored. This applied to the works at Bakers Road, St. Augustine's Street and Edward Street.

Spoil, exposed surfaces and features were scanned with a metal-detector. All metal-detected and hand-collected finds, other than those which were obviously modern, were retained for inspection.

Due to a lack of suitable deposits, no environmental samples were taken.



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Figure 2. Trenches location at A: Botolph Street, B: Baker's Road and C: Esdelle Street.  
Scale 1:1000

All archaeological features and deposits were recorded using NAU Archaeology pro forma. Trench locations, plans and sections were recorded at appropriate scales. Colour, monochrome and digital photographs were taken of all relevant features and deposits where appropriate.

Site conditions were good, with the work taking place in fine weather.

## 5.0 RESULTS

### 5.1 Botolph Street well

On 21 January 2010, a well was uncovered adjacent to Botolph Street, on the line of the new road linking Edward Street to St. Augustine's Street (Figs 2A and 3).

Well [1] was circular, with an internal diameter of 1.2m and a wall in the region of 0.3m thick, composed of flint and brick (0.05-0.06m deep) set in a white chalky mortar for the uppermost 0.3m and of mortared flint pebbles below that point. It had been capped with 19th- 20th-century soft red brick resting on an iron lintel. Visible adjacent to the well was a cobble surface (2) set in soil and a wall [3] of mixed flint and brick rubble set in white chalky mortar.



Plate 1. Well [1] facing north-west, 0.5m scale

## 5.2 Baker's Road

The works at Baker's Road involved the excavation of a service trench linking a telegraph pole adjacent to the city wall to a manhole in the street, necessitating a trench which crossed the line of the city ditch (Figs 2B and 5).



Plate 2. New service trench with the city wall in the background

A 0.25m thick layer of dark brown sandy silt topsoil (4) with occasional flint gravel and fragments of ceramic building material was found to be overlaying a layer 0.35m thick of mixed 20th-century rubble and topsoil (5). Below this a floor of soft red brick [7] was found, as well as the base of a single-skin wall [6], composed of hard 'engineering'-type brick. Both the floor and the wall were orientated perpendicular to the alignment of the city wall and of Baker's Road.

The trench was enlarged close to a manhole in the pavement on the southern side of Baker's Road and here the stratigraphy changed. The lowest deposit was a clean yellow sand which was probably the natural deposit. Cut into this was an east to west orientated wall [14] composed of large flints and fragments of brick set in a soft, white, chalky mortar. To the south of the wall, the natural sand was not seen; instead there was a dark brown silty sand with frequent 20th-century rubble (16) which was probably equated to layer (5). This feature may have represented a cellar and its backfilled deposits. To the north of wall [14] was a deposit of mid brown silty sand with moderate flint gravel and 20th-century ceramic building material (15). At the northern end of the trench the cut for the modern manhole [12] was seen, which this trench was dug to link-up with. This manhole ([11]).was constructed of hard modern brick

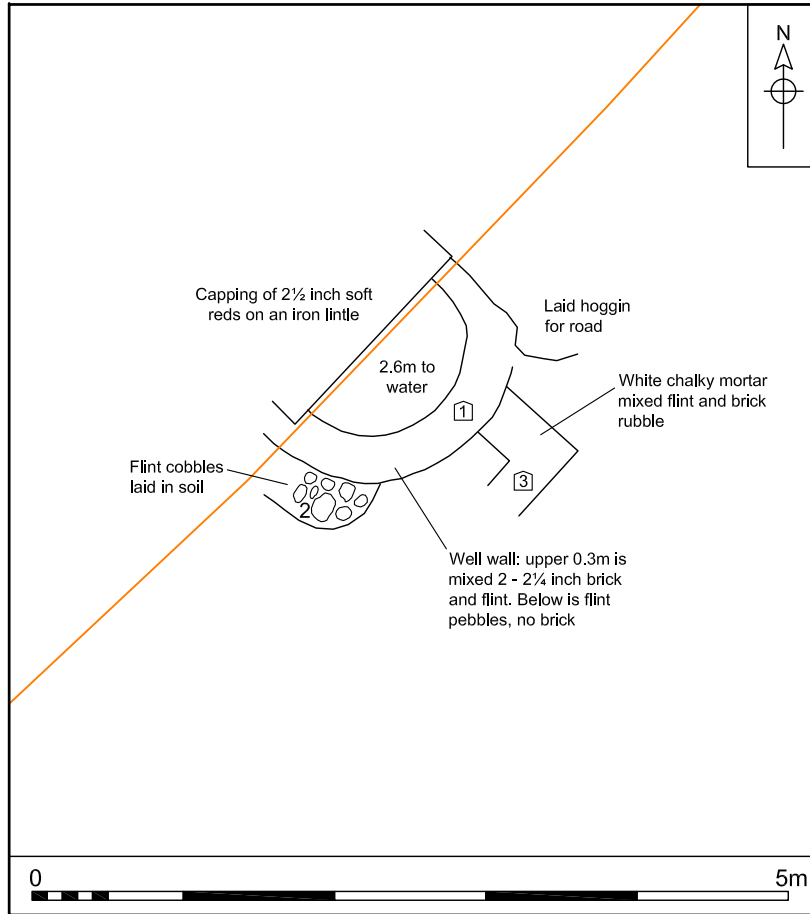


Figure 3. Plan of excavation at Botolph Street.  
Scale 1:50

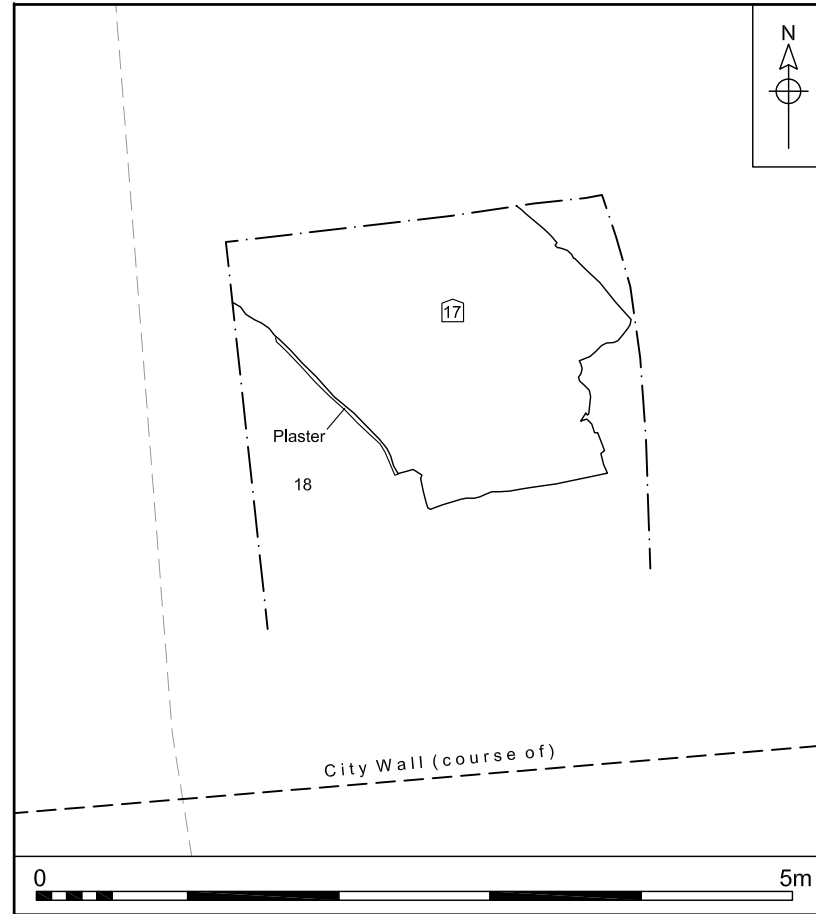


Figure 4. Plan of excavation at Esdelle Street.  
Scale 1:50



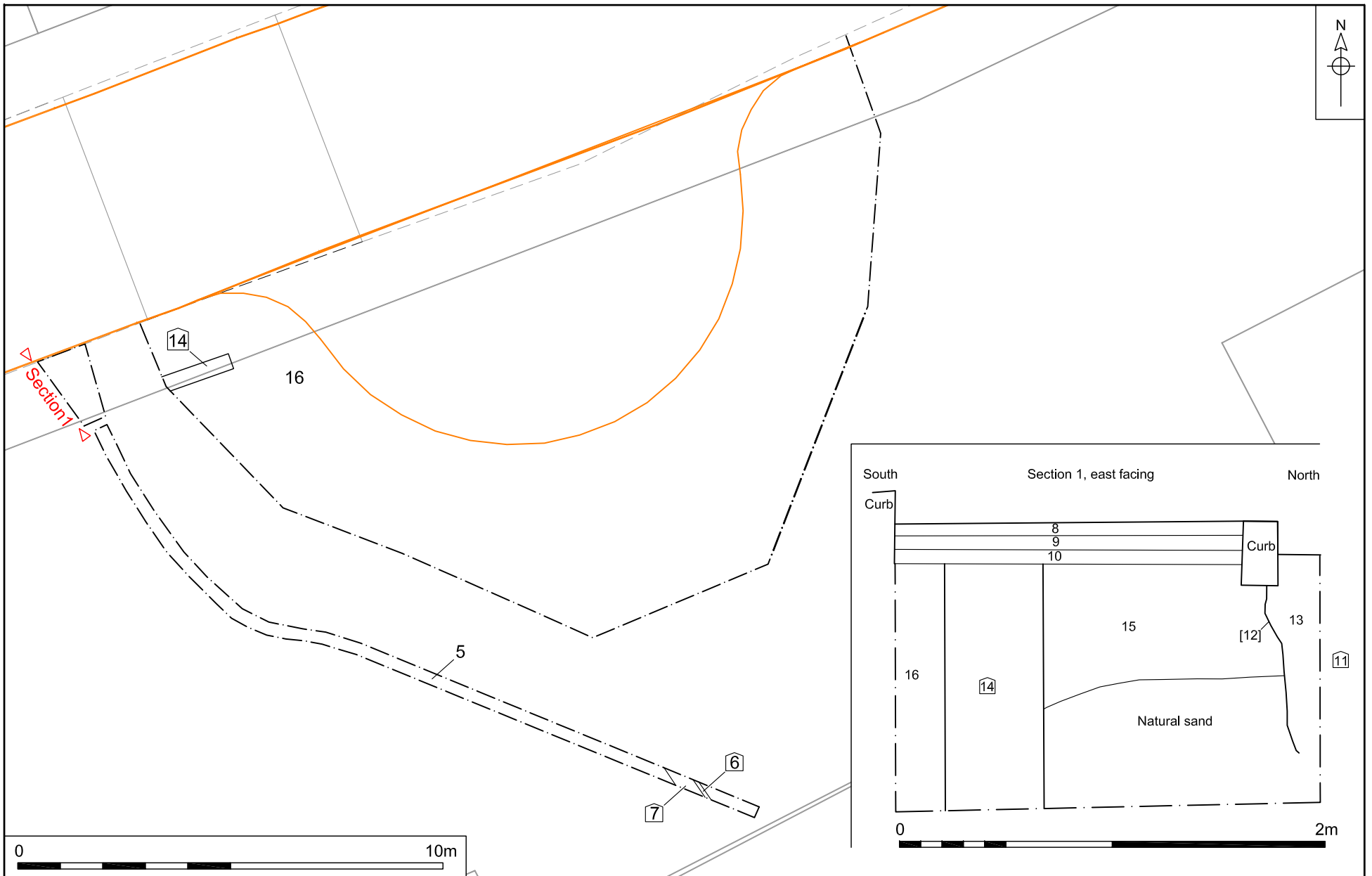
Plate 3. Wall [6] and floor [7] facing south-east, 0.5m scale

### 5.3 Esdelle Street

A large amount of groundworks were undertaken at the northern end of Esdelle Street as the works entailed moving and widening the road, replacing the pavements and rerouting services. The average depth of excavations was 0.6-0.9m below the ground level. Over most of the area only 19th- to 20th-century demolition deposits were encountered. However one small fragment of city wall ([17]) was encountered which survived just below the surface.

Although this had been heavily truncated, a fragment of the outer face and a plastered part of the inner face were present. The shape and orientation of these parts suggests that it may have been the eastern edge of one of the semi-circular mural towers. It was constructed of flint and lime mortar and was 1.75m thick. The outer wall face suggests a semi-circular shape, with a polygonal interior plan. The surrounding deposits were of 19th- to 20th-century date.

The remains of the wall were broken up using a concrete breaker down to formation level after recording.



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Figure 5. Plan and section of excavation at Baker's Road. Scale 1:125 and 1:25



Plate 4. Remnant of city wall [17], facing north-west, 0.5m scale

## 5.4 St. Augustine's Street



Plate 5: Groundworks in the area of St. Augustine's Gates, facing south



Groundworks in the area of St. Augustine's Gate involved laying kerb stones and new services to a depth of a maximum of one metre. The only deposits visible were the backfilled deposits of earlier service trenches.

## **6.0 THE FINDS**

A frilled base from a Raeran/Aachen Stoneware mug was found in layer (5) within the Baker's Road trench. The base, which weighs 67g, is made of light grey fabric with occasional dark inclusions and has a thick brown glaze covering the underside of the base. Raeren/Aachen stoneware was imported into Norwich from the late 15th to 16th centuries and were frequently used as drinking mugs (Jennings 1981, 112).

## **7.0 CONCLUSIONS**

The groundworks monitored during this project included works across the line of the city wall (at St. Augustine's Gate and Esdelle Street) and across the associated ditch (at Baker's Road, St. Augustine's Gate and Esdelle Street). It is therefore surprising that only one small fragment of *in situ* city wall masonry was found, and this was very close to present ground surface. This is a potentially important fragment of masonry as it may fix the position of one of the five mural towers located between Magdalen Gates and St. Augustine's Gates.

The absence of any other wall remains suggests that the redevelopment of this area for residential use and road construction has severely impacted on the survival of the wall. However, on the occasions where it does survive, it is located just below ground level e.g. at Esdelle Street (this report) and in 1957 at 134 Magpie Road (NHER26155).

The city ditch was not seen during any of the monitoring visits but this was due to the relatively shallow depth of the trenches which did not penetrate deeply enough to encounter deposits associated with the infilling of the ditch.

The well discovered at Botolph Street may have been medieval and shows that significant archaeological remains, if present, would have been visible at the formation level for the new stretch of road between Esdelle Street and Pitt Street.

## Acknowledgements

The fieldwork for this project was conducted by the author, with the aid of Andy Phelps. The finds were processed and analysed by Sarah Percival. Thanks must also be given to the main contractors on site, May Gurney, for their help and cooperation.

This report was edited by Jayne Bown and the illustrations completed by David Dobson.

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- Jennings, S. 1981 *Eighteen centuries of pottery from Norwich*. East Anglian Archaeology 13. Norwich Survey, Norfolk Museums Service, Norwich.

<http://maps.bgs.ac.uk/geologyviewer/> a summary of the superficial and bedrock geology of Britain (accessed on 08.12.10)

<http://www.norwich.gov.uk/webapps/citywall/map.html> a report of a survey conducted by Purcell Miller Tritton on behalf of Norwich City Council 1999-2002 accessed on (09.11.10)

## Appendix 1a: Context Summary

Context	Category	Cut Type	Fill Of	Description
1	Masonry			Well
2	Deposit			cobble surface
3	Masonry			Wall
4	Deposit			Topsoil
5	Deposit			Rubble
6	Masonry			Wall
7	Deposit			Brick floor
8	Deposit			Tarmac pavement
9	Deposit			Hardcore
10	Deposit			Old tarmac surface
11	Masonry			Brick manhole
12	Cut	Services		Manhole
13	Deposit		12	Fill of cut for manhole
14	Masonry			Flint wall
15	Deposit			Modern make-up
16	Deposit			Modern rubble
17	Masonry			City wall
18	Deposit			Modern make-up

## Appendix 1b: OASIS Feature Summary

Period	Type	Total
Medieval	wall	1
	well	1
Modern	wall	3
	Cobble surface	1
	Brick floor	1

## Appendix 2a: Finds by Context

Context	Material	Qty	Wt	Period	Notes
5	Pottery	1	67g	Post-medieval	Stoneware

## Appendix 2b: OASIS Finds Summary

Period	Material	Total
Post-medieval	Pottery	1

## Appendix 3: Pottery

Context	Fabric	Name	Dsc	Qty	Wt	Period	Spotdate	Form
5	GSW3	Raeran/Aachen Stoneware	Base	1	67g	Post Medieval	L.15th - 16th c.	Frilled base from mug