

MONITORING OF
WORCESTER HIGH LEVEL
WATER MAINS REHABILITATION

M Napthan

Illustrations prepared by Carolyn Hunt

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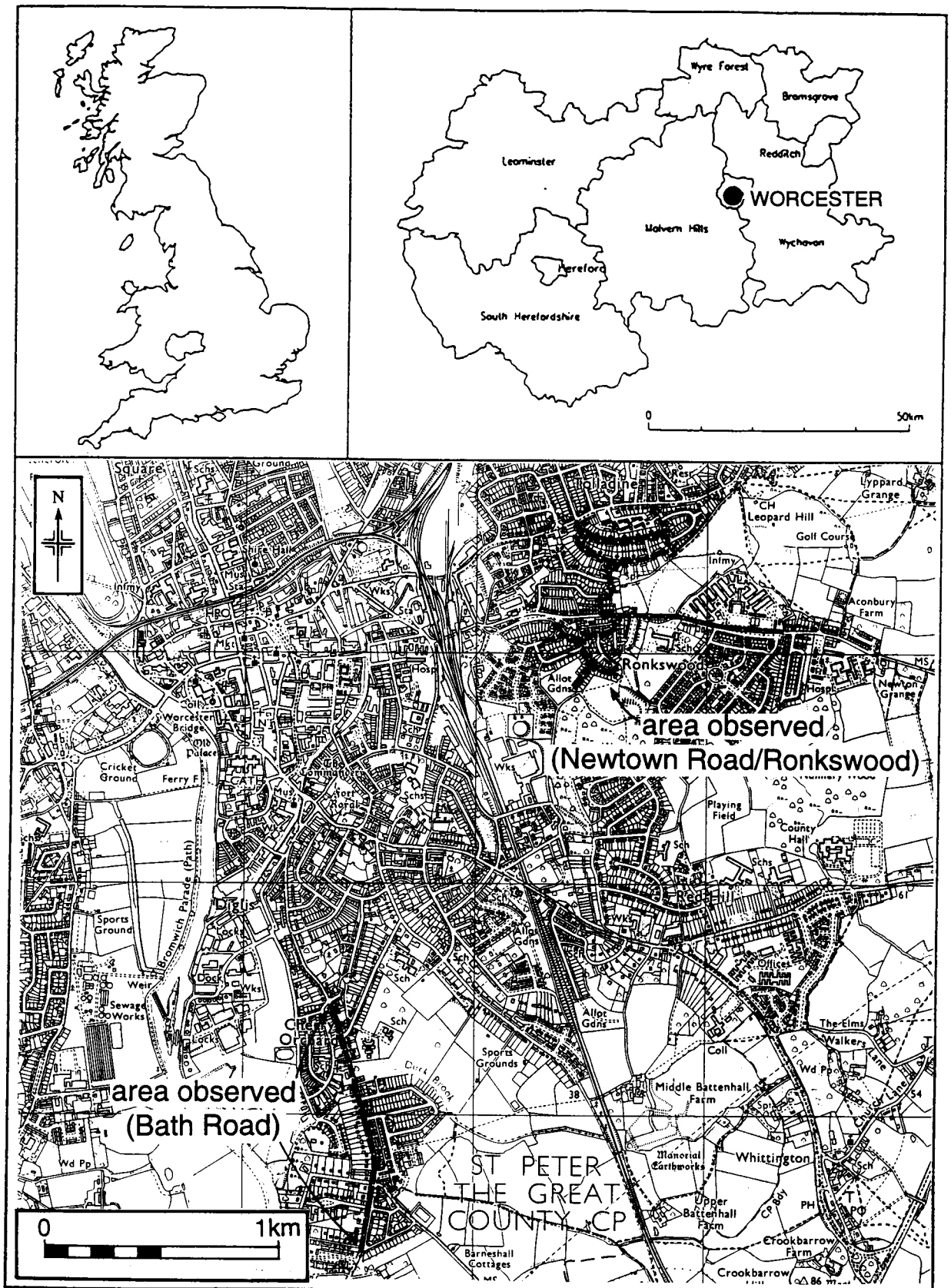


Figure 1: Location of Bath Road and Newtown Road/Ronkswood water mains renewal

Monitoring of Worcester high level water mains rehabilitation

M Napthan

Part 1 Project summary

1 Reasons for the project

The project was undertaken at the request of Severn Trent Water Limited in response to a recommendation prepared by Worcester City Museum Archaeology Section of Worcester City Council dated 12th September 1995. The scheme involved replacement and relining of water mains in an area which included known archaeological sites.

2 Outline of results and significance

No archaeologically significant deposits were encountered within the pipe trenches. The trenches in all but one of the observed areas were cut through modern road make-up layers which lay directly above the natural red marl. Some gravel road metalling was seen in Bath Road directly beneath the modern roadstone, however, it was not possible to determine a date under the monitoring conditions. There are no indications that the gravel metalling was of any great antiquity.

3 Conclusions

The project has established that the works have not disturbed archaeologically significant deposits. There is a potential for surviving road surfaces beneath Bath Road, however determining their date, extent and nature was not feasible within the monitored trenches.

Part 2 Detailed report

4 **Aims**

The aims of the monitoring were to identify any archaeological deposits exposed in the contractors' trenches and record, if present, their extent, state of preservation, date and type.

5 **Archaeological background**

The Ronkswood and Tolladine pipelines (Figs 1 and 4) ran through areas which are generally of unknown archaeological interest. These were agricultural areas with little development prior to the 1940s hospital complex and the 1950s and 60s housing developments. Tolladine and Newtown Roads represent long established routeways to the city as they follow the natural paths for travellers to follow up or down the steep slope. Neither road is well documented, though a Saxon charter of 969 mentions the "port Straete" and this has been identified with what is now Tolladine Road (Grundy 1931; Charter B 1240, K 561). Newtown Road appears to have been a medieval route leading from Crowle into the City through St Martins Gate, however there is a paucity of dating evidence. Ronkswood Farm house is externally of 18th century appearance, but could be of earlier origin, its position indicates that it was built to face the original line of Newtown Road (slightly off the present alignment). The straightness and smooth grade of the roadline suggest that it has been re-engineered and possibly widened, this is confirmed by indications of the former road line on early Ordnance Survey maps (Fig 5).

Bath Road within the City boundaries runs close to the line of a Roman Road (HWCM 2122), the line of the road is not distinguishable within the built up suburbs, but a projection of its course (allowing for topography) would take it approximately along the line of Waverley Street at the foot of the Cherry Orchard bluff, or a more curving route on the higher ground which would be very close to the present Bath Road. The modern alignment at the junction with London Road dates from at least the early 18th century as there are Georgian Houses, one bearing a datestone of 1740 (also shown on Youngs' map of 1779), lining the frontage. The road was a regionally important north to south trading route in the medieval period (Dyer 1973).

6 **Methods**

6.1 **Fieldwork**

6.1.1 **Field work strategy**

The fieldwork took the form of monitoring visits, timed as far as possible to coincide with periods when lengths of trench were open between pipelaying operations. Substantial parts of the pipe rehabilitation works comprised of pipe-bursting techniques. The small pits dug to facilitate connections etc were initially observed, but found to be unsuited for archaeological observation as they were too small and shallow and generally intercepted existing pipe trenches. Where bursting was replaced by open cut techniques the trenches

were too narrow to facilitate close observation or cleaning of the trench sections. The individual lengths seen rarely exceeded 15m.

With the exception of the larger bore pipes in Bath Road (Fig 2), trenches were excavated to a depth of approximately 0.8m by mechanical excavator, the trench width did not exceed 0.5m. The narrowness and depth of the trench precluded successful photography of revealed sections. Recording consisted of noting on plan which sections of the route had been observed. Sketch sections of typical deposits were recorded on day record sheets (CAS 1995, AS1). The Bath Road trenches were up to 2m wide and of varying depth up to 5.5m, all of the observed sections penetrated natural deposits within 1m of current ground level. Existing service trench fills were observed to be present to a depth of at least 3.4m. Due to the depth of the trenches, shoring was used and this partially obscured observation. Lengths of trench were cut, pipe laid and backfilled in single operations and as a result it was not possible to view long lengths of trench.

A documentary search was undertaken in both Worcester City and the County SMRs. Early cartographic sources including George Young's map of Worcester (1779) and the Ordnance Survey 25" maps of 1888 (sheet XXXIII.4) and 1904 (Sheet XXXIII.8) were studied for indications of road widening and straightening.

6.2 **Artefacts**

No artefacts were recovered from the trenches as the excavated material was placed directly into dumper trucks and removed from site.

6.3 **Environment**

No suitable deposits for environmental sampling were identified.

7 **Analysis**

No archaeologically significant deposits were identified. The deposits seen in the trenches all appeared to represent natural marl, modern road make-up and backfill of service trenches. The excavated material was removed from the trench by machine and placed directly in dumper trucks for removal. This method of working precluded recovery of artefacts. The restricted width and comparative depth of the trench in Bath Road made it impractical to investigate deposits seen in section without impeding the contractors operations. None of the deposits seen in section appeared to be of archaeological interest. The only earlier road make-up observed under Bath Road consisted of disturbed gravel layers (Fig 3, section 2). These did not appear to be of great antiquity, and it was not possible to recover dating evidence.

The pipe trenches in the Tolladine and Ronkswood areas (Fig 4) were both narrow and proportionally deep, this again made observation difficult. The deposits exposed consisted of natural marl, disturbed marl and modern concrete rubble in all of the exposed trenches. A number of existing service trenches were also seen. No buried soils were observed.

8 **Discussion**

The project has demonstrated that the pipelaying and replacement works are unlikely to have disturbed any significant archaeological deposits. The grading of the steeper and long established roads (Tolladine Hill, Newtown Road) has removed any earlier road surfaces, whilst the extensive earthmoving which was involved in providing level ground for the modern housing estates is unlikely to left any surviving archaeological deposits. No buried soils were seen in these areas and this would suggest that all topsoil was stripped from the area prior to construction of the estate roads. There is a potential for surviving former road-surfaces on Bath Road, particularly where low lying parts of the road may have been built up, such as in the Duck Brook valley.

The current project has not demonstrated either presence or absence of archaeologically significant deposits in the vicinity any of the areas observed. Preservation outside the roadlines may be expected to be better. The working methods of the contractors were not conducive to recovery of artefacts, particularly the immediate removal of excavated soils. Monitoring of the excavated material would undoubtedly provide more evidence than was visible within the trench sections.

9 **Academic summary**

The Service has a professional obligation to publish the results of archaeological projects within a reasonable period of time. To this end, the Service intend to use this summary as the basis for publication through local or regional journals. The Client is requested to consider the content of this section as being acceptable for such publication.

A monitoring project was undertaken during water-main replacement works on Bath Road and in the Tolladine, Newtown and Ronkswood Areas . No archaeologically significant deposits were encountered during trenching. A deposit of gravel road metalling beneath Bath Road was undateable and probably not of significant age.

10 **The archive**

The archive consists of:

- 13 Fieldwork progress records AS2
- 1 Colour transparency film

The project archive will be placed at:

Hereford and Worcester County Museum
Hartlebury Castle
Hartlebury
Near Kidderminster
Worcestershire DY11 7XZ

11 **Acknowledgements**

The Service would like to thank Pat Albert and Gareth Toft of Severn Trent Water and Charles Mundy and James Dinn of Worcester City Council for their kind assistance in the successful conclusion of this project.

12 **Personnel**

Dave Wichbold, Nigel Topping and Martin Cook assisted with the fieldwork. The illustrations were prepared for publication by Carolyn Hunt.

13 **Bibliography**

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Grundy, G B, 1931 *Saxon charters of Worcestershire*

CAS, 1995 *Manual of Service practice: fieldwork recording manual*, County Archaeological Service, Hereford and Worcester County Council, internal report, **399**

VCH III, Page, R, (ed), 1924 *Victoria County History of Worcestershire*, **III**

14 **Abbreviations and glossary**

HWCM - Numbers prefixed with "HWCM" are the primary reference numbers used by the Hereford and Worcester County Sites and Monuments Record.

HWCC - Hereford and Worcester County Council.

HWCRO - Hereford and Worcester County Records Office.

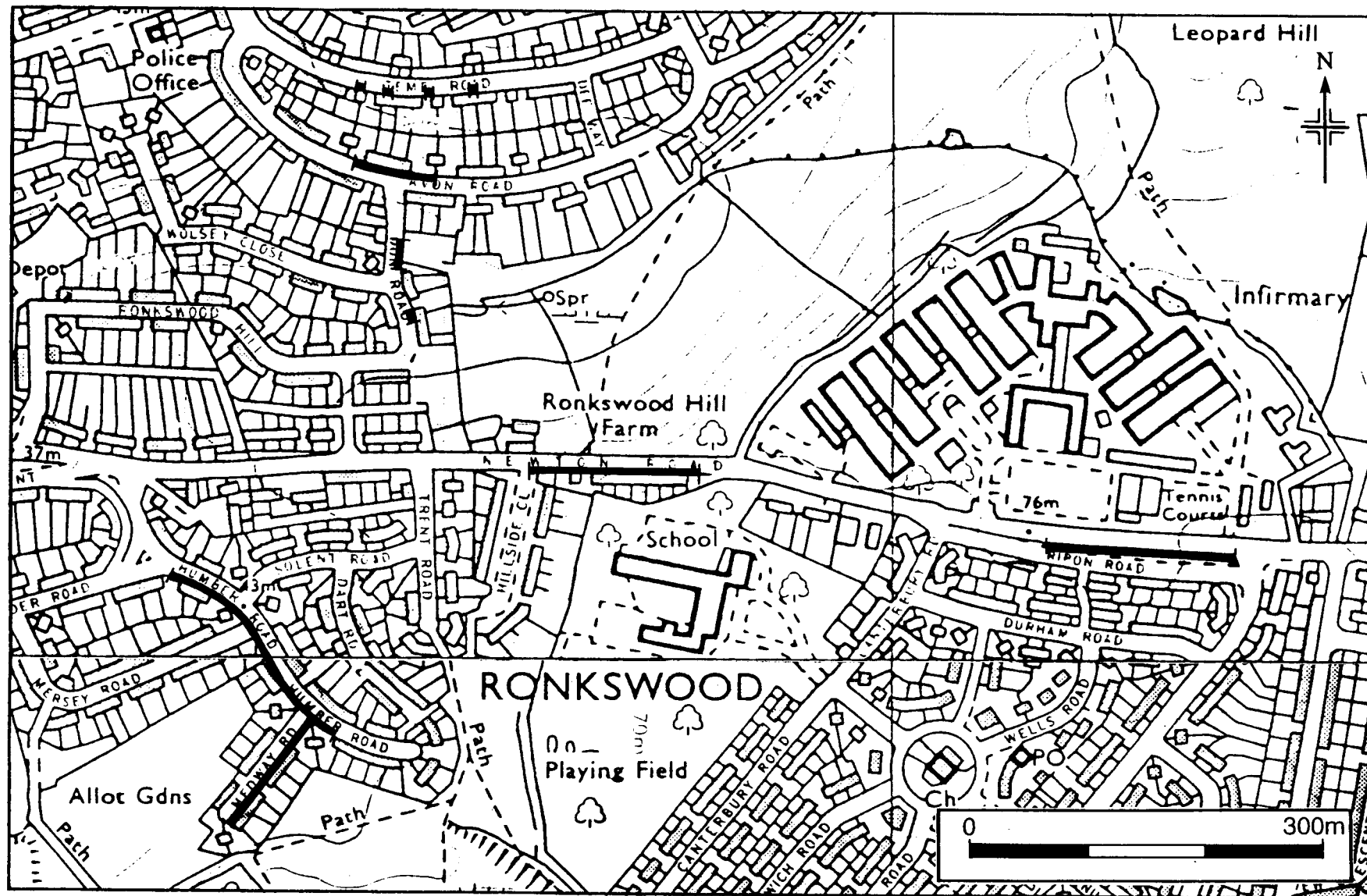


Figure 4: Location of observations, Newtown and Ronkswood

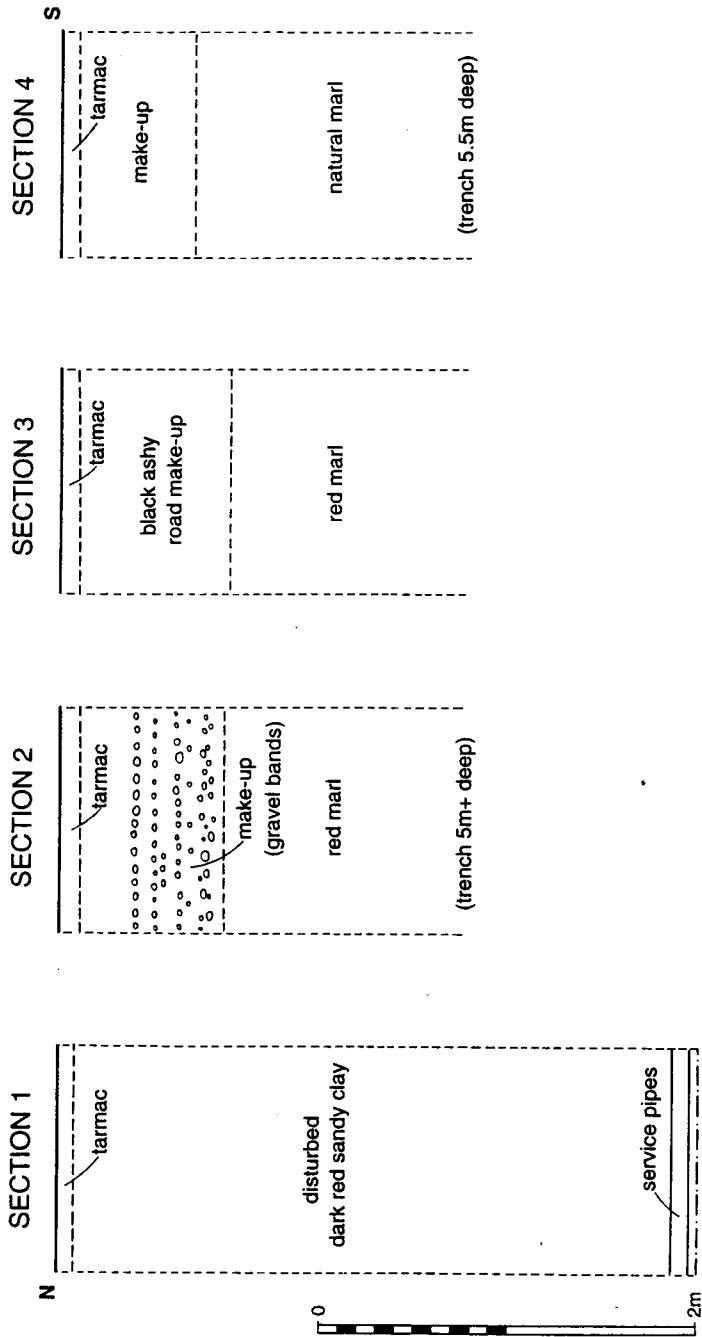


Figure 3: Trench sections, Bath Road

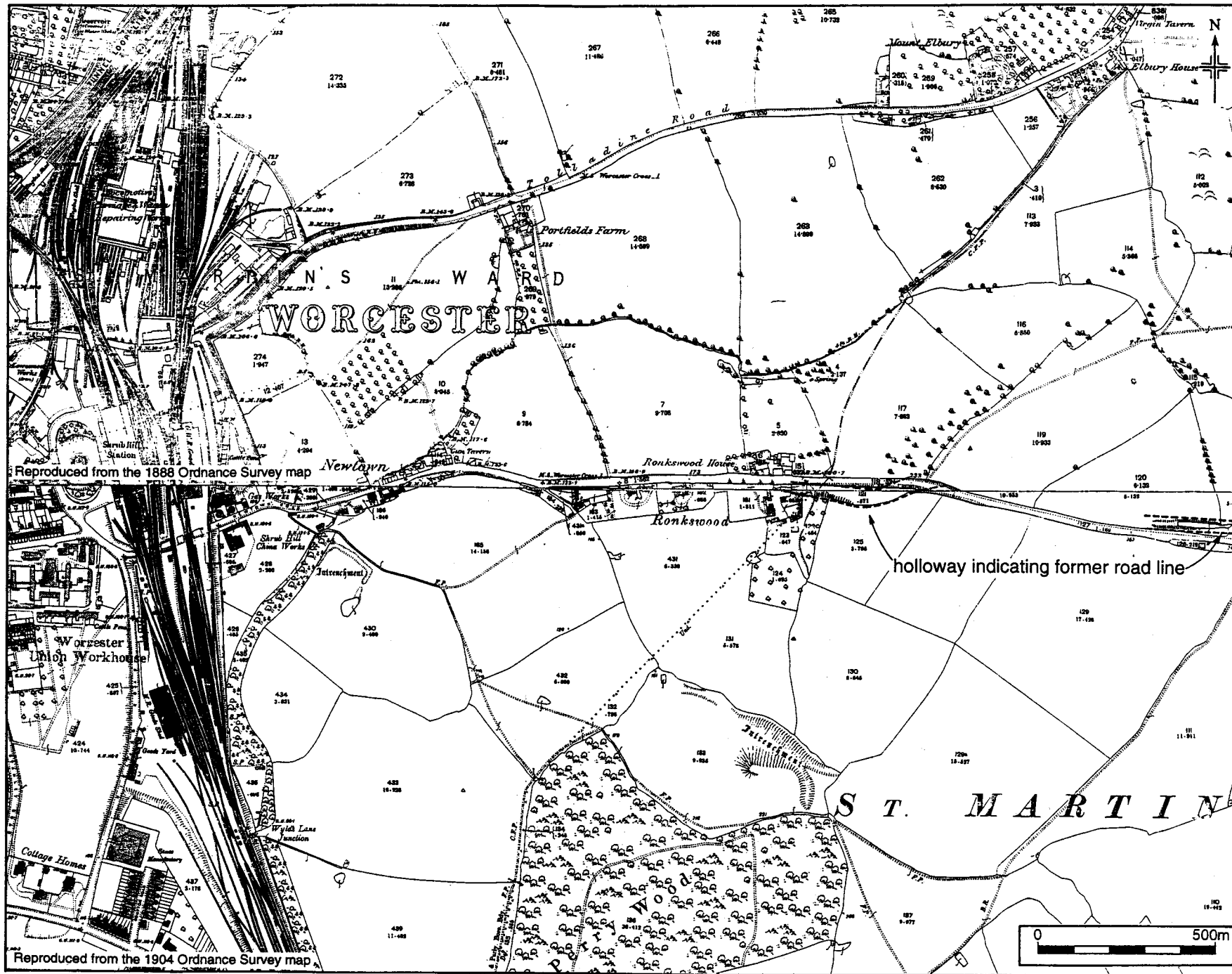


Figure 5: Location of former roadline, Ronswood Hill