VISITOR RECEPTION BUILDINGS, DUNHAM MASSEY, GREATER MANCHESTER

Archaeological Watching Brief

Oxford Archaeology North

March 2014

The National Trust
Issue No: 2013-14/1506
OA North Job No: L10546
NGR: 373290 387445
Planning Application: 78105/FULL/2012
Visitor Reception Buildings, Dunham Massey, Greater Manchester

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CONTENTS

SUMMARY ............................................................................................................................. 2
ACKNOWLEDGEMENTS ........................................................................................................ 3
1. INTRODUCTION ................................................................................................................. 4
  1.1 Circumstances of the Project ....................................................................................... 4
  1.2 Location, Topography and Geology ........................................................................... 6
  1.3 Archaeological and Historical Background .................................................................. 6
2. METHODOLOGY ................................................................................................................. 13
  2.1 Watching Brief ............................................................................................................. 13
  2.2 Finds .......................................................................................................................... 13
  2.3 Archive ....................................................................................................................... 13
  2.4 Dissemination ............................................................................................................ 13
3. RESULTS ............................................................................................................................. 14
  3.1 Introduction ................................................................................................................. 14
  3.2 The Visitor Reception Buildings ............................................................................... 14
  3.3 The Service Trenches .................................................................................................. 19
  3.4 Finds .......................................................................................................................... 23
4. CONCLUSION ..................................................................................................................... 25
BIBLIOGRAPHY .................................................................................................................... 27
  Cartographic Sources ........................................................................................................ 27
  Secondary Sources ........................................................................................................... 27
APPENDIX 1: WRITTEN SCHEME OF INVESTIGATION .................................................... 29
ILLUSTRATIONS .................................................................................................................... 41
  List of Figures ................................................................................................................... 41
SUMMARY

Trafford Borough Council granted the National Trust planning permission (Application No. 78105/FULL/2012) for the proposed construction of a new visitor reception buildings at Dunham Massey Hall (centred on NGR 373290, 387445). The location of this new building lies within the western half of the North Park, which historically forms the northern portion of Dunham Massey Old Park. The North Park incorporates a walled deer park landscaped with avenues, water features and structures of late seventeenth to mid-eighteenth century, and forms part of a Grade II* Registered Park and Garden.

In order to secure archaeological interests for the development, Trafford Borough Council attached a condition to planning consent (Condition 8) that required the works to be accompanied by an appropriate scheme of archaeological investigation. Following consultation with the National Trust Archaeologist (North West Region) and the Greater Manchester Archaeological Advisory Service, it was recommended that an archaeological watching brief was implemented to monitor all earth-moving works necessitated by the construction programme. In July 2012, Oxford Archaeology North was commissioned to undertake the required programme of archaeological monitoring. This commenced in November 2012, and continued intermittently until November 2013. The archaeological investigation was focused on the footprint of the new visitor reception buildings and associated infrastructure and landscaping works, although the excavation of several narrow trenches for new services that cut across the site to the south-east were also monitored.

The most significant remains uncovered during the watching brief pertained to a pair of deer sheds that appear on the tithe map of 1839. These sheds had been relocated to a new site slightly to the west by 1874, and whilst the precise location of these later buildings was proven through archaeological investigation in 2008-09, the existence of earlier buildings in the position shown on the 1839 map was not completely certain. A substantial track that afforded access to the deer sheds was also discovered unexpectedly, as this does not appear on any of the available historic plans of the area. Whilst no evidence for the medieval park pale was discovered, the results from the watching brief have nevertheless furnished a small but nevertheless significant contribution to the growing corpus of archaeological data for this important historic property.

The results obtained from the work the archaeological investigation are presented in this report, which will be deposited with the National Trust and the Greater Manchester Historic Environment Record. A summary of the results have also been presented in a dedicated volume in the Greater Manchester’s Past Revealed series of illustrated booklets, which was produced as part of the project.
ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank Jamie Lund, the National Trust Archaeologist (North West Region), for commissioning the project, and for providing considerable support throughout the course of the fieldwork. Thanks are also expressed to Norman Redhead, the Heritage Management Director with the Greater Manchester Archaeological Advisory Service (GMAAS), for his guidance and advice. OA North is also grateful to William Anelay Ltd for providing logistic support and facilitating the archaeological works.

The watching brief was carried out by Lewis Stitt, Phil Cooke and Graham Mottershead. The report was compiled by Graham Mottershead and Lewis Stitt, the finds were examined by Christine Howard-Davis, and the illustrations were prepared by Mark Tidmarsh. The report was edited by Ian Miller, who was also responsible for project management.
1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

1.1.1 Trafford Borough Council has granted the National Trust planning permission (Application Number: 78105/FULL/2012) for a new development in the North Park at Dunham Massey. Development proposals allow for the erection of a new visitor reception buildings comprising a reception, cafe, shop, toilets and associated offices and stores, together with provision of new paths and footbridges. In addition, several service trenches were installed between the new buildings and Dunham Hall, together with a sub-station and service yard. The new development lies within the western half of the North Park (Plate 1), which historically forms the northern portion of Dunham Massey Old Park. The North Park incorporates a walled deer park landscaped with avenues, water features, and structures of the late seventeenth to mid-eighteenth century, and forms part of a Grade II* Registered Park and Garden.

Plate 1: Plan of the Dunham Hall estate, with arrow marking the position of the new visitor reception buildings

1.1.2 Dunham Massey has been subject to several important pieces of archaeological research and investigation during the past 15 years. In 2000, the National Trust produced an Historic Landscape Survey of the Dunham Massey Estate, which sought to compile a narrative history of the property, from the prehistoric period to the present day, and has proven to be an authoritative and reliable source of information for the historical development of the park (Woodside 2000a; Woodside 2000b).
1.1.3 This historic narrative, coupled with an archaeological assessment that was carried out in 2008 in advance of an extension to the visitors’ car-parking facilities (UMAU 2008), highlighted the archaeological significance of the North Park. This led to a large programme of archaeological evaluation and a watching brief that monitored the construction works required for the extension to the car park (UMAU 2009). In the same year, the National Trust facilitated a small-scale evaluation of two former buildings located to the south-west of the new visitor reception buildings. This work was carried out in conjunction with the South Manchester Archaeological Research Team (National Trust 2009). In 2010, the National Trust implemented a more ambitious piece of research and excavation on the same site, with financial backing from the Heritage Lottery Fund. This was again carried out by the South Manchester Archaeological Research Team, under the supervision of professional staff from Oxford Archaeology North (OA North 2010).

1.1.4 The research carried out as part of these previous projects indicated that the new visitor reception buildings had some potential to impact on buried remains of archaeological significance in the North Park. In particular, the remains of a possible medieval park pale, comprising an in-filled ditch and associated post holes for a putative wooden fence or hurdle, were considered vulnerable to impact by the proposed pedestrian route leading south from the car park towards the new centre. In addition, the site of a group of two or possibly three buildings known from eighteenth-century sources could potentially have been impacted upon by the development.

1.1.5 In order to secure archaeological interests for the development in the North Park, Trafford Borough Council attached a condition to planning consent (Condition 8) that stated:

‘No development shall take place until the applicant or their agents or their successors in title has secured the implementation of a programme of archaeological works to be undertaken in accordance with a Written Scheme of Investigation (WSI) submitted to and approved in writing by the local planning authority. The development shall not be occupied until the site investigation has been completed in accordance with the approved WSI.’

1.1.6 In July 2013, Oxford Archaeology North (OA North) was invited by the National Trust to devise the required Written Scheme of Investigation for an appropriate scheme of archaeological investigation in response to a Project Brief devised by the National Trust (Appendix 1). Following the formal approval of the WSI by the National Trust Regional Archaeologist, and the Greater Manchester Archaeological Advisory Service (GMAAS) in their capacity as archaeological advisors to Trafford Borough Council, OA North was commissioned to carry out the works. This followed on from a watching brief that was maintained in May 2013, which monitored the excavation of a narrow trench for a new optic fibre cable adjacent to Smithy Lane in Dunham Massey Old Park (OA North 2013).
1.2 LOCATION, TOPOGRAPHY AND GEOLOGY

1.2.1 The study area (centred on NGR 373290, 387445) lies within the western half of the North Park, which forms the northern portion of Dunham Massey Old Park, a former medieval hunting park (Woodside 2000, 24). The park is bounded on its northern, eastern and western sides by the park wall. The River Bollin flows to the west, whilst the route of the Bridgewater Canal lies to the north (Fig 1).

1.2.2 Topographically, the land forms a generally level plateau that lies at a height of c 23.50m above Ordnance Datum (aOD). The ground falls sharply to c 17.00m aOD to the west, close to the park wall, whilst a small relict river valley is lies to the south-east, immediately to the west of the dam of the moat pond. The base of this valley lies at c 17.00m aOD, and contains a dense covering of vegetation. Prior to the construction of the dam, this river valley would have extended to the north-east, beneath the moat pond, and linked with a stream that is plotted on nineteenth-century mapping (Thorp 2001).

1.2.3 Geologically, the area is composed of Helsby Sandstone, dating to the Triassic period (250-200 million years ago), which is overlain by more recent Glaciofluvial sands and gravels laid down during the Devensian period (70,000-10,000 BP; BGS 1993).

1.3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

1.3.1 Prehistoric period: some evidence for prehistoric activity has been recovered from the Old Park. The earlier of this evidence dates to the Neolithic period (4000-2300 cal BC), and comprises a single leaf-shaped arrow head (NT SMR No. 50,836) that was discovered by chance some 500m south-east of Smithy Drive (Woodside 2000a, 77).

1.3.2 The remaining evidence for prehistoric activity within the Old Park dates to the Bronze Age (2300-800 cal BC) and comprises several cinerary urns (NT SMR No. 50,834) that appear to have contained cremated human remains (cf UMAU 2008, 5). These urns were recovered from the area of the Old Park to the north of the hall by workmen who were either digging an ornamental canal, or planting trees along an avenue as part of Sir George Booth’s early eighteenth-century scheme of landscaping (ibid). It is therefore possible that the urns were originally associated with a barrow cemetery that was subsequently levelled in the early eighteenth-century.

1.3.3 More generally, it appears that the wider area of the Dunham Massey Estate contained a fairly sizeable Bronze Age community. For instance, a Bronze Age barrow has been excavated at Fairy Brow, Little Bollington (NT SMR No. 50,983; Woodside 2000b, 157), whilst a potential Bronze Age barrow cemetery (NT SMR No. 50,858) has been detected by aerial photography at Home Farm, immediately south-east of the Old Park (op cit, 24).
1.3.4 Medieval period: it is known from documentary evidence that Dunham formed the core of a large Anglo-Saxon estate, which in the eleventh century was held by Alweard (op cit, 29). Following the Norman Conquest, the estate then passed into the hands of the de Masci family who held the Barony of Dunham Massey until c 1342. The barony then passed through various hands before coming into the possession of the Booth family in c 1433 (Woodside 2000a, 15). For much of this period, the de Masci’s main residence was a motte-and-bailey castle, and it is possible that this lay close to the north-western corner of the present-day hall (Gregory and Miller 2013). In this area a low circular mound is visible which may represent the degraded remains of a Norman motte, though it is also possible that it represents a seventeenth-century prospect mound (ibid).

1.3.5 Documentary evidence indicates that by at least the early fifteenth century the motte-and-bailey castle had been replaced by a medieval hall, as the main seat of residence, for the de Masci family, or their immediate successors. Although the precise location of this hall is not known, this was probably sited in the area now occupied by the present-day Dunham Hall and was surrounded by a moat (Woodside 2000a, 17-18).

1.3.6 The origins of the Old Park also date to the medieval period, when it formed a deer park surrounding the medieval hall. The earliest documentary references to the park date to the late fourteenth century and it appears to have been enclosed by a ditch and palisade, the remains of which have been uncovered during archaeological excavation to the north of the hall (UMAU 2009, 30). The discovery of these remains indicates that the medieval park was smaller in size than the present-day Old Park, whose limits were probably established in the late seventeenth century by Sir Henry Booth (1651-94) (Gregory and Miller 2013). However, the extent of the medieval deer park is not presently clear as its boundary to the south of the hall has yet to be established. Based on early mapping, specifically Saxton’s 1577 map of Cheshire, it is possible, however, that the southern boundary of the medieval deer park lay to the south of Smithy Drive.

1.3.7 Significantly, outside of the hall, apart from the boundary of the deer park, other remains dating to the medieval period have been uncovered by archaeological excavation. These include several gullies, which lay within the deer park to the north of the hall, one of which was associated with medieval pottery (UMAU 2008, 26). The discovery of these gullies may suggest that comparable features might also be present within the medieval deer park, to the south of the hall.

1.3.8 Early post-medieval period: Dunham Massey remained in the hands of the Booth family in the sixteenth and early to mid-seventeenth centuries, who also rebuilt Dunham Hall in c 1616 (Gregory and Miller 2013). During this period, the area to the south of the hall continued to lie within the deer park. However, the only definitive structure that dates to this period is the extant watermill (NT SMR No. No 50,807), located at the far south-western end of Smithy Drive. This was probably erected in c 1600, and was extended prior to 1697 with the addition of a gabled wing on the north side and an additional waterwheel installed (Matrix Archaeology 2013).
1.3.9 **Late seventeenth to mid-eighteenth century:** during this period the Booth family made a series of profound changes to both Dunham Hall and the Old Park. Initially, in the late seventeenth century, this included the enlargement of the Old Park by Sir Henry Booth (1651-94), first Earl of Warrington, along with the planting of trees along the major north/south-aligned carriageways to the north and south of the hall (*op cit*, 25).

1.3.10 Fortunately, the form of the late seventeenth-century hall and park can be partially discerned from two superb illustrations. The earlier of these dates to 1696 and is a painting by Adriaen Van Diest, which shows the hall from the south-east (Plate 2). The other illustration dates to 1697 and is an engraving made by Kip and Knyff in order to show the hall and grounds from the south-west (Plate 3).

1.3.11 Following the death of Sir Henry Booth in 1694 the Dunham Massey Estate passed into the hands of his son, Sir George Booth, second Earl of Warrington. Sir George Booth immediately commenced upon a major campaign of building and landscaping. This entailed the probable demolition of the seventeenth-century hall and the construction of a ‘new’ hall, during the early part of the eighteenth century (Gregory and Miller 2013). In addition various ancillary buildings were also constructed within the Old Park, during this period, and an extensive scheme of landscaping and replanting was undertaken in order to create an imposing planned landscape, with the hall at its centre (*ibid*).

1.3.12 Following the completion of this work, Sir George Booth then commissioned the artist John Harris to paint four birds-eye views showing the hall and Old Park, which were completed around 1751. Although the paintings show some slight discrepancies, they appear to present fairly accurate views of the park and it is presumed that Harris must have made a plan, or was working from a pre-existing map, of the park, which has unfortunately not survived. The paintings indicate that the main hall was similar in form to its seventeenth-century predecessor and that the formal landscape to its south was based on a *patte d’oie* (goose-foot) design.

1.3.13 Harris’s view to the south is particularly informative, as this captures the layout of the present study area in the mid-eighteenth century (Plate 4). Harris clearly shows the area to have supported a dense coverage of trees, with a small group of rectangular buildings fronting a track immediately to the south. Neither the track nor the buildings are shown on the tithe map of 1839 (Fig 2), suggesting that they had been removed from the landscape by that date. The remains of one of these buildings were revealed during an archaeological excavation carried out in 2009, which concluded that the building had probably been a barn of eighteenth-century date (UMAU 2009).
Plate 2: Dunham Massey from the south-east, 1696, by Adriaen Van Diest

Plate 3: Kip and Knyff’s 1697 engraving of Dunham Massey from the south-west
1.3.14 **Mid-eighteenth-early twentieth century:** following the death of Sir George Booth in 1758 the Dunham Massey Estate passed into the hands of his daughter Mary, who was married to the Earl of Stamford. With her death in 1772 the estate then passed to her son Harry Grey, the fifth Earl of Stamford (1739-1819). Harry Grey appears to have divided his time initially between Dunham Massey and his other country residence at Enville Hall, in Staffordshire (Gregory and Miller 2013). This pattern of shifting occupancy persisted until 1853, when the seventh Earl of Stamford, George Harry Grey (1827-83) left Dunham Massey and took up permanent residence in Enville Hall (ibid). His son and heir, another George Harry Grey (1812-90), the eighth Earl of Stamford, failed to claim his seat and during the later nineteenth century the Earl’s trustees therefore ran the estate. During this period the hall and grounds were largely neglected. However, in 1905, this period of neglect ended when William Grey (1850-1910), the ninth Earl of Stamford, returned to Dunham Massey and began to restore Dunham Hall, which was partially rebuilt, and also parts of the Old Park (ibid).

1.3.15 Several maps were produced during the late eighteenth and early nineteenth centuries that depict the area occupied by the new visitor reception buildings (Figs 2-4). These include Bryant’s map of 1831 (Plate 5), which shows two buildings within the footprint of the new development. These are depicted more clearly on the tithe map of 1839 (Fig 2), which also shows the buildings to have been set within a rectangular enclosure. The buildings are plotted more accurately on late nineteenth-century mapping produced by the Ordnance Survey (Fig 3), which show them as open-sided, suggesting that they functioned as deer sheds. The position of these sheds shown by the Ordnance Survey, however, differs from their location depicted on the tithe map.
1.3.16 The sites of the two buildings shown on the Ordnance Survey map were targeted by an archaeological investigation carried out by the University of Manchester Archaeological Unit (UMAU) in 2008-09. In the first instance, two evaluation trenches were opened one each side of a modern trackway. The trench to the east of the trackway revealed the base of a ‘T’-shaped brick pillar, which was found to be abutted on the east by a brick wall footing. A similar brick pillar lay opposite, c 5.00m to the south. The trench to the west of the track contained a similar arrangement of a ‘T’-shaped brick pillar, abutted by walling on either side, with other wall footings again c 5.00m to the south. These remains were of hand-made bricks, and appeared to have belonged to the same structure. Their position corresponded with the more southerly of the two sheds shown on the Ordnance Survey mapping.

1.3.17 The remains of the buildings exposed in the evaluation trenching were subject to further investigation via two excavation trenches. The structural remains of the north-eastern end of the deer shed were exposed in the first trench. The earliest remains comprised the foundations of two corner sections of a wall, and the foundations of two side pillars, defining the end bay of the open-sided structure. These remains formed the north-eastern corner of the deer shed, and were constructed of hand-made bricks bonded in a light grey mortar.

1.3.18 In the second trench, the two south-westernmost bays of the deer shed were exposed. The earliest structural remains comprised two ‘L’-shaped walls, representing the corners of the south-western end of the open-sided shed, and three side pillars that defined the bays.
1.3.19 A later phase of activity identified in both trenches evidently comprised the infilling of the north-western, north-eastern and south-western sides of the structure with a two-course thick and four-course deep wall of hand-made bricks. The south-eastern side of the building evidently remained open.

1.3.20 It was concluded that all except the western corner walls of the northern shed were uncovered during the excavation, which showed the building to have been of four bays defined by the side pillars, measuring c 6.0m in width and with a projected length of c 16.00m. The southern shed was found to have a width of c 6.0m and length of c 21.00m, and had been of five bays defined by the side pillars. Of these bays, the westernmost was uncovered in one excavation area, and the two easternmost in the second area, while the site of the two other bays was not available for excavation (UMAU 2009).
2. METHODOLOGY

2.1 WATCHING BRIEF

2.1.1 During the course of all ground works associated with the development, a programme of field observation recorded the location, extent, and character of all surviving features and deposits of archaeological interest. All excavation work was carried out using a mechanical excavator fitted with toothless ditching buckets, operating under close and constant archaeological supervision. This was in accordance with the Project Brief and the approved Written Scheme of Investigation (Appendix 1), and also the IfA Standards and Guidance for archaeological excavations (IfA 2008a).

2.2 FINDS

2.2.1 The recovery of finds and sampling programmes were carried out in accordance with best practice, following current IfA guidelines (IfA 2008a), and subject to expert advice, in order to minimise deterioration.

2.3 ARCHIVE

2.3.1 A full professional archive has been compiled in accordance with the current IfA (IfA 2008b) and English Heritage guidelines (English Heritage 2006). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. The archive will be deposited with the National Trust on completion of the project.

2.4 DISSEMINATION

2.4.1 The complete results obtained from the archaeological investigation are presented in this report. In addition to the National Trust, a copy of the report will be forwarded to the Greater Manchester Historic Environment Record (HER).

2.4.2 The issue of the publication of archaeological reports and public accessibility to data has been stressed in the North West Region Archaeological Research Framework (Brennand 2007). This has been addressed in the context of Dunham Massey via the publication of a dedicated volume in the Greater Manchester’s Past Revealed series of illustrated booklets (Gregory and Miller 2013). Presenting the history and archaeology of the Dunham Massey Estate, this booklet was produced as part of the current project and includes the findings from the watching brief.

2.4.3 A summary of the results obtained from the watching brief has been forwarded to Post-Medieval Archaeology for inclusion in their annual published compilation of fieldwork carried out on post-medieval sites in Britain and Ireland in 2013. An entry has also been prepared for inclusion in the OASIS database (oxfordar2-173110).
3. RESULTS

3.1 INTRODUCTION

3.1.1 The archaeological investigation was focused on the footprint of the new visitor reception buildings and associated infrastructure and landscaping works (Fig 5). These works commenced in November 2012, and continued intermittently until November 2013. In addition, several narrow trenches for new services were excavated to the south-east (Figs 6-8).

3.2 THE VISITOR RECEPTION BUILDINGS

3.2.1 The site of the new visitor reception buildings occupies a small, steep-sided dell to the south-east of the current car park which, prior to the development, supported a dense covering of scrub vegetation and trees. Following the clearance of this vegetation, the sandy-silt topsoil (001) was removed by a mechanical excavator. This layer had a maximum depth of 0.15m, and contained modern artefacts, including plastic bags.

3.2.2 A thin lens of badly humified, peat-like material (004) was exposed immediately beneath the topsoil within the footprint of the northern part of the new visitor reception buildings. This dark orange-brown material had a maximum depth of 0.1m, and covered an area measuring approximately 10 x 6m. It was evidently of recent date, as it contained modern materials and a single fragment of late nineteenth-century pottery (Section 3.4 below).

3.2.3 Across most of the study area, however, the topsoil sealed a mixed layer of sandy clay (002), which had a maximum depth of 0.1m. This layer had evidently been subject to some disturbance, and may have derived from nineteenth-century landscaping works. Several fragments of nineteenth-century pottery were recovered from layer 002 (Section 3.4 below).

3.2.4 A thick deposit (003) of light greyish-orange sand clay was revealed beneath layer 002. This contained few inclusions, and clearly represented the natural geology. Several features of archaeological interest were found to overlie the natural geology, and were sealed by layer 002. In particular, these included the remains of a substantial path or track (006) that were exposed immediately to the north of the new visitor reception buildings (Fig 5).

3.2.5 Track 006 was aligned north-east/south-west, and survived intact for a distance of 32.37m, with a width of 4m (Plates 6 and 7). A further section (008) of what was undoubtedly the same track was revealed in the northern part of the study area, some 21m to the north-east of 006. This section of path survived for a length of 7m, although it was only 2.6m wide. Nevertheless, the fabric of the surface comprised the same mixture of stone and brick that characterised section 006, and it lay on the same alignment (Fig 5), suggesting that these were two elements of what had originally been a single surface.
Plate 6: The excavated remains of surface 006

Plate 7: The excavated remains of surface 008
3.2.6 The fabric of both of the excavated sections of track comprised a combination of random stones of various sizes, together with hand-made bricks and occasional machine-pressed bricks, which were bonded in a lime-based mortar. The hand-made bricks had average dimensions of 220 x 100 x 60mm, whilst the machine-pressed variants were slightly larger, measuring 230 x 110 x 75mm. The surface was only a single brick-course deep, but had evidently been laid with considerable care. The variety of bricks used suggests that the surfaces had been subject to repairs, or that the bricks had derived from several sources, which probably included the rubble from a building demolished elsewhere on the estate.

3.2.7 The continuation of track 006 to the south-west had been heavily disturbed by the action of tree roots and did not survive as a cohesive surface, although an isolated 5m-long section (007) remained *in-situ* some 29m further to the south-west of 006 (Fig 5). Surface 007 was on the same alignment and comprised the same fabric as 006, and also had a width of 4m (Plate 8), strongly implying that the two surfaces had been elements of the same track.

*Plate 8: The excavated remains of surface 007*

3.2.8 No artefacts were recovered from any of the excavated surfaces to aid their dating, although the presence of machine-made bricks implies that the track was in use during the second half of the nineteenth century. However, it is not shown on the tithe map of 1839 or on the Ordnance Survey plan of 1874-6 (Fig 3), which depicts a boundary wall along the projected route of the excavated track. This implies that the track was only in use during the years spanning 1839-74, but was abandoned thereafter.
3.2.9 Monitoring of earth-moving works immediately to the south-west of the new visitor reception buildings, to allow the installation of a heat-source pump and infrastructure enabled further buried remains to be recorded. The excavation of a strip measuring 12.75 x 3m exposed the foundations of two walls (Fig 5), which seemingly represented elements of two separate buildings. The fabric of the most north-westerly wall (009) comprised hand-made bricks, each measuring 230 x 110 x 70mm, bonded in a light grey lime-based mortar (Plate 9). The wall was aligned north-east/south-west, was two courses wide, and survived to a maximum height of three courses (Plate 10). The foundations for a parallel wall (010) were revealed at a distance of 2.8m to the south-east of wall 009. This similarly comprised hand-made bricks and was two-courses wide, and in all probability was of a contemporary date. The remains of what may have been the housing for a door frame was identified 450mm from the south-western end. The position of these two walls corresponded very closely with the footprint of the two deer sheds depicted on the tithe map of 1839, with wall 009 forming part of the western shed, and 010 the eastern shed (Fig 5).

Plate 9: Walls 009 and 010, with surface 011 situated between the two walls

3.2.10 The remains of a laid brick surface (011) were exposed between walls 009 and 010, and whilst its survival was fragmentary, it had seemingly been approximately 4m wide. The fabric of surface 011 comprised a single-course of hand-made bricks with average dimensions of 230 x 110 x 70mm. The bricks had been laid edge-on, and were set in a thin sandy-silt bedding layer (012), which overlay the natural geology. A stone gutter was revealed along the edge of surface 011 (Plate 11), and had probably been intended to provide drainage for rainwater dripping from the roofs of the deer sheds.
3.2.11 The size, fabric and position of surface 011 was consistent with it having formed another element of track 006/007/008. The evidence gained from the archaeological work indicates that this track was at one point the principal route from the hall to the deer sheds depicted on the tithe map of 1839.
3.3 **The Service Trenches**

3.3.1 A main service trench (Trench 1) was excavated from the new visitor reception buildings to the southern driveway of Dunham Hall (Figs 6-7), and continued north-eastwards towards Smithy Drive. A connection (Trench 2) ran from the main service trench at a point south-west of the hall, across the grassed area to the south-east of the former stables and the barn cottages, to the covered entrance to the cobbled yard (Fig 8). Six groups of possible archaeological features were observed within these trenches.

3.3.2 **Feature 1 – Probable Tree Boles**: a series of three, shallow, irregular-shaped features were recorded within the main service trench near the southern end of the tailrace from the watermill (Fig 8). The first feature was 1.5m in diameter and 0.7m deep, the second was 2m in diameter and 0.8m deep, and the third was 0.7m in diameter and 0.5m deep. All three contained a mixed deposit of mid-greyish-brown sandy silt, which yielded no finds. The form of these features suggests that they were represented small tree throws of little archaeological interest (Plate 12).

![Plate 12: The three probable tree throws during excavation](image-url)
3.3.3 **Feature 2 – Brick Drain:** a short section of brickwork forming an L-shaped structure was exposed some 58m to the north-west of the excavated tree throws. The fabric comprised three rows of thin hand-made bricks, set on edge and with the outer two angled inwards at the top forming a flat-topped triangle (Plate 13). The intended function of this feature remains uncertain, although it may potentially have formed part of a land drain.

3.3.4 **Feature 3 – Possible Posthole/Pit Base:** a rectangular-shaped feature, measuring 0.32 x 0.35m and surviving to a depth of 0.04m, was identified at the south-western end of Trench 2. It was cut into the natural geology, and contained a deposit of mid-grey sandy silt with small fragments of lead window kame (Plate 14). This feature may have represented the base of a small rubbish pit, or a posthole, although it had evidently been largely destroyed by later activity.

3.3.5 **Feature 4 – Brick Structure:** the remains of a 0.5m wide structure was found in the central part of Trench 2 (Fig 8). This comprised hand-made bricks, which appeared to have been set in a clay matrix. It continued beyond the edge of the excavated trench, and it thus remains uncertain whether this represented the terminus of a wall or a foundation pad for a timber upright (Plate 15), although it had almost certainly formed part of a structure.

3.3.6 **Feature 5 – Brick Rubble Levelling Material:** this feature was observed within the north-eastern end of Trench 2 (Fig 8), and comprised a spread of compacted brick rubble overlying the natural geology. The rubble spread extended to a distance of c 15m (Plate 16), and was interpreted as levelling material re-used from the demolition of one of the earlier brick buildings in the park. Similar material was revealed in trenches excavated in 2010 across the footprint of the former dairy (Fig 8), which appeared to have resulted from landscaping works carried out in the early twentieth century (OA North 2010).
Plate 14: Posthole/pit base containing fragments of lead window kame, looking south-east

Plate 15: Brick wall/pad, looking south-east
Plate 16: Brick rubble levelling, looking north-east
3.3.7  **Feature 6 – Cobbled Surface:** the remains of a cobbled surface were observed within Trench 3, as it crossed over the short culverted section of the headrace to the water mill (Fig 8). The surface comprised water-worn rounded and sub-rounded stones of varying sizes, lying immediately beneath the topsoil (Plate 17). These cobbles undoubtedly represented the original surface of the access route across the headrace prior to it being grassed over.

![Cobbled surface revealed in Trench 3, looking north-west](image)

3.4  **FINDS**

3.4.1  A small group of 16 fragments of pottery was recovered from the site. The distribution of this group is shown in Table 1.

<table>
<thead>
<tr>
<th>Context</th>
<th>Late stonewares</th>
<th>Transfer-printed refined white earthenwares</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>9</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>002</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>004</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>005</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Totals</td>
<td>12</td>
<td>4</td>
<td>16</td>
</tr>
</tbody>
</table>

*Table 1: Distribution of finds recovered from the watching brief*
3.4.2 The pottery is essentially all of the same date, most likely to be the late nineteenth or early twentieth century. Although the three fineware fragments from contexts 001 and 002 do not join, they are clearly from similar vessels, being plates decorated with under-glaze transfer prints in the pattern ‘Asiatic Pheasants’ introduced in the second half of the nineteenth century, and most popular after 1880 (Coysh and Henrywood 1982). The fragment from 004 cannot be dated from its pattern, but seems most likely to be of the same date.

3.4.3 The bulk of the pottery comprises two, or possibly three grey stoneware jars, a commonly used storage vessel, many, like one of those from 001, intended for the retail of jam and other preserves. The base of this vessel is stamped with the registered trade mark of WP Hartley. The company was founded in 1871, moving to Liverpool in 1874. The first registration of trade marks took place in 1875 (www.ipo.gov.uk), placing the production date of this vessel after that date, and the mention of London might well place it after the commencement of jam-making in Bermondsey in 1902 (www.hartleysvillage.co.uk/history). An almost complete stoneware bottle from context 005, is marked with the name of John Goodier, Wine Merchant, of Altrincham, presumably a local supplier.
4. CONCLUSION

4.1 The archaeological watching brief that monitored the earth-moving works necessitated by the development of the new visitor reception buildings provided a valuable opportunity to investigate part of the historic North Park. The results obtained from the work have furnished a small but nevertheless significant contribution to the growing corpus of archaeological data for this important historic property. The remains of the deer sheds shown on the tithe map of 1839, and the associated access track, are of particular interest.

4.2 Prior to the present project, the veracity and accuracy of detail shown on the tithe map was not entirely certain, and it was unclear whether the discrepancy in the position of the deer sheds shown on the tithe map and the sequence of Ordnance Survey maps was due to inaccurate mapping. The archaeological excavation carried out by UMAU in 2008-9 revealed the remains of the deer sheds in the precise location plotted by the Ordnance Survey, raising the possibility that the tithe map was inaccurate. The present project, however, has vindicated the detail provided by the tithe map, and demonstrated that the deer sheds shown by the Ordnance Survey superseded an earlier pair of buildings that lay a short distance to the east.

4.3 The rationale for relocating the deer sheds is not entirely clear, although it seems possible that the original location, situated in a natural hollow, was too damp, and a site on the slightly higher ground to the west offered a preferable location. Scrutiny of the historical mapping certainly indicates that the natural drainage channels in this part of the North Park were modified, suggesting that localised flooding was a matter of concern. The tithe map of 1839 shows a meandering open stream flowing south-west from the edge of the moat that encompassed Dunham Hall. The remains of the track discovered during the watching brief followed the same direction as this stream, taking a route to the deer sheds along the edge of a small valley created by the stream. The Ordnance Survey map of 1874-6 shows the stream flowing along an artificially straightened course, which was joined by a new channel controlled by sluices from the moat (Plate 17). By this date, the track to the new deer sheds approached from the south-east, superseding the original track and its route from the north-east. This raises the possibility that the modifications to the stream had formed part of a wider remodelling scheme. The next edition of Ordnance Survey mapping, published in 1910, shows that further landscaping works had been carried out in this part of the North Park, which included the enclosure of the stream in a buried culvert (Plate 18).

4.4 The precise date at which the excavated deer sheds were erected is unclear. They are not apparent on the Harris paintings of c. 1751, although the possibility that they lay within dense tree coverage and obscured from view cannot be discounted entirely. The sheds may be shown on Bryant’s map of 1831 (Plate 5), although this was produced at a small scale that does not allow the accurate plotting of buildings. However, the deer sheds had evidently been erected by 1839, when they depicted on the tithe map. The evidence also demonstrates that they had been relocated by 1874.
4.5 Deer sheds are poorly represented in the archaeological record for the North West, reflecting the rarity of deer parks in the region. It seems that deer parks were most numerous across the region during the late medieval period, with the Civil War signalling the start of a decline in their number (Shirley 1867, 47-51). In 1867, there may have been only nine deer parks in Cheshire, including Dunham Massey, the others being at Adlington, Lyme, Tatton, Oulton, Eaton, Cholmondley, Doddington and Carden (Harrison 1903, 28); in essence, the parks effectively became limited to the region’s major country estates. Other known examples of deer sheds in Greater Manchester are limited to those at Heaton Park and perhaps at Trafford Park (UMAU 2009). Those at Heaton Park were described as new in 1817, and are shown on mid-nineteenth-century mapping to have comprised two sheds situated at opposite ends of a small rectangular yard; the site of these sheds is occupied currently by a golf course (Arrowsmith 2008, 25). Against this background, the remains of the deer sheds excavated at Dunham Massey can be considered as being of regional significance.

4.6 The archaeological remains identified during the excavation of the service trenches of lesser importance. These relate mostly to the landscaping of the estate during the eighteenth and nineteenth centuries, and are considered to be of local significance.
BIBLIOGRAPHY

CARTOGRAPHIC SOURCES

British Geological Survey (BGS), 1993 1:50 000 Series, Stockport, Sheet 98

Bryant’s map of 1829-31 map of Cheshire

Ordnance Survey Second Edition map of 1899 (6” to 1 mile)

Ordnance Survey First Edition map of 1910 (25” to 1 mile)

Ordnance Survey Third Edition map of 1911 (6” to 1 mile)

Tithe map of the township of Dunham Massey in the parish of Bowdon, 1839

SECONDARY SOURCES

Arrowsmith, P, 2008 Heaton Park, Manchester: An Archaeological Desk-based Assessment, unpubl rep


Collens, J, 1999 ‘Flying on the Edge: Aerial Photography and Early Settlement Patterns in Cheshire and Merseyside’ in M Nevell (ed) Living on the Edge of Empire: Models, Methodology and Marginality, Manchester, CBA North West, Field Archaeology Centre University of Manchester and Chester Archaeology, Manchester, 36-41


Gregory, R, and Miller, I, 2013 Uncovering the Estate: The Archaeology of Dunham Massey, Greater Manchester’s Past Revealed, 10, Lancaster

Harrison, W, 1903 Ancient Forests, Chases and Deer Parks in Cheshire, Trans Lancashire and Cheshire Antiq Soc, 20, 1-28

IfA (Institute for Archaeologists), 2008a Standard Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives, Reading

IfA (Institute for Archaeologists), 2008b Standard Guidance for Archaeological Excavation, Reading

Matrix Archaeology, 2013 Dunham Mill, Dunham Massey, Cheshire: Historic Building Recording, unpubl rep
The National Trust, 2009 *An Archaeological Evaluation at Dunham Massey, Cheshire*, unpbl rep

OA North, 2010 *Dunham Massey, Trafford, Greater Manchester: Archaeological Community Excavation Report*, unpbl rep

OA North, 2013 *Fibre Optic Cable, Dunham Massey, Greater Manchester: Archaeological Watching Brief*, unpbl rep

Thorp, RF, 2001 *Dunham Park Mill Water Supply*, unpbl rep

UMAU, 2008 *The North Park, Dunham Massey: An Archaeological Desk-based Assessment and Evaluation*, unpbl rep

UMAU, 2009 *The North Park, Dunham Massey: An Archaeological Excavation and Watching Brief*, unpbl rep

Woodside, R, 2000a *Dunham Massey Historic Landscape Survey, Volume One, The Polite Landscape*, unpbl rep

APPENDIX 1: WRITTEN SCHEME OF INVESTIGATION

Visitors’ Centre,
North Park,
Dunham Massey,
Greater Manchester

Archaeological
Investigation

Written Scheme
of Investigation

Oxford Archaeology North
July 2012
Planning Application Number: 78105/FULL/2012

Proposals

The following Written Scheme of Investigation is offered in response to a request from Mr J Lund, of the National Trust, for an archaeological investigation in advance of the proposed development of a new visitors’ centre in the North Park at Dunham Massey, Greater Manchester.
1. **BACKGROUND**

1.1 **CIRCUMSTANCES OF PROJECT**

1.1.1 Trafford Borough Council has granted the National Trust planning permission (Application Number: 78105/FULL/2012) for a new development in the North Park at Dunham Massey (centred on NGR SJ 7335 8750). Development proposals allow for the erection of a new visitors’ reception building comprising a reception, cafe, shop, toilets and associated offices and stores, together with provision of new paths, footbridges, substation and service yard. The proposed location of the new development lies within the western half of the North Park, which historically forms the northern portion of Dunham Massey Old Park. The North Park incorporates a walled deer park landscaped with avenues, water features and structures of the late seventeenth to mid-eighteenth century, and forms part of a Grade II* Registered Park & Garden.

1.1.2 Dunham Massey has recently been subject to several pieces of archaeological research and investigation. In 2000, the National Trust produced an *Historic Landscape Survey of the Dunham Massey Estate*, which sought to compile a narrative history of the property, from the prehistoric period to the present day, and has proven to be an authoritative and reliable source of information for the historical development of the park (National Trust 2000). In 2008, the former University of Manchester Archaeological Unit carried out an archaeological desk-based assessment of the North Park in advance of improvements to the car park at the property (UMAU 2008). This highlighted the archaeological significance of the North Park, and led to a large programme of archaeological evaluation and a watching brief that monitored the construction works required for the development of a new car park (UMAU 2009). In the same year, the National Trust facilitated a small-scale evaluation of two former buildings located to the south-west of the proposed new visitor centre. This work was carried out in conjunction with the South Manchester Archaeological Research Team (National Trust 2009). In 2010, the National Trust implemented a more ambitious piece of research and excavation on the same site, with financial backing from the Heritage Lottery Fund. The was again carried out by the South Manchester Archaeological Research Team, under the supervision and guidance of professional staff from Oxford Archaeology North (OA North 2010).

1.1.3 The desk-based research carried out as part of these previous projects has indicated that the proposed visitor centre has some potential to impact on buried remains of archaeological significance in the North Park. In particular, the remains of a possible medieval park pale, comprising an in-filled ditch and associated post holes for a putative wooden fence or hurdle, may be impacted on by the proposed pedestrian route leading south from the car park towards the proposed new centre. These buildings will occupy a small, steep-sided dell that lies to the south-east of the current car park.
1.1.4 In addition, the site of a group of two or possibly three buildings known from eighteenth-century sources may also be impacted upon by the proposed development, as a new pedestrian route is to be constructed in the immediate vicinity. Whilst the intended route of this new path will avoid the site of the buildings, the possibility of ancillary features being exposed during construction works cannot be discounted entirely.

1.1.5 In order to secure archaeological interests for the proposed new development in the North Park, Trafford Borough Council has attached a condition to planning consent (Condition 8) that states:

‘No development shall take place until the applicant or their agents or their successors in title has secured the implementation of a programme of archaeological works to be undertaken in accordance with a Written Scheme of Investigation (WSI) submitted to and approved in writing by the local planning authority. The development shall not be occupied until the site investigation has been completed in accordance with the approved WSI. The WSI shall cover the following:

- A phased programme and methodology of site investigation and recording to include targeted excavation and a watching brief;
- A programme for post investigation assessment to include analysis of the site investigation records and finds, and production of a final report on the significance of the archaeological and historical interest represented;
- Provision for interpretation and dissemination in relation to the site’s history and archaeology;
- Provision for archive deposition of the report, finds and records of the site investigation;
- Nomination of a competent person or persons/organisation to undertake the works set out within the approved WSI.

1.1.6 This document provides the required Written Scheme of Investigation for an appropriate scheme of archaeological investigation. It has been produced by Oxford Archaeology North (OA North) at the request of Jamie Lund of the National Trust, and has been devised in consultation with the Greater Manchester Archaeological Advisory Service (GMAAS).
1.2 OXFORD ARCHAEOLOGY NORTH

1.2.1 Oxford Archaeology (OA) is an educational charity under the guidance of a board of trustees, and has over 30 years of experience in professional archaeology. We have offices in Lancaster, Oxford and Cambridge, trading as Oxford Archaeology North (OA North), Oxford Archaeology South (OA South) and Oxford Archaeology East (OA East) respectively, enabling us to provide a truly nationwide service. OA is an Institute for Archaeologists’ Registered Organisation (No 17). All work on the project will be undertaken in accordance with relevant professional standards, including:

- IfA’s Code of Conduct, (1999); Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology, (1999);
- Standard and Guidance for Archaeological Evaluations, (1999); Standard and Guidance for Archaeological Watching Briefs, (1999);
- English Heritage’s Management of Archaeological Projects (MAP2), 1991;
2. **AIMS AND OBJECTIVES**

2.1 **ACADEMIC AIMS**

2.1.1 The principal aim of the project is to establish the presence or absence of any buried remains of archaeological interest within the proposed development area and, should such remains be proven to survive *in-situ*, carry out sufficient investigation to provide a detailed record to mitigate their damage or destruction during the proposed development. A second aim of the investigation is to synthesise the large body of information generated from recent research and excavations at Dunham Massey and disseminate the results in an appropriate format.

2.2 **OBJECTIVES**

2.2.1 The objectives of the project may be summarised as follows:

- to establish the present or absence of any buried remains of archaeological interest within the area of the proposed development and its associated footpaths;
- to implement an appropriate programme of detailed investigation where buried archaeological remains are found to survive *in-situ*;
- to collate and synthesise the results obtained from previous archaeological investigations and research of Dunham Massey;
- to undertake any post-excavation works required and create an appropriate site archive;
- to produce a full excavation report that can be passed on in digital format to all stakeholders at the end of the project;
- to carry out an appropriate level of dissemination and publication of the results.
3. METHODOLOGY

3.1 THE PROPOSED ARCHAEOLOGICAL PROGRAMME

3.1.1 The programme of archaeological works will be targeted primarily on three areas that will be subject to earth-moving works.

- **Area 1:** the proposed course of a new pedestrian route from the car park to the visitors’ centre crosses the projected line of the putative medieval park pale. The impact of the construction works will be mitigated by the excavation of a complete section across the park pale ditch, should it prove to survive in this area;

- **Area 2:** lies in a small, steep-sided dell situated to the south-east of the current car park, and will be occupied by the proposed buildings that comprise the new visitors’ centre. Historical research has concluded that there is no evidence for former buildings or features of archaeological interest in this area, and the archaeological potential is considered to be low, although the potential for palaeo-environmental deposits cannot be discounted;

- **Area 3:** will focus on the site of a group of two or possibly three post-medieval buildings that lie on the higher ground immediately to the north of the new visitors’ centre. The foundations of these structures are manifested as slightly raised ground, suggesting considerable potential for buried archaeological remains. Proposal for a new pedestrian route in this area have been design to avoid the site of these buildings, although the possibility of ancillary features surviving cannot be discounted.

3.1.2 The archaeological impact of the proposed construction works will be mitigated by a flexible response that will be appropriate to the nature of the archaeological resource. In the first instance, an archaeological watching brief will be maintained during the earth-moving works required for the construction of the visitors’ centre and its associated pedestrian routes. Where any archaeological remains are exposed, more detailed archaeological investigation will be carried out in advance of further construction works. In the event of the putative park pale being encountered, a full section will be excavated across the ditch to enable an appropriate level of palaeo-environmental sampling to be carried out.

3.1.3 Following the completion of the fieldwork, a full site report and archive will be produced. The report will include a detailed summary of the results obtained from the work, coupled with a comprehensive synthesis of all the recent archaeological investigations and research that have been carried out in the North Park. The information will be disseminated subsequently to the wider public via presentation in an easily accessible publication. The most appropriate format will be as a dedicated volume in the ‘Greater Manchester’s Past Revealed’ series.
3.2 Methodology

3.2.1 Watching Brief Methodology: all earth-moving works necessitated by the construction programme will be supervised closely by a suitably experienced archaeologist. All excavation will be carried out using a mechanical excavator of appropriate power and equipped with a toothless ditching bucket. The mechanical stripping of the modern ground surface will be followed by the rapid manual cleaning of any exposed remains and archaeological recording.

3.2.2 This programme of field observation will accurately record the location, extent, and character of any surviving archaeological structures, features and/or deposits exposed during the construction programme. This work will comprise observation during the excavation for these works, the systematic examination of any subsoil horizons exposed during the course of the groundworks, and the accurate recording of all archaeological structures and features, and any artefacts, identified during observation.

3.2.3 Putative archaeological structures, features and/or deposits exposed during construction work, together with the immediate vicinity of any such features, will be cleaned by hand, using either hoes, shovel scraping, and/or trowels depending on the ground conditions, and where appropriate sections will be studied and drawn.

3.2.4 During this phase of work, recording will comprise a full description and preliminary classification of features or materials revealed, and their accurate location (either on plan and/or section, and as grid co-ordinates where appropriate). Features will be planned accurately at appropriate scales and annotated on to a large-scale plan. A photographic record will be undertaken simultaneously. A plan will be produced of the areas of groundworks showing the location and extent of the ground disturbance and one or more dimensioned sections will be produced.

3.2.5 It is assumed that OA North will have the authority to stop the works for a sufficient time period to enable an accurate assessment of important deposits. In the event of these deposits being extensive, then a programme of further detailed archaeological investigation may be anticipated. This would only be implemented following consultation with the National Trust Archaeologist and GMAAS.

3.2.6 Detailed Recording Methodology: in the event of buried remains of archaeological interest being exposed during the initial watching brief, further detailed investigation will be carried out, following consultation with the National Trust Archaeologist and the Heritage Director with GMAAS. In the event of the medieval park pale being encountered, it is anticipated that a section across the ditch will be excavated fully to enable a palaeo-environmental assessment to be carried out.
3.2.7 Pits and postholes will be subject to a 50% by volume controlled stratigraphic excavation. Linear cut features, such as ditches and gullies, will be subject to up to a maximum of 25% by volume controlled stratigraphic excavation, with the excavation concentrating on any terminals and intersections with other features which would provide important stratigraphic information. Linear features with a uniform fill will be subject to 10% excavation.

3.2.8 Extensive linear deposits or homogeneous spreads of material will be sample excavated by hand to a maximum of 10-20% by volume. If features/deposits are revealed which need to be removed and which are suitable for machine excavation, such as large-scale dump deposits or substantial linear cut features, then they would be sample excavated to confirm their homogeneity before being removed by machine.

3.2.9 Structural remains will be excavated manually to define their extent, nature, form and, where possible, date. Any hearths and/or internal features will be 100% sample excavated to provide information on their date and function, and the extent of any associated floor surfaces will be determined.

3.2.10 It should be noted that no archaeological deposits will be entirely removed from the site unless their excavation is necessary to reveal other features and/or deposits. If the excavation is to proceed below a depth of 1.2m then the sides will be stepped in. Cut features identified against the edges of the excavation will not be excavated below a safe working limit of 1.2m unless it is confirmed by the archaeological curator with GMAAS that they are of exceptional importance.

3.2.11 **Recording:** all information identified in the course of the site works will be recorded stratigraphically, with sufficient pictorial record (plans, sections and both black and white and colour photographs) to identify and illustrate individual features. The trenches and features will be located by use of high accuracy differential GPS equipment or total station; altitude information will be established with respect to Ordnance Datum. Archaeological features within the trenches will be planned using manual techniques or by means of a total station. All information identified in the course of the site works will be recorded stratigraphically, with sufficient pictorial record (plans, sections and both black and white and colour photographs) to illustrate individual features.

3.2.12 Results of all field investigations will be recorded on *pro-forma* context sheets. The site archive will include both a photographic record and accurate large-scale plans and sections at an appropriate scale (1:50, 1:20 and 1:10).

3.2.13 **Finds policy:** OA North employs in-house artefact and palaeoecology specialists, with considerable expertise in the investigation, excavation, and finds management of sites of all periods and types, who are readily available for consultation. Finds storage during fieldwork and any site archive preparation will follow professional guidelines (UKIC). Emergency access to conservation facilities is maintained by OA North with the Department of Archaeology, the University of Durham.
3.2.14 **Environmental Sampling:** a programme of palaeo-environmental sampling will be carried out during the archaeological investigation in accordance with the guidelines provided by English Heritage (2002). The sampling programme will proceed under the guidance of the in-house palaeo-environmental expertise (Elizabeth Huckerby). Samples will be collected for technologically, pedologically and chronologically analysis as appropriate. The samples taken will be fully assessed and not subject to sub-sampling.

3.2.15 The contexts will be sampled as appropriate, subject to palaeo-environmental survival, and an assessment of the samples will be undertaken by Elizabeth Huckerby as part of the assessment stage of the MAP2 programme. Bulk (30 litres) samples will be taken from all sealed pit fills, and particularly from any discrete fills within single pits, which may provide evidence for a change in function. Attention will also be paid to the identification of insects, particularly within waterlogged deposits, and a sampling strategy shall be devised accordingly. It is proposed that the floatation of suitable samples be undertaken off site following completion of the fieldwork. OA North has full access to the laboratory facilities of the Institute of Environmental and Biological Sciences at Lancaster University, where assessment would be undertaken.

3.3 **POST-EXCAVATION WORK, ARCHIVE PRODUCTION AND REPORTING**

3.3.1 An archive for the project will be prepared during and immediately following the fieldwork programme for deposition in an appropriate repository. The results of the excavation will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (*Management of Archaeological Projects*, 2nd edition, 1991). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. The deposition of a properly quantified, ordered, and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the Institute for Archaeologists’ in that organisation’s Code of Conduct. The project archive will be deposited with the National Trust at the end of the project.

3.3.2 An appropriate programme of analysis will be undertaken to prepare a research archive, as detailed in Appendix 6 of *Management of Archaeological Projects* (English Heritage 1991). A provisional programme of post-excavation analysis is proposed, on the basis of the anticipated recovery of material from the excavation; however, the extent of the programme can only be reliably assessed on completion of the fieldwork. The proposed programme anticipates analysis of the artefactual evidence and of the site stratigraphy, and may also involve palaeo-environmental assessment, leading to the production of a final report.
3.3.3 The report will present, summarise, and interpret the results of the archaeological work, and will incorporate specialist reports on artefact assemblages and environmental reports, as appropriate. It will include an index of archaeological features identified in the course of the project, with an assessment of the site’s development. It will incorporate appropriate illustrations, including copies of the site plans and section drawings, all reduced to an appropriate scale.

3.3.4 The report will consist of a statement of acknowledgements, lists of contents, executive summary, introduction summarising the brief and project design, methodology, interpretative account of the site and associated structures, gazetteer of features, a complete bibliography of sources from which data has been derived, and a list of further sources identified during the programme of work. The report will also include a comprehensive synthesis of all previous archaeological investigations and research at Dunham Massey, which will enable the results obtained from the current project to be considered in their wider context.

3.3.5 The National Trust and GMAAS will be supplied with bound paper copies of the full report, together with digital copies on CD. All digital survey information will be supplied in a CAD compatible format as a .dwg file, and all digital photographs will also be supplied as individual jpegs.

3.3.6 At the start of project, an OASIS on-line record will be initiated and key fields completed on Details, Location and Creators forms. All parts of the OASIS on-line form will be completed for submission to the HER. This will include an uploaded pdf version of the final report.

3.4 DISSEMINATION AND PUBLICATION

3.4.1 The results obtained from the programme of archaeological excavation will be of considerable local and regional interest, and will merit formal publication. The most appropriate format of this publication will be as a local booklet in the ‘Greater Manchester’s Past Revealed’ series. The booklet will incorporate the results obtained from the other programmes of archaeological works and research carried out at Dunham Massey, together with the present study area.

3.5 OTHER MATTERS

3.5.1 **Timetable:** the timetable for the watching brief will be dictated by the principal contractor’s programme.

3.5.2 A report will be submitted within four weeks of the completion of the fieldwork.
3.5.3 **Health and Safety:** archaeological staff and visitors will respect Health and Safety provisions and site-specific safety regulations. It is the policy of OA North (‘the Employer’) to conform fully with the requirements of the Health and Safety at Work Act (1974), and all site procedures will be in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1997). Attention will also be paid to the requirements of more recent legislation, including the provision and use of Work Equipment Regulations (1992), the Management of Health and Safety at Work Regulations (1992), and the Construction (Design and Management) Regulations (1994).

3.5.4 In furtherance of the duty of care imposed by the Health and Safety at Work Act (1974), the Employer shall make available to his employees whatever reasonable facilities are required by particular circumstances, eg appropriate protective clothing, safety equipment, rest breaks for specialised tasks, etc. A written risk assessment will be undertaken in advance of project commencement, and copies will be made available on request.

3.5.5 **Insurance:** evidence of Public Liability Insurance to the minimum value of £5m, and Professional Indemnity Insurance to the minimum of £2m, will be provided prior to the commencement of the archaeological works.

3.5.6 **Contingencies:** if there are more complex or generally deeper deposits than can be anticipated from the evidence available, there may need to be a corresponding increase in costs, which will be subject to agreement with the Client and the archaeological curator. Similarly, there will be recourse to a contingency if there is any requirement to fully excavate any human remains that may be present. These contingency costs are in accordance with the Institute for Archaeologists’ guidance.

3.5.7 **Confidentiality:** the report is designed as a document for the specific use of the Client, for the particular purpose as defined in the project design, and should be treated as such; it is not suitable for publication as an academic report, or otherwise, without amendment or revision. Any requirement to revise or reorder the material for submission or presentation to third parties beyond the project design, or for any other explicit purpose can be fulfilled, but will require separate discussion and funding.
5 STAFFING PROPOSALS

5.1 The project will be under the overall charge of Ian Miller BA FSA (OA North Senior Project Manager) to whom all correspondence should be addressed. Ian has over 20 years experience of commercial archaeology, and has a particular interest in the archaeology of north-west England.

5.2 His role will be to ensure that the Written Scheme of Investigation is implemented within the framework of the Project Objectives. He will be responsible for all aspects of staff and resource logistics, ensuring the smooth running of the project programme. He will liaise with the National Trust and GMAAS with regard to progress, and will maintain relationships with other contractors.

5.3 The watching brief is likely to be undertaken by Graham Mottershead (OA North Supervisor). Graham is an highly experienced field archaeologist, who has a particular interest in the archaeology of the Manchester area. He was closely involved with the archaeological works carried out by the former University of Manchester Archaeological Unit in 2008-09.

5.4 It is not possible to provide details of specific technicians that may be involved with the fieldwork at this stage, but all shall be suitably qualified archaeologists with proven relevant experience.

5.5 Assessment of any finds recovered from the evaluation will be undertaken by OA North’s in-house finds specialist Christine Howard-Davis BA (OA North Finds Manager). Christine has extensive knowledge of all finds of all periods from archaeological sites in northern England, and is a recognised expert in the analysis of post-medieval artefacts.

6 MONITORING

6.1 Monitoring meetings will be established with the Client and the archaeological curator at the outset of the project. Monitoring of the project will be undertaken by the National Trust Archaeologist and the Greater Manchester Archaeological Advisory Service, who will be afforded access to the site at all times.
ILLUSTRATIONS

LIST OF FIGURES

Figure 1: Site location

Figure 2: Development area superimposed on the Township of Dunham Massey tithe map of 1839

Figure 3: Development area superimposed upon the Ordnance Survey first edition 25":1 mile map of 1874-6

Figure 4: Development area superimposed upon the Ordnance Survey 25":1 mile map of 1910

Figure 5: Footprint of the new visitor reception buildings superimposed on the tithe map of 1839, showing the remains revealed during the watching brief

Figure 6: Route of the new service trenches superimposed upon the Ordnance Survey 6":1 mile map of 1899

Figure 7: Route of the new service trenches superimposed upon the Ordnance Survey 25":1 mile map of 1910

Figure 8: Location of the archaeological features revealed in the new service trenches to the south-east of the visitor reception buildings, showing the position of the former pheasantry and dairy