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MANCHESTER METROPOLITAN UNIVERSITY

RYEBANK FIELDS

ARCHAEOLOGICAL DESK BASED ASSESSMENT/DUE DILIGENCE REPORT

JUNE 2020

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1 INTRODUCTION

1.1 This report sets out the archaeological and historical background of a Site at Ryebank Fields, Chorlton (Centred on NGR SJ 81070 94580); hereafter referred to as 'the Site'.

1.2 This report provides an assessment of the significance of any known or potential heritage assets of an archaeological nature within the boundary of the Site. Potential direct impacts as a result of any future development proposal to identified and potential heritage assets of an archaeological nature are established. These potential impacts will be assessed with due regard to the parameter plan as presented within the Development Framework prepared on behalf of Manchester Metropolitan University (MMU 2019). Appropriate mitigation measures for reducing/offsetting these potential impacts are proposed where relevant.

1.3 The assessment was undertaken following the Standards and Guidance of the Chartered Institute for Archaeologists (CIfA 2014) and in accordance with terminology expressed within the National Planning Policy Framework. This assessment does not assess any potential indirect impacts to the setting of heritage assets.

1.4 In order to inform this assessment baseline data was obtained from the following:

- Greater Manchester Historic Environment Record (HER) consulted October 2019;
- Trafford Archives;
- GIS datasets (Historic England 2019):
  - Scheduled Monuments
  - Listed Buildings
  - Registered Parks and Gardens
  - Registered Battlefields
- The National Heritage List for England (Historic England website).

1.5 In addition, a walkover survey of the Site was undertaken in October 2019.

Definitions of Terms

1.6 A heritage asset is defined in the National Planning Policy Framework (NPPF) as '*a building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions because of its heritage interest*' (Ministry of Housing, Communities and Local Government 2019, Annex 2 page:67).

1.7 The significance of a heritage asset is defined within the NPPF as '*the value of a heritage asset to this and future generations because of its heritage interest. This interest may be archaeological, architectural, artistic or historic'* (MHCLG 2019, Annex 2 page:71).

National Heritage Legislation and Policy

1.8 In respect to archaeological remains, designated heritage assets protected by statutory legislation comprise Scheduled Monuments. These nationally significant archaeological sites, monuments and structures are protected under the Ancient Monuments and Archaeological Areas Act (1979).

1.9 The remainder of the archaeological resource, the non-designated resource, is protected under national and local planning policy only. This includes entries onto a Historic Environment Record or Sites and Monument Record as well as previously unknown features which may be recorded during the course of data collection in respect to a given development proposal.

1.10 Where heritage assets of an archaeological nature may be impacted upon by development '*local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation'* (MHCLG 2019, para:189).

1.11 In determining applications, NPPF stipulates that '*great weight*' should be given to a designated heritage asset's conservation and that '*substantial harm to or loss of… assets of the highest significance, notably Scheduled Monuments … should be wholly exceptional*' (MHCLG 2019, para:194).

1.12 Developments where substantial harm to or total loss of significance of a designated heritage asset should be assessed against specific tests and should deliver substantial public benefits which outweigh any loss or harm (MHCLG 2019, para:195). Less than substantial harm to a designated asset would require public benefits including the securement of an optimum viable use (MHCLG 2019, para:196). Impacts to the significance of non-designated assets will require a balanced judgement based on the level of significance and the scale of harm (MHCLG 2019, para:197), although non-designated assets which are of equivalent significance to designated assets will be considered as such (MHCLG 2019, page:56).

2 BASELINE INFORMATION

Geology and Topography of Site

2.1 The c.4ha Site is located on level ground at a height of c.28m AOD. The River Irwell falls 1.7km to the north and the River Mersey 1.3km to the South.

2.2 The Site comprises an irregular shaped plot of land under one parcel of rough pasture inclusive of dense thickets of scrub. Areas under tree cover are also present, in-particular in the north and west where a copse of trees and a woodland belt are located within the boundaries of the Site respectively. The Site access off Longford Road includes a tarmacadam footpath and area of hardstanding; the area of hardstanding being bound to its northern side by an earth bund.

2.3 The cut of a ditch is aligned roughly east-west across the centre of the Site. This extends into the Site from the east and appears to terminate within the western boundary of the Site; there being no trace of it to the west of the Site where playing fields are present.

2.4 The underlying solid geology is mapped as sandstone of the Wilmslow Sandstone Formation formed 247-252 million years ago. Superficial geology is mapped as Diamicton formed 2 million years ago (BGS 2019). This is known to have been exploited within the boundary of the Site through twentieth century clay extraction. This is shown by the depiction of clay pits across the majority of the Site on the 1935 Ordnance Survey map, see Plate 1.

Plate 1: 1935 Ordnance Survey Map

2.5 Only the western fringe of the Site and footprint of the aforementioned ditch appear relatively unaffected by the clay extraction on this map. Later mapping dating to the 1950s indicates that the extraction may have extended further west towards the Site boundary.

2.6 Geotechnical investigations have verified the presence of a mantle of made ground across the Site as a consequence of infill post clay extraction operations (e3p 2020). Site investigations recorded made ground to depths of 1.6-12.7m across the body of the Site. The maximum depth of made ground was only verified by two boreholes which recorded that made ground extended to 10.2m and 12.7m in the north and south of the Site respectively. The made ground was recorded as sandy ashy gravel including asphalt, ash, concrete, brick, plastic, metal and glass.

Archaeological Background

2.7 The Greater Manchester Historic Environment Record was consulted for entries within the search area (taken as an area of approximately 1km radius from the Site boundary). Besides identifying heritage assets that may be directly or indirectly affected by future development this search boundary was expected to provide sufficient data to represent the archaeological character of the area. Information on designated heritage assets was complimented by GIS information downloaded from Historic England (Historic England 2019).

Designated Heritage Assets

2.8 There are no designated heritage assets of an archaeological nature located within the boundary of the Site or within the 1km search area.

2.9 Within the wider area, Scheduled Monuments include two sections of a ditch of potential medieval date known as the Nico Ditch, recorded 4.2km and 9.2km east of the Site, at Platt Fields and Denton Golf Course respectively.

2.10 The ditch cut crossing the Site on an east-west alignment and which appears to have been relatively unaffected by the known clay extraction, is reputed locally to be part of the Nico Ditch. However, a recent application to Historic England to consider the ditch cut within the Site for scheduling was rejected, it being stated that the ditch does not appear to survive well and that its archaeological potential was uncertain (see Appendix 1).

Non-Designated Heritage Assets

2.11 In the absence of scheduling, the east-west ditch would be considered as a non-designated heritage asset of potential archaeological interest. This and all non-designated heritage assets within the 1km search area are shown on Figure 1 and specified where relevant within the following text.

Previous Archaeological Work

2.12 The Site has not been subject to archaeological fieldwork, the general potential for fieldwork to yield useful information on past human activity being limited due to the clay extraction which has affected large parts of its footprint.

2.13 The only recorded fieldwork within the search area comprises excavations undertaken in the 1980s c.990m south of the Site. These were undertaken by South Trafford Archaeological Services within the footprint of a demolished church. Three phases of ecclesiastical buildings were recorded, the earliest of which was dated to 1512.

2.14 Within the wider vicinity, excavations across undesignated sections of the Nico Ditch have been undertaken 6km east of the Site at Levenshulme and 7.8km east of the Site at Stockport. These were undertaken by GMAU in 1992 and 1990 respectively. At Levenshulme a ditch with a projected width of 3.5-4m was recorded. At Stockport a U shaped ditch profile 3-3.2m in width and 1-1.3m deep was recorded. No associated bank was recorded and the ditch had been re-cut and re-used numerous times.

2.15 To the west of the Site (3.4km) a single north-south aligned trench has been excavated across the projected alignment of another ditch known as the Carr Ditch which was first recorded in the seventeenth century. This was within the rear garden of a residential property. A U shaped ditch cut was recorded as being aligned east-west. This was 2m in width and 0.75m in depth. A spread of material was recorded to the south of the ditch; 1.5m in width and 0.15m in depth. This may have been a bank of upcast from the ditch or the remnants of a buried subsoil. The earliest fill of the ditch included sherds of nineteenth century pottery and brick fragments. Secondary periods of silting were interpreted as soil infill from agrarian activity. A later nineteenth century re-cut coincided with the insertion of a culvert. Later silting was evident before deliberate infill. If the ditch was on the alignment of an earlier pre-nineteenth century ditch, evidence for this was not found (Arrowsmith & Fletcher 1993).

General Historical Background

2.16 Due to the clay extraction which is known to have occurred across the majority of the Site, this section and the remainder of this report will focus primarily on the early medieval/medieval period as a consequence of the potential presence of a ditch of this date within an narrow strip of land relatively unaffected by later ground disturbance, albeit the preceding periods will be provided with a concise summary.

Prehistoric (up to 800BC)

2.17 Evidence for prehistoric activity within the search area is limited, the HER including reference to one findspot only. This records a Neolithic stone axe c.820m south of the Site.

Iron Age and Romano-British (800BC to 410AD)

2.18 The HER does not record any evidence for Iron Age or Romano-British activity within the boundary of the Site or the search area.

Early Medieval (c.410 to 1066AD)

2.19 Settlement during this period would have been sparse and limited to the driest locations within a mossy environment.

2.20 The boundary between the two Anglo-Saxon kingdoms of Mercia and Northumbria is reputed to have been the River Mersey, located 1.3km south of the Site, its name literally meaning 'boundary river'.

2.21 A potentially associated boundary ditch and bank known as the Nico ditch, may have been established during this period to the north of the River, around the edge of the early medieval moss which stretched across the south of Manchester. Although its western extremity is thought to have terminated to the east of the Site, a possible westerly extension could have been aligned through the area in which the Site is located, albeit this is uncertain.

2.22 As a feature providing a simple boundary function, its purpose may have been to divide the mosslands according to grazing and ownership rights. Defensively it may have acted as an earthwork obstacle defended at selected points to prevent free movement across the landscape. However, although the presence of a bank and palisade fence has been suggested no evidence for this has been recorded.

2.23 A simple drainage function is certainly possible, its early function potentially being to drain the mosses located in swathes across this region at this time. Although there

does not appear to be a network of subsidiary ditches which would have been necessary to drain large areas.

Medieval (c.1066 to 1540AD)

2.24 If the Nico ditch had not been established by the start of the medieval period, documentary evidence attests to its presence by the twelfth century at least. However, there is no archaeological evidence to confirm this date. Likewise, the origins of its possible westward extension which may have extended across the Site are also uncertain due to a lack of archaeological evidence and in respect to this extension a lack of documentary evidence also.

2.25 Nevertheless, assuming an acceptance of the documentary record in providing provenance, the known western extremity of the Nico ditch during the medieval period is thought to have been present at modern day Platt Fields. This is c.4km east of the Site. Here, a scheduled section of the ditch survives at c.4m wide and 1m deep. East of this, a section at Melland playing fields at Levenshulme presents with a V profile 4m wide and 1.5m deep. A similar morphology has been recorded at Stockport further east. Further east again, at Denton golf course, the longest preserved section of ditch at c.290m in length is protected as a scheduled monument. The ditch here is presently c.3-4m wide and 1.5m deep with a broad V shaped profile. A slight bank at 0.3m is recorded to the northern side but this may be related to the landscaping of the golf course rather than to the ditch itself. Excavations undertaken in 1975 reputedly recorded its historic depth to be 2.4m (Nevell 1992).

2.26 With regards to the aforementioned documentary evidence the first reference to the Nico ditch was to a 'Mykelldiche'. This was in a charter dated 1190, later revised to 'magnum fossatum' in a 1212 version of the same charter. In a deed of 1317, it was referenced as 'Mekeldyche'. The 1320/22 survey of the Manor of Manchester gave the variants 'Mikeldiche', 'Muchildich' and 'Mocheldich'. A deed of 1484 in relation to an estate gave 'Michewall Ditch'.

2.27 The earliest 1190 reference of 'Mykelldiche' and the later 'Mekeldyche' and 'Muchildich' all derive from the Anglo Saxon term 'micel' for 'big' or 'great'. This explains the 1212 reference to a 'magnum fossatum' which is Latin for 'the great ditch' and may attest to the origins of the ditch being in the preceding Anglo-Saxon (early medieval) period.

2.28 Documentary evidence for the presence of an associated bank is varied but the 1484 'Michewall Ditch' has been referenced as evidence for a bank c.6km east of the Site

(at the Slade Hall Estate). A bank (no longer extant) was also referenced in the 1930s to the south side of Melland Playing Fields, c.6.5km east of the Site.

2.29 As alluded to above, the documentary references to the Nico ditch are all for sections of the ditch from Platt Fields and east (Arrowsmith and Fletcher 1993) and so do not reference the ditch of uncertain date that is present across the Site. It is possible that the ditch across the Site could be a remnant section of a later ditch known as the Carr Ditch which can be traced to the west of the Site and which was first recorded in the seventeenth century.

2.30 In general the Irwell and Mersey Valleys, the area in which the Site is located, were wet environments during this period. The poor quality of the clay based soils and the extensive presence of swathes of marshland meant that arable exploitation was rare. Agriculture was dominated by the pastural economy, which although facilitated by clearance and reclamation was itself often poor quality. The Site during this period was most probably under moorland within a very sparsely populated area.

2.31 The function of the Nico ditch extending across the landscape to the east of the Site could have been associated with drainage, an agricultural boundary, an administrative boundary or it could have been a defensive earthwork. Certainly by the late medieval period it was being used as a drainage ditch and as an administrative boundary albeit these could have been secondary uses to an earlier defensive purpose. For the latter it is noted that the potentially contemporary ditch extending across the Site and to the west would have been imperative to defensive functionality.

Post Medieval (c.1540AD to c.1900)

2.32 The late eighteenth century saw intensive drainage of the mosses such that arable production was made feasible through the use of extensive networks of ceramic drains and the deposition of sand, marl and nightsoil.

2.33 The earliest map observed as part of this assessment which showed the land within the boundary of the Site in detail was the 1845 Tithe Map for Chorlton cum Hardy, see Figure 2. This showed a number of roads converging on the village of Chorlton cum Hardy located c.1km south-east of the Site and set within a parish characterised by enclosed fields.

2.34 The fields around the village included a number under ‘arable’ use but the Site was located in the northern extremity of the parish in an area characterised by fields recorded as being under ‘meadow’ and ‘pasture’. This area is noted to accord with an

area of superficial geology recorded as including deposits of clay (Diamicton), a poor geology for arable use as attested by the prevalence of pasture and meadow within its footprint. A number of water features within the Site and its immediate vicinity are indicative of clay extraction either associated with localised small-scale industry (most likely brick-making) or indicative of the purposeful creation of watering holes for grazing livestock.

2.35 One of these features to the immediate east of the Site boundary appears to have been fed by a watercourse (or wet ditch) which extended into the Site according with the extant ditch cut which is present today. A further watercourse extended parallel to this through the north of the Site.

2.36 Observation of the first edition six-inch edition of the 1845 Ordnance Survey map verifies the depiction of the Site as it was shown on the 1845 Tithe Map. This is shown in Appendix 2. Reference on this map to 'Brick Kiln Pits' to the south-east of the Site verifies the use of the localised clay deposits in brick-making and indicates that the similar features within the boundary of the Site were clay extraction pits for the brick-making industry.

2.37 In accordance with this, the 1922 Ordnance Survey map depicts the presence of a 'Brick Works' to the east of the Site. This map also depicts urban sprawl to the fringes of the Site including a short row of terraces depicted within the Site boundary. Furthermore, the later 1935 map shows extensive clay extraction across the Site, the local reserves of clay being exploited on a larger industrial scale to support the 'Brick Works' to the east of the Site which continued to operate at this time.

2.38 On the 1935 map, the extant east-west ditch present across the centre of the Site appears to have been respected by the extraction activity; the pits apparently avoiding its alignment. However, the other wet ditch/watercourse shown on the earlier maps crossing the north of Site was impacted by the northern extraction area and observation of the 1951 Ordnance Survey appears to indicate that it was routed down the eastern boundary of the Site to drain into the extant east west ditch cut which was marked as a 'drain' by 1951.

2.39 The 1951 map (not reproduced here) also indicated that the extraction activity may have extended further west than that shown in 1935; hachures to the western Site boundary indicating a difference in height between the Site and the land to the west. The ponds/marl pit features shown on the earlier mapping within the Site boundary were also shown to have been infilled/levelled and the housing shown in the south-

east part of the Site by 1922 had been removed. Later mapping shows little or no change within the boundary of the Site; notable change being restricted to the erection of a building in the south-west corner between 1963 and 1971 (maps not reproduced here). This was associated with a sports stadium located outside of the Site boundary and was later demolished.

2.40 In respect to the wet ditches/watercourses crossing/formerly crossing the Site, observation of the earliest Ordnance Survey map dating to 1845 is useful to understand their relation to drainage network within the wider landscape before twentieth century interventions, see Appendix 2.

2.41 On the 1845 OS map the section of wet ditch/watercourse crossing the north of the Site is annotated as the 'Longford Brook', confirming its status as a watercourse. This extended across the landscape flowing west. The section of wet ditch across the centre of the Site, that which is extant within the Site today, was shown extending to the west where it terminated into the Bridgewater Canal. To the east it was shown to extend to Manchester Road where it was fed by a culvert off the Longford Brook.

2.42 Whilst this historic association with the Longford Brook as part of the canal feeder network may have been a relatively recent intervention evidenced by this map, its potential earlier association with the Nico ditch further to the east at Platt Fields is not obvious from this map. There is no obvious continuous alignment of field boundaries which could confirm this hypothesis that the Nico ditch extended to the Site.

2.43 Subsequent to the production of the 1845 Ordnance Survey map, the 1894 Ordnance Survey map shows the termination of the extant ditch at the western boundary of the Site and as stated above its use as a 'drain' off the Longford Brook is marked by 1951. In summary, the water management associated with the Longford Brook and the extant ditch cut appears to have evolved throughout the late nineteenth and twentieth century as the area became urbanised. The fragmentation of the Longford Brook and the termination of the extant ditch cut at the western boundary of the Site most likely being part of a wider drainage strategy implemented to improve ground conditions for residential development. A geo-environmental report for the Site prepared in 2015 referenced the extant ditch as being dry (WSP 2015).

2.44 In more recent years the extant ditch has been truncated by the laying of a gas main parallel to the western boundary of the Site.

Hedgerows

2.45 In assigning a hedgerow as historic, paragraph 5 (a) of the Hedgerow Regulations 1997 reads "The hedgerow is recorded in a document held at the relevant date at a Record Office as an integral part of a field system pre-dating the Inclosure Acts". The 'relevant date' is 1997 (the date of the Regulations). The latest Inclosure Act mentioned in the Short Titles Act 1896 was made in 1845. Therefore the phrase 'pre-dating the Inclosure Acts' should be taken to mean before 1845 (Defra 2002). Furthermore, any hedgerow present along the historic line of a parish or township boundary predating 1845 is considered to be of historic importance as is any hedgerow associated with an archaeological feature recorded on the HER.

2.46 The earliest maps assessed as part of this report date to 1845 and therefore depict boundaries which, if extant today, could be classified as historic.

Site Visit

2.47 A walkover survey of the Site was undertaken in October 2019.

2.48 The Site was inspected to:

- review the presence of historic hedgerows;
- establish the presence of above ground indicators of the presence of archaeology, whether or not previously recorded;
- assess and validate data collected as part of the desk-based assessment; and to
- assess the topography of the Site.

2.49 The Site comprised an irregular shaped plot of land under one parcel of rough pasture inclusive of dense thickets of scrub. Areas under tree cover were present, in-particular in the north and west where a copse of trees and a woodland belt were also present within the boundaries of the Site respectively. The Site access off Longford Road included a tarmacadam footpath and area of hardstanding; the area of hardstanding being bound to its northern side by an earth bund most probably representing the overburden removed for the creation of the area of hardstanding.

2.50 Observations of the alignment of the ditch cut present roughly east-west across the centre of the Site were precluded by the presence of dense thickets of scrub. However informal footpaths crossing its footprint on a roughly north-south trajectory indicated that a shallow and dry ditch profile was present. This profile was noted to extend beyond the Site boundary to the east. To the west however, modern playing fields had levelled any remains and projection of the ditch, and within the western boundary of

the Site it was truncated by the known alignment of the gas main. No associated bank was observed within the Site.

2.51 With respect to historic hedgerows, no hedgerow boundaries according with the 1845 maps were observed within the Site.

3 FIELDWORK

3.1 To provide further information on the nature of the ditch cut crossing the Site on an east-west alignment, a minimally intrusive programme of archaeological fieldwork has been undertaken as part of this assessment. The fieldwork, comprising an earthwork survey and an augur survey, was approved by the Greater Manchester Archaeology Advisory Service.

Earthwork Survey

3.2 On the 4th and 5th December 2019, an earthwork survey was undertaken by Wardell Armstrong LLP to record the current preservation of the ditch section.

3.3 Prior to survey, the ground cover had been reduced by the client to a height of 150mm across the survey area, however three small trees remained due to ecological constraints resulting in small portions unavailable for survey. Brambles had been cut back to the edge of the break of slope on either side and no visible extant bank was evident.

3.4 A portion of the ditch to the west had previously been backfilled during previous works during installation of a gas pipeline. Further west beyond this infilled section, the projection of the ditch was no longer visible as an earthwork. Mature trees were observed within the expected ditch projection and beyond the Site boundary, the alignment was obliterated by the level surface of a playing field. This section was therefore omitted from the survey. To the east, the ditch beyond the Site boundary was visible albeit very overgrown and inaccessible, located beyond a palisade fence within private land. The continuation to the east was therefore also omitted from the survey.

3.5 The area of visible ditch that was available for survey encompassed a length of approximately 26m, a width of 10 to 12m and an area of approximately 375m^2, see Figure 3.

3.6 **Transect survey (Figures 8 -11):** Four north to south aligned transects across the ditch profile were recorded using a Trimble R10 GPS. Data was recorded three dimensionally every 150mm using a tape measure to ensure linear and regular data readings.

3.7 **Aerial Survey:** In order to ensure that accurate photogrammetric data was collected and georeferenced, 11 ground control points (GCPs) were laid out around the

perimeter and centrally along the length of the ditch. These GCPs were recorded using a Trimble R10 GPS.

3.8 Aerial images were captured using a DJI Matrice 200 UAV fitted with a 21 megapixel DJI Zenmuse X5S full frame camera with a 15mm lens. The images were georeferenced and stitched together to create a composite image using specialist software, the data was also used to create a digital elevation model (DEM) for subsequent processing using GIS software.

3.9 **Data Presentation:** The digital elevation model was processed to create georeferenced hill shade and contour imagery accurate to 0.1m (Figures 4-6).

3.10 **Observations:** Despite the limited section of accessible earthwork there were clearly the remains of a 10m – 12m wide negative earthwork visible on an east to west alignment. The extant depth of the earthwork was approximately 0.5m. Transects were numbered from Transect 1 in the west to Transect 4 in the east, Transects 1 and 2 were fairly uniform with regular equally sloping north and south facing sides, Transects 3 and 4 appeared marginally steeper on the south facing edge (Figures 8-11).

Auger Survey

3.11 On the 4th December 2019, environmental samples were collected from four boreholes using a hand auger along the base of the ditch.

3.12 Whilst the topographic profile of the extant ditch remains were shallow and U shaped with shallow sloping sides and a slightly rounded base the boreholes suggest that there is up to 1 metre of deposit within the ditch. Modern debris was evident within the deposit matrix including ceramic building material, scrap metal and discarded tree branches.

Borehole results:

Borehole 1 (Figure 6)

Easting: 381076.837 Northing: 394575.478
Surface OD height (m): 26.381
Maximum Depth: 1.08m

Context Number	Context Type	Description	Thickness	Discussion
1000	Topsoil	Loose dark brown clayey loam with abundant rooting and modern waste	0.3m	Upper ditch-fill containing humic topsoil containing organic material and modern waste.
1001	Deposit	Soft greyish brown sandy clay with rare rooting and coarse gravels	0.3m	Ditch-fill
1002	Deposit	Firm light grey sandy silt	0.48m	Lower ditch fill or natural substrate, unable to bore deeper due to solid surface

Borehole 2 (Figure 7)

Easting: 381084.477 Northing: 394572.451

Surface OD height (m): 26.362

Maximum Depth: 0.62m

Context Number	Context Type	Description	Thickness	Discussion
2000	Topsoil	Loose dark brown clayey loam with abundant rooting and modern waste	0.3m	Upper ditch-fill containing humic topsoil containing organic material and modern waste.
2001	Deposit	Firm greyish brown silty clay with coarse small subangular stones.	0.3m	Ditch-fill.
2002	Deposit	Firm bluish grey sandy clay	0.2m	Lower ditch fill or natural substrate, unable to bore deeper due to solid surface

Borehole 3 (Figure 8)

Easting: 381088.788 Northing: 394571.863

Surface OD height (m): 26.397

Maximum Depth: 1.0m

Context Number	Context Type	Description	Thickness	Discussion
3000	Topsoil	Loose dark brown clayey loam with sparse rooting.	0.35m	Humic upper ditch-fill.

Context Number	Context Type	Description	Thickness	Discussion
3001	Deposit	Firm greyish brown silty clay with rare small subangular stones	0.25m	Ditch-fill.
3002	Deposit	Soft mid grey clayey sand	0.3m	Lower ditch-fill
3003	Natural Substrate	Firm wet yellow sand	0.1m	Natural geological substrate

Borehole 4 (Figure 9)

Easting: 381096.247 Northing: 394568.851

Surface OD height (m): 26.5

Maximum Depth: 0.9m

Context Number	Context Type	Description	Thickness	Discussion
4000	Topsoil	Friable dark brown clayey loam containing occasional flecks of brick	0.3m	Upper ditch-fill.
4001	Deposit	Soft greyish brown sandy clay with no inclusions	0.6m	Lower ditch-fill, water table reached below this deposit

3.13 The upper ditch-fill was generally contiguous across all four transects, comprising organic material and rooting. The upper ditch-fill/ topsoil observed within boreholes one and two also contained modern waste material such as brick.

3.14 Below the upper ditch-fill was a deposit of firm greyish brown silty clay which was present in all four boreholes. This deposit was between 0.25m and 0.3m thick in boreholes one to three and 0.6m thick in borehole 4.

3.15 The lower ditch-fills were comprised of firm grey sandy silts in boreholes one and two, soft mid grey clayey sand in borehole three and not present in borehole 4.

3.16 Sampling in boreholes one and two were limited by a solid surface reached 1.08m and 0.62m respectively. It is possible that the solid surface was capping stones for a drain or culvert. Natural sand was reached at 1.0m in borehole three and the water table was reached at 0.9m deep in borehole 4.

3.17 The depth of deposit across the four boreholes suggests that the original ditch profile was up to 1m deeper than the current profile.

Borehole Environmental Sample Results:

3.18 A series of samples were taken from cores that were taken as part of the auger survey on Ryebank Fields at Chorlton. The survey was undertaken in order to determine depths of deposits and dating of the ditch phases.

3.19 This report presents the results of the assessment in accordance with Campbell et al. (2011) and English Heritage (2008).

Methodology

3.20 Four cores were taken using a hand auger employing an open gouge for the recovery of small grab samples to aid in addressing points mentioned above.

3.21 Table 1 (Appendix 3) provides the depths and resistance/abandonment levels.

3.22 Upon receipt of these samples, the Wardell Armstrong environmental laboratory undertook an assessment. The colour, lithology, weight and volume of each sample was recorded using standard Wardell Armstrong pro forma recording sheets. cf. Table 2 (Appendix 3). The samples were processed with 500-micron retention and flotation meshes using the Siraf method of flotation (Williams 1973). Once dried, the residues from the retention mesh were sieved to 4mm and the artefacts and ecofacts removed from the larger fraction (cf. Table 3 Appendix 3). The smaller fraction was scanned with a magnet for microslags such as hammerscales. This fraction was then examined for smaller artefacts. Once fully sorted both residues were discarded as they were void of any archaeological material.

3.23 The flots from the washovers of processing the material were examined using a stereo microscope (x45 magnification); the results are presented in Table 4 (Appendix 3).

Results

3.24 Six samples were taken from four cores. The depth of resistance or abandonment are presented in Table 1 (Appendix 3).

Borehole 1

3.25 The sample <1> from 300-600mm segment of the core presented 674g (<1l) of sandy silt sediment and contained coal and glass chips. The magnetised matter contained no microslags. The more clayier sandy sample, <2> (from 600-1000mm), contained coal and a very small (<1g) assemblage of indeterminate charcoal and four charred elder (Sambucus nigra) seeds. The magnetised matter also contained no microslags.

Borehole 2

3.26 This core presented only one sample, <3> (300-600mm) before resistance was met. Coal, ceramic building material (CBM) and glass was recovered from the sample. The magnetised matter contained microslags in the form of both plate and spherical hammerscale.

Borehole 3

3.27 Two samples, <4> (350-600mm) and <5> (600-900mm) were taken before abandonment. These were all clayey sediments and yielded glass, CBM, coal and microslags in the form of both plate and spherical hammerscale.

Borehole 4

3.28 A single clayey sample <6> (300-900mm) was taken before abandonment. Coal, CBM and microslags in the form of both plate and spherical hammerscale were observed. A single example of a charred sedge (Carex sp. (trig.) was also present.

Discussion

3.29 The presence of coal may be attributed to the local geology however, most of the samples presented very small, un-abraded, glass chips and CBM. The presence of the magnetised matter along with these small artefactual remains may allude to the composition of material being moved from another location to form a levelling layer. These are most likely to be post medieval in date; they are unlikely to be medieval.

Recommendations

3.30 No further work is recommended on the material and all artefactual and ecofactual material may be discarded. No material is suitable for radiocarbon dating.

4 IDENTIFICATION AND ASSESSMENT OF IMPACTS

4.1 Future development within the boundary of the Site would have the potential to cause direct impacts to non-designated heritage assets of an archaeological nature through ground disturbance.

4.2 The heritage interests of potential archaeological receptors are described below. The interests are described in accordance with NPPF terminology; archaeological, architectural, historic or artistic. The importance of given interests will also be cited in accordance with the methodology presented in Appendix 4 which describes the methodology for assessing the magnitude of impact and the overall significance of impact.

4.3 Potential impacts will be assessed against a parameter plan as set out by the Manchester Metropolitan University's Development Framework for the Site (MMU 2019) which is anticipated to be representative of any future development proposals, see Appendix 5.

Construction Impacts

4.4 The archaeological potential of the Site is limited. This is due to the historic exploitation of the localised deposits of clay which are known to have extended across the Site, site investigations having revealed depths of infill/made ground up to 12.7m below ground level (e3p 2020). This wholesale ground disturbance would have removed and/or severely truncated any archaeological remains should they have been present. Only the east-west ditch cut through the centre of the Site is known to have been relatively undisturbed by the historic clay extraction. Other areas of potential survival may be located in the western fringe of the Site (if extraction did not extend to the Site's western boundary) and the south-eastern corner of the Site where the presence of early twentieth century housing may have prevented wholesale extraction albeit the construction of the houses themselves would have caused the removal or truncation of any earlier archaeological remains.

4.5 In summary the potential archaeological receptors are:

- The east-west ditch cut present within the centre of the Site;
- Potential buried remains of early twentieth century terraces in the south-east corner of the Site; and
- Unknown buried remains along the edges of the extant ditch cut and within the western fringe of the Site.

4.6 **Twentieth century residential remains:** The potential remains of early twentieth century housing within the south-eastern corner of the Site are not considered to be of any more than negligible to low (local) importance and will not be discussed further beyond the impact prediction set out in Table 4.1 below.

4.7 **Ditch remains:** The extant ditch cut which extends across the centre of the Site is fragmented from its original network, whether this be a post medieval drainage network or an earlier ditch network of unknown function. By 1894 it was terminated at the western boundary of the Site and subsequent to this its western extremity within the Site has been heavily truncated by earthworks associated with the laying of a gas main. Whilst the extant ditch extends outside of the Site boundary to the east, its survival is limited as a consequence of extensive residential development with the earthworks of the ditch no longer reaching Manchester Road at which point it is historically known to have been taken into the drainage network by the Longford Brook; this association with the organised drainage network being reasserted in the 1930s and in 1951. The ditch is now dry and silted.

4.8 Its reputed association with the Nico ditch is uncertain on cartographic grounds, there being no obvious tracing of an historic network which would join it with the western-most known section at Platt Fields. It is possible that the ditch was more likely associated with the Carr Ditch, a ditch of later date which extended to the west of the Site.

4.9 The extant ditch cut present across the centre of the Site has been identified to be heavily silted by at least 1m of deposit. Environmental analysis of this deposit and the field observations of the archaeologist undertaking the auguring indicate that this deposit is of post medieval date, there being no evidence that the extant ditch is earlier in date.

4.10 Two of the boreholes taken through the ditch deposit hit a solid surface at depths of 0.8-1.08m. This may be the remains of a culvert which could have been inserted into the ditch around the time of the 1930s clay extraction when it is known that the Longford Brook was re-routed via a culvert down the eastern boundary of the Site and into the ditch cut which by 1951 was annotated as a ‘drain’. The potential use of the ditch cut in this way demonstrates relatively modern interventions which, if it were an extension of the Nico ditch, would have affected its preservation.

4.11 The profile of the ditch as recorded by the earthwork survey also indicates that, if it were an extension of the Nico ditch, that it has undergone significant change. Its

recorded width at 10-12m is substantially in excess of the 3-4m wide profile at known Nico sections.

4.12 Overall, whether the ditch was not part of the Nico and is in fact relatively recent in origin potentially associated with the Carr Ditch, or, whether the extant ditch and its archaeological deposits represent a series of re-cuts that have obliterated a medieval precursor associated with the Nico Ditch is not known. Regardless of whichever of these scenarios is accurate, its surviving archaeological remains would not be considered to be of higher than low/medium significance. It is either a fragmented post medieval drainage ditch of low importance or a fragmented and heavily truncated medieval ditch which may be considered to be of medium (regional) importance due to its potential association with a larger ditch network known as the Nico ditch but which cannot be considered to be of higher importance due to its poor preservation.

4.13 **Unknown buried remains:** The presence of other remains within the boundary of the Site would be restricted to pockets not affected by clay extraction. These are likely to be limited to the immediate vicinity of the extant east-west ditch. Other areas potentially unaffected could be the western fringes of the Site and the area of the Site which was under a terrace row in the 1930s albeit its later demolition may have been undertaken to facilitate clay extraction in full. This is uncertain.

4.14 Nevertheless, apart from the extant ditch, there is little evidence to indicate preceding activity within the boundary of the Site prior to its enclosure in the nineteenth century for pasture. It is highly likely that in preceding periods the Site was located within a marginal area and that if the extant ditch was located across the Site from the early medieval/medieval period as either a drainage/territorial or defensive feature that it was a simply a feature of linear form which provided a landscape boundary only. There is no evidence that it provided enclosure for specific activity within the boundary of the Site. Remains, if present, would not be anticipated to be of anything other than of negligible to medium importance, the potential importance of remains within the former terrace footprint being restricted to that of negligible due to them being likely highly truncated as a consequence of the residential development alone.

Table 4.1: Physical impact to heritage assets			
Receptor	**Interest and Significance of Interest**	**Magnitude of Impact**	**Significance of Impact**
Ditch cut extending east-west through the Site	Archaeological: **Low to Medium**	The parameter plan shows a green buffer zone along the extant ditch cut which extends across the width of its footprint. It is anticipated that within this green space, the extant ditch may be utilised as part of a drainage network which may cause some limited disturbance dependent upon design solutions. Magnitude of impact = **Negligible to Moderate**	**Slight Adverse**
Remains of twentieth century terraces	Archaeological: **Negligible**	The footprint of the former terrace straddles an area highlighted as a green buffer zone and an area highlighted for low density development. Magnitude of impact = **up to Major**	**Slight Adverse**
Unknown buried remains along the Site's western fringes and in the immediate vicinity of the extant ditch cut	Archaeological: **Low to Medium**	The parameter plan along the edges of the extant ditch and within the western fringes of the Site comprises a green buffer zone and a Longford Park Extension. Ground disturbance within these distinct areas would be anticipated to be **negligible**.	**Slight Adverse**
Other unknown buried remains within the former footprint of the terraced row	Archaeological: **Negligible**	The anticipated disturbance within the footprint of the terraced row is as described above **up to Major**.	**Slight Adverse**

5 FURTHER WORK AND POTENTIAL MITIGATION

5.1 With due regard to the previous disturbance within the boundary of the Site and the proposed parameters plan which indicates that future development would predominantly stand off from areas which have not been affected by clay extraction, specifically an extant east-west ditch which may or may not be present along the alignment of a medieval precursor, it is anticipated that no further archaeological fieldwork would be required at the predetermination stage of any future planning application.

5.2 Furthermore, it is anticipated that the necessity of any archaeological condition attached to any forthcoming permission would be dependent upon the design of any groundworks such as SUDS within the proposed green buffer along the alignment of the extant east-west ditch and its immediate vicinity. A watching brief would be proportionate if ground disturbance would be minimal, whereas some pre-commencement recording through limited trial trenching may be necessary if SUDS works across/ within or alongside the extant ditch are more intrusive. This would provide suitable mitigation for remains which are not of national importance.

6 CONCLUSIONS

6.1 Baseline information was gathered from the Greater Manchester Historic Environment Record, Historic England data sets, Trafford Archives and a Site walkover survey.

6.2 There is no evidence to indicate the presence of archaeological remains within the boundary of the Site which would be of high/national importance. As such there is no evidence to reasonably indicate the potential for the presence of archaeological remains which would preclude development.

6.3 It is anticipated that the parameter plan for future development as presented within Appendix 4 provides a viable scheme on archaeological grounds, it having been demonstrated by this report that the impact to potential archaeological remains could be suitably mitigated by fieldwork undertaken, as necessary, and in proportion to detailed design proposals as a reserved matter to any outline consent.

7 BIBLIOGRAPHY

Documentary Sources

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Cartographic Sources

- Chorlton Cum Hardy Tithe Map 1845.
- Ordnance Survey 1845 – present.

Appendix 1

Historic England Correspondence

Application Name: **Nico Ditch, Ryebank Fields, Chorlton-cum-Hardy, Manchester**

Number: 1459234
Type: New
Heritage Category: Scheduling

Address:

This section of the Nico Ditch is located on Ryebank Fields, Chorlton-cum-Hardy, South Manchester; access is from the junction of Longford Road and Ryebank Road; the nearest postcode is M21 9WW. Approximate longitude and latitude: (53.4476118,-2.2862258)

County	District	District Type	Parish
	Manchester	Metropolitan Authority	Non Civil Parish
	Trafford	Metropolitan Authority	Non Civil Parish

Recommendation: **Reject**

Assessment

CONTEXT & BACKGROUND

Historic England has been asked to assess a length of the Nico ditch in Chorlton cum Hardy (Manchester) for scheduling. The site abuts, but is not included within, the Longford Conservation Area. The application has been prompted by proposals for development on Ryebank Fields by the owners (Manchester Metropolitan University) and preparatory site investigations. Roughly half of this length of the ditch is within Ryebank Fields. Two other lengths of the Nico ditch are scheduled, at Platt Fields Park and Denton Golf Course.

HISTORY & DETAILS

The Nico Ditch is a linear boundary thought to be of the Anglo-Saxon period; its first mention in records is in a grant of 1190-1212 and its name derives from the Old English 'micel' meaning 'great'. This section is to the west of the traditionally-agreed western terminus at Hough Moss. However, C19 mapping confirms that to the west of the moss, various field boundaries and lanes respected the continued line of the known ditch.

The 1845 Ordnance Survey (OS) 1:10,560 map indicates a watercourse on the line of the ditch. Close to the eastern edge of the current fields, this was diverted to the south to supply a small lake (possibly flooded former extraction pits), although the continued line was also marked between the start and end of the diversion (roughly corresponding to the current northern boundary of the school with the fields). The 1894 1:2,500 OS map shows the same lake and diverted course, but no feature between the head and tail leats for the lake. The 1907 equivalent however shows the line continuing between the leats. The 1951 1:1,250 OS map shows the Longford Brook diverted southwards along the eastern boundary of the fields to meet the ditch, and marks the line of the ditch as 'drain'. The Longford Brook is no longer marked on the 1963 equivalent. OS maps to the present day mark this length of the ditch as an open watercourse, labelled 'drain'.

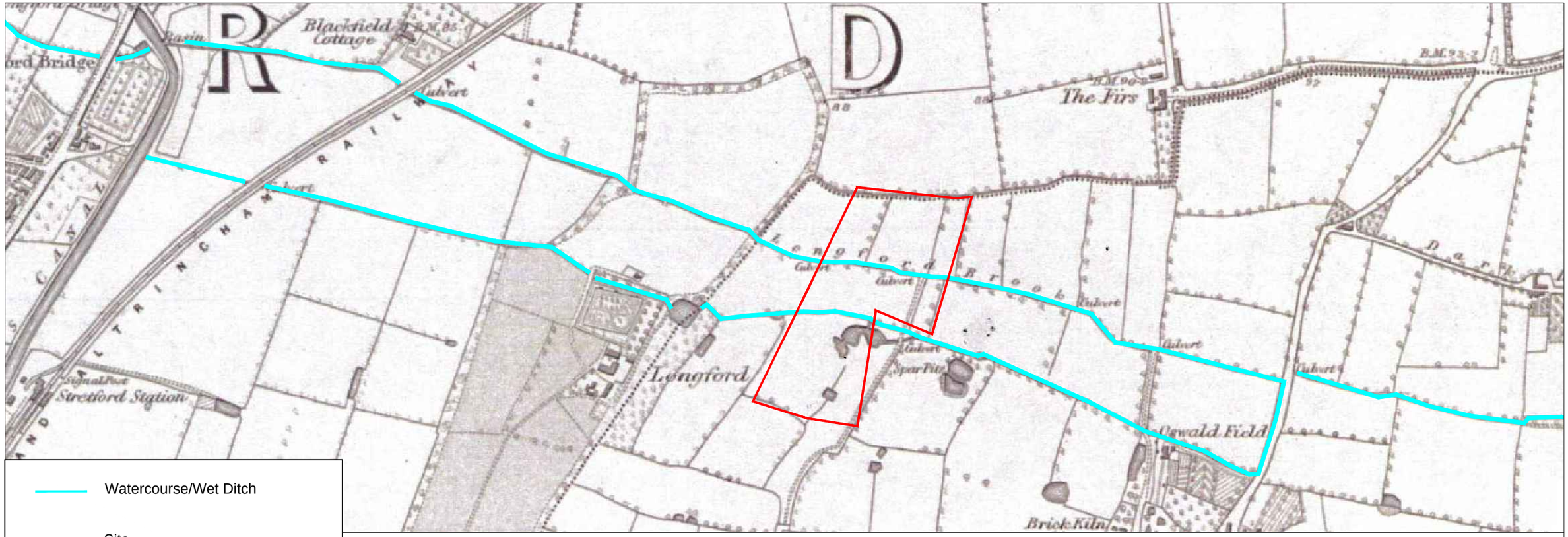
Excavations carried out across the Nico Ditch in Denton, Reddish, Levenshulme and Platt Fields showed a ditch profile 4 to 4.5m wide and about 1.5m deep. These excavations also indicated that the ditch had silted and been recut on a number of occasions.

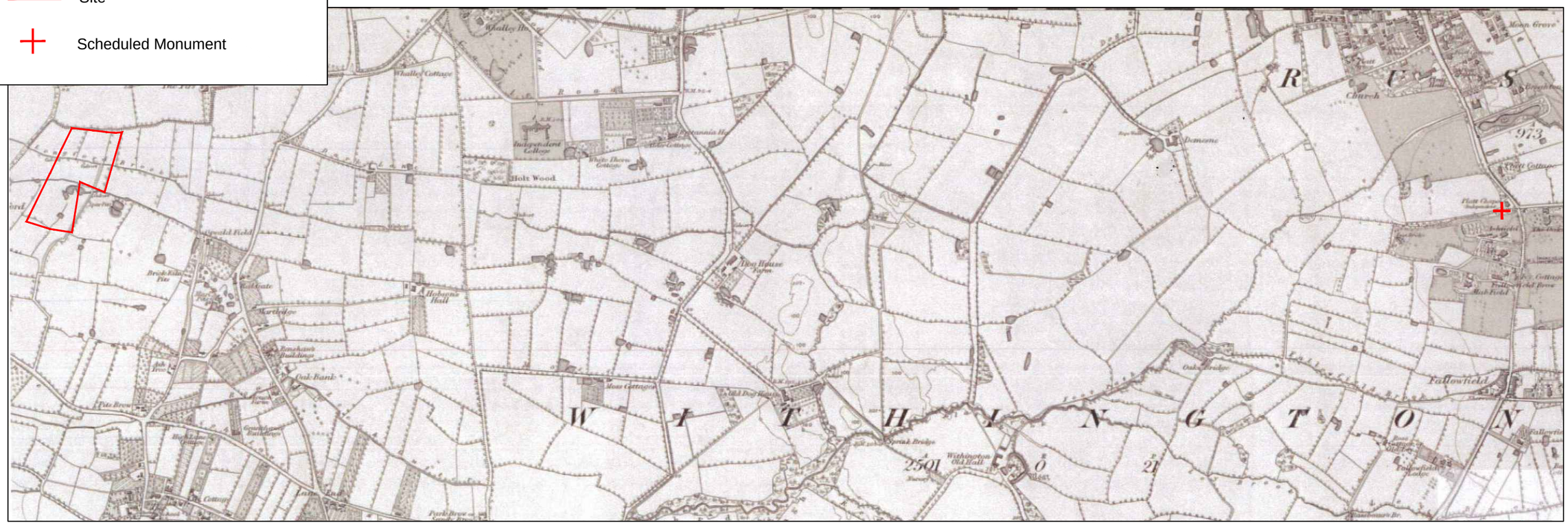
Although not recommended for scheduling at this time, this site is clearly of strong local importance. If future investigations provide evidence of the site's potential national importance then it could be reassessed for scheduling at that time.

Appendix 2

1845 Ordnance Survey

1845 Ordnance Survey





Appendix 3
Environmental Sampling Tables

Appendix 3 Environmental Sampling Tables

Table 1: borehole data			
BH	**c**	**<>**	**depths**
1	1001	1	300-600mm
	1002	2	600-1000mm
			resistance 1000mm
2	2001	3	300-600mm
			resistance 620mm
3	3001	4	350-600mm
	3002	5	600-900mm
			abandoned at 1000mm
4	4001	6	300-900mm
			abandoned at 900mm

Key: BH=borehole number, C= context, <>= sample number

Table 2: sample data															
C	**<>**	**CP**	**TP**	**MP**	**PW**	**PV**	**CS**	**TS**	**Components (sorting)**	**A**	**SA**	**SR**	**R**	**SW**	**SV**
1001	1	Dark Black	Loose	Sandy Silt	674g	<1	Pale Grey	Loose	Stone>1cm 15%: stone<1cm 55%: sand 30%	-	yes	-	-	216	180
1002	2	Very dark brown	Plastic	Clayey sand	1250g	<1	Pale brownish grey	Loose	Stone>1cm 20%: stone<1cm 50%: sand 30%	-	yes	-	-	251	180
2001	3	Very dark greyish brown	Plastic	Clay	1468g	<1	Pale grey	Loose	Stone>1cm 10%: stone<1cm 65%: sand 25%	-	yes	-	-	170	120
3001	4	Very dark brown	Plastic	Silty clay	570g	<1	Pale reddish brown	Loose	Stone>1cm 40%: stone<1cm 35%: sand 25%	-	yes	-	-	130	100

Table 2: sample data

C	<>	CP	TP	MP	PW	PV	CS	TS	Components (sorting)	A	SA	SR	R	SW	SV
3002	5	Dark greyish brown	Loose	Clay	830G	<1	Pale greyish white	Loose	Stone>1cm 20%: stone<1cm 30%: sand 50%	-	yes	-	-	107	70
4001	6	Very dark greyish brown	Plastic	Clayey silt	1448g	<1	Pale greyish white	Loose	Stone>1cm 10%: stone<1cm 25%: sand 65%	-	yes	-	-	118	85

Key: C=context, <>= sample code, CP=colour of pre-processed sediment, TP= texture of pre-processed sediment, MP= matrix of pre-processed sediment, PW=weight (g) of pre-processed sediment, PV= volume (l) of pre-processed sediment, CS= colour of dried retent, TS= texture of dried retent, A, SA, SR and R =shape of stone A=angular, SA= sub-angular, SR=sub-rounded, R=rounded, SW= weight (g) of dried retent, SV=volume (ml) of dried retent

Table 3: finds from samples

C	<>	Material	Qty 1-10	Qty 11-50	Qty 51-150	Qty 151-250	Qty >250	Weight (g)	Weight <1g	>4mm	<4mm
1001	1	Magnetic matter	-	-	-	-	yes	8	-	-	yes
1001	1	Glass	yes	-	-	-	-		yes	yes	-
1001	1	Coal	-	yes	-	-	-	5	-	yes	-
1002	2	Magnetic matter	-	-	-	-	yes	9	-	-	yes
1002	2	Coal	-	yes	-	-	-	5	-	yes	-
2001	3	Magnetic matter	-	-	-	yes	-	3	-	-	yes
2001	3	Glass	-	yes	-	-	-		-	-	yes
2001	3	Glass	yes	-	-	-	-	3	-	yes	-
2001	3	Coal	-	-	yes	-	-	9	-	yes	-
2001	3	CBM	-	yes	-	-	-	3	-	yes	-
3001	4	Magnetic matter	-	-	yes	-	-	1	-	-	yes
3001	4	Glass	-	yes	-	-	-		-	-	yes

Table 3: finds from samples											
C	**<>**	**Material**	**Qty 1-10**	**Qty 11-50**	**Qty 51-150**	**Qty 151-250**	**Qty >250**	**Weight (g)**	**Weight <1g**	**>4mm**	**<4mm**
3001	4	Glass	yes	-	-	-	-	4	-	yes	-
3001	4	Coal	-	yes	-	-	-	8	-	yes	-
3001	4	CBM	yes	-	-	-	-	1	-	yes	-
3002	5	Magnetic matter	-	-	yes	-	-		yes	-	yes
3002	5	Glass	-	yes	-	-	-		-	-	yes
3002	5	Glass	yes	-	-	-	-	5	-	yes	-
3002	5	Coal	-	yes	-	-	-	5	-	yes	-
3002	5	CBM	yes	-	-	-	-	2	-	yes	-
4001	6	Magnetic matter	-	-	-	yes	-	2	-	-	yes
4001	6	Coal	-	yes	-	-	-	3	-	yes	-
4001	6	CBM	yes	-	-	-	-	1	-	yes	-

Key: c=context, <>= sample code, >/<4mm= denotes with fraction of dried retents they originated from

Table 4: flot data								
C	**<>**	**Wt flot (g)**	**V flot (ml)**	**Identifiable plant remains**	**Charcoal (g)**	**Components**	**EWC**	**Comments**
1001	01	0.3	5	-	-	Roots 50%: wood 40%: sand 10%	-	-
1002	02	0.4	5	4	<0.01	Charcoal 10%: very fine rootlets 30%: rootlets 30%: wood 30%	1	-
2001	03	0.5	5	-	-	Very fine rootlets 50%: wood 30%: coal 20%	-	-
3001	04	0.1	1	-	-	Wood 30%: very fine rootlets 60%: sand 10%	-	-

Table 4: flot data								
C	**<>**	**Wt flot (g)**	**V flot (ml)**	**Identifiable plant remains**	**Charcoal (g)**	**Components**	**EWC**	**Comments**
3002	05	<0.01	1	-	-	Wood 50%: very fine rootlets 40%: sand 10%	-	-
4001	06	0.7	10	1	-	Wood 80%: very fine rootlets 10%: rootlets 10%	-	BC - 3

Key= c= context, <>= sample number, EWC= earthworm capsules (actual count), BC= beetle components (count)

Appendix 4

Impact Assessment Methodology

Appendix 4: Impact Assessment Methodology

In ascribing levels of **importance** to heritage assets, the Design Manual for Roads and Bridges, Volume II, Section 1, Part 4 (Highways Agency 2019) has been used, see Table 1 below.

The **magnitude of impact** is measured from the condition that would prevail in a 'do nothing' scenario and it is assessed without regard to the importance of the receptor (Highways Agency 2007).

Heritage assets are susceptible to numerous forms of development during the construction process and as a consequence of the operational life of the proposed development. These can be either direct (physical) impacts or indirect (non-physical) impacts.

The worst magnitude of impact would be complete physical removal of the heritage asset. In some instances it is possible to discuss percentage loss when establishing the magnitude of impact. However complex receptors will require a much more sophisticated approach (Highways Agency 2007).

In ascribing the magnitude of impact, guidance presented in the Design Manual for Roads and Bridges, Volume II, Section 1, Part 4 (Highways Agency 2019) has been used, see Table 2 below.

The **significance of impact** is devised by cross referencing the importance of the receptor with the magnitude of the impact, see Table 3. The impacts which are in grey are considered significant impacts which would constitute substantial harm.

References

- Department for Communities and Local Government. (2014) *Planning Practice Guidance*
- English Heritage. (2012 revision) *PPS5 Planning for the Historic Environment: historic environment practice guide*
- Highways Agency. (2019) *Design Manual for Roads and Bridges, Volume 11, Section 3, Part 2*
- Ministry of Housing, Communities and Local Government. (2018) National planning policy framework

Table 1: Establishing the importance of a heritage asset	
Value (sensitivity)	**Typical description**
Very High	Very high importance and rarity, international scale and very limited potential for substitution
High	High importance and rarity, national scale, and limited

Table 1: Establishing the importance of a heritage asset	
Value (sensitivity)	**Typical description**
	potential for substitution
Medium	Medium or high importance and rarity, regional scale, limited potential for substitution.
Low	Low or medium importance and rarity, local scale
Negligible	Very low importance and rarity, local scale

Design Manual for Roads and Bridges, Volume II, Section 1, Part 4 (Highways Agency 2019)

Table 2: Establishing the magnitude of impact		
Magnitude of impact (change)		**Typical description**
Major	Adverse	Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements.
	Beneficial	Large scale or major improvement of resource quality; extensive restoration; major improvement of attribute quality.
Moderate	Adverse	Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements.
	Beneficial	Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality.
Minor	Adverse	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements.
	Beneficial	Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring.
Negligible	Adverse	Very minor loss or detrimental alteration to one or more characteristics, features or elements.
	Beneficial	Very minor benefit to or positive addition of one or more characteristics, features or elements.
No change		No loss or alteration of characteristics, features or elements; no observable impact in either direction.

Design Manual for Roads and Bridges, Volume II, Section 1, Part 4 (Highways Agency 2019)

Table 3: Establishing the significance of impact						
Value/Importance	**Very High**	Neutral	Slight	Moderate/large	Large or very large	Very large
	High	Neutral	Slight	Slight or moderate	Moderate or large	Large or very large
	Medium	Neutral	Neutral/slight	Slight	Moderate	Moderate or large
	Low	Neutral	Neutral or slight	Neutral or slight	Slight	Slight or moderate
	Negligible	Neutral	Neutral	Neutral or slight	Neutral or slight	Slight
		No change	**Negligible**	**Minor**	**Moderate**	**Major**
		Magnitude of impact				

Design Manual for Roads and Bridges, Volume II, Section 1, Part 4 (Highways Agency 2019

In some cases the significance of impact is shown as being one of two alternatives. In these cases a single description should be decided upon with reasoned judgement for that level of significance chosen.

Table 4: Significance categories	
Significance Category	**Typical Description**
Very large	Effects at this level are material in the decision-making process.
Large	Effects at this level are likely to be material in the decision-making process.
Moderate	Effects at this level can be considered to be material decision-making factors.
Slight	Effects at this level are not material in the decision-making process.
Neutral	No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.

Design Manual for Roads and Bridges, Volume II, Section 1, Part 4 (Highways Agency 2019

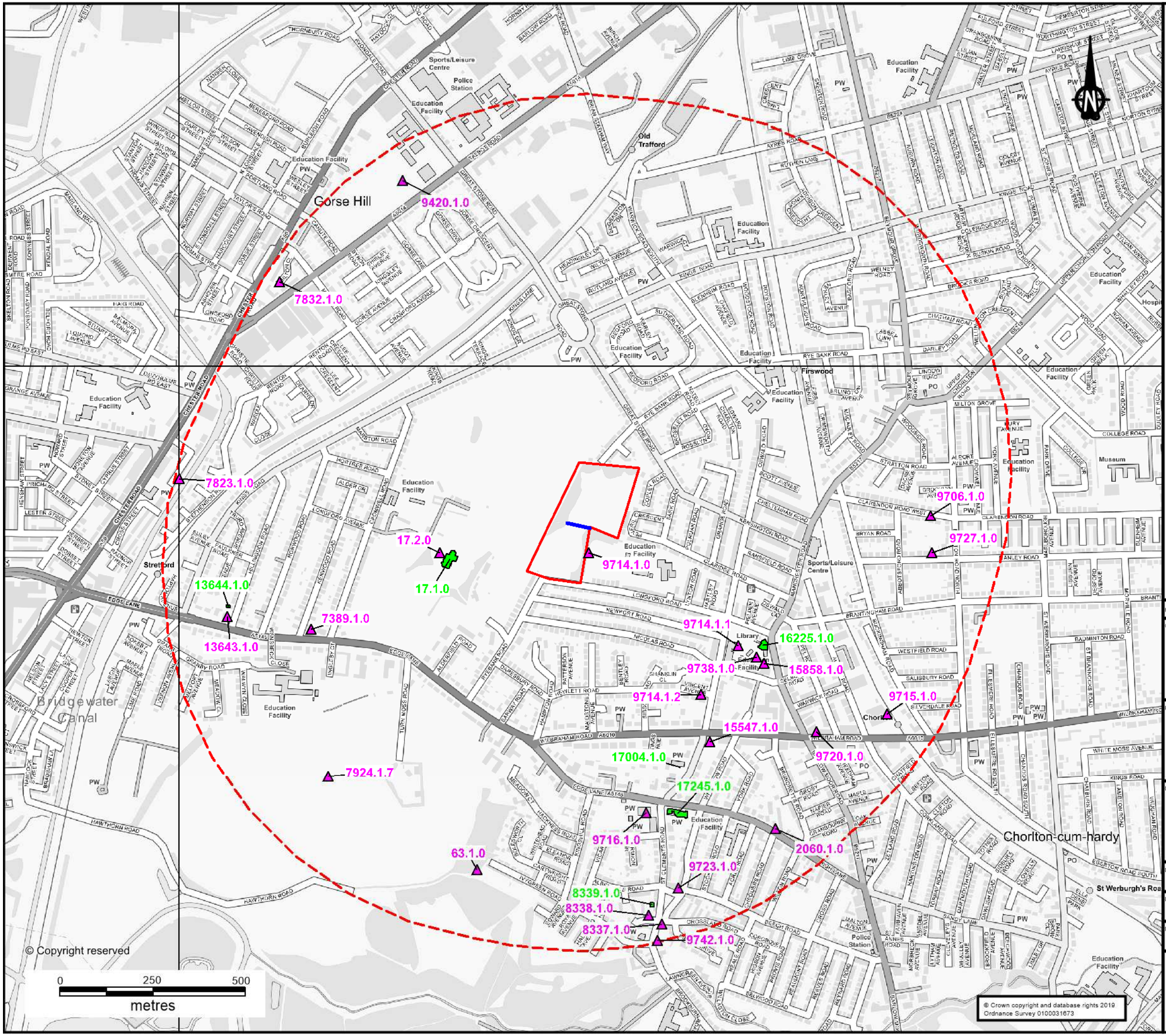
Appendix 5
Parameters Plan (MMU 2019)

4.2 Development Framework Diagram

The Development Framework diagram is illustrated opposite.

It is supported by the guiding development and design parameters that are set out section 4.3.

FIGURES



KEY

- Site Boundary
- Search Area (1km)
- Ditch
- HER Entry

13643.1.0 Springfield House
13644.1.0 Stable/Barn Cottage
15547.1.0 Lloyd and Platts Hotel (LB)
15858.1.0 The Sedge Lynn PH (LB)
16225.1.0 Library (LB)
17.1.0 Site of Longford Hall
17.2.0 Longford Park
17004.1.0 War memorial (LB)
17245.1.0 Roman Catholic Church (LB)
2060.1.0 Chorlton Village Core
63.1.0 Stone Axe
7389.1.0 Union Church (LB)
7823.1.0 Site of Brick Kiln Field
7832.1.0 Site of Gorse Hill Farm
7924.1.7 Turn Moss (natural)
8337.1.0 Gatehouse and Bell Turret (LB)
8338.1.0 Higginbottom Farmhouse (LB)
8339.1.0 Green's Farmhosue
9420.1.0 Gorse Hill Park
9706.1.0 Site of Darklane Farm
9714.1.0 Site of Clay Quarry Pits & Brickworks
9714.1.1 Site of Kiln Field
9714.1.2 Site of Brick Field
9715.1.0 Railway Station
9716.1.0 Church (LB)
9720.1.0 Site of Renshaws Building
9723.1.0 Horse & Jockey Inn
9727.1.0 Site of Tan Pit Field
9738.1.0 Site of Redgate Farm
9742.1.0 Site of Church

REVISION	DETAILS	DATE	DRAWN	CHK'D	APP'D

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Figure 1
Ryebank Road, Chorlton. Manchester

DRAWING TITLE

Site Location and Heritage Assets

DRG No	REV
GM10801/001	A

DRG SIZE	SCALE	DATE
A3	1:10,000 @ A3	Nov 2019

DRAWN BY	CHECKED BY	APPROVED BY
CLD	CM	CM

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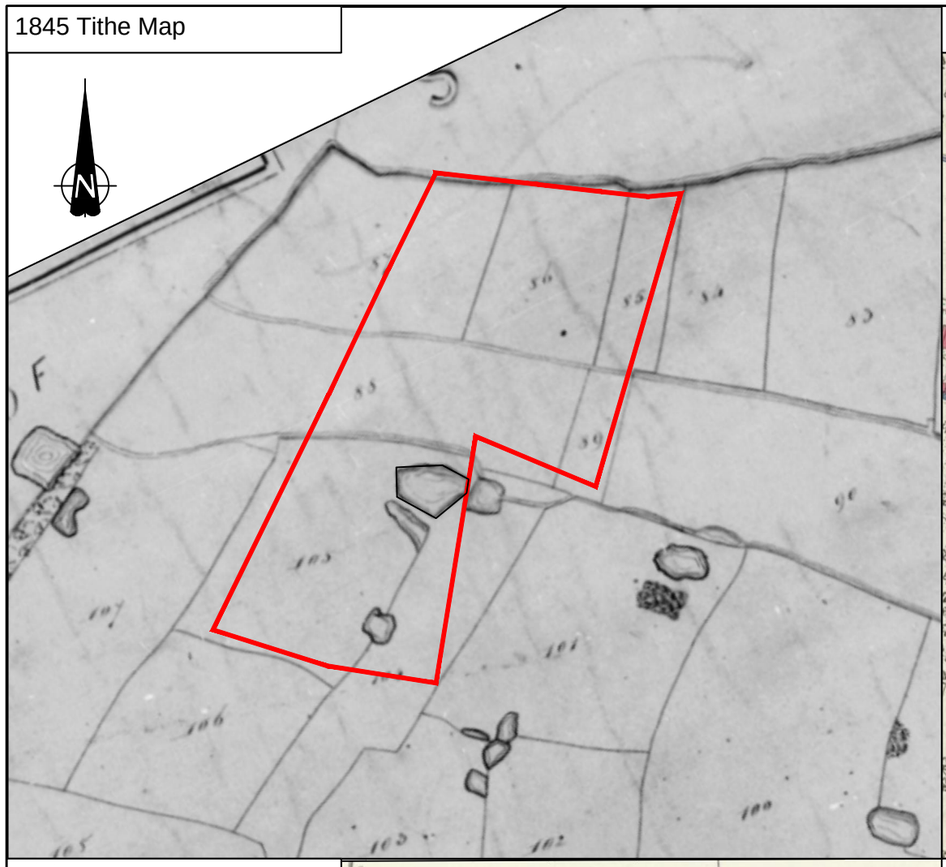
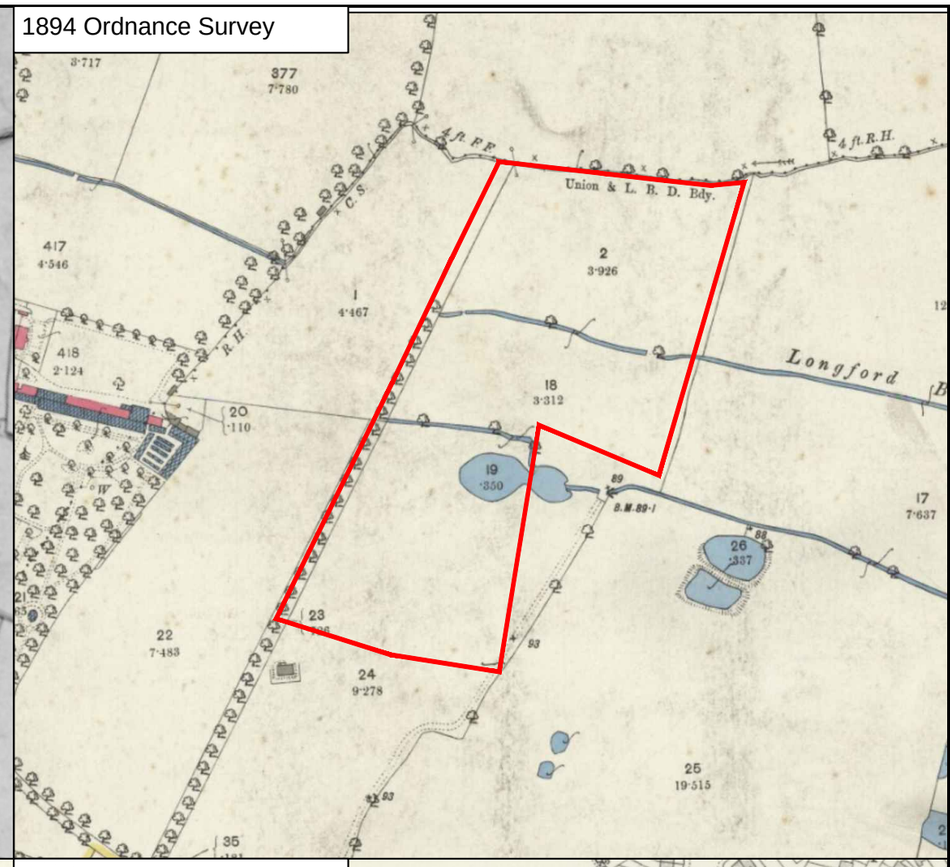
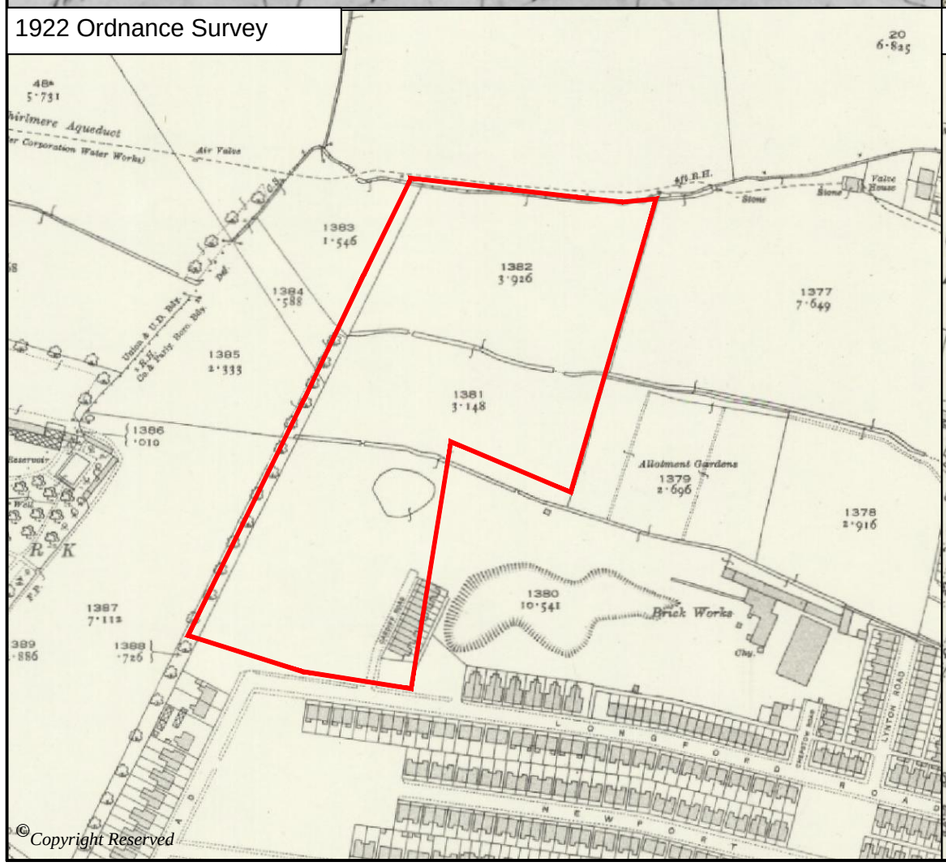
1845 Tithe Map



1894 Ordnance Survey



1922 Ordnance Survey



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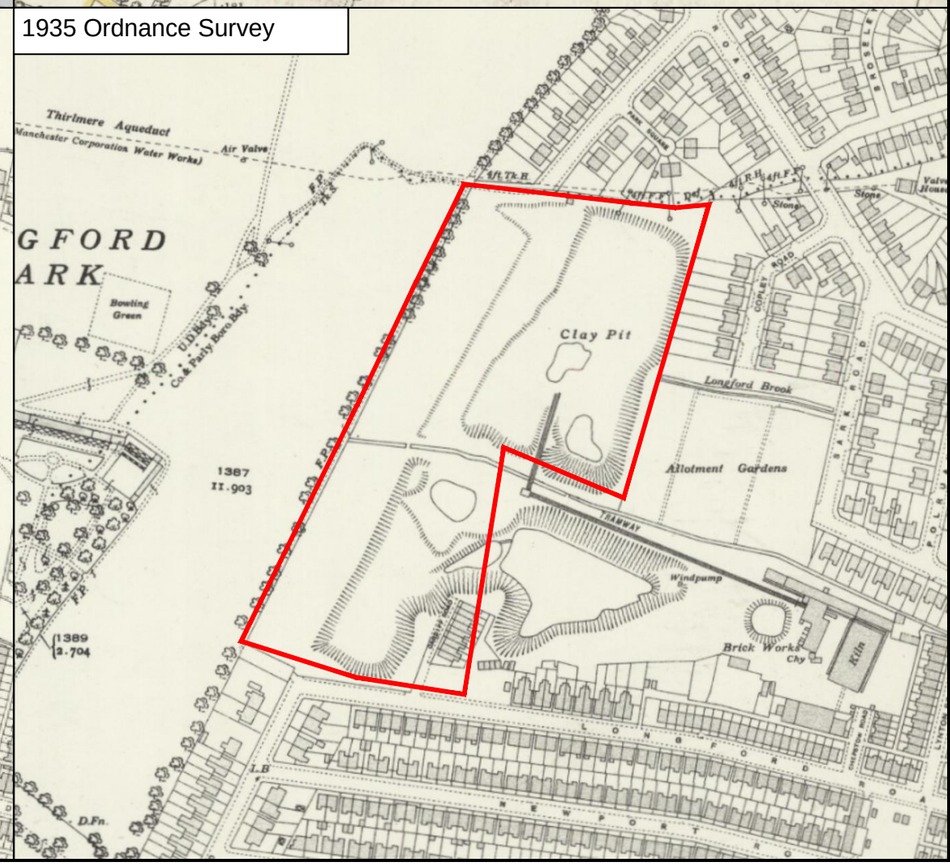
1935 Ordnance Survey



DO NOT SCALE FROM THIS DRAWING

REVISION	DETAILS	DATE	DR'N	CHK'D	APP'D

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Ryebank Road, Chorlton, Manchester

DRAWING TITLE

Figure 2
Historic Maps

DRG No.		REV
GM10801_002		
DRG SIZE: A3	SCALE: NTS	DATE: Jan 2020
DRAWN BY: CLD	CHECKED BY: CM	APPROVED BY: CM

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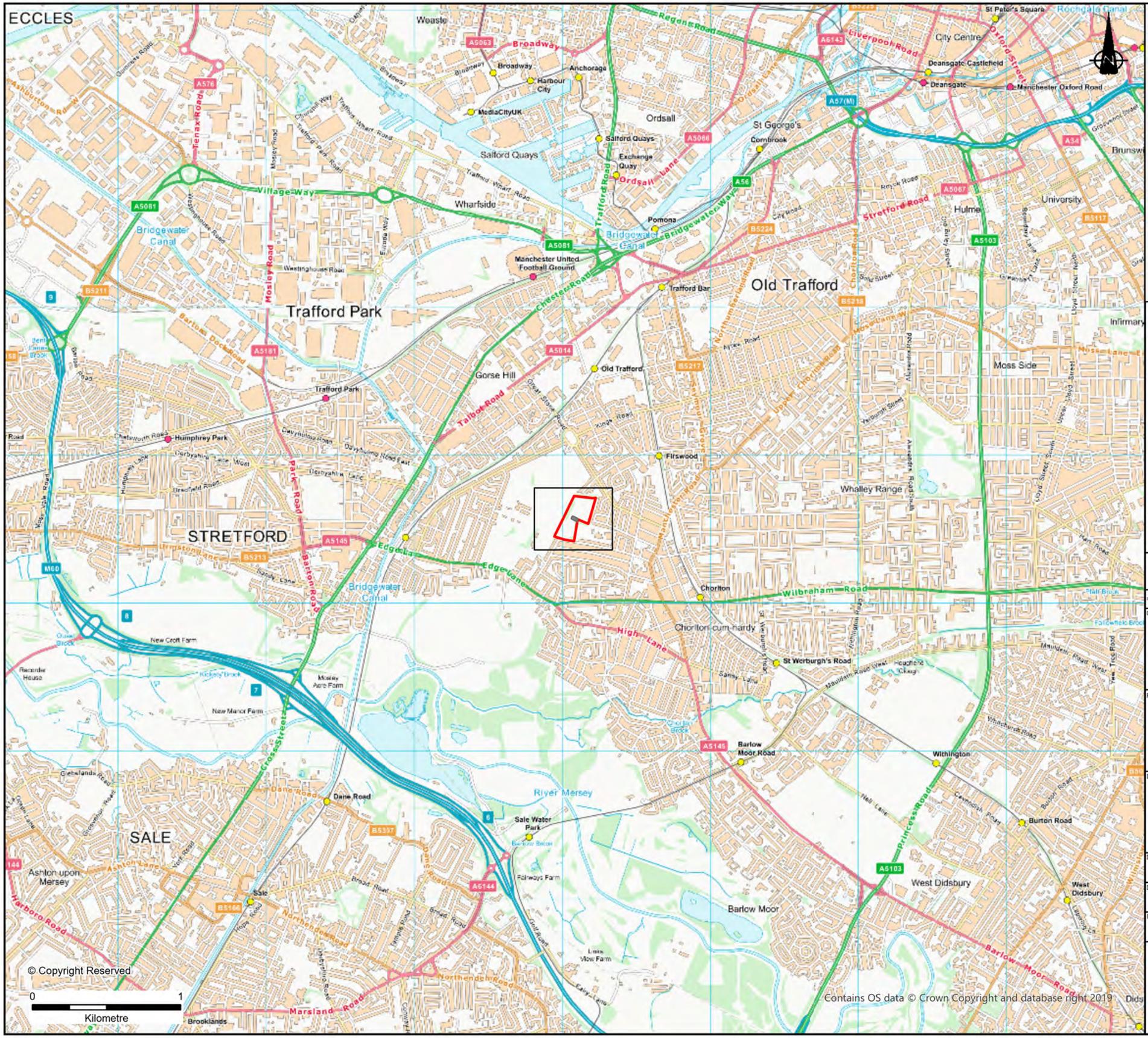
N:\GM\GM10801 - MMU TECHNICAL DUE DILIGENCE\03 - DESIGN\AUTOCAD\GM10801_002 HISTORIC MAPS.DWG



KEY

Site Boundary

Survey Area

Notes:

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FIGURE 3
SURVEY LOCATION PLAN

DRG No.		REV
GM10801-101		A
DRG SIZE: A3	SCALE: 1:25,000	DATE: 02/04/2020
DRAWN BY: CT	CHECKED BY: MB	APPROVED BY: CD

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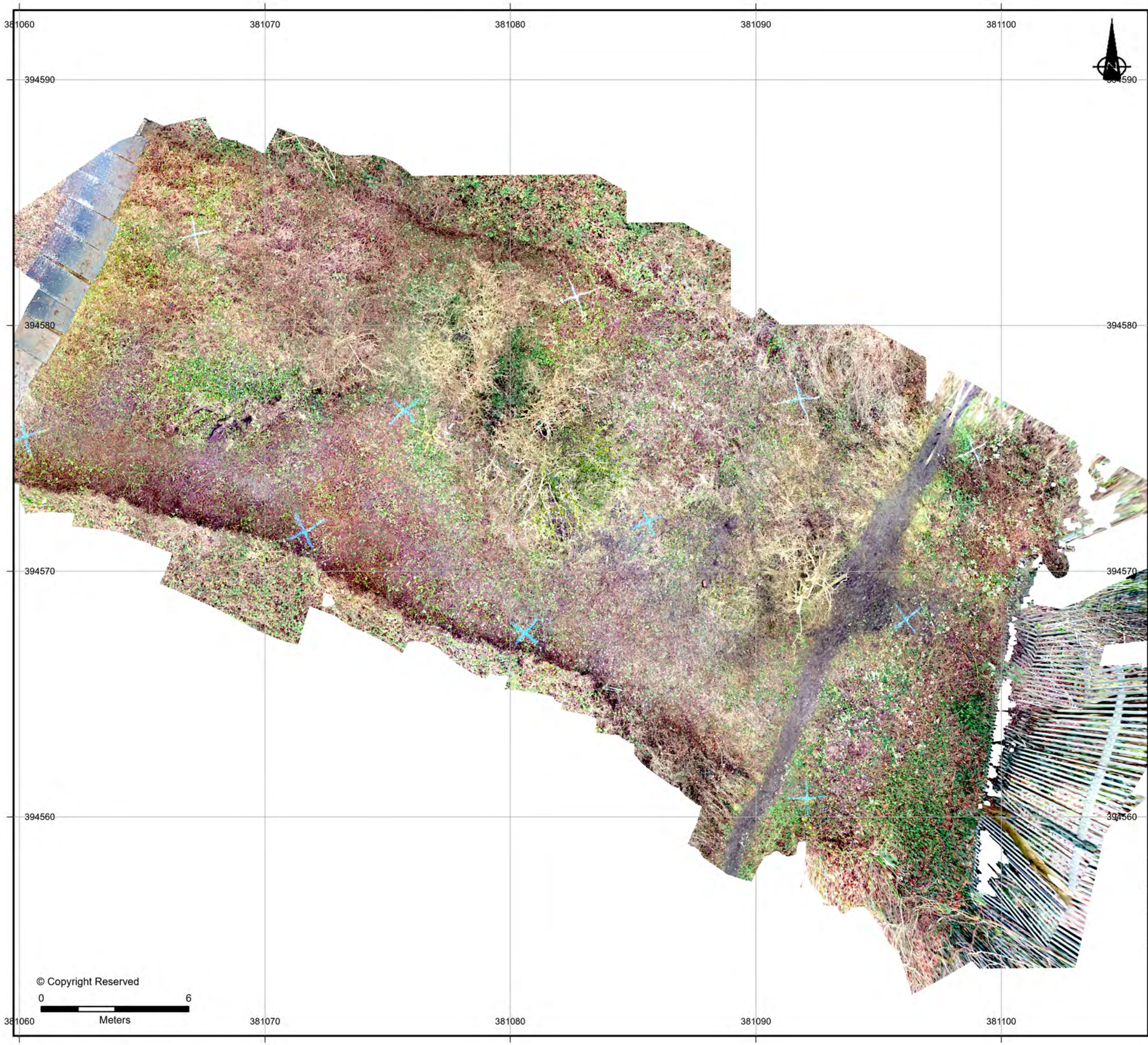

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FIGURE 4
ORTHO MOSAIC

DRG No.		REV
GM10801-102		A
DRG SIZE: A3	SCALE: 1:150	DATE: 02/04/2020
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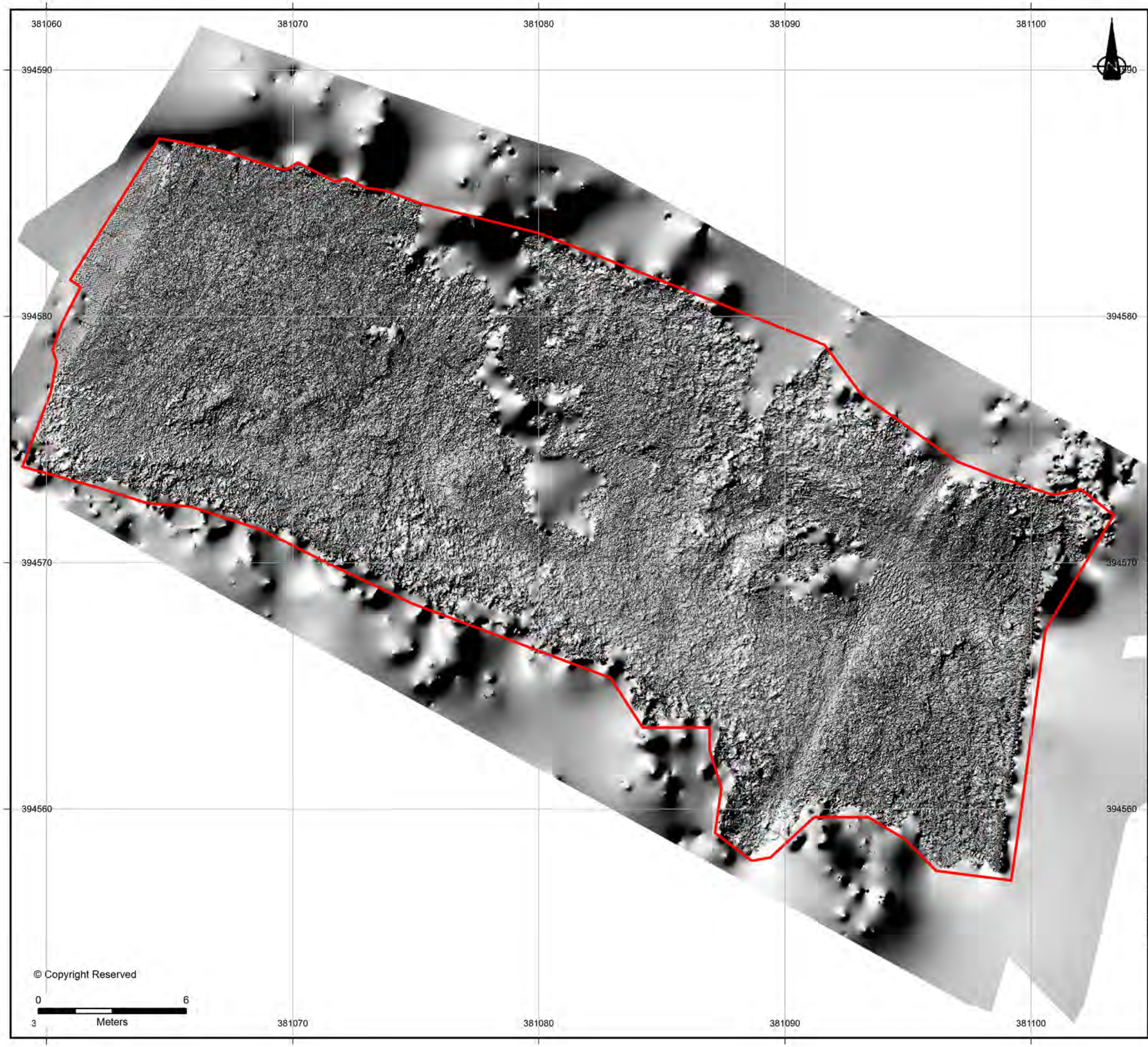

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FIGURE 5
HILLSHADE

DRG No.		REV
GM10801-103		A
DRG SIZE: A3	SCALE: 1:150	DATE: 02/04/2020
DRAWN BY: CT	CHECKED BY: MB	APPROVED BY: CD

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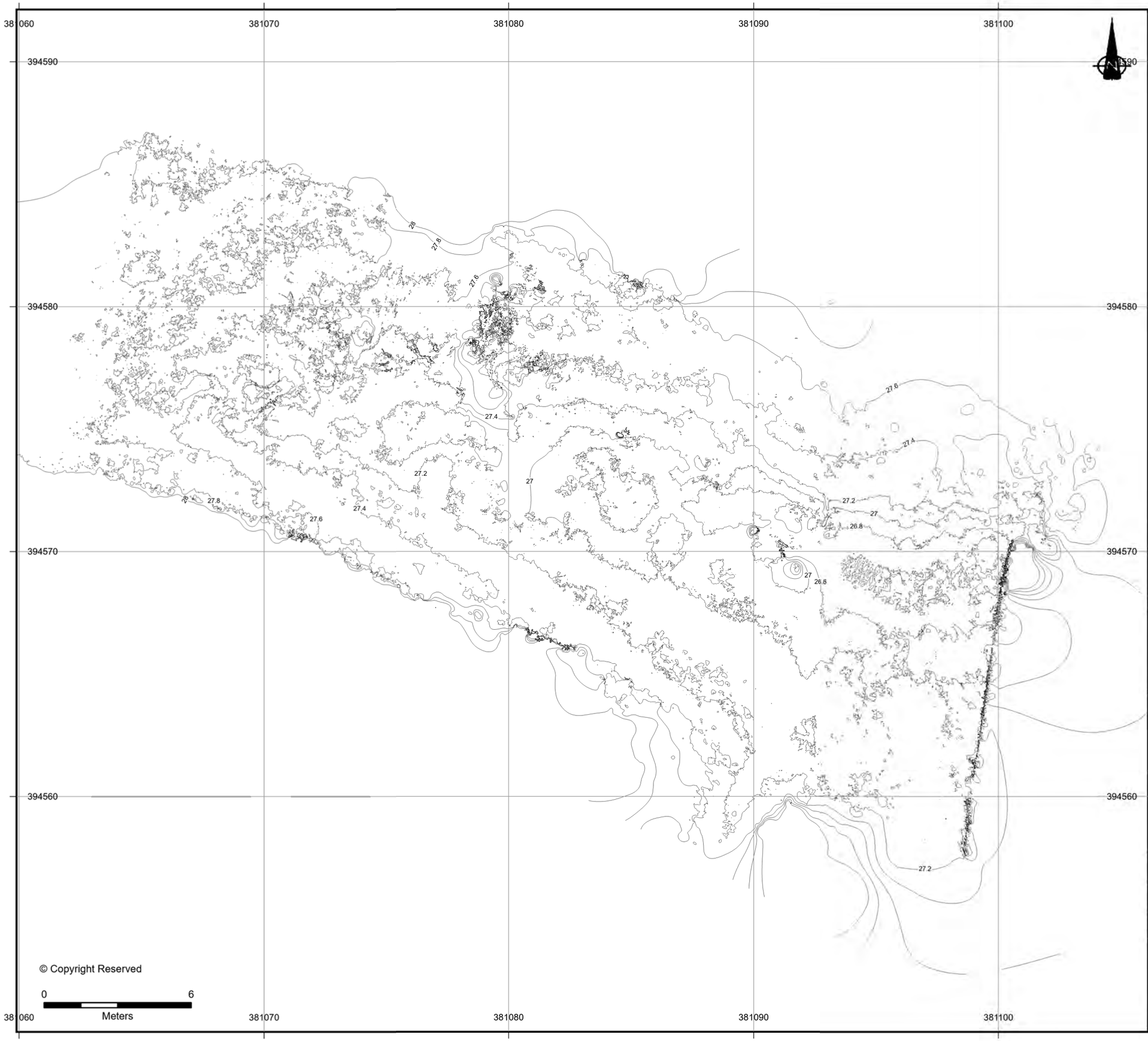

KEY

Contour lines (at 0.2m intervals)

Notes:

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FIGURE 6
CONTOURS

DRG No.		REV
GM10801-104		A
DRG SIZE: A3	SCALE: 1:150	DATE: 02/04/2020
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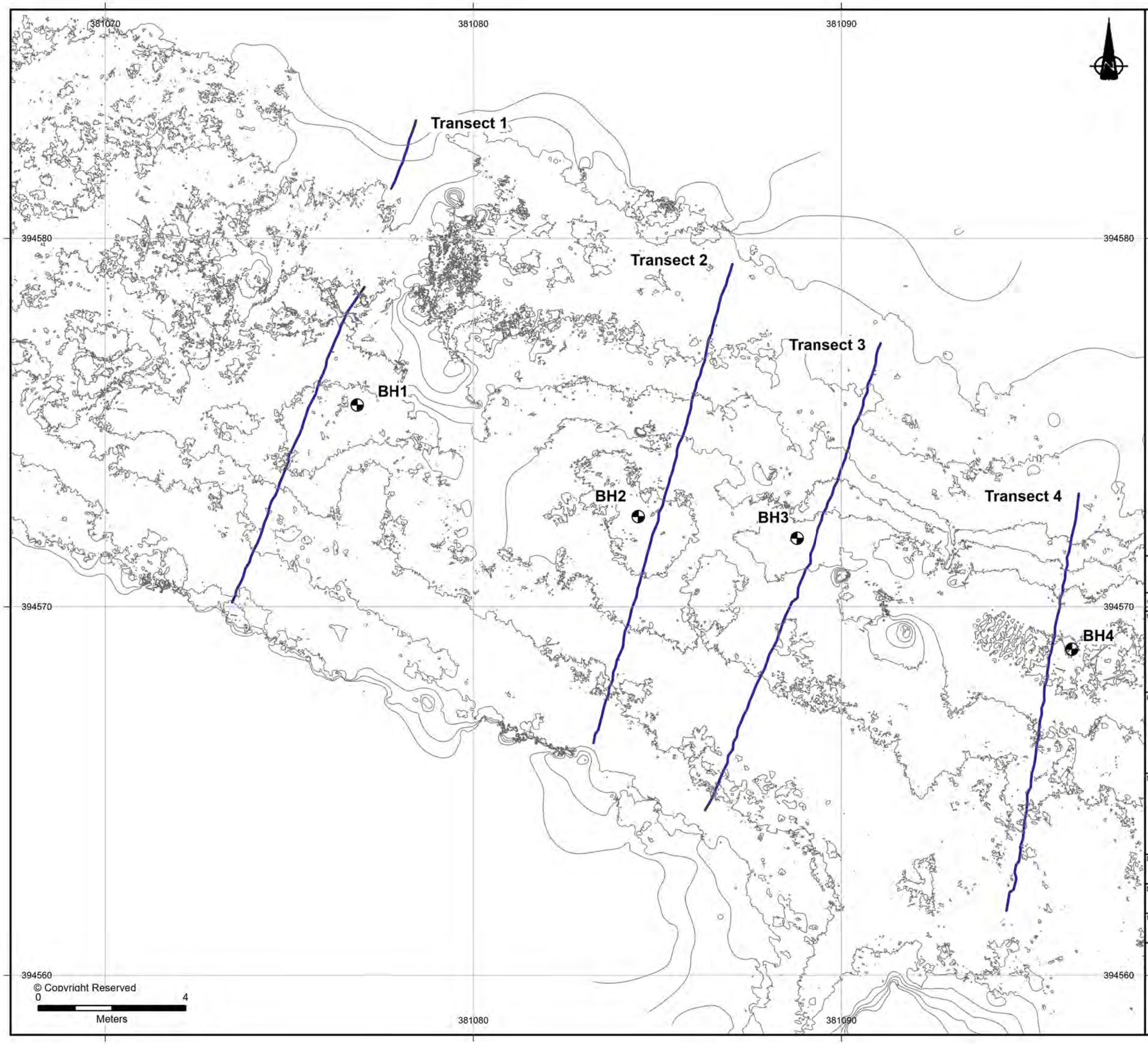

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Contour lines (at 0.2m intervals)

Transects

Boreholes

Notes:

REVISION	DETAILS	DATE	DRAWN	CHKD	APPD
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FIGURE 7
BOREHOLE AND TRANSECT LOCATION PLAN

DRG No.		REV
GM10801-105		A
DRG SIZE: A3	SCALE: 1:100	DATE: 02/04/2020
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