Great North Road Solar and Biodiversity Park

Environmental Statement

Volume 4 - Technical Appendices

Technical Appendix A11.6: Phase 1 Trial Trenching - Part 1 of 3

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Infrastructure Planning (Applications: Prescribed Forms and Procedure)

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York Archaeology

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KEY DOCUMENT INFORMATION

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SUMMARY

York Archaeology was commissioned by Elements Green to conduct a programme of archaeological trial trench evaluation on several land parcels located to the north-west of Newark-on-Trent. The works were undertaken ahead of the proposed construction of ground-mounted solar PV panels and associated enabling works, as part of a Development Consent Order. The proposed Scheme is considered a Nationally Significant Infrastructure Project.

The designs of the proposed construction and archaeological trial trenching were informed by the results of previous geophysical survey and sought to avoid areas of dense archaeological activity. The combined results of the geophysical survey and evaluation will be used to define future archaeological mitigation strategies.

This report presents the results from the first phase (Phase 01) of the archaeological evaluation which comprised the investigation of five sites: Maplebeck, Castle Hill, North Muskham, Cromwell Central and Cromwell North. The Phase 01 works comprised the excavation of 231 trenches across 166ha. A total of 125 trenches contained archaeological features or deposits spanning between the later Iron Age and post-medieval periods.

The Maplebeck site revealed two areas of small-scale domestic activity of Iron Age and Roman date, as well as a further peripheral area with Roman activity. At Castle Hill a single Romano-British boundary ditch, suggestive of nearby activity, was present. A sparse distribution of undated features and a residual sherd of prehistoric pottery were found at North Muskham, which may have been associated with an undated settlement known to the south of the site. North Muskham has been excluded from the order limits due to a change in the project design. The eastern part of Cromwell Central and Cromwell North yield features associated with a known nearby prehistoric settlement / funerary area. Other features connected with areas of probable settlement identified in the geophysical survey, and a sparse distribution of features suggestive of lower-level settlement activity were found across the site. The western part of Cromwell Central contain the undated evidence for intensive water management and a small enclosure complex likely associated with the settlement identified by the geophysical to the west of the site.

Residual worked flint was found at Maplebeck, North Muskham, Cromwell Central and Cromwell North, indicating sporadic use of the wider landscape during the Mesolithic and Early Neolithic periods.

The prehistoric and Roman evidence, as well as a series of undated elements, are indicative of a landscape containing small-scale settlements of various sizes located in proximity or as part of other loci of human activity.

Extensive agricultural activity of medieval, post-medieval and 19th century dates comprising furrows and field boundaries was generally present across the sites.

Despite the results of the geophysical surveys being broadly accurate, several archaeological features were often found in apparently blank areas, making its use as a lone tool unreliable to assess the presence of archaeological remains.

The Phase 1 evaluation was successful in meeting its aims and site-specific objectives. Several questions from the East Midlands Historic Environment Research Agenda could be addressed by the evidence recovered during the works. Further archaeological work on the sites has the potential to contribute to a deeper understanding of certain themes.

The project archive, including all the digital and physical records as well as finds, will remain safely stored at the York Archaeology until deposition with the Newark and Sherwood Museum. A copy of the report will be submitted to the HER and the ADS.

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Plate 332 Trench 77 facing east, after stripping. Scale: 2 x 1m

Plate 333 Trench 77 representative section facing north-east. Scale: 1 x 1m

Plate 334 Trench 77 Section of feature [7703] facing north-east. Scale: 1 x 1m

Plate 335 Trench 79 facing east, after stripping. Scale: 2 x 1m

Plate 336 Trench 79 representative section facing north. Scale: 1 x 1m

Plate 337 Trench 80 facing north, after stripping. Scale: 2 x 1m

Plate 338 Trench 80 representative section facing east. Scale: 1 x 1m

Plate 339 Trench 80 Section of feature [8003] facing south-east. Scale: 1 x 1m

Plate 340 Trench 81 facing east, after stripping. Scale: 2 x 1m

Plate 341 Trench 81 representative section facing north. Scale: 1 x 1m

Plate 342 Trench 81 Section of feature [8103] facing north-west. Scale: 1 x 1m

Plate 343 Trench 81 Section of feature [8105] facing south. Scale: 1 x 1m

Plate 344 Trench 83 facing north, after stripping. Scale: 2 x 1m

Plate 345 Trench 83 representative section facing east. Scale: 1 x 1m

Plate 346 Trench 84 facing east, after stripping. Scale: 2 x 1m

Plate 347 Trench 84 representative section facing north. Scale: 1 x 1m

Plate 348 Trench 85 facing north, after stripping. Scale: 2 x 1m

Plate 349 Trench 85 representative section facing west. Scale: 1 x 1m

Plate 350 Trench 85 Section of feature [8502] facing south. Scale: 1 x 0.5m

Plate 351 Trench 86 facing north, after stripping. Scale: 2 x 1m

Plate 352 Trench 86 representative section facing west. Scale: 1 x 1m

Plate 353 Trench 87 facing east, after stripping. Scale: 2 x 1m

Plate 354 Trench 87 representative section facing north. Scale: 1 x 1m

Plate 355 Trench 88 facing south-east, after stripping. Scale: 2 x 1m

Plate 356 Trench 88 representative section facing south-west. Scale: 1 x 1m

Plate 357 Trench 88 Section of features [8802] facing north-east. Scale: 1 x 1m

Plate 358 Trench 88 Section of feature [8805] facing north-east. Scale: 1 x 1m

Plate 359 Trench 89 facing north, after stripping. Scale: 2 x 1m

Plate 360 Trench 89 representative section facing east. Scale: 1 x 1m

Plate 361 Trench 90 Section of feature 9002 facing east. Scale: 1 x 1m

Plate 362 Trench 91 facing west, after stripping. Scale: 2 x 1m

Plate 363 Trench 91 representative section facing north-west. Scale: 1 x 1m

Plate 364 Trench 92 facing east, after stripping. Scale: 2 x 1m

Plate 365 Trench 92 representative section facing north. Scale: 1 x 1m

Plate 366 Trench 92 Section of feature [9202] facing north. Scale: 1 x 1m

Plate 367 Trench 92 Section of feature [9204] facing east. Scale: 1 x 1m

Plate 368 Trench 93 facing south, after stripping. Scale: 2 x 1m

Plate 369 Trench 93 representative section facing west. Scale: 1 x 1m

Plate 369 Trench 94 Section of feature [9402] facing south-west. Scale: 1 x 1m

Plate 370 Trench 95 facing north, after stripping. Scale: 2 x 1m

Plate 371 Trench 95 representative section facing south-east. Scale: 1 x 1m

Plate 372 Trench 95 Section of feature [9502] facing south-east. Scale: 1 x 1m

Plate 373 Trench 95 Section of features [9504] facing east. Scale: 1 x 1m

Plate 374 Trench 95 Section of features [9506] facing north-west. Scale: 1 x 1m

Plate 375 Trench 96 facing north-west, after stripping. Scale: 2 x 1m

Plate 376 Trench 96 representative section facing south-west. Scale: 1 x 1m

Plate 377 Trench 97 facing north, after stripping. Scale: 2 x 1m

Plate 378 Trench 97 representative section facing west. Scale: 1 x 1m

Plate 379 Trench 97 Section of feature [9702] facing north-east. Scale: 1 x 0.5m

Plate 380 Trench 97 Section of features [9704] facing south-west. Scale: 1 x 0.5m

Plate 381 Trench 97 Section of feature [9706] facing south-east. Scale: 1 x 2m

Plate 382 Trench 97 Section of feature [9708] facing east. Scale: 1 x 0.5m

Plate 383 Trench 98 facing east, after stripping. Scale: 2 x 1m

Plate 384 Trench 98 representative section facing north. Scale: 1 x 1m

Plate 385 Trench 99 facing north-east, after stripping. Scale: 2 x 1m

Plate 386 Trench 99 representative section facing south-east. Scale: 1 x 1m

Plate 387 Trench 100 facing north, after stripping. Scale: 2 x 1m

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Plate 388 Trench 100 representative section facing north-west. Scale: 1 x 1m

Plate 389 Trench 101 facing east, after stripping. Scale: 2 x 1m

Plate 390 Trench 101 representative section facing north. Scale: 1 x 1m

Plate 391 Trench 102 facing north, after stripping. Scale: 2 x 1m

Plate 392 Trench 102 representative section facing west. Scale: 1 x 1m

Plate 393 Trench 102 Section of feature [10202] facing west. Scale: 1 x 1m

Plate 394 Trench 104 facing north, after stripping. Scale: 2 x 1m

Plate 395 Trench 104 representative section facing west. Scale: 1 x 1m

Plate 396 Trench 105 facing east, after stripping. Scale: 2 x 1m

Plate 397 Trench 105 representative section facing north. Scale: 1 x 1m

Plate 398 Trench 106 facing north, after stripping. Scale: 2 x 1m

Plate 399 Trench 106 representative section facing south-west. Scale: 1 x 1m

Plate 400 Trench 107 facing north, after stripping. Scale: 2 x 1m

Plate 401 Trench 107 representative section facing east. Scale: 1 x 1m

Plate 402 Trench 107 Section of feature [10702] facing north-west. Scale: 1 x 1m

Plate 403 Trench 107 Section of features [10703] facing south-east. Scale: 1 x 0.5m

Plate 404 Trench 107 Section of feature [10704] facing north-east. Scale: 1 x 0.5m

Plate 405 Trench 107 Section of feature [10706] facing south-east. Scale: 1 x 0.5m

Plate 406 Trench 109 facing west, after stripping. Scale: 2 x 1m

Plate 407 Trench 109 representative section facing south. Scale: 1 x 1m

Plate 408 Trench 455 Section of feature [45502] facing south-east. Scale: 1 x 0.5m

Plate 409 Trench 456 Section of feature [45603] facing south. Scale: 1 x 0.5m

Plate 410 Trench 457 facing east, after stripping. Scale: 2 x 1m

Plate 411 Trench 457 representative section facing north-east. Scale: 1 x 1m

Plate 412 Trench 457 Section of feature [45705] facing north-east. Scale: 1 x 0.5m

Cromwell Central

Plate 413 Trench 182 facing east, after stripping. Scale: 2 x 1m

Plate 414 Trench 182 representative section facing west. Scale: 1 x 1m

Plate 415 Trench 185 facing east, after stripping. Scale: 2 x 1m

Plate 416 Trench 185 representative section, facing north. Scale: 1 x 1m

Plate 417 Trench 185 T facing east, after stripping. Scale: 2 x 1m

Plate 418 Trench 185 T representative section, facing south. Scale: 1 x 1m

Plate 419 Trench 185T feature [18502], facing east. Scale: 1 x 0.4m

Plate 420 Trench 189 facing south-west, after stripping. Scale: 2 x 1m

Plate 421 Trench 189 representative section, facing south-east. Scale: 1 x 1m

Plate 422 Trench 190 facing west, after stripping. Scale: 2 x 1m

Plate 423 Trench 190 representative section, facing north. Scale: 1 x 1m

Plate 424 Trench 191 facing west, after stripping. Scale: 2 x 1m

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Plate 425 Trench 191 representative section, facing north. Scale: 1 x 1m

Plate 426 Trench 191 feature [19102] facing east. Scale: 1 x 0.4m

Plate 427 Trench 191 section of feature [19104] facing south. Scale: 1 x 0.4m

Plate 428 Trench 191 section of feature [19106] facing east. Scale: 1 x 0.4m

Plate 429 Trench 191 section of feature [19108] facing west. Scale: 1 x 0.4m

Plate 430 Trench 191 section of feature [19110] facing north unknown anthropogenic/natural feature. Scale: 1 x 1m

Plate 431 Trench 191 section of feature [19116] facing south-east. Scale: 1 x 1m

Plate 432 Trench 192 facing east, after stripping. Scale: 1 x 1m

Plate 433 Trench 192 representative section facing south. Scale: 1 x 1m

Plate 434 Trench 192 section of feature [19202] facing north. Scale: 1 x 1m

Plate 435 Trench 192 section of feature [19204] facing south. Scale: 1 x 1m

Plate 436 Trench 194 representative section facing east. Scale: 1 x 1m

Plate 437 Trench 194 facing north, after stripping. Scale: 1 x 1m

Plate 438 Trench 197 facing north-east, after stripping. Scale: 1 x 1m

Plate 439 Trench 197 representative section facing south-east. Scale: 1 x 1m

Plate 440 Trench 197 facing north-west, after stripping. Scale: 1 x 1m

Plate 441 Trench 197 section of feature [19702] facing north-west. Scale: 1 x 1m

Plate 442 Trench 197 section of feature [19704] facing west. Scale: 1 x 0.5m

Plate 443 Trench 197 section feature [19706] facing north-east. Scale: 1 x 1m

Plate 444 Trench 197 section of feature [19708] facing north-east. Scale: 1 x 1m

Plate 445 Trench 197 section of feature [19711] facing south. Scale: 1 x 1m

Plate 446 Trench 198 representative section facing east. Scale: 1 x 1m

Plate 447 Trench 198 facing south, after stripping. Scale: 1 x 1m

Plate 448 Trench 198 section of feature [19802] facing east. Scale: 1 x 1m

Plate 449 Trench 198 section of feature [19804] facing east. Scale: 1 x 1m

Plate 450 Trench 198 section of feature [19807] facing south-east. Scale: 1 x 1m

Plate 451 Trench 199 facing north, after stripping. Scale: 1 x 1m

Plate 452 Trench 199 representative section facing west. Scale: 1 x 1m

Plate 453 Trench 199 section of feature [19903] facing east. Scale: 1 x 1m

Plate 454 Trench 199 section of feature [19905] facing east. Scale: 1 x 1m

Plate 455 Trench 199 section of feature [19907] facing east. Scale: 1 x 1m

Plate 456 Trench 199 section of feature [19910] facing south-west. Scale: 1 x 0.5m

Plate 457 Trench 202 facing south, after stripping. Scale: 1 x 1m

Plate 458 Trench 202 representative section facing west. Scale: 1 x 1m

Plate 459 Trench 202 section of feature [20203] facing north-west. Scale: 1 x 0.5m

Plate 460 Trench 203 representative section facing north-east. Scale: 1 x 1m

Plate 461 Trench 203 facing east, after stripping. Scale: 1 x 1m

Plate 462 Trench 203 section of feature [20303] facing north-east. Scale: 1 x 1m

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Plate 463 Trench 204 facing east, after stripping. Scale: 1 x 1m

Plate 464 Trench 204 representative section facing south. Scale: 1 x 1m

Plate 465 Trench 204 section of feature [20402] facing north. Scale: 1 x 1m

Plate 466 Trench 204 section of feature [20406] facing west. Scale: 1 x 0.5m

Plate 467 Trench 204 section of feature [20408] facing north. Scale: 1 x 1m

Plate 468 Trench 205 section of feature [20408] facing south-west, after stripping. Scale: 1 x 1m

Plate 469 Trench 205 representative section facing north-west. Scale: 1 x 1m

Plate 470 Trench 205 section of feature [20502] facing north-east. Scale: 1 x 1m

Plate 471 Trench 205 section of feature [20504] facing east. Scale: 1 x 1m

Plate 472 Trench 206 facing west, after stripping. Scale: 1 x 1m

Plate 473 Trench 206 representative section facing north. Scale: 1 x 1m

Plate 474 Trench 206 section of feature [20602] facing south. Scale: 1 x 1m

Plate 475 Trench 206 section of feature [20604] facing north-east. Scale: 1 x 1m

Plate 476 Trench 206 section of feature [20608] facing north. Scale: 1 x 0.4m

Plate 477 Trench 207 facing south, after stripping. Scale: 1 x 1m

Plate 478 Trench 207 representative section facing west. Scale: 1 x 1m

Plate 479 Trench 207 section of features [20703] and [20705] facing east. Scale: 1 x 1m

Plate 480 Trench 207 section of feature [20707] facing south-east. Scale: 1 x 1m

Plate 481 Trench 208 facing south, after stripping. Scale: 1 x 1m

Plate 482 Trench 208 representative section facing east. Scale: 1 x 1m

Plate 483 Trench 208 section of feature [20803] facing east. Scale: 1 x 1m

Plate 484 Trench 208 section of feature [20805] facing north-west. Scale: 1 x 0.5m

Plate 485 Trench 209 facing south, after stripping. Scale: 1 x 1m

Plate 486 Trench 209 representative section facing east. Scale: 1 x 1m

Plate 487 Trench 210 facing south-west, after stripping. Scale: 2 x 1m

Plate 488 Trench 210 representative section facing south-east. Scale: 1 x 1m

Plate 489 Trench 210 Section of feature [21005] facing north-west. Scale: 1 x 1m

Plate 490 Trench 210 Section of feature [21007] facing north-west. Scale: 1 x 1m

Plate 491 Trench 211 facing east, after stripping. Scale: 1 x 1m

Plate 492 Trench 211 representative section facing north. Scale: 1 x 1m

Plate 493 Trench 212 facing south-east, after stripping. Scale: 1 x 1m

Plate 494 Trench 212 representative section facing south-west. Scale: 1 x 1m

Plate 495 Trench 213 facing east, after stripping. Scale: 1 x 1m

Plate 496 Trench 213 representative section facing north. Scale: 1 x 1m

Plate 497 Trench 214 representative section facing north. Scale: 1 x 1m

Plate 498 Trench 214 facing west, after stripping. Scale: 1 x 1m

Plate 499 Trench 214 section of feature [21402] facing south. Scale: 1 x 0.5m

Plate 500 Trench 214 section of feature [21405] fully excavated, facing north-east. Scale: 1 x 1m

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Plate 501 Trench 214 section of feature [21406] facing south. Scale: 1 x 1m

Plate 502 Trench 214 section of feature [21408] facing south. Scale: 1 x 1m

Plate 503 Trench 214 section of feature [21410] facing south-west. Scale: 1 x 0.5m

Plate 504 Trench 215 facing east, after stripping. Scale: 1 x 1m

Plate 505 Trench 215 representative section facing north. Scale: 1 x 1m

Plate 506 Trench 215 section of feature [21503] facing north. Scale: 1 x 1m

Plate 507 Trench 215 section of feature [21505] facing north-west. Scale: 1 x 1m

Plate 508 Trench 217 facing north, after stripping. Scale: 1 x 1m

Plate 509 Trench 217 representative section facing west. Scale: 1 x 1m

Plate 510 Trench 218 representative section facing east. Scale: 1 x 1m

Plate 511 Trench 218 facing south, after stripping. Scale: 1 x 1m

Plate 512 Trench 218 section of feature [21803] facing east. Scale: 1 x 1m

Plate 513 Trench 218 section of feature [21804] facing west. Scale: 1 x 1m

Plate 514 Trench 219 facing east, after stripping. Scale: 1 x 1m

Plate 515 Trench 219 representative section facing south. Scale: 1 x 1m

Plate 516 Trench 219 section of feature [21904 facing south-east. Scale: 1 x 1m

Plate 517 Trench 219 section of feature [21905] facing north-west. Scale: 1 x 1m

Plate 518 Trench 220 facing south, after stripping. Scale: 1 x 1m

Plate 519 Trench 220 representative section facing west. Scale: 1 x 1m

Plate 520 Trench 221 facing west, after stripping. Scale: 1 x 1m

Plate 521 Trench 221 representative section facing north. Scale: 1 x 1m

Plate 522 Trench 221 section of feature [22103] facing north. Scale: 1 x 1m

Plate 523 Trench 222 facing south, after stripping. Scale: 1 x 1m

Plate 524 Trench 222 representative section facing east. Scale: 1 x 1m

Plate 525 Trench 223 facing north, after stripping. Scale: 1 x 1m

Plate 526 Trench 223 representative section facing east. Scale: 1 x 1m

Plate 527 Trench 224 facing west, after stripping. Scale: 2 x 1m

Plate 528 Trench 224 representative section facing north. Scale: 1 x 1m

Plate 529 Trench 224 Section of feature [22403] facing south-east. Scale: 1 x 1m

Plate 530 Trench 224 Section of feature [22405] facing south-east. Scale: 1 x 1m

Plate 531 Trench 225 facing south, after stripping. Scale: 2 x 1m

Plate 532 Trench 225 representative section facing west. Scale: 1 x 1m

Plate 533 Trench 225 Section of feature [22502] facing east. Scale: 1 x 1m

Plate 534 Trench 225 Section of feature [22504] facing west. Scale: 1 x 1m and 1 x 0.4m

Plate 535 Trench 225 Section of feature [22506] facing north-west. Scale: 1 x 1m

Plate 536 Trench 225 Section of feature [22508] facing west. Scale: 1 x 0.4m

Plate 537 Trench 227 facing north-west, after stripping. Scale: 1 x 1m

Plate 538 Trench 227 representative section facing east. Scale: 1 x 1m

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Plate 539 Trench 227 section of feature [22703] facing south-west. Scale: 1 x 0.4m

Plate 540 Trench 227 section of feature [22705] facing north-west. Scale: 1 x 0.4m

Plate 541 Trench 227 section of feature [22707] facing north-west. Scale: 1 x 1m

Plate 542 Trench 227 section of feature [22707] facing north-west. Scale: 1 x 0.4m

Plate 543 Trench 227 section of feature [22709] facing south-east. Scale: 1 x 1m

Plate 544 Trench 228 facing east, after stripping. Scale: 1 x 1m

Plate 545 Trench 228 representative section facing north. Scale: 1 x 1m

Plate 546 Trench 229 facing north, after stripping. Scale: 2 x 1m

Plate 547 Trench 229 representative section facing west. Scale: 1 x 1m

Plate 548 Trench 229 Section of feature [22902] facing north-east. Scale: 1 x 1m

Plate 549 Trench 230 facing south-east, after stripping. Scale: 1 x 1m

Plate 550 Trench 230 representative section facing south-west. Scale: 1 x 1m

Plate 551 Trench 231 facing east, after stripping. Scale: 1 x 1m

Plate 552 Trench 231 representative section facing south. Scale: 1 x 1m

Plate 553 Trench 231 facing west, after stripping. Scale: 1 x 1m

Plate 554 Trench 231 section of feature [23104] facing north. Scale: 1 x 1m

Plate 555 Trench 231 section of feature [23106] facing north-west. Scale: 1 x 1m

Plate 556 Trench 232 facing west, after stripping. Scale: 1 x 1m

Plate 557 Trench 232 representative section facing south. Scale: 1 x 1m

Plate 558 Trench 234 facing east, after stripping. Scale: 2 x 1m

Plate 559 Trench 234 representative section facing north. Scale: 1 x 1m

Plate 560 Trench 234 Section of feature [23402] facing south. Scale: 1 x 1m

Plate 561 Trench 235 representative section facing east. Scale: 1 x 1m

Plate 562 Trench 235 facing north, after stripping. Scale: 1 x 1m

Plate 563 Trench 239 facing north, after stripping. Scale: 2 x 1m

Plate 564 Trench 239 representative section facing west. Scale: 1 x 1m

Plate 565 Trench 239 section of feature [23902] facing north-west. Scale: 1 x 1m

Plate 566 Trench 239 section of feature [23904] facing west. Scale: 1 x 0.3m

Plate 567 Trench 239 section of feature [23906] facing west. Scale: 1 x 1m

Plate 568 Trench 239 section of feature [23908] facing west. Scale: 1 x 1m

Plate 569 Trench 245 facing east, after stripping. Scale: 2 x 1m

Plate 570 Trench 245 representative section facing south. Scale: 1 x 1m

Plate 571 Trench 245 Section of feature [24502] facing east. Scale: 1 x 0.5m

Plate 572 Trench 256 facing east, after stripping. Scale: 2 x 1m

Plate 573 Trench 256 representative section facing north. Scale: 1 x 1m

Plate 574 Trench 262 facing north, after stripping. Scale: 2 x 1m

Plate 575 Trench 262 representative section facing east. Scale: 1 x 1m

Plate 576 Trench 262 Section of feature [26202] facing west. Scale: 1 x 1m

Plate 577 Trench 266 facing south, after stripping. Scale: 2 x 1m

Plate 578 Trench 266 representative section facing east. Scale: 1 x 1m

Plate 579 Trench 266 Section of feature [26602] facing east. Scale: 1 x 1m

Plate 580 Trench 268 facing west, after stripping. Scale: 1 x 1m

Plate 581 Trench 268 representative section facing north. Scale: 1 x 1m

Plate 582 Trench 269 facing north, after stripping. Scale: 2 x 1m

Plate 583 Trench 269 representative section facing west. Scale: 1 x 1m

Plate 584 Trench 269 Section of feature [26903] facing west. Scale: 1 x 1m

Plate 585 Trench 269 Section of feature [26905] facing west. Scale: 1 x 1m

Plate 586 Trench 270 facing east, after stripping. Scale: 2 x 1m

Plate 587 Trench 270 representative section facing north. Scale: 1 x 1m

Plate 588 Trench 270 Section of feature [27002] facing south. Scale: 1 x 1m

Plate 589 Trench 270 section of feature [27002] facing south. Scale: 1 x 0.5m

Plate 590 Trench 271 facing west, after stripping. Scale: 1 x 1m

Plate 591 Trench 271 representative section facing north. Scale: 1 x 1m

Cromwell North

Plate 592 Trench 233 facing north, after stripping. Scale: 2 x 1m

Plate 593 Trench 233 representative section facing west. Scale: 1 x 1m

Plate 594 Trench 233 section of feature [23303], facing east. Scale: 1 x 1m

Plate 595 Trench 233 section of feature [23305], facing east. Scale: 1 x 1m

Plate 596 Trench 233 section of feature [23307], facing west. Scale: 1 x 1m

Plate 597 Trench 233 section of feature [23309], facing west. Scale: 1 x 1m

Plate 598 Trench 233 section of feature [23311], facing north. Scale: 1 x 0.5m

Plate 599 Trench 233 section of feature [23313], facing west. Scale: 1 x 1m

Plate 600 Trench 233 section of feature [23315], facing south-east. Scale: 1 x 0.5m

Plate 601 Trench 233 section of feature [23319] facing south-east. Scale: 1 x 0.5m

Plate 602 Trench 233 section of feature [23321], facing east. Scale: 2 x 1m

Plate 603 Trench 238 facing south, after stripping. Scale: 1 x 2m

Plate 604 Trench 238 representative section, facing west. Scale: 1 x 1m

Plate 605 Trench 238 section of feature [23803], facing east. Scale: 1 x 1m

Plate 606 Trench 238 section of feature [23805], facing east. Scale: 1 x 1m

Plate 607 Trench 238 section of feature [23807], facing east. Scale: 1 x 1m

Plate 608 Trench 238 section of feature [23809], facing south-east. Scale: 1 x 1m

Plate 609 Trench 238 section of feature [23811], facing east. Scale: 1 x 1m

Plate 610 Trench 238 section of feature [23813], facing west. Scale: 1 x 0.5m

Plate 611 Trench 238 section of feature [23815], facing south. Scale: 1 x 0.5m

Plate 612 Trench 238 section of feature [23817], facing north-west. Scale: 1 x 1m

Plate 613 Trench 238 section of feature [23819], facing west. Scale: 1 x 1m

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Plate 614 Trench 238 section of feature [23821], facing west. Scale: 1 x 1m

Plate 615 Trench 238 section of feature [23826], facing east. Scale: 1 x 1m

Plate 616 Trench 240 facing north, after stripping. Scale: 1 x 1m

Plate 617 Trench 240 representative section, facing west. Scale: 1 x 1m

Plate 618: Trench 240 section of feature [24003], facing west. Scale: 1 x 1m

Plate 619 Trench 241 facing west, after stripping. Scale: 1 x 1m

Plate 620 Trench 241 representative section, facing south. Scale: 1 x 1m

Plate 621 Trench 241 section of feature [24103], facing north-west. Scale: 1 x 1m

Plate 622 Trench 241 section of feature [24105], facing south. Scale: 1 x 1m

Plate 623 Trench 241 section of feature [24107], facing north. Scale: 1 x 0.5m

Plate 624 Trench 242 facing north, after stripping. Scale: 2 x 1m

Plate 625 Trench 242 representative section, facing west. Scale: 1 x 1m

Plate 626 Trench 242 section of feature [24203], facing east. Scale: 1 x 1m

Plate 627 Trench 243 facing east, after stripping. Scale: 2 x 1m

Plate 628 Trench 243 representative section, facing south. Scale: 1 x 1m

Plate 629 Trench 244 facing west, after stripping. Scale: 2 x 1m

Plate 630 Trench 244 representative section, facing east. Scale: 1 x 1m

Plate 631 Trench 244 section of feature [24403], facing north-west. Scale: 1 x 1m

Plate 632 Trench 244 section of feature [24405] facing north-east. Scale: 1 x 1m

Plate 633 Trench 244 section of feature [24407], facing south. Scale: 1 x 1m

Plate 634 Trench 244 section of feature [24409], facing north-west. Scale: 1 x 1m

Plate 635 Trench 244 section of feature [24411], facing east. Scale: 1 x 1m

Plate 636 Trench 244 section of feature [24413], facing west. Scale: 1 x 0.5m

Plate 637 Trench 246 facing west, after stripping. Scale: 2 x 1m

Plate 638 Trench 246 representative section, facing north. Scale: 1 x 1m

Plate 639 Trench 247 facing south, after stripping. Scale: 2 x 1m

Plate 640 Trench 247 representative section, facing east. Scale: 1 x 1m

Plate 641 Trench 249 facing east, after stripping. Scale: 2 x 1m

Plate 642 Trench 249 representative section, facing south. Scale: 1 x 1m

Plate 643 Trench 249 section of feature [24903], facing east. Scale: 1 x 1m

Plate 644 Trench 250 facing east, after stripping. Scale: 2 x 1m

Plate 645 Trench 250 representative section, facing north. Scale: 1 x 1m

Plate 646 Trench 250 section of feature [25002], facing south. Scale: 1 x 1m

Plate 647 Trench 250 section of feature [25004], facing south. Scale: 1 x 1m

Plate 648 Trench 250 section of feature [25006], facing south. Scale: 1 x 1m

Plate 649 Trench 250 section of feature [25008], facing south. Scale: 1 x 0.5m

Plate 650 Trench 250 section of feature [25010], facing south. Scale: 1 x 1m

Plate 651 Trench 250 section of feature [25012], facing south. Scale: 1 x 0.5m

Plate 652 Trench 250 section of feature [25014], facing north. Scale: 1 x 0.5m

Plate 653 Trench 252 facing west, after stripping. Scale: 2 x 1m

Plate 654 Trench 252 representative section, facing north. Scale: 1 x 1m

Plate 655 Trench 255 facing north-west, after stripping. Scale: 2 x 1m

Plate 656 Trench 255 representative section, facing north-east. Scale: 1 x 1m

Plate 657 Trench 255 section of feature [25504], facing east. Scale: 1 x 0.5m

Plate 658 Trench 258 representative section, facing north. Scale: 1 x 1m

Plate 659 Trench 258 facing west, after stripping. Scale: 1 x 1m

Plate 660 Trench 258 section of feature [25803], facing north. Scale: 1 x 0.4m

Plate 661 Trench 258 section of feature [25803], facing north. Scale: 1 x 0.5m

Plate 662 Trench 258 section of feature [25805], facing north. Scale: 1 x 1m

Plate 663 Trench 258 section of feature [25805], facing north. Scale: 1 x 1m

Plate 664 Trench 258 section of feature [25808], facing north. Scale: 1 x 1m

Plate 665 Trench 258 section of feature [25808], facing south. Scale: 1 x 1m

Plate 666 Trench 258 section of feature [25810], facing north. Scale: 1 x 0.5m

Plate 667 Trench 258 section of feature [25810], facing south. Scale: 1 x 0.4m

Plate 668 Trench 258 section of feature [25812], facing north. Scale: 1 x 1m

Plate 669 Trench 258 section of feature [25812], facing south. Scale: 1 x 0.5m

Plate 670 Trench 258 section of feature [25814], facing north. Scale: 1 x 0.5m

Plate 671 Trench 258 section of feature [25816], facing north. Scale: 1 x 1m

Plate 672 Trench 258 section of feature [25818], facing north. Scale: 1 x 1m

Plate 673 Trench 258 section of features [25820] and [25822] facing north. Scale: 1 x 1m

Plate 674 Trench 259 facing east, after stripping. Scale: 2 x 1m

Plate 675 Trench 259 representative section, facing north. Scale: 1 x 1m

Plate 676 Trench 259 section of feature [25902], facing south. Scale: 1 x 1m

Plate 677 Trench 260 facing west, after stripping. Scale: 2 x 1m

Plate 678 Trench 260 representative section, facing north. Scale: 1 x 1m

Plate 679 Trench 261 facing north-west, after stripping. Scale: 2 x 1m

Plate 680 Trench 261 representative section, facing north-east. Scale: 1 x 1m

Plate 681 Trench 263 facing west, after stripping. Scale: 2 x 1m

Plate 682 Trench 263 representative section, facing north. Scale: 1 x 1m

Plate 683 Trench 264 facing east, after stripping. Scale: 2 x 1m

Plate 684 Trench 264 representative section, facing north. Scale: 1 x 1m

Plate 685 Trench 264 section of feature [26403], facing south-west. Scale: 1 x 0.5m

Plate 686 Trench 264 section of feature [26405], facing south-west. Scale 1 x 1m

Plate 687 Trench 265 facing west, after stripping. Scale: 2 x 1m

Plate 688 Trench 265 representative section, facing north. Scale: 1 x 1m

Plate 689 Trench 265 section of feature [26502], facing west, Scale: 1 x 1m

Museum Accession Number: NEKMS: 2024.10

Plate 690 Trench 265 section of feature [26504], facing east. Scale: 1 x 0.5m

Plate 691 Trench 265 section of Feature [265066] facing south. Scale: 1 x 1m

Plate 692 Trench 265 section of Feature [26508] facing south-east. Scale: 1 x 0.5m

Plate 693 Trench 267 facing south, after stripping. Scale: 2 x 1m

Plate 694 Trench 267 representative section facing west. Scale: 1 x 1m

Plate 695 Trench 267 general view shot of features [26703] and [26705] facing west. Scale: 1 x 1m and 1 x 0.5m

Plate 696 Trench 267 section of Feature [26709] facing south-west. Scale: 1 x 1m

Plate 697 Trench 267 section of Feature [26711] facing south-east. Scale: 1 x 0.5m

Plate 698 Trench 267 section of Feature [26713] facing east. Scale: 1 x 0.5m

Plate 699 Trench 267 section of Feature [26715] facing east. Scale: 1 x 1m

Plate 700 Trench 267 section of Feature [26719] facing south-west. Scale: 1 x 1m

Plate 701 Trench 455 facing south, after stripping. Scale: 1 x 1m

Plate 702 Trench 455 representative section facing east. Scale: 1 x 1m

Plate 703 Trench 455 section of Feature [45502] facing west. Scale: 1 x 1m

Plate 704 Trench 456 facing south, after stripping. Scale: 1 x 1m

Plate 705 Trench 456 representative section facing west. Scale: 1 x 1m

Plate 706 Trench 456 section of Feature [45603] facing west. Scale: 1 x 1m

Plate 707 Trench 456 section of Features [45605] and [45697] facing north-west. Scale: 1 x 1m

Plate 708 Trench 456 section of Feature [45607] facing west. Scale: 1 x 1m

Plate 709 Trench 456 section of Feature [45609] facing west. Scale: 1 x 1m

Plate 710 Trench 457 facing north-east, after stripping. Scale: 1 x 1m

Plate 711 Trench 457 representative section facing north-west. Scale: 1 x 1m

1 INTRODUCTION

1.1 York Archaeology (YA) were commissioned by Elements Green (herein referred to as “the Client”) to undertake a programme of archaeological evaluation (trial trenching) on several land parcels located to the north-west of Newark-on-Trent (Figure 01), hereafter referred to as “the Site”. The archaeological works correspond to Phase 1 of a 2-phased programme which will be undertaken ahead of the construction of ground-mounted solar PV panels and associated enabling works, as part of a Development Consent Order. The construction scheme is considered a Nationally Significant Infrastructure Project.

1.2 Phase 1 of the programme of archaeological works started on the 8th April 2024. This report presents the results of archaeological trenching undertaken at Maplebeck (centred on SK 71631 60013), Castle Hill (centred on SK 78021 64555), North Muskham (centred on SK 78273 59308), Cromwell Central (centred on SK 79278 60974) and Cromwell North (centred on SK 79666 61092) with the intention of informing further archaeological mitigation in these areas.

1.3 The investigated Sites (Maplebeck, Castle Hill, North Muskham and Cromwell Central and North) revealed a heterogenous concentration of archaeological evidence, spanning from the Iron Age to the modern periods. This included small scale occupational areas at Maplebeck and peripheral occupational activity at Maplebeck, Cromwell, Central, Cromwell North and Castle Hill.

2 LOCATION, GEOLOGY AND TOPOGRAPHY

2.1 The proposed evaluation area was located within the Newark and Sherwood District, *c.*2.2km to the north-west of Newark. The Site, at the commencement of the evaluation, covered an area of approximately 2878ha used as agricultural land.

2.2 The first phase of evaluation, undertaken between April and July 2024, spanned approximately 307ha of the Scheme Order Limits at the time the works were undertaken. The area within the Scheme Order Limit has reduced since the commencement of the evaluation. This alteration followed changes on the project design with some of the evaluated areas no longer falling within the Scheme. This report focuses on five specific areas, described below:

MAPLEBECK

2.3 Composed of four fields, the Maplebeck site is located approximately 1km southeast of the village of Maplebeck, and 2.5km west of Caunton, in Newark, Nottinghamshire (centred on SK 71631 60013, Figure 02). The fields comprising this Site (Field 1-4) were bounded by a mix of arable land and woodland. The underlying solid geology is Mercia Mudstone, a sedimentary bedrock formed between 252.2 and 201.3 million years ago during the Triassic period (BGS 2024)[1]. The overlying soils are characterised as slowly permeable, seasonally wet, slightly acid but base-rich loamy and clayey soils in fields 1 and 4, along with the southern part of field 2 and the southeast corner of field 3. The northern part of field 2 and majority of field 3 are characterised by slightly acid loamy and clayey soils with impeded drainage (Cranfield Soil and Agrifood Institute, 2024).

2.4 The Maplebeck site was partly situated on a fairly levelled ground at the top of a hill, and on land that sloped downwards to the south from a height of 67m—37m Above Ordnance Datum (AOD).

CASTLE HILL

2.5 Composed of a single field, Castle Hill is located approximately 2km west of Carlton-on-Trent and 2km southwest of Sutton-on-Trent in Newark, Nottinghamshire (centred on SK 78021 64555; Figure 17). The Site is situated within a field measuring approximately 25ha in area, it is bound by agricultural fields to the west, north and east, and by Ossington Road to the south.

2.6 The bedrock geology of the site is Mercia Mudstone Group, a sedimentary bedrock formed between 252.2 and 201.3 million years ago during the Triassic period (BGS 2024). The overlying soils are characterised as slightly acid loamy and clayey soils with impeded drainage (Cranfield Soil and Agrifood Institute 2024)[2].

[1] British Geological Survey. 'Geology of Britain Viewer,' *British Geological Survey* (2024), https://www.bgs.ac.uk/map-viewers/bgs-geology-viewer/. [Accessed 9th May 2024].

[2] Cranfield Soil and Agrifood Institute. 'Soilscapes,' *Cranfield University* (2024), http://www.landis.org.uk/soilscapes. [accessed: 9th May 2024].

2.7 No borehole records exist within the Site boundaries. However, the adjacent field, to the east, contains one borehole record - SK76SE25 – documenting Mercia Mudstone (Keuper Marl) to a depth of 182.40 metres.

2.8 The Castle Hill site was situated at the top of a levelled rise in the northern part of a field at a height of c. 42m AOD. The field then sloped down to the south and southeast to 28m AOD.

NORTH MUSKHAM

2.9 North Muskham was composed of two fields located between North Muskham (Figure 21), approximately 1km to the east, and Bathley, c. 500m to the west, in Newark, Nottinghamshire (Field 1 was centred on SK 78674 59358 and Field 2 was centred on SK 78273 59308). Field 1 is the easternmost field, bounded by Vicarage Lane to the north, the Great Northern Railway Line to the east, and Bathley Lane to the south and with Field 2 to the west. Field 2 was bounded by other agricultural fields and by Field 1 to the east (Figure 15-19).

2.10 The bedrock geology is comprised of Mercian Mudstone Group, whilst superficial deposits are characterised as Holme Pierrepont Sand and Gravel Member (BGS 2024)[3]. The overlying soils are loamy soils with naturally high groundwater (Soilscape 22 - Cranfield Soil and Agrifood Institute 2024)[4].

2.11 The site was situated on fairly levelled ground at 10-12m AOD.

CROMWELL - CENTRAL AND NORTH

2.12 Cromwell Central and Cromwell North were centred around SK 79278 60974 (Figure 30). Whist both Cromwell sites have been separated in two distinct excavation areas, based on differing land ownerships, the fields share a similar topography and geology, explored blow.

2.13 Cromwell Central comprises a group of four fields located to the southwest of the village of Cromwell and encompassing an area of c.38.2 Ha. The easternmost field of this Site is bordered to its east by the A1 (the Great North Road), and to its north, west and south by agricultural fields. The single field comprising the Cromwell North Site is located to the north, adjacent to this central/eastern field. The remaining three fields, located to the west, are bounded by agricultural land to their south, west and north, and by the Great Northern Railway Line to the east. A drainage channel/watercourse, relating to a possible late Pleistocene braided river system, forms a natural physical boundary which divides the three westernmost fields of Cromwell Central.

2.14 Cromwell North is located directly south of Cromwell village and comprises a single field that measured c.8.9Ha. This site is bordered by the A1 (Great North Road) to its north and east, and by agricultural fields to its south and

[3] British Geological Survey. 'Geology of Britain Viewer,' *British Geological Survey* (2024), https://www.bgs.ac.uk/map-viewers/bgs-geology-viewer/. [Accessed 9th May 2024].

[4] Cranfield Soil and Agrifood Institute. 'Soilscapes,' *Cranfield University* (2024), http://www.landis.org.uk/soilscapes. [accessed: 9th May 2024].

west limits. The easternmost field of the Cromwell Central site borders Cromwell North to the south.

2.15 The bedrock geology for both sites consist of a Mercian Mudstone Group sedimentary bedrock which formed between 252.2-201.3 million years ago during the Triassic Period (BGS, 2024). Superficial deposits of Holme Pierrepont sand and gravel, formed between 2.588 million and 11.8 thousand years ago during the Quaternary period, were recorded atop the bedrock across the entirety of the Cromwell North Site and the majority of Cromwell Central (ibid). Superficial deposits of clay, silt, sand and gravel alluvium, formed between 11.8 thousand years ago and the present, were recorded within the western fields of Cromwell Central, following the course of the drainage channel/watercourse that flows throughout these fields (*ibid*).

2.16 One borehole record, SK76SE32, was recorded within the western fields of Cromwell Central, however the data gathered by this record could not be accessed (BGS, 2024)[5].

2.17 Overlying loamy soils, with naturally high groundwater, were recorded atop the superficial deposits of the Holme Pierrepoint sand and gravels across both sites. On the other hand, loamy and clayey floodplain soils with naturally high groundwater were recorded overlaying the superficial deposits of alluvium recorded within the western fields of Cromwell Central (Cranfield Soil and Agrifood Institute, 2024)[6].

2.18 Cromwell North is situated on fairly levelled ground at c.9-10m AOD. The eastern field of Cromwell Central is located on a slight gradient, with the field gradually sloping from 11m AOD in the east to 9m AOD towards the northwest. The western fields of Cromwell Central are situated on a relatively level plateau at a 10-11m AOD, with the fields gradually sloping from south to north.

[5] British Geological Survey. 'Geology of Britain Viewer,' *British Geological Survey* (2024) https://www.bgs.ac.uk/map-viewers/bgs-geology-viewer/. [Accessed 9th May 2024].

[6] Cranfield Soil and Agrifood Institute. 'Soilscapes,' *Cranfield University* (2024) http://www.landis.org.uk/soilscapes. [accessed: 9th May 2024].

3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Sources of Information

3.1 A detailed historical and archaeological background was compiled for the Written Scheme of Investigation (Wessex Archaeology, 2024)[7]. The information was drawn from various sources including a 1km search of the Nottinghamshire's Historic Environment Record (NHER), Heritage Gateway[8], Historic England National Heritage List[9] and the Archaeology Data Service[10].

3.2 The following section summarises the above-mentioned historical and archaeological assessment and includes, whenever possible, the results of the geophysical survey undertaken before the trial trenching programme. The results of the geophysical surveys are included as an appendix to the Environmental Statement.

MAPLEBECK

Prehistoric- Roman (1,000,000 BC – AD 410)

3.3 No records of archaeological features or finds pertaining to the prehistoric and Roman periods were present on the HER within 1km of this area of the Scheme.

Early Medieval (AD 410 – 1066)

3.4 A total of two historical records, located outside of the study area, relate to early medieval artefacts. These consist of an early medieval gold decorated annular brooch (L4210) located c.1.04km west of site, and of a gold and garnet jewel, located c.1.96km to the south west of the Site.

Medieval (AD 1066 – 1540)

3.5 A total of two records relate to medieval activity; The Grade I listed building, Church of St Radegund (M4240, 1045596), located at Maplebeck c.1.49km northwest of Site, has a possible construction date of c.1300AD. The second record is a Grade II listed Farmhouse (1370159, M9389) located c.0.99km to the northwest of Site, and dating between 1066AD to 1779AD.

Post-Medieval (AD 1540 – 1901)

3.6 A total of two records relate to post-medieval evidence. These consist of a Grade II listed Farmhouse (1370160, M9391) dated between 1729AD - 2000AD and located c.0.913km northwest of Site. The second record relates

[7] Wessex Archaeology (2024) *GNR Solar Farm, Newark, Nottinghamshire. Written Scheme of Investigation for Archaeological Evaluation Phase I.* Unpublished document. Document reference: 276500.3.

[8] Heritage Gateway https://www.heritagegateway.org.uk/gateway/ [Accessed 10/05/2024].

[9] Historic England https://historicengland.org.uk/listing/the-list/ [Accessed 10/05/2024].

[10] ADS https://archaeologydataservice.ac.uk/archsearch/browser.xhtml [Accessed 10/05/2024].

with a Grade II listed Georgian House dating to the 1800AD-2000AD (M9390, 1045597) located c.0.921km to the northwest of the Site.

Modern (1901 – Present)

3.7 The single modern record relates to the village Methodist Chapel dating between 1780AD-2000AD (M6609) and located c.0.938km northwest of Site.

Geophysical Survey

3.8 A Geophysical Survey was undertaken on Site by Environmental Resources Management in 2022 to 2023 (ERM, 2024)[11]. The survey identified possible archaeological elements in the form of ditches, as well as a series of historical cultivation and agricultural field systems and drainage.

CASTLE HILL

Prehistoric- Roman (1,000,000 BC – AD 410)

3.9 No records of archaeological features or finds pertaining to the prehistoric and Roman periods were present on the HER within 1km of this area of the scheme.

Early Medieval (AD 410 – 1066)

3.10 The nearby settlement of Sutton-on-Trent appears to originate in the Early Medieval period, with the tower of Church of All Saints (M4338) incorporating Saxon foundations.

3.11 Approximately 1.6km southeast of the Site, there is evidence for a complete deserted village (M4189; SK 788631) with a moat and attendant earthworks.

Post-Medieval (AD 1540 – 1901)

3.12 The first records for Carlton-on-Trent, approximately 2km east from the Site, date from the post-medieval period onwards.

3.13 Brick Kilns (M4235) are depicted to the rear of a farm on Ossington Road known as Castle Hill (SK 78951 64269), approximately 950m to the east of the Site. The Brick Kilns are recorded as present by 1836 on Symondson's map of 1836.

3.14 Hill Farm (M17695) is situated approximately 800m to the southwest of the Site. Hill Farm is described as a farmstead arranged around a cobbled yard, with numerous red brick outbuildings. No exact date is given for Hill Farm.

Boreholes

3.15 Publicly available editions of Ordnance Survey maps dating issued in 1884, 1900 and 1921, depict the Site within an agricultural setting comprising several fields. The record for Borehole SK76SE25, excavated in 1982, includes a map showing the in situ historic field boundaries, suggesting the historic fields where the Site is located were amalgamated at some point after 1982 (British

[11] Environmental Resource Management (2024) *Detailed Gradiometer Survey Report Land to the West of A1, North of Staythorpe, Nottinghamshire (East of Eakring, Maplebeck Estate, South of Ollerton Road)*. Cultural Heritage Report Number: 40439.

Geological Survey 1982)[12]. A pond was also depicted in the centre of the modern field; however, this is no longer observable using satellite imagery.

Geophysical Survey

3.16 A Geophysical Survey was undertaken at Castle Hill by Environmental Resource Management in 2023 (ERM 2023)[13]. The survey identified possible archaeology as linear and enclosure type features, former field boundaries and agricultural features.

NORTH MUSKHAM

Prehistoric - Roman (1,000,000 BC- AD 410)

3.17 The Site is located within close proximity to the River Trent, which provides an advantageous position and location for human communities to settle and exploit water and food resources.

3.18 No Palaeolithic activity has thus far been identified within North Muskham. The nearest activity consists of two artefact scatters of worked flint found near South Muskham.

3.19 The records for the Mesolithic activity is provided by lithic finds and flint scatters, discovered in and around North Muskham and South Muskham. One of these scatters, situated approximately 1.36km southeast of the Site, revealed the presence of lithic industry spanning from the Mesolithic to the Bronze Age (L11142).

3.20 Neolithic finds have been found towards the southern part of Field 1 of the Site, with the recovery of blades, flaked axe head, polished axe heads and scrapers (L5647, L5648).

3.21 A Neolithic greenstone polished axe, along with further axe head fragments (L3073) were found in close proximity to the Site, c.570m to the southeast. A blade, a polished axe head and a scraper were also found c.200m south of the Site (L5649). Further artefacts, comprising a blade, polished axe head and a scraper, were found c.840m to the south of the Site (L5650). Further to the east, c.1 km towards the village, a Neolithic axe head was also recovered (L5651), and c.750m to the northeast a further Neolithic axe head was found (L5653).

3.22 Activity dating to the Bronze Age has also been found, c.570m to the southeast of the site, with the recovery of a flint arrowhead (L5643).

3.23 Iron Age activity was identified during trial trenching at North Muskham by JSAC in 1998. This tranche of works, located c.1km to the east of the Site (L12118), identified various ditches that would have formed part of an enclosure with associated settlement remains.

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[12] British Geological Survey (1982) *Borehole SK76SE25, Carlton Hill.* https://api.bgs.ac.uk/sobi-scans/v1/borehole/scans/items/239512. [Accessed 10/05/2024].

[13] Environmental Resources Management (2023) *Detailed Gradiometer Survey Report Land to the West of A1, North of Staythorpe, Nottinghamshire (Hewson Land)*. Cultural Heritage Report Number: 268310.

3.24 Little in the way of Romano-British activity is recorded in North Muskham aside from findspots of Romano-British pottery recovered during field walking (L11152), and also potentially Roman or Early Medieval pottery (L11177) found c.1.36km southeast of the Site.

Early Medieval (AD 410-1066) – Medieval (AD 1066-1500)

3.25 There is no known activity dating to the Early Medieval period within North Muskham, however, the village is recorded in the Domesday Records indicating that the village was established prior to 1086.

3.26 The parish church, the Church of St Wilfrid is a Grade I listed building dating from the late 12th century (M3155).

3.27 Find spots of medieval pottery to post-medieval (L11178) have also been found during fieldwalking, again, approximately 1.36km southeast of the Site. An incomplete baluster jug of late 14th century date was found c.1km east of the Site, thought to have been associated with a wooden well ring found in the base of a well (L2990).

Post-Medieval – Modern (AD 1500 -Present)

3.28 The Site at North Muskham appears to have remained largely unchanged since the medieval period.

3.29 The 'Great North Road' is situated to the east of the Site, and is commonly associated with the coaching route between London and the North, which was established in the 18th century. Prior to this, the 'Old North Road' had been in use and followed a slightly different alignment in places.

3.30 There are numerous historic buildings and former sites within the village of North Muskham. Only a few selected examples are listed below. The former Grade II listed North Muskham Grange (M3258, MNT26677), is located c.826m to the east of the Site, consisting of two large structures set within a park/garden dating to the late 18th century with an earlier 17th century service wing. The oldest part of North Muskham Grange stood at the north end of the village and may have been 16th century in date. A former brick tower windmill at Mill House (M3269), is located c.1.30km southeast of the Site. The Old Manor House (Formerly North Muskham House), a late 18th century house situated (M3270), sits c.1.70km southeast of the Site. The Old Hall, a listed Grade II listed building (M9228) dated to at least 1767, is situated c.1.20km southeast of the Site. Manor Cottage (M14414) and the 18th century cottage, are just c.925m east of the Site.

Undated

3.31 The HER holds a group of records associated with evidence of unknown date. These include a settlement situated on Site, in the southern part of Field 1 (M8337). The evidence is based on a series of cropmarks of linear features, one of which may be the side of a rectangular enclosure, and further roughly rectangular paddocks, one of which may have an adjoining hut circle.

3.32 Aerial photography has identified further evidence for enclosures within the Site boundaries, towards the northern part of Field 1. These include a rectangular enclosure (L2975), field boundaries, an enclosure and a pit

alignment in the central area (L8336). A further rectilinear enclosure with a small internal rectangular enclosure (L8338) as well as a ring ditch (L9730) were also recognised in the southern part of Field 1.

3.33 Further evidence in close proximity to the Site have also been identified to the south of Field 1; a linear feature and rectangular enclosures (L2976, L2977), to the east of Field 1, further linear features and a circular enclosure (L2989), and also a rectangular enclosure (L2991). Located around 830m to the southeast of the Site was a further linear feature and pit alignment (L8356), and also linear features and ring ditch (L8357).

3.34 A potential moat has also been identified (L8358), c.1km to the southeast of the Site. This area also included a faint linear feature (L8359), a cropmark complex of an enclosure, linear feature and pits (L8360), and a circular feature that was possibly the site of an early mill (L8361).

Geophysical Survey

3.35 A Geophysical Survey was undertaken at North Muskham by Environmental Resources Management in 2022 to 2023 (ERM 2023)[14]. The survey identified possible archaeology in the form of linear and enclosure type features, historical cultivation, and former field boundaries and agricultural features.

CROMWELL (CENTRAL AND NORTH)

Prehistoric (500,000 Cal BC – AD 43)

3.36 The outlines for a large sub-rectangular enclosure, two small conjoined sub-rectangular enclosures, two penannular ring ditches and a series of multiple pits and linear ditches were identified by aerial photography within the eastern field of Cromwell Central (Mill field), adjacent to the A1/Great North Road, during the early 20th century (MNR 322669). The irregular enclosures identified to the east of Cromwell Central resembled those identified, via aerial photography, and excavated at Stanton Harcourt, Oxfordshire, in the 1940's which were dated from the Bronze Age into the Iron Age (Grimes 1943[15]; Harden and Treweeks 1945[16]). In 1950, one of the two penannular ring ditches was excavated and interpreted as a probable Bronze Age round barrow (Dauncey and Hurrell 1951[17]; M8624). Clay lined pits were identified at the centre of the barrow and interpreted as being funerary in nature (ibid). Two Bronze Age beaker vessels were recovered from the barrow during this

[14] Environmental Resources Management (2023) *Detailed Gradiometer Survey Report Land to the West of A1, North of Staythorpe, Nottinghamshire (Grange Farm Land)*. Cultural Heritage Report Number: 268310.

[15] Grimes, W (1943) Excavations at Stanton Harcourt, 1940 in *Oxoniensia* ***8-9*** *pp 19-63.* Oxford; The Oxford Architectural & Historical Society.

[16] Harden, D. B. and Treweeks, R. C. (1945) Excavations at Stanton Harcourt, Oxon. 1940 II in *Oxoniensia* ***10*** pp. 16-41. Oxford; The Oxford Architectural & Historical Society.

[17] Dauncey, K. and Hurrell, D (1951) The excavation of a round barrow at Cromwell, Nottinghamshire in *Transactions of the Thoroton Society* ***55*** pp. 1-2. Nottingham; The Thoroton Society of Nottinghamshire.

excavation, as well as an assortment of other Bronze age and Romano-British pottery sherds. Later medieval truncations through the barrow were also recorded during this excavation.

3.37 A circular mound measuring c.0.3m in height and c.35m in diameter was recorded in close proximity to the Bronze Age barrow by the Ordnance Survey in 1974. The mound is believed to be contemporary with the Bronze Age barrow, although it has not been subject to excavation, as it is believed to have been converted to carry a Mill, from which the field 'Mill Field' gets its name, at a much later date. The site of the mound has also been recorded on Harding and Lee's list of henges, noting that its interpretation as part of a henge cannot be ruled out (Harding and Lee 1987; MNR 322669)[18].

3.38 Mesolithic to Bronze Age flint scatters were recorded during a programme of trial trenching at Foxholes Farm, c.400m southwest of Cromwell Central in North Muskham in 2000 (Northern Archaeological Service 2000)[19] (L12100) and an early perforated Bronze Age axe hammer was recorded as a findspot monument from Foxholes Farm, c.650m southwest of site, in 1968 (L8609).

3.39 East of Cromwell Central's easternmost field by c.520m, between Lodge Farm and the River Trent, 9-10 sub-rectangular earthworks denoting the presence of a scheduled Iron Age barrow cemetery is recorded (MNR4287). Northeast of Cromwell North by c. 840m a 'tankard'-like object dating to the late Iron Age and early Romano-British period made of a wooden base and covered with a very think coppery alloy sheeting, with loose coppery alloy handle, was recovered from the aggregate extraction within Cromwell Quarry (L8817).

3.40 Beyond the 1km search area around the Site evidence dating from the Mesolithic to Iron Age has been recorded c.1.5km northeast of Cromwell North during evaluation works undertaken by Trent & Peak Archaeology (now York Archaeology) in 2018 in support of the expansion of Cromwell Quarry, located to the east of these Sites on the opposite end of the A1 (Collins 2018)[20]. Ongoing monitoring archaeological monitoring works at Cromwell Quarry have also recorded bog oaks from a network of Paleochannels which have dated to the Neolithic (Reeves 2019)[21].

3.41 Additionally, long-term aggregate extraction at Longford Quarry, c. 2km to the southeast of Cromwell Central, has produced a number of artefacts believed to be of either Neolithic to Bronze Age in date.

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[18] Harding, A. F. and Lee, G. E (1987). *Henge Monuments and Related Sites of Great Britain. Air Photographic Evidence and Catalogue.* BAR Publishing.

[19] Northern Archaeological Associates (2000) *Foxholes Farm, North Muskham, Near Newark, Nottinghamshire. Archaeological Evaluation Report* [Unpublished Report] Northern Archaeological Associates.

[20] Collins, C (2018*) Cromwell North. An Archaeological Trial Trench Evaluation and Borehole Survey* [Unpublished Document]. Nottingham; Trent and Peak Archaeology (York Archaeology): 039/2018.

[21] Reeves, J (2019) *Archaeological Desk-Based Assessment: Cromwell Quarry Southern Extension* [Unpublished Document] Nottingham; Trent & Peak Archaeology (York Archaeology).

Romano-British (AD 43 – c. AD 410)

3.42 The location of a possible roman villa has been inferred from a cropmark complex identified within a field located to the southwest of Cromwell, north adjacent to Cromwell North and c.340m northeast of Cromwell Central (MNR4195). The complex consists of Rectangular and long linear shaped features, with one large rectangular feature measuring 110m x 180m, with a number of sub divisions, believed to represent the possible villa. The cropmark complex has not been subject to any form of archaeological investigation.

3.43 A sherd of undiagnostic roman greyware pottery was recovered from a gully excavated during a trial trenching evaluation at Fox Holes Farm in 2000, c. 200m to the southwest of Cromwell Central (L12095). Trial trenching undertaken by YA in 2021 identified several finds and features dating between the 1st-3rd centuries AD c.840m east and southeast of both Cromwell Sites, along the bank of the River Tent (Parker 2021) [22].

3.44 Findspots of Roman greyware were recorded c.250m northwest of Cromwell Central in 1974 (L8604) and c. 500m north of Cromwell North within the centre of Cromwell in 1964 (L4202). Further findspots of Roman pottery were recorded east and southeast of both Cromwell Sites by c.580-900m (L7492 and L4312).

3.45 A possible Roman Villa with recorded timber remains and pottery dating from the 3rd-4th centuries AD is located c.1.1km, beyond the search area of both sites (MNR4282).

Early medieval (c. AD 410 – 1066)

3.46 The name Cromwell derives from either the Old English ‘Crumb’, meaning crooked, twisted or bent, or ‘crumbe’, meaning a bend in a river or stream, and the Anglian ‘wella’ meaning a spring of stream (Institute for Name-Studies 2024)[23].

3.47 No evidence of early medieval activity was identified within the boundaries of both Cromwell sites. A church, believed to have been built of timber, was recorded within the settlement of Cromwell by the end of the early Medieval period, however this was subsequently replaced by a stone-built structure by the end of the 11th/early 12th century (Horsley 2013 [24]; Palmer 2024 [25]).

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[22] Parker, L (2021) *Archaeological Trial Trench and Auger Borehole Evaluations at Ness Farm, Cromwell Quarry, Cromwell, Nottinghamshire* [Unpublished Document] Nottingham; Trent and Peak Archaeology (York Archaeology): 169/2021.

[23] Institute for Name-Studies (2024) *Key to English Place-Names* [Online Resource] Available at: http://kepn.nottingham.ac.uk/?_gl=1*1vq6vra*_gcl_au*MTMzMTA0NjcyMC4xNzIzNDY1OTc4*_ga*NzIzNTUzMDI1LjE3MTI1NzExMTE.*_ga_NTJWP5TDWB*MTcyMzQ3MjYzMS4zLjAuMTcyMzQ3MjYzMS42MC4wLjA. [Accessed 12/08/2024]. Nottingham; University of Nottingham.

[24] Horsley, L (2013) *Cromwell Churchyard Survey. A gravestone recording, condition survey and map of the churchyard of St Giles', Cromwell, Nottinghamshire*. Nottinghamshire Community Archaeology. Nottinghamshire County Council.

[25] Palmer, J. J. N (2024) *Open Domesday* [Online Resource] compiled by A. Powell-Smith. Available at: https://opendomesday.org/place/SK7961/cromwell/ [Accessed 12/08/2024].

3.48 Situated c. 920m to the east/northeast of both sites is the site of the oldest identifiable Anglo-Saxon Bridge in Britain (MNR4286). Several of the piers of this bridge remained *in situ* until 1822, when they were removed with dynamite to improve the navigation down the River Trent. A surviving oak balk timber from this bridge, held by Newark Museum, was dendrochronologically dated to the 8th century AD, denoting it as Mercian and the only known Anglo-Saxon bridge from this period (Sailsbury 1995) [26].

3.49 Within Cromwell Quarry, northeast of both sites, a linear wooden structure comprised of upright wooden posts with several phases of wattle panelling was recorded within a large paleochannel in 2019. Rapid rangefinder radiocarbon dating of this wooden structure suggests a construction date between the 7th-9th centuries AD, and a single Anglo-Saxon dress pin was also recovered in conjunction with this structure.

Medieval (1066 - 1500)

3.50 Cromwell was recorded within the 1086 Domesday survey as being a settlement of 17 households listed under two owners; Gilbert Tison and Healfdene of Cromwell. It had resources totalling 4.5 ploughlands, 5.5 ploughland teams, 1 lords plough team's, meadows 6* 3 furlongs, 1 mill (value 1 shilling), 1 fishery and 1 church (Palmer 2024) [19].

3.51 By the end of the 11th and beginning of the 12th century, the Anglo-Saxon church at Cromwell was replaced by a stone-built structure which now stands as the Grade I listed Church of St. Giles (MNR4242). Elements of the medieval church are recorded in the north wall of the chancel where two 13th century lancet windows are set and in the south chancel which dates to the 14th century (Horsley 2013). The church tower was built of a Tuxford stone known as Skerry in 1430 (ibid). The base of a decorated octagonal cross base dating to c. AD 1300 is recorded within the church yard of St. Giles, to the east of the church (MNR5731; Pevsner 1979) [27].

3.52 Other medieval artefacts recorded around the Sites include a medieval stake (L8818) recovered from a silt pond excavation within Cromwell quarry, c. 870m northeast of Cromwell North, that was dendrochronologically dated to AD 1222. Sherds of probable medieval pottery were recovered from a linear feature identified during evaluation trenching at Foxholes Farm in 2000, c. 300m southwest of Cromwell Central (L12097). An assortment of medieval finds, mostly pottery assemblages, have been recorded from around North Muskham (L11337, L5946 and L2990), c. 0.8-1km southeast of the Sites.

Post-medieval – modern (1500 – Present)

3.53 Several buildings fronting the Great North Road in Cromwell date to the post-medieval period, with buildings such as Collage Farmhouse (MNR18601), Willington House (MNR18598), Newcastle House (MNR18602) and Cromwell House Farm (MNR14983) dated to between the 18th and 20th centuries. Two

[26] Sailsbury, C (1995) An 8th-century Mercian bridge over the Trent at Cromwell, Nottinghamshire, England in *Antiquity No.* ***226***. pp 1015-1018.

[27] Pevsner, N edited by Williamson, E (1979) *The Buildings of England Nottinghamshire*. Yale University Press.

of these post-medieval buildings, the Pidgeoncote at Willington House, c. 550m north of Cromwell North, and the Old Rectory c. 370m northeast of Cromwell North, are Grade II listed buildings.

3.54 The Old rectory and cottage were originally built in 1680 as a dower house for the Earls (or Countesses) of Clare, it was then converted into a Rectory for the Church of St. Giles in 1714, but had been functioning as such before then (MNR11847). The building would undergo further renovations throughout the 18th-20th century. The Pigeoncote was built in the late 17th century out of brick with a pantile roof and likewise underwent repair works up and into the 20th century (MNR13942).

3.55 In 1873 and 1875 the medieval church of St. Giles and the cross at Cromwell were subject substantial restoration works, with a shaft and head added to the base of the medieval octagonal cross base (MNR5731) and the reconstruction of the chancel aisle within the church which uncovered further 14th century architectural features within the church; two 14th century chancel arches (Horsley 2013) [28]. The church would undergo further renovations in 1912.

3.56 The 19th -20th century finds were recovered from large irregular pits excavated at Cromwell House which identified the site of a former earth closet, c. 340m north of Cromwell North (L12372). Post-medieval pottery was also recorded during evaluation works around the post-medieval Foxholes Farm (MNR17706) in 2000.

3.57 By 1774 a windmill is depicted on the Chapman survey map of Nottinghamshire as being located within the site, constructed on an earlier prehistoric mound, or immediately south of it. This mill is not present on any subsequent mapping of the area which depicts the fields under investigation as being enclosed agricultural plots from 1883 onwards (OS 1884a; 1885; and 1900).

Undated

3.58 As mentioned above, both Cromwell Sites have been subjected to several aerial photography surveys since the early 20th century onwards. These identified several cropmarks, within and around the Sites, which could represent settlement complexes.

3.59 Large angular east-west and north-south aligned cropmarks, with right angles and squarish features of unknown date, were identified within the boundaries of Cromwell North (L8620), as well as west of the Site (M8612).

3.60 Unexcavated pit alignments and circular enclosures were identified to the west of the prehistoric barrows, within Cromwell Central' easternmost field (L8621) and also adjacent to the southern limit of this same field (L6822).

3.61 Two cropmark complexes (MNR8611 and MNR8610) were located to the east of Cromwell Central' western fields. Furthermore, two other cropmark complexes, and two fields containing linear features, were also recorded to the south and west of Cromwell Central' western fields (L8602; L8603; L8606

[28] Horsley, L (2013) *Cromwell Churchyard Survey. A gravestone recording, condition survey and map of the churchyard of St Giles', Cromwell, Nottinghamshire*. Nottinghamshire Community Archaeology. Nottinghamshire County Council.

and L8607). Another scheduled complex of unexcavated contiguous enclosures, truncated by linear features, was also located to the northwest of Cromwell Central (MNR8600).

Geophysical Survey

3.62 A geophysical Survey was undertaken by Environmental Resources Management in 2022 and 2023 (ERM 2023 [29; 30]). The survey identified the cropmark complexes and linear features within the fields of Cromwell Central and North that had previously been identified via the aerial photography and investigations, as discussed above.

[29] Environmental Resources Management (2023) *Detailed Gradiometer Survey Report Land to the West of A1, North of Staythorpe, Norttinghamshire (Jackson Land)*. Cultural Heritage Report Number: 268310).

[30] Environmental Resources Management (2023) *Detailed Gradiometer Survey Report Land to the West of A1, North of Staythorpe, Norttinghamshire (Dakin Land)*. Cultural Heritage Report Number: 268310).

4 RELEVANT LEGISLATION AND GUIDANCE

PLANNING CONTEXT

4.1 This programme of archaeological evaluation was underpinned by national legislation and local policies, as described below.

4.2 The results of the archaeological trial trench evaluation intend to inform the need for any further archaeological mitigation.

National Energy Policy

4.3 As the Scheme is a Nationally Significant Infrastructure Project, designed for the construction of a solar energy farm, the government policies *Overarching National Policy Statement for Energy (EN-1)* and *National Policy Statement for Renewable Energy Infrastructure (EN-3)* (Department for Energy Security & Net Zero 2023a[31] and 2023b[32]), are relevant to the Scheme.

Overarching National Policy Statement for Energy (EN-1)

4.4 Paragraphs 4.2.15 to 4.2.17 of the Overarching National Policy Statement for Energy (EN-1) state:

"4.2.15 Where residual non-HRA or non-MCZ impacts remain after the mitigation hierarchy has been applied, these residual impacts are unlikely to outweigh the urgent need for this type of infrastructure. Therefore, in all but the most exceptional circumstances, it is unlikely that consent will be refused on the basis of these residual impacts. The exception to this presumption of consent are residual impacts onshore and offshore which present an unacceptable risk to, or unacceptable interference with, human health and public safety, defence, irreplaceable habitats or unacceptable risk to the achievement of net zero. Further, the same exception applies to this presumption for residual impacts which present an unacceptable risk to, or unacceptable interference offshore to navigation, or onshore to flood and coastal erosion risk.

4.2.16 As a result, the Secretary of State will take as the starting point for decision making that such infrastructure is to be treated as if it has met any tests which are set out within the NPSs, or any other planning policy, which requires a clear outweighing of harm, exceptionality or very special circumstances.

4.2.17 This means that the Secretary of State will take as a starting point that CNP Infrastructure will meet the following, non-exhaustive, list of tests:

• where development within a Green Belt requires very special circumstances to justify development;

• where development within or outside a Site of Special Scientific Interest (SSSI) requires the benefits (including need) of the development in the location proposed to clearly outweigh both the likely impact on features of the

[31] Department for Energy Security & Net Zero (2023a) *Overarching National Policy Statement for Energy (EN-1).* London: Department for Energy Security & Net Zero.

[32] Department for Energy Security & Net Zero (2023b) *National Policy Statement for Renewable Energy Infrastructure (EN-3).* London: Department for Energy Security & Net Zero.

site that make it a SSSI, and any broader impacts on the national network of SSSIs.

• where development in nationally designated landscapes requires exceptional circumstances to be demonstrated; and

• where substantial harm to or loss of significance to heritage assets should be exceptional or wholly exceptional."

4.5 Paragraphs 5.9.9 to 5.9.11 state:

"5.9.9 The applicant should undertake an assessment of any likely significant heritage impacts of the proposed development as part of the EIA, and describe these along with how the mitigation hierarchy has been applied in the ES (see Section 4.3). This should include consideration of heritage assets above, at, and below the surface of the ground. Consideration will also need to be given to the possible impacts, including cumulative, on the wider historic environment. The assessment should include reference to any historic landscape or seascape character assessment and associated studies as a means of assessing impacts relevant to the proposed project.

5.9.10 As part of the ES the applicant should provide a description of the significance of the heritage assets affected by the proposed development, including any contribution made by their setting. The level of detail should be proportionate to the importance of the heritage assets and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum, the applicant should have consulted the relevant Historic Environment Record235 (or, where the development is in English or Welsh waters, Historic England or Cadw) and assessed the heritage assets themselves using expertise where necessary according to the proposed development's impact.

5.9.11 Where a site on which development is proposed includes, or the available evidence suggests it has the potential to include, heritage assets with an archaeological interest, the applicant should carry out appropriate desk-based assessment and, where such desk-based research is insufficient to properly assess the interest, a field evaluation. Where proposed development will affect the setting of a heritage asset, accurate representative visualisations may be necessary to explain the impact."

4.6 Paragraphs 5.9.17 to 5.9.21 state:

"5.9.17 Where the loss of the whole or part of a heritage asset's significance is justified, the Secretary of State will require the applicant to record and advance understanding of the significance of the heritage asset before it is lost (wholly or in part). The extent of the requirement should be proportionate to the asset's importance and significance and the impact. The applicant should be required to publish this evidence and to deposit copies of the reports with the relevant Historic Environmental Record. They should also be required to deposit the archive generated in a local museum or other public repository willing to receive it.

5.9.18 Where appropriate, the Secretary of State will impose requirements on the Development Consent Order to ensure that the work is undertaken in a timely manner, in accordance with a written scheme of investigation that

complies with the policy in this NPS and which has been agreed in writing with the relevant local authority, and to ensure that the completion of the exercise is properly secured.

5.9.19 Where the loss of significance of any heritage asset has been justified by the applicant on the merits of the new development and the significance of the asset in question, the Secretary of State should consider:

• imposing a requirement in the Development Consent Order

• requiring the applicant to enter into an obligation

5.9.20 That will prevent the loss occurring until the relevant part of the development has commenced, or it is reasonably certain that the relevant part of the development is to proceed.

5.9.21 Where there is a high probability (based on an adequate assessment) that a development site may include, as yet undiscovered heritage assets with archaeological interest, the Secretary of State will consider requirements to ensure appropriate procedures are in place for the identification and treatment of such assets discovered during construction."

National Policy Statement for Renewable Energy Infrastructure (EN-3)

4.7 Paragraph 3.8.190 of the National Policy Statement for Renewable Energy Infrastructure (EN-3) states:

"3.8.190 Once a site has been chosen, it may be necessary to undertake further archaeological assessment, including field evaluation, to identify as yet unknown heritage assets when considering the options for detailed site development, which may also include ancillary matters, such as those described in Section 5.9 of EN-1."

4.8 Paragraphs 3.10.98 to 3.10.101 state:

"3.10.98 The impacts of solar PV developments on the historic environment will require expert assessment in most cases and may have effect both above and below ground…

3.10.100 Below ground impacts, although generally limited, may include direct impacts on archaeological deposits through ground disturbance associated with trenching, cabling, foundations, fencing, temporary haul routes etc. Equally solar PV developments may have a positive effect, for example archaeological assets may be protected by a solar PV farm as the site is removed from regular ploughing and shoes or low-level piling is stipulated."

4.9 Paragraphs 3.10.104 to 3.10.106 state:

"3.10.104 Where a site on which development is proposed includes, or has the potential to, include heritage assets with archaeological interest, the applicant should submit an appropriate desk-based assessment and, where necessary, a field evaluation. These should be carried out, using expertise where necessary and in consultation with the local planning authority, and should identify archaeological study areas and propose appropriate schemes of investigation, and design measures, to ensure the protection of relevant heritage assets.

3.10.105 In some instances, field studies may include investigative work (and may include trial trenching beyond the boundary of the proposed site) to assess the impacts of any ground disturbance, such as proposed cabling, substation foundations or mounting supports for solar panels on archaeological assets.

3.10.106 The extent of investigative work should be proportionate to the sensitivity of, and extent of proposed ground disturbance in, the associated study area. Applicants should take account of the results of historic environment assessments in their design proposal."

National Planning Policy Framework

4.10 Developments of this nature, and their impact upon the historic environment, are addressed by the revised 2024 National Planning Policy Framework (NPPF) published by the Ministry of Housing, Communities and Local Government (MHCLG), and the NPPF Planning Practice Guide Conserving and Enhancing the Historic Environment (DCLG 2023, 2024) 33 34.

4.11 Section 16 of NPPF, paragraph 205 states:

"Local planning authorities should maintain or have access to a historic environment record. This should contain up-to-date evidence about the historic environment in their area and be used to:

a) assess the significance of heritage assets and the contribution they make to their environment; and

b) predict the likelihood that currently unidentified heritage assets, particularly sites of historic and archaeological interest, will be discovered in the future."

4.12 In addition, paragraph 207, states that:

"In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation."

4.13 Furthermore, paragraphs 212 and 218 of the NPPF state:

"When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's

[33] Department for Communities and Local Government (DCLG) (2023) *National Planning Policy Framework Planning Practice Guide: Conserving and Enhancing the Historic Environment.* London: Department for Communities and Local Government.

[34] Department for Communities and Local Government (DCLG) (2024) *National Planning Policy Framework (NPPF)*. London: Department for Communities and Local Government.

conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance"

"Local planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted."

Local Policy

4.14 The scheme is located in the Newark and Sherwood District Council (2019)[35], which has the following Core Policy:

- The continued conservation and enhancement of the character, appearance and setting of the district's heritage assets and historic environment, in line with their identified significance as required in national policy:

- Designated assets and environments comprising Listed Buildings (inclusive of the protected views of and across Southwell's principal heritage assets), Conservation Areas, Registered Historic Parks and Gardens, and Scheduled Monuments. When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be. Where adverse impact is identified there should be a clear and convincing justification, including where appropriate a demonstration of clear public benefits;

- Non-designated heritage assets including buildings of local interest, areas of archaeological interest and unregistered parks and gardens or as identified on the relevant Historic Environment Record or identified in accordance with locally agreed criteria. In weighing applications that affect directly or indirectly non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.

- The preservation and enhancement of the special character of Conservation Areas including that character identified through Conservation Area Character Appraisals which will form the basis for their management. Important open spaces and features identified through the Conservation Area Appraisal process will be protected

[35] Newark and Sherwood District Council (2019) *Plan Review, Review of the Newark and Sherwood local development framework core strategy and allocations* https://www.newark-sherwooddc.gov.uk/media/nsdc-redesign/documents-and-images/your-council/planning-policy/local-development-framework/amended-core-strategy-dpd/amended-core-strategy-DPD.pdf [Accessed 10/05/2024].

through subsequent allocation in the Allocations & Development Management DPD;

- Positive action for those heritage assets at risk through neglect, decay, vacancy or other threats where appropriate; and

- The protection of Historic Landscapes including the Historic Battlefield at Stoke Field, the Sherwood Forest Heritage Area and the Historic Landscape around Laxton. A sustainable future for Laxton will be sought, which preserves and enhances its Open Field System and culture, the built and natural environment which sustain it, including the Historic Landscape around Laxton, and the institutions which manage it. This will be achieved by working in partnership with the Court Leet, the Crown Estates and the Parish Council. Appropriate new development which facilitates these aims will be supported.

5 SITE-SPECIFIC AIMS AND OBJECTIVES

AIMS

5.1 The general aims of the fieldwork were as follows:

- To provide information about the archaeological potential of the Site; and
- To inform either the scope and nature of any further archaeological work that may be required; or the formation of a mitigation strategy (to offset the impact of the development on the archaeological resource); or a management strategy.

OBJECTIVES

5.2 The objectives of the fieldwork were to:

- Determine the presence or absence of archaeological features, deposits, structures, artefacts or ecofacts within the specified area;
- Establish, within the constraints of the evaluation, the extent, character, date, condition and quality of any surviving archaeological remains;
- Place any identified archaeological remains within a wider historical and archaeological context in order to assess their significance; and
- To make available information about the archaeological resource within the site by reporting on the results of the evaluation

SITE SPECIFIC OBJECTIVES

5.3 The Site-Specific objectives of the fieldwork were to:

- To test the results of the geophysical surveys;
- To examine evidence for any prehistoric remains;
- To examine evidence of any prehistoric remains, in particular evidence of the Iron Age settlements identified by the HER;
- To examine evidence for potential Roman settlement that may exist within the Site; and
- To assess the potential for the medieval and post-medieval agricultural activity within the Site.

REGIONAL RESEARCH OBJECTIVES

5.4 This archaeological evaluation was considered to provide an opportunity to contribute to Research Themes and Objectives outlined in the (Knight *et al* 2012) [36] *East Midlands Heritage: An Updated Research Agenda and Strategy for the Historic Environment of the East Midlands* (Interactive Digital Platform available at: www.researchframeworks.org/emherf).

Table 1: Relevant research questions from the East Midlands Research Framework

3. Neolithic and Early to Middle Bronze Age (c.4000–c.1150 calBC)
3.6 Ceremonial and burial monuments
3.6.1: Why may monument complexes have developed, why were some short-lived and others of longer duration, and why do these incorporate such a wide variety of monument types?
3.6.3: What roles may henges, causewayed enclosures, cursuses and other monument classes have performed in contemporary society?
3.7 Riverine monuments and ritual foci
3.7.2: What ceremonial or ritual roles may rivers or other watery locations have performed and how may this have varied regionally and over time?
3.7.3: How significant were river-crossing or confluence zones as foci for monument complexes?
4. Late Bronze Age and Iron Age (*c*.1150 cal BC–AD 43)
4.3 Late Bronze Age and Early Iron Age settlements (c.1000 – 450 BC)
4.3.2: What can we deduce about the morphology, spatial extent and functions of settlements, and in particular the processes underlying the development in some areas of enclosed occupation or activity foci?
4.4 Middle Iron Age settlements (c.450 – 100 BC)
4.4.1: Why were settlements increasingly enclosed during this period and to what extent may the progress of enclosure have varied regionally?
4.4.3: How and why did ‘village’ or ‘ladder’ settlements develop?
4.5.2: How are the nucleated settlements related to one another and to other settlements of the period? In particular, is there evidence for a developing settlement hierarchy?
4.6.1: Can we shed further light upon the development of field and boundary systems?
4.6.2: What were the economic, social or political roles of the pit alignments and linear ditch systems that characterised many areas of the East Midlands?

[36] Knight, D, Vyner, B, and Allen, C (2012) *East Midlands Heritage: An Updated Research Agenda and Strategy for the Historic Environment of the East Midlands*. Available at: www.researchframeworks.org/emherf [Accessed 10/05/2024].

4.7.2: What roles may wet and other natural locations have performed and how might these have changed over time?
5. Roman (AD 43-c.410)
5.4 Rural settlement patterns and landscapes
5.4.1: How did the Conquest impact upon rural settlements and landscapes?
5.4.2: How and why did settlement forms and building traditions vary within the region and over time?
5.4.3: How did rural settlements relate to each other and to towns and military sites, and how may this have varied regionally and over time?
5.4.4: How did field and boundary systems relate to earlier systems of land allotment, and how did these boundary networks develop over time?
8. Post-Medieval (1485-1750)
8.3 Agricultural Landscapes and Economy
8.3.1: How can we improve our understanding of the early landscapes of enclosure and improvement and the interrelationship between arable, pasture, woodland, commons and waste?
8.3.2: How did water management and land drainage change the landscape during this period?
8.3.3: What changes and improvements occurred in animal husbandry and the use of animals (e.g. new breeds, traction and traded animal products)?
9. Modern (1750-Present)
9.6 Agriculture
9.6.1: What was the impetus for the development of estate farming and rural agricultural industries, and what has been the landscape impact?
9.6.2: How did Parliamentary enclosure and other agricultural improvements (e.g. water management) impact upon the rural landscape?
9.6.3: What was the role and distribution of planned model farms?
9.6.5: What changes and improvements have occurred in animal husbandry and use (e.g. new breeds, traction and traded animal products)?

6 METHODOLOGY

6.1 The methodology section derives from the Written Scheme of Investigation (WSI) produced by Wessex Archaeology in 2023 and incorporates a new method statement produced by YA in 2024 (Wessex 2024)[37].

GENERAL CONDITIONS

6.2 All works were undertaken in accordance with the WSI as approved by the Nottinghamshire Planning Archaeologist and to standards defined by CIfA guidelines for recording of archaeological sites (CIfA 2020[38], 2022[39], 2023a[40], 2023b[41]).

ARCHAEOLOGICAL TRIAL TRENCH EVALUATION

6.3 The Phase 1 of trial trenching evaluation targeted five sites, wherein 231 trenches were excavated and recorded. Within the five targeted sites, a total of 89 trenches were excavated at Maplebeck, 12 trenches at Castle Hill, 52 trenches at North Muskham, 51 trenches at Cromwell Central and 27 trenches at Cromwell North. Each trench measured 50m by 1.80m and were excavated by a 360° mechanical excavator using a 1.80m wide toothless ditching bucket (Figures 02, 17, 21, 30).

6.4 All trenches were located with reference to the Ordnance Survey National Grid by GPS, Leica CS15/GS15 RTK Differential GNSS.

6.5 All machining was conducted under constant archaeological supervision, with stripping and spoil removal arranged so as to avoid any tracking across the stripped surface. Prior to excavation, areas were scanned with a CAT scanner to locate any services that may not be shown on the services plan supplied by the Client.

6.6 Trenches were excavated to the first archaeological horizon. Stratigraphy was removed in spits no greater than 250mm.

6.7 Topsoil and subsoil were stored separately at a safe distance from the trench edge. Spoil was checked for artefacts, including the use of a metal detector when deemed appropriate. No finds were recovered from the topsoil or subsoil.

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[37] Wessex Archaeology (2024) *GNR Solar Farm, Newark, Nottinghamshire. Written Scheme of Investigation for Archaeological Evaluation Phase I.* Unpublished document. Document reference: 276500.3.

[38] Chartered Institute for Archaeologists (CIfA) (2020) *Standard for archaeological field evaluation*. Reading: Chartered Institute for Archaeologists.

[39] Chartered Institute for Archaeologists (CIfA). 2022. *Code of Conduct*. Reading: Chartered Institute for Archaeologists.

[40] Chartered Institute for Archaeologists (CIfA) (2023a) *Standard for archaeological field evaluations*. Reading: Chartered Institute for Archaeologists.

[41] Chartered Institute for Archaeologists (CIfA) (2023b) *Universal guidance for archaeological field evaluations*. Reading: Chartered Institute for Archaeologists.

6.8 All features identified were hand-cleaned. Following scanning by metal detector, features were sample excavated, sufficient to determine their plan and form, and to recover any datable artefacts.

6.9 Feature fills were removed by contextual change (the smallest usefully definable unit of stratification) and/or in spits no greater than 100mm.

RECORDING AND SAMPLING

6.10 Plans of all contexts, including features, were surveyed using a GPS, Leica CS15/GS15 RTK Differential GNSS, and showed at least: context numbers, all colour and textural changes, principal slopes, levels expressed as O.D. values, or levelled to permanent features if a benchmark was absent, sufficient to locate the subject in relation to OS 1:2500 mapping.

6.11 Sections were drawn on drafting film in pencil at a scale of 1:10/1:20/1:50 (as appropriate) and show the same information, but levelling information was given in the form of a datum line with O.D/arbitrary value. The locations of all sections were surveyed.

6.12 Digital images of each context were taken together with general views illustrating the principal features of the excavations.

6.13 Written records were maintained as laid down in the YA recording manual and excavation manual (York Archaeology 2015; York Archaeology 2024)[42] [43].

6.14 The location of any artefacts was recorded by context/spit fill numbers.

6.15 Due to an unexpected duplication of the trench numbers in two different areas - North Muskham and Cromwell North - the trench numbers 455, 456 and 457 at Cromwell North were altered to 4550, 4560, and 4570. This alteration is reflected across this report and amongst the physical archive and avoids incorrect interpretation of the data.

POST-EXCAVATION

6.16 An interim report was produced following the completion of the fieldwork (York Archaeology 2024)[44]. This report was submitted as an Appendix to the Preliminary environmental information report.

6.17 The post-excavation works encompassed the revision and analysis of the Site records, GPS survey and the production of plans for this full report. A revision of the available archaeological data was also conducted.

6.18 All finds have been washed, quantified, bagged and stored according to the guidance for the safe handling and curation of archaeological objects (CIfA,

[42] York Archaeology (2015) *Recording Manual*. York Archaeology: Unpublished Document.

[43] York Archaeology (2024) *Excavation Manual.* York Archaeology: Unpublished Document.

[44] York Archaeology (2024) Great North Road Solar Park Interim Report for Archaeological Evaluation: Unpublished Report

2020)[45] and *First Aid for Finds* (Watkinson and Neal 1998) [46]. Following cataloguing and provisional dating the finds were submitted to the relevant specialists for analysis. Selected artefacts will be marked with the site and find codes, and relevant accession numbers.

ARCHIVE AND FINDS DEPOSITION

6.19 The archive will be fully catalogued and prepared to recognised standards (Brown 2011)[47] in line with the depositing museum deposition guidelines/requirements (Newark and Sherwood District Council 2021)[48].

6.20 The archive will be deposited with Newark and Sherwood Museum, under the accession code **NEKMS: 2024.10**.

6.21 A copy of the report will be submitted to the HER and to the Archaeology Data Service (ADS).

45 Chartered Institute for Archaeologists (CIFA) (2020) Standard and guidance for the collection, documentation, conservation and research of archaeological materials. Chartered Institute for Archaeologists: Reading

46 Watkinson. D. and Neal. V (1998) *First Aid for Finds*. London: Rescue/UKIC.

47 Brown, D (2011) *Archaeological Archives – A guide to best practice in creation, compilation, transfer and curation (2nd ed.).* London, Archaeological Archives Forum.

48 Newark and Sherwood District Council (2021) *The Transfer of Archaeological Archives to Newark and Sherwood Museum Service*. Newark and Sherwood District Council.

7 RESULTS

Introduction and Scope of the Reported Results

7.1 The following results provide a detailed overview of the archaeological evidence collected during the evaluation at the five targeted sites. The interpretations are also supported by artefactual and ecofactual specialist reports, figures and plates.

7.2 The results are organised in separate chapters for each site, presenting a brief overview, a table of phases, and the detailed trench results structured by chronological period. The full specialist reports are presented in chapter 8, following the archaeological results. A complete log of all excavated trenches and context list is provided in Appendix 1.

Overview of the Results

7.3 The Phase 1 evaluation for the Great North Road Solar Park comprised the excavation of 231 trenches, covering approximately 307ha. Of these, 125 trenches were found to contain features or deposits of archaeological nature with date ranges spanning between the later Iron Age and post-medieval periods, with a wider focus on late-prehistoric and Roman elements.

7.4 Four of the five evaluated sites are dominated by evidence of intensive agricultural activity dating to at least the medieval or post-medieval periods. Ridge and furrow strip cultivation was identified across Maplebeck, North Muskham, and Cromwell North and Central. In some areas, the intensity of modern agricultural activity has resulted in the truncation of archaeological features which inhibited their full assessment. Despite the damage, archaeological features were positively identified in all five evaluated Sites. A small number of non-agricultural features dating to the post-medieval or later periods were also identified.

Quantification of the Site Archive

The quantification of the site archive is presented below:

Table 2: Quantification of the Site Archive

Record type	No.
Trench records	820
Context sheets	634
Drawing registers	1
Photo registers	1
Sample registers	1
Drawing sheets	29
Photographs	6,638
Samples	33

MAPLEBECK

Overview and Phasing

7.5 The evaluation at Maplebeck comprised the excavation of 89 trenches across four fields. A total of 39 trenches contained archaeological features ranging in date from the Iron Age to post-medieval periods (Figures 02–16; Table 3). The identified features comprised pits, gullies, and enclosure ditches broadly dating to the later prehistoric and Romano-British periods. Due to the paucity of datable evidence, a high number of features from Maplebeck remain unphased.

7.6 A long cluster of archaeological evidence was detected across the Maplebeck site, on a west-east alignment. Features dating to the Iron Age and Romano-British periods, including a ring structure, as well as many of undated features, were found in this area. Some features from this area, dissimilar to the later agricultural features and containing no datable evidence, have been assigned a potential Iron Age/ Romano-British phase. An additional area of activity was present in the south-western part of the Site containing Romano-British features, furrows and undated features.

7.7 Later ridge and furrow field systems, as well as evidence of old field boundaries, were also recorded within a large number of excavated trenches. The identified former field boundaries correspond well with enclosure boundaries which are visible on 1900's OS mapping, and their presence within upper levels of the evaluation trenches suggest that the land use has not significantly altered since, at least, the post-medieval period.

7.8 Archaeological features were present within Trenches 366, 370, 380, 383-385, 389, 391-392, 394-400, 402-404, 410, 412-416, 419, 421-424, 426, 428-429, 431, 436, 445, 447 and 454.

Table 3: Maplebeck phasing summary

Phase	Trenches	Features Present
Iron Age	426, 428, 431	Sub-rectangular enclosure, with internal features and ring ditch
Romano-British	395, 404, 412, 445	Rectilinear enclosure with internal sub-enclosure Ditch and probable waste pits
Iron Age/Romano-British	384, 389, 396, 397, 398, 400, 402, 403, 416, 447	Ditches curvilinear ditches and pits
Medieval/post-medieval	391, 394, 396, 397, 414, 415, 419, 422, 424, 429, 445, 447	Furrows and single pit
19th Century - modern	66, 380, 383, 384, 385, 402, 454, 410, 421, 422 and 454.	Field boundary ditches
Undated	370, 392, 399, 413, 423	Ditches

Blank Trenches

7.9 The following trenches did not yield archaeological features: 367-369, 371-379, 381-382, 386-388, 390, 393, 401, 405-409, 411, 417-418, 420, 425, 427, 430, 432-435, 437-444, 446, and 448-453. Trench 386 contained a feature of geological origin (glacial scarring/fissuring), which was investigated, but not recorded further. A Victorian coin was recovered from the topsoil of Trench 440. These trenches were subject to standard methods for recording archaeologically blank trenches and are not discussed further in the results. Complete stratigraphic details are included in the trench logs in Appendix 1.

Site Stratigraphy

7.10 The general stratigraphy across the Site comprised a natural substrate consisting of a reddish-brown silty clay and Mercia mudstone. Archaeological features were cut in the natural geology, which was overlain by a blackish-brown clay silt agricultural ploughsoil. All trenches measured 50m in length and 1.80m in width, and were excavated to the depth of the natural substrata or the archaeological horizon, whichever was higher. All dimensions are presented by length, width and depth, unless stated otherwise.

Iron Age

7.11 A small Iron Age enclosure containing an internal ring ditch was identified in the north-western part of the Site, in Trenches 426, 428 and 431.

7.12 The circular feature, [42602] and [42612], had a maximum diameter of 14m and a substantial depth of 0.62m. The excavation revealed Iron Age pottery and animal bone, indicating domestic usage. The feature, identified by the geophysical survey, has a north-western entrance and some internal features.

7.13 The surrounding enclosure, also faintly detected in the geophysical survey, was confirmed to survive with double ditches detected to the east - [42803] and [42804]; ditch [42605] and recut [42606] in the south; and ditch [43102] to the west. The pottery obtained from the enclosure ditches was dated as prehistoric, possible Bronze Age and mid-late Iron Age. A residual tiny fragment of CBM was also present in [42803]. The remaining features in these trenches consisted of pits and ditches and were located inside the enclosure.

7.14 Iron Age pottery, potentially residual, was also found associated with later Roman activity in Trenches 412 and 445.

Trench 426

7.15 Trench 426 (Plates 168-173; Figures 11, 14) was located in the central part of Maplebeck field 2, towards the northwest of the Site. The trench was designed to target circular and linear anomalies identified by the geophysical survey. A total of six features were revealed during the excavation.

7.16 The circular anomaly, interpreted as a ring ditch, was located in the centre of the trench. The excavation of two interventions confirmed the presence of this feature. The southern segment of the ring ditch [42602] revealed the expected east to west orientation and dimensions comprising 2m x 1.9m x 0.62m. The ditch contained a single fill of mid-brown sandy silt (42603) from which animal bone, Iron Age pottery and a flake of flint debitage was recovered. The environmental sample revealed a single indeterminate cereal grain. The

northern section of the ring ditch [42612] was not excavated to ensure preservation in situ. Despite not being excavated, animal bone and mid- to late Iron Age pottery was recovered from the surface of its top fill (42613), a medium blackish brown sandy silt. The geophysical survey indicated that the ring ditch would have had a diameter of approximately 14m and internal features. No internal features were found during the evaluation, however this does not discount their potential presence outside of the trench area.

7.17 Located to the immediate north of [42612] was an east to west orientated ditch [42610]. The ditch, which terminated close to the west trench limit, was 1.55m wide and 0.28m deep. It contained a single fill (42611) comprised of blackish brown clayey silt with angular mudstone inclusions, from which animal bone and sherds of probable Iron Age pottery was recovered. The environmental sample found indeterminate cereal grains and two fragments of hazelnut.

7.18 Approximately 9m to the south of the ring ditch was a circular pit [42608] with a circumference measuring 0.88m and a maximum depth of 0.14m. It contained a single fill (42609), of orange brown sandy silt with frequent angular stone, from which sherds of probable Iron Age pottery was recovered. Indeterminate cereal grains were found in the environmental sample taken from the pit.

7.19 Located in the southern area of the trench and directly to the south of pit [42608] was a northeast to southwest orientated ditch [42605] and a recut [42606]. Ditch [42606] spanned 2m in length 1.76m in width and 0.44m in depth, and it contained a single fill of mid-brown sand with occasional angular stone (42607) from which prehistoric pottery was recovered. The ditch recut [42605] (2m in length, 1.46m in width, and 0.68m in depth) contained a single fill (42604), of mid-brown sandy silt with moderate angular stone and frequent patches of soft red clay, from which animal bone and possible Bronze Age pottery was recovered.

Trench 428

7.20 Trench 428 (Plates 176-179; Figures 11, 14) was located to the east of Trench 426. A total of two ditches were recorded and metal finds were retrieved from the topsoil (42800), including a 15th–early 16th century copper alloy chape and one 18th century button.

7.21 Located in the western area of the trench was a north-northeast to south-southwest oriented ditch [42804] (2.20m x 0.90m x 0.32m) which terminated at the northeast edge of the trench. It contained two fills (42805) and (42806). The primary fill (42806) contained mid-brown silty sand with frequent angular stone and no finds. The secondary fill (42805), comprised of mid-brown silty sand, produced animal bone and mid to late Iron Age pottery. An environmental sample taken from the ditch contained two indeterminate cereal grains.

7.22 Located parallel to [42804], was a north-northeast to south-southwest orientated ditch [42803] (2.20m x 1.06m x0.60m). It contained a single fill of mid-brown silty sand (42802), from which prehistoric pottery, animal bone and intrusive CBM of exceptionally small size were recovered.

Trench 431

7.23 Trench 431 (Plate 185-189; Figure 10, 11, 14) was located to the west of Trench 426 in the northwestern part of Maplebeck. A total of five features were present in this trench.

7.24 Located in the southeast area of the trench was a northeast to southwest orientated ditch [43110], which terminated in the centre of the trench. It measured 1.50m in length, 1.18m in width and had a maximum depth of 0.64m. It contained two fills (43111) and (43112). The earlier of these fills (43111) contained mid yellowish-brown clayey silt with occasional stones and animal bone as well as mid to late Iron Age pottery. The secondary fill (43112) was a mid-brown clayey silt, from which no finds were recovered.

7.25 Located in the southeast area of the trench and directly north of [43110] was a northeast to southwest orientated ditch [43108] (1.64m, 1.0m x 0.50m) which terminated at the southwest end. It contained a single fill of mid-yellowish-brown clayey silt (43109), from which animal bone and mid to late Iron Age pottery was recovered.

7.26 Truncating ditch [43108] was a northeast to southwest orientated oval pit [43106] (1.06m x 0.90m x 0.26m). It contained a single fill of mid-brown clayey silt with moderate pebbles (43107), from which animal bone was recovered.

7.27 Located in the central area of the trench was a shallow, circular pit [43104] measuring c.0.75m in diameter, with a depth of 0.12m. It contained a single fill of mid yellowish-brown clayey silt (43105), from which no finds were recovered.

7.28 Located in the central area of the trench was a northeast to southwest orientated ditch [43102] (1.8m x 0.74m x 0.52m). It contained a single naturally silted fill of dark yellowish-brown clayey silt (43103), from which animal bone was recovered.

Romano-British

7.29 Securely dated Romano-British activity at the Maplebeck Site was limited to Trenches 395, 404, 412 and 445.

7.30 Within the southwestern corner of the site, a possible rectilinear enclosure with a small squarish sub-enclosure was present was detected within Trenches 404 and 412. The possible enclosure comprised northwest-southeast ditches [40405] and [41203/41207], the latter containing Roman and residual prehistoric pottery. The small squarish sub-enclosure was represented by ditch [40405] and a pit cut by ditch [41203/41207]. The fills and finds from these features were suggestive of domestic activity.

7.31 In the western part of the site, a sparse cluster of Romano-British features was present. These included a large north by south orientated ditch in Trench 395 [39502], measuring at least 3m in width and 0.9m in depth. It contained pottery dating to the 2nd century AD and was flanked by a parallel ditch [39511] to the west, which contained sherds of 3rd to mid-4th century pottery within a similar brown silty clay fill. To the north, within Trench 445, isolated pits [44502], [44504] and [44506] produced fragments of possible prehistoric and Romano-British pottery within similar mid orange-brown silty clay fills. The pits ranged in depth between 0.18-0.5m, and probably represent waste disposal pits

associated with peripheral domestic activity in relation to the larger Romano-British ditch.

Trench 395

7.32 Trench 395 (Plate 72-77; Figure 07, 16) was located in the eastern part of the Site. A total of five features were present.

7.33 Located in the central to eastern area of the trench was a north-northeast to south-southwest orientated ditch [39511] (>1.8m x 1.94m x 0.31m). It contained a single fill (39512), of mid-brown silty clay, from which 3rd to mid-4th century pottery was recovered.

7.34 Located in the eastern area of the trench and east of ditch [39511] was a north to south orientated ditch [39502] measuring the length of the trench, with a width 2.96m and a maximum depth of 0.92m. It contained a single fill of mid-greyish brown silty clay with frequent charcoal flecks and occasional fired clay inclusions (39503), from which pottery dating to the 2nd century AD was recovered. An environmental sample taken from the ditch found charred plant macrofossils of two grass seeds, two cereal chaff culms and one cereal glume base.

7.35 Located in the eastern area of the trench was an east to west orientated oval pit [39506] (1.18m x 0.74m x 0.36m). It contained a single fill (39507), of mid-greyish brown silty clay with occasional charcoal flecks, from which no finds were recovered.

7.36 Located in the eastern area of the trench was a northeast to southwest orientated ditch [39504] (>0.50m x 0.90m x.42m). It contained a single fill (39505), of mid-greyish brown silty clay with occasional charcoal flecks, from which no finds were recovered.

7.37 Located in the eastern area of the trench, cutting both [39506] and [39504], was an east to west orientated oval pit [39508] (1.54m x 1.11m x 0.86m). It contained two fills, the primary fill (39509) contained mid greyish brown silty clay with occasional charcoal flecks, likely accumulated through natural silting processes. Overlying this was (39510) consisting of mid-yellowish grey silty clay with occasional charcoal flecks, neither fill produced datable material.

Trench 445

7.38 Trench 445 (Plates 217-220; Figure 07, 16) was located to the north of Trench 395. It contained five archaeological features.

7.39 Located at either end of the trench were two northeast to southwest orientated ditches identified as furrows. Each had a single fill from which no finds were recovered.

7.40 Located in the central area of the trench was a shallow, sub-circular pit [44502] measuring c.0.46m in length, 0.22m in width, and maximum recovered depth of 0.08m. It contained a single fill of mid-orange brown silty clay (44503), from which sherds of Roman pottery was recovered.

7.41 Located in the central area of the trench, east of [44502], was a sub-circular pit [44504] (0.54m, 0.32m x 0.18m). It contained a single fill (44505), of mid-orange brown silty clay, from which possible prehistoric pottery was recovered.

7.42 Located in the central area of the trench but obscured by its southern limit, was a sub-circular pit [44506] (0.80m x 0.32m x 0.18m). It contained a single fill (44507) of mid-orange brown silty clay, from which possible Romano-British pottery was recovered.

Trench 404

7.43 Trench 404 (Plates 107-110; Figure 13, 14) was located in the western part of the site, targeting two northwest to southeast orientated linear anomalies identified by the geophysical survey. Both anomalies were found to correspond to ditches [40404] and [40405].

7.44 Ditch [40404] (>1.8m x 0.69m x 0.52m), located in the northern part of the trench, contained two fills; a mid-brownish red clay with occasional charcoal flecks (40402), followed by mid-blackish brown silty clay with occasional charcoal flecks (40403). Neither of these fills produced any finds.

7.45 Ditch [40405] (1.8m x 1.86m x 0.38m) contained a single fill (40406), of dark reddish-brown clay with occasional charcoal flecks inclusions, suggestive of anthropogenic waste deposition, from which no finds were recovered.

7.46 The larger geophysical feature appeared to consist of a long northwest to southeast ditch [40405] and a small square annex to the north [40404] containing a possible internal feature.

Trench 412

7.47 Trench 412 (Plates 126-129; Figure 13, 14) was located to the north of Trench 404, in the western part of the Site. It targeted a faint northwest to southeast orientated linear feature identified by the geophysical survey and contained a wide ditch [41203/41207] and a pit [41205].

7.48 The pit [41205] (0.62m x 0.60m x 0.22m), located in the southern part of the trench was cut by ditch [41203/41207] and was not visible in plan. It contained a single fill (41206), of dark greyish brown silty clay with frequent charcoal flecks and medium-large rounded stones, from which sherds of possible Iron Age pottery were recovered.

7.49 The ditch [41203/41207] (1m x 5.62m x 0.40m) was excavated with two slots due to its width. It contained a single fill of dark greyish brown silty clay and frequent inclusions of charcoal flecks, with occasional medium to large rounded stones (41204/41208). Several fragments of animal bone and sherds of prehistoric and Romano-British pottery were recovered from the fill. An environmental sample taken from the ditch found two indeterminate cereal grains, two fragments of hazelnut shell and charcoal from oak, apple sub-family, poplar/willow, hazel and alder. Its similarity in fill and alignment to the ditches seen in Trench 404 suggested it belonged to the same division system.

Iron Age/Romano British

7.50 A long cluster of activity was present running east to west across the Maplebeck Site. In the western part of this cluster the features identified in Trenches 431, 426, 428 could be confidently dated to the Iron Age. In the eastern part of the cluster the features in Trenches 395 and 445 could be confidently dated to the Romano-British period. The following trenches

contained features within this cluster of activity that contained no dating evidence and have been assigned to a potential Iron Age/Romano-British phase: 384, 389, 396, 397, 398, 400, 402, 403, 416 and 447.

Trench 384

7.51 Trench 384 (Plates 40-43; Figure 05, 15) was located in the eastern part of the site, to the south of the undated features in Trenches 396 and 397 and to the southwest of the Romano-British features in Trenches 445 and 395. A total of three features were present in this trench, two of which were modern ditches on a north to south alignment [38402] and [38406].

7.52 The central area of this trench revealed a north-northwest to south-southeast oriented ditch [38402] (>1.66m x 1.02m x 0.16m) which terminated before the southern edge of the trench. It contained a single fill (38403) of reddish-brown sandy clay likely formed through natural silting with no finds.

Trench 389

7.53 Trench 389 (Plates 55-57; Figure 07, 15) was located in the eastern part of the site, on southern end of Field 3. It contained a single feature, part of the eastern end of the Iron Age to Romano-British activity cluster.

7.54 Located in the western area of the trench was a northeast to south oriented curvilinear ditch [38902] (1m x 0.44m x 0.24m). It contained a single fill (38903), of mid-brownish red with green blue mottling. No finds were present.

Trench 396

7.55 Trench 396 (Plates 78-83; Figure 08, 15) was located in the northern sector of the site, part of Field 3. A total of four features were present: a curvilinear ditch [39602] and three furrows.

7.56 Located in the western area of the trench was the curvilinear ditch [39602] (0.55m x 0.43m x 0.14m) which extended from the southern edge of the trench on a northwest direction, before curving towards northeast and terminating. It contained a single mid reddish-brown sandy clay fill (39603), from which no finds were recovered.

Trench 397

7.57 Trench 397 (Plates 84-88; Figure 08, 15) was located to the west of Trench 396 in the southwest part of Field 3 and in the eastern part of the Iron Age to Romano-British activity cluster. Two ditches [39704] and [39707] and a furrow were present.

7.58 Located in the western area of the trench was a north to south orientated ditch [39704] (>1m x 0.49m x 0.34m). It contained two fills, the earliest (39705) consisted of mid and yellowish-brown silty sand. It was overlaid by (39706), a mid reddish-brown silty clay with occasional charcoal flecks, neither of which produced any finds.

7.59 Located in the western area of the trench was a north to south orientated ditch [39707] (1.8m x 0.66m x 0.35m). It contained a single naturally silted fill (39708), of mid-brownish grey with very infrequent charcoal flecks and small angular stone inclusions, from which no finds were recovered.

Trench 398

7.60 Trench 398 (Plates 89-91; Figure 07, 15) was located in the eastern part of the Site and Field 3. A single feature, ditch [39802], was present in the northern part of the trench.

7.61 Ditch [39802] was east to west orientated (>1m in length, 3.44m in width, and 0.26m in depth). It contained a single fill of mid greyish brown silty clay with occasional charcoal flecks inclusions (39803), from which no finds were recovered.

Trench 400

7.62 Trench 400 (Plates 95-98; Figure 08, 15) was located in the centre of the northern section of site, part of Field 3. A total of two features were present, both northwest to southeast orientated ditches.

7.63 Located in the central area of the trench was ditch [40002] (1.40m x 0.80m x 0.35m). It contained a single fill of mid-orange brown silty clay (40003), from which no finds were recovered.

7.64 The northern area of the trench contained ditch [40004] (1.25m x 0.90m x 0.18m) with a single fill (40005), of mid-orange brown silty clay, with no finds.

Trench 402

7.65 Trench 402 (Plates 101-103; Figures 07, 15) was located in the northeastern part of the site in Field 3. A single feature was present in this Trench.

7.66 Located in the northern area of the trench was a northwest to southeast orientated ditch [40202]. It measured more than 2m in length, 1.6m in width and 0.29m in depth. It contained a single fill (40203), of naturally formed mid-reddish-brown clay with occasional charcoal flecks, from which no finds were recovered.

Trench 403

7.67 Trench 403 (Plates 104-106; Figure 08, 15) was located in central part of the site, in Field 3. A single ditch [40302], following the same alignment as the ditches in Trench 400 to the east, was recorded.

7.68 Ditch [40302] (>1m x 0.92m x 0.08m) was located in the eastern area of the trench. It was orientated northwest to southeast and contained a single fill (40303), a mid-reddish-brown silty clay with occasional charcoal flecks, from which no finds were recovered.

Trench 416

7.69 Trench 416 (Plates 140-143; Figure 11, 15) was located in the central part of the site, in the southeast corner of Field 2. A total of two features were present in this trench; ditch [41602] and a probable natural depression [41604] (3.2m in length, 0.86m in width and 0.09m in depth).

7.70 Ditch [41602] (2.40m x 0.90m x 0.35m), aligned southwest-northeast contained a single fill (41603) of light greyish brown sandy silt, from which no finds were recovered.

Trench 447

7.71 Trench 447 (Plates 221-225; Figure 07, 15) was located in the northeast part of the Site, on Field 3. This trench was located immediately to the south of Trenches 395 and 445 which yielded various Romano-British features. A total of three features were present: a furrow [44702], a geological feature [44706] and ditch [44704].

7.72 Ditch [44704] had a length of c 2.25m and a width of 0.45m. It was northeast to southwest orientated and appeared to have a curvilinear shape. It terminated at the northeast and contained a single gradually silted fill of mid-brownish yellow silty clay (44705) from which no finds were recovered.

Medieval/Post-Medieval

7.73 The medieval/post-medieval activity recorded during the evaluation was dominated by agricultural ridge and furrow field systems characterised by northeast to southwest and northwest to southeast alignments, respectively.

7.74 A single discrete pit containing post-medieval pottery was also identified within Trench 436.

Furrows

7.75 Furrow with a northeast to southwest alignment could be seen in various trenches in two trenches in the western part of the site, on Field 1. Features in Trenches 419 and 424 were investigated. These ranged in width from 0.6m to 2.46m and in depth from 0.07m to 0.18m.

7.76 Two furrow systems were also identified within Field 3, in the central part of the Site. The first comprised a north-northeast to south-southwest system present across the field in Trenches 391, 396, 397, 415, 429 and 445, while the second and a north to south aligned system present in Trenches 394, 397 414 and 447. Northwest to southeast aligned furrows were also present in Trench 422. The north/northeast to south/southwest aligned furrows ranged in width from 1.06m to 0.6m and in depth from 0.05m to 0.1m. The north to south aligned system in Field 3 ranged in width from 2.3m to 3.5m in width and 0.2m to 0.3m in depth.

7.77 The furrows were consistent in form and were generally infilled with single fills of brownish silty clay. The variation in dimension may be attributed to variations in the level of post-medieval–modern truncation. A 13th–16th century brick was found in furrow [39606] but no other finds were recovered from the furrows and no intersections with other features were present. Full stratigraphic logs are presented in Appendix 1.

Trench 436

7.78 Trench 436 (Plates 198-200; Figure 12, 16) was located in the northwest part of the Site, on Field 2. A single feature was present.

7.79 The central area of the trench yielded an irregular oval pit [43602], east to west orientated (6.06m x 1.54m x 0.23m). The feature extended beyond the northern limits of the trench, and full dimensions could not be ascertained. It contained a single fill of reddish light brown sandy silt with occasional angular stone inclusions (42603), from which a sherd of pottery dating to the 18th century and a fragment of possible CBM was recovered.

19th Century to Modern

7.80 A number of modern field boundary ditches, visible on the 20th century OS mapping (OS 1900)[49], were found within Trenches 366, 380, 383, 384, 385, 402, 454, 410, 421, 422 and 454. Finds recovered from these features were limited to undiagnostic animal bone, a modern plough head from Trench 383, and modern plastic in Trench 385.

7.81 A further modern ditch, which was not visible on earlier OS mapping of the Site, was also observed within trench 384. This yielded finds of animal bone and fragments of modern CBM.

7.82 With the exception of Trench 384, the field boundaries were generally the only modern features present in the above-listed trenches.

Trench 366

7.83 Trench 366 (Plates 1-2; Figure 03) was located in the southeast part of the site, in Field 4. A single feature was present.

7.84 Located in the northern area of the trench was a northeast to southwest orientated ditch [36602], measuring 1.20m in width. It contained a single naturally silted fill (36603) comprising compact mid-greyish brown, sandy clay. This ditch was aligned with field boundaries present on 1900's OS maps. Sections of this same linear feature were investigated in Trenches 380, 384 and 454 (described below) and as such, the feature was not sample excavated within this trench.

Trench 380

7.85 Trench 380 (Plates 30-32; Figure 05) was located in the northeast part of field 4. A single feature was present.

7.86 Located in the central area of the trench was a north to south orientated ditch [38002] (1.22m in width and 0.18m in depth). The ditch had moderately sloping sides, a flat base and contained a single naturally silted fill (38003) of compact mid greyish brown clayey silt with animal bone. It also aligned with previous field boundaries visible on 1900's OS maps and was recorded in trenches 366, 384 and 454.

Trench 383

7.87 Trench 383 (Plates 37-39; Figure 06) was located in the southern part of the site, in Field 4. A single feature was present.

7.88 Located in the central area of the trench was a north to south oriented ditch [38302], measuring 1.80m in width and 0.27m in depth. It contained a single fill (38303) consisting of medium brownish black clayey sand with infrequent charcoal and metal pieces, from which animal bone, a modern plough head and iron studs were recovered. The ditch aligned well with previous field boundaries visible on 1900's OS Map.

[49] Ordnance Survey (OS) (1900) *Nottinghamshire XXIX.4*, revised 1899. Ordnance Survey.

Trench 384

7.89 Trench 384 (Plates 40-43; Figure 15) was located in the east part of the Site, in Field 4. Two north to south orientated modern ditches were present [38404] and [38406].

7.90 Located to the east of the trench and of ditch [38402], were two north to south oriented ditches [38404] (>2m x 1.26m x 0.27m) and [38406] (>2m x 1.66m x 0.63m). Ditch [38404] contained a single fill (38405), containing mid yellowish brown mottled with blackish brown sandy clay, from which no finds were recovered. Ditch [38406] contained two fills (38408) and (38407). The earlier of these fills, (38408), comprised a deliberately deposited dark brown clayey silt with occasional animal bone and fragments of modern CBM. The secondary fill, (38407), consisted of a naturally-silted mid-yellowish sandy clay, from which no finds were recovered.

Trench 385

7.91 Trench 385 (Plates 44-46; Figures 07, 16) was located in the eastern part of the Site, within Field 3. A single feature was present.

7.92 Located in the south section of the trench was an east to west oriented ditch [38502], (0.95m x 1.35m x 0.45m). It contained two fills (38503) and (38504). The primary fill (38504) consisted of yellowish-orange silty clay with an undated brick fragment. The top deposit was a backfill of dark greyish brown silty clay (38503) which contained charcoal, stone and modern plastic. The ditch also aligned with previous field boundaries visible on 1900's OS Map and formed the northern boundary of a field containing north to south agricultural anomalies as seen in the geophysical survey.

Trench 402

7.93 Trench 402 (Plates 101-103; Figures 07, 15) was located in the eastern part of the Site, in Field 3. A single feature was present.

7.94 Located in the northern area of the trench was a northwest to southeast orientated ditch [40202] (>2m x 1.6m x 0.29m). It contained a single fill (40203), of mid-reddish-brown clay with occasional charcoal flecks, from which no finds were recovered. It was likely infilled via natural silting.

Trench 422

7.95 Trench 422 (Plates 156-159; Figure 09) was located in the north part of the Site in Field 3. It yielded two northwest to southeast aligned furrows and two ditches both aligned northwest to southeast.

7.96 The southern area of the trench had a northwest to southeast orientated ditch [44202] (2.10m x 0.58m x 0.18m). It contained a single fill (44203), of medium greyish brown silty clay, from which a sherd of 18th/19th century pottery was recovered.

7.97 A continuation of ditch [40202] was identified and left unexcavated, due to its prior investigation and characterisation in Trench 402.

Trench 454

7.98 Trench 454 (Plate 236-237; Figure 03) was located in the southeast section of the Site, in Field 4. A single feature was present.

7.99 Located in the eastern area of the trench was a north to south orientated former boundary ditch [45402] (2.20m x 1.2m x 0.36m). It contained a single fill of dark grey brown sandy clay (45403), from which no finds were recovered. The ditch is visible on the 1900's OS map.

Undated

7.100 Undated ditches were found in Trenches 370, 392, 399, 413, and 423.

7.101 The western part of Maplebeck contained a second cluster of activity comprising Iron Age features in Trenches 412 and 404, and undated features in Trenches 392, 413 and 423. The features in the latter trenches, despite proximity and potential contemporaneity, have been assigned as unphased as the activity cluster in this area is not as clear as the one located to the north and spanning from west to east.

Trench 370

7.102 Trench 370 (Plates 09-11; Figure 04) was located in the southern part of the site, in Field 4. A single feature was present.

7.103 Located in the central area of the trench was a north to south orientated ditch [37002] (2.66m in width x 0.26m in depth). It had a U-shaped profile with gradual sloping sides and a flat base and contained a single naturally silted fill (37003), a compact mid-greyish brown silty clay with occasional flecks of charcoal, from which no finds were recovered. The ditch correlated with part of a potential small sub-square enclosure seen on the geophysical survey, however the other side of the enclosure and a small curvilinear feature, were not present.

7.104 All surrounding trenches were blank and ditch [37002] therefore could not be associated with other archaeological elements.

Trench 392

7.105 Trench 392 (Plates 63-66; Figure 13) was located in the westernmost corner of the Site, part of Field 1. A total of two features were present.

7.106 The southern end of the trench contained a northwest to southeast orientated ditch [39204] (>2.50m x 1.35m x 0.44m). It contained two fills formed through natural siling, the earlier being a dark yellowish-brown silty clay (39202) which was overlaid by a mid-blueish grey with mid reddish-brown streaks clay (39203). No finds were recovered from either fill.

7.106.1 Located to the north of ditch [39204] was an east to west orientated ditch [39205] (1.90m x 0.81m x 0.18m). It contained a single fill of mid-yellowish-brown silty clay (39206) from which no finds were recovered.

Trench 399

7.107 Trench 399 (Plates 92-94; Figure 13) was located in the west part of the Site, in Field 1. It was near, to the east, of the Iron Age features in Trench 404. Apart from furrows, only another feature was present, ditch [39903].

7.108 The ditch [39903] (>2m x 0.76m x 0.07m) was located in the northern area of the trench. It was northeast to southwest orientated, contained a single fill of mid reddish-brown silty clay with occasional flecks (39904), from which no finds were recovered.

Trench 413

7.109 Trench 413 (Plates 130-133; Figure 13) was located in the western part of the site, in Field 1. It was also closer to the Iron Age and Iron Age/Roman ditches in Trenches 404 and 412. A total of two features were present within this trench.

7.110 The eastern half of the trench contained a northeast to southwest orientated ditch [41302] (>1.8m x 1.90m x 0.54m). It contained a single fill (41303) of mid to dark grey brown silty clay with occasional charcoal flecks. No finds were recovered.

7.111 Located within the western half of the trench was a northwest to southeast orientated ditch [41304] (1.8m x 0.50m x 0.08m). It contained a single fill of mid-grey brown silty clay with occasional charcoal flecks (41305). No finds were recovered.

Trench 423

7.112 Trench 423 (Plates 160-162; Figure 13), located in the western part of the Site in Field 1, contained a single feature.

7.113 The southern section of the trench contained a northeast to southwest orientated ditch [42302] (1m x 0.66mx 0.19m). The feature had a single fill (42303), of light greyish brown silty clay with occasional small rounded stones, no finds were recovered.

CASTLE HILL

Overview

7.114 The evaluation undertaken at Castle Hill comprised the excavation of 12 trenches, each measuring 50m in length and 1.80m in width. Trenches were numbered from 318 to 329 within this part of the Scheme (Figure 17–20). Features of anthropogenic origin were present in Trenches 319, 323 and 325, comprising a Romano-British ditch and 19th–20th century features.

Table 4: Castle Hill phasing summary

Phase	Trenches	Features Present
Romano-British	323	Single Ditch
19th –20th Century	319, 323, 325	Pond and three field boundaries

Blank Trenches

7.115 Trenches 318, 320-322, 324 and 326-329 did not yield features or deposits of archaeological origin. A late post-medieval/modern horseshoe was found in the topsoil of Trench 329. These trenches were subject to standard methods for recording archaeologically blank trenches and are not discussed in the below results. Stratigraphic details are included in trench logs in Appendix 1.

Site Stratigraphy

7.116 The general stratigraphy across the Castle Hill Site comprised a natural substrate consisting of reddish-brown silty clay and Mercia mudstone. Where features were identified, these were cut into the natural substrata and overlain by blackish-brown clay silt topsoil c.0.35-0.50m deep.

Romano-British

7.117 A single trench located in the centre of the Castle Hill site, contained Romano-British remains.

Trench 323

7.118 A single ditch, containing Romano-British pottery, was excavated in Trench 323 (Plates 249-252; Figures 19, 20). Ditch [32304] (2.5m wide x 0.66m deep) had moderately sloping straight sides and a mostly concave base, with an overall D-shaped profile suggestive of a Roman boundary ditch. The feature contained three fills, in ascending stratigraphical order: (32307) an orange-grey silty clay; (32305) a black-brown silty clay with frequent charcoal, heat affected clay, Roman pottery dating to the mid-1st to mid-2nd century, Roman CBM and animal bone; and (32306) a light yellow-grey silty clay containing Roman CBM. The deposits are suggestive of an initial silting, followed by silting and deliberate waste deposition, and then by silting after occupation. An environmental sample taken from fill (32305) yielded indeterminate cereal grains, cereal glume bases and a buttercup seed. The charcoal from the sample comprised field maple, oak and plum type wood generally derived from large branch or trunkwood.

7.119 The ditch was cut by the 19th century field boundary [32302]. The topsoil of the trench also contained Roman pottery dating to the late-1st to 2nd century.

19th to 20th Century

7.120 The remaining features within the Castle Hill site consisted of two field boundaries and a pond, depicted on the 1884 edition of OS mapping (OS 1884a) [50]. Borehole records and 20th century OS mapping further display that the pond and a field boundary were backfilled in the 20th century (OS 1921)[51].

Trench 319

7.121 Trench 319 (Plates 240-242; Figure 19, 20) was located in the central part of Castle Hill and contained pond [31902] (6.9 x >2m x 0.7m). A modern copper alloy pulley was recovered as a surface find near the trench.

7.122 The pond, which can be seen on the 1884 and 1921 editions of OS mapping, contained three fills relating to its silting and backfill. The primary deposit (31905) contained deliberately deposited rubble with CBM, 19th century pottery and slag. It was overlain by a compact light-greyish-blue silt (31904), representing gradual silting of the open pond. This contained Roman and post-medieval CBM, stone, an iron nail, a late post-medieval–modern chisel and 19th century pottery. The upper fill (31903) represented a backfilling event and consisted of a compact dark-greyish-brown silty clay which contained Roman to modern CBM, 19th century pottery, slag, glass, metal and tile. The slag recovered from the pond was identified as probable smithing slag and may be residual from an earlier feature. A high quantity of well-preserved waterlogged plants typical of aquatic environments were recovered from an environmental sample taken from the upper fill (31903).

Trench 323

7.123 Trench 323 (Plates 249-252; Figures 19, 20) was located in the central part of the Castle Hill site. A 19th century field boundary [32302] was present, cutting Roman ditch [32304].

7.124 The field boundary ditch [32302] was north to south aligned and roughly responded to a field boundary depicted in the 1884 edition OS map. Although located approximately 13m to the west of the mapped boundary, this can potentially be attributed to old mapping error.

Trench 325

7.125 Trench 325 (Plates 256-258; Figure 19) was located in the northern part of the Castle Hill site adjacent to the site boundary. A single feature was present within the trench.

7.126 The central area of the trench had a north-south orientated ditch [32502] (>2m x 0.73 x 0.24). It contained a single fill (32503) with modern plastic sheeting. Ditch [32502] seems to align with a field boundary on the 1884 and 1921 editions of OS mapping. Borehole record SK76SE25, from 1982, includes a map showing the in-situ field boundary during the excavation, suggesting that the backfilling event took place after that date (British Geological Survey 1982)[52].

[50] Ordnance Survey (OS) (1884a) *Nottinghamshire Sheet XXV.NE,* surveyed 1883 to 1884. Ordnance Survey.
[51] Ordnance Survey (OS) (1921) *Nottinghamshire Sheet XXV.NE*, revised 1915. Ordnance Survey.
[52] British Geological Survey (1982) Borehole SK76SE25, Carlton Hill. https://api.bgs.ac.uk/sobi-scans/v1/borehole/scans/items/239512 [Accessed 10/05/2024].

NORTH MUSKHAM

Overview

7.127 The evaluation at North Muskham comprised the excavation of 52 trenches across two fields. The trenches measured 50m in length and 1.8m in width (Figures 21–29). A total of 31 trenches contained archaeological features ranging in date from the Iron Age to the modern periods. This site has since been excluded from the Scheme Order Limits.

7.128 The features and finds provide evidence of multi-period activity from the prehistoric and medieval to modern periods. The majority of features were undated. Datable evidence from the prehistoric period was limited to a potential residual pottery in pit [6308] which stratigraphically is of a later date. An undated flake of worked flint was also present.

7.129 Ridge and furrow was rare but former field boundaries were present within a large number of excavated trenches. The uncovered boundaries correspond well with enclosure boundaries visible on early OS mapping, and their presence within upper levels of the evaluation trenches suggest that the land use has not altered significantly since, at least, the post-medieval period.

7.130 Archaeological features were present in Trenches 57-59, 62-64, 66-67, 69-70, 72, 76-77, 80, 84-86, 88-90, 92, 94-95, 97, 100-102, 107, 109 and 455-457.

Table 5: North Muskham Phasing summary

Phase	Trenches	Features Present
Prehistoric	63	-
Medieval/Post-Medieval	90	Furrows
19th–20th century	57, 59, 62, 64, 66, 70, 77, 88, 100, 102, 107, 456	Field Boundaries, pits, plough scars, drainage features
Undated	57, 58-59, 63, 66-67, 70, 72, 76, 80, 85, 88, 92, 94-95, 97, 102, 109, 455, 457	Drainage and boundary ditches, a gully/natural water channel, pits

Blank Trenches

7.131 Archaeological features were not identified in trenches 56, 61, 65, 68, 69, 71, 73-74, 79, 81, 83, 87, 91, 93, 96, 98-99, 104-105 and 108. These trenches were subject to standard methods for recording archaeologically blank trenches and are not discussed further in the narrative below. Full stratigraphic details are included in the trench logs in Appendix 1.

Site Stratigraphy

7.132 The general stratigraphy across the Site comprised a natural substrate consisting of light brownish yellow of Holme Pierrepoint Sand and Gravel. Features were cut into the natural substrata and overlain by blackish-brown clay silt ploughsoil c.0.3-0.4m deep.

Prehistoric

7.133 Artefactually identifiable prehistoric activity was limited to the presence of prehistoric pottery in pit [6308], Trench 63. This pit cut ditch [6306], which

appeared to be a continuation of the probable 19th century field boundary ([6606] [6403]). No features in this trench or in the overall North Muskham site can be confidently dated to the prehistoric period. The trench has been discussed within the section for undated features due to the mixed dating evidence.

Medieval/Post Medieval

7.134 While features following similar alignments could be seen between trenches, very few features could be confidently characterised as furrows. A series of furrows were identified in Trench 90 and a possible furrow [6403] was identified in Trench 64. No pottery dating to the medieval or post-medieval periods was encountered.

Trench 90

7.135 Trench 90 (Plate 361; Figure 26) was located in the eastern section of the Muskham North site. Four furrows were present within the trench, all aligned north to south. A single furrow was excavated [9002] revealing dimensions of 2m in length, 0.60m in width and 0.14m in depth.

7.136 The fill of furrow [9002] was a mid-orange brown silty gravel, similar to the subsoil present across the site.

19th to 20th century

7.137 Evidence for post-medieval and modern field boundary ditches, depicted on available 1800's OS mapping (OS 1884a[53], OS 1884b[54]), were found in Trenches 62, 77, 100 and 102. Other ditches, pits, plough scars and drainage features deemed to be of modern date were found in Trenches 57, 59, 64, 66, 70, 88, 107 and 456.

Trench 57

7.138 Trench 57 (Plates 269-272; Figure 23) was located in the southern part of the Site. An undated ditch [5705], cut by a modern ditch [5703], was present.

7.139 A north to south aligned modern ditch [5703] (>1.92m x 0.69m x 0.25m) contained a single fill (5704), of dark blackish grey silty sand with occasional small flint inclusions. Modern glass was recovered from the fill.

Trench 59

7.140 Trench 59 (Plates 276-280; Figure 23) was located in the southern part of the Site. Two pits [5903] and [5905] were present within the trench, these were determined to be contemporary due to their close proximity and similarity of fills. Non waterlogged wood inclusions found in [5905] indicated a modern date.

7.141 Pit [5903] (0.25m x 0.47m x 0.11m) and pit [5905] (2.1m x 0.24m deep) had primary fills of blackish silty sand with a secondary fill containing stones, charcoal and wood also present in [5905].

[53] Ordnance Survey (OS) (1884) *Nottinghamshire Sheet XXV.NE*, surveyed 1883 to 1884. Ordnance Survey.
[54] Ordnance Survey (OS) (1884b) Nottingham Sheet XXV.SE, surveyed 1883-1884

Trench 62

7.142 Trench 62 (Plates 285-287; Figure 23) was located in the southern part of the North Muskham site.

7.143 A boundary ditch [6202] (width of c.0.60m x 0.14m deep) contained a single fill (6203), of mid-orange greyish brown sandy gravel with occasional charcoal flecks. The ditch corresponded well with a former field boundary visible on the 1884 OS mapping, though no datable material recovered from its fill.

Trench 64

7.144 Trench 64 (Plates 295-299; Figure 23, 27) was located in the southern part of the North Muskham site. It contained an animal burrow [6402], a ditch [6403], linear feature [6405], ditch [6407] and recut [6509]; all on a similar east-northeast to west-southwest alignment. The ditches [6403], [6407] and [6409] appeared to be continuations of ditches [6602], [6604] and [6606] in Trench 66, which correlated with a field boundary on the 1884 Ordnance Survey mapping. The lack of continuation of the boundary into Trench 64 on the mapping, may indicate that these ditches were part of an earlier sub-division which had been removed by the time of the mapping.

7.145 In the southern part of the trench was a shallow, and flat based northeast to southwest aligned ditch [6403] (width of 1.8m x 0.16m deep). It was filled with an orange brown sandy gravel and was truncated by modern animal burrowing activity.

7.146 Located at the northern end of the trench was thin northeast to southwest aligned ditch [6405] (0.68m wide x 0.28m deep). It had a V-shaped profile and contained a single fill (6406), of dark brown sandy gravel, formed via natural silting. No finds were recovered.

7.147 Located to the north of thin linear [6405], was large boundary ditch [6407] (2m x 0.65m x 0.15m) and a recut [6410] (2m x 1.80m x 0.66m). The ditch [6407] contained two fills (6408) and (6409). The primary fill (6408) a mid-brownish grey gravelly sand with rare amounts of lignite was formed via natural silting. Secondary fill (6409) consisted of mottled yellowish-brown gravelly sand. The ditch recut contained three fills: a mottled grey brown gravelly sand likely caused by standing water within ditch over a period of time (6412) followed by a white-grey gravelly sand backfill (6411) and a reddish-brown gravelly sand with white grey mottles (6413).

Trench 66

7.148 Trench 66 (Plate 302-306; Figure 23, 27) was located in the central part of the Site. It contained three ditches, including a recut, that appeared to be potential continuations of features from Trench 64. They correlated with a geophysical anomaly and a field boundary seen in historic Ordnance Survey mapping (OS 1884b). An undated pit [6607] was also present.

7.149 Located in the centre of the trench was ditch [6606] (2m x 0.64m x 0.16m). It had sloping sides, a flat base and contained a single fill (6609), a dark greyish brown sandy silt with small pebbles. It was recut by a flat based ditch [6604] (2m x 1.66m x 0.28m), which contained a mid-greyish brown silt fill (6605) with small sub angular pebbles. These two ditches may represent a continuation

of the undated ditches [6407] and [6409] seen in Trench 64. No finds were recovered.

7.150 Located in the southern part of the trench was ditch [6602] (1m x 0.88m x 0.36m). Similarly to [6606], [6604] and the linear features in Trench 64, it followed an east to west alignment. It was filled with a dark grey brown silty sand with pebble gravels (6603). The ditch correlated with a geophysical anomaly and appeared to represent a continuation of ditch [6403].

Trench 70

7.151 Trench 70 (Plate 315-318; Figure 24) was located in the central part of the North Muskham site. Three features were present within the trench all of which appeared to be modern in date.

7.152 In the centre of trench was a north south aligned ditch [7004] (2m x 1.75m, x 0.44m). It was recut by ditch [7002] (2m x 1.70m x 0.35m) which contained modern pottery. Both ditches were filled with greyish brown silty sand.

7.153 Located to the west of the ditches was small pit [7006], measuring 0.85m in circumference and 0.11m in depth. Its fill was suggestive of modern deposition, possibly related to farming.

Trench 77

7.154 Trench 77 (Plate 332-334; Figure 24, 27) was located in the central part of the Site.

7.155 At the western edge of trench was a ditch [7703] (3.30m x 0.94m x 0.42m) identified as a field boundary via its depiction in late 1800's OS mapping. It was filled via silting (7705) followed by a backfilling event (7704) and contained pottery and undated brick.

Trench 88

7.156 Trench 88 (Plate 355-358; Figure 22, 28) was located in the western part of the Site. A pit [8802] of probable modern date and an undated ditch [8805] were present.

7.157 Pit [8802] (1.5m x 0.53m x 0.7m) was located in the north-eastern side of the trench. It had steeply sloping sides, a flat base and was filled via deliberate deposition with a tip line visible in the lower fill (8803). The form and fill was suggestive of a modern agricultural feature.

Trench 100

7.158 Trench 100 (Plate 387-388; Figure 26) was located in the eastern part of the Site.

7.159 Located at the northern end of the trench was a field boundary ditch [10002] (2m x 1.8m). It contained a single fill (10003) of mid-blackish brown sandy silt. As the ditch was identified as a continuation of the 19th century ditch [10002] seen in Trench 102, it was recorded in plan without excavation.

Trench 102

7.160 Trench 102 (Plate 391-393; Figure 26, 28) was located in the eastern part of the Site.

7.161 A ditch [10202] (1.8 wide x 0.88m deep) corresponding to a field boundary present in 1884 OS mapping was encountered in the centre of the trench. It was infilled via silting and ploughing and a continuation of the ditch was identified in Trench 100.

7.162 Two undated pits were also present within the trench.

Trench 107

7.163 Trench 107 (Plate 400-405; Figure 26, 29) was located in the eastern part of the Site. A modern drain and contexts representing a natural water channel were present.

7.164 In the north of the trench was a stone-lined, likely modern, field drain [10706]. The fill of the drain (10707) consisted of mid-brownish yellow gravelly sand with no finds.

Trench 456

7.165 Trench 456 (Plate 409; Figure 24) was located in the central part of the Muskham North site. Located in the centre of the trench was ditch [45603] (1m x 0.42m x 0.18m), it contained a single fill of light grey to sandy orange mixed silty sand. It was heavily truncated by a land drain, and appeared to represent a modern farming feature.

Undated

7.166 Undated features in the form of ditches likely representing boundaries and drainage, pits and a natural water channel, were found throughout the Muskham North site in Trenches 57, 58, 67, 70, 72, 76, 80, 85, 88, 92, 94, 95, 97, 102, 109, 455 and 457.

Trench 57

7.167 Trench 57 (Plates 269-272; Figure 23) was located in the southern part of the North Muskham site. It contained an undated ditch [5705] which was cut by a modern ditch [5703].

7.168 The ditch [5705] (25m x 0.74m x 0.24m) was narrow, V-shaped in profile and orientated northwest to southeast. It contained a single fill of mid brown-yellow sand with very occasional small flint inclusions (5706).

Trench 58

7.169 Trench 58 (Plates 273-275; Figure 23) was located in the southern part of the North Muskham site. A single feature was present within the trench.

7.170 Located in the centre of the trench was a flat based, east to west aligned ditch [5802] (>1.27m x 1.20m x 0.30m). The ditch contained a single fill (5803) consisting of dark mottled brownish-yellow and red silty sand that yielded no datable material.

Trench 63

7.171 Trench 63 (Plates 288-294; Figure 23, 27) was located in the southern part of the North Muskham site. It contained four, northwest to southeast/east to west aligned ditches and two pits. The northernmost ditch [6306] appeared to be a continuation of the probable 19th century field boundary field boundary [6403], [6602] and was cut by a pit [6308] which contained prehistoric pottery.

Towards the centre of the trench two deep and steeply sides ditches [6310] and [6302] were found to correspond to linear anomalies detected by the geophysical survey. The overall form of the anomaly was unclear.

7.172 The ditch [6306] (1.2m x 0.73m x 0.24m) was present in the northern part of the trench. It was flat based followed a northwest to southeast alignment and was filled with a gravelly silt with charcoal flecks. It was cut by a pit [6308].

7.173 The pit [6308] (0.57m x 0.3m x 0.3m) was one of two similar flat based pits, both located in the northern part of the trench. The other pit [6304] measured 0.90m in length, 0.33m in width, and 0.23m in depth. Both pits had light grey gravelly sand fill with charcoal flecks, suggesting that they were contemporary and of similar function. Prehistoric pottery was recovered from pit [6308], although the stratigraphic relationship with ditch [6306] indicate that this was likely to have been residual.

7.174 Running parallel and approximately 9m, to the south of ditch [6306] was a steeply sided ditch [6310] (1.35m x 0.54m) with a flat base. It contained a single fill of mid-grey brown gravelly sand with gravel, stone and flint inclusions (6311).

7.175 Located in the centre of the trench was an east to west aligned ditch [6302] (1.55m x 0.40m). It contained a single fill (6303) of mid-yellow brown sand with a flake of flint debitage.

7.176 Running parallel to the ditch [6302] and 15m to the south was ditch [6312] (1.2m x 0.4m). The ditch sloping sides a flat base and contained a single fill (6313), of mid-grey brown gravelly sand with charcoal, stone and gravel.

Trench 66

7.177 Trench 66 (Plates 302–306; Figures 24, 27) was located in the central part of the North Muskham site. It contained three ditches associated with a 19th century field boundary and an undated pit [6607] which was located in the north of the trench.

7.178 Pit [6607] (2.30m x1.14m x 0.40m) had an asymmetric base and contained a single fill (6608), of mid-blueish grey silty sand with occasional small stones indicating silting in wet conditions.

Trench 67

7.179 Trench 67 (Plate 307-310; Figure 22, 28) was located in the western part of the North Muskham site. Two features were present within the trench.

7.180 Located in the eastern end of the trench was shallow flat based pit [6702] (1.27m x 1.20m x 0.22m). It contained a single fill (6703) of brownish grey gravelly sand with occasional heat affected stone.

7.181 Located to the western side of the pit [6702] was ditch terminus [6704] (0.84m x 0.56m x 0.26), which had steeply sloping sides and a near vertical slope where it terminated, indicating a purposefully cut terminal. The fill (6705) consisted of orange brown sandy gravel, possibly formed via deliberate backfill.

Trench 72

7.182 Trench 72 (Plate 321-323; Figure 24, 28) was located in the central part of the Muskham north site. A single east to west aligned ditch [7203] (1.8m x 0.53m x 0.12m) was present in the southern end of the trench. It had a U-shaped profile and contained a single fill (7204) of mid-greyish brown sandy silt with inclusions of small stones and occasional gravels, possibly formed via natural silting. No finds were recovered.

Trench 76

7.183 Trench 76 (Plate 326-331; Figure 22, 28) was located in the western part of the Muskham north site. Four features were present within the trench.

7.184 Located in the north-western part of trench there was a north to south aligned ditch [7602] (1.8m x 1.73m x 0.27m) with a wide shallow profile. It was infilled via natural silting with a brown gravelly, silty sand (7603). No finds were recovered

7.185 Near ditch [7602] was small circular pit [7606] (1.24m x 1.58m x 0.42m). It was filled with a mid-grey-brown gravelly sand with small angular flint and stone (7607). No finds were recovered.

7.186 Located in the south eastern end of the trench was flat based, north to south aligned ditch [7604] (2m x 2.10m x 0.38m), which contained a single fill of light greyish brown silty sand with no inclusions or finds (7605). An environmental sample taken from the ditch found indeterminate cereal grains.

7.187 Near ditch [7604] was a round pit [7608] (1.6m x 1.32 x 0.44m) with a U-shaped profile. It contained two fills (7609) and (7910). The primary fill (7609) consisted of mid-brownish grey gravelly sand with sub angular stones and charcoal. The secondary fill (7610) contained mid brown silty sand with moderate charcoal. No finds were recovered from the fills. An environmental sample taken from the ditch found indeterminate cereal grains and hazelnut shell fragments.

Trench 80

7.188 Trench 80 (Plate 337-339; Figure 15) was located in the western part of the Muskham North site.

7.189 Located at the northern part of the trench was pit [8003] (1.10m x 0.85m x 0.17m). It contained a single fill mid brown silty sand with blotches of yellowish-brown likely the result of natural accumulation. No finds were recovered.

Trench 85

7.190 Trench 85 (Plate 348-350; Figure 26, 28) was located in the eastern part of the Muskham North site.

7.191 Located in the centre of the trench was ditch terminus [8502], which was aligned east to west and continued beyond the trench (1.02m x 0.30m x 0.24m). It contained fill (8503) consisting of mid-orange brown sandy gravel with no inclusions or finds. The fill likely resulted from natural accumulation.

Trench 88

7.192 Trench 88 (Plate 355-358; Figure 22, 28) was located in the western part of the Muskham North site. A pit [8802] of probable modern date and an undated ditch [8805] were present.

7.193 The ditch [8805] (1m x 0.7m x 0.2m) was north to south orientated with a flat base. It contained a single fill (8806) of mid-orange brown silty sand with no inclusions or finds.

Trench 92

7.194 Trench 92 (Plate 364-367; Figure 26) was located in the eastern part of the Muskham North site. Two features were present within the trench, both of which were undated.

7.195 Located in the centre of the trench was a north to south aligned ditch [9202] (2m x 1.14m x 0.14m). It contained a single fill (9203) of mid-reddish yellowish-brown silty sand with no inclusions nor finds were recovered.

7.196 To the east of ditch [9202] was pit [9204] measuring 1m in length, 0.44m in width and 0.26m in depth. It contained a single fill (9205) which consisted of mid-orange brown silty gravel with no finds.

Trench 94

7.197 Trench 94 (Figure 26, 28) was located in the eastern part of North Muskham. Located in the centre of the trench was a thin linear feature [9402] (>1.8m x 0.62m x 0.18m), which was aligned south east to northwest. It contained a single fill (9403), of dark brown orange silty gravel, likely caused by natural silting. No finds were recovered.

Trench 95

7.198 Trench 95 (Plate 370-374; Figure 25, 28) was located in the northern part of the Site. Three features were present within the trench.

7.199 Located in the centre of the trench was a small southeast to northwest aligned gully [9502] (0.75m x 0.70m x 0.14m). It contained a single fill (9503) which consisted of dark greyish brown gravelly sand with small angular flint and no finds.

7.200 Towards the north of ditch [9502] was an east to west aligned ditch [9504] (1m x 1.25m x 0.40m). It contained a single fill (9505), of mid-brown sand, likely a natural accumulation.

7.201 Located at the very northern corner of the trench was another east to west aligned ditch [9506] (0.90m x 1.10m x 0.17m). It contained a single fill (9507) of dark greyish brown gravelly sand with small inclusions of flint and stone.

Trench 97

7.202 Trench 97 (Plate 377-382; Figure 25, 29) was located in the northern part of the Muskham North site. There were four features within the trench, none of which contained datable evidence.

7.203 In the centre of the trench were two pits [9702] (0.79m x 1.95m x 0.18m) and [9704] (0.98m x 1.80m x 0.18m). Fill of pit [9702] was a mid-brown gravelly sand (9703) with no finds. Pit [9704] had a single fill of medium brown gravelly

sand with sub angular stones, no finds (9705). The relationship between the two pits was undetermined due to fills being of similar composition.

7.204 Located in the north of the trench was a large pit [9706] (2m x 3.08m x 0.39m). It contained a single fill (9707), of dark grey sandy gravel sub angular stones, no finds were recovered.

7.205 In the southern part of the trench was a north to south aligned ditch [9708] (2m x 0.28m x 0.20m). It contained a single fill (9709) of greyish brown gravelly sand with sub angular stone and no finds.

Trench 102

7.206 Trench 102 (Plate 391-393; Figure 26, 28) was located in the eastern part of the Muskham North site. There were two pits [10204] and [10206] present within the trench, neither of which contained datable evidence as well as a 19th century field boundary [10202].

7.207 Located in the south of the trench was small pit [10204] (0.78m x 0.76m x 0.18m). Towards the centre of the trench was pit [10206] (0.60m x 0.30m d x 0.31m). Each feature contained a single fill of dark brownish grey sandy silt with no finds (10205) and (10207).

Trench 107

7.208 Trench 107 (Plate 400-405; Figure 26, 29) was located in the eastern part of the Muskham North site. A modern drain [10706] and contexts representing a natural water channel were present. Running approximately north to south through the trench was a gully/natural water channel [10704] measuring 0.7m in width and 0.24m in depth. It was filled by (10705) a light blue grey silty clay and overlain by a layer of mixed blue grey silty sand with clay inclusions (10702).

Trench 109

7.209 Trench 109 (Plate 406-407; Figure 26, 29) was located in the eastern part of the Muskham North site. Located in the centre of the trench was a northeast to southwest running gully [10902] (0.96m x 0.38m x 0.06m). The fill contained a dark greyish brown with occasional small rounded stones and no finds.

Trench 455

7.210 Trench 455 (Plate 408; Figure 24, 29) was located in the central part of the Muskham North site. Located in the centre of the trench was an east to west aligned gully [45502] (2m x 0.45m x 0.09m), it contained a single fill of light yellowish-brown gravelly sand. No finds were recovered from the fill which was likely the result of natural accumulation.

Trench 457

7.211 Trench 457 (Plate 410-412; Figure 24, 29) was located in the central part of site. Two features were present within the trench; a north to south aligned ditch [45702] (1m x 1.27m x 0.29m), containing a singular fill of mid orangey-brown silty sand with medium rounded stones, and a small northeast to south west aligned gully [45704] (0.65m-1.10m x 0.56m x 0.14m) containing a fill of mid-brownish yellow silty sand, suggestive of natural accumulation. The ditch [45702] correlated with a small sub-square feature seen on the geophysical survey.

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CROMWELL CENTRAL

Overview

7.212 The evaluation at Cromwell Central comprised the excavation of 51 trenches, measuring 50m in length and 1.8m in width, across four fields located to the west and east of the railway line (Figures 30–39). The trenches in the western fields were designed to target a series of features located to the east of possible enclosures identified by the geophysical survey. The trenches in the eastern fields targeted features potentially associated with rectilinear and curvilinear enclosures identified by the geophysical survey on the north, east and south of the Site.

7.213 A total of 36 trenches contained archaeological features comprising undated ditches and pits, ridge and furrow field systems; and former field boundaries visible on the 1900's OS mapping.

7.214 Datable artefactual material recovered from Cromwell Central was rather sparse. This absence of material information leaves chronological and functional interpretations, as well as assessments of significance, open. The existent evidence provides indication of multi-period activity consisting of a probable early phase of undated activity followed by medieval/post-medieval to modern agricultural activity. An undated palaeochannel was also present.

7.215 Archaeological features were present in Trenches 182, 185, 185T, 191-192, 197-208, 210-211—215, 218-219, 221, 224-227, 229, 231–232, 234–235, 239, 245, 256, 262, 266 and 269-270.

Table 6: Cromwell Central phasing summary

Phase	Trenches	Features Present
Prehistoric	204, 214, 227	Possible ring gullies, pits ditches, located on the periphery of a probable settlement area
Medieval/Post-medieval	192, 206, 218, 221	Furrows
19th–20th century	182, 185T, 198, 203	Ditches
Undated	185, 191, 197-199, 202 205-208, 215, 225, 227, 229, 234, 239, 245, 256, 262, 266 and 269-270	Ditches forming boundaries and possible enclosures, a small enclosure complex, drainage features, pits with three discernible clusters of activity
Palaeochannel	210, 212, 219, 231, 235	Northwest to southeast aligned palaeochannel with a pair of associated ditches corresponding to the later phase of the channel

Blank Trenches

7.216 No features were present in Trenches 189-190, 194, 209, 212, 217, 220, 222-223, 228, 230, 268 and 271. These trenches were subject to standard

methods for recording archaeologically blank trenches and are not discussed further below. Details are included in the trench logs in Appendix 1.

Site Stratigraphy

7.217 The general stratigraphy across the Site comprised natural substrate, consisting of light brownish yellow, Holme Pierrepoint Sand and Gravel Member. Features were cut into the natural substrata and overlain by dark grey brown sandy silt topsoil c. 0.3-0.5m deep.

7.218 Occasional areas of localised subsoil were present within Trench 209, which interacted with uncertain geophysical survey anomalies (Plate 485-486). This deposit appeared to comprise an interface layer of natural substrata and topsoil, which has sunk into the naturally undulating substrata. Five pieces of worked flint, including a flake, blades and a knife, were recovered from the topsoil within the site.

7.219 A palaeochannel and associated deposits was present in Trenches 210, 212, 219, 231 and 235.

Prehistoric

7.220 Artefactual evidence datable to the prehistoric period was limited to a single sherd of pottery recovered from ditch recut [21408] in Trench 214. The ditch recut was a continuation of a long north to south aligned ditch which formed a central division for a D-shaped enclosure with sub-division, circular features and a squarish sub-enclosure, which were identified in the geophysical survey. The activity in Trench 214 can therefore be characterised as a continuation of the probable settlement activity to the south and the enclosures and circular features identified by the geophysical survey in the eastern field can be provisionally dated to the prehistoric period.

7.221 Trench 227 targeted two circular features, representing ring gullies or ring ditches, in the eastern field. These were located at the western edge of a series of rectilinear enclosures and ring gullies identified by the geophysical survey in the field.

Trench 204

7.222 Trench 204 was located to the east of the railway track (Plate 463-467; Figure 35, 38). The trench contained two pits, a ditch and a ditch/furrow. The ditches appeared to be continuations of the prehistoric ditch [21406] and recut [21408] in Trench 214.

7.223 The westernmost feature in Trench 204 was pit [20406] (0.66m x 0.19m), which was circular in plan with a concave base. It contained a single fill, (20407) which consisted of loose light orange brown gravelly sand.

7.224 Directly east of [20406] was a north to south aligned ditch/furrow [20404] (>1m x 2.7m x 0.22m). Ditch [20404] was linear in plan with gently sloping sides forming a flat base and contained a single fill, a loose mid-grey brown gravelly sand.

7.225 East of [20406] and more centrally to the trench was a northeast to southwest aligned ditch [20408] (>1.5m x 3.5m x 0.28m). Ditch [20408] had steeply sloping sides breaking onto a flat base and contained a single fill (20409), which consisted of loose mid grey-brown gravelly sand.

7.226 Located towards the eastern end of the trench was pit [20402]. Pit [20402] was circular in plan, where visible, with steeply sloping sides breaking onto a concave base and contained a single fill (20403), a friable mid yellowish-brown gravelly sand.

Trench 214

7.227 Trench 214 (Plate 497-503; Figure 35, 38) was located east of the railway track which split Cromwell Central. It contained four archaeological features; two ditches and two pits. An extension was made to Trench 214 to ascertain the full extent and nature of large pit [21402] which was originally masked by the southern edge of the trench.

7.228 At the eastern end of the trench, there was a ditch [21406] (>4m x 0.7m x 0.25m) and a recut [21408] (>4m x 0.7m x 0.5m). Both ditches were aligned northeast to southwest. Ditch [21406] was significantly shallower with gently sloping sides forming a slightly concave base. Its recut [21408] had steeply sloping sides breaking sharply into a concave base. Both ditches contained a single fill of loose mid orange brown gravelly sand, suggesting a similar infilling process with charcoal flecks present in [21408]. A single sherd of prehistoric pottery was recovered from [21408] and an environmental sample taken from the ditch contained an indeterminate cereal grain and a cereal culm. On the geophysical survey this ditch could be seen to continue towards the south into an enclosure.

7.229 The pit [21402] (1.35m x 1.07m x 0.25m) was located to the west of the two ditches. It was oval in plan with very steep sides breaking onto a flat base. A single fill was present consisting of friable mid orange brown sandy gravel (21403). An environmental sample take from the pit contained one grain, one rounded wheat and one grain of indeterminate cereal.

7.230 Approximately, 2m to the west of pit [21402] was a second smaller pit [21410] (0.64m x 0.2m) which was circular in plan with steeply sloping sides breaking onto a concave base. Pit [21410] contained a single fill, (21411), which consisted of loose mid orange brown gravelly silt.

Trench 227

7.231 Trench 227 (Plate 537-543; Figure 36, 38) was located in the north-eastern edge corner of the Cromwell Central site. It was targeted onto two curvilinear features detected by the geophysical survey, both of which corresponded to archaeological features.

7.232 The north-eastern curvilinear feature had a diameter of approximately 11m and was represented in the trench by a northwest to southeast aligned ditch [22705] (>1m x 0.9m x 0.26m) and a northwest to southeast ditch terminus [22707] (>0.7m x 1m x 0.55m), located in the north-eastern side of the curvilinear feature. The ditches had moderate to steeply sloping sides. The terminus [22707] was flat based and squared in contrast to [22707] which had a concave base. The terminus fill (22708) consisted of friable mottled mid brown and dark grey silty sands and the ditch fill (22706) consisted of friable mid brown silty sand, suggesting a difference in disposition in the possible entrance.

7.233 The second curvilinear feature had a diameter of approximately 10m with a possible entranceway to the northeast. It was represented by ditch [22709] (>2.2m x 1.72m x 0.28m), which was northwest to southeast aligned with steeply sloping sides to the southwest and gently sloping sides to the northeast, both breaking onto a concave base. A single fill was present (22710) which consisted of friable dark reddish-brown gravelly sand.

7.234 The pair of curvilinear features may represent a pair of roundhouses, barrows or ring ditches.

7.235 A naturally formed feature [22703] (1m x 0.15m) was present in the potential entranceway of the second curvilinear feature. It was circular in plan with generally gently but irregularly sloping sides breaking onto an uneven and irregular base. It contained a single fill (22704), which consisted of friable mid brown silty sand with occasional small rounded stone inclusions which had a diffuse interface with the underlying geology.

Medieval/Post-Medieval

7.236 As with other sites, Cromwell was dominated by medieval to post-medieval intensive agricultural activity. Remnants of former ridge and furrow field systems were identified throughout Cromwell Central, which corresponded to trends seen in the geophysical survey.

7.237 North to south aligned furrows were seen in Trenches 192 and 206 and east to west aligned furrows were seen in Trenches 218 and 221. All of the furrows were morphologically similar with sloping sides onto flat bases. The north to south aligned furrows ranged in width from 1.1m to 1.5m and in depth from 0.1m to 0.16m. The east to west aligned furrows ranged from 0.82m to 1.34m in width and 0.15m to 0.18m in depth. A ditch/furrow [20404] was also present in Trench 204. Fills varied, but were generally comprised of gravelly sands.

7.238 Full context descriptions can be found in Appendix 1.

19th–20th Century

7.239 Three trenches containing modern features were identified within the Cromwell Central Site; in Trench 182, ditch [18202] yielded modern tile in its uppermost fill of loose black gravelly sand, and Trench 185T contained a single northeast to southwest ditch [18502] with modern brick fragments from within a single greyish brown silty fill. Such features are likely associated with recent land or water management practices. An east to west aligned ditch seen in Trench 203 was found to correspond to a 19th century field boundary, the ditch appeared to continue into Trench 198 although it was unclear which ditch represented the continuation and the trench has been presented as undated.

Trench 182

7.240 Trench 182 (Plate 413-414; Figure 31) was located in the southernmost point of the Cromwell Central site.

7.241 Located towards the southern end of the trench was ditch [18202] (>0.84m x 0.7m x 0.40m). It contained three fills (18203), (18204) and (18205). The earliest of these fills (18205) consisted of loose dark grey gravelly sand with occasional charcoal inclusions and was recorded to a have a total depth of

0.16m. Sealing fill (18205) was fill (18204) a loose light blueish grey gravelly sand with a depth of 0.07m. the latest fill in the sequence was (18203) and it consisted of loose dark black gravelly sand within which modern tile was observed.

Trench 185T

7.242 Trench 185T (Plate 417-419; Figure 31, 37) was located the southern extent of the Cromwell Central site.

7.243 Covering the length of Trench 185T and aligned from northeast to southwest was ditch [18502T] (>2.2m x 0.72m x 0.38m). Linear in plan and with steep sides breaking gradually into a concave base, ditch [18502T] contained a single fill. Fill (18503T) consisted of loose-friable mid-greyish-brown sandy silt with very occasional small rounded stone inclusions and included brick dating to 1785–1850.

Trench 203

7.244 Trench 203 (Plate 460-462; Figure 32) was located on the western edge of the Cromwell Central site. The trench targeted an east to west aligned linear anomaly, which corresponded to a 19th century field boundary (OS 1884b)[55]. A single ditch was present [20303] which was identified as a 19th century field boundary based on this evidence. This ditch, based on the geophysical evidence appeared to continue into Trench 198, although it was unclear which ditch in Trench 198 it represented.

7.245 Aligned northeast to southwest, ditch [20303] (>1.7m x 1.55m x 0.42m) was linear in plan with moderately steep sloping sides breaking gently onto a concave base. It contained a single fill (20304) which consisted of loose-friable mid orangey-brown sandy silt with occasional small rounded stone inclusions. No datable finds were recovered from this fill.

Undated – Probably Prehistoric to Roman?

7.246 The majority of the features found across the Site yielded no datable evidence. These consisted of a series of ditches likely forming boundaries, enclosures, drainage features and scattered pits that were found in Trenches 185, 191, 197-199, 202-208, 214-215, 224-225, 227, 229, 234-235, 239, 245, 256, 262, 266 and 269-270.

7.247 Although the lack of stratigraphical and artefact evidence prevented phasing and dating of these features, three clusters of broadly characterised activity were discernible. These were based on spatial relationships, morphological similarities and geophysical survey and are summarised in Table and described below.

Table 7: Summary of undated activity clusters at the Cromwell Central

Trenches	Description
185, 191, 197	Probable water management consisting of north to south aligned ditches, pits, located towards the south of the site

[55] Ordnance Survey (OS) (1884b) Nottingham Sheet XXV.SE, surveyed 1883-1884.

Trenches	Description
198, 207, 209, 215, 224, 231, 245, 256	Probable water management consisting of parallel east by west, and northwest by southeast aligned ditches located towards the centre of the site
225, 234, 239	Small enclosure complex, consisting of an amalgamation of three enclosures with internal divisions present in the northernmost enclosure
199, 202, 205, 206, 208, 229, 262, 266, 267, 268, 269, 270	None clustered activity: pits, ditches,

7.248 Trenches 185, 191, 197 (Figure 31), within the southern quadrant of the Cromwell Central site, revealed five predominantly north by south parallel aligned ditches, with similar steep sided 0.18-35m deep, U-shaped profiles. To the north, feature fills are consistent with loose brownish grey sandy silts resulting from natural inwash or silting processes, particularly within Trench 197, however feature fills to the south within Trench 191 appear more consistent with more organic, darker brownish black waterlain silty clays that yield no artefactual material. These ditches appeared to be peripheral and associated with water management.

7.249 The central portion of Cromwell Central was typified by parallel ditches spanning the majority of the evaluated area (though ostensibly focused to the east). This activity, again, was demarcated by a series of parallel east by west, and northwest by southeast aligned ditches in Trenches 224, 256, 245, 231, 215, 207, 209 and 198 (Figures 33, 35), that were situated in close proximity to a palaeochannel noted within Trenches 205, 212 and 219 (Figures 31–33). Trench 198 (Figure 32) contained three ditched features situated on a parallel alignment, each of which yielded at least three distinct fills formed of mottled dark clay silt inwash with a comparable depth of 0.5-0.6m between them. Within Trench 207 (Figure 32) the east by west aligned ditched features, though similar in alignment and depth (measuring c.0.19–28m in depth), were filled with single, lighter brown silt sands that may demarcate functional differences in their use. Variation in width between 0.55m–0.8m may be a result of modern agricultural truncation.

7.250 A small enclosure complex was identified by the geophysical survey, directly to the west of the railway line. It consisted of three amalgamated enclosures with internal features present in the northern enclosure and covered an area of 2793m^2. The enclosure ditches were found to be present in all trenches which targeted them (Trenches 225, 234 and 239) with an internal division also found in Trench 239. The ditches associated with the southern enclosure [22502] and [23402] had steeply sloping sides and a flat/slightly concave bases and measured 1.83m–1.86m in width and 0.42m–0.54m in depth. The northern enclosure ditch [23906] had gentle to steeply sloping sides and measured 2.19m in width and 0.32m in depth.

Trench 185

7.251 Trench 185 (Plate 415-416; Figure 31, 37) was located in the south of the Cromwell Central site, northwest of Trench 182. Three pits and a single ditch terminus were present within the trench.

7.252 The westernmost of these pits was [18502] (1.66m x 0.8m x 0.46m) which was an irregular oval shape in plan, with asymmetrical but steeply sloping sides forming a concave base. It contained a single fill, (18503), of loose mid-grey brown sand with occasional rounded stone inclusions.

7.253 To the east of [18502] was a shallow pit cut [18504] (0.65m x 0.4m x 0.1m) which was oval in plan with gradually sloping sides forming a concave base. Again, this pit only contained a single fill, (18505), consisting of loose mid-grey brown gravelly sand, no dating evidence was recovered.

7.254 Continuing east from [18504] was the ditch terminus [18506] (1.69m x 1.35m x 0.58m) which protruded southwest from the northern baulk of the trench. It had steeply sloping sides, a flat base [18506] and contained two fills (18507) and (18512). The earliest of these fills was (18512) consisting of loose dark grey-black sand. Sealing (18512) was fill (18507) a loose mid-grey brown sand which was very diffuse with the nature geology making the extent of the feature difficult to identify. There was no datable evidence from either of these fills.

7.255 Finally, and most easterly within the trench was pit [18508] (0.87m x 0.46m) which was circular in plan with gradually sloping sides and a concave base. It contained three different fills (18509), (18510) and (18511). The earliest of these fills was (18511) which consisted of loose mid-greyish blue sand with a total depth of 0.04m. Fill (18511) was overlaid, to the east, by fill (18510) a loose mid-grey brown sand with a total depth of 0.02m. Overlaying (18510) was fill (18509) which consisted of loose light orange yellow sand with a total depth of 0.1m. No dating evidence was retrieved from any of the fills.

Trench 191

7.256 Trench 191(Plate 424-431; Figure 31, 37) was located was located to the east in the area west of the train tracks which dissect the Cromwell Central site. Five features were encountered within the trench: four pits and a single ditch.

7.257 At the western extent of Trench 191 there was located an irregularly shaped possible pit, [19102] (0.7m x 0.75m x 0.12m). With gradually sloping sides forming into a flat base, pit [19102] contained a single fill, (19103) consisting of loose light whitish-grey silty sand with moderate amounts of small rounded stone inclusions. The diffuse nature of the fill and irregular shape may suggest that this was a naturally formed feature.

7.258 To the east was pit [19104] (0.85m x 0.8m x 0.14m), which was circular in plan with moderately sloping sides breaking into an irregular base. Again, this pit had a single fill, (19105), consisting of loose mid-brownish-grey gravelly sand which had a diffuse interface with the geology. The diffuse nature of the fill could suggest another natural feature however the more regular form of the cut could suggest otherwise.

7.259 Directly east of [19104] were two more pits [19106] (0.8m x 0.5m x 0.18m) and [19108] (0.64m x 0.55m x 0.19m). Both of these pits were oval in plan with moderate to steeply sloping sides breaking into concave bases and each contained a single fill of loose mid-dark brownish-grey gravelly sand.

7.260 Toward the eastern extent of Trench 191 was a large northwest to southeast aligned ditch [19110] (>1m x 2.44m x 0.62m) with steeply sloping asymmetrical sides, the eastern side plateaued before falling steeply again

and forming a concave base. The ditch contained five separate fills. The earliest of these fills (19111), present on the western slope of the ditch, consisted of friable dark greyish brown sand with frequent small subangular-rounded stone inclusions. The second fill (19114), deposited from the eastern side of the ditch, consisted of friable light brownish-grey sand with frequent small rounded stone inclusions. The third fill (19112) consisted of hard mid-brownish orange sandy clay with occasional small rounded stone inclusions. This was overlain by loose-friable orange, mottled with grey, clayey sand (19115), followed by (19113) a friable mid-brownish-grey sand. The fills and plateau may represent reworking of the ditch, although a clear recut could not be seen.

7.261 The easternmost feature was pit [19116] (1.26m x 0.5m x 0.14m). It was oval in plan with steep irregular sides and a flat base. A single fill (19117) consisting of loose dark brownish-black silty sand with moderate amounts of small rounded stone inclusion was present.

Trench 197

7.262 Trench 197 (Plate 438-445; Figure 31, 37) was located to the east of the railway and contained ditches and pits. It was targeted on to a north to south aligned linear feature detected by the geophysical survey.

7.263 At the western end of Trench 197 was pit [19704], (0.97m x 0.6m x 0.16m) which was oval in plan with steep sides and a concave base, the northeast side of the pit contained a shallow step. A single fill (19705) was present which consisted of friable mid-brownish grey silty sand with frequent small rounded stone inclusions.

7.264 To the east of pit [19704] and protruding from the northern baulk was another pit [19708] (1.1m x 0.6m x 0.4m) which was circular in plan where visible, with steeply sloping sides and a concave base. The pit contained two fills (19709), which consisted of loose dark grey-black sand with occasional charcoal and small rounded stone inclusions, followed by (19710) which consisted of loose mid grey brown clay with occasional charcoal and small rounded stone inclusions. The pit was cut by ditch [19706].

7.265 The ditch [19706] (1.26m x 0.5m x 0.14m) was aligned north to south with steeply sloping sides and a slightly concave base. It contained a single (19707) which consisted of loose mid-grey brown gravelly clay with occasional charcoal flecks and flint fragments.

7.266 Running parallel to [19706] and located 8.5m to the southeast was ditch [19702] (>1m x 0.8m x 0.2m). It had moderately sloping sides forming a concave base and contained a single fill (19703). Fill (19703) consisted of loose mid-brownish-grey silty sand with moderate amounts of small rounded stone inclusions.

7.267 In the eastern end of the trench was a wide north to south aligned ditch [19711] (>1m x 3.5m x 0.6m) which corresponded to the geophysical survey. It had steeply sloping sides breaking into a very slightly concave base and three fills. The earliest fill (19714) consisted of loose mid-grey brown gravelly sand. This was overlaid by (19713) which consisted of loose mid-orange brown gravelly sand. The last fill (19712) consisted of light blue-grey gravelly sand.

Trench 198

7.268 Trench 198 (Plate 446-450; Figure 32, 37) was located centrally to the Cromwell Central site and directly to the west of Trench 197. It targeted an east to west aligned anomaly identified by the geophysical survey, which lined up with a field boundary seen in 19th century Ordnance Survey mapping (OS 1884b)[56]. Although none of the features present directly corresponded to the anomaly three east to west aligned ditches were present.

7.269 The northern most ditch of the three was [19802] (2.2m x 0.96m x 0.14m) which had gently sloping sides breaking into a very slightly concave base. It had a single fill (19803) consisting of loose light brownish-grey sandy silt with occasional small rounded stone inclusions.

7.270 Centrally to Trench 198 was ditch [19804] (>1.1m x 0.88m x 0.5m) which was aligned east to west. Ditch [19804] was linear in plan with steeply sloping sides which became vertical towards the flat base and contained two fills. The earliest of these fills was (19806) and consisted of loose dark greyish blue clayey sand with occasional small to medium patches of clay measuring 0.18m in depth. Overlaying this was fill (19805) which consisted of loose mid greyish-brown mottled with orange silty sand with frequent small rounded stone and measured 0.36m in depth.

7.271 The final ditch in Trench 198 was [19807] (>1.24m x 1.64m x 0.61m) which was aligned northwest to southeast. Linear in plan [19807] had gradually sloping sides with a slight step on the eastern side breaking into a concave base and contained three separate fills. The earliest of these fills was (19810) which consisted of hard dark blueish-grey clayey sand with frequent small rounded stone inclusions with a depth of 0.21m. Covering this was (19809) which consisted of loose mid blueish-grey mottled with brownish orange and measuring 0.28m in depth. Above (19809) on the western side but not spreading to the eastern section was (19811) which consisted of crumbly light blueish-grey silty gravel with a depth of 0.16m. Sealing (19811) was the final fill (19808) which consisted hard mid blueish-clay measuring 0.12m in depth.

Trench 199

7.272 Trench 199 (Plate 451-456; Figure 35, 37) was located directly east of the railway line and north of Trench 192. It contained three ditches.

7.273 The northern most of these ditches, and within the northern half of the trench, was ditch [19903] (>2.62m x 0.8m x 0.22m). It was curvilinear in plan, generally aligned east to west and curving towards the northwest at the western end. The ditch had steeply sloping sides breaking onto a concave base and contained a single fill (19904). Fill (19904) consisted of friable mid-dark orange brown silty sand with occasional pea gravel inclusions.

7.274 South of ditch [19903] and centrally to the trench was ditch [19905] (>1.5m x 1.12m x 0.24m) aligned northeast to southwest. It had gently sloping sides with a slight ridge on the southern edge breaking onto a concave base and containing a single fill. Fill (19906) consisted of friable dark orange brown silty sand.

[56] Ordnance Survey (OS) (1884b) *Nottingham Sheet XXV.SE*, surveyed 1883-1884.

7.275 The third ditch, [19907/19910] (>2.05m x 1.22m x 0.46m), was located within the southern half of the trench and terminated before its western limit. It was east to west aligned and had very steep sides forming a V-shaped concave base. The single fill (19908/19909) consisted of friable mid orangey-brown silty sand.

Trench 202

7.276 Trench 202 (Plate 457-459; Figure 36, 37) was located at the easternmost side of the Cromwell Central site. There was a single ditch located within the northern half of the trench.

7.277 Aligned northwest to southeast ditch [20203] (>2.15m x 0.64m x 0.18m) was linear in plan with steeply sloping breaking into a concave base an contained a single fill. Fill (20204) consisted of friable dark brown sand with frequent small rounded stone inclusions.

Trench 205

7.278 Trench 205 (Plate 468-471; Figure 31, 37) was located centrally to the Cromwell Central site, directly north of Trench 197.

7.279 Located in the centre of the trench was ditch [20502] (>1m x 0.72m x 0.22m). It was aligned north to south and appeared to be a continuation of the ditch [19706] in Trench 197. The ditch had asymmetrical sloping sides, gradually on the west and steeply sloping on the east, breaking into a concave base [20502] contained a single fill. Fill (20503) consisted of friable mid-brownish grey silty sand with occasional small rounded stone inclusion.

7.280 Slightly south west of [20502] was another ditch [20504] (>1m x 0.7m x 0.11m) which was aligned northwest to southeast. It had moderately steeply sloping sides breaking onto a concave base and contained a single fill. Fill (20505) consisted of loose mid blueish-grey silty sand with moderate amounts of small rounded stone inclusions, suggesting silting in wet conditions.

Trench 206

7.281 Trench 206 (Plate 472-476; Figure 36) was located towards the eastern area of the Cromwell Central site and to the west of Trench 202. It contained a single ditch [20604] and several furrows.

7.282 The ditch [20604] (>1m x 0.5m x 0.51m) was located in the eastern end of the trench and was cut by one of the furrows. It was southeast to northwest aligned with moderately sloping sides breaking onto a concave base and contained a single fill. Fill (20605) consisted of loose mid brownish grey gravelly sand.

Trench 207

7.283 Trench 207 (Plate 477-480; Figure 32, 38) was located on the on the western side of the Cromwell Central site, northeast of Trench 203. Three ditches were present.

7.284 A pair of parallel, east to west aligned ditches [20703] (>1m x 0.8m x 0.28m) and [20705] (>1m x 0.55m x 0.19m) were present in the centre of the trench. They were spaced 0.5m apart and with steeply sloping sides and concave bases. Both ditches were backfilled by loose mid orangey-brown silty sand with occasional small rounded stone inclusions (20704) and (20706) respectively.

7.285 To the north of the parallel ditches, a third ditch [20707] (>1.27m x 1.2m x 0.27m) on a northwest to southwest alignment, was present. It had with moderate to steeply sloping sides with a slightly concave base. It had a thin fill of hard mid brownish-yellow sand (20709) followed by loose mid-orangey brown silty sand with occasional small rounded stones (20708).

Trench 208

7.286 Located directly north of Trench 206 was Trench 208 (Plates 481-484; Figure 36, 38). Trench 208 contained two features a single pit and ditch.

7.287 Located at the northern end of Trench 208 was a circular pit [20805] (0.57m x 0.31m) with steeply sloping side breaking into a concave V-shaped base. A single fill (20806) was present, which consisted of friable grey brown gravelly sand.

7.288 Located at the southern end of Trench 206 was a shallow east to west aligned ditch [20803] (>2.14m x 0.5m x 0.15m). Ditch [20803] was linear in plan with gradually sloping sides breaking onto a concave base and contained a single fill (20804), a loose brown grey gravelly sand.

Trench 215

7.289 Trench 215 (Plate 504-507; Figure 32, 38) was located on the western side of the Cromwell Central site. It contained two ditches.

7.290 A north to south aligned ditch [21503] (2.2m x 0.94m x 0.3m) was present in the eastern end of the trench. It had steeply sloping sides, a concave base and was filled with a single fill. Towards the western end of the trench ditch [21505] (2.2m x 0.96m x 0.17m) was northwest to southeast aligned with steeply sloping sides and a flat base. with a single fill contained within it. Both ditches were filled with a loose mid brown sandy silt with frequent small rounded stone inclusions.

Trench 224

7.291 Trench 224 (Plate 527-530; Figure 33, 38) was located directly west of the railway track. Trench 224 contained parallel ditches on a northwest to southeast alignment in its eastern end.

7.292 The most easterly of the ditches was [22403] (>1.08 x 1.04m x 0.24m). It had steeply sloping sides, a concave base and terminated at its northern end. It was filled with a loose mid grey brown gravelly sand (22404). The second ditch [22405] (1.8m x 1.1m x 0.09m) was located approximately 7m to the west. It had gently sloping sides with a flat base and contained a single fill (22406), a loose dark grey-black gravelly sand.

Trench 225

7.293 Trench 225 (Plate 531-536; Figure 33) was located directly to the west of the railway track. The trench contained four archaeological features: two ditches and two pits.

7.294 The northernmost feature was an east to west aligned ditch [22502] (2.2m x 1.83m x 0.54m). The ditch had steeply sloping sides a concave base and contained a single fill. Fill (22503) consisted of friable mid orange brown silty sand with frequent small rounded stone inclusions. It corresponded to the

southern ditch of a small enclosure complex identified by the geophysical survey.

7.295 Directly south of [22502] was ditch [22506] (2.2m x 0.96m x 0.24m) which was aligned northwest to southeast, with steeply sloping sides breaking into a concave base. It was filled by a single fill (22507) which consisted of friable mid orange brown silty sand with frequent medium sized rounded stones.

7.296 Towards the centre of the trench was pit [22504] (1.72m x 0.94m x 0.31m), which was oval in plan with steeply sloping sides and a flat base. It contained a single fill (22505) a friable mid orange brown silty sand with occasional small rounded stone inclusions.

7.297 Approximately 7.5m to the south, was a long pit [22508] (0.78m x 0.35m x 0.32m) which was oval in plan with very steep sides forming a V-shaped concave base. A single fill (22509) was present and consisted of friable mid orange brown silty sand with occasional small rounded stone inclusions.

Trench 229

7.298 Trench 229 (Plate 546-548; Figure 33) was located to the west of the railway track and to approximately 60m to the east of the palaeochannel seen in Trench 219. A large circular pit was present which corresponded to a discrete geophysical anomaly. No palaeochannel deposits were present.

7.299 Pit [22902] (1.66m x 0.35m) was located in the southern half of the trench. It had gentle to steeply sloping sides forming a flat base and contained two fills. The earliest of these fills was (22904) consisting of friable dark grey-black silty gravelly sand and had a total depth of 0.15m. This was overlaid by fill (22903) which consisted of friable mid grey brown gravelly silt and measured a total depth of 0.2m.

Trench 234

7.300 Trench 234 (Plate 558-560; Figure33) was located directly west of the railway track. It contained a single archaeological feature, a north to south aligned ditch [23402].

7.301 Ditch [23402] (>2.2m x 1.86m x 0.42m) was located at the eastern end of Trench 234 and corresponded to part of a small enclosure complex identified in the geophysical survey. It had steeply sloping sides breaking onto a flat base and contained a single fill. Fill (23403) consisted of friable mid orange brown silty sand with occasional small rounded stone inclusions.

Trench 239

7.302 Trench 239 (Plate 563-568; Figure 33) was directly west of the railway track and north of Trench 225. It contained four archaeological features, a single pit and three parallel, east to west aligned ditches, spaced approximately 8m apart.

7.303 The northernmost feature in Trench 239 was pit [23902] (>1.23m x 1.18m x 0.15m). The pit was oval in plan with gently sloping sides breaking onto a flat base and contained a single fill. Fill (23903) consisted of loose mid orangish-brown gravelly sand.

7.304 The northernmost ditch [23904] (>1m x 0.64m x 0.16m) was aligned east to west. It had gently sloping sides, a concave base and contained a single fill

(23905), a loose mid orangish-brown gravelly sand. It corresponded to a weak trend identified in the geophysical survey. To the south, ditch [23906] (>1m x 2.19m x 0.32m), had gentle to steeply sloping sides, a flat base and contained a single fill (23907). Similarly, ditch [23908] (>1m x 2.26m x 0.42m), located south of [23906], had gentle to steeply sloping sides, a flat base and contained a single fill (23909). Both fills (23907) and (23909) consisted of loose mid orangish-brown gravelly sand and neither produced any dateable evidence. The two southern ditches [23906] and [23908] corresponded respectively to the external and an internal ditch of a small enclosure complex identified in the geophysical survey.

Trench 245

7.305 Trench 245 (Plate 569-571; Figure 33) was located directly west of Trench 239. It contained two archaeological features, a single pit and a ditch.

7.306 Located at the eastern end of Trench 245 was a small pit [24502] (0.73m x 0.07m). Circular in plan and with steeply sloping sides breaking onto a flat base, pit [24502] contained a single fill. Fill (24503) consisted of loose mid orange brown gravelly sand with occasional charcoal fleck inclusions.

7.307 Located centrally to the trench was a shallow ditch, [24504] (>1m x 0.85m x 0.12m), which was aligned northeast to southwest and terminated at the northern end. The ditch had gently sloping sides forming a slightly concave base and contained a single fill. Fill (24505) consisted of loose mid orange brown gravelly sand with occasional flecks of charcoal inclusions.

Trench 256

7.308 Trench 256 (Plate 572-573 ; Figure 33) was located towards the north of the Cromwell Central site and directly north of Trench 245. It targeted a northwest to southeast aligned linear anomaly detected by the geophysical survey and contained two parallel ditches. These ditches ran parallel to and approximately 88m to the east of the ditches associated with the palaeochannel in Trenches 210 and 219, suggesting they played a similar water management role. No palaeochannel deposits were present.

7.309 Ditch [25604] (>1m x 0.41m x 0.16m) corresponded with the linear anomaly detected by the geophysics and had with steeply sloping sides breaking into a concave base. Approximately 7.5nm to the east was the parallel ditch [25602] (>1m x 0.93m x 0.08m), which also had shallow but steeply sloping sides breaking onto a flat base. Both ditches were filled with a loose mid orange brown gravelly sand (25603) and (25605).

Trench 262

7.310 Trench 262 (Plate 574-576; Figure 34) was located towards the north of the Cromwell Central site and directly west of the railway line. A single east to west aligned ditch [26202] was present.

7.311 Located within the southern half of the trench, ditch [26202] (>1m x 0.94m x 0.06m) had gently sloping sides and a very slightly concave base. Its fill (26203) consisted of loose mid orangish-brown gravelly sand.

Trench 266

7.312 Trench 266 (Plate 577-579; Figure 34) was located towards the north of the Cromwell Central site northwest of Trench 262. It contained a single ditch.

7.313 Located towards the centre of the trench, ditch [26602] (>0.64m x 0.51m x 0.28m) was aligned northwest to southeast and appeared to continue into Trench 269 as ditch [26903]. It had steeply sloping sides breaking onto a concave base and contained two fills. The earlier fill (26603) consisted of loose mid blueish-grey gravelly silty sand and was overlain by (26604), a loose mid brown gravelly sand. The fills were suggestive of natural silting in flooded conditions followed by natural silting in drier conditions.

Trench 269

7.314 Trench 269 (Plate 582-585; Figure 34) was located towards the northwest of the Cromwell Central site and northwest of Trench 266. The trench contained two parallel ditches, one of which [26903] appeared to be a continuation of ditch [26602] in Trench 266.

7.315 Located at the southern end of Trench 269, ditch [26903] (>1m x 0.71m x 0.31m) was aligned northwest to south east. It had steeply sloping sides breaking onto a concave base and contained a single fill (26904), loose mid blue-grey gravelly sand similar to the lower fill of [26903].

7.316 Approximately 4.5m to the north, was the parallel ditch [26905] (>1m x 0.86m x 0.27m) which similarly had steeply sloping sides breaking onto a concave base and contained a single fill. Fill (26906) was the same composition as fill (26904) and also was undated.

Trench 270

7.317 Trench 270 (Plate 586-589; Figure 34) was located towards the north of the Cromwell Central site and to the west of the railway. It contained a single north to south aligned ditch [27002].

7.318 Located centrally within the trench, ditch [27002] (>1m x 0.76m x 0.18m) had gently sloping sides breaking onto a concave base and contained a single fill. Fill (27003) consisted of loose mid greyish-brown gravelly sand.

Paleochannel

7.319 A paleochannel, identified within Trenches 210, 219 and peripherally within 212 and 235, contained layers of peat and organic materials. Two ditches on a northwest to southeast alignment and corresponding to a linear geophysical anomaly were present in Trenches 210, 219, 231 and 235. These ditches contained black peaty deposits that were probably the result of localised water management at a time when the palaeochannel had largely silted up. Peat layers overlying the ditches indicated that this area continued to be wet after the initial siling of the palaeochannel and excavation of the ditches. The palaeochannel and the associated ditches are currently undated.

Trench 210

7.320 Trench 210 (Plate 487-490; Figure 31) was located to the west of the railway line and centrally within the excavation. It contained a series of palaeochannel layers and two northwest to southeast aligned ditches [21005] and [21007].

7.321 A mixed blue grey gravel and sand layer (21004) was present at 0.76m BGL. In the northeast of the trench, it was overlain by (21003) a green blue white sand with gravels, which measured 0.18m in depth. In the southwestern part of the trench of the layer (21004) was overlain by (21002), a white clay sand/ marl, which measured 0.26m in depth. This layer was cut by the two ditches [21005] and [21007].

7.322 The northernmost ditch [21005] (>2.2m x 2.2m x 0.45m) had steeply sloping sides breaking into a slightly concave base. It contained a single fill (21006) consisting of sticky mid-brownish black peat. Running parallel, and 5m to the southwest was ditch [21007] (>2.2m x 2.2m x 0.35m). It had a similar profile and fill (21008).

7.323 The ditches were overlain by a 0.24m deep layer of peat (21001), which along with layer (21003) was then overlain by the topsoil (21000).

Trench 212

7.324 Trench 212, which was located approximately 50m to the southwest of the palaeochannel identified in Trench 219 was archaeologically blank, but contained a thin alluvial deposit.

7.325 In the eastern end of the trench, the underlying geology (21201) was overlain by a 0.22m deep layer of mid grey-blue gravels, suggestive of high energy alluvial deposition. This layer was directly overlain by the topsoil (21200) which contained a piece of mid-19th century sewer CBM.

Trench 219

7.326 Trench 219 (Plate 514-517; Figure 32) was located to the west of the railway line. It contained palaeochannel deposits centred on the centre of the trench and two ditches [21904] and [21906] which cut the palaeochannel layers, continued from ditches seen in Trench 210 and were overlain by peat.

7.327 The earliest layers encountered were (21902) a white clay sand present in the base of the trench at its eastern end; (21903) a green blue white sand with gravel present to the west and a peaty palaeochannel fill (21909), present towards the centre of the trench.

7.328 Deposit (21909) was a soft black-brown silty peat, potentially representing the organic palaeochannel fill. It was overlain by 0.38m of light-yellow sandy silt (21908) which was cut by ditches [21904] and [21906].

7.329 Ditch [21904] (2.2m x 2.06m x 0.28m) was aligned northwest to southeast and was a continuation of ditch [21005] in Trench 10. In contrast to [21005] it had gradually sloping sides breaking onto a concave base. The ditch contained a single fill (21905), which consisted of sticky dark black-brown gravelly sandy peat.

7.330 Ditch [21906] (2.32m x 1.62m x 0.58m), located approximately 6m to the west, was a continuation of ditch [21007] in Trench 210. Similarly, to [21904] it had gradually sloping sides breaking onto a concave base and was filled by a sticky dark black-brown gravelly sandy peat (21907) from which animal bone was recovered.

7.331 The ditches and the sand and gravel layer (21903) were overlain by a peat layer (21901) which measured 0.4m in depth. This peat and the white clay sand (21902) were overlain by the topsoil (21900).

Trench 231

7.332 Trench 231 (Plate 551-555; Figure 32) was located to the west of the railway track. It contained two ditches [23104] and [23106] representing continuations of the northwest to southeast aligned ditches in Trench 210 and 219 and palaeochannel deposits.

7.333 The earliest deposit encountered in the trench was (23103), a green blue white sand with gravel. It was cut by the ditches and overlain by (23102), a white clay sand/marl measuring 0.1m in depth.

7.334 Both ditches were located in the eastern end of the trench. Ditch [23104] (>0.65m x 3m x 0.39m) was a continuation of ditch [21904] in Trench 219. It had gradually sloping sides breaking onto a concave base and contained sticky dark black-brown clayey peat with moderate amounts of animal bone, wood fragments and other organic plant material (23105).

7.335 Ditch [23106] (>1.3m x 1.1m x 0.15m) was located approximately 1.6m directly east of [23104] and had a similar profile and fill (23107) from which animal bone, snail shell, wood and organic inclusions were recovered.

7.336 Ditch [23106] and deposit (23102) were overlain by a 0.16m thick peat deposit (23101), which along with ditch [23104] was overlain by topsoil (23100).

Trench 235

7.337 Trench 235 (Plate 561-562; Figure 33) was located centrally to the Cromwell Central site and directly north of Trench 231. It contained a single archaeological feature, a northwest to southeast aligned ditch. This Trench and ditch weren't excavated due to flooding and health and safety constraints but its location was recorded and it is likely that it is the continuation of one, if not both the ditches from Trenches 210, 219 and 231.

7.338 The stratigraphy of the trench consisted of a white clay sand/marl (23503) overlain by a 0.2m thick peat deposit (23502), which in turn was overlain by a dump of modern material (23501), followed by topsoil (23500).

CROMWELL NORTH

Overview

7.339 The evaluation at Cromwell North comprised the excavation of 27 trenches measuring 50m in length and 1.8m in width (Figures 41-44), from which 16 contained archaeological features in the form of ditches, pits and postholes.

7.340 The evaluated area was located directly to the east of a possible rectilinear enclosure with potential internal features and additional enclosed areas, which was detected by the geophysical survey.

7.341 Intensive medieval and post-medieval activity, comprising ridge and furrow field systems and former field boundaries visible on the 1900's OS mapping, were identified. The features and finds provide evidence of activity dating to at least the medieval to the modern period, along with undated features that may represent phases of earlier land use. Tree bowls, suggestive of limited woodland clearance in antiquity, were recorded in Trenches 241 and 456.

7.342 Archaeological features were identified within Trenches 233, 238, 240-242, 244, 249-250, 258, 259, 260, 264, 265, 267, 456 and 457.

Table 8: Cromwell North phasing summary

Phase	Trenches Present	Features Present
Medieval/post-medieval	233, 238, 240, 242, 244, 250, 257, 258, 265, 267, 256, 257, 4560, 4570	Ridge and furrow, field boundaries and ditches
19th–20th century	258, 259, 264	Field boundaries
Undated—possible prehistoric/Romano-British	233, 238, 241, 244, 249, 250, 258, 265, 267, 4550, 4560	Ditches, curvilinear ditches, pits and postholes

Blank Trenches

7.343 No features were present in Trenches 243, 246, 247, 252, 255, 261 and 263. As such, these trenches were subject to standard methods for recording archaeologically blank trenches and are not discussed further here, but details are included in the trench logs in Appendix 1.

Site Stratigraphy

7.344 The general stratigraphy across the Site comprised natural substrate, consisting of light brownish yellow, Holme Pierrepoint Sand and Gravel. Features were cut into the natural geology and overlain by blackish brown clay silt topsoil that was c.0.3-4m deep.

Medieval/post-medieval

7.345 Remnants of ridge and furrow field systems, broadly aligned from east to west were observed across the Site, particularly towards the southern and eastern end. A single residual fragment of pottery of possible prehistoric date, was recovered from within a single furrow base in Trench 242. These ridge and furrow bases were observed extensively across the Site, within Trenches 233, 238, 240, 242, 244, 257, 265, 267, 256-257 respectively and corresponded to agricultural trends seen in the geophysical survey. They had similar profiles and ranged in width from 0.5m to 1.6m and from 0.1m to 0.24m in depth. A

series of north to south aligned furrows were present in Trenches 250 and 258, which also corresponded to trends seen in the geophysical survey. These furrows were similar in size and form measuring between 0.85m to 2.02m in width and 0.15m to 0.26m in depth. Full context descriptions can be found in Appendix 1.

7.346 Ditches probably associated with the ridge and furrow system were identified in Trench 233 and 238, although no datable evidence was recovered to prove this. Ditches cutting features from the ridge and furrow system were also identified in Trench 238, indicating an additional phase of activity post-dating the ridge and furrow field system. No finds were recovered from this phase, but it appeared to have also been agricultural in nature.

Trench 233

7.347 Trench 233 (Plate 592-602; Figure 42) was located in the south-eastern corner of the Cromwell North site. Six furrows, and two ditches [23307] and [23821] likely associated with the ridge and furrow system, a tree bowl [23309] and two undated pits were present in the trench.

7.348 Located towards the south of the trench was an east to west aligned ditch [23307] (>1m x 1.43m x 0.44m) with gently sloping sides. The ditch contained a single fill (23308) consisting of a mid-yellowish-brown gravelly sand with no inclusions or finds. Its alignment suggested that it was part of the ridge and furrow field system, possibly representing a field boundary. Ditch [23307] was cut by a possible tree bowl [23309] which had with steeply sloped sides and contained a single fill (23310) of mid greyish brown gravelly sand with frequent charcoal streaks.

7.349 Located in the north of the trench was an east to west aligned ditch [23821] (>1m x 0.90m x 0.30m). It contained a single fill (23822) with mid grey brown gravelly sand formed via natural silting. Similarly, to [23307] it is likely that it was part of the field system associated with the ridge and furrow.

Trench 238

Trench 238 (Plate 603-615; Figure 42) was located in the eastern part of the Cromwell North site. Six furrows, three probable medieval/post-medieval ditches and four undated features were present.

7.350 Ditch [23807] (2.8m x 0.80m x 0.55m) was a continuation of the east to west aligned ditch [23321]. It had steeply sloping sides, a U-shaped profile contained a single a fill of mid-grey-brown gravelly sand with charcoal flecks and gravel inclusions. As with [23821], it is likely that it formed a field boundary associated with the ridge and furrow system. However, no datable evidence was recovered. The ditch was cut by a linear feature [23805] (1.6 x 0.8m x 0.18m) which followed a northeast to southwest alignment in contrast to the furrows. Linear feature [23805] had a flat base, sloping sides and was filled via natural silting with a mid-grey-brown gravelly sand.

7.351 East to west aligned ditch [23811] (1m x 0.9m x 0.23m) was present in the centre of the trench where it cut furrow [23809]. It had a concave base and was probably used for drainage. The ditch contained a mid-grey-brown gravelly sand (23812) which was likely to have been deposited via natural infilling.

19th–20th Century

7.352 Ditches corresponding to field boundaries seen in 1900s OS mapping, were present in Trenches 258 and 264. A boundary ditch representing a probable continuation of the boundaries present in Trench 264 was also present in Trench 259.

Trench 258

7.353 Trench 258 (Plates 659–673; Figure 41) was located in the western part of the Cromwell North site. It contained 10 features, including field boundary [25808] (>2m x 1.44m x 0.48m), which was located towards the centre of the trench. The ditch had steeply sloping sides forming a V-shaped profile and a single brown silty gravelly sand (25809) was present. The field boundary could be seen in 20th century OS mapping and indicated a small, but noticeable westward shift in the current boundary of the site that may have happened gradually over time.

Trench 259

7.354 Trench 259 (Plate 674-676; Figure 41) was located in the western side of the Cromwell North site. A single ditch [25902] was present which appeared to be a continuation of one of the field boundaries present in Trench 264. No dating material was recovered.

7.355 The ditch [25902] (>2m x 1.04m x 0.36m) had steeply sloping sides and a U-shaped profile. It was backfilled with a dark-brown sandy silt with frequent small to medium rounded stone (25903).

Trench 264

7.356 Trench 264 (Plate 683-686; Figure 41) was located in the western side of the Cromwell North site. It contained two parallel, north to south aligned ditches [26403] and [26405] which were spaced 3.6m apart. The ditch [26405] corresponded to a field boundary seen in 20th century OS mapping. The removal of this boundary would have joined a small hooked area into the present field.

7.357 Ditch [26403] (1m x 0.92m x 0.24m) was located in the central part of the trench and had a wide U-shaped profile. It contained a single fill (28404) of mid greyish brown gravelly sand with no significant inclusions. Ditch [26405] (>1m x 1.34m x 0.54m) had steeply sloping sides and a U-shaped profile. It was filled with a mid-yellowish-brown gravelly sand (26406) which contained pottery and CBM.

Undated / Possible Prehistoric – Romano-British

7.358 Undated features consisting of ditches, curvilinear ditches, pits and postholes were present in Trenches 233, 238, 241, 244, 249, 250, 258, 265, 267, 4550 and 4560. This activity is likely to relate to peripheral activity associated with the undated enclosure revealed by the geophysical survey, directly to the west of the evaluated area. A prehistoric–Romano-British date is also likely based on the features present and the phases present on other nearby sites within the project.

7.359 Trench 267, located directly to the east of the enclosure area, contained the most activity from this phase with a curvilinear feature, ditches and posthole

present. The features within this trench were fairly shallow, ranging between 0.2-0.35m in depth, and all had a broadly homogenous sterile mid greyish brown silty sandy fill. The lack of finds and sterility of the fills suggested peripheral activity such as livestock management.

7.360 Additionally, Trench 244 located at the south of the evaluation area contained a sequence of three intercutting ditches and two pits, indicating multiple phases.

7.361 Elsewhere the activity was characterised by sparsely distributed pits, postholes and ditches.

Trench 233

7.362 Trench 233 (Plate 592-602; Figure 42) was located in the south-eastern corner of the Cromwell North site. Five furrows, two probable medieval/post-medieval ditches, a tree bowl and two undated pits were present in the trench.

7.363 Towards the south of the trench was a round pit [23311] (1.05m x 0.22m) with gradually sloping sides. It contained a single fill (23312) of mid yellowish-brown gravelly sand which was likely the result of natural siltation.

7.364 Located to the north of the trench was an irregularly shaped pit [23319] (1.02m x 0.54m x 0.27m) with a concave base. It contained a single fill of mid greyish brown gravelly sand with no inclusions or finds.

Trench 238

7.365 Trench 238 (Plate 603-615; Figure 42) was located in the eastern part of the Cromwell North site. Five furrows, three probable medieval/post-medieval ditches and four undated features were present.

7.366 Towards the centre of the trench, a posthole [23813] and a pit [23815] were present. Posthole [23813] (0.4m x 0.45m x 0.27m) was squarish in profile with near vertical sides and a flat base. It contained a single fill (23814) of mid greyish brown gravelly sand. An environmental sample take from the posthole found rounded wheat, speedwell and a hazelnut shell fragment. The pit [23815] (0.85m x 0.85m x 0.55m) had near vertical sides and a concave base. It was filled with a mid–dark-grey-brown gravelly sand, which appeared to have been deliberately deposited and contained a flint scraper and utilised blade. An environmental sample from the pit returned a rounded wheat grain, a grain of indeterminate cereal and 16 hazelnut shell fragments. The pits function was uncertain, but may have associated with waste disposal.

7.367 An east to west aligned ditch [23819] (1.4m x 0.72m x 0.29m) was present towards the north of the trench. It had steeply sloping sides, a flat base and was filled by a mid-grey-brown gravelly sand (23920). The ditch was cut by pit [23823] (0.88m x 0.40m x 0.32m). Pit [23823] had steeply sloping sides a flat base and two fills: a base fill (23824) consisted of dark black brown gravelly sand with no inclusions and an upper fill (23825) which consisted of mid grey brown gravelly sand.

Trench 241

7.368 Trench 241 (Plate 619-623; Figure 42) was located in the eastern part of the Cromwell North site. A tree bowl [24107] and two intersecting ditches [24103] and [24105] were present within the trench

7.369 Located at the eastern part of the trench was a substantial northwest to south east ditch [24103] (>2m x >1.75m x 0.63m) with steep sides and a flat base. The size of the ditch indicated that it may have formed a boundary. Its fill (24104) was a mid-yellowish-brown silty sand with occasional small rounded stones. The ditch intersected with a north to south aligned ditch [24105] (1.8m x 0.80m x 0.37m), which had an asymmetric profile with a near vertical slope on the eastern side, a moderate slope on the western side and a flat base. It was filled with a mid-yellowish-brown silty sand with inclusions of small rounded stones (24106). The relationship between the two ditches was unclear.

Trench 244

7.370 Trench 244 (Plate 629-636; Figure 42) was located towards the south of the Cromwell North site. There were six features present within the trench including intercutting ditches, pits and a furrow [24411].

7.371 Located in the west of the trench was a large flat-based boundary ditch [24403] (7.60m x 1.74m x 0.68m) which contained a single fill of mid grey brown silty sand with inclusions of iron panning. This appeared to have been formed through natural silting. The ditch was cut by ditch [24409/24415].

7.372 Ditch [24409/24415] (1.60m x >1.34m x 0.28m) was northeast to southwest aligned and flat based, terminating at its north-eastern end. It was infilled with a light grey brown sandy silt (24410/24416) and was cut by ditch [24405].

7.373 The ditch [24405] (>1.20m x 1.34m x 0.22m), was northwest to southeast aligned, terminating its north-western end. It contained a single fill (24406) of mid brown silty sand occasional gravel. It correlated with a anomaly detected by the geophysical survey.

7.374 Two pits [24407] and [24413] were present in the eastern end of the trench. Pit [24407] (1.96m x 0.59m x 0.25m) continued beyond the baulk and was not fully visible in the trench. It had a wide U-shaped profile and was filled with a mid-grey brown gravel sand (24408). The pit [24413] (>1m x >0.34m x 0.24m) was oval with a U-shaped profile. It contained a mid-grey brown gravelly sand fill with large stone inclusions (24414).

Trench 249

7.375 Trench 249 (Plate 641-643; Figure 42) was located in the central part of the Cromwell North site. A northwest to southeast orientated ditch [24903] was present, possibly representing a continuation of probable boundary ditch [24403].

7.376 The ditch [24903] (>27m x 1.38m x 0.42m) had a U-shaped profile and contained a single fill (24904) of brownish grey silty sand with frequent gravel.

Trench 250

7.377 Trench 250 (Plate 644-652; Figure 41) was located in the south-western corner of the Cromwell North site. A total of six furrows and a posthole [25014] were present.

7.378 Posthole [25014] (0.32m x 0.17m) was circular with a U-shaped profile. It contained a single fill (25015), a dark greyish brown gravelly sand.

Trench 258

7.379 Trench 258 (Plate 658-673; Figure 41) was located in the western part of the Cromwell North site. A total of three north to south aligned furrows [25810], [25812], [25814]; five north to south aligned ditches [25808], [25816], [25818] [25820], [25822] and two pits [25803] and [25805]. One north to south aligned ditch [25808] was 20th century in date, while ditch [25818] and its recut [25816] appeared to align with a probable prehistoric/Romano-British enclosure seen in the geophysical survey. The dates of all of the linear features in this trench except [25808] therefore are unclear.

7.380 Ditch [25818] (2m x 0.84m x 0.4m) was located at the western end of the trench. It had a U-shaped profile, d and was recut by ditch/furrow [25816]. Ditch/furrow [25816] (2m x 2.3m x 0.32m) had a wide shallow profile with a flat base. Approximately 4.2m to the east was ditch/furrow [25822] (2m x 1.38m x 0.33m), which had a wide U-shaped profile and was recut by ditch/furrow [25820] (2m x 1.4m x 0.16m) which had a wide U-shaped profile. All were infilled with a mid-brown-grey gravelly sand, probable formed via natural infilling. No finds were recovered.

7.381 The pits were located in the eastern end of the trench. The smaller of these [25803] (0.70m x 0.12m) was circular in plan and had a symmetrical u-shaped profile. It contained a single backfill (25804) which consisted of mid greyish brown gravelly sand, which contained a flake of flint debitage. Close to this was large pit [25805] (1.32m x 0.37m). It contained two fills: the base fill (25806) consisted of a homogeneous dark greyish brown gravel sand and the secondary fill (25807) consisted of mid greyish brown gravelly sand which appeared to be a deliberate backfill. An environmental sample taken from the pit returned an indeterminate cereal grain and vitrified charcoal from oak and undetermined species. This charcoal was determined to have derived from a single burning event, possibly of as single oak timber. The evidence from the environmental sample also suggested that the deposits within the pit had been subject to a fluctuating water table.

Trench 265

7.382 Trench 265 (Plate 687-692; Figure 41) was located in the north-western part of the Cromwell North site. A total of three gullies/plough scars and a ditch were present within the trench.

7.383 Located at the western end of trench were two shallow gullies or plough scars: [26502] (>1m x 0.98m x 0.16m), which contained a single fill of dark greyish brown silty sand with frequent rounded pebble inclusions (26503) and [26504] (>1m x 0.49m x 0.09m). [26504] was filled with a mid-grey-brown silty sand (26505). Another plough scar [26506] (>1m x 1.35m x 0.14m) was located in the centre of the trench. It contained a single fill (26507) of dark greyish brown silty sand.

7.384 Located at the western end of trench was a northwest to southeast aligned ditch [26508] (>1m x 0.72m x 0.45m), with steeply sloping sides and a concave base. It contained a single fill of dark greyish brown silty sand.

Trench 267

7.385 Trench 267 (Plate 693-700; Figure 41) was located in the north-western part of the Cromwell North site, close to the possible enclosure detected by the geophysical survey. A total of five furrows, two undated ditches [26705/26707/26719] and [26723], a terminus [26703] and a posthole [26711], were present.

7.386 The ditch [26705/26707/26719] (7.7m x 1.3m x 0.3m) was roughly north to south aligned with a concave base. It terminated at its southern end [26705] where it appeared to form an entranceway with a curvilinear terminus [26703] (0.60m x 1.30m x 0.21m). Both were filled with mid-grey-brown silty sand.

7.387 The ditch [26705/26707/26719] was cut by ditch [26723] (0.9m x 0.5m x 0.3m) which was flat based with moderately sloping sides. It was infilled with a mid/dark-grey-brown silty sand (26724).

7.388 In the southern part of the trench was posthole [26711/26721] (>0.50m x 0.60m x 0.35m) it had steep sides and a flat base. Posthole packing with mid-grey-brown gravelly sand was present on the southern side (26722) and a grey-brown sandy silt (26712) was present on the northside, possibly representing infilling after removal of the post.

Trench 4550

7.389 Trench 4550 (Plate 701-703; Figure 42) was located in the northernmost part of the Cromwell North site.

7.390 In the northern end of the trench, an east to west orientated ditch [45504] (1m x 1.06m x 0.48m) was present. It had steeply sloping sides, a U-shaped profile and three fills all formed via natural silting: (45505), (45506) and (45507).

7.391 In the southern end of the trench was an east to west orientated ditch [45502] (1m x 0.95m x 0.3m) with a flat base. It contained a single fill (45503) consisting of loose mid greyish brown, silty sand.

Trench 4560

7.392 Trench 4560 (Plate 704-709; Figure 42) was located in the northern most part of the Cromwell North site. Furrows, a tree bowl and ditch [45603] were present.

7.393 The ditch [45603] (>1m x 1.49m x 0.23m) was northeast to southwest aligned and contained a single fill (45602) consisting of mid orangish brown silty sand.

8 THE FINDS

Overview

8.1 The Phase 1 of the archaeological evaluation undertaken at Great North Road targeted five Sites including Maplebeck, Castle Hill, North Muskham, Cromwell Central and Cromwell North. The excavation works yielded a total of 761 artefacts and ecofacts with the majority of artefacts recovered from the Maplebeck and Castle Hill sites. Pottery and datable artefacts were rare in the sites of North Muskham, Cromwell Central and Cromwell North.

8.2 The artefactual and ecofactual assemblage comprises animal bone, CBM, glass, metal, pottery, slag and lithics from various chronological periods spanning from the Mesolithic until the Modern era.

8.3 The finds were submitted to specialist analyses and the results are presented below.

THE PREHISTORIC AND ROMAN POTTERY

by I. M. Rowlandson

Introduction

8.4 A total of 101 fragments were presented for study from a maximum of 70 vessels (1.145kg, 1.03 RE). The pottery was from 25 contexts recorded from four sites in Nottinghamshire north of the town of Newark.

8.5 Excavations at Maplebeck retrieved sherds of Scored ware dated to the mid to late Iron Age and Roman pottery. A further small range of early Roman pottery was also recovered from the Castle Hill area. The range of pottery from these sites was broadly similar to that seen from other contemporary sites from this part of Nottinghamshire (eg. Rowlandson 2025)[57].

8.6 Small prehistoric sherds were recovered from the North Muskham and Cromwell Central areas that could not be closely dated.

Table 9: Pottery quantification

Key: ✓ positive identification; ? possible identification

Area	Sherds	Weight (g)	Total RE	Earlier prehistoric	LBA?/ early Iron Age	Mid-late Iron Age	Late Iron Age	Early Roman	Mid Roman	Late Roman
Maplebeck	62	441	0.43	?		✓		?	✓	?
Castle Hill	37	682	0.60					✓		
North Muskham	1	2	0	?	?	?				
Cromwell Central	1	20	0	?	?	?				

[57] Rowlandson, I.M., with Monteil, G.(2025) *The Prehistoric and Roman pottery from the Bantycock North scheme, 2009-2021,* Unpublished report for PCAS Archaeology Ltd

Area	Sherds	Weight (g)	Total RE	Earlier prehistoric	LBA?/ early Iron Age	Mid-late Iron Age	Late Iron Age	Early Roman	Mid Roman	Late Roman
TOTAL	**101**	**1145g**	**1.03**							

Methodology

8.7 The pottery has been recorded using count and weight as measures according to the guidelines laid down for the minimum archive by The Study Group for Roman Pottery (Darling 2004) using the codes developed by the City of Lincoln Archaeological Unit - CLAU (see Darling and Precious 2014)[58] augmented by the local fabric series used by the author for Nottinghamshire (Rowlandson 2025). Prehistoric pottery has coded following the guidelines developed by Knight for the East Midlands (1998)[59]. Rim equivalents (RE) have been recorded and an attempt at a 'maximum' vessel estimate has been made following Pollard (1990)[60]. Following the Lincolnshire Handbook and current museum deposition practices the pottery has been sub-bagged within each context by fabric. The pottery suitable for illustration has been bagged separately with a 'D' number for ease of further study. A context-by-context description of the pottery and a full sherd archive are presented in Appendix 2.

8.8 The dates provided represent the pottery recorded here: the main text of the site report and other specialist contributions should be consulted to ascertain the overall date attributed to each context.

Maplebeck

8.9 A total of 62 sherds (0.441kg, 0.42 RE) were recorded from a maximum of 49 vessels. The mean sherd weight of 7.11g was fairly low due to the poor condition of many of the handmade sherds. The pottery was recovered from 21 contexts that are fully described below within Appendix 2. The small groups suggest that the excavations encountered areas of Iron Age and mid Roman settlement.

8.10 A small range of prehistoric sherds that could not be closely dated were recorded including tiny sherds from context 42604 with incised decoration that may have been of Bronze Age, rather than Iron Age.

[58] Darling, M. J. and Precious, B.J. (2014) *A Corpus of Roman Pottery from Lincoln*, Lincoln Archaeological Studies No. 6, Oxbow Books, Oxford

[59] Knight, D. (1998) *Guidelines for the Recording of Later Prehistoric Pottery from the East Midlands*, unpublished Trent and Peak Archaeology report

[60] Pollard, R.(1990) *Quantification: towards a Standard Practice,* JRPS, 3, 75-9

8.11 Sherds from six Scored ware vessels of mid to late Iron Age date were recorded and a further burnished, fine shell-gritted vessel. Scored ware was a common surface treatment on vessels from the Trent Valley. A jar with an inturned rim and finger-tip decoration from context 42603 may also be of middle Iron Age. It is likely that the majority of the handmade pottery from this site dated to the middle Iron Age as there were no vessels with distinctively late Iron Age forms (Knight 2002)[61].

8.12 A small range of Roman pottery was recorded included a fragment from a Derbyshire ware jar, a Dales ware jar and two small sherds possibly from transitional 'Trent Valley ware' vessels. The grey ware forms included a necked jar (JCUR94), a large bowl with a wedge-shaped rim (BNAT) and a large bowl with no neck (BNNK). The range of fabrics and forms present suggests that the Roman pottery from this site was most probably produced in the 2nd to 3rd centuries AD.

Table 10: Maplebeck fabric summary

Fabric code	Fabric group	Fabric details	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
DBY	Oxidised	Derbyshire ware	1	1.61%	7	1.59%	4
GREY	Reduced	Miscellaneous grey wares	12	19.35%	153	34.69%	28
IAGR?	Reduced	Native tradition/transitional gritty wares	2	3.23%	3	0.68%	0
DWSHT	Calcareous	Dales ware type	2	3.23%	10	2.27%	4
IASA1	Quartz	Iron Age Sandy: Site Fabric 1. Common quartz sand gritted	5	8.06%	45	10.20%	2
IASH	Calcareous	Native tradition shell-tempered. Coarse shell-gritted with quartz sand.	2	3.23%	13	2.95%	5
IASH1	Calcareous	Iron Age Shell Gritted: Site Fabric 1. Coarse shell gritted	6	9.68%	33	7.48%	0
IASH5	Calcareous	Iron Age Shell Gritted; Site Fabric 5. Fine shell and quartz-sand	6	9.68%	66	14.97%	0
IASH7	Calcareous	Iron Age Shell Gritted: Site Fabric 7. Coarse	4	6.45%	74	16.78%	0

[61] Knight, D. (2002) A Regional Ceramic Sequence: Pottery of the First Millennium BC between the Humber and the Nene, in), Woodward, A. and Hill, J.D. (eds), 2002*, Prehistoric Britain: The Ceramic Basis*, Prehistoric Ceramics Research Group Occasional Publication 3, Oxbow, Oxford, 119-142

Fabric code	Fabric group	Fabric details	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
		fossil shell and argillaceous inclusions					
CP	Prehistoric	Clay pellets	8	12.90%	12	2.72%	0
GR	Prehistoric	Grog/ clay pellets-gritted	1	1.61%	9	2.04%	0
SH	Prehistoric	Fossil shell-gritted, date uncertain	12	19.35%	13	2.95%	0

Table 11: Maplebeck form summary

Form	Form Type	Form Description	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
-	Unknown	Form uncertain	51	82.26%	286	64.85%	0
BNAT	Bowl-large	Native tradition bowl eg. D&P No.700	1	1.61%	37	8.39%	5
BNNK	Bowl-large	Large bowl with no neck	1	1.61%	26	5.90%	4
CLSD	Closed	Form	3	4.84%	28	6.35%	0
J	Jar	Unclassified form	1	1.61%	5	1.13%	2
JCUR94	Jar	Curved neck as Darling & Precious 2014 No. 988 or Roxby Type C	1	1.61%	36	8.16%	19
JDBY1	Jar	Derbyshire lid-seated - as Gillam type 152 with grooved rim	1	1.61%	7	1.59%	4
JDW1	Jar	Dales ware, as Gillam 157	2	3.23%	10	2.27%	4
JIR	Jar	Inturned rim	1	1.61%	6	1.36%	5

Castle Hill

8.13 A total of 37 sherds (0.682kg, 0.60 RE) were recorded from a maximum of 19 vessels from only two contexts. Both groups could be broadly dated to the mid-1st to 2nd century AD with activity most probably dated to the early Roman period. Context 32300 included a grey ware vessel with combed vertical lines and a foot ring base and a sherd from a grey ware jar or bowl. Context 32305 included of transitional shell- or quartz-gritted transitional wares including necked or everted jars and a large bowl. Grey ware including

a jar with everted rims and a lid were also present. Two small fragments of fired clay were noted. An additional transitional ware sherd was recovered from sample 3002. These groups were fairly fresh with a mean sherd weight of 18.43g and suggested that there early Roman settlement nearby.

Table 12: Castle Hill fabric summary

Fabric code	Fabric group	Fabric details	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
GREY	Reduced	Miscellaneous grey wares	7	18.92%	90	13.20%	35
GRFF	Reduced	Grey fairly fine	3	8.11%	117	17.16%	0
IAGR	Reduced	Native tradition/transitional gritty wares. Quartz-sand	4	10.81%	222	32.55%	12
IAGR2	Reduced	Iron Age tradition 'Gritty': Site fabric 2. Including fossil shell.	11	29.73%	67	9.82%	11
IAGR4	Reduced	Iron Age tradition 'Gritty': Site fabric 4. Quartz-sand and grog.	8	21.62%	173	25.37%	2
FCLAY	Fired Clay	Fired Clay	4	10.81%	13	1.91%	0

Table 13: Castle Hill form summary

Form	Form Type	Form Description	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
BNNK	Bowl-large	Large bowl with no neck	2	5.41%	43	6.30%	2
CLSD	Closed	Form	13	35.14%	354	51.91%	0
JEV	Jar	Everted rim	3	8.11%	82	12.02%	31
JNK	Jar	Necked	11	29.73%	67	9.82%	11
JB	Jar/Bowl	Unclassified form	1	2.70%	20	2.93%	7
JBCAR	Jar/Bowl	Carinated	1	2.70%	65	9.53%	0
L	Lid	Unclassified form	1	2.70%	16	2.35%	9
-	Unknown	Form uncertain	5	13.51%	35	5.13%	0

North Muskham

8.14 A single heavily abraded, handmade quartz-gritted body sherd was recovered (2g). This sherd was attributed a broad prehistoric date.

Cromwell Central

8.15 A single heavily abraded, handmade quartz-gritted body sherd was recovered (20g). This sherd was attributed a broad prehistoric date.

Conclusions

8.16 The pottery from this project suggests some limited prehistoric and Roman activity was encountered with only the Castle Hill and Maplebeck assemblages that suggesting settlement activity was encountered.

Recommendations

8.17 This pottery should be deposited in the relevant museum for future scrutiny.

8.18 This assemblage should be considered as part of any report on any further work on this site.

POST-ROMAN POTTERY

By C. G. Cumberpatch BA PhD

Introduction

8.19 The pottery assemblages from Castle Hill and Maplebeck, both parts of the Great North Road Solar Park (9352 GNR), were examined by the author on 15th February 2025. The data are summarised in Tables 42 and 43 in Appendix 3 and Table 14 below.

Table 14: Pottery Quantification

Key: ✓ positive identification

Area	Sherds	Weight (g)	ENV	Medieval	Post-medieval	18th–19th Century	Undated
Maplebeck	3	65	3			✓	✓
Castle Hill	13	39	13			✓	
TOTAL	**16**	**104**	**16**				

Maplebeck

8.20 The pottery assemblage from Maplebeck consisted of two sherds of pottery and a probable piece of ceramic building material with a total weight of 65 grams. The data are summarised in Table 42.

The pottery

8.21 Only one sherd from the assemblage could be dated with any precision. This was a sherd of Late Blackware from context 43603. Late Blackware is the commonest of the 18th century vernacular tablewares. This type of pottery was manufactured in small-scale, local potteries, often known as 'country potteries'. Such concerns differed from the better-known pottery factories in using local clay resources and structures of production that have their origins in the 17th century and earlier. Such potteries were common across the country and those in Yorkshire have been described in more detail elsewhere (Cumberpatch 2014)[62]. The sherd in question was typical of the type in having a hard, fine red fabric and black glaze internally and externally.

8.22 As noted in the case of Castle Hill, Brown Glazed Coarsewares are difficult to date with any accuracy. This example was notable for lying at the finer end of the spectrum and featuring a distinctive hammerhead rim. Typically, it was only glazed internally and the fabric was fine and bright red in colour.

8.23 The third sherd was of an ambiguous nature but was probably a piece of ceramic building material. It was notable for the imprint of a ridged surface on one surface but apart from this, it was not readily identifiable.

[62] Cumberpatch, C. G. (2014) Tradition and Change: the production and consumption of early modern pottery in South and West Yorkshire In: C. Cumberpatch and P.W. Blinkhorn (Eds) *The Chiming of Crack'd Bells: current approaches to artefacts in archaeology* British Archaeological Reports International Series 2677 Archaeopress, 73-97

Discussion

8.24 Few definite conclusions can be drawn from this small assemblage which was recovered from a single field. Similar assemblages are typical of what may be found on many areas of farmland and may derive from the spreading of waste material either as part of a manuring strategy or to act as hardcore on farm tracks or access points to fields.

Castle Hill

8.25 The pottery assemblage from Castle Hill consisted of thirteen sherds weighing 39 grams from three contexts. The data are summarised in Table 43.

The pottery

8.26 The pottery assemblage spanned the later 18th and 19th centuries and included examples of tablewares and utilitarian wares typical of this period.

8.27 The tablewares consisted of Pearlware, Whiteware (plain and transfer printed) and Edged ware. The production of Pearlwares (context 31903) spanned the period between c.1780 and c.1840 and were replaced by Whitewares from the mid-19th century onwards. The Pearlware sherd, probably from a plate, was undecorated and abraded. The Whiteware sherds were more diverse and included sherds from plates, a bowl and an unidentified hollow ware vessel. Three of the sherds were decorated with the transfer printed 'Willow' design. One sherd, the rim of a bowl, bore a border design resembling that of the Wild Rose design. The sherd of Edged ware was of a late type, dating to the period between 1860 and 1900 (Hunter 2024)[63].

8.28 The utilitarian wares consisted of one sherd of Brown Salt Glazed Stoneware and two sherds of Brown Glazed Coarseware. The stoneware sherd was of 19th century type but the Brown Glazed Coarsewares were less easily dated as the type was produced throughout the 18th, 19th and early/mid 20th centuries. No detailed studies of either the fabrics or the vessel forms have yet been undertaken despite the ubiquity of the type on sites of all types across a period of some 250 years. It is probable, given the association with sherds of transfer printed Whiteware, that these sherds are also of 19th century date.

Discussion

8.29 As with the assemblage from Maplebeck, the assemblage from Castle Hill came from an arable field and was probably derived from the incorporation of domestic waste into the topsoil as part of a manuring strategy.

Archiving and curation

8.30 Once the project is complete this assemblage should be deposited in the appropriate local museum or finds depository where it will be available for further research in the future. It should not be discarded, downsized, dispersed, sampled or used as a general-purpose teaching collection.

[63] Hunter, R. (2024) The magic of British shell-edged earthenware, 1775 – 1860 *Transactions of the English Ceramic Circle* 34; 187 - 212

CERAMIC BUILDING MATERIAL

By J. M. McComish

Introduction

8.31 This assessment relates to 14.804kg (135 sherds) of CBM recovered from archaeological investigations at Maplebeck, Castle Hill, North Muskham and Cromwell Central, which were collectively classed as YA project 9352. The CBM was largely recovered by hand during the excavation process, though a small proportion was recovered from the processing of environmental soil samples. The assemblage was in reasonable condition with some sherds being abraded and all sherds being fractured. The CBM ranged in date from Roman to modern, though the majority of the collection was of post-medieval date.

8.32 The collection was recorded to a standard YAT methodology (McComish 2024)[64] whereby each sherd is individually recorded on a pro-forma sheet which has columns for:

- The YA project name.
- The context number.
- The fabric type. A fabric series was devised for the collection, with one sherd of each fabric being retained for long term storage.
- The form. A question mark is placed after the form name if the identification is uncertain, for example 'Imbrex?' and sherds where the form cannot be determined due to poor preservation are listed as 'Unknown'.
- The number of any surviving original corners.
- The weight in grams.
- The surviving complete original dimensions in mm (length, width, thickness).
- Evidence of re-use. 1 = yes, 0 = no.
- The presence of mortar on broken surfaces. 1 = yes, 0 = no.
- Evidence of over-firing. 1 = yes, 0 = no. A description of the evidence is given in the comments section if needed.
- Comments. A verbal description of any other relevant information, such as
    - Details of overfiring.
    - Nibs are recorded in the form width x height x thickness, with the latter measurement including the thickness of the tile.
- Retained. 1 = yes, 0 = no.

8.33 Unless otherwise stated the CBM sherds have finely sanded edges and bases. The fabric descriptions are done using a x10 hand lens. The data is transferred onto a Microsoft Excel table which is stored on the YA intranet

[64] McComish, J M (2024) *York Archaeology Ceramic Building Material and Stone Tile Recording Methodology*. York : York Archaeology unpublished internal guidelines

under the relevant project code (9352) which is backed up daily to prevent data loss.

Results

8.34 The results are listed below in by historical period in terms of the forms present. The forms are summarised by period in Table 15, a summary by context is given in Table 16 and the fabrics are described in Table 17.

Roman

8.35 The Roman CBM accounted for 14.7% of the total volume of CBM from the site and comprised 10 sherds of brick. All of the Roman bricks were recovered from Castle Hill (contexts 31903-4 and 32305-6). The only complete original dimensions to survive were seven thicknesses which ranged from 20-57mm. Roman bricks usually came in a variety of standardised sizes (bessalis, pedalis, bipedais and sesquipedalis) but as no length/breadth dimensions survived it was impossible to determine the original form the bricks seen. The bricks were in Fabrics 1-3.

Medieval

8.36 Medieval CBM accounted for 0.2% of the total volume of CBM from recovered and comprised a single sherd of 13-16th century roof tile from context 93607 at Maplebeck. This was 13mm thick but no other original dimensions survived. As neither a nib nor peg hole survived it was impossible to determine the method by which this would have been fixed to the roof. It was in Fabric 4.

Post-medieval to mid-19th century

8.37 The post-medieval CBM accounted for 70.3% of the total volume of CBM from the site. The forms present included bricks of 16-18th century date, bricks dating to the period of the brick tax of 1784-1850 and pan tiles of 17th century and later date. In the case of the pan tiles, this form continues in use to the present day; the recorded sherds could therefore be of modern, rather than post-medieval date.

Bricks

8.38 Post-medieval bricks were made in wetted as opposed to sanded moulds, a technique termed slop-moulding. Bricks increased in thickness as a response the Brick Taxes of 1784-1850 which were initially levied per 1000 bricks, encouraging an increase in brick size to avoid the tax (Brunskill 1997, 38)[65]. In 1803 as a response to the increased size of bricks the tax was altered to be double duty on bricks more than 150cu inches in volume, which curbed the growth in the size of bricks (ibid., 38).

8.39 The post-medieval bricks at the present site ranged from 55-59mm in thickness (six measurements) and 97-117mm in breadth (four measurements) but no original length measurements survived. The thinnest brick at 55mm was very distorted by heat and this may have affected the thickness seen; the remaining bricks were all of thicknesses relating to the period of the Brick Tax. Five of the bricks were very badly distorted by over-firing/heat with two having partially vitrified. All five of these could be classed as wasters. In the case of one of these bricks it was difficult to tell if it was a voussoir brick or simply a

[65] Brunskill, R W (1997) *Brick Building in Britain.* London : Victor Gollancz

badly distorted brick. The bricks were from contexts 39103-4 at Castle Hill with a single example from context 18305T at Cromwell Central (this was not distorted by heat). They were in in Fabrics 5-7 and 10.

Pan tile

8.40 Pan tiles have a shallow S shaped profile and a nib on the reverse for attaching the tile to a roof. These tiles were introduced into eastern Britain from the Netherlands and came into widespread use from the 17th century (Van Lemmen 2013, 8) largely replacing the earlier flat tiles. In 1722 and Act of Parliament specified that pan tiles had to be 13.5 x 9.5 x 0.5 inches or 343 x 241 x 12.5mm in size (Betts 1985, 547).

8.41 The examples at the site were 13-20mm in thickness but no other original dimensions survived. All were thicker than the thickness specified in the 1722 Act. A single nib was present, but this was broken off at one end, the surviving portion being in excess of 53mm long, 22mm wide and 15mm thick. The pan tiles were in Fabrics 8-9.

Modern

8.42 The modern CBM accounted for 11% of the total volume of CBM from the site. The forms present included brick, a firebrick, a pipe and a sewer.

Machine-made bricks

8.43 Machines for the mass production of bricks were invented in the mid-19th century (Brunskill 1997, 25) leading to a vast increase in production. Context 31903 at Castle Hill yielded a sherd of machine-made firebrick. This was manufactured using fireclay, which is often found in association with coal deposits (Dillon 1985, 9)[66]. Fireclay has a high proportion of alumina and is free of lime, magnesia and metallic oxides (Brunskill 1997, 42). Such bricks were used in industrial buildings where resistance to heat was required such as furnaces, kilns or factory chimneys. The example present was a voussoir brick varying from 39mm to 63mm thick and it was 113mm high (the original length did not survive). This was in Fabric 13. There was a second sherd of brick in a coarse fabric, possibly a fireclay (Fabric 11); no original dimensions or surfaces survived on this sherd. Pipes and sewers

8.44 The industrial revolution led to a vast increase in the use of ceramics for all manner of drains, ducts, sanitary wares and sewer pipes. The present sites yielded a sherd of salt glazed sewer pipe 13mm thick in Fabric 12 from context 21200 at Cromwell Central, a sherd of unglazed pipe 18mm thick from context 31903 at Castle Hill in Fabric 14.

Other

8.45 There were 85 fragments of brick from contexts 39103-4 at Castle Hill which were too small and fragmentary to be able to allocated a date to. A sherd of brick from context 38504 at Maplebeck lacked any surviving dimensions or original surfaces and could not be accurately dated. There were also 11 exceptionally small fragments recovered from soil sample 1002 in context 42802 at Maplebeck which collectively weighed 2 grams; these were far too

[66] Dillon, M J (1985) *Bricks tiles and Teracotta from Wrexham and Ruabon.* Wrexham : Maelor Borough Council

small to be able to accurately identify. A further two sherds from context 7705 at North Muskham were possibly pottery rather than CBM.

Summary and recommendations

Site summaries

8.46 Taking each site in turn, Maplebeck produced a single sherd of 13th-16th century roof tile recovered from context 39607 a sherd of brick of uncertain date from context 38504.

8.47 Castle Hill produced the largest volume of CBM, representing 97% of the observed sherds. Contexts 32305-6 produced only Roman brick sherds, confirming the dating obtained from the pottery within these contexts. Clearly there must have been a Roman building somewhere in the vicinity. Context 31904 was more mixed, containing some residual Roman brick, together with post-medieval brick and pan tile, again confirming the pottery dating for the context. This context contained bricks which had clearly been severely overfired or affected by intense heat. The final context which yielded CBM, 31903, was also mixed in terms of the CBM containing some residual Roman CBM together with post-medieval forms (brick and pan tile) and modern CBM (brick, firebrick and pipe), which also confirms the pottery date for the context. The presence of residual Roman CBM in contexts of post-medieval and modern date suggests there was disturbance of the Roman contexts at the site in the post-medieval period resulting in Roman material being present in the later contexts.

8.48 The two sherds from context 7705 at North Muskham may be pottery and should be seen by the relevant specialist.

8.49 Cromwell Central produced just two sherds, a post-medieval brick in context 18503T and a modern sewer pipe in context 21200.

Conclusion

8.50 The CBM for Castle Hill confirmed the pottery dating evidence available for the contexts concerned. The CBM confirms the presence of Roman building activity in the vicinity of the site, but there is no evidence of medieval activity. The post-medieval and modern contexts seen contained some residual Roman material and post-medieval bricks distorted by heat. These could have been brought to the site from elsewhere for dumping.

8.51 In the other sites there was too little CBM present to offer any potential for further research.

8.52 The forms of CBM seen at all the sites are all typical for the periods in question, with no unusual items being present. The collection of CBM has little potential for further research, mainly being of use to provide dating evidence for the various contexts seen, and no further work is recommended. None of the material was worthy of museum display.

8.53 If this project progresses to a publication phase this text could be adapted to suit whatever format is required.

Recommendations for retention/discard

8.54 The CBM has little potential for research and given that most of it is of post-medieval or modern date it is highly unlikely that the recipient museum will

wish to accession much of this CBM. It is recommended that one sherd of each fabric is retained as a reference collection for any future work and that the remining CBM is discarded. The CBM has been separated into to portions on the basis of this recommendation.

Table 15: CBM by form in relation to period

Period	Form	No. of sherds	Weight in grams	% of total weight
Roman	Brick	10	2178	14.7
Medieval	Plain	1	26	0.2
Post-medieval	Brick	10	8780	59.3
	Pan	11	1630	11.0
Modern	Firebrick	2	1540	10.4
	Pipe	1	50	0.3
	Sewer	1	44	0.3
Unknown	Brick	86	544	3.7
Unknown	Unknown	13	12	0.1

Table 16: CBM in relation to context

Site	Context	Dating	Forms present
North Muskham	7705	?	?
Cromwell Central	21200	Mid-19th century +	Sewer
Cromwell Central	18503T	1785-1850	Post-medieval brick
Castle Hill	31903	Mid-19th century +	Firebrick, modern brick, Pan, Post-medieval brick, Pipe, Roman brick
Castle Hill	31904	1785-1850	Pan, Post-medieval brick, Roman brick
Castle Hill	32305	1-4th century	Roman brick
Castle Hill	32306	1-4th century	Roman brick
Maplebeck	38504	?	Brick
Maplebeck	39607	13th-16th century	Plain
Maplebeck	42802	?	?

Table 17: Fabrics

Fabric	Description
1	Light orange fabric. Frequent cream coloured silty streaks and patches. Moderate rounded quartz grains. One micaceous sandstone inclusion 19x20mm in area. Occasional small flecks mica.
2	Light orange fabric. Rare cream coloured silty streaks. Occasional rounded quartz grains.
3	Mid orange fabric. Rare cream coloured silty streaks. Moderate rounded quartz grains. Occasional grog. Occasional small flecks mica.
4	Dark red fabric. Frequent angular quartz grains. Occasional grog.
5	Dark red fabric. Moderate angular quartz grains.
6	Dark red-brown fabric. Frequent angular quartz and quartzite. Moderate glassy mica. Occasional hard black fragments up to 5x10mm in area, not scratched with a needle, possibly flint.
7	Dark red fabric. Occasional calcite precipitation into small voids. Moderate well-rounded quartz. Occasional quartzite. Occasional grog.
8	Medium red fabric. Moderate angular quartz grains. Occasional grass/straw voids.
9	Medium red fabric. Moderate angular quartz grains. Rare grass/straw voids.
10	Dark red fabric. Coarse inclusions. Moderate angular quartz. Moderate silty patches up to 9x5mm in area,
11	Pale pink fabric. Frequent cream coloured inclusions up to 13x13mm in area. Possibly fireclay.
12	Cream-white fabric. Occasional small black and white pebbles/grit up to 2x1mm in area.
13	White fireclay fabric.
14	Medium red fabric. Very fine. Occasional silty streaks.

SMALL FINDS

By Ian Riddler

Introduction

8.55 A small group of metal finds were recovered from two sites across the Great North Road solar scheme. These were submitted for reporting and are described below, per site.

Maplebeck

Locking Buckle Fragment

8.56 A copper alloy sheet metal chape (context 42800) was a topsoil find in trench 428. It is oval in section and folded around a cast bar, with an indented tapered pin at the centre. It belongs to a distinctive form of chape that is associated with locking buckles. These slightly odd composite buckles were produced in the fifteenth- to early sixteenth century (Margeson 1993, 24)[67]. Complete examples include a simple rectangular frame with two off-centre perforations intended to receive a spindle, a part of which survives on this fragment. The spindle was set into the frame and the sheet metal chape was folded around it so that the indented pin could rotate from one side to the other. The other part of the spindle consisted of a larger, curved rod forming the locking mechanism, which extended beyond the buckle frame. The locking mechanism was located in a groove set along the outer edge of the frame. As it was pushed upwards, it released the pin to rotate freely. When pushed down and back into the groove, it would lock the pin in place. The precise function of these buckles is unclear but the locking mechanisms usually end in circular or oval knops and these resemble the terminals of contemporary purse mounts, suggesting that the two items were utilised together, with the buckle securing the purse (or a key, perhaps) to the belt.

8.57 Copper alloy sheet metal chape for a cast locking buckle frame, still retaining part of the central bar, of circular section. Part of the chape is wrapped around the bar and folded with a seam visible, and a tapering pin extending from the centre.

Length:15.8mm Width: 17.2mm Thickness: 6.1mm

Context 42800

Button

8.58 An incomplete metal button lacks most of its integral wire loop and a part of the circumference is missing. It can be identified as a tombac button of eighteenth-century date, the metal imitating silver and usually decorated, as here, with punched foliate designs.

8.59 Incomplete tombac button, circular in shape with a flat upper surface displaying punched decoration, lightly dished in shape with an integral wire loop at the centre on the reverse, most of which has fractured away.

[67] Margeson, S. (1993) *Norwich Households: The Medieval and Post-Medieval Finds from Norwich Survey Excavations 1971-1978*, East Anglian Archaeology 58, Norwich (Norwich Survey)

Diameter:20.3mm Height:5.8mm

Context 42800

Iron Studs

8.60 Seven small fragments of iron studs were recovered from the same context. All of them are fragmentary but of the same basic type, with a domed head and a shaft of square section that tapers to a rectangular section and a sharp point. The change of section reflects the purpose of these studs, enabling them to be lightly hammered into wood without splitting it. They were probably decorative studs, the domed heads projecting from furniture.

8.61 Seven small fragments of iron studs, mostly the tapering shafts of square to rectangular section. One example includes a lightly domed oval head.

Length:26.3mm Width: 4.1mm Thickness: 3.3mm

Context 38303

Castle Hill

Horseshoe

8.62 A surface find of a large iron horseshoe is complete and weighs 793g. It is likely to be of late post-medieval to modern date. It includes four sunken rectangular nail holes on each branch and is oval in shape, suggesting that it may have been applied to a front foot: horseshoes for the back feet tend to be more circular in shape. Post-medieval horseshoes from the seventeenth century onwards often have fullered grooves to retain the nail holes and to ensure that the heads of the nails do not project beyond the shoe. There are no grooves on this horseshoe but it is still likely to be of late post-medieval to modern date. The arms are of an even width and thickness throughout, which is not the case with medieval or early post-medieval horseshoes, and it is much larger than horseshoes of that date. Within Clark's catalogue of late medieval horseshoes from London, the greatest width that they attained was 120mm (Clark 1995[68], Appendix 5). The Newark horseshoe, in contrast, is 182mm in width. Egan (2005, 179)[69] indicated that early post-medieval horseshoes could be separated into lightweight and heavyweight classes, without providing any precise weight definitions. It is clear, however, that a horseshoe of this considerable size and weight would have been applied to a draught horse. Its technology is relatively simple, but accomplished, with narrow branches (or arms), which are thicker than those seen with ordinary horses, of whatever date. It implies that the horseshoe was intended for a heavy, mature animal and was expected to last for some time.

8.63 Large iron horseshoe including two thick but narrow branches, both of the same width throughout, and with rounded terminals. Upper part of each

[68] Clark, J. (1995) The Medieval Horse and its Equipment, c 1150 – c 1450, *Medieval Finds from Excavations in London 5,* London (HMSO)

[69] Egan, G. (2005) *Material Culture in an Age of Transition*, MoLAS Monograph 19, London (Museum of London Archaeology Service)

branch includes four inset rectangular perforations, several of which include vestiges of iron nails.

Length:184mm Width: 182m Thickness: 12.5mm

Context 32900

Iron Nail

8.64 A fragmentary iron nail includes a sub-circular discoidal head and a shaft of square section that does not taper, suggesting that it was originally a much longer nail, tapering only over the lower part. The nail is hand-forged but cannot be closely dated.

8.65 Fragmentary hand-forged iron nail with a sub-circular discoidal head and a shaft of square section that does not taper over the surviving length.

Length: 46.1mm Width: 15.3mm Thickness: 7.1mm

Context 31904

Chisel

8.66 A fragmentary iron bar is rectangular in shape and fractured at one end. It tapers to a circular tang at the opposite end and can be identified as the middle part of an iron wood chisel, including a part of the blade and the tang. It is likely to be of late post-medieval to modern date.

8.67 Fragmentary iron bar of rectangular section, tapering to an indented tang of circular section, which has largely fractured away.

Length: 85.7mm Width15.6mm Thickness:11.7mm

Context 31904

Pulley

8.68 An incomplete copper alloy pulley of modern date includes a short integral spindle on one side and a central furrow with lateral grip marks, suggesting that it was intended to rotate whilst retaining cordage.

8.69 Incomplete cast copper alloy pulley with a central projecting spindle on one side, lateral grip marks on the central furrow between two discs, with three perforations at the centre.

Diameter: 43.8mm Height: 16.2mm

Near Trench 319

COIN

By Steve Malone

8.70 A single Victorian penny, most likely accidental loss[70], collected from topsoil in Trench 440. It does not merit retention.

Table 18: Coin

Site	Cxt	Ruler/ Denomination	Cat	Dimensions	Description	Date of issue
Maplebeck	Topsoil Trench 440 Field 2	Victoria One penny	Spink 3961	Diam: 30mm Wt: 9.0g Axis: 12 Wear: W/W	Queen Victoria veiled head penny	1900

[70] Spink (2022) *Coins of England and the United Kingdom*, London

LITHICS

By Peter Webb

Introduction

8.71 The lithic assemblage recovered during archaeological evaluation trenching for the Great North Road Solar Park, Newark-on-Trent, Nottinghamshire is composed of 13 pieces weighing a total of 70g. These were recovered from four separate sites: Cromwell Central (5 pieces, 19g); Cromwell North (3 pieces, 20g); Maplebeck (3 pieces, 12g); and North Muskham (2 pieces, 18) of which one (13g) is a natural piece and is not discussed further in this report. The assemblages were recovered from the fills of cut features: pits [23815] and [25803] at Cromwell North; ditch [42602] at Maplebeck; ditch [6302] and pit [6308] at North Muskham. The remainder were recovered from topsoil (Cromwell Central, Maplebeck) and unstratified (Maplebeck) contexts.

8.72 The ceramic evidence indicates that where features contained dating evidence, they were of Iron Age to modern dates.

Methodology

8.73 Artefacts were studied individually and quantified by number and weight of piece types. In order to assess the nature of the assemblage the lithics were examined under a 20x magnification hand-lens for signs of retouch and indications of use-wear in order to allow them to be subdivided by type category based on tool form, presence of retouch and use-wear. Complete cores were classified based on Clark's 1960 typology with the addition of removal type[71]. Measurements of each artefact were taken to ascertain the original form of blank, based on the length:breadth ratio (squat flakes <1:1; flakes ≥1:1 - <1.5:1; long flakes ≥1.5:1 - <2:1; blades ≥2:1 with parallel or near parallel lateral edges) using digital vernier callipers rounded to 0.1mm accuracy as a guide to the possible period of production. Length measurements were taken at the maximum distance between two points along the bulbar axis at right angles to the bulbar platform. Where this could not be identified, the measurement was taken following the percussion ripples. Width measurements were taken at the maximum distance between two points perpendicular to the length. Thickness measurements were taken at the maximum distance between points on the ventral and dorsal surfaces. Where artefacts were incomplete, measurement data was deemed not suitable for analysis, though all measurements were recorded. All artefacts were weighed on digital scales and rounded to 0.1g accuracy. Colour comparisons were made using the Munsell Rock Colour Book (2013)[72] based on the dominant hue of the material, excluding the cortex, patination or burning discolouration to ascertain if there was a preferred colour for particular tool types. The nature of the cortex (whether rolled or not) was used to establish whether the material was from a nodule or river gravel source. The amount and nature of the cortex was also measured to establish the presence of primary, secondary and tertiary flaking waste. The presence of burning was also noted.

[71] Clark, J., Higgs, E., and Longworth, I.(1960) 'Excavations at the Neolithic site of Hurst Fen, Mildenhall, Suffolk'. In *Proceedings of the Prehistoric Society* 26 pp. 202-245.

[72] Munsell Colour (2013) *Munsell rock colour book.* Geological Society of America.

Results

Raw Materials

Overview

8.74 The anthropogenic material within the assemblage is made up entirely of flint: 12 pieces (56g) derived from nodular (2 pieces, 21g), probably nodular (3 pieces, 9g), gravel (6 pieces, 22g), and probable gravel (1 piece, 4g) sources.

Maplebeck

8.75 A total of three pieces (12g) derived from probable nodular (1 piece, <1g), gravel (1 piece, 8g) and probable gravel (1 piece, 4g) were recovered. The raw material includes examples of reasonable quality black possible chalk-derived black flint; the nearest source of which are the Lincolnshire Wolds, c.65km to the north-east. Other material is of a lesser quality and could be from clay-with-flint deposits and pebbles derived from more local sources, including gravels of the nearby river terraces.

North Muskham

8.76 A single pieces of gravel flint (5g) was recovered and is likely derived from a local source including the gravels of the nearby river terraces.

Cromwell Central

8.77 A total of five pieces (19g) derived from nodular (1 piece, 6g), probable nodular (1 piece, 4g) and gravel (3 pieces, 9g) sources were recovered. The raw material includes examples of reasonable quality black possible chalk-derived black flint; the nearest source of which are the Lincolnshire Wolds, c.65km to the north-east. Other material is of a lesser quality and could be from pebbles derived from more local sources, including gravels of the nearby river terraces.

Cromwell North

8.78 A total of three pieces (20g) derived from nodular (1 piece, 15g), probable nodular (1 piece, 5g) and gravel (1 piece, <1g) were recovered. The raw material includes examples of reasonable quality possible chalk-derived black flint; the nearest source of which are the Lincolnshire Wolds, c.65km to the north-east. Other material is of a lesser quality and could be from clay-with-flint deposits and pebbles derived from more local sources including gravels of the nearby river terraces.

Composition and technology

Overview

8.79 The assemblage shows evidence of a complex approach to lithic reduction, with examples of intensive controlled reduction, and comprises a range of piece types including: debitage, retouched worked tools and possible utilized tools. It demonstrates a range of activities, including tool production and maintenance, alongside other settlement activities. The range of pieces forms, including both blades and flakes date throughout prehistory.

Maplebeck

8.80 The assemblage shows evidence of a complex approach to lithic reduction, with examples of intensive controlled reduction, and comprises only debitage

indicating tool production and maintenance. The presence of only flakes (and absence of blade forms) is misleading as this would suggest only later prehistoric activity, though the diagnostic pieces of debitage indicate Mesolithic tool production.

Table 19: Piece form

Piece Form	Count	%
Flint	**3**	**100%**
Flake	3	100%
Grand Total	**3**	**100%**

Table 20: Production stage

Production stage	Count	%
Flint	**3**	**100%**
Non-cortical	2	67%
Tertiary	1	33%
Grand Total	**3**	**100%**

8.81 The production stages present (Table 20), indicated by the amount of cortex and size of the discarded material, indicates that later stages of core reduction were taking place. The absence of primary flakes, however, suggests that initial material selection and core reduction was perhaps happening elsewhere, though not necessarily far away; the similar relative absence of chips suggesting that tool refinement also occurred elsewhere.

8.82 The assemblage is formed entirely of debitage (100%) suggesting that whilst tool production was occurring, the full range of tool production/use may have occurred elsewhere, though not necessarily far away

Table 21: Piece stage

Piece Stage	Count	%
Flint	**3**	**100%**
Debitage	3	100%
Grand Total	**3**	**100%**

North Muskham

8.83 The assemblage shows evidence of only limited lithic reduction, comprising a single piece of debitage which indicates only limited tool production of an uncertain date.

Table 22: Piece form

Piece Form	Count	%
Flint	**1**	**100%**
Flake	1	100%
Grand Total	**1**	**100%**

Table 23: Production stage

Production stage	Count	%
Flint	**1**	**100%**
Tertiary	1	100%
Grand Total	**1**	**100%**

8.84 The production stages present (Table 23), indicated by the amount of cortex and size of the discarded material, indicates that later stages of core reduction were taking place. The absence of primary flakes, however, suggests that initial material selection and core reduction was perhaps happening elsewhere, though not necessarily far away; the similar relative absence of chips suggesting that tool refinement also occurred elsewhere.

8.85 The assemblage is formed entirely of debitage (100%) suggesting that whilst tool production was occurring, the full range of tool production/use may have occurred elsewhere, though not necessarily far away.

Table 24: Piece stage

Piece Stage	Count	%
Flint	**1**	**100%**
Debitage	1	100%
Grand Total	**1**	**100%**

Cromwell Central

8.86 The assemblage shows evidence of a complex approach to lithic reduction, with examples of intensive controlled reduction, and comprises a range of piece types including: debitage, retouched worked tools and possible utilized tools. It demonstrates a range of activities, including tool production and

maintenance, alongside other settlement activities. The range of pieces forms, including both blades and flakes date throughout prehistory but suggest earlier activity dating to perhaps the Mesolithic or Neolithic.

Table 25: Piece form

Piece Form	Count	%
Flint	**5**	**100%**
Blade	3	60%
Long flake	2	40%
Grand Total	**5**	**100%**

Table 26: Production stage

Production stage	Count	%
Flint	**5**	**100%**
Non-cortical	2	40%
Tertiary	3	60%
Grand Total	**5**	**100%**

8.87 The production stages present (Table 26), indicated by the amount of cortex and size of the discarded material, indicates that later stages of core reduction were taking place. The absence of primary flakes, however, suggests that initial material selection and core reduction was perhaps happening elsewhere, though not necessarily far away; the similar relative absence of chips suggesting that tool refinement also occurred elsewhere.

8.88 The assemblage is formed primarily of debitage (60%), but also includes retouched tools (20%) and utilized tools (20%) indicating that the full range of tool production/use was occurring on site as well as elsewhere.

Table 27: Piece stage

Piece Stage	Count	%
Flint	**5**	**100%**
Debitage	3	60%
Retouched tool	1	20%

Piece Stage	Count	%
Possible utilised tool	1	20%
Grand Total	**5**	**100%**

Cromwell North

8.89 The assemblage shows evidence of a complex approach to lithic reduction, with examples of intensive controlled reduction, and comprises a range of piece types including: debitage, retouched worked tools and possible utilized tools. It demonstrates a range of activities, including tool production and maintenance, alongside other settlement activities. The range of pieces forms, including both blades and flakes date throughout prehistory but suggest earlier activity dating to perhaps the Mesolithic or Neolithic.

Table 28: Piece form

Piece Form	Count	%
Flint	**3**	**100%**
Blade	1	33%
Long flake	1	33%
Squat flake	1	33%
Grand Total	**3**	**100%**

Table 29: Production stage

Production stage	Count	%
Flint	**3**	**100%**
Non-cortical	1	33%
Secondary	1	33%
Tertiary	1	33%
Grand Total	**3**	**100%**

8.90 The production stages present (Table 29), indicated by the amount of cortex and size of the discarded material, indicates that later stages of core reduction were taking place. The absence of primary flakes, however, suggests that initial material selection and core reduction was perhaps happening elsewhere, though not necessarily far away; the similar relative absence of chips suggesting that tool refinement also occurred elsewhere.

8.91 The assemblage is formed of an equal mix of debitage (33%), retouched tools (33%) and utilized tools (33%) indicating that the full range of tool production/use was occurring on site as well as elsewhere.

Table 30: Piece stage

Piece Stage	Count	%
Flint	**3**	**100%**
Debitage	1	33%
Retouched tool	1	33%
Possible utilised tool	1	33%
Grand Total	**3**	**100%**

Debitage

8.92 The debitage comprises a total of eight pieces, and includes a range of piece types including: blades/blade fragments, chips, core tablets, core trimming blades, core trimming flakes and shatter fragments. There are very few primary or secondary pieces compared to either tertiary or non-cortical pieces, suggesting that it may primarily have been the final stages of tool production and maintenance that were being carried out on the sites, with the initial stages of reduction occurring elsewhere as a means of weight reduction to allow for the transportation of more material.

Maplebeck

8.93 The debitage comprises a total of three pieces (100% of the total assemblage), including a chip (33%), a core tablet (33%) and a shatter fragment (33%) (Table 31). That there are no primary or secondary pieces compared to tertiary (33%) and non-cortical (67%) pieces indicates that it was primarily the final stages of tool production and maintenance being carried out on the site, with the initial stage of reduction occurring elsewhere, perhaps as a means of weight reduction to allow for the transportation of more material. This is supported by the small size of the debitage, with none of the pieces being above 50mm in any dimension, which indicates that the removals were likely from cores that were near exhaustion, or from the tools themselves.

8.94 The debitage was recovered from a range of features and contexts across the site, including from the fill of ditch [42602] and the topsoil contexts.

Table 31: Debitage type

Debitage type	Count	%
Flint	**3**	**100%**
Chip	1	33%
Core tablet	1	33%
Shatter fragment	1	33%
Grand Total	**3**	**100%**

8.95 Debitage is typically non-diagnostic, the waste of lithic tool production being similar throughout all periods, though with the exception of blade forms being typical of earlier rather than later production.

8.96 However, some debitage categories are specific to particular tool types and as such are much more likely to be diagnostic to the assemblage.

8.97 Core tablets

8.98 A single core tablet was recovered, from the topsoil. It was were produced probable gravel flint and are relatively small in size. Whilst not the debitage of a particular tool type, core tablets are typically a result of Palaeolithic, Mesolithic and early Neolithic core reduction.

North Muskham

8.99 The debitage comprises a single piece (100% of the total assemblage), a shatter fragment (Table 32). This piece is a tertiary removal and suggests that core reduction may have been taking place on the site.

8.100 The debitage was recovered from the fill of ditch [6302].

Table 32: Debitage type

Debitage type	Count	%
Flint	**1**	**100%**
Shatter fragment	1	100%
Grand Total	**1**	**100%**

8.101 Debitage is typically non-diagnostic, the waste of lithic tool production being similar throughout all periods, though with the exception of blade forms being typical of earlier rather than later production.

Cromwell Central

8.102 The debitage comprises a total of three pieces (60% of the total assemblage), including blades (33%), core trimming blades (33%) and core trimming flakes (33%) (Table 33). That there are no primary or secondary pieces compared to tertiary (67%) and non-cortical (33%) pieces indicates that it was primarily the final stages of tool production and maintenance being carried out on the site, with the initial stage of reduction occurring elsewhere, perhaps as a means of weight reduction to allow for the transportation of more material. This is supported by the small size of the debitage, with none of the pieces being above 50mm in any dimension, which indicates that the removals were likely from cores that were near exhaustion, or from the tools themselves.

8.103 The debitage was recovered from topsoil contexts spread across the site.

Table 33: Debitage type

Debitage type	Count	%
Flint	**3**	**100%**

Debitage type	Count	%
Blade	1	33%
Core trimming blade	1	33%
Core trimming flake	1	33%
Grand Total	**3**	**100%**

8.104 Debitage is typically non-diagnostic, the waste of lithic tool production being similar throughout all periods, though with the exception of blade forms being typical of earlier rather than later production.

Cromwell North

8.105 The debitage comprises a single piece (33% of the total assemblage), a chip (Table 34). This piece is a secondary removal and suggests that the final stages of tool production was being carried out on the site.

8.106 The debitage was recovered from the fill of pit [25803].

Table 34: Debitage type

Debitage type	Count	%
Flint	**1**	**100%**
Chip	1	100%
Grand Total	**1**	**100%**

Retouched tools

8.107 A total of two retouched tools were recovered during the excavation, recovered from a combination of feature fills and topsoil contexts. All were produced on flint from nodular or probable nodular sources. The tools largely show marginal working indicative of expedient production, none of the pieces demonstrating more careful invasive retouch.

Maplebeck

8.108 No retouched tools were recovered from the site.

North Muskham

8.109 No retouched tools were recovered from the site.

8.110 Cromwell Central

8.111 A single retouched tool, a backed blade (Table 35), was recovered from topsoil (21200) and was produced on probable nodular flint. It was small in size, not exceeding 40mm in any dimension, and shows only minimal retouch. Knives were utilized as generic cutting tools throughout prehistory, the production of this piece on a blade suggesting that it may represent an episode of production dated (though not limited) to the Mesolithic or Neolithic periods.

Table 35: Retouched tool type

Retouched tools	Count	%
Flint	**1**	**100%**
Knife	**1**	**100%**
Backed blade	1	100%
Grand Total	**1**	**100%**

Cromwell North

8.112 A single retouched tool, an end-scraper (Table 36), was recovered from the fill of pit [23815] and was produced on nodular flint. It was small in size, not exceeding 55mm in any dimension. The distal retouch is crude and semi-abrupt. Scrapers are typically the most common domestic tool recovered from settlement sites and were used for a range of functions, most notably hide preparation. Most forms are undiagnostic, having been used throughout prehistory, though some types fit within a narrower range of periods.

Table 36: Retouched tool type

Retouched tools	Count	%
Flint	**1**	**100%**
Scraper	**1**	**100%**
End-scraper	1	100%
Grand Total	**1**	**100%**

<u>Utilised tools</u>

8.113 Alongside the retouched tools, two of the non-retouched pieces recovered during the excavations show possible signs of utilisation, though the evidence of which may be the results of damage. They were recovered from a range of contexts, including pit fills and topsoil contexts. The use of non-retouched tools was almost exclusively as expedient cutting tools.

Maplebeck

8.114 No utilized tools were recovered from the site.

North Muskham

8.115 No utilized tools were recovered from the site.

Cromwell Central

8.116 Alongside the retouched tools, a single of the non-retouched pieces recovered during the excavations show possible signs of utilisation, though the evidence of which may be the results of damage. It was recovered from a topsoil context

and was produced on gravel flint. The use of non-retouched tools was almost exclusively as expedient cutting tools.

Cromwell North

8.117 Alongside the retouched tools, a single of the non-retouched pieces recovered during the excavations show possible signs of utilisation, though the evidence of which may be the results of damage. It was recovered from the fill of pit [23815] and was produced on probable nodular flint. The use of non-retouched tools was almost exclusively as expedient cutting tools.

Discussion

The assemblage

8.118 The material recovered is all likely relatively locally sourced, though the nearest source for the better quality nodular flint is the Lincolnshire Wolds, c.65km to the north-east; other sources likely collected from local river and beach gravel sources.

8.119 The nature of the assemblage suggests that it was predominantly the later stages of chipped stone tool production which were carried out with much, though not all, initial core selection, testing and preparation carried out elsewhere, though not necessarily far away. The small size of the debitage and presence of both chips and core-tablets indicates that it was principally the final stages of core reduction and tool production that were carried out.

8.120 Only a small number of the pieces are typologically distinctive, the core-tablet indicating Mesolithic core reduction; the remaining pieces indicating only more general prehistoric activity, though the presence of blade forms suggests that at least some of this was earlier in date, reflecting Mesolithic and earlier Neolithic activity.

Maplebeck

8.121 The material recovered from the excavations at Maplebeck is all likely relatively locally sourced, though the nearest source for the better quality nodular flint is the Lincolnshire Wolds, c.65km to the north-east; other sources likely collected from local river gravel sources.

8.122 The nature of the assemblage suggests that it was predominantly the later stages of chipped stone tool production which were carried out with much, though not all, initial core selection, testing and preparation carried out elsewhere, though not necessarily far away. The small size of the debitage and presence of core-trimming pieces indicates that it was principally the final stages of core reduction and tool production that were carried out.

8.123 Whilst most of the pieces are not typologically distinctive, the material indicating only general prehistoric activity, the presence of a core tablet indicates Mesolithic activity.

8.124 The small size of the assemblage suggests that the material represents only small-scale settlement activity or loss, perhaps relating to a short-term activity camp. The recovery of the material from a ditch fill may indicate the location of the settlement, though the recovery of other material from topsoil contexts demonstrates the movement of the material.

8.125 With no contemporary prehistoric activity recorded in the vicinity of the site, it is possible that any settlement activity reflected by the current assemblage reflects an interim camp-site linking more substantial settlements within the wider landscape.

North Muskham

8.126 The material recovered from the excavations at North Muskham is all likely relatively locally sourced, likely collected from local river gravel sources.

8.127 The nature of the assemblage suggests that it was predominantly the later stages of chipped stone tool production which were carried, with initial core selection, testing and preparation carried out elsewhere, though not necessarily far away. The presence of only a shatter fragment suggests that this activity was only very limited and may in fact reflect simple discard of waste material.

8.128 None of the pieces are typologically distinctive, the material indicating only general prehistoric activity.

8.129 The small size of the assemblage suggests that the material represents only small-scale settlement activity or discard, perhaps relating to a short-term activity camp. The recovery of the material from a ditch fill may indicate the location of such activity, though the piece may be intrusive.

8.130 Whilst settlement features pre-dating the Iron Age have not been identified in the local area, the recovery of lithic scatters dating back to the Mesolithic period across the surrounding landscape demonstrates activity from at least this period; and it is likely that the material recovered during the excavations reflects a small part of this.

Cromwell Central

8.131 The material recovered from the excavations at Cromwell Central is all likely relatively locally sourced, though the nearest source for the better-quality nodular flint is the Lincolnshire Wolds, c.65km to the north-east; other sources likely collected from local river gravel sources.

8.132 The nature of the assemblage suggests that it was predominantly the later stages of chipped stone tool production which were carried out with much, though not all, initial core selection, testing and preparation carried out elsewhere, though not necessarily far away. The small size of the debitage and presence of core-trimming pieces indicates that it was principally the final stages of core reduction and tool production that were carried out.

8.133 None of the pieces are typologically distinctive, the material indicating only general prehistoric activity, though the presence of blade forms suggests that at least some of this was earlier in date, perhaps reflecting Mesolithic and earlier Neolithic activity.

8.134 The small size of the assemblage suggests that the material represents only small-scale settlement activity or loss, perhaps relating to a short-term activity camp, further suggested by the presence of more expedient tools. The recovery of the material from only topsoil contexts spread across the site, however, means that the location of recovery does not necessarily reflect the location of any potential settlement.

8.135 Areas of prehistoric settlement and funerary activity are recorded in the surrounding area, and whilst much of this appears later in date (Bronze Age to Iron Age), it reflects general pattern of land-use in the area which may have originated even earlier in prehistory. It is possible that any settlement activity reflected by the current assemblage reflects an interim camp-site linking more substantial settlements within the wider landscape.

Cromwell North

8.136 The material recovered from the excavations at Cromwell North is all likely relatively locally sourced, though the nearest source for the better quality nodular flint is the Lincolnshire Wolds, c.65km to the north-east; other sources likely collected from local river gravel sources.

8.137 The nature of the assemblage suggests that it was predominantly the later stages of chipped stone tool production and use which were carried out. The small size of the debitage and presence of chips indicates that it was principally the final stages of tool production and maintenance that were carried out.

8.138 None of the pieces are typologically distinctive, the material indicating only general prehistoric activity, though the presence of blade forms suggests that at least some of this was earlier in date, perhaps reflecting Mesolithic and earlier Neolithic activity.

8.139 The small size of the assemblage suggests that the material represents only small-scale settlement activity or loss, the presence of only chips and retouched/utilized tools perhaps reflecting a short-term activity camp. The recovery of the material from the fills of pits may indicate discard within features as part of the settlement activity.

8.140 Areas of prehistoric settlement and funerary activity are recorded in the surrounding area, and whilst much of this appears later in date (Bronze Age to Iron Age), it reflects general patterns of land-use in the area which may have originated even earlier in prehistory. It is possible that any settlement activity reflected by the current assemblage reflects an interim camp-site linking more substantial settlements within the wider landscape.

Conclusions and Recommendations

8.141 The chipped stone artefacts recovered during the excavations at four sites to the north and north-west of Newark indicate small areas of possible settlement and activity dating back as far as the Mesolithic period. They appear to reflect possible short-term camp-sites used as part of a wider pattern of movement through the landscape, and particularly through the Trent Valley.

8.142 As a whole, there is limited value in retaining much of the lithic assemblage, the pieces primarily being formed of debitage of largely poor quality. Only the core tablet and presence of blade forms provide any indication of possible dating beyond 'prehistoric', even the end-scraper and backed knife only being of generic prehistoric varieties. The primary value of these pieces is in adding to the known narrative of activity in the area and in their association with other nearby lithic scatters/collections.

Slag

By Dr Gerry McDonnell

Introduction

8.143 This assessment report describes the material classified as slag recovered from Maplebeck, Castle Hill, North Muskham, Cromwell Central and Cromwell North and sites on the Great North Road Solar Park, Newark-on-Trent, Nottinghamshire. The solid geology is the Triassic Mercia Mudstone, with Quaternary deposits in the valley bottoms. The residues are discussed by site with an overall summary. The significance of the material is discussed, and recommendations made for further work. The assessment report follows the guidelines issued by Historic England (Dungworth 2015, 13-14)[73].

Slag Classification

8.144 The slags were visually examined, and the classification is based solely on morphology. Additional data to improve the interpretation was obtained from a programme of Hand-Held X-Ray Fluorescence (HH-XRF). Details of the method are provided in Appendix 1. The debris associated with metalworking or submitted in the understanding that they are associated with metalworking, can be divided into two broad groups; residues diagnostic of a particular metallurgical process or non-diagnostic residues that may have derived from any pyrotechnological process (McDonnell 2001)[74]. The diagnostic ferrous debris can be attributed to a particular ironworking process; these comprise ores and the ironworking slags, i.e., the macro, hand recovered smelting and smithing slags and the micro-residues such as hammerscale and slag fragments recovered from sieving programmes. The second group are the diagnostic non-ferrous metalworking debris, e.g., crucibles and moulds. Thirdly, there are the non-diagnostic slags, which could have been generated by several different processes but show no diagnostic characteristic that can identify the process. In many cases the non-diagnostic residues, e.g., hearth or furnace lining, may be ascribed to a particular process through archaeological association. The residue classifications used in the report are defined below.

<u>Diagnostic Ferrous Slags and Residues</u>

8.145 Smithing Slag - randomly shaped pieces of iron silicate slag generated by the smithing process. In general slag is described as smithing slag unless there is good evidence to indicate that it derived from the smelting process.

8.146 Hammerscale - there are two forms of hammerscale, flake and spheroidal generated during the smithing process. The presence of hammerscale is therefore a strong indicator that smithing (primary or secondary) was carried out on the site. Their small size precludes their hand recovery, and they are usually recovered during soil sample sieving (for environmental data).

<u>Diagnostic Non-Ferrous Slags and Residues</u>

[73] Dungworth, D. (Ed.) (2015) *Archaeometallurgy Guidelines for Best Practice.* Historic England (www.HistoricEngland.org.uk/advice/)

[74] McDonnell, J.G.(2001) "Pyrotechnology" in Brothwell, D. and Pollard A.M.P. (eds) *Handbook of Archaeological Sciences,* John Wiley & Sons, London pp. 493-506.

8.147 Crucible – ceramic vessel used to melt non-ferrous metals and alloys. The non-ferrous metals present can be determined using Hand-Held X-Ray Fluorescence

Non-Diagnostic Slags and Residues

8.148 Hearth or Furnace Lining - the clay lining of an industrial hearth, furnace or kiln that has a vitrified or slag-attacked face. It is not possible to distinguish between furnace and hearth lining.

Results

8.149 Table 44 lists the count and weight of the macro-slag types present on Castle Hill and Maplebeck sites, and a list of the identification of the magnetic fractions recovered from the sieving programme for all five sites is provided in Table 45.

Maplebeck

8.150 One fragment of a possible crucible was recovered from the fill of an Iron Age ditch [42610], but it was too thick (18mm), with a heavily vitrified internal surface, whereas typical Iron Age crucibles are thinner (<10mm) and the vitrification occurs on the external surface. The internal surface was analyses by HH-XRF (Appendix 7), and although there were trace levels of copper, zinc and lead they were too low to indicate use as a crucible. The fragment was therefore classified as vitrified hearth lining. Due to the thickness of the vitrification it must have derived from a large high temperature hearth. Five samples of magnetic material were recovered (Appendix 7; Table 45), three from Iron Age features and two undated. All samples were stone fragments.

Castle Hill

8.151 Thirty fragments of slag (total weight 1.8kg, Appendix 7; Table 44) were recovered from the fill of a post-medieval pond [31902]. The slag was interpreted as smithing slag, but the pond is some distance from any post-medieval settlement and hence is probably earlier and to assess whether it could be Iron Age or early medieval smelting slag a fresh break on one fragment was analysed by HH-XRF analysis (Appendix 7), there was no manganese peak which is not confirmation that the slag is smithing slag, but strongly suggest that it is. In the same contexts there were two lumps of non-slag material which when fractured were bright white which suggest that they were pieces of gypsum which occurs as thin bands in the Mercia Mudstone. The same feature produced a small amount (5.3grams, Appendix 7; Table 45) of magnetic material which was mostly very small slag fragments with some stone flakes. Another small amount (0.6grams, Appendix 7; Table 45) of magnetic material was recovered from an early medieval ditch [32304], which was identified as stone fragments.

North Muskham

8.152 Five samples of magnetic material were recovered from unphased contexts. They were all stone fragments (Appendix 7; Table 45).

Cromwell Central

8.153 Two samples of magnetic material were recovered from unphased contexts. They were all stone fragments (Appendix 7; Table 45).

Cromwell North

8.154 Two samples of magnetic material were recovered from unphased contexts. They were all stone fragments (Appendix 7; Table 45).

Discussion and Significance

8.155 From the extensive trenching programme only 1.8kg of diagnostic slag was recovered, all of it from a post-medieval pond [31902]. This indicates that there was no ironworking near any of the areas investigated. The single piece of vitrified hearth lining from the Iron Age ditch [42610] at Maplebeck is unusual being an isolated find, it is very heavily vitrified and very thick. The only magnetic residues to recover metalworking evidence was from the pond [31902] on Castle Hill, no hammerscale was recovered. The stone flakes probably become responsive to a magnet due to heating but only one context (31904 Castle Hill), contained evidence for heating in the form of charcoal fragments in the fill.

Recommendations

8.156 No further work is required on the assemblage. For archiving purposes, the assemblage could be reduced to retaining a small sample of the slag from [31902].

9 THE ENVIRONMENTAL SAMPLES

by Rosalind McKenna & Stacey Adams

Overview

9.1 In total, 30 environmental samples were collected from the various sites of the Scheme: 16 bulk samples from Maplebeck, two bulk samples from Castle Hill, six bulk samples from North Muskham, two bulk samples from Cromwell Central and four bulk samples from Cromwell North.

9.2 The charred plant macrofossils recovered from the Site generally comprised undetermined cereal grains and Hazelnut fragments, with wheat found at Cromwell North and Cromwell Central. Waterlogged plant remains were found in a modern pond [31902] and cereal chaff was recovered from Maplebeck. Charcoal was recovered from features at Maplebeck, Castle Hill and Cromwell North.

9.3 The results of the analysis of the environmental samples are presented below by site and the associated tables are presented in Appendix 8.

Methodology

9.4 The bulk environmental samples, ranging from 10 to 40L in volume, were processed by flotation using a 500µm mesh for the heavy residue and a 250µm mesh for the retention of the flot before being air dried. The flots of samples recognised as waterlogged during flotation were retained wet. The residues were passed through 8, 4 and 2mm sieves and each fraction sorted for environmental and artefactual remains (Tables 46, 49, 53, 56, and 59). A magnet was passed over each fraction for the retention of magnetic material and potential metalworking remains. Artefacts recovered from the samples were distributed to specialists and are incorporated in the relevant sections of this volume where they add further information to the existing finds assemblage. The flots were sorted under a stereozoom microscope at 7-45x magnifications (Tables 47, 50, 54, 57 and 60). Identification of the charred and waterlogged plant remains was based on observations of gross morphology and surface cell structure and where necessary relevant reference manuals (Cappers et al 2006[75]; Jacomet 2006[76]) were consulted. Quantification was based on minimum number of individuals and nomenclature follows Stace (1997)[77] for wild plants and Zohary and Hopf (1994)[78] for cereals. Results for the charred plant macrofossil analysis are recorded in Tables 48, 51, 55, 58 and 61 and the results for waterlogged plant analysis are recorded in Table 52.

[75] Cappers, R., Bekker, R.M. and Janes, J.E.A. (2006) Digital Seed Atlas of the Netherlands. Gronlingen Archaeological Studies 4. Eelde: Barkhuis Publishing.

[76] Jacomet, S. (2006) Identification of Cereal Remains from Archaeological Sites. Basel Archaeobotany Lab, IPAS.

[77] Stace, C. (1997) New Flora of the British Isles (2nd ed). Cambridge: Cambridge University Press.

[78] Zohary, D. and Hopf, M. (1994) Domestication of Plants in the Old World (2nd ed). Oxford: Oxford University Press.

9.5 Selected charcoal fragments were sectioned by hand along three planes (transverse, radial and tangential) according to standardised procedures (Gale & Cutler 2000[79]; Hather 2000[80]). Specimens were viewed under a stereozoom microscope for initial grouping and an incident light microscope at magnifications up to 500x was used to further identify the charcoal. Taxonomic identifications were assigned by comparing suites of anatomical characteristics visible with those documented in reference atlases (Schoch et al 2004[81]; Hather 2000; Schweingruber 1990[82]). Quantification and taxonomic identifications of charcoal are recorded in Tables 46, 49, and 59 and nomenclature follows Stace (1997).

MAPLEBECK—PLANT MACROFOSSILS AND CHARCOAL

Introduction

9.6 Sixteen bulk environmental samples were taken during archaeological investigations at Maplebeck for the recovery of environmental remains such as plant macrofossils, wood, charcoal, faunal remains and Mollusca, as well as to assist finds recovery (Tables 46–48). The material derives from prehistoric, Iron Age and Roman activity from a series of ditches and pits recorded during excavations. The following report discusses the preservation of the charred plant macrofossils and wood charcoal and their ability to inform on the diet, arable economy and local environment of the site as well as fuel selection and use.

Results

Charred Plant Macrofossils: Iron Age

9.7 Charred plant macrofossils were present in small numbers in four of the samples: ditch [42804], ditch [42802], pit [42608] and curvilinear [42602] dating to the Iron Age. The preservation of the material was poor, and the cereal grains were puffed and distorted. The identifications were made based on their overall size and morphological characteristics, and could only be identified to indeterminate cereal. Ditch feature [42803] contained two indeterminate cereal grains. Ditch terminus [42610] contained twelve indeterminate cereal grains and two fragments of hazelnut (*Corylus avellana*) shell. The fill of pit [42608] contained three indeterminate cereal grains. Curvilinear feature [42602] contained a single indeterminate cereal grain.

[79] Gale, R. and Cutler, D. (2000) Plants in Archaeology. Otley: Westbury Publishing and Kew.

[80] Hather, J.G. (2000) The Identification of Northern European Woods: A Guide for Archaeologists and Conservators. London: Archetype Publications Ltd.

[81] Schoch, W., Heller, I., Schweingruber, F.H. and Kienast, F. (2004) Wood Anatomy of Central European Species. Online version: www.woodanatomy.ch.

[82] Schweingruber, F.H. (1990) Macroscopic Wood Anatomy (3rd ed). Birmensdorf: Swiss Federal Institute for Forest, Snow and Landscape Research.

Late Iron Age to Early Roman

A single sample from shallow feature [41203] contained two grains that could only be identified as indeterminate cereal due to poor preservation, and two fragments of hazelnut shell.Roman Period

9.8 A single sample from ditch [39502] dating to the Roman period produced a small amount of charred plant macrofossils in the form of two grass (POACEAE) seeds, two cereal chaff culms and one cereal glume base.

Undated

9.9 Two indeterminate cereal grains were recorded from undated pit [39506].

Charcoal: Late Iron Age

9.10 The charcoal from Late Iron Age feature [41203] was moderately well-preserved with a little distortion to the fragments caused by post-depositional sediment. Post-depositional sediment is associated with fluctuations in the water table after burial. Oak (*Quercus sp*.) was the most common taxon followed by wood of the apple sub-family (*Maloideae*). The sub-family includes apple/ pear/ hawthorn/ rowan/ and whitebeam (*Malus/ Pyrus/ Crataegus/ Sorbus*). Poplar/ willow (*Populus/ Salix*) was also present along with individual fragments of hazel (*Corylus avellana*) and alder (*Alnus sp*.). All the charcoal derived from large branch or trunk wood with the exception of a single fragment of the apple sub-family.

Discussion and Interpretation

Charred Plant Macrofossils

9.11 The sampled features contained infrequent charred plant macrofossils, and they were absent from ditch features [42804], [43108], [43110], [39502], [39508], [40404], [41302], [40405] and [39204]. Where they were present, the preservation of the plant macrofossils was poor and they were only present in very small volumes in seven of the samples. Other than to state their presence throughout the features and the various phases, little of further interpretative value can be added. The presence of hazelnut shell fragments may indicate that these had been collected and utilised as a food source. However as there is also hazel charcoal present, it may have been incorporated into the assemblage as part of the wood being burnt for fuel. The presence of cereals on site throughout the various phases shows that cereals were consistently being utilized by its inhabitants. It is not possible to state which species these were, however the small quantity of cereal chaff fragments may indicate some form of crop cereal processing was occurring. Windblown or dispersed settlement waste seems the most likely explanation for these very small assemblages.

Charcoal: Late Iron Age

9.12 The Late Iron Age charcoal in shallow feature [41203] indicates wood was exploited from both shrubby oak woodland and riverine environs for fuel. The poplar/ willow and willow would have been abundant along the banks of the River Trent and its tributaries whilst hazel and wood of the apple sub-family would have been present within local oak woodland. The dominance of wood from large branches or trunks indicates the trees themselves were harvested

rather than opportunistically collected from the forest floor. All the wood taxa make for excellent fuelwood with the exception of alder (Taylor 1981)[83] which may have been opportunistically collected rather than deliberately selected. Oak, hazel and wood of the apple sub-family were similarly exploited in a Late Iron Age deposit at Cotgrave (Adams 2023)[84] indicating similar woodland exploitation. The taxa was accompanied by light-loving species rather than riverine taxa suggesting differential fuel exploitation in the Iron Age in Nottinghamshire.

Recommendations

9.13 The samples from Maplebeck have low potential due to the paucity of the remains and the possible contamination indicators present within the flots. No further work is recommended on the plant macrofossils. They have been fully quantified and identified as part of this analysis and, therefore, this analysis of them and the data that accompanies it may be included in any future publication of this site. The flots and unidentified charcoal need not form part of the site archive and can be discarded.

[83] Taylor, M. (1981) Wood in Archaeology. Aylesbury: Shire Publications.

[84] Adams, S. (2023) 'The Charred Plant Macrofossils and Charcoal' in Cousins, T. *Hollygate Lane, Cotgrave, Nottinghamshire*. Unpublished York Archaeology Report 2023/280, pp. 95-104.

CASTLE HILL—PLANT MACROFOSSILS AND CHARCOAL

By Rosalind McKenna & Stacey Adams

Introduction

9.14 Two bulk environmental samples were taken during archaeological investigations at Castle Hill for the recovery of environmental remains such as plant macrofossils, wood, charcoal, faunal remains and Mollusca, as well as to assist finds recovery (Table 49–52). The material derives from features dating to the early medieval and post-medieval periods. The following report discusses the preservation of the charred and waterlogged plant macrofossils and wood charcoal and their ability to inform on the diet, arable economy and local environment of the site as well as fuel selection and use.

Results

Charred Plant Macrofossils: Roman

9.15 Charred plant macrofossils were present in small numbers in one of the samples from ditch [32304] dating to the Roman period. The preservation of the material was poor, and the cereal grains were puffed and distorted. The identifications were made based on their overall size and morphological characteristics, and could only be identified to indeterminate cereal. Three cereal glume bases were also recorded. One weed seed could be identified as buttercup (*Ranunculus sp.).*

Waterlogged Plant Macrofossils: Post Medieval

9.16 One sample from pond [31902] contained a huge quantity of waterlogged plant macrofossils. The preservation of the remains was very good. The sample was dominated by common water plantain (*Alisma plantago/ aquatica*) with high numbers of common duckweed (*Lemna minor*). Also present were bramble (*Rubus fruticosus*), meadow buttercup (*Ranunculus acris*), common nettle (*Urtica dioica*), hemp nettle (*Galeopsis tetrahit*), elder (*Sambucus nigra*), sheep's sorrel (*Rumex acetosella*), fat hen (*Chenopodium album*), sedges (*Carex sp., CYPERACEAE*) and grasses (*POACEAE*).

Charcoal: Roman

9.17 The well-preserved charcoal from Roman ditch [32304] was predominately of field maple (*Acer campestre*) accompanied by oak (*Quercus sp.*) and individual fragments of plum-type (*Prunus sp*.) and indeterminate knotwood. The plum-type had 4-6 seriate rays in the tangential section indicating it was of a wild plum/ damson/ blackthorn (*Prunus domestica/ insititia/ spinosa*) variety. All the charcoal derived from large branch or trunk wood with the exception of individual roundwood fragments of field maple and plum-type.

Discussion and Interpretation

Charred Plant Macrofossils

9.18 The preservation of the charred plant macrofossils was poor and they were only present in very small volumes in one of the samples. Other than to state their presence nothing of further interpretative value can be added.

Waterlogged Plant Macrofossils

9.19 The preservation of the waterlogged plant macrofossils was very good. The species are typical of aquatic habitats and represent standing or slow flowing water which confirms the feature is a pond. The presence of blackberry and elderberry indicate possible food sources for the inhabitants of the site. These are both species which derive from shrub or woodland habitats, and alongside the presence of common nettle may indicate shaded woodland was present at the edge of the pond feature.

Charcoal: Roman

9.20 Field maple is a light-loving taxa and would have been exploited from open areas whilst oak and hazel would have been available in local shrubby woodland. Oak and hazel burn well for a prolonged and at high temperatures while field maple is considered an inferior fuel (Austin 2003: 99)[85]. Its presence at the site may suggest the lack of superior fuelwood within the vicinity of the site or opportunistic collection. The wood was likely harvested from the trees themselves considering it predominantly derived from large branch or trunkwood.

Recommendations

9.21 The samples have low potential due to the paucity of the remains and the possible contamination indicators present within the flots. No further work is recommended on the plant macrofossils. They have been fully quantified and identified as part of this analysis and, therefore, this analysis of them and the data that accompanies it may be included in any future publication of this site. The flots and unidentified charcoal need not form part of the site archive and can be discarded.

[85] Austin, P. (2003) 'The Wood Charcoal Macro-Remains' in Stevens, T. *Drayton Sand and Gravel Pit, Oving, Chichester, West Sussex, Excavation Area 1: Archive Report*. Twickenham: AOC Archaeology Group, pp. 96-102.

NORTH MUSKHAM—PLANT MACROFOSSILS

By Rosalind McKenna

Introduction

9.22 Six bulk environmental samples were taken during archaeological investigations at Muskam for the recovery of environmental remains such as plant macrofossils, wood, charcoal, faunal remains and Mollusca, as well as to assist finds recovery (Tables 53–55). Charcoal was not present in sufficient quantities (>3g from the >4mm fraction of the heavy residue) to be submitted for analysis. The following report discusses the preservation of the charred plant macrofossils and their ability to inform on the diet, arable economy and local environment of the site.

Results

Charred Plant Macrofossils: Undated

9.23 Charred plant macrofossils were present in small numbers in two of the samples: from pit feature [7608] and linear feature [7604], that have not been assigned to a phase of activity at the site. The preservation of the material was poor, and the cereal grains were puffed and distorted. The identifications were made based on their overall size and morphological characteristics and could only be identified to indeterminate cereal. Hazel nutshell fragments were also present in the fill of pit [7608].

Discussion and Interpretation

Charred Plant Macrofossils

9.24 The preservation of the plant macrofossils was poor and they were only present in very small volumes in two of the samples. Other than to state their presence throughout the features and the various phases, nothing of further interpretative value can be added.

Recommendations

9.25 The samples have low potential due to their paucity and the possible contamination indicators present within the flots. No further work is recommended on the plant macrofossils. They have been fully quantified and identified as part of this analysis and, therefore, this analysis of them and the data that accompanies it may be included in any future publication of this site. The flots and unidentified charcoal need not form part of the site archive and can be discarded.

CROMWELL CENTRAL—PLANT MACROFOSSILS AND CHARCOAL

By Rosalind McKenna

Introduction

9.26 Two bulk environmental were taken during archaeological investigations at Castle Hill for the recovery of environmental remains such as plant macrofossils, wood, charcoal, faunal remains and Mollusca, as well as to assist finds recovery (Tables 56–58). Charcoal was not present in sufficient quantities >3g from the >4mm fraction of the heavy residue) to be submitted for identification. The material derives from a prehistoric pit and a ditch recorded during excavations. The following report discusses the preservation of the charred plant macrofossils and wood charcoal and their ability to inform on the diet, arable economy and local environment of the site.

Results

Charred Plant Macrofossils: Prehistoric

9.27 Charred plant macrofossils were present in small numbers in both of the samples: pit [21402] and ditch [21408] which dated to the prehistoric period. The preservation of the material was poor to moderate, and some of the cereal grains were puffed and distorted. The identifications were made based on their overall size and morphological characteristics, and could be identified as rounded wheat type and indeterminate cereal. Pit [21402] contained one rounded wheat (Triticum sp.) grain and one indeterminate cereal grain. Ditch [21408] contained one indeterminate cereal grain and one cereal culm fragment.

Discussion and Interpretation

Charred Plant Macrofossils

9.28 The sampled features contained infrequent charred plant macrofossils. Where they were present, the preservation of the plant macrofossils was poor to fair and they were only present in very small volumes in both of the samples. Other than to state their presence throughout the features nothing of further interpretative value can be added.

Recommendations

9.29 The samples have low potential due to the paucity of the remains. No further work is recommended on the plant macrofossils. They have been fully quantified and identified as part of this analysis and, therefore, this analysis of them and the data that accompanies it may be included in any future publication of this site. The flots and unidentified charcoal need not form part of the site archive and can be discarded.

CROMWELL NORTH—PLANT MACROFOSSILS AND CHARCOAL

Introduction

9.30 Four bulk environmental samples were taken during archaeological investigations at Cromwell North for the recovery of environmental remains such as plant macrofossils, wood, charcoal, faunal remains and Mollusca, as well as to assist finds recovery (Tables 59–61). The material derives from undated activity from a series of pits recorded during excavations. The following report discusses the preservation of the charred plant macrofossils and wood charcoal and their ability to inform on the diet, arable economy and local environment of the site as well as fuel selection and use.

Results

Charred Plant Macrofossils: Undated

9.31 Charred plant macrofossils were present in small numbers in three of the samples: posthole [22813], pit [23815] and pit [25805] which are all undated. The preservation of the material was poor to moderate, and some of the cereal grains were puffed and distorted. The identifications were made based on their overall size and morphological characteristics and could be identified as rounded wheat (Triticum sp.) and indeterminate cereal. Posthole [23813] contained one wheat grain, four speedwells (Veronica sp.) and a hazelnut shell fragment. Pit [23815] contained one rounded wheat grain, one indeterminate cereal grain and sixteen hazel nutshell fragments. The fill of pit [25805] contained one indeterminate cereal grain.

Charcoal: Undated

9.32 The charcoal from pit [25803] was poorly preserved with much distortion to the fragments. Post-depositional sediment affected almost all the fragments which is associated with fluctuations in the water table after burial. The charcoal was a little affected by radial cracks, appearing as blown-up ray cells causing cracks of missing or exploded tissue and possibly reflecting the burning of fresh wood (Fiorentino and D'Oronzo 2010)[86]. Vitrification was noted in a small number of the fragments. Vitrification gives the charcoal a glassy appearance and is often attributed to high temperatures and prolonged burning times (Gale & Cutler 2000; Prior & Alvin 1983[87]), although recent experiments claim that it is not induced by such factors and that the cause is still unknown (McParland et al, 2010). Oak (Quercus sp.) was the only taxon identified within the assemblage, with all but one of the fragments deriving from large branch or trunk wood. Indeterminate bark fragments were also present.

[86] Fiorentino, G. and D'Oronzo, C. (2010) "Archaeobotanical and Experimental Approach to Identify 245 Fire Succession in Hearth Structures of Apollo Sanctuary at Hierapolis (Turkey)" in Théry-Parisot, I., Chabal, L. and Costamagno, S. (eds). '*Taphononomie des Résidus Organiques Brûlés et des Structures de Combustion en Milieu Archéologique*', P@lethnologie 2, pp. 59-68.

[87] Prior, J. and Alvin, K.L. 1983. 'Structural Changes on Charring Wood of Dichrostachys and Salix from Southern Africa', *International Association of Wood Anatomists* 4, pp. 197-206.

Discussion and Interpretation

Charred Plant Macrofossils

9.33 The sampled features contained infrequent charred plant macrofossils, and they were absent from pit [25803]. Where they were present, the preservation of the plant macrofossils was poor to fair and they were only present in very small volumes in three of the samples. Other than to state their presence throughout the features nothing of further interpretative value can be added.

Charcoal: Undated

9.34 The charcoal in pit [25803] likely derived from a single burning event possibly of a single oak timber deliberately harvested from the tree itself. The single fragment of roundwood was likely a growth upon the timber rather than representing opportunistic collection of twigs and small branches. The radial cracks suggest the wood may have still have been fresh when burnt and not allowed to mature prior to use. The high frequency of post-depositional sediment within the fragments suggest that the water table was frequently fluctuating allowing sediment to infiltrate the fragments. Oak would have been widely available within the landscape and it burns well for a prolonged time (Taylor 1981)[88] making it a desirable fuelwood.

Recommendations

9.35 The samples have low potential due to the paucity of the remains. No further work is recommended on the plant macrofossils. They have been fully quantified and identified as part of this analysis and, therefore, this analysis of them and the data that accompanies it may be included in any future publication of this site. The flots and unidentified charcoal need not form part of the site archive and can be discarded.

[88] Taylor, M. (1981) *Wood in Archaeology*. Aylesbury: Shire Publications.

10 THE ANIMAL BONE

by Dr Kris Poole and Niamh Rushton

Introduction

10.1 A small collection of animal remains were found from three different areas across the scheme: Cromwell Central, Castle Hill and Maplebeck. Animal bones were recovered by hand-collection and from environmental residues at Maplebeck and Cromwell Central, but all of the bones from Castle Hill were hand collected. This report sets out the results of the analysis of the bone assemblages from each of these four areas in turn, followed by discussions and recommendations for these sites.

Methods

10.2 Levels of preservation were recorded for hand-collected bone only, as either 'excellent', 'good, 'fair', 'poor' or 'very poor'. Burning and gnawing also recorded. Butchery was recorded in detail, noting the butchery mark type (chop, cut, saw, shave). Attempts were made to identify all bone fragments to element and species, with some exceptions. Mammal ribs, vertebrae, skull fragments and long bones fragments not identifiable to species were classed as large-, medium-, or small-sized mammal (except for atlas and axis vertebrae, and the more durable/diagnostic parts of the cranium, namely the zygomatic, occipital, maxilla and horn core, which were identified to species). Ribs were only counted when the head was present.

10.3 All identified fragments were recorded as individual specimens, with the exception of fresh breaks, which were refitted where possible, and counted as one element. Partial or complete skeletons were recorded as one specimen. Epiphyses were recorded as 'foetal', 'neonatal', 'unfused', 'fusing' or 'fused'.

Results

Maplebeck

10.4 The largest collection of animal remains from this phase of works was recovered from this site. A total of 70 fragments of hand-collected bone were recorded, with 309 fragments present in environmental residues (Tables 36 and 37). Most of the remains were retrieved from ditch features of prehistoric or Late Iron Age/Early Roman date, with a small number from a modern field boundary. Bones from the modern field boundary are listed in Table 36, but not discussed further.

10.5 Of the hand-collected remains, approximately three-quarters were in fair condition, with the remainder adjudged as being in poor condition. Cut marks were present on two bones: a sheep/goat radius and astragalus, both from fill (41204) of shallow feature [41203]. Amongst the hand-collected bones, evidence of burning was seen on a single unidentified fragment from (42604). Burning was more in evidence for the bones from residues, largely in the form of small, unidentifiable fragments.

10.6 Thirteen of the 70 fragments recovered by hand collection from pre-modern features were identified to species, of which sheep/goat was the most common (with one horn core positively identified as sheep), followed by cattle. Both species were also represented in the residues, but microfauna

(amphibians and small mammals) were also present. The overwhelming majority of the bones from residues, however, consisted of very small, unidentifiable fragments. Only two elements from the whole assemblage provided ageing data: a sheep/goat radius, fused at both ends, and a cattle 1st phalanx.

Table 37 – Animal Bone from Maplebeck (hand-collected)

Context	Cattle	Sheep/Goat	Sheep	Large mammal	Medium mammal	Unidentified	Total
38003		4					**4**
38303		1					**1**
40406	1					2	**3**
41204		4				8	**12**
42603	1	2	1			12	**16**
42604	2					14	**16**
42802						3	**3**
42805					1	2	**3**
43103		1					**1**
43107	1						**1**
43109				2		2	**4**
43111		1				5	**6**
Total	**5**	**13**	**1**	**2**	**1**	**48**	**70**

Table 38 - Animal Bone from Maplebeck (environmental residues)

Context	Cattle	Sheep/goat	Amphibian	Large mammal	Small mammal	Unidentified	Total
40402						16	**16**
41204						10	**10**
42603						11	**11**
42609						26	**26**
42611		1	1			94	**96**
42802					3	118	**120**
42805		1	1	1	2	11	**16**
43109			1		1	6	**8**
43111	1					5	**6**
Total	**1**	**2**	**3**	**1**	**6**	**297**	**309**

Castle Hill

10.7 Twenty bones were retrieved by hand collection from ditch features dated to the Romano-British period (Table 38). These remains were in fair to poor condition. No evidence of butchery, burning or gnawing was present on the bones. Most of the assemblage comprised small, unidentified fragments, although four elements could be identified to species; notably, three of these were teeth, potentially suggesting relatively poor bone preservation conditions

at this location. The only identifiable bone was a 1st phalanx of a horse, from (32307).

Table 39 – Animal Bone from Castle Hill

Context	Cattle	Horse	Sheep/Goat	Unidentified	Total
32305			1	12	13
32307	1	2		4	7
Total	**1**	**2**	**1**	**16**	**20**

Cromwell Central

10.8 A recorded total of 33 bones were retrieved by hand collection (Table 39), and three bones from sample residues, from this site. The remains were all recovered from undated ditch features. Bone conditions varied by context; a single horse metacarpal from (21006) was in good condition, but elements from (23107) were in fair condition, compared to the poor condition of bones in (23105). A single cut mark was noted on a cattle femur from (23107). Most of the hand-collected assemblage comprised unidentified fragments, although three elements could be identified: a cattle femur, a sheep/goat humerus and a horse metacarpal. The sheep/goat humerus was fused at the distal end. Three of the elements recovered from environmental residues were identified: a goat horn core, cattle pelvis and a horse pelvis; the other was a large mammal long bone fragment.

Table 40 – Animal Bone from Cromwell Central

Context	Cattle	Sheep/Goat	Horse	Large mammal	Unidentified
21006			1		
23105		1		1	28
23107	1				1
Total	**1**	**1**	**1**	**1**	**29**

Discussion and Recommendations

10.9 Maplebeck

10.10 Although identifiable fragments from this site were low, the generally fair preservation conditions and the dated features from which the bones were recovered indicate the potential for survival of animal remains elsewhere within the site boundaries. Should further works be undertaken on this site, there is clear potential for the recovery of dated animal remains, which could provide insight into the nature of activity here during the prehistoric and Late Iron Age/Early Roman periods. In view of the typically poor preservation conditions for bones along the Trent Valley to the southeast, as well as in this part of the East Midlands more generally (Albarella and Pirnie 2008), there is therefore scope for these remains to provide insight into animal husbandry regimes, economy and diet in the area during such a timeframe. As such, the remains have potential to contribute to regional research frameworks, specifically EMHERF:

- 4.8.2: How may diet and land-use have varied over time and between different ecological zones? Can we identify specialist pastoral zones and elucidate coastal resource exploitation strategies?
- 5.4.6: Can we elucidate further the daily life of settlements and their role in the processing and marketing of agricultural products?
- 5.5.3: What is the evidence for the diet of people of high and low status in urban and rural settlements, especially those close to military sites?
- 5.5.5: Can we define more precisely the networks developed for the trade and exchange of agricultural produce and fish?

Castle Hill

10.11 The low numbers of identifiable animal remains recovered from the site means that little can be said about activity during the Romano-British period. The species present are all domestic and would be expected on a Romano-British rural site. Soil conditions did not appear to be conducive to good bone preservation, suggesting that further excavations in this location would be unlikely to recover bones in sufficient quantity and condition to be informative. Even so, the possibility of areas within the field with potentially better preservation conditions cannot be ruled out. If bones are recovered in any future work on this site, the remains from this evaluation should be integrated with the data. However, the remains recovered in this phase of works have no further interpretative potential in themselves, and discard is recommended.

Cromwell Central

10.12 In view of the currently undated nature of the features on this site from which bones were recovered, and the limited number of the identifiable remains, this assemblage does not currently offer any interpretative potential. It is feasible, however, that future excavations on this site could recover further bones, as well as dating evidence, which would enable such remains to be put into their temporal context. If so, then the data recorded for this report should be integrated with any future remains. However, the remains recovered in this phase of works are recommended for discard.

10.13 Given this, the data recorded from the bones recovered during this evaluation should be integrated with any remains found during future works. Nonetheless, the bones themselves do not have further research value and discard is recommended.

11 DISCUSSION

Overview

11.1 The Phase 1 of archaeological trial trench evaluation for the Sites of Maplebeck, Castle Hill, North Muskham, Cromwell Central and Cromwell North revealed a moderate density of archaeological remains across the five Sites. In each area the earliest features are dated to the prehistoric – Romano-British periods, although due to the paucity of datable artefacts, a high quantity of archaeological features remains undated. The majority of the activity within the five evaluated sites can be characterised as associated with potential occupational or peripheral settlement activity. Further evidence for land and water management was also recorded.

11.2 The evidence uncovered at Maplebeck comprised two clusters of Iron Age and Romano-British activity representing two areas of small-scale domestic activity. The features included the remains of probable enclosures, a ring ditch, ditches and pits. The investigation undertaken at Castle Hill encountered a single Romano-British boundary ditch possibly representing the edge of a settlement or another type of enclosed area. Apart from that element, only 19th–20th century features were recorded. At Cromwell Central and Cromwell North, prehistoric activity could be split into two zones: an area of peripheral settlement located to the east of the site, adjacent to a known prehistoric settlement (MNR 322669); and an area of undated activity to the west of the Site, characterised by ditches potentially used for water management. A wide number of undated features were recorded in 31 trenches at Cromwell Central and in 11 trenches at Cromwell North. These consisted of ditches forming possible enclosures, drainage ditches associated with the later stages of a palaeochannel, ring ditches, pits and postholes. Both Sites are located on the periphery of probable settlement areas as depicted by the geophysical survey. Finally, the investigation at North Muskham yield a limited number of datable features. A total of 23 trenches containing undated features were present on this Site, comprising drainage and boundary ditches, a gully/natural water channel, and pits.

11.3 Later activity in each site generally consisted of agricultural-related evidence, with extensive ridge and furrow being recorded in most sites, as well as 19th–20th century field boundaries and ditches with parallels found in contemporary OS maps.

11.4 Residual worked flint was present at Maplebeck, North Muskham, Cromwell Central and Cromwell North. Assemblages were generally representative of a final stage of tool production. Their size and the type of tools seem to be indicative of small-scale activity and short-term occupation such as camps. These elements are indicative of the sporadic but regular use of the wider landscape in Prehistory.

11.5 The results of the environmental analysis were characterised by a low quantity of ecofacts and by the low to moderate preservation of the same. Cereal grains and hazelnuts were sometimes present, indicating consumption at these sites.

11.6 The discussion of the results will consider each site individually, with the exception of Cromwell Central and North, which are examined together.

MAPLEBECK

Summary

11.7 The Maplebeck site is located in the western part of the Scheme (Figure 1). The site covered four fields and an area of approximately 70.9ha where 89 trenches were excavated. The evaluation revealed potential domestic activity materialised in Iron Age and/or Romano-British features, alongside with medieval to post-medieval agricultural activity represented by furrows and by a single pit. Later evidence of 19th century and modern date is represented by field boundaries.

11.8 The geophysical survey for this site was undertaken by Environmental Resources Management and identified archaeological elements in the form of ditches, a curvilinear feature, as well as a series of historical cultivation and agricultural field systems and drainage. Many of these features were found to correlate well with archaeological remains.

Early Prehistoric

11.9 The earliest activity on the site was represented by three residual finds of flint debitage with diagnostic elements in the assemblage being Mesolithic in date. The flint assemblage was small with evidence for late-stage core reduction and tool production and was indicative of either loss or small-scale settlement activity, perhaps relating to a short-term use camp.

11.10 A small group of sherds of pottery of possible Bronze Age date were found in an Iron Age ditch recut [42606], hinting at earlier phases of activity at the site.

Iron Age–Romano-British

11.11 In total, three trenches yield securely dated Iron Age features, four trenches could be dated to the Romano-British period and features in 10 trenches contained no dating evidence, but appeared to form part of the same clusters of activity.

11.12 Two main clusters of activity from these periods were present within the site: a long cluster of activity which ran east to west in the north-western and north-eastern fields and a smaller cluster present in the southwestern field. Two small, but clearly defined areas of probable domestic activity were present: an Iron Age occupation area centred on Trench 426 in the north-western field and a Romano-British occupation area centred on Trench 404. An area of possible peripheral domestic activity was present in Trenches 395 and 445 and remaining features associated with this period appeared to represent peripheral and possibly agricultural activity.

11.13 The occupational activity centred on Trench 426 consisted of a substantial ring ditch – [42602] and [42612] – within a sub-rectangular enclosure seen in the geophysical survey and confirmed in Trenches 426, 428 and 431. The ring ditch had a diameter of 14m, a width of 1.9m and a depth of 0.62m. It contained internal features and a north-western entrance indicated by the geophysical survey. The enclosure had a double ditch, or alternatively, two phases of ditches on the eastern side, a ditch and recut to the south and two parallel ditches of uncertain function in the west. Based on the geophysical survey and the results of the trenches, the enclosure might have had an area of approximately 2581m^2. Internal features, including pits and ditches, could

be seen in the south of Trench 426 and in Trench 431. The feature fills and finds of animal bone, pottery and a piece of vitrified hearth lining from these features suggested a domestic character. A mid-late Iron Age date was ascribed based on the pottery

11.14 The possible occupational activity in the south-western field was centred on Trenches 404 and 412 and consisted of a potential rectilinear enclosure and a small squarish sub enclosure, measuring 170m^2 in area. Similarly, the fills were suggestive of anthropogenic waste deposition. A total of two phases were apparent, both dated to the Roman period.

11.15 Environmental samples from features located in the two probable occupational areas returned indeterminate cereal grains and fragments of hazelnut shell, providing limited insights into the consumption patterns of these areas. Charcoal from the Roman ditch [41203/41207] also indicated that fuel wood was exploited from both shrubby oak woodland and riverine environs. There is also indication that fuelwood was harvested from the trees rather than opportunistically gathered.

11.16 The Romano-British activity localised in the eastern part of the Maplebeck site, appeared to represent peripheral domestic activity. It included two north to south orientated ditches: [39502] which contained pottery dated to the 2nd century AD and ditch [39511] dated to the 2nd century AD and to the 3rd to mid-4th century AD respectively and four pits ranging in date from the 2nd and 3rd to mid-4th century. A small quantity of cereal chaff and grains, indicated the presence of nearby cereal processing.

11.17 Trenches 384, 389, 396, 397, 398, 400, 402, 403, 416 and 447 were located within the east to west aligned activity cluster and generally between the Iron Age and Romano-British activity areas. The features within these trenches generally comprised ditches and the paucity of finds within this area, simplicity of features and location outside of the possible domestic areas suggests that it was marginal in character, with a probable agricultural use.

11.18 Based on the elements recovered, the Iron Age and Romano-British activity at Maplebeck can be preliminary characterised as non-nucleated, small-scale domestic areas with a wider spread of probable agricultural activity and nearby grain processing. No sites dating to this period are known in the immediate areas and this small-scale settlement was probably located within a rural context of sparse occupation and small scale farmsteads. The other evaluated sites within the scheme were located approximately 6km to the east.

Medieval/Post-medieval

11.19 The medieval/post-medieval activity could be characterised as predominantly agricultural. It comprised a series of ridge and furrow field systems and a single pit [43602] dating to the 18th century.

19th Century – Modern

11.20 The 19th century to modern activity was also agricultural in nature, comprising field boundaries, the majority of which could be found in early 20th century OS mapping (OS 1900).

Undated

11.21 Undated ditches were present in Trenches 370, 392, 399, 413, and 423.

11.22 Trenches 392, 423, 413 and 423 were located in close proximity to the Romano-British occupation area recorded within Trenches 412 and 404. The undated elements may be associated with that activity; however, the insufficient data did not allow a clear association.

11.23 The undated ditch [37002] identified in Trench 370, was predicted by the geophysical survey to form part of a small sub-square enclosure. While this could be comparable to the small squarish sub enclosure seen in the southwestern field, the other side of the possible enclosure was not identified in the trench and the ditch fill was less suggestive of nearby domestic activity.

CASTLE HILL

Summary

11.24 The evaluation at Castle Hill covered an area of approximately 5.2ha. A total of 12 trenches were excavated, three of which contained archaeological features. A single Roman ditch was present in Trench 323.

11.25 The geophysical data predicted occasional fragmentary rectilinear features, but these were generally not found to correspond to archaeological features.

Romano-British

11.26 The ditch [32304], found within Trench 323 was of substantial dimension; it had a width of 2.5m, a depth of 0.66m and was interpreted as having had a boundary function. The fills were suggestive of an initial period of silting followed by deliberate deposition of domestic waste with frequent charcoal, heat affected clay, mid-1st to mid- 2nd century pottery, Roman CBM and animal bone. The presence of Roman CBM may be indicative of nearby structural elements. The presence of indeterminate cereal grains and chaff from the ditch also adds to the evidence of nearby occupational activity. Charcoal recovered from the ditch indicated the use of fuelwood from open and shrubby areas and the direct harvesting of wood from trees.

11.27 No other Romano-British or undated features were present within the Castle Hill site, but the presence of ditch [32304] indicates the presence of a nearby settlement area. The ditch imperfectly corresponded to a geophysical feature which appeared to bound an area to the southwest of the limit of the evaluation and it is therefore likely that a settlement area is present there. No pre-modern features were present outside this boundary and it can be assumed that the Romano-British activity didn't continue into the rest of the evaluation area.

11.28 The suggestion of a Romano-British settlement area here, contrasts the current HER records which contain no archaeological finds or features of prehistoric or Romano-British date within 1km of the Castle Hill site.

19th to 20th Century

11.29 The remaining features consisted of two field boundaries and a pond, all of which are depicted on the 1884 edition of OS mapping (OS 1884). The pond [31902] contained a high quantity of residual Roman material, alongside 19th century pottery, and CBM rubble. Interestingly, slag recovered from the pond, was identified as possible smithing slag, suggesting the presence of earlier metalworking in proximity to the feature.

NORTH MUSKHAM

Summary

11.30 The evaluation at North Muskham covered an area of approximately 32.8ha over two fields and comprised the excavation of 52 trenches of which 31 contained archaeological remains. This site was located to the south of the sites of Cromwell Central and North.

11.31 The geophysical survey revealed various features including the presence of a small complex of rectilinear enclosures with a circular feature in a field to the south of the western field. These correlate with an undated settlement recorded on the HER (M8337) to the south of the evaluated site. A sparse distribution of linear features was predicted within the site boundaries, with a small complex of ditches possibly forming an enclosure area in the eastern field.

11.32 Other features, projected by aerial photography, comprised a rectangular enclosure (L2975) and a pit alignment (L8336). These were not identified in the evaluation.

11.33 There was a considerable absence of datable evidence at this site with only medieval/post-medieval to modern features being confidently dated. Undated features found in 23 trenches consisted of ditches, pits and a gully/natural water channel. Alongside the geophysical results, the evidence could suggest peripheral activity close to a settlement, although it is currently unknown if this activity would have been contemporary.

11.34 Furrows were rare on site and the later phases of activity consisted of field boundaries, pits and drainage features dated to the 19th to 20th centuries.

Prehistoric

11.35 A single flake of undated flint debitage was recovered from ditch [6302]. It is likely that this was residual representing a low level of activity in the early prehistoric period.

11.36 Further flint findspots recorded on the HER, of Mesolithic, Neolithic and Bronze Age dates are known from the North Muskham and surrounding areas. This includes Neolithic finds from Field 1 (L5647, L5648), multiple Neolithic and Bronze Age findspots within 1km of the site (L3073, L5649, L5650, L5651, L5653, L5643) and evidence for a lithic industry spanning the Mesolithic to the Bronze Age (L11142) approximately 1.3km southeast of the site. The early prehistoric activity at North Muskham therefore can be considered with the previous findspots to indicate part of an early prehistoric landscape of activity.

11.37 A single sherd of prehistoric pottery was found in pit [6308] however this feature was recorded as cutting a historical field boundary and was therefore considered as residual.

11.38 Despite residuality, the presence of prehistoric pottery within the site indicates nearby activity and, potentially, a date for some of the undated features at the North Muskham site. The possibility that it might also relate with the undated settlement to the south (M8337) cannot be dismissed however this should be taken with caution given the limitations of the evaluation.

Medieval/Post-medieval

11.39 Only four furrows were recorded in Trench 90 and a possible furrow in Trench 64. The paucity of this type of elements may be reflection of poor survival due to deep ploughing at this site in the post-medieval to modern periods.

11.40 No other medieval/post-medieval features were present.

19th–20th Century

11.41 Modern remains were found in Trenches 57, 59, 62, 64, 66, 70, 77, 88, 100, 102, 107 and 456. The evidence was consistent with the agricultural use of the land and predominantly consisted of field boundaries.

11.42 Field boundaries corresponding to OS mapping (OS 1884), were encountered in Trenches 62, 77, 100 and 102. Other ditches such as [5703] and [7002] contained modern material and ditch [8802] was similar in form and fill to other modern field boundaries. Two modern pits were present in Trench 59.

Undated

11.43 Undated features were found in Trenches 57, 58, 67, 70, 72, 76, 80, 85, 88, 92, 94, 95, 97, 102, 109, 455 and 457. Although the features generally consisted of ditches, pits were also present in Trenches 67, 76, 80, 92, 97 and 102.

11.44 The features were sparsely distributed, suggesting a low level of activity, which appeared to be associated with nearby settlement. This could also be seen in the presence of moderate charcoal in ditch [7604] and heat affected stone in pit [6702], both located in the western field of the site, closer to the complex of rectilinear enclosures, and in the sparse distribution of pits. A small quantity of indeterminate cereal grain was recovered from ditch [7604] and a nearby pit [7608] also contained fragments of hazelnut shell, further suggesting that these features could be contemporary with nearby settlement activity.

11.45 The limited artefactual assemblage for this area is also consistent with low-level activity resulting from nearby settlement.

CROMWELL CENTRAL AND CROMWELL NORTH

Summary

11.46 The Cromwell Central and Cromwell North sites form part of the same landscape of neighbouring fields and are discussed together here. The evaluation at both Cromwell Central and North comprised the excavation of 51 trenches across an area of approximately 36.7ha covering four fields, and of 27 trenches covering an area of approximately 11.8ha and located within a single field, respectively.

11.47 The evaluation was designed to target areas outside of major complexes of features, potentially representing settlements, recorded in the HER and confirmed in the geophysical survey. The eastern complex, representing a settlement or possible funerary area (MNR 322669), comprises a series of rectilinear and circular features and was first detected by aerial photography. In the 1950s one of the ring ditches was excavated and revealed to represent a Bronze Age round barrow. The cropmarks are considered to be similar in form to the site of Stanton Harcourt, Oxfordshire excavated in the 1940s and 1950s, which was dated from the Bronze Age to the Iron Age (Wessex Archaeology, 2024)[89]. A second group of features, consisting of amalgamated rectilinear enclosures with circular features, is present in the western part of Cromwell North, representing a possible settlement area. Finally, a large complex of intercutting enclosures is present on the westernmost part of Cromwell Central. A possible Roman villa (MNR4195) is also known to be present in a field adjacent to Cromwell North, which was not targeted by the evaluation.

11.48 A single sherd of prehistoric pottery was recovered during the evaluation. It derived from a ditch recut in the eastern field of Cromwell Central, representing the only pre-medieval datable evidence recovered on site. Undated features were present in 42 trenches. Those in the eastern field of Cromwell Central and in Cromwell North could be tentatively dated as prehistoric, based on the evidence available, while the features in the western part of Cromwell Central remain undated. It is likely that the undated remains are of prehistoric or Roman date, based on dating from adjacent archaeological sites – (MNR 322669) and (MNR4195) – but this is unprovable at this stage of the investigation. An undated palaeochannel, potentially predating human activity in the western part of Cromwell Central was also present.

Prehistoric

11.49 All lithics recovered from Cromwell Central and Cromwell North are likely to be residual with no features considered to be of contemporary date. The lithic assemblage from Cromwell Central comprised three flint implements: a blade, core trimming blades and core trimming flakes – representing the final stages of tool maintenance and production. Similarly, the Cromwell North assemblage comprised a single chip derived from the final stages of tool production. These assemblages may represent Mesolithic/Early Neolithic

[89] Wessex Archaeology (2024) *GNR Solar Farm, Newark, Nottinghamshire. Written Scheme of Investigation for Archaeological Evaluation Phase I.* Unpublished document. Document reference: 276500.3.

small-scale settlement activity on site. Within the wider area, Mesolithic to Bronze Age flint scatters have been found to the south of the Cromwell North and Cromwell Central sites, at North Muskham, linking the small-scale activity recorded here to a wider trend of activity in the area.

11.50 The eastern part of the Cromwell North and Cromwell Central were located between two areas of possible settlement indicated by enclosures and circular features as seen in the geophysical survey and a third area identified in the geophysical survey and corresponding to a known prehistoric settlement/funerary area (MNR 322669). A single sherd of prehistoric pottery was recovered. Activity associated with the periphery of these areas was found in Trenches 204, 214, 227 from the Cromwell Central site and Trenches 233, 238, 241, 244, 249, 250, 258, 265, 267, 4550 and 4560 from the Cromwell North site.

11.51 In Trench 227, two ring ditches corresponding to the geophysical survey were recorded. Within the cropmark complex to the direct east (MNR 322669) and within the same field, one of the identified ring ditches was excavated and identified as a barrow (Dauncey and Hurrell 1951 ; M8624), while another was identified as a henge based on observations (Harding and Lee 1987[90]; MNR 322669). At the time of the 1951 excavation, the excavated barrow had a visible mound, which had been damaged by ploughing. It is possible therefore hat further mounds may have been originally present. On this basis, the ring ditches in Trench 227 can be provisionally characterised as potential barrows. Their diameter of 10m to 11m is smaller than the excavated barrow, which was approximately 35m in diameter and puts them within the smaller range of common barrow diameters. Identification as roundhouses with cut ring ditches or small round enclosures is also possible based on the evidence available at the time of reporting. The presence of these potential barrows may suggest that a prehistoric funerary area continues into the margins of the Site. As an Iron Age barrow cemetery (MNR4287), is present to the east of the known Bronze Age barrow (M8624) it is likely that the funerary activity here was significant and remained a ritual focus in the landscape for a long period.

11.52 The single sherd of prehistoric pottery was recovered from a ditch recut [21408] in Trench 214. This ditch was also seen in Trench 204 and is a continuation of a ditch recorded in the geophysical survey extending southwards beyond the limits of Cromwell central and forming a central division of an area of enclosure, sub-enclosures and circular features seen in the geophysical survey. Further indications of continuing activity associated with the settlement, included four pits in the two trenches.

11.53 Within Cromwell North, the closest area of possible settlement activity was, an area of amalgamated enclosure detected by geophysical survey to the direct west of the evaluation area. Again, this activity could be seen to continue into the margins of the evaluation area in two trenches: Trench 267, which contained a high-level of activity with a curvilinear feature, intercutting ditches, and a posthole and Trench 258 which targeted and identified an enclosure ditch to the west and contained pits in the east.

[90] Harding, A. F. and Lee, G. E (1987) *Henge Monuments and Related Sites of Great Britain. Air Photographic Evidence and Catalogue.* BAR Publishing.

11.54 Further inward, the activity can be characterised by sparsely distributed pits, postholes and ditches, indicating settlement activity potentially on a lower level. A series of three intercutting ditches in Trench 244, indicated multiple phases of activity and reworking of spatial divisions. In Trenches 199, 202, 206 and 208, located within the eastern part of the Cromwell Central site, undated ditches on various alignments were present. The location of these ditches suggests a sparse peripheral activity with perhaps a more agricultural nature than in Cromwell North.

11.55 The environmental samples found indeterminate charcoal, indeterminate cereal and wheat, limiting characterisation of the food and agricultural economy for this area.

11.56 The overall character of prehistoric activity at Cromwell Central and Cromwell North can be characterised as representing the continuations of nearby settlement and possibly funerary activity at the margins and associated lower level activity towards the centre. It provides the potential to investigate the relationships between these areas and possibly to investigate an important area of funerary activity as well as lower level activity at the edge of a settlement area. At present this is limited by the dating evidence, which prevents the establishment of which elements were contemporary.

Medieval/Post-medieval

11.57 Medieval/post-medieval activity on the sites was entirely agricultural consisting of furrows present in Trenches 192, 206, 218, 221, 233, 238, 240, 242, 244, 257, 265, 267 and 256-257 and ditches associated with the ridge and furrow system in Trenches 233, 238 and 258. Another ditch [23811] present in Trench 238 cut a furrow indicating a post-medieval to modern date.

19th–20th century

11.58 Two ditches corresponding to field boundaries seen in 1900s OS mapping were seen at Cromwell North: ditch [25808] in Trench 258 and ditch [26405] in Trench 264. An additional ditch [26403] ran parallel to [26405] and a continuation of the boundary could be seen in ditch [25902] in Trench 259.

11.59 These ditches maintained a similar alignment to the ridge and furrow system, suggesting continuity of land use.

Undated – possible prehistoric/Romano-British

11.60 Undated features were found in Trenches 185, 191, 197-199, 202-203, 205-208, 210, 212, 215, 219, 225, 227, 229, 231, 233–234, 235, 238–239, 241, 244–245, 249–250, 258, 262, 265–267, 269-270, 4550 and 4560.

11.61 The western part of Cromwell Central contained a small enclosure complex and an area of extensive water management, post-dating a palaeochannel. This sector is located to the direct east of a large settlement area identified by the geophysical survey and to the southwest of another area of probable settlement identified by the geophysical survey. No datable evidence was obtained from this phase of activity and a sparse distribution of pits indicated that the drained area was also utilised for an uncertain function. A single east to west aligned ditch, potentially a boundary, stretched from the edge of the settlement area and across the western part of the Cromwell Central site.

11.62 Water management activity, post-dating a palaeochannel, and a small enclosure complex could be seen in the western part of the Cromwell Central area and located to the east of the large area of amalgamated enclosures identified by the geophysical survey. Considering the feature fills within the palaeochannel area and the quantity of probable drainage ditches, it seems reasonable to assume that this area of the site was wetter than others.The palaeochannel identified in Trenches 210 and 219, and partially within 212 and 235, was on a northwest to southeast alignment. It is likely that it was a tributary to the River Trent which is currently located 1.3km to the east.

11.63 A pair of ditches present in Trenches 210, 219, 231 and 235 were cut into the upper fill of the palaeochannel and were naturally infilled with peat, and then overlain by a layer of peat. These ditches alongside a series of ditches to the north and south of the palaeochannel might have functioned as drainage. The southern part of the Cromwell Central site (Trenches 191, 185, 197), yielded five parallel north to south aligned ditches, representing probable water management features to the south of the palaeochannel. Further water management towards the centre of the Cromwell Central site (Trenches 198, 207, 209, 215, 224, 231, 245 and 256) consisted of a series of east to west and northwest to southeast aligned ditches. The ditches were generally deep with dark clay silt present in ditch [19807], and a blueish grey silty gravel fill present in ditch [19807] indicating a more permanently wet area.

11.64 The small enclosure complex was present in Trenches 22, 234 and 239, to the east of the palaeochannel and to the west of the railway line and may have represented a continuation of the settlement activity seen 184m to the northeast in Cromwell North. It covered a total area of 2793m^2 and consisted of three amalgamated enclosures with internal features present in the northern enclosure. Similarly, the southern area yielded occasional pits (Trench 229), indicating use of this landscape.

11.65 To the north of the western part of Cromwell Central, a sparse distribution of undated ditches and pits were present (Trenches 234, 262, 266, 269 and 270). These are likely to represent peripheral activity outside of the main drainage area. Occasional blue-grey gravelly fills (ditches [26602 and [26903]) indicated that some of these ditches would have been permanently wet, suggesting a continuation of the wetter zone, less suitable for settlement activity.

11.66 It is unclear whether the landscape in the western part of Cromwell Central was seasonally or permanently wet, but it appears to have been extensively drained. As the wetland area is located between the area of probable settlement to the west and the probable continuation of the settlement activity to the northeast. It is possible that it formed a natural boundary between settlement areas. The water management activity may have been associated with the areas of probable settlement, possibly representing a managed area between two settlement foci. The presence of a peat layer overlying the ditches in the palaeochannel area, indicates that the palaeochannel area partially reflooded at the later stage of this activity. Due to the lack dating evidence this remains uncertain at this point in the investigation, but it has the potential to provide further understanding of the relationships between settlement foci and the function of wetland areas, which could be relevant to multiple agenda from the East Midlands Historic Environment Research Framework.

SITE SPECIFIC OBJECTIVES

11.67 Alongside the aims of characterising and quantifying the archaeological potential of the Site, the trial trench evaluation was designed to fulfil five site-specific objectives:

- To test the results of the geophysical surveys;
- To examine evidence for any prehistoric remains;
- To examine evidence of any prehistoric remains, in particular evidence of the Iron Age settlements identified by the HER;
- To examine evidence for potential Roman settlement that may exist within the Site; and
- To assess the potential for the medieval and post-medieval agricultural activity within the Site.

11.68 The first objective, of testing the results of the geophysical survey, has been met. The geophysical survey generally suggested that the evaluation areas would contain sparse distributions of archaeological features, which was found to be accurate. Where possible archaeological features were detected by the geophysical survey, these were generally found to correspond to real features. Strongly identified possible archaeological features were always found to be positive, such as the two enclosures at Maplebeck, the ditch in Trenches 204 and 214, and the possible ring ditches in Trench 227 at Cromwell Central, or even the edge of the enclosure area in Trench 258 at Cromwell North. Weaker anomalies of possible archaeological nature, however, were at were sometimes found to be negative at Castle Hill and Maplebeck. Historic agricultural trends were also well represented in the geophysical survey.

11.69 While the survey was accurate in showing that many of the areas would contain archaeological features, other elements were often found in apparently blank areas, confirming that the geophysical survey cannot be used as a lone tool to assess the presence of archaeological remains.

11.70 The table below summarises the results of the geophysical survey after being tested by the evaluation. Features or feature groups, such as enclosures, as identified by the geophysical survey are quantified and listed according to whether they were found to represent archaeological features when investigated in the evaluation. Only features within the boundaries of each evaluation area are listed. Anomalies interpreted as non-archaeological, such as historic agricultural trends are not listed.

Table 41: Summary of geophysical survey results

Site	Strong possible archaeological anomalies			Weak possible archaeological anomalies		
	Positive	Negative	Not tested	Positive	Negative	Not tested
Maplebeck	2	0	0	3	1	5
Castle Hill	0	0	0	1	3	0
North Muskham	0	0	0	3	0	0
Cromwell Central	3	0	1	1	0	0
Cromwell North	1	0	0	1	0	0

Site	Strong possible archaeological anomalies			Weak possible archaeological anomalies		
	Positive	Negative	Not tested	Positive	Negative	Not tested
Total	**6**	**0**	**1**	**9**	**4**	**5**

11.71 The second objective, set to examine evidence for prehistoric remains, was partially met. Prehistoric occupational activity was securely identified at Maplebeck. Probable prehistoric remains, at the periphery of a larger settlement, were found at Cromwell North and Cromwell Central, but the limited dating available prevented confident dating of many of the remains present. The extensive draining systems in Cromwell Central were also undated. Likewise, the limited datable evidence at North Muskham prevented secure dating of any features prior to the pre-medieval period.

11.72 The area of Bronze Age settlement/funerary area identified in the HER (MNR 322669), located to the east of Cromwell Central, could be seen to extend into the evaluation area in Trench 204, 214 and 227. A previous excavation in this area also recorded round barrows (M8624) which may suggest that the ring ditches found in Trench 227 could have a similar character.

11.73 The fourth objective of examining evidence for Roman settlement within the Site was also met. An area of probable small-scale Romano-British settlement was found in the southwestern field at Maplebeck, but all other identified Romano-British activity was peripheral. The boundary ditch [32304] at Castle Hill indicated the presence of Roman activity to the southwest of the Site and peripheral domestic activity was present in the eastern part of Maplebeck. The undated activity at North Muskham and Cromwell Central did not seem to have a domestic character.

11.74 The final site-specific objective was to assess the potential for medieval and post-medieval agricultural activity within the Site. The evidence for medieval and post-medieval agricultural activity was extensive, but limited in character and generally only comprised furrows. At Maplebeck, three ridge and furrow systems were identified. Evidence for medieval to post-medieval activity at North Muskham was limited to furrows in a single trench (Trench 90) and possible furrows in Trench 64, although some of the undated ditches from the site could also date to these periods. The best evidence for medieval to post-medieval agriculture comes from Cromwell North and Cromwell Central, where east to west and north to south aligned ridge and furrow systems were found. Ditches associated with the ridge and furrow systems were found in Trenches 233 and 238. Very little evidence was found to allow more accurate phasing of these field systems and changes to the field systems during the medieval to post-medieval periods was not evident.

REGIONAL RESEARCH OBJECTIVES

11.75 The evidence from this evaluation partially contributes towards research questions raised by the East Midlands Historic Environment Research Agenda. The answers to the regional research objectives are limited at this stage of the investigation due to the quantity of undated features.

11.76 The evidence for medieval and post-medieval field boundaries across the Scheme was limited despite the quantity of furrows and agricultural nature of the activity. The limited evidence could not be used to address questions about the agricultural landscape for either period and as such it is not considered below. The low quantity and reduced preservation of environmental remains also limited potential answers to questions relating to crops and consumption. Further agenda may be possible to add in the event of further dating evidence.

11.77 Questions from the East Midlands Historic Environment Research Agenda that are relevant to the evidence from the Site are listed below.

Neolithic and Early to Middle Bronze Age

3.6.1: Why may monument complexes have developed, why were some short-lived and others of longer duration, and why do these incorporate such a wide variety of monument types?

3.6.3: What roles may henges, causewayed enclosures, cursuses and other monument classes have performed in contemporary society?

11.78 The two ring ditches found in the eastern part of Cromwell Central may represent a continuation of the barrows and potentially ritual monuments to the immediate east of the evaluation area (M8624; MNR 322669). Further archaeological work in this area therefore has the potential to find further monuments dating to the Bronze Age. The other features that make up the complex to the east of Cromwell Central have not been fully characterised and if more of the complex is found to continue into the Scheme area, it could provide an opportunity to do so.

11.79 Furthermore, the location of possible barrows, within a landscape of peripheral settlement activity and multiple settlement foci has the potential to add to the understanding of the organisation of the society and the monuments place within it.

3.7.2: What ceremonial or ritual roles may rivers or other watery locations have performed and how may this have varied regionally and over time?

3.7.3: How significant were river-crossing or confluence zones as foci for monument complexes?

11.80 The undated palaeochannel and wetland area in the western part of Cromwell Central had no associated ritual activity as identified in the evaluation, while a Bronze Age monument area is known to the approximately 750m to the east. An undated and a possible prehistoric settlement area are also known close to each side of the palaeochannel.

11.81 While this type of activity cannot be ruled out at the evaluation stage and Bronze Age ritual activity would have limited archaeological impact, the area of ritual foci appears to be located away from the palaeochannel.

11.82 This agenda cannot be fully addressed at this time due to the limitations of the dating information from the settlement area, the palaeochannel and the drainage features post-dating the palaeochannel.

Late Bronze Age and Iron Age

4.3.2: What can we deduce about the morphology, spatial extent and functions of settlements, and in particular the processes underlying the development in some areas of enclosed occupation or activity foci?

4.4.1: Why were settlements increasingly enclosed during this period and to what extent may the progress of enclosure have varied regionally?

11.83 Both the small-scale Iron Age and Romano-British occupational areas in Maplebeck were placed within small enclosures. Large settlement areas were located outside of the evaluation areas, but visible in the geophysical survey and could be seen to be composed of amalgamated enclosures. These were generally undated due to the nature of the investigations. A pattern of small-scale enclosed occupational areas dating to the Iron Age and Romano-British periods within a larger landscape where enclosures may combine to form a larger settlement, can be inferred, but only with heavy caution due to the lack of dating for the amalgamated enclosures.

4.5.2: How are the nucleated settlements related to one another and to other settlements of the period? In particular, is there evidence for a developing settlement hierarchy?

11.84 Although the investigation did not target the larger settlements, at Cromwell Central and Cromwell North the evaluated areas were located between several areas of domestic activity and a possible area of funerary activity (M8624). Further understanding on how this land was used could be investigated to infer relationships between these and other settlement areas. This task is currently limited by the lack of dating evidence.

11.85 It is possible that the palaeochannel or the area of possible wetland in Cromwell Central functioned as a boundary between settlement areas in Cromwell Central and Cromwell North. Due to the lack of datable evidence, this cannot be confirmed.

4.6.1: Can we shed further light upon the development of field and boundary systems?

11.86 The evaluation cannot contribute to this question. The understanding of field boundaries and their development at the Site is limited by the low levels of datable evidence.

4.6.2: What were the economic, social or political roles of the pit alignments and linear ditch systems that characterised many areas of the East Midlands?

11.87 The linear ditch systems at the Site, such as the water management ditches at Cromwell Central, are currently undated and cannot be used to answer this question.

4.7.2: What roles may wet and other natural locations have performed and how might these have changed over time?

11.88 The western area of Cromwell Central appears to have been, at least seasonally, a wetland area following the silting of the palaeochannel. The

activity in this area, which is located to the east of a probable settlement and to the southwest of another probable settlment, was characterised by drainage ditches and a sparse distribution of pits of unknown function. The activity, the palaeochannel, and the settlement remain undated and as such this question cannot be answered at this stage of the investigation.

Romano-British

5.4.3: How did rural settlements relate to each other and to towns and military sites, and how may this have varied regionally and over time?

11.89 Only three areas of Romano-British settlement were evidenced: a small-scale occupational area at Maplebeck, two areas of probable peripheral domestic also at Maplebeck and at Castle Hill. Alongside the possible Roman villa (MNR4195), located close to Cromwell North, the Roman-British settlement activity appears to consist of non-nucleated small occupational sites. It is possible however that some of the probable settlement areas at North Muskham, Cromwell Central and Cromwell North also date to this period.

5.4.4: How did field and boundary systems relate to earlier systems of land allotment, and how did these boundary networks develop over time?

11.90 This question cannot be currently answered due to the limitations of dating evidence.

12 CONCLUSIONS

12.1 The Phase 1 archaeological evaluation comprised the excavation of 231 trenches across five sites of the Scheme. The evaluation was successful in meetings its aims, objectives and site-specific objectives and was able to successfully characterise the activity found across the five sites. Multiple questions from the East Midlands Historic Environment Research Framework were addressed or identified as potentially relevant to the archaeological remains at the Site in the event of further work.

12.2 The pre-medieval activity, where datable, was predominantly of prehistoric, Iron Age and Romano-British dates with Bronze Age dates also inferred based on previous excavation to the immediate east of Cromwell Central. Dating of features however, was limited by the paucity of diagnostic artefactual material (such as lithics, or pottery) and only the Maplebeck site could be fully phased. The majority of evaluated areas comprised elements relating to marginal activity associated with nearby areas of domestic settlement as revealed by the geophysical survey, most notably at Cromwell Central which had a large area of water management activity. A few key areas were present in Maplebeck, Cromwell Central and Cromwell North however, including: areas of small-scale Iron Age and Romano-British occupation at Maplebeck, the probable continuation of an area of round barrows and a probable Bronze Age funerary area into the margins of Cromwell Central the continuation of features from the nearby domestic settlements in parts of Cromwell Central and Cromwell North.

12.3 The occupational areas at Maplebeck and the indications of nearby settlement at Castle Hill add to the understanding of the Romano-British period in this area, by demonstrating a spread of low-level Romano-British settlement in areas not previously known to have Roman activity.

12.4 The confluence of the margins of multiple settlement areas and a settlement/funerary area at Cromwell Central and Cromwell North has the potential to add to the understanding to the organisation of society, the spatial distribution and relationships between of settlements and ritual areas in the prehistoric period. This is currently limited by the dating evidence, but has the potential to address agenda from the East Midlands Historic Environment Research Framework. It also has the potential to allow further understanding of the setting and context of the heritage assets and barrows in the immediate area (MNR 322669).

12.5 The overall prehistoric and Romano-British activity, as well as the undated elements, are indicative of a landscape containing small-scale settlements of various sizes, located close or together with other loci of human activity. The larger settlement and funerary areas around Cromwell (MNR 322669, MNR4287) may have represented an important place within this landscape. The limited finds and dating evidence from this site limits further analysis of how the evidence was linked, at this stage of the investigation.

12.6 Residual finds of worked flint dating to the Mesolithic and Mesolithic/early Neolithic were present at Maplebeck, North Muskham, Cromwell Central and Cromwell North. The assemblages were suggestive of small-scale occupation potentially indicating sporadic use of the wider landscape.

12.7 Agricultural activity of medieval/post-medieval date consisted of furrows, occasionally with associated field boundaries. These were rare at North Muskham, and extensive at Cromwell Central, Cromwell North and Maplebeck. No furrows were present at Castle Hill. Field boundaries and occasional discreet features, dating to the 19th and 20th centuries were present across all five sites.

12.8 The geophysical survey was found to be broadly accurate: all strongly identified possible archaeological features were found to correspond to real features, while the majority of weakly identified archaeological features were also real. The indications of density were also broadly accurate, although features were often found which were not predicted by the geophysical survey, limiting the potential of the geophysical to predict blank areas.

12.9 The project archive, including all the digital and physical records, as well as finds will remain safely stored at the York Archaeology (Nottingham) office until deposition with the Newark and Sherwood Museum under the accession code NEKMS: 2024.10. A copy of the report will be submitted to the HER and the ADS.

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FIGURES

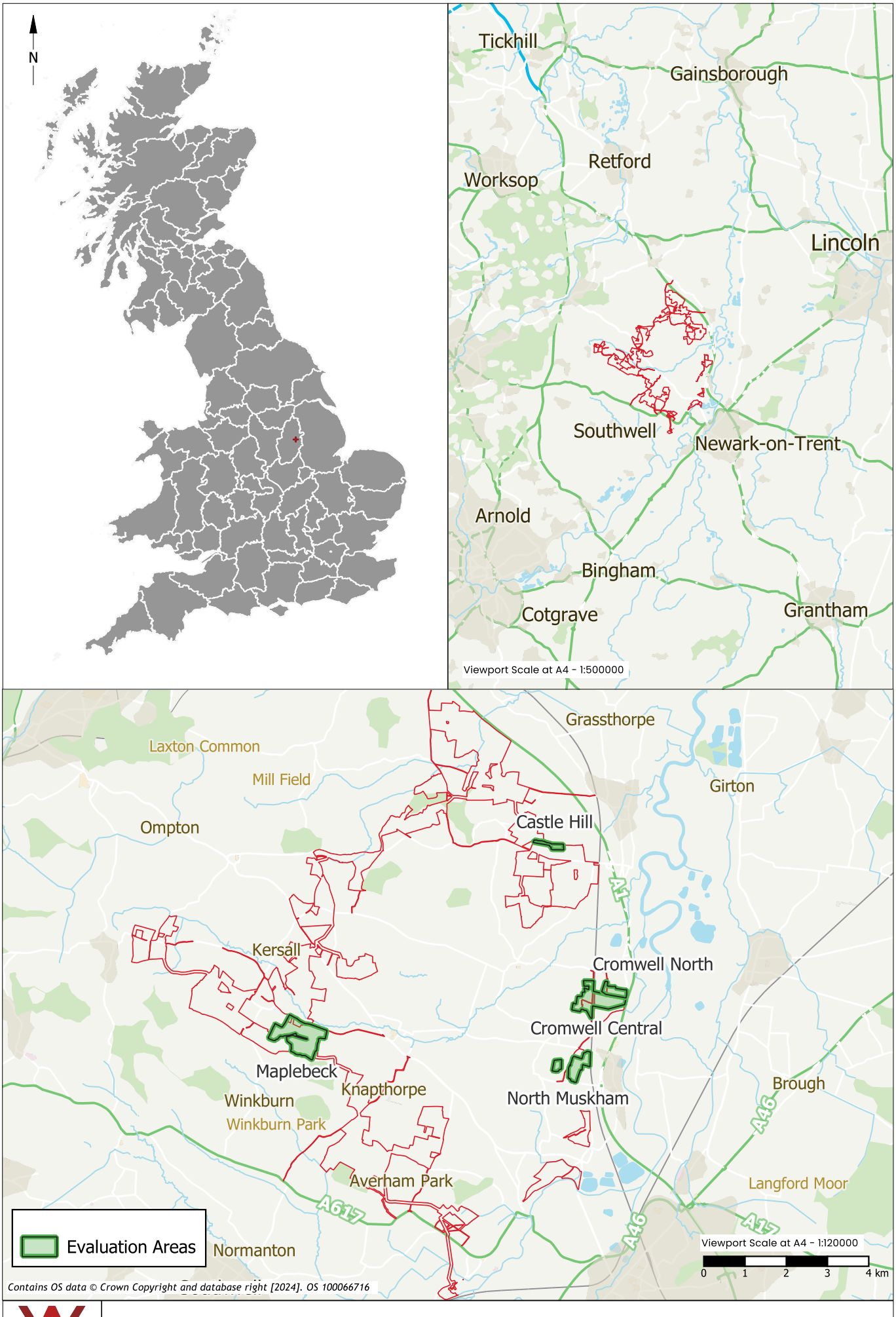


Figure 01 - Location Map
9352 - Great North Road Solar

Scale at A4 - Varies
Drawn by MH

N

Key

- Archaeological Feature
- Arch.Trench
- Blank Trench
- Site Boundary

Scale at A3 - 1:1500

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

0 400m

Figure 02a - Maplebeck - Site Plan - Overview with Geophysical Greyscale
9352 - Great North Road Solar

Scale at A3 - 1:4000
Drawn by MH

N

Key

- Archaeological Feature
- Arch.Trench
- Blank Trench
- Site Boundary

Scale at A3 - 1:1500

0

400m

Figure 02b - Maplebeck - Site Plan - Overview with Interpreted Geophysical Results
9352 - Great North Road Solar

Scale at A3 - 1:4000
Drawn by MH

N

375

373

372

454

45402

367

36602

366

Scale at A3 - 1:20,000

0

100m

Key

- Arch.Trench
- Blank Trench
- Geology
- Site Boundary
- Prehistoric
- Late Iron Age/Early Roman
- Roman
- Medieval/Post-medieval
- 19th/20th Century
- Undated

Figure 03 - Maplebeck - Site Plan 01/11
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

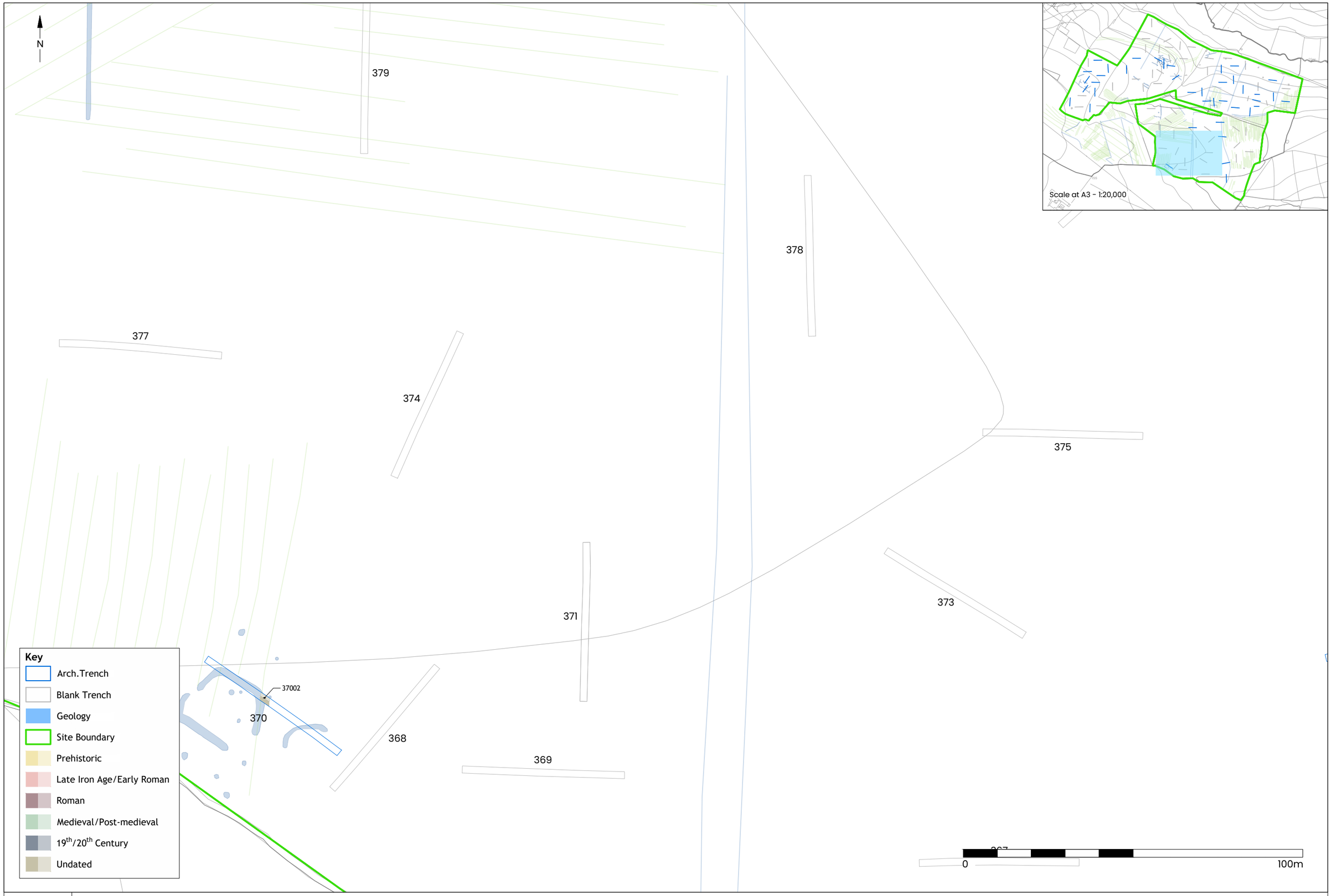


Figure 04 - Maplebeck - Site Plan 02/11
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

N

38402
384
38406
1003
38404

38002
380

450
451
381
453
452
378
375
376
372

Scale at A3 - 1:20,000

Key

- Arch.Trench
- Blank Trench
- Geology
- Site Boundary
- Prehistoric
- Late Iron Age/Early Roman
- Roman
- Medieval/Post-medieval
- 19th/20th Century
- Undated

0 100m

Figure 05 - Maplebeck - Site Plan 03/11
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

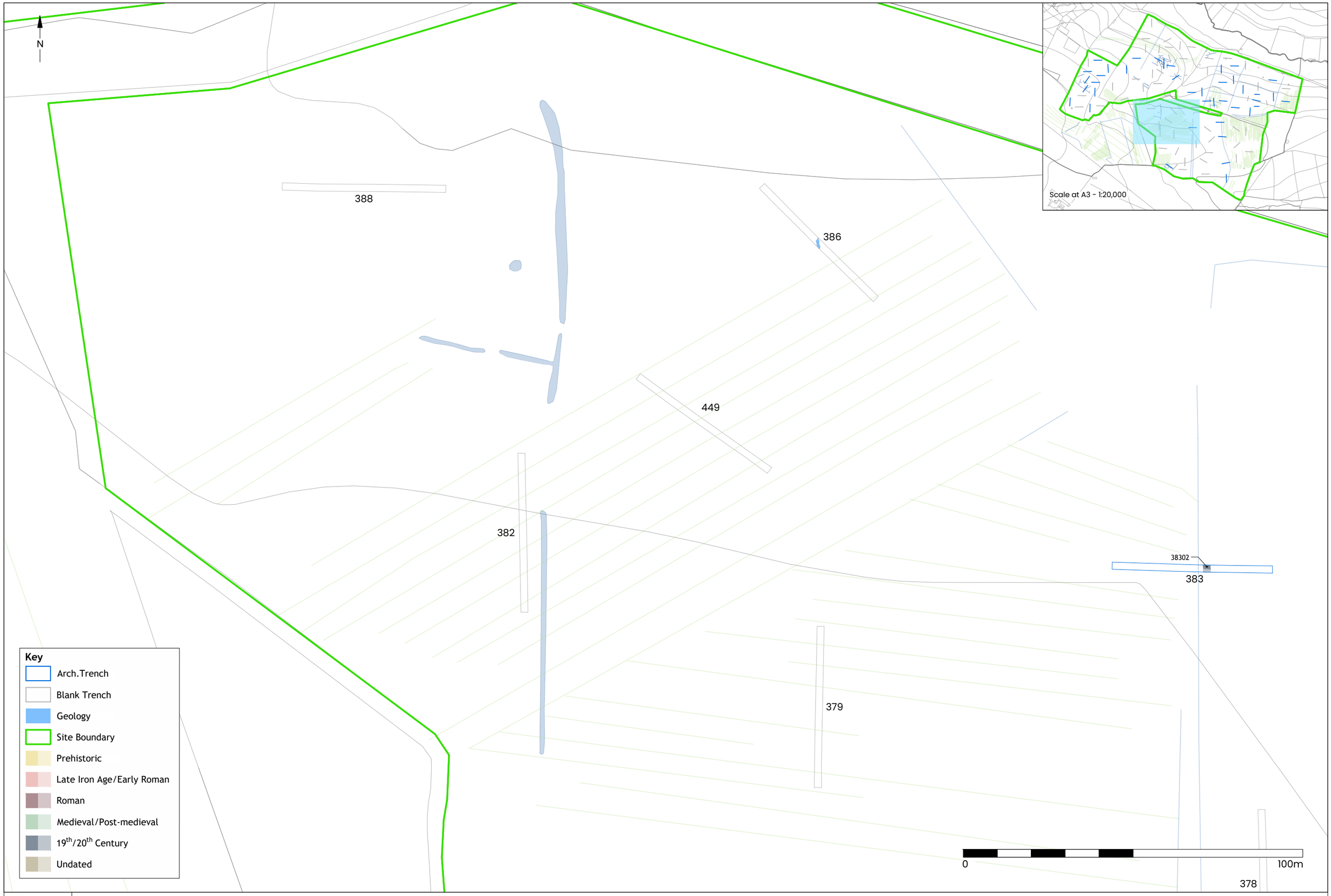


Figure 06 - Maplebeck - Site Plan 04/11
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

N

410

415

406

40202

2022

402

408

44502

44504

1024

44506

445

2015

39802

398

448

395

39502

39506

2020

2017

39511

39508

394

39402

446

44702

1031

44706

44704

447

38902

2013

389

385

38502

2014

0

100m

Scale at A3 - 1:20,000

Key

- Arch.Trench
- Blank Trench
- Geology
- Site Boundary
- Prehistoric
- Late Iron Age/Early Roman
- Roman
- Medieval/Post-medieval
- 19th/20th Century
- Undated

Figure 07 - Maplebeck - Site Plan 05/11
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

N

420

42202

410

414

Scale at A3 - 1:20,000

40202

2022

402

403

2001

40302

2002

40002

400

40004

448

39707

39704

39702

2004

397

39103

391

39604

2007

39608

39606

39602

396

38902

2013

389

385

0

100m

Key

- Arch.Trench
- Blank Trench
- Geology
- Site Boundary
- Prehistoric
- Late Iron Age/Early Roman
- Roman
- Medieval/Post-medieval
- 19th/20th Century
- Undated

Figure 08 - Maplebeck - Site Plan 06/11
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

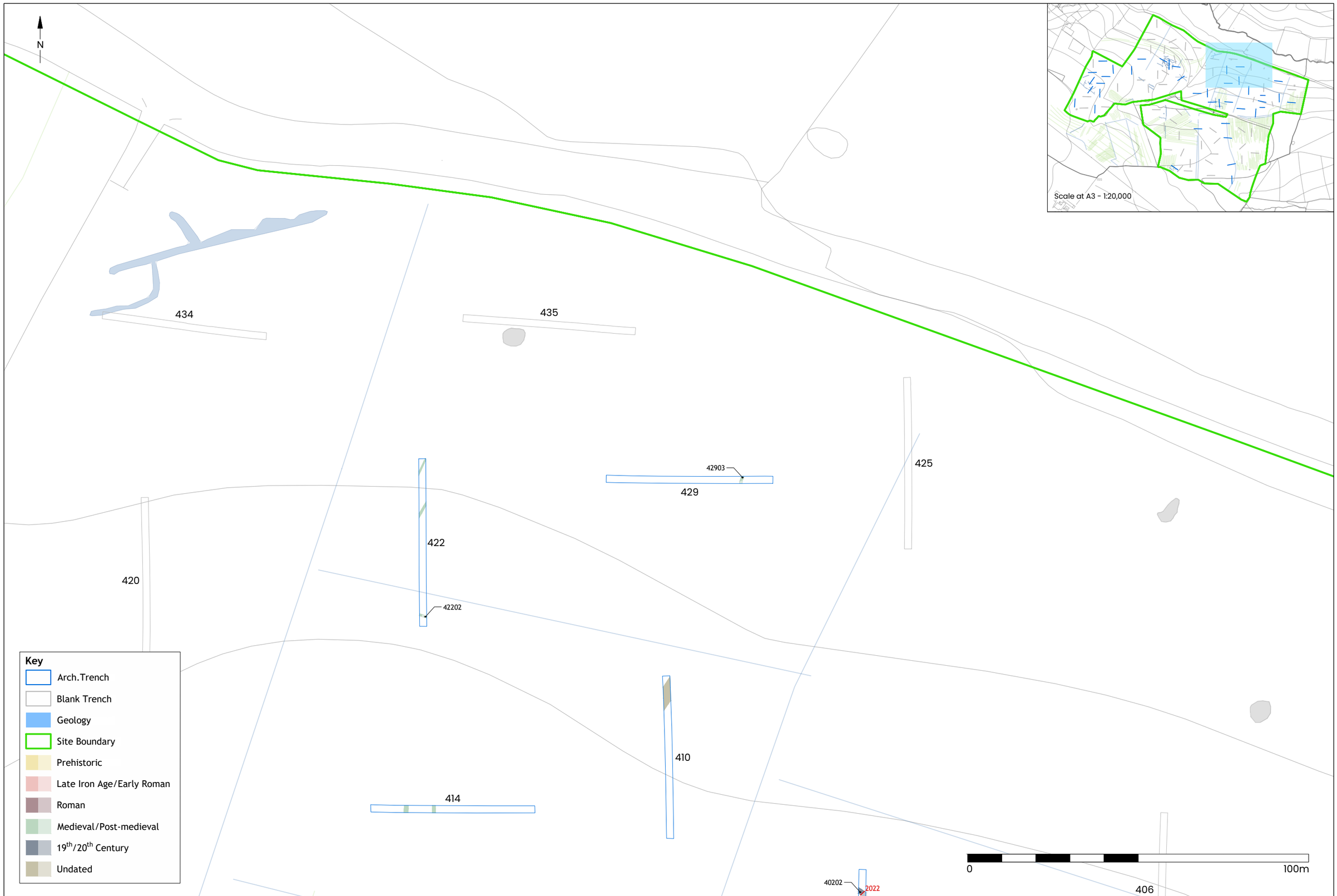


Figure 09 - Maplebeck - Site Plan 07/11
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

N

444

443

442

439

440

441

438

437

433

431

430

43602

1012

436

43102

43106

43110

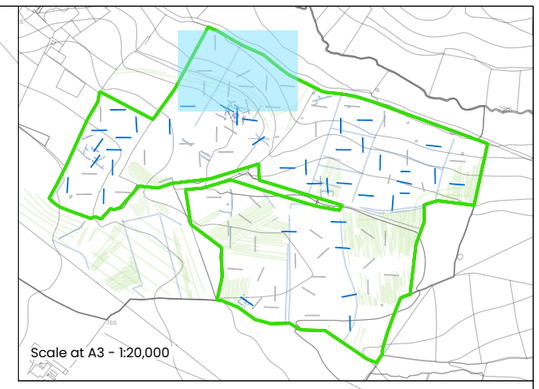
1021

43104

43108

0

100m



Key

- Arch.Trench
- Blank Trench
- Geology
- Site Boundary
- Prehistoric
- Late Iron Age/Early Roman
- Roman
- Medieval/Post-medieval
- 19th/20th Century
- Undated

Figure 10 - Maplebeck - Site Plan 08/11
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

N

443

442

439

440

438

437

431

43102

1021

43106

43110

43104

43108

430

433

42610

42612

426

42602

1009

1008

42803

42804

428

1016

42608

42605

42606

409

418

416

1014

41602

41604

411

Scale at A3 - 1:20,000

Key

- Arch.Trench
- Blank Trench
- Geology
- Site Boundary
- Prehistoric
- Late Iron Age/Early Roman
- Roman
- Medieval/Post-medieval
- 19th/20th Century
- Undated

0

100m

Figure 11 - Maplebeck - Site Plan 09/11
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

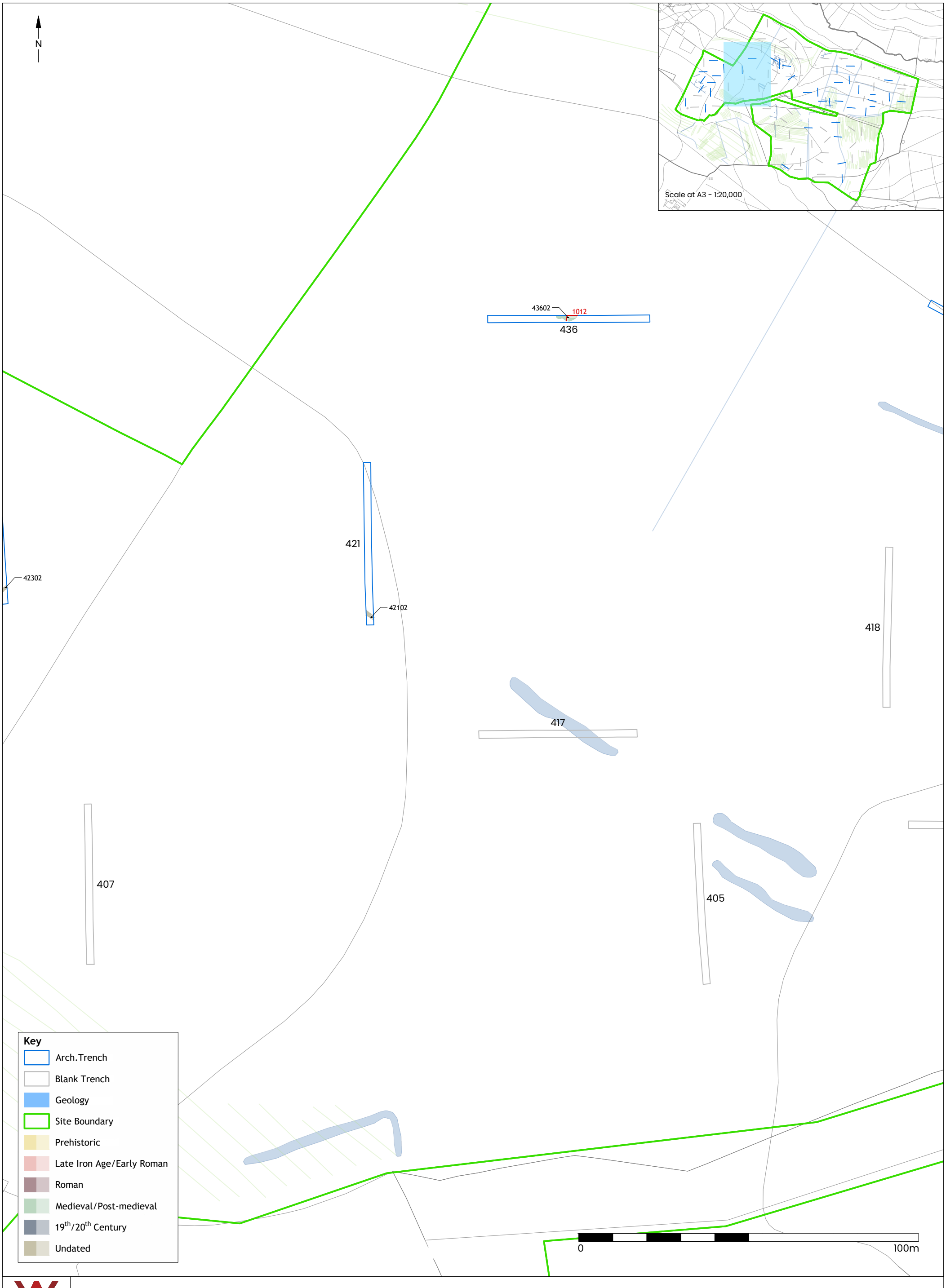


Figure 12 - Maplebeck - Site Plan 10/11
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

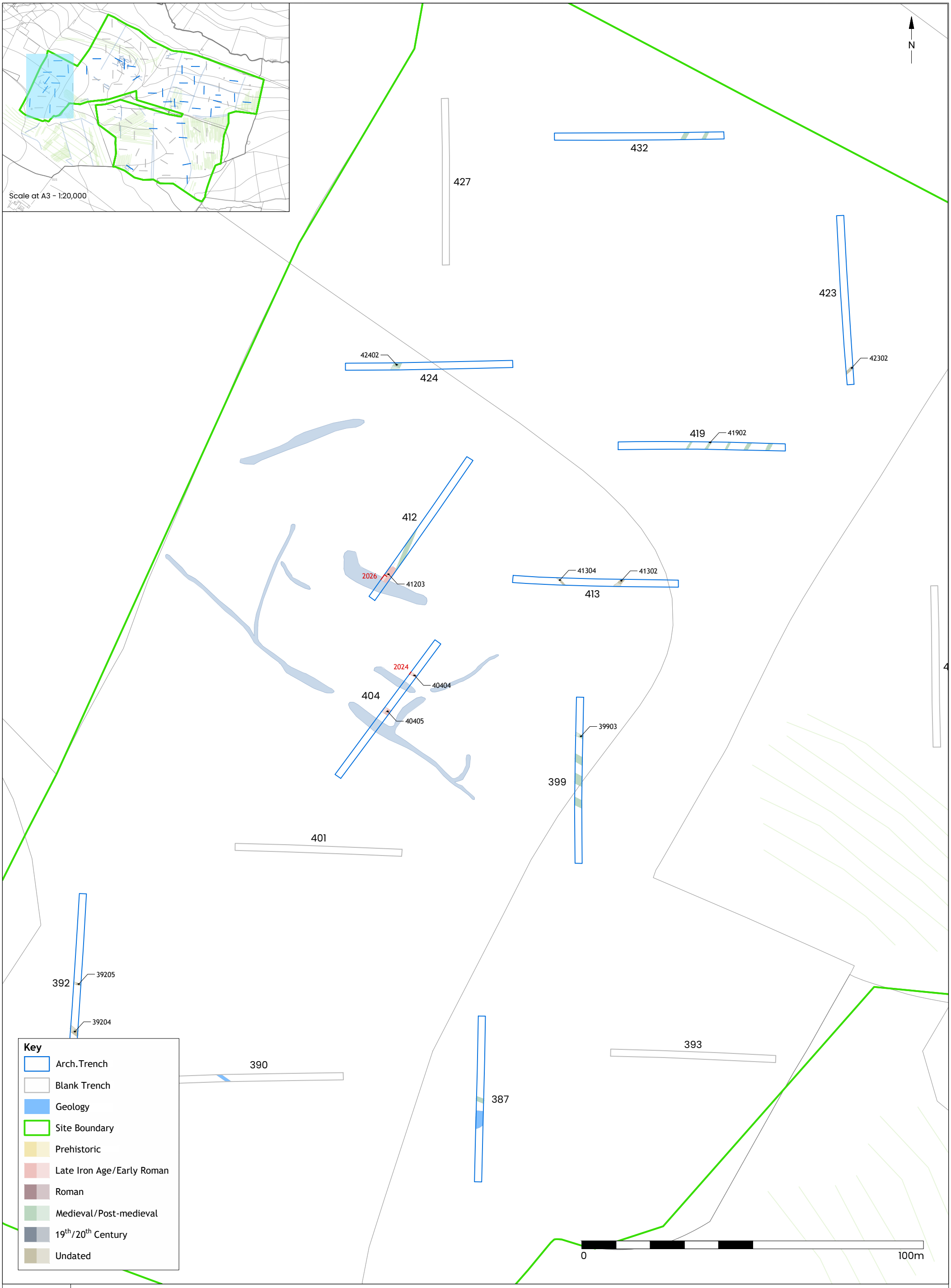


Figure 13 - Maplebeck - Site Plan 11/11
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

N

35m

7m

Key

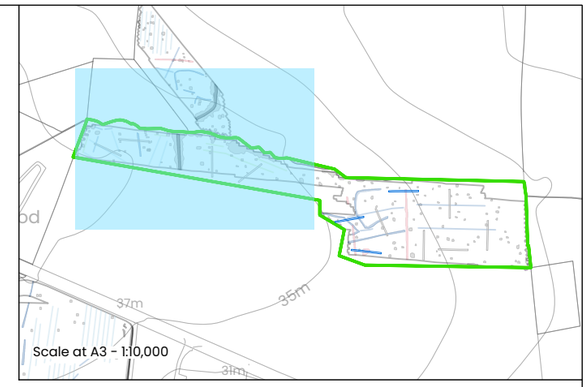
- Archaeological Feature
- Arch.Trench
- Blank Trench
- Site Boundary

0 200m

Figure 17 - Castle Hill - Site Plan - Overview with Geophysical Survey
9352 - Great North Road Solar

Scale at A3 - 1:2000
Drawn by MH

N



329

328

327

326

Key

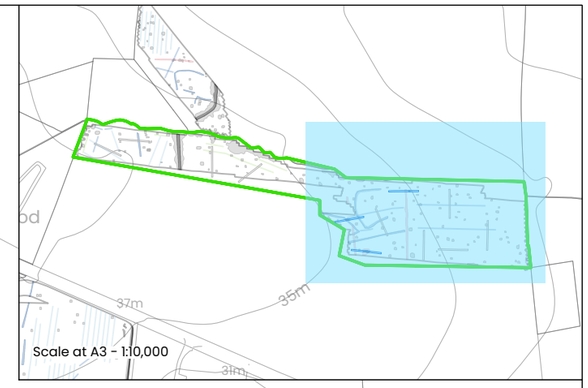
- Arch.Trench
- Blank Trench
- Site Boundary
- Roman
- 19th/20th Century

0 100m

Figure 18 - Castle Hill - Site Plan 01/02
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

N



32502
325
324
323
32304
3002
32302
322
320
318
321
319
31902
3001

Key

- Arch.Trench
- Blank Trench
- Site Boundary
- Roman
- 19th/20th Century

0 100m

Figure 19 - Castle Hill - Site Plan 02/02
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

Figure 21 - North Muskham - Site Plan - Overview with Geophysical Survey
9352 - Great North Road Solar

Scale at A3 - 1:3000
Drawn by MH

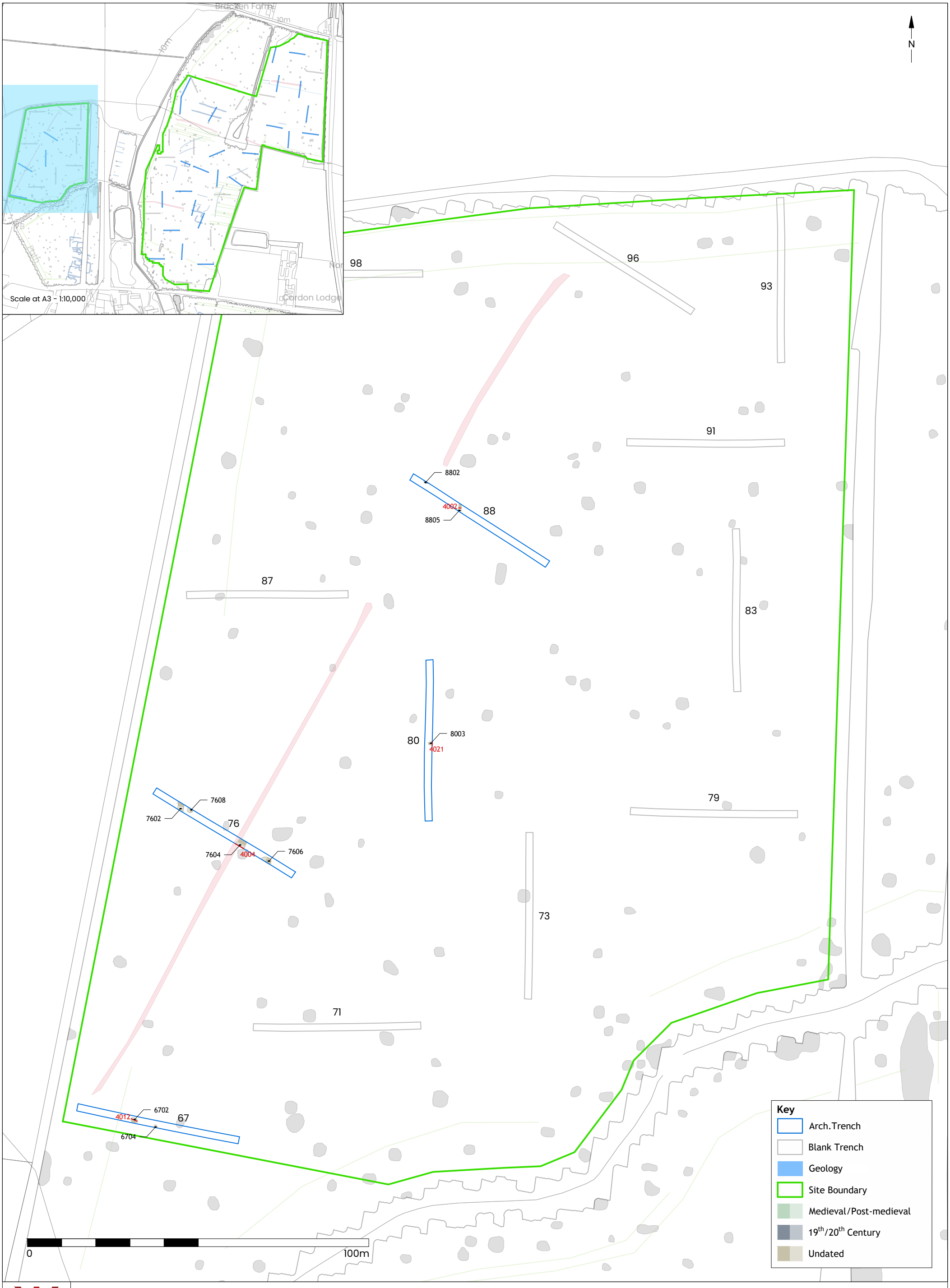


Figure 22 - North Muskham - Site Plan 01/05
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

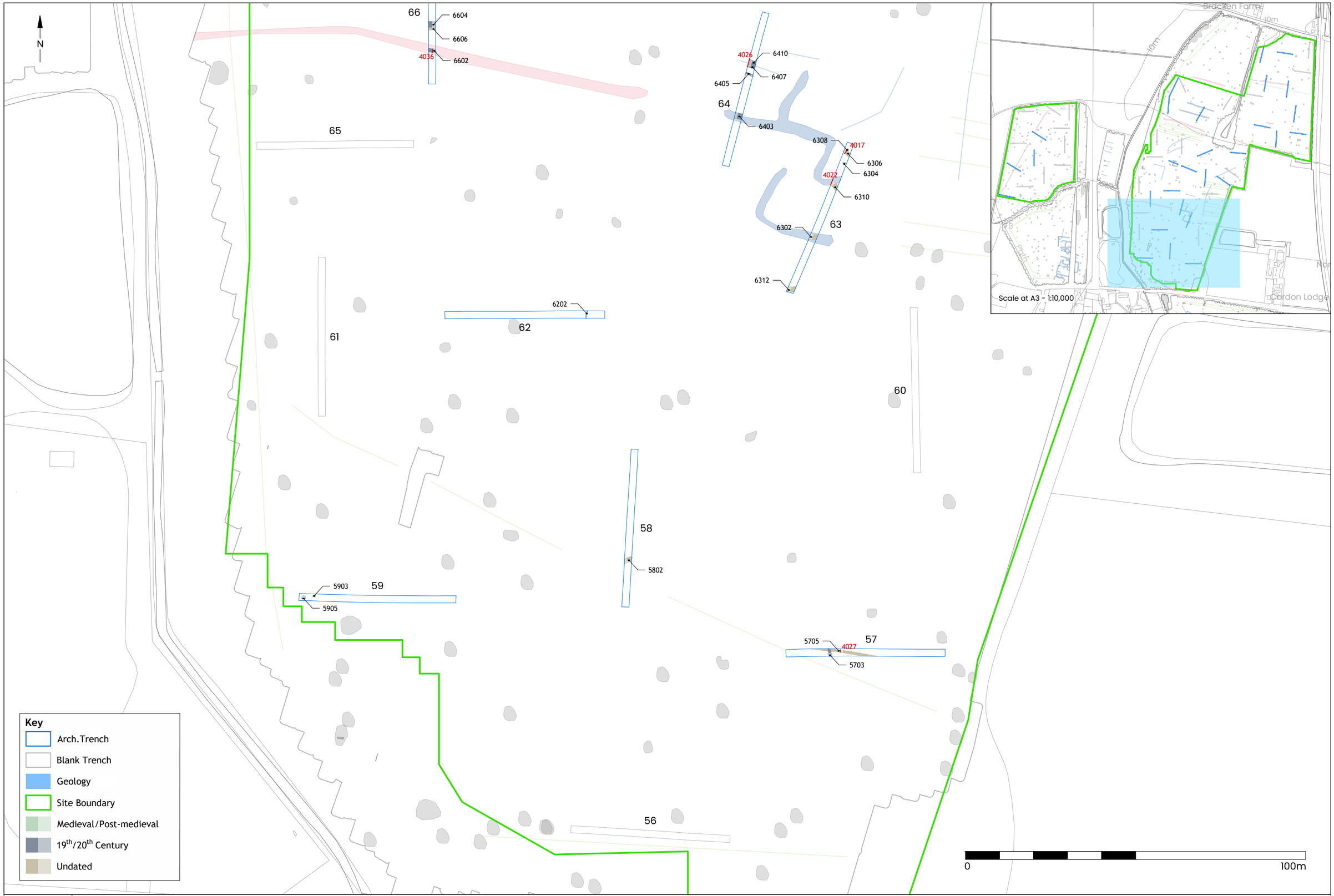


Figure 23 - North Muskham - Site Plan 02/05
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

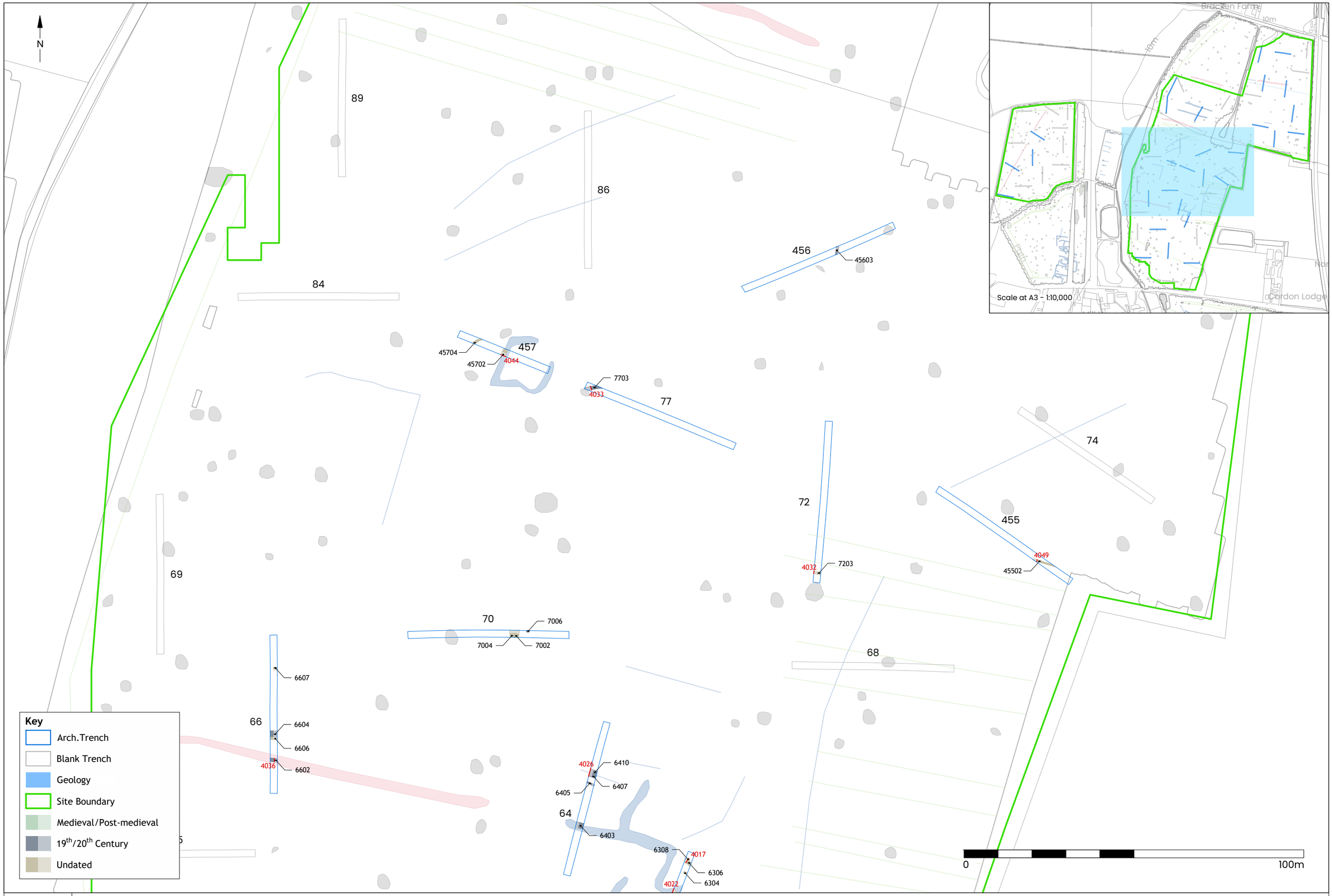


Figure 24 - North Muskham - Site Plan 03/05
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

N

104

97A

9704

9702

9706

4007

97

9708

99

9506

95

9504

4009

9502

92

9202

89

86

84

456

45603

81

8102

8502

Key

- Arch.Trench
- Blank Trench
- Geology
- Site Boundary
- Medieval/Post-medieval
- 19th/20th Century
- Undated

0

100m

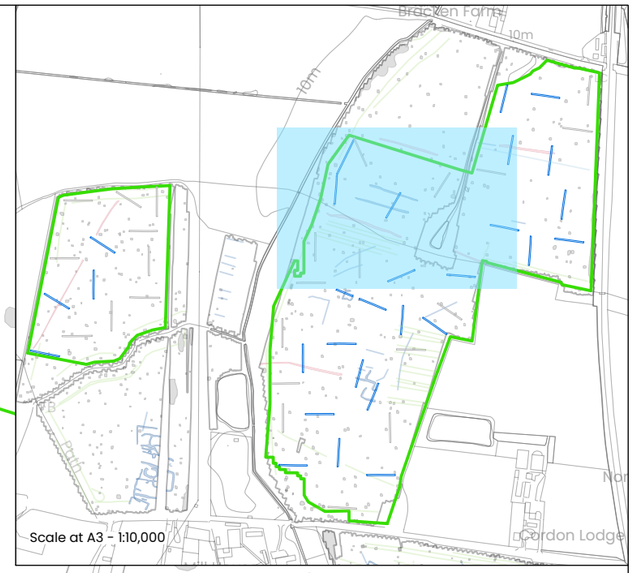


Figure 25 - North Muskham - Site Plan 04/05
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

Scale at A3 - 1:10,000

N

10706
4056
10704
10702
107
109
4051
10902
108
105
10202
102
10206
4047
10204
10002
100
101
99
94
9402
4054
92
9204
9202
4053
90
9002
8502
4052
85
81
8102
8502

0
100m

Key

- Arch.Trench
- Blank Trench
- Geology
- Site Boundary
- Medieval/Post-medieval
- 19th/20th Century
- Undated

Figure 26 - North Muskham - Site Plan 05/05
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

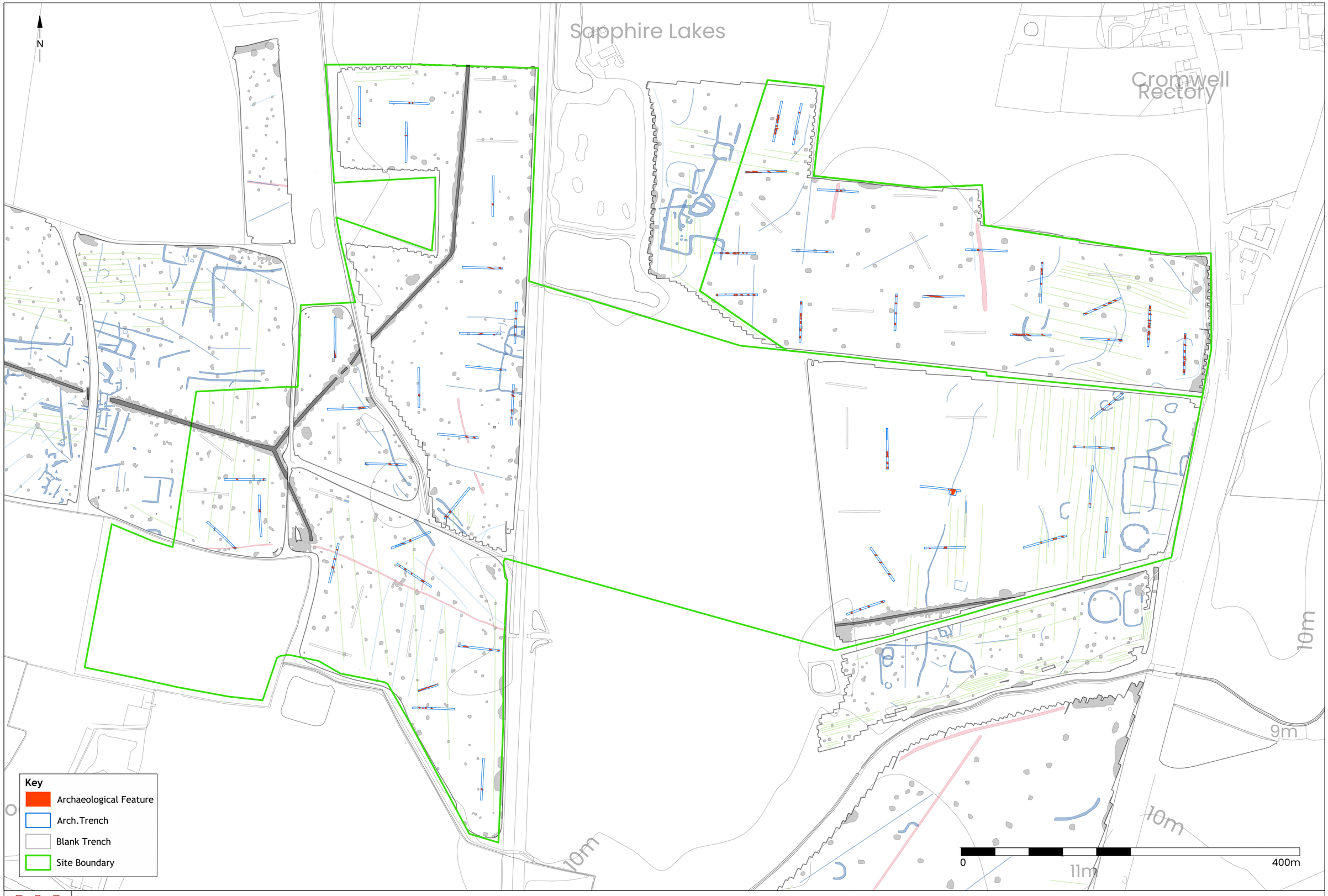


Figure 30 - Cromwell Central and Cromwell North - Site Plan - Overview with Geophysical Survey
9352 - Great North Road Solar

Scale at A3 - 1:4000
Drawn by MH

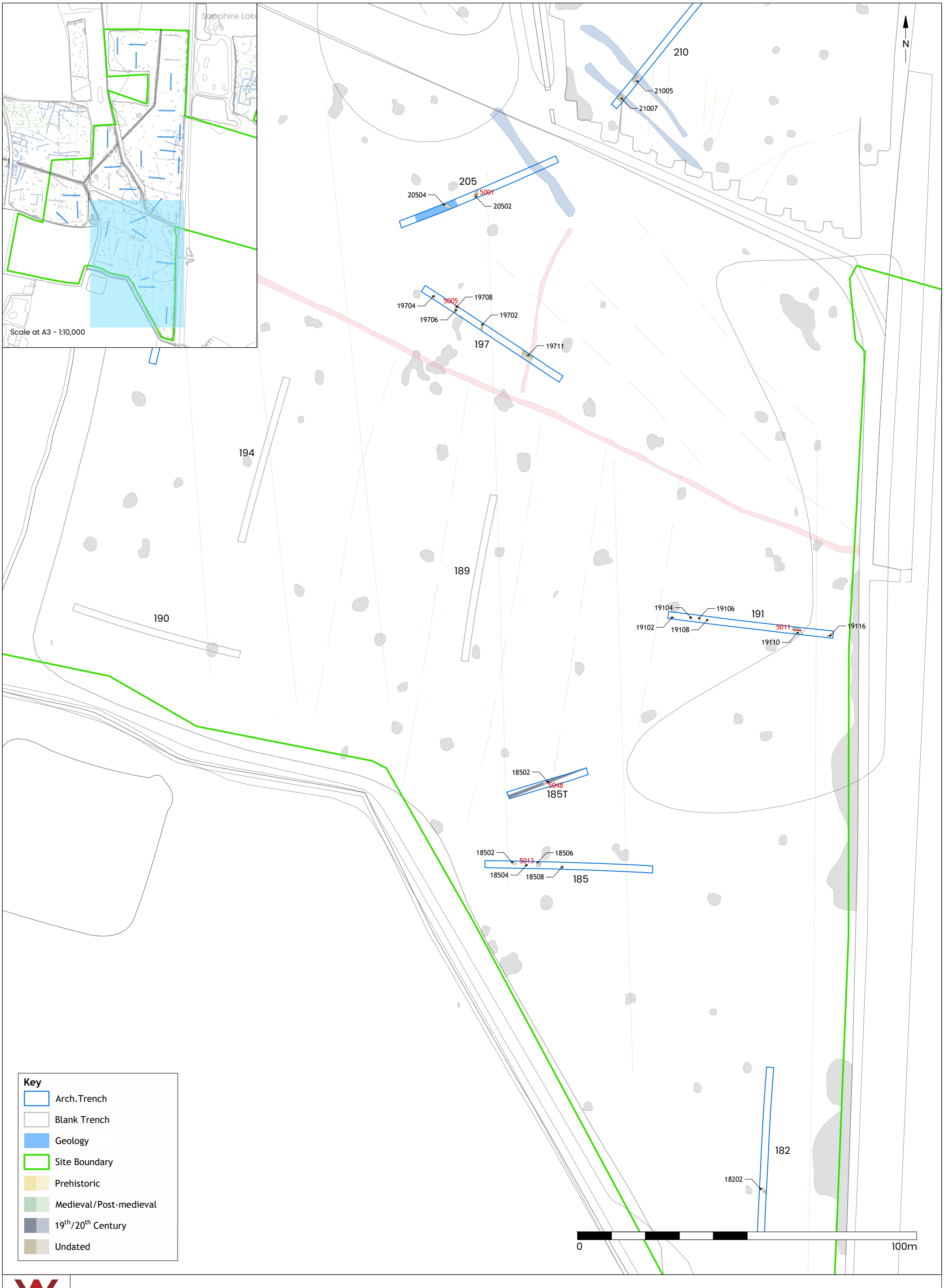


Figure 31 - Cromwell Central - Site Plan 01/06
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

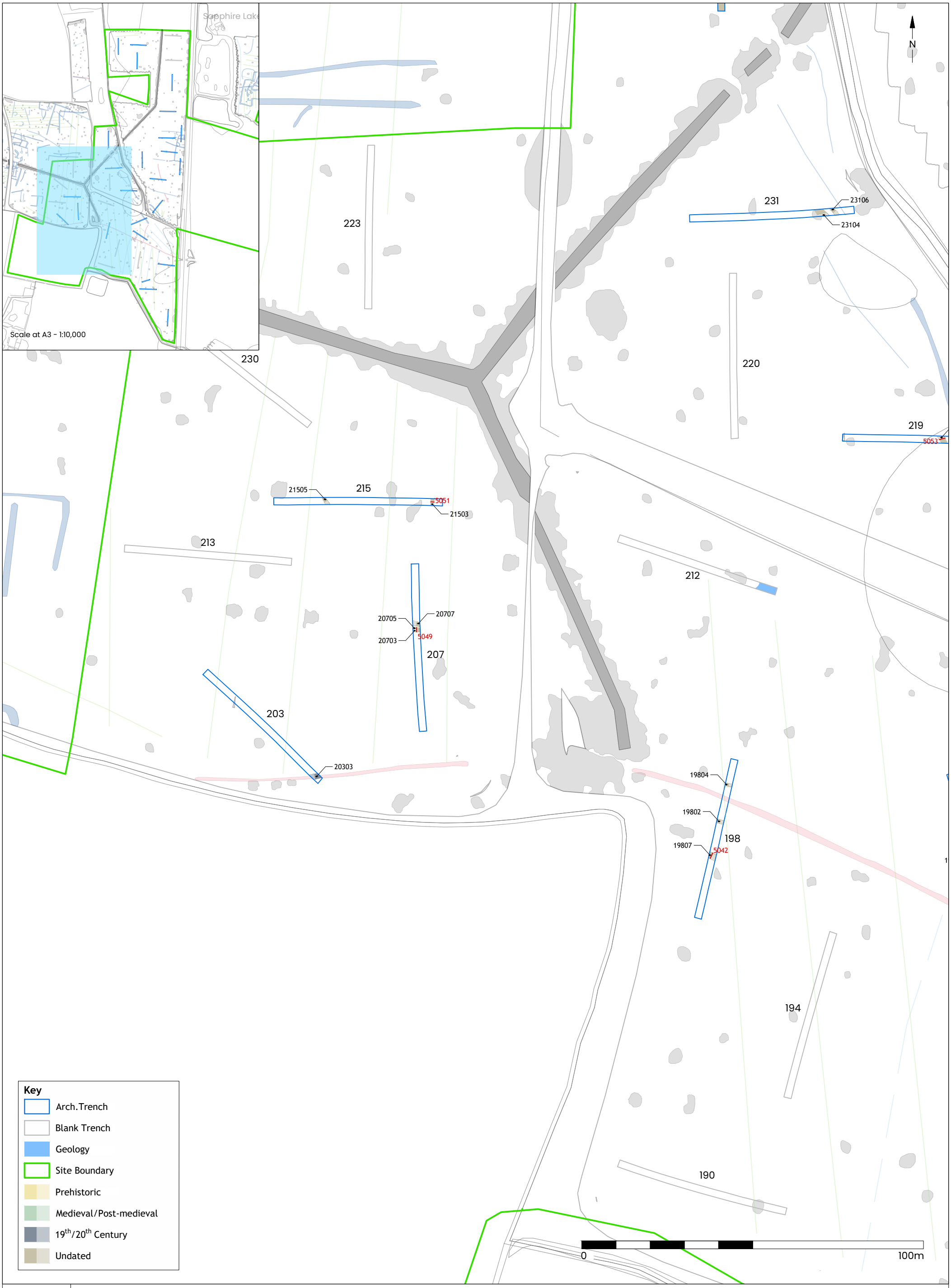


Figure 32 - Cromwell Central - Site Plan 02/06
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

Sapphire Lake

Scale at A3 - 1:10,000

N

256
5064
25604
25602

23902
23904
239
23906
5070
23908

245
5078
24504
24502

235

23402
234
5071

229
5066
22902

22502
22506
5075
225
22504
5076
22508

231
23106
23104

224
22405
5072
22403

220

219
21904
5053
5054
21906

212

210
21005
21007

205
20504
5001
20502

Key
- Arch.Trench
- Blank Trench
- Geology
- Site Boundary
- Prehistoric
- Medieval/Post-medieval
- 19th/20th Century
- Undated

0
100m

Figure 33 - Cromwell Central - Site Plan 03/06
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

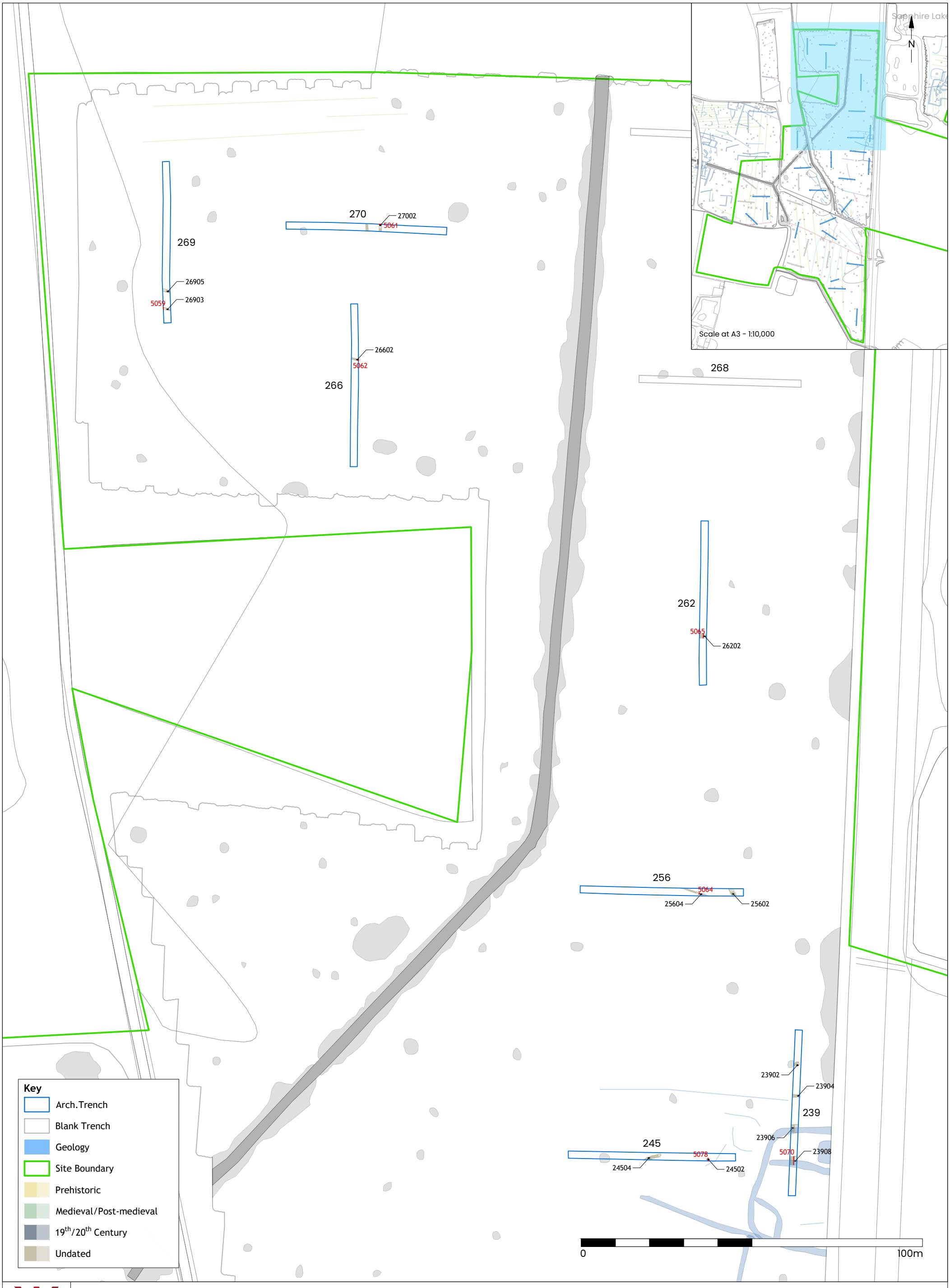


Figure 34 - Cromwell Central - Site Plan 04/06
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

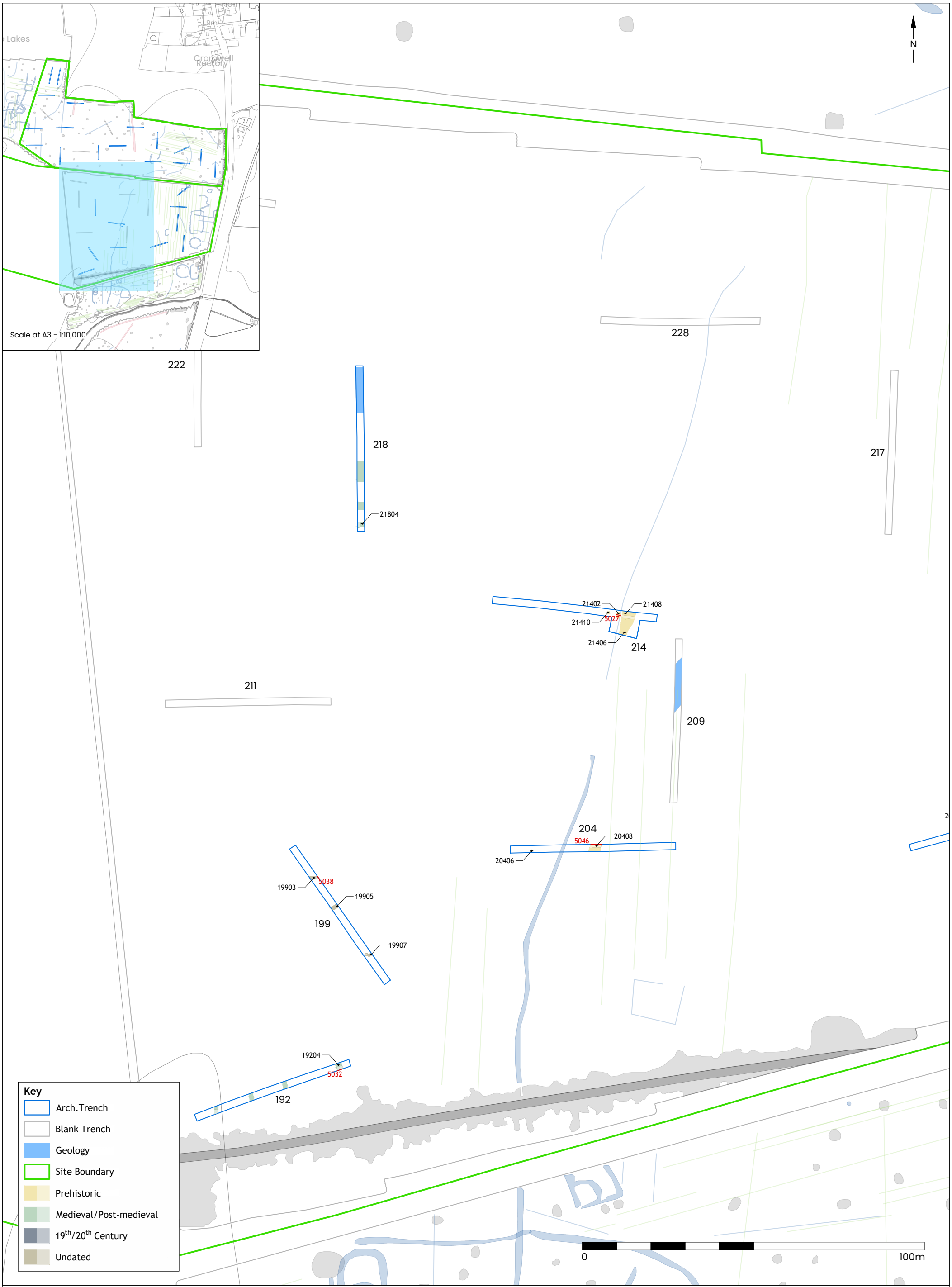


Figure 35 - Cromwell Central - Site Plan 05/06
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

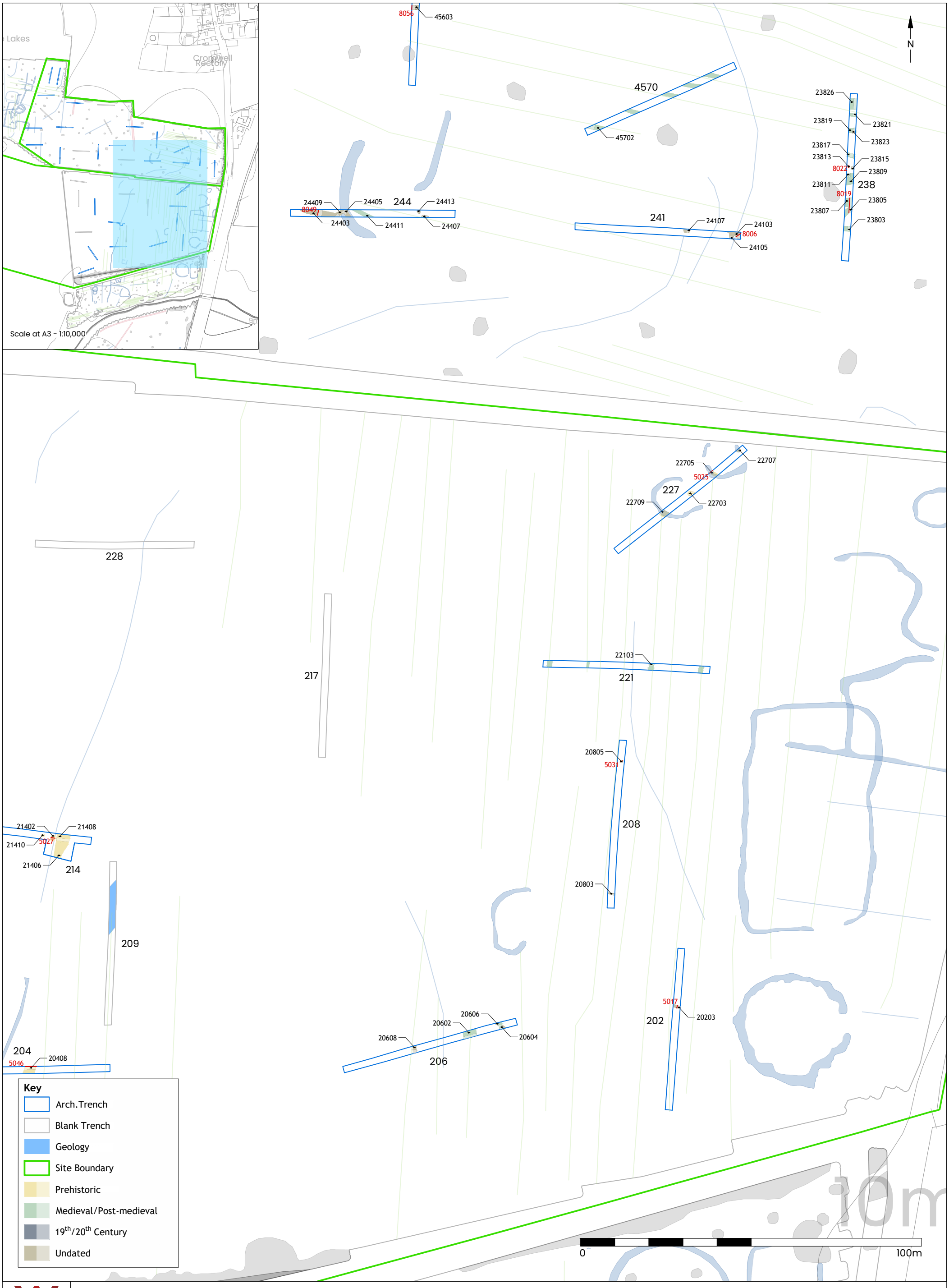


Figure 36 - Cromwell Central - Site Plan 06/06
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

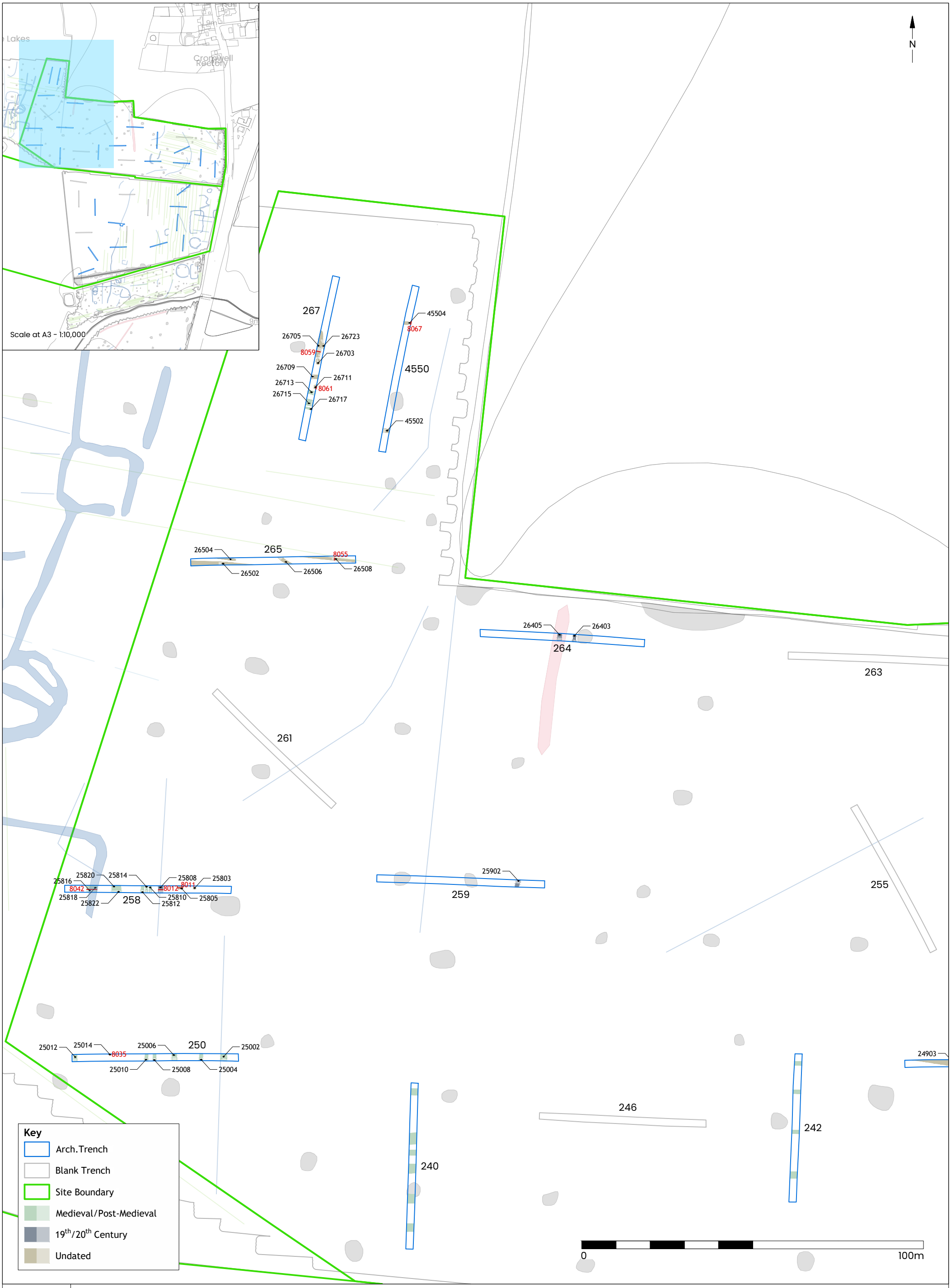


Figure 41 - Cromwell North - Site Plan 01/02
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

N

263

260

255

252

247

4560

45607

45605

45609

8056

45603

24903

249

242

243

4570

45702

24409

8049

24405

244

24413

24403

24411

24407

241

24107

24103

8006

24105

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23813

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8022

23809

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8019

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23807

23803

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23322

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23313

8008

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23307

23305

23303

Key

- Arch.Trench
- Blank Trench
- Site Boundary
- Medieval/Post-Medieval
- 19th/20th Century
- Undated

0

100m

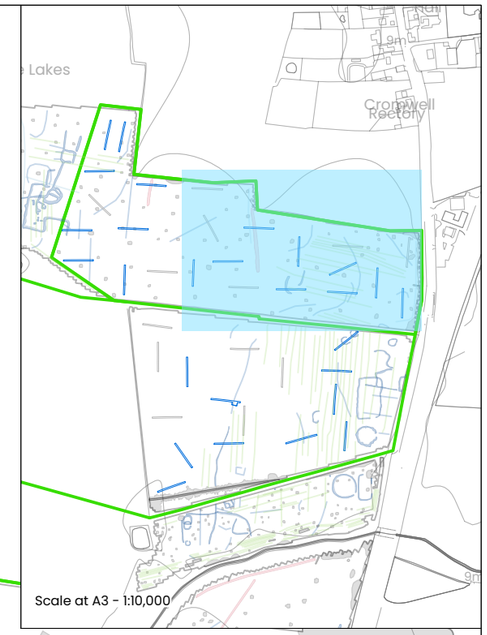

Figure 42 - Cromwell North - Site Plan 02/02
9352 - Great North Road Solar

Scale at A3 - 1:1000
Drawn by MH

Museum Accession Number: NEKMS: 2024.10

PLATES

PLATES

Maplebeck

Plate 1 Trench 366 facing south, after stripping. Scale: 2 x 1m

Plate 2 Trench 366 representative section, facing east. Scale: 1 x 1m

Plate 3 Trench 367 facing east, after stripping. Scale: 2 x 1m

Plate 4 Trench 367 representative section, facing south. Scale: 1 x 1m

Plate 5 Trench 368 facing north-east, after stripping. Scale: 2 x 1m

Plate 6 Trench 368 representative section, facing south-east. Scale: 1 x 1m

Plate 7 Trench 369 facing east, after stripping. Scale: 2 x 1m

Plate 8 Trench 369 representative section, facing north. Scale: 1 x 1m

Plate 9 Trench 370 facing north-west, after stripping. Scale: 2 x 1m

Plate 10 Trench 370 representative section, facing north-east. Scale: 1 x 1m

Plate 11 Trench 370 section of feature [37002], facing south-east. Scale: 1 x 1m

Plate 12 Trench 371 facing north, after stripping. Scale: 2 x 1m

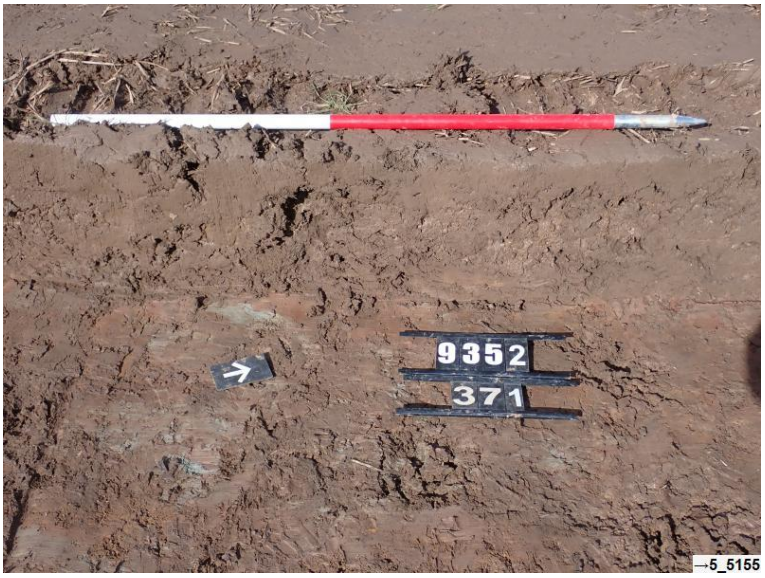

Plate 13 Trench 371 representative section, facing west. Scale: 1 x 1m

Plate 14 Trench 372 facing north, after stripping. Scale: 2 x 1m

Plate 15 Trench 372 representative section, facing east. Scale: 1 x 1m

Plate 16 Trench 373 facing north-west, after stripping. Scale: 2 x 1m

Plate 17 Trench 373 representative section, facing south-west. Scale: 1 x 1m

Plate 18 Trench 374 facing north-east, after stripping. Scale: 2 x 1m

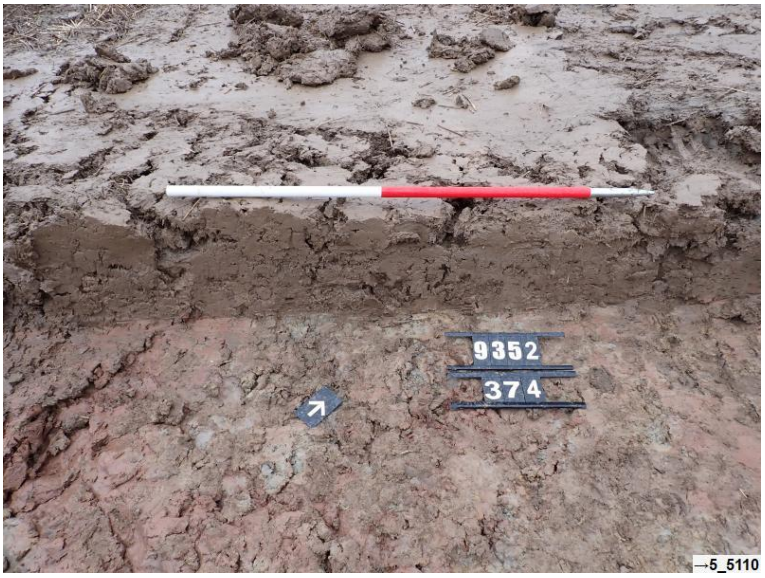

Plate 19 Trench 374 representative section, facing north-west. Scale: 1 x 1m

Plate 20 Trench 375 facing east, after stripping. Scale: 2 x 1m

Plate 21 Trench 375 representative section, facing north. Scale: 1 x 1m

Plate 22 Trench 376 facing east, after stripping. Scale: 2 x 1m

Plate 23 Trench 376 representative section, facing north. Scale: 1 x 1m

Plate 24 Trench 377 facing east, after stripping. Scale: 2 x 1m

Plate 25 Trench 377 representative section, facing north. Scale: 1 x 1m

Plate 26 Trench 378 facing south, after stripping. Scale: 2 x 1m

Plate 27 Trench 378 representative section, facing east. Scale: 1 x 1m

Plate 28 Trench 379 facing north, after stripping. Scale: 2 x 1m

Plate 29 Trench 379 representative section, facing south-east. Scale: 1 x 1m

Plate 30 Trench 380 facing east, after stripping. Scale: 2 x 1m

Plate 31 Trench 380 representative section, facing north. Scale: 1 x 1m

Plate 32 Trench 380 section of feature [38002], facing north. Scale: 1 x 1m

Plate 33 Trench 381 facing north, after stripping. Scale: 2 x 1m

Plate 34 Trench 381 representative section, facing east. Scale: 1 x 1m

Plate 35 Trench 382 facing north, after stripping Scale: 2 x 1m

Plate 36 Trench 382 representative section facing east, Scale: 1 x 1m

Plate 37 Trench 383 facing north-west, after stripping Scale: 2 x 1m

Plate 38 Trench 383 representative section facing north, Scale: 1 x 1m

Plate 39 Trench 383 Section of feature [38302] facing south. Scale: 1 x 1m

Plate 40 Trench 384 facing east, after stripping Scale: 2 x 1m

Plate 41 Trench 384 representative section facing south-west. Scale: 1 x 1m

Plate 42 Trench 384 Section of feature [38404] and [38406] facing north-east. Scale: 1 x 1m

Plate 43 Trench 384 Section of feature [38402] facing north-east. Scale: 1 x 0.5m

Plate 44 Trench 385 facing north, after excavation. Scale: 2 x 1m

Plate 45 Trench 385 representative section facing west. Scale: 1 x 1m

Plate 46 Trench 385 Section of feature [38502] facing west. Scale: 1 x 1m

Plate 47 Trench 386 facing north-west, after stripping. Scale: 2 x 1m

Plate 48 Trench 386 representative section facing south-west. Scale: 1 x 1m

Plate 49 Trench 386 Section of feature [38602] facing north-west. Scale: 1 x 0.5m

Plate 50 Trench 387 facing north, after stripping. Scale: x 1m

Plate 51 Trench 387 representative section facing east. Scale: x 1m

Plate 52 Trench 388 facing east, after stripping. Scale: 2 x 1m

Plate 53 Trench 388 representative section facing north. Scale: 1 x 1m

Plate 54 Trench 388 Section of feature [38802] facing north. Scale: 1 x 0.5m

Plate 55 Trench 389 facing east, after stripping. Scale: x 1m

Plate 56 Trench 389 representative section facing east. Scale: x 1m

Plate 57 Trench 389 Section of feature facing south. Scale: 1 x 0.3m

Plate 58 Trench 390 facing west, after stripping. Scale: 2 x 1m

Plate 59 Trench 390 representative section facing north. Scale: 1 x 1m

Plate 60 Trench 391 facing north, after stripping. Scale: 2 x 1m

Plate 61 Trench 391 representative section facing east. Scale: x 1m

Plate 62 Trench 391 Section of feature [39103] facing south. Scale: 1 x 0.3m