

KEY

MANCHESTER COLLEGE SITE BOUNDARY

SECTION 278 WORKS BOUNDARY

STORM WATER SEWERS
FOUL WATER SEWERS
WATER MAIN
GAS MAIN
ELECTRIC CABLES
CABLE DUCTING
BT (UNDERGROUND)
CABLE TV
CLOSED CIRCUIT TV
UNIDENTIFIED FEATURE
UNIDENTIFIED PIPE
UNIDENTIFIED CABLE
UNIDENTIFIED FEATURE
END OF TRACE

LATERAL CONNECTIONS
EXTENT OF SURVEY
SURVEY OPERATIONS LTD (OCT 19)
SURVEY OPERATIONS LTD (OCT 19)
UNIDENTIFIED FEATURE
UNIDENTIFIED PIPE
UNIDENTIFIED CABLE
UNIDENTIFIED FEATURE
FROM CCTV REPORT
CONNECTIONS BETWEEN CHAMBERS
FROM CCTV REPORT
UNIDENTIFIED FEATURE
UNIDENTIFIED PIPE
UNIDENTIFIED CABLE
UNIDENTIFIED FEATURE
END OF TRACE

UNIDENTIFIED - A buried feature or utility that has been located, but we are unable to state what it is.
UNPROVEN - The assumed location of a reported feature or utility, usually taken from records, but not found during the utility trace (due to various conditions).
CAUTION - Electric soil ended cables, even when they are live, are unable to be detected or traced.

UNDERGROUND UTILITIES SERVICES DISCLAIMER

We have endeavored to locate existing services using records provided by Statutory Authorities as a guide. Some apparatus were untraceable and details have therefore been taken from Utility Record Drawings, which may be of poor quality. Consequently we cannot guarantee accuracy of information taken from such records.

Where indicated, no allowance has been made for subsurface entry into manholes, other chambers or confined spaces below ground level. Therefore any details relating to depths, sizes etc. are taken from the surface and as such will be approximate.

We have endeavored to supply you with the most accurate data possible by using methods and equipment that are at the forefront of our industry. We have taken great care in the detection of pipelines and buried features, but as with all methods of detecting underground services, there is the possibility of error. The information provided is based on results obtained from electromagnetic techniques, and as such may be liable to distortion or errors beyond the reasonable control of the operator or his instruments.

It is the responsibility of the user under Health & Safety (HSG47) Guidelines to satisfy himself of the suspected location of any services prior to excavation of the services shown.

NOTE 1

This utility survey has been undertaken using:
A. Substation Station ID: 120400 T12
B. Reiss Geoscience Ground Penetrating Radar

NOTE 2

Power carrying features shown on this drawing are shown as an individual service line. This does not necessarily represent the number of cables actually present and it is possible that there could be multiple numbers of cables including HV, LV and communications transmission cables following the same trace line. There could be at different depths, the trace signal from the deeper cables being masked by signal emitted from the shallower service above. Cable runs could also be present running parallel to the single line shown.

UNDERGROUND SERVICES KEY

CCTV / CABLE TELEVISION
COMBINED DRAINAGE
COMMUNICATIONS CABLE
COMPRESSED AIR
DUCTING
EARTH CABLE
ELECTRIC CABLE
END OF TRACE
FOUL DRAINAGE
FUEL PIPE
GAS PIPE
GAUGE LINE
HEATING
OFFSET FILL PIPE
PUMPING MAIN
RADAR AREA ANOMALY (REBAR DETECTED)
RADAR UTILITY TRACE
SURFACE DRAINAGE
SURVEY BOUNDARY
TELECOM CABLE
TRAFFIC LIGHTS
UNIDENTIFIED
VAPOUR RECOVERY
VENT PIPE
WATER PIPE

BSI PAS128 Quality Levels (displayed in linetype)

(A) = Verified by Inspection-trial pit, vacuum Excavation Inspection Chamber/Manhole
(B1) = Detected with GPR & EML - High confidence position and depth
(B2) = Detected with either GPR or EML - Medium confidence position and depth
(B3) = Detected with GPR or EML (no depth - poor signal)
(B4) = Assumed route - Not detected - interpreted route
(C) = Record data located to Street Furniture - not detected
(D) = Record data not located - not detected
NB: Q(LA) is inferred at all MHS ICs etc. unless otherwise stated.

DISCLAIMER

Electromagnetic and ground penetrating radar techniques have been used in the location of underground services shown on this survey plan. These are interpretive procedures and we recommend that trial excavations should be undertaken to confirm identification, location and depth of services where these are critical.

Please note that not all buried pipes, cable and ducts can be detected and mapped in consideration of their depth, location, material type, geology and proximity to other utilities. All reasonable effort and care has been made in searching available record drawings. The completeness of the underground service information supplied to and by us cannot be guaranteed.

NOTES

Where services are non-metallic or not proven on site, positions are taken from records, trench scans & surface detail.

Where stated, depth estimations are typically to the centre or top of the service. Depths to gravity sewers and drains are typically to invert levels, unless otherwise stated.

Where Ground Penetrating Radar (GPR) is quoted the depth is recorded to the assumed external crown of the feature.

The diagram below describes the depth information in more detail.

Where the precise position or depths of these features are critical to the design or sitework they must be verified by the use of trial excavations.

Pipe sizes which cannot be obtained by visual survey are taken from utilities record drawings or marker plates where available. Services shown as TFR (Taken From Records) have not been proven on site.

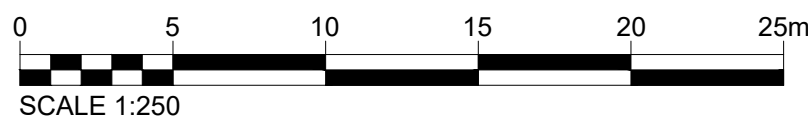
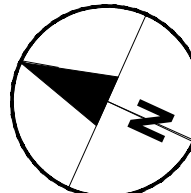
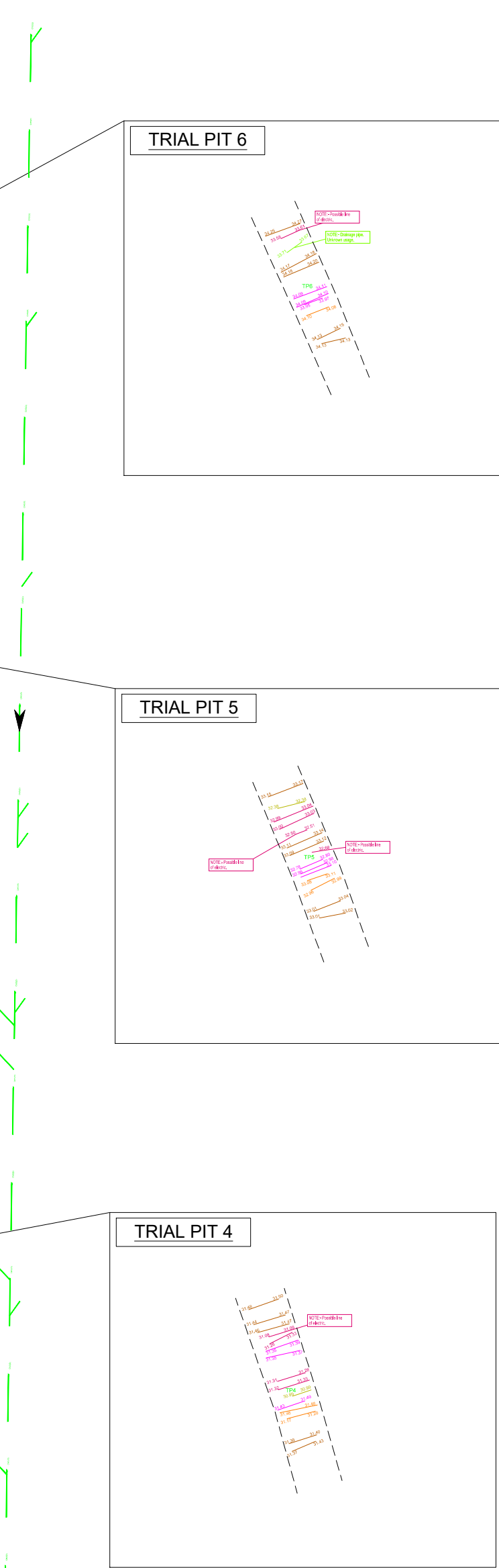
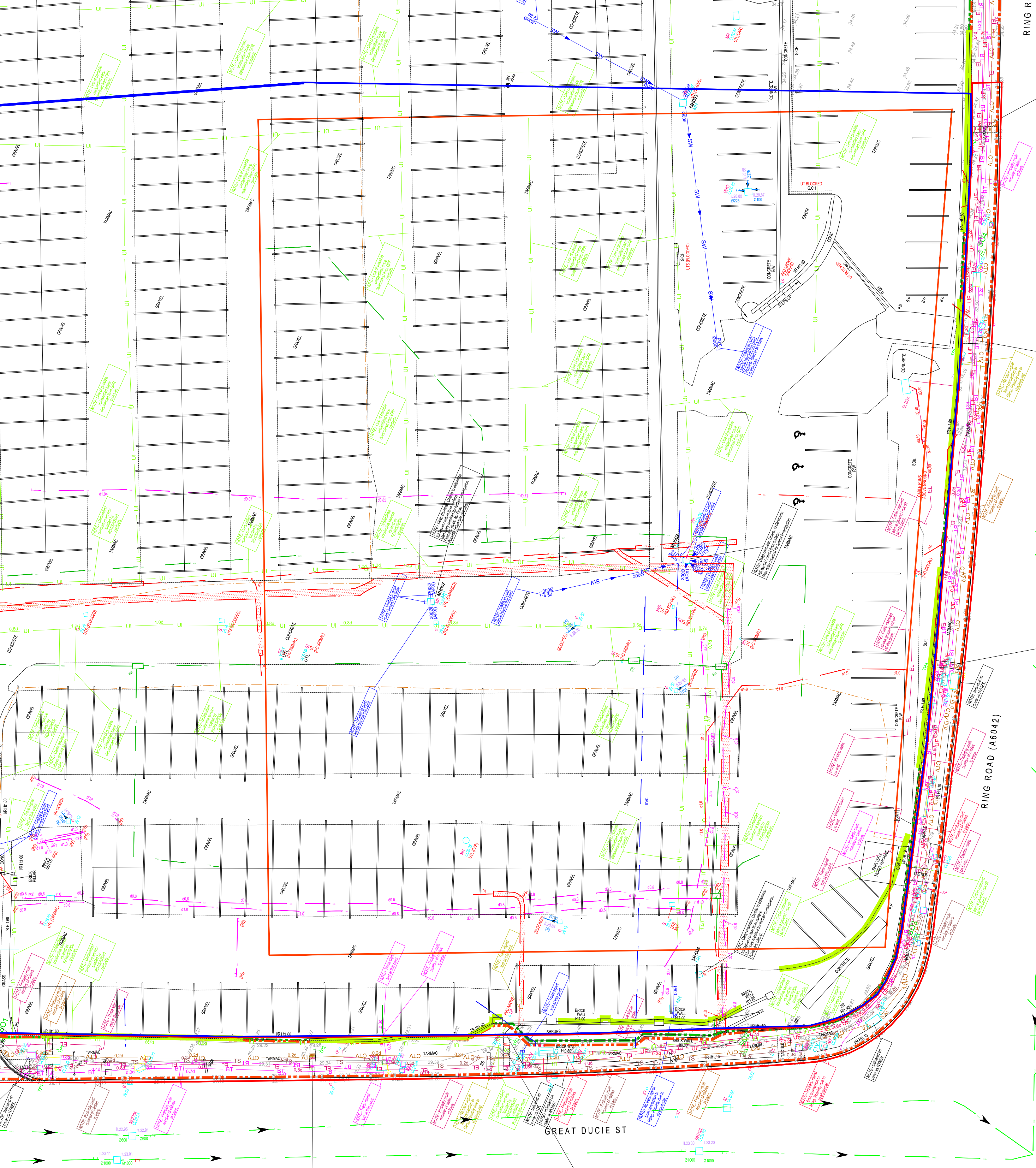
The CAD layering may contain further information.

TYPICAL FEATURE DEPTH ANNOTATION

ELECTRO-MAGNETIC DETECTION
APPROX. DEPTH TO CENTRE
CABLE/FIBRE OPTIC

GRAVITY DRAIN (VISUAL OBSERVATION)
APPROX. DEPTH TO INVERT

GROUND PENETRATING RADAR
APPROX. DEPTH TO EXTERNAL CROWN



AECOM

PROJECT

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NOTES

1. DO NOT SCALE FROM THIS DRAWING. ONLY STATED DIMENSIONS ARE TO BE USED.
2. ALL TOPOGRAPHICAL AND GPR INFORMATION TAKEN FROM SURVEY OPERATIONS SURVEY REF 20B031_B UNDERTAKEN IN FEBRUARY 2020.
3. TRIAL HOLE INFORMATION TAKEN FROM WILLMOTT DIXON SERVICES INVESTIGATIONS REPORT FEBRUARY 2020.

ISSUE/REVISION

P03	26/03/21	NEW TOPO OVERLAID
P02	11/08/20	ISSUED TO MCC
P01	04/08/20	DRAFT ISSUE
I/R	DATE	DESCRIPTION

PROJECT NUMBER

60594458

SHEET TITLE

SECTION 278 AGREEMENT
EXISTING SERVICES PLAN

SHEET NUMBER

CC-ACM-278-XX-DR-C-0003