

Quality Level			
GB1 (GB-1)	(GB-B4)	A survey is expected to exist but cannot be detected - (ARL) (PS) (V)	Unlocated
GB2 (GB-2)	(GB-B1)	Horizontal location only using one geophysical technique	+/- 500mm Horizontal Unlocated/Vertical
GB3 (GB-3)	(GB-B3)	No depth information - (AC)	+/- 100mm
GB4 (GB-4)	(GB-B2)	Horizontal and vertical location only using one geophysical technique	+/- 250mm or +/- 40% of depth whichever is greater
GB5 (GB-5)	(GB-B3)	Horizontal and vertical location only using two geophysical techniques	+/- 100mm or +/- 10% of depth whichever is greater
GB6 (GB-6)	(GB-LF)	Service verified in an open excavation, made an inspection chamber, manhole, etc. at the point the service enters the ground	+/- 50mm Horizontal +/- 50mm Vertical
QA	(QA-A)		

Desktop Utility Records

Utility Type	Provider Details	Date Acquired
Drainage	Southern Water	06/07/2023
Electricity	Powerchurn Water	06/07/2023
Gas	SGN	06/07/2023
Exhaust	Scottish and Southern Electricity Networks	06/07/2023
Telecom	Openreach	06/07/2023
CATV	Arnet	Not Applicable
Tunnels & Pipelines	UnlocatedServiceLog	06/07/2023

Revision	Description	Drawn by	Check by	Appr by	Date					
1		6	8	10	12	14	16	18	20	22

Topographical and PAS 128:2022 Utility Survey

Vistry Group

Ford Airfield
Arundel
West Sussex

Scale:	Sheet Size:	Sheet Number:	Date:
1:200	A4	1	August 2023
Project Number:	Rev:	Surveyed by:	Checked by:
32809	-	JM/T/CALW	AJ / AC
			Approved by:
			CP / NF

mk surveys







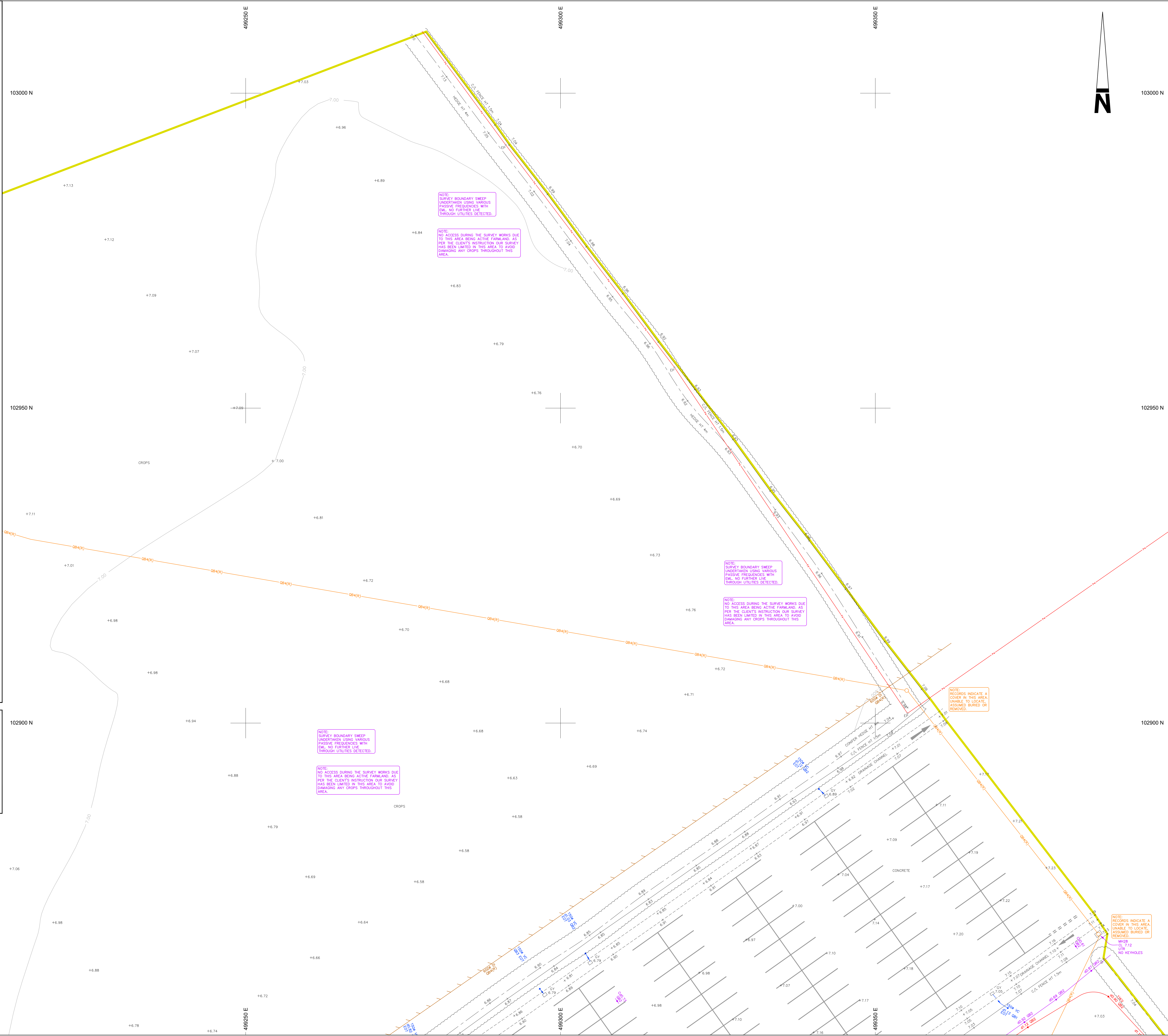
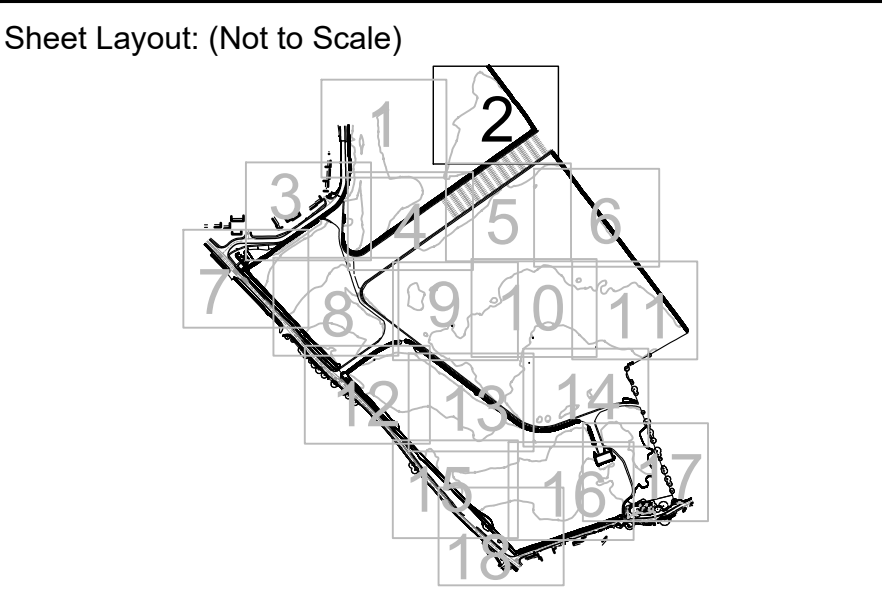
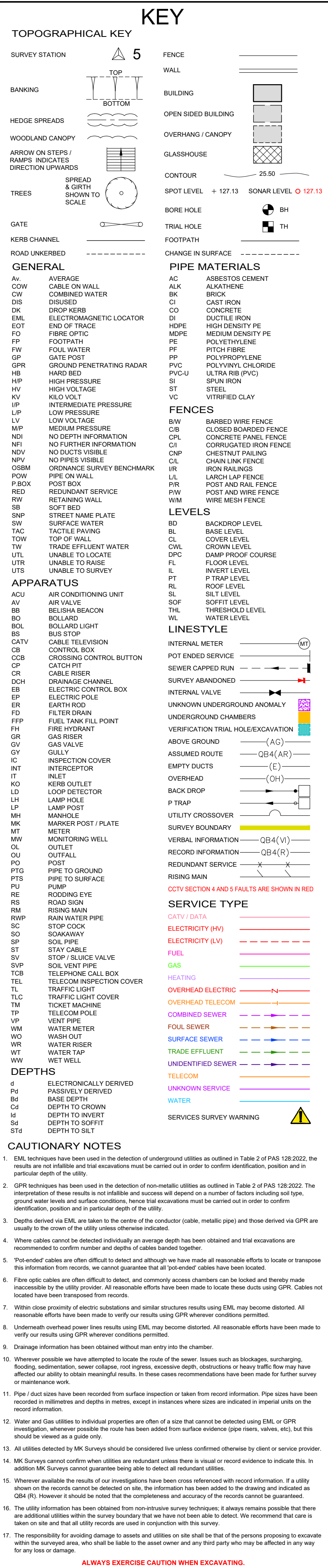




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Notes:

- GRID AND LEVELS BASED ON ORNANCE DATUM, DERIVED FROM THE NATIONAL SPOT HEIGHT NETWORK, LOCAL SCALE FACTOR OF 0.99972
- TREE AND WEDGE SPECIES HAVE BEEN IDENTIFIED AS ACCURATELY AS POSSIBLE BUT SHOULD BE CROSS CHECKED IN CRITICAL AREAS

Coordinate Table

Station	Description	Easting	Northing	Level
S1	ROAD NAIL	489966.248	102757.303	7.043
S2	ROAD NAIL	490019.190	102635.525	6.800
S3	ROAD NAIL	491337.387	102641.787	6.915
S4	ROAD NAIL	492928.593	102467.177	6.800
S5	ROAD NAIL	494512.400	102412.122	6.800
S6	ROAD NAIL	494959.209	102352.979	5.425
S7	ROAD NAIL	495033.386	102252.004	4.472
S8	ROAD NAIL	494922.142	102225.194	4.997
S9	ROAD NAIL	493905.075	102146.450	4.715
S10	ROAD NAIL	492709.723	102147.590	4.535
S11	ROAD NAIL	492566.000	102566.000	6.203
S12	HILTI NAIL	498483.008	102690.723	6.935
S13	ROAD NAIL	498882.139	102724.704	6.789
S14	ROAD NAIL	498293.859	102715.235	7.240
S15	ROAD NAIL	496580.177	102598.252	4.828
S16	ROAD NAIL	499040.855	102823.102	6.584

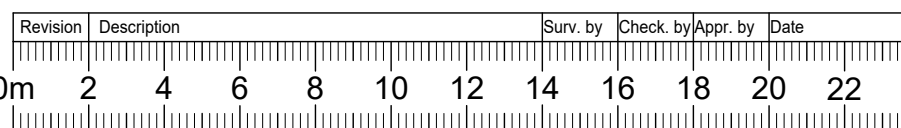
Equipment Information

Equipment	Manufacturer	Model	Serial Number	MSX REF	Date of Calibration
GPS, Topcon Receiver	Topcon	HC6002	1001-05-06-0000	GPSR	14/03/2023
GPS, Hi-Resolution	Spide Robotics	PRD003	1001-05-06-0000	GPSR	14/03/2023
GPSR	OSI Geospatial		1001-05-06-000099	GPSR	Date of survey

[illegible]

PAS 128:2022 Quality Level Guide		
Quality Level	Description	Accuracy
QRA (Q1-Q4)	A utility is expected to exist but cannot be detected. (ARL, PPL, PVL)	Unverified
QRB (Q5-Q8)	A utility is detected only using one geophysical technique	> 90% Horizontal Vertical
QRC (Q9-Q12)	No depth information. NDI	> 90% Horizontal > 90% Vertical
QRD (Q13-Q16)	Horizontal and vertical location only using one geophysical technique	> 90% Horizontal > 90% Vertical
QRE (Q17-Q20)	Horizontal and vertical location only using two geophysical techniques	> 90% Horizontal > 90% Vertical
QRF (Q21-Q24)	Horizontal and vertical location only using three geophysical techniques	> 90% Horizontal > 90% Vertical
QRA (Q25-Q28)	Service verified in an open excavation. Inside an inspection chamber / down pit / at the point the service enters / exits the ground	> 90% Horizontal > 90% Vertical

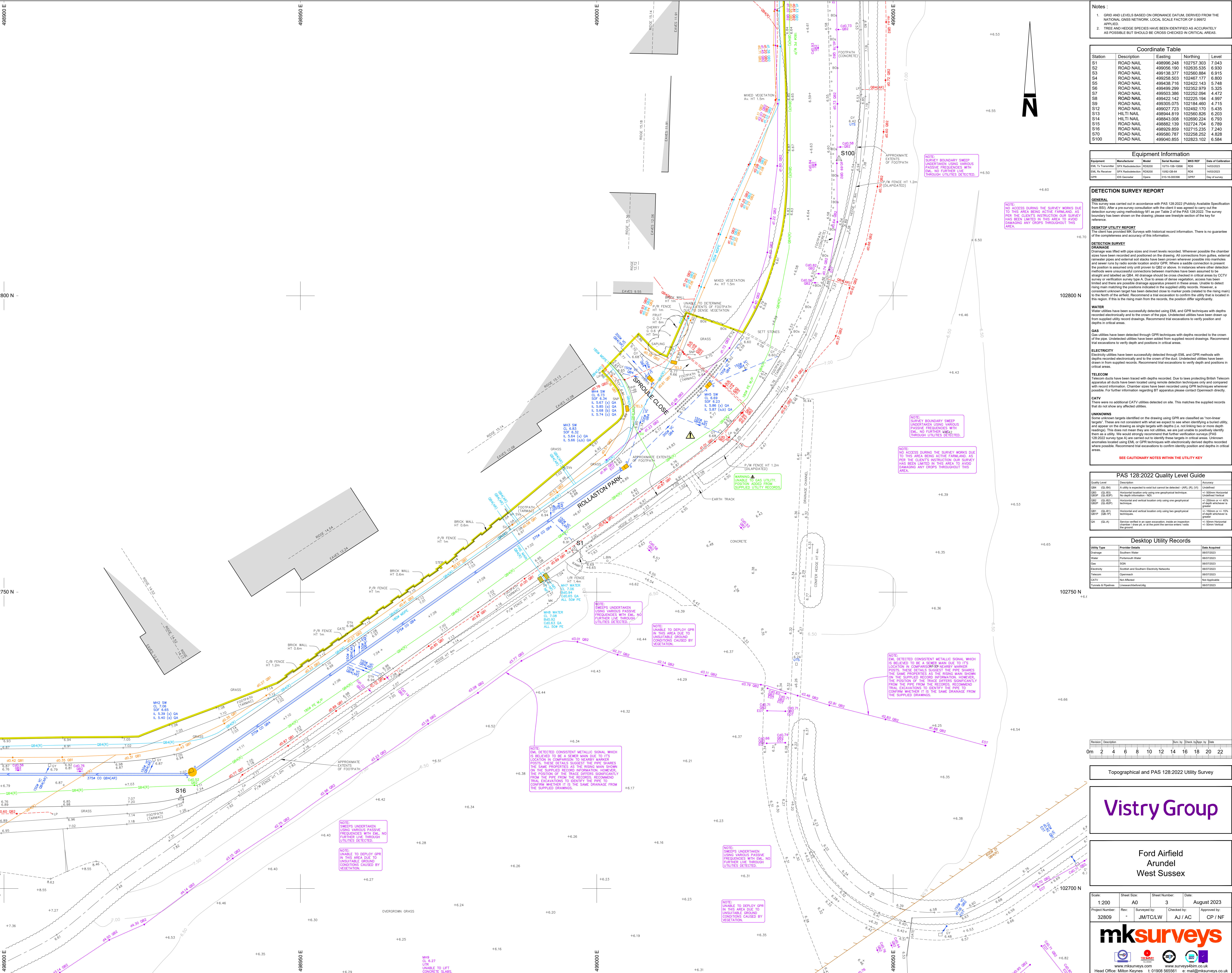
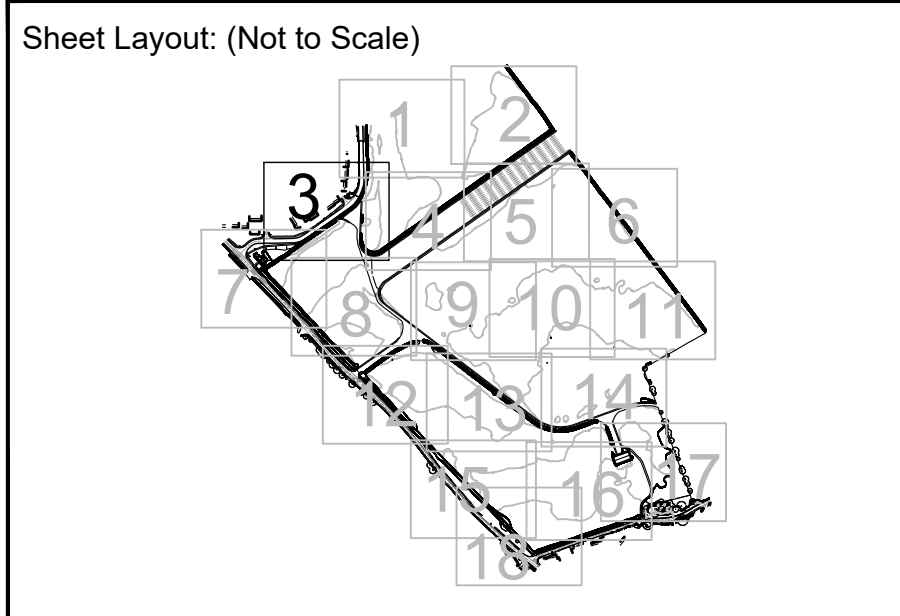
Desktop Utility Records		
Utility Type	Provider Details	Date Acquired
Cableway	Southern Water	06/07/2023
Water	Portsmouth Water	06/07/2023
Gas	SGN	06/07/2023
Electricity	Gridlink and Southern Electricity Networks	06/07/2023
Telecoms	BT	06/07/2023
CATV	N/A Affected	Not Applicable
Turnouts & Pipelines	Lineworkersoftware.co.uk	06/07/2023

Topographical and PAS 128:2022 Utility Survey

Vistry Group

Ford Airfield
Arundel
West Sussex

Scale: 1:200	Sheet Size: A0	Sheet Number: 2	Date: August 2023
Project Number: 32809	Rev: -	Surveyed by: JM/TC/LW	Checked by: AJ / AC
		Approved by: CP / NF	



Station	Description	Eastings	Northings	Level
S1	ROAD NAIL	489986.248	102757.303	7.043
S2	ROAD NAIL	490656.190	102635.535	6.930
S3	ROAD NAIL	490560.881	102560.981	6.815
S4	ROAD NAIL	490258.503	102467.177	6.800
S5	ROAD NAIL	490438.716	102432.543	7.548
S6	ROAD NAIL	490439.299	102392.532	6.325
S7	ROAD NAIL	490252.196	102252.196	6.472
S8	ROAD NAIL	490422.142	102225.194	4.997
S9	ROAD NAIL	490335.075	102184.450	6.715
S10	ROAD NAIL	490432.175	102142.175	6.203
S11	HILTI NAIL	490844.819	102086.819	6.203
S12	HILTI NAIL	490800.248	102090.248	6.793
S13	ROAD NAIL	490882.139	102724.704	6.789
S14	ROAD NAIL	490715.233	102715.233	6.848
S15	ROAD NAIL	490580.787	102558.252	4.828
S170	ROAD NAIL	490400.855	102283.102	6.584

DETECTION SURVEY REPORT

GENERAL

This survey was carried out in accordance with PAS 128:2022 (Publicly Available Specification from BSI). After a pre-survey consultation with the client it was agreed to carry out the detection survey using methodology M1 as per Table 2 of the PAS 128:2022. The survey boundary has been shown on the drawing; please see linestyle section of the key for reference.

DESKTOP UTILITY REPORT
The client has provided MK Surveys with historical record information. There is no guarantee of the completeness and accuracy of this information.

DETECTION SURVEY
DRAINAGE
The area is well served with pipe sizes and invert levels recorded. Wherever possible the chamber sizes have been recorded and positioned on the drawing. All connections from gullies, external rainwater pipes and external soil stacks have been proven wherever possible into manholes and sewer runs by radio noise location and/or GPR. Where a vertical connection is present the position is assumed only until proven by GPR or above. In instances where other detection methods are used, the connections between manholes have been assumed to be straight and labelled as QB4. All drainage should be checked in critical areas by CCTV survey or verification survey type A. Due to areas of dense vegetation, access has been limited and there are possible drainage apparatus present in the area. However, it is not rising manholes the positions indicated in the supplied survey records. Unable to detect any unknown drains or drains detected close to the property (see page 10) rising main to the North of the area. Recommended a trial excavation to confirm the utility that is located in this region. If this is the rising main from the records, the position offered significantly.

WATER
Water utilities have been successfully detected using EML and GPR techniques with depths recorded electronically and to the crown of the pipe. Undetected utilities have been drawn up from supplied utility record drawings. Recommend trial excavations to verify position and depths in critical areas.

GAS
Gas utilities have been detected through GPR techniques with depths recorded to the crown of the pipe. Undetected utilities have been added from supplied record drawings. Recommend trial excavations to verify depth and positions in critical areas.

ELECTRICITY
Electricity utilities have been successfully detected through EML and GPR methods with depths recorded electronically and to the crown of the duct. Undetected utilities have been drawn in from supplied records. Recommend trial excavations to verify depth and positions in critical areas.

TELECOM
Telecom ducts have been traced with depths recorded. Due to laws protecting British Telecom apparatus all ducts have been located using remote detection techniques only and compared with record information. Chamber sizes have been recorded using GPR techniques wherever possible. For further information regarding BT apparatus please contact Openreach directly.

CATV
There were no additional CATV utilities detected on site. This matches the supplied records that do not show any affected utilities.

UNKNOWN
Some unknown targets identified on the drawing using GPR are classified as "non-linear targets". These are not consistent with what we expect to see when identifying a buried utility, and appear on the drawing as single targets with depths (i.e. not linking two or more depth readings). This does not mean they are not utilities, we are just unable to positively identify them as a utility. We would strongly recommend that further verification surveys (PAS

126. 2022 survey type A) are carried out to identify these targets in critical areas. Unknown anomalies located using EML or GPR techniques with electronically derived depths recorded where possible. Recommend trial excavations to confirm identity position and depths in critical areas.

SEE CAUTIONARY NOTES WITHIN THE UTILITY KEY

PAS 128:2022 Quality Level Guide			
Quality Level	Description	Accuracy	
GB4 (GL-B4)	A utility is expected to exist but cannot be detected - (AR), (R), (V)	Undefined	
GB1 (GL-B1)	Horizontal location only using one geophysical technique	±500mm Horizontal ±500mm Vertical	
GB2 (GL-B2)	Horizontal and vertical location only using one geophysical technique	±250mm or 1% - 40% of depth whichever is greater	
GB1 (GL-B1)	Horizontal and vertical location only using two geophysical techniques	±150mm or 1% - 15% of depth whichever is greater	
GA (GL-A)	Service verified in an open excavation, inside an inspection chamber / draw pit, at the point the service enters / exits the ground	±50mm Horizontal ±50mm Vertical	

Desktop Utility Records		
Utility Type	Provider Details	Date Acquired
Drainage	Southern Water	06/07/2023
Water	Pfaffmouth Water	06/07/2023
Gas	SGN	06/07/2023
Electricity	Scottish and Southern Electricity Networks	06/07/2023
Telecom	Openreach	06/07/2023
CATV	Not Affected	Not Applicable
Tunnels & Pipelines	Linesasandford@edg	06/07/2023

