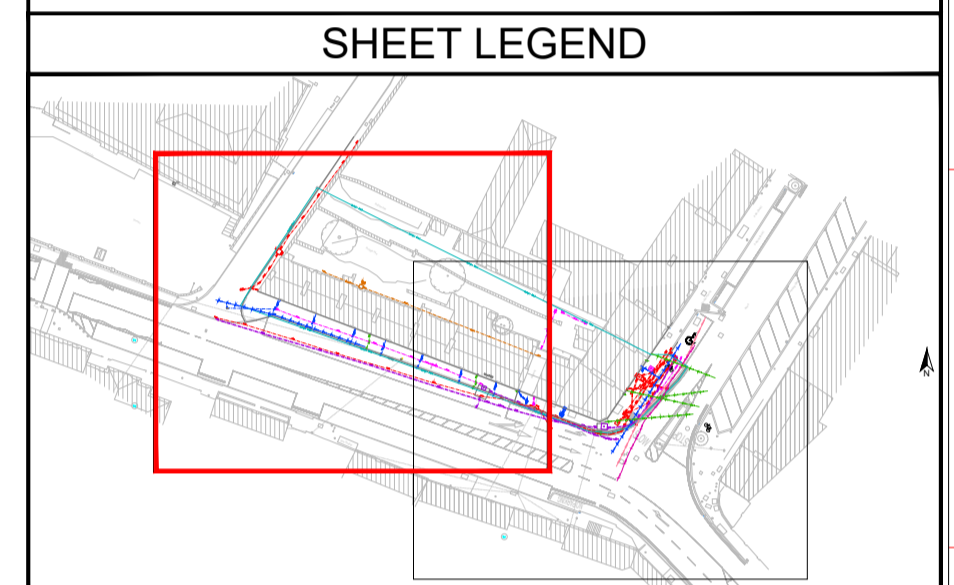


SERVICES LEGEND

UNDERGROUND ELECTRICITY LINE	UNDERGROUND WATER
ELECTRICAL MIDDLE	FOUR SERVICE
OVERHEAD LINE WITH POLE	STORY DRAINAGE
OVERHEAD ELECTRIC	STORY DRAINAGE
OVERHEAD HV ELECTRICITY LINE	COMBINED DRAINAGE
6M HIGH STREET LIGHT	COMBINED DRAINAGE MANHOLE
MINI PILLAR	PRODUCT DRAINAGE
UG ELECTRIC TRAFFIC CONTROL	PRODUCT DRAINAGE MANHOLE
TRAFFIC CONTROL MIDDLE	CHEMICAL LINE
ER	CHEMICAL MANHOLE
ER CHAMBER	ROAD GULLY
OVERHEAD LINE WITH POLE	GULLY TRAP
ENET	WATER MAIN
ENET CHAMBER	SLUICE VALVE
COPRS	FIRE HYDRANT
COPRS CHAMBER	WATER METER
VIRGIN	SCOUR VALVE
VIRGIN CHAMBER	PRESSURE RELEASE VALVE
FIBRE	AIR VALVE
FIBRE CHAMBER	NON RETURN VALVE
AURORA TELECOM	FUEL LINE/TANK
AURORA TELECOM CHAMBER	GAS SV
CATV	GAS LINE
CATV CHAMBER	GAS HP
BT/ESAT	GAS HIGH PRESSURE LINE
BT/ESAT TRIS	GROUND LEVEL (DNMS - IN SATMS)
SMD FIBRE	COVER LEVEL (DNMS - IN SATMS)
SMD CHAMBER	INVERT LEVEL (DNMS - IN SATMS)
UNIDENTIFIED CHAMBER	DEPTH TO TOP OF SERVICE DUCT OR CABLE
UNIDENTIFIED CHAMBER	DP ON MANHOLES - INVERT LEVEL OF CHAMBER
EARTH LINE AND RIDES	DP ON DRAINAGE - INVERT LEVEL OF PIPE
TRAFFIC SENSORS	UTO UNABLE TO OPEN
CCTV POLE	OSA OUTSIDE SURVEY AREA
LITELITES CABINET	UT UNABLE TO TRACE
	SURVEY AREA



Please note that the absence of services on this drawing is not solid proof that these services are not present in the ground. While every method of underground utility locating has been advised to in this survey, some services may be outside the range of the GPR and electro-magnetic locator signal. Poor ground conditions and/or services situated underneath other services can also prove impossible to locate. Due to the fact that not all Utility Services have been provided to Metroscan by the contractor Metroscan cannot be held responsible for any services that have not been identified. The contractor should not assume that all services have been identified and must exercise a duty of care when excavating. Hand-drawn locations are provided to determine exact depth and position of service prior to excavation commencing. Please note that the drawing provided is valid for 60 days from date stated below. Drawing is intended solely for use of the contractor named below.

Accuracy Levels

In ideal conditions the accuracy levels of the EML is +/-5% whilst the GPR outputs accuracy levels of 10% up to 2.5m depth. These accuracy levels can vary depending on ground conditions, depths of services, congestion of services (may cause signal to bleed on to other services). Depths noted on drawings should be taken as indicative and hand / vacuum excavation is advised where exact depth are required. Diameter of services will be given where direct access is available through visual inspection, eg manholes. All Cover level elevations for Manholes / Inspection Chambers will be taken from topographical survey if supplied.

Survey Limitations

Non-conductive services pose a difficult task to identify. Direct buried fibre optic cables are difficult to identify with GPR. They can easily be traced when damped in a conduit by the means of a snake or cobra rod. PE gas mains can also prove difficult to identify.

If Metroscan cannot get an accurate signal from a service, it will be noted on the drawing that the service is 'Taken from records QL:84'. If manholes cannot be opened on site, they will be marked on the drawing as UTO (unable to open). Excluded from the survey unless otherwise stated - Domestic services. Services above ground. Disconnected services where no signal can be obtained.

- ### Notes
- GPR equipment: Detector Duo, DS2000, Stream C, Mala EL Core, scanning frequency 250 and 700 mhz. Depth of investigation 2.5m, self calibrating.
 - Radio detection equipment: Vivax Metrotech VLoc Pro3 / RD7000
 - GPR scanning limited to smooth surfaces only no obstruction. Survey area marked on drawing.
 - All depths stated are an indication of depth. Caution required when excavating.
 - All Utilities are classified QL- B2 unless noted otherwise.

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Survey Type	Quality Level	Location Accuracy		Supporting Data
		horizontal	vertical	
D - Detected utility marked on site	QL-D	Unidentified	Unidentified	A signpost at all key locations is demonstrated by visual reference to street furniture, topographical features or evidence of previous street works.
E - Site reconnaissance	QL-E	Unidentified	Unidentified	All key signpost sites in a location to be excavated but have not been identified. A signpost is therefore placed at all key sites. Horizontal location only of the utility detected by one of the geophysical techniques used.
S - Detection	QL-S1	±10m/±5m 300mm	Unidentified or ±10m depth	Horizontal and vertical location of the utility detected by one of the geophysical techniques used.
	QL-S2	±10m/±5m 200mm	±10m/±5m 40% of the detected depth	
	QL-S3	±10m/±5m 100mm	±10m/±5m 10% of the detected depth	
A - Verification	QL-A	±10m/±5m 50mm	±10m/±5m 10mm	Horizontal and vertical location of the utility detected by multiple geophysical techniques used.

Client : KGSS
Site Address : Dunlow Hill, Ballinasloe, Co. Galway

Drawing Title: MUL1235_KGSS_Ballinasloe
Drwg No: 1

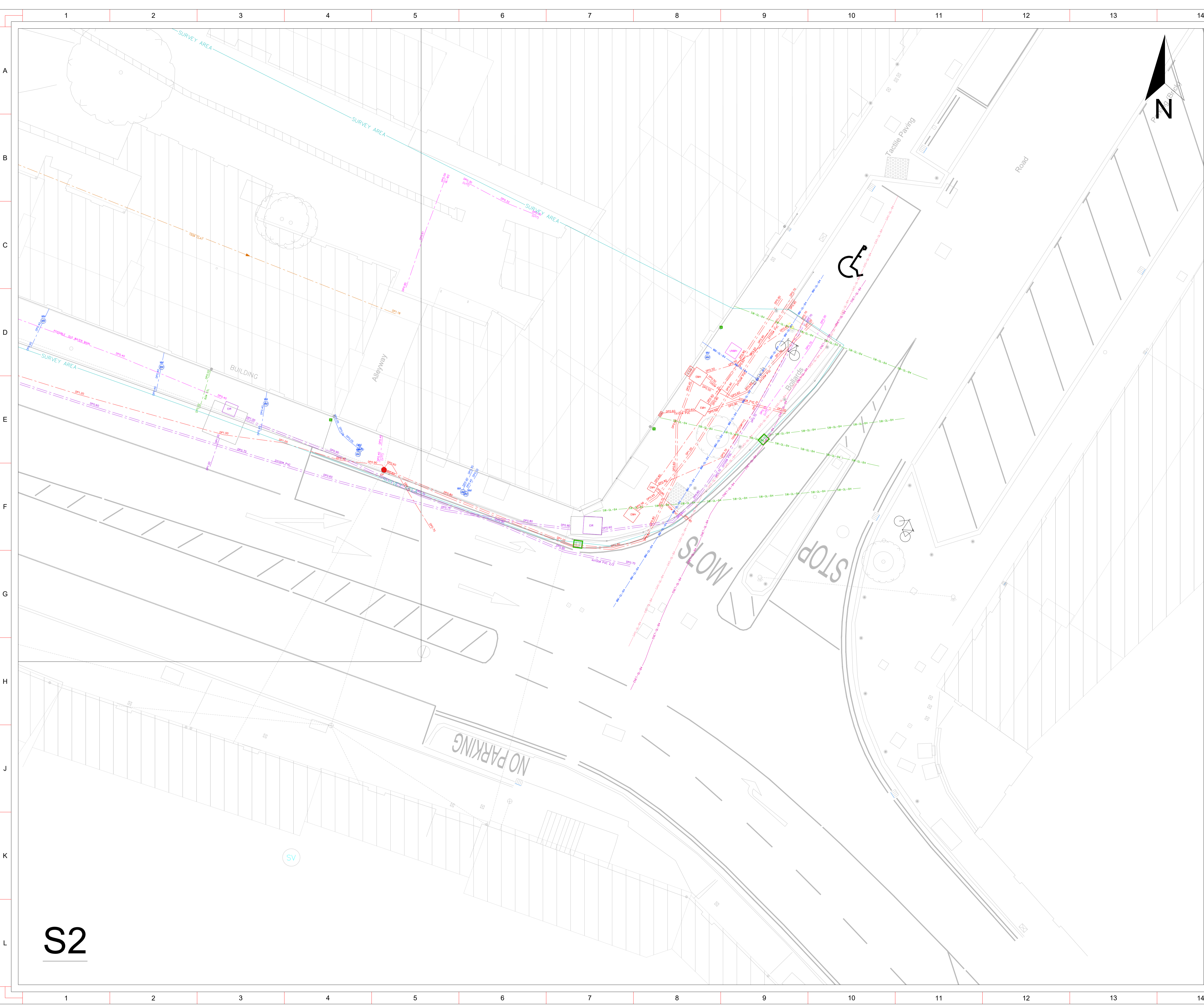
Site Completion Date: 6th October 2022
Sheet No: S1

Scale: 1:100@ A1
Coordinates: ITM
Revision No:



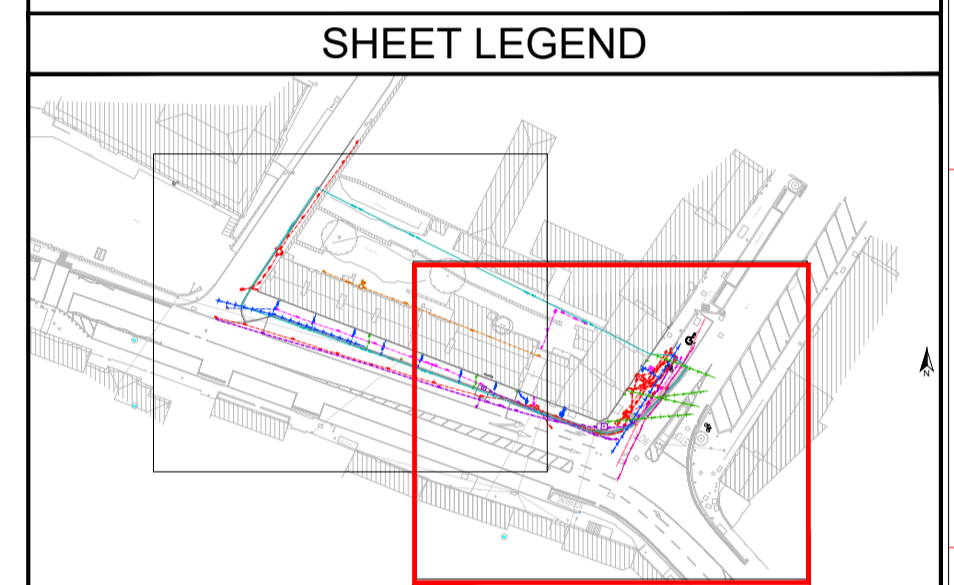
Address: Rathjarney Piercestown Co. Wexford Tel: (086)1935847
Email: Info@metroscan.ie
Website: www.metroscan.ie

S1



SERVICES LEGEND

— UNDERGROUND ELECTRICITY LINE	— UNDERGROUND HYDROPHONIC
— ELECTRICAL MIDDLE	— FLOOR SERVICE
— OVERHEAD LINE WITH POLE	— STOREY DRAINAGE
— OVERHEAD ELECTRIC	— STOREY DRAINAGE
— UNDERGROUND HV ELECTRICITY LINE	— COMBINED DRAINAGE
— 6M HIGH STREET LIGHT	— COMBINED DRAINAGE
— MINI PILLAR	— PRODUCT DRAINAGE
— UG ELECTRIC TRAFFIC CONTROL	— PRODUCT DRAINAGE
— TRAFFIC CONTROL MIDDLE	— CHEMICAL LINE
— EIR	— CHEMICAL MANHOLE
— EIR CHAMBER	— ROAD GULLY
— OVERHEAD LINE WITH POLE	— GULLY TRAP
— ENET	— WATER MAIN
— ENET CHAMBER	— SLUICE VALVE
— COPPS	— FIRE HYDRANT
— COPPS CHAMBER	— WATER METER
— VIRGIN	— SCOUR VALVE
— VIRGIN CHAMBER	— PRESSURE RELEASE VALVE
— FIBRE	— AIR VALVE
— FIBRE CHAMBER	— NON RETURN VALVE
— ALURIA TELECOM	— FUEL LINE/TANK
— ALURIA TELECOM CHAMBER	— GAS SV
— CATV	— GAS LINE
— CATV CHAMBER	— GAS HP
— BT/SAT	— GAS HIGH PRESSURE LINE
— BT/SAT RISER	— GL 00.00 GROUND LEVEL (DNMS - IN SATM)
— BT/SAT CHAMBER	— GL 00.00 COVER LEVEL (DNMS - IN SATM)
— SMO FIBRE	— S. 00.00 INVERT LEVEL (DNMS - IN SATM)
— SMO CHAMBER	— SPESA DEPTH TO TOP OF SERVICE DUCT OR CABLE
— UNIDENTIFIED SERVICE	— DP ON MANHOLES - INVERT LEVEL OF CHAMBER
— UNIDENTIFIED CHAMBER	— DP ON DRAINAGE - INVERT LEVEL OF PIPE
— EARTH LINE AND RIDES	— UTO UNABLE TO OPEN
— TRAFFIC SENSORS	— OSA OUTSIDE SURVEY AREA
— CCTV POLE	— UTT UNABLE TO TRACE
— UTILITIES CABINET	— SURVEYED AREA



Please note that the absence of services on this drawing is not solid proof that these services are not present in the ground. While every method of underground utility locating has been advised to in this survey, some services may be outside the range of the GPR and electro-magnetic locator signal. Poor ground conditions and/or services situated underneath other services can also prove impossible to locate. Due to the fact that not all Utility Services Plans were provided to Metroscan by the contractor Metroscan cannot be held responsible for any services that have not been identified. The contractor should not assume that all services have been identified and must exercise a duty of care when excavating. Hand-drawn excavation is advised to determine exact depth and position of service prior to excavation commencing. Please note that the drawing provided is valid for 60 days from date stated below. Drawing is intended solely for use of the contractor named below.

Accuracy Levels
In ideal conditions the accuracy levels of the EML is +/-5% whilst the GPR outputs accuracy levels of 10% up to 2.5m depth. These accuracy levels can vary depending on ground conditions, depths of services, congestion of services (may cause signal to bleed on to other services).
Depths noted on drawings should be taken as indicative and hand-drawn excavation is advised where exact depth are required. Diameter of services will be given where direct access is available through visual inspection, e.g. manholes.
All Cover level elevations for Manholes / Inspection Chambers will be taken from topographical survey if supplied.

Survey Limitations
Non-conductive services pose a difficult task to identify. Direct buried fibre optic cables are difficult to identify with GPR. They can easily be traced when placed in a conduit by the means of a snake or cobra rod.
PE gas mains can also prove difficult to identify.

If Metroscan cannot get an accurate signal from a service, it will be noted on the drawing that the service is 'Taken from records Q1:04'.
If manholes cannot be opened on site, they will be marked on the drawing as UTO (unable to open).
Excluded from the survey unless otherwise stated:
Domestic services. Services above ground. Disconnected services where no signal can be obtained.

- ### Notes
- GPR equipment:
Detector Duo, DS2000,
Stream C, Mala EL Core
scanning frequency 250 and 700 mhz
Depth of investigation 2.5m, self calibrating.
 - Radio detection equipment:
Vivax Metrotech VLoc Pro3 / RD7000
 - GPR scanning limited to smooth surfaces only no obstruction.
Survey area marked on drawing
 - All depths stated are an indication of depth
caution required when excavating.
 - All Utilities are classified QL- B2 unless noted otherwise.

PAS 128

Survey Type	Quality Level	Location Accuracy		Supporting Data
		horizontal	vertical	
D. Detailed utility record	QL-D	Undefined	Undefined	A signpost at all key survey locations is demonstrated by visual reference to street furniture, topographical features or evidence of previous street works.
E. Site reconnaissance	QL-E	Undefined	Undefined	All in-situ signposts which in a previous event had not been identified are a benefit of this service as well as the geophysical techniques used.
S. Detection	QL-S1	±10m/±5m 300mm	Undefined (to 1m depth)	Horizontal and vertical location of the utility detected by one of the geophysical techniques used.
	QL-S2	±10m/±5m 200mm	±10m/±5m 40% of the detected depth	Horizontal and vertical location of the utility detected by one of the geophysical techniques used.
	QL-S3	±10m/±5m 150mm	±10m/±5m 10% of the detected depth	Horizontal and vertical location of the utility detected by multiple geophysical techniques used.
A. Verification	QL-A	±10m/±5m 50mm	±10m/±5m 10mm	Horizontal and vertical location of the top and/or bottom of the utility through direct access to the trench.

Client : KGSS
Site Address : Dunlow Hill
 Ballinasloe, Co. Galway

Drawing Title: MUL1235_KGSS_Ballinasloe
Drwg No: 1

Site Completion Date: 6th October 2022
Sheet No: S2

Scale: 1:100@ A1
Coordinates: ITM
Revision No:

METROSCAN
 UTILITY LOCATING

Address: Rathjarney Piercestown Co. Wexford Tel: (086)1935847
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S2