



**LEGEND**

**UTILITY LINTYPES**

BT	Gas	G
CATV	Heating Pipes	HP
CCTV	High Voltage	HV
C	Multiple Services Route	MSR
Drainage	Drainage	DR
Drainage - Combined Water	Oxygen	OXY
Drainage - Fuel Water	Street Lighting	SL
Drainage - Storm Water	Traffic Signal Loop	TSL
Empty Duct	Unknown	U
Electric	Unknown Cable	UC
Fire Hydrant Man	Unknown Pipeline	UP
Fire Outlet	Water	W
Fuel		
Assumed Service Route - See GENERAL NOTES (Using abbreviation of service and colour as above)		

**UTILITY SURVEY INFORMATION**

Located by Ground Penetrating Radar	GPR	Unable to Survey	UTS
Area of Concern	AOC	Unable to Lift (error)	UTL
Contracted Survey Area	CSA	Unable to Trace	HTD
Previous Survey Area	PSA	Unable to Trace (due to blockage)	HTB
Depth to Top of Service (metres)	(0.800)	Unable to Trace Further	HTA
		End of Trace	HTU

**ABBREVIATIONS used on a PAS 128 Survey**  
0.65d = Depth in metres, 82 = Quality Level, P = Post processed GPR

**TOPOGRAPHIC & UTILITY DETAILS**

Barrier (symbol - sized)	Post (symbol)	PO
Beeline Beacon (symbol)	Rain Water Pipe (symbol)	RWP
Bollard (symbol)	Road Sign (symbol)	RS
Borehole (symbol)	Rodding Line (symbol)	RL
British Telecoms IC	Sagging (symbol)	SA
Building (incomplete detail)	Sign Post (symbol)	SP
Cable into Ground (symbol)	Soak Away	SA
Cable TV Box (symbol)	Spot Light (symbol)	SL
CCTV Camera	Spot Height	SH
Cover Level in metres	Stop Cock (symbol)	SC
Direction of Flow (Drainage)	Survey Station (symbol)	SS
Distribution board (symbol)	Telephone Pole (symbol)	TP
Earth Road (symbol)	Telephone Box (symbol)	TB
Electric Cabinet	Traffic Bollard (symbol)	TB
Electric Flow (symbol)	Tree (dimensions in metres - e.g.)	TE
Electric Sign (symbol)	Decorative at 1m (Box)	DB
Enlightenment	Decorative at 1m (Box)	DB
Feeder Pipe	Decorative at 1m (Box)	DB
Fire Hydrant	Decorative at 1m (Box)	DB
Flag Pole (symbol)	Decorative at 1m (Box)	DB
Fuel Roof Level in metres	Decorative at 1m (Box)	DB
Flood Light (symbol)	Decorative at 1m (Box)	DB
Gas Valve (symbol)	Decorative at 1m (Box)	DB
Gate	Decorative at 1m (Box)	DB
Ground Level in metres	Decorative at 1m (Box)	DB
Gully	Decorative at 1m (Box)	DB
Inspection Cover	Decorative at 1m (Box)	DB
Invert Level in metres	Decorative at 1m (Box)	DB
Junction Box - BT	Decorative at 1m (Box)	DB
Junction Box - Comms	Decorative at 1m (Box)	DB
Junction Box - Elec	Decorative at 1m (Box)	DB
Light Bollard (symbol)	Decorative at 1m (Box)	DB
Lamp Post (symbol - sized)	Decorative at 1m (Box)	DB
Light in ground (symbol)	Decorative at 1m (Box)	DB
Manhole	Decorative at 1m (Box)	DB
Manhole Capped Port	Decorative at 1m (Box)	DB
Manhole Level in metres	Decorative at 1m (Box)	DB
Pipe Diameter in millimetres	Decorative at 1m (Box)	DB
Pipe into Ground (symbol)	Decorative at 1m (Box)	DB

**GENERAL NOTES**

Utilities may continue outside of the survey area. Any paint marks outside of the area are for investigative purposes only and may not represent the full extent of the sub-surface utilities.

Only sub-surface utility information is provided. Above ground utility information may be shown where it assists with positional referencing.

Where logic indicates a utility exists but which cannot be positively confirmed with the technology, an assumed route (ASR) is recorded. All Assumed Service Routes (ASR) have been highlighted with a background yellow colour for visual enhancement.

SUMO does not procure statutory or private source utility information as part of its detection service nor does it record any such information in a utility survey unless otherwise noted. Statutory plans should be consulted to supplement this survey.

**Vertical & Horizontal Position** - Vertical position (depth) is indicative to the top of the utility/feature and is recorded as DTS (depth to top of service) and should not be taken as exact. Where depth information from the technology is unclear, depth is not shown. Drains may have been detected using threading and the depth indicated could be between the top and the bottom of the drain. Horizontal position is indicative to the centre of the utility/feature and should not be taken as exact.

**Warranty** - Biodegradable paints are used to mark-out the position of the utilities. Before long paint markings may become illegible depending on ground, weather and traffic conditions. No warranty is given in respect of the durability of the paint markings and that they are a complete representation of the sub-surface utilities therefore this drawing should be used as the primary reference for the survey results.

This drawing does not provide an absolute representation of the sub-surface. Utilities have been detected using non-invasive technologies only and the performance can be adversely affected by ground, weather and site conditions outside of SUMO's control therefore some utilities may be undetectable. While SUMO uses reasonable endeavours to detect all utilities it does not warrant that 100% detection will be achieved and that approximate depth penetration of the technologies will be greater than two metres.

Sewer and manhole details shown on this drawing have been obtained by observation and measurement from the surface and as such cannot be guaranteed. Where precise sewer details will be critical to the project design Sumo would recommend that entry into the chamber be undertaken using a specialist team, appropriately qualified for confined space entry. These teams can be supplied on request.

Irrespective of the information provided by a utility survey and statutory plans, excavation work should be undertaken with extreme caution and in accordance with HSE Guidelines - HSG47 Avoiding Danger from Underground Services

**SHEET LAYOUT**

Rev	Notes	Drawn	Date
Notes:			
Survey is referenced to OS Grid and Level Datum.			

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TEL: 0845 456 1104  
FAX: 0845 456 0053  
www.sumoservices.com

Title: Utility Mapping & Topographical Survey

Client: 3DMSI Ltd

Project: Liskeard Cattle Market, Fairpark Road, Liskeard

Date Completed:	09/09/2019	Post Code:	PL14 4BA
Surveyed:	SJ	Scale:	1/200 (A1 Sheet)
Drawn:	DM		
Checked:			
Job No:	SOR015988	Dwg No:	01
		Rev:	





UTILITY LINETYPES

British Telecom  
Cable Television  
Closed Circuit Television  
Communications  
Drainage - Combined Water  
Drainage - Fuel Water  
Drainage - Storm Water  
Empty Duct  
Electric  
Fire Hydrant Man  
Fire Outlet  
Fuel  
Assumed Service Route - See GENERAL NOTES  
(Using abbreviation of service and colour as above)

BT  
CATV  
CCTV  
C  
CW  
FW  
SW  
ED  
E  
FH  
FO  
FUE

Gas  
Heating Pipes  
HV Cables  
Multiple Services Route  
Oxygen  
Street Lighting  
Traffic Signal Loop  
Unknown  
Unknown Cable  
Unknown Pipeline  
Water

G  
HP  
HW  
MSR  
O  
SL  
TS  
U  
UC  
UP  
W

UTILITY SURVEY INFORMATION

Located by Ground Penetrating Radar  
Area of Concern  
Contracted Survey Area  
Previous Survey Area  
Depth to Top of Service (metres)

GPR  
AOC  
Untraceable  
Untraceable  
(0.800)

Unable to Survey  
Unable to LIFT (error)  
Unable to Trace  
Unable to Trace (due to blockage)  
Unable to Trace Further  
End of Trace

ABBREVIATIONS used on a PAS 128 Survey  
(0.85d 82P) 0.65d + Depth in metres, 82 + Quality Level, P + Post processed GPR

TOPOGRAPHIC & UTILITY DETAILS

Barrier (symbol - sized)  
Beacon (symbol)  
Bollard (symbol)  
Borehole (symbol)  
British Telecom IC  
Building (incomplete detail)  
Cable TV Box (symbol)  
CCTV Camera  
Cover Level in metres  
Direction of Flow (Drainage)  
Distribution board (symbol)  
Earth-Rod (symbol)  
Electric Cabinet  
Electric Flow (symbol)  
Electric Sign (symbol)  
Enbankment  
Feeder Pipe  
Fire Hydrant  
Flag Pole (symbol)  
Flat Roof Level in metres  
Flood Light (symbol)  
Gas Valve (symbol)  
Gate  
Ground Level in metres  
Gully  
Inspection Cover  
Invert Level in metres  
Junction Box - BT  
Junction Box - Comms  
Junction Box - Elec  
Lamp Post (symbol - sized)  
Light Reflector (symbol)  
Light in ground (symbol)  
Manhole  
Manhole Capped Port  
Parapet Level in metres  
Pipe Diameter in millimetres  
Pipe into Ground (symbol)

Post (symbol)  
Rain Water Pipe (symbol)  
Road Sign (symbol)  
Roding Line (symbol)  
Sagging (symbol)  
Sign Post (symbol)  
Sole Away  
Spot Light (symbol)  
Spot Height  
Stop Cook (symbol)  
Stop Valve (symbol)  
Survey Station (symbol)  
Telephone Pole (symbol)  
Telephone Box (symbol)  
Traffic Bollard (symbol)  
Tree (dimensions in metres - e.g.)  
Diameter at 1m (d1)  
Diameter at 0.5m (d2)  
Diameter at 0.25m (d3)  
Traffic Light (symbol)  
Unknown Valve (symbol)  
Vent Pipe (symbol)  
Wall  
Waste Pipe (symbol)  
Water Meter (symbol)  
Water Valve (symbol)

oPO  
oP  
oRS  
oRE  
oSP  
oSA  
oSL  
oTS  
oU  
oUC  
oUP  
oW

GENERAL NOTES

Utilities may continue outside of the survey area. Any paint marks outside of the area are for investigative purposes only and may not represent the full extent of the sub-surface utilities.  
Only sub-surface utility information is provided. Above ground utility information may be shown where it assists with positional referencing.  
Where logic indicates a utility exists but which cannot be positively confirmed with the technology, an assumed route (ASR) is recorded. All Assumed Service Routes (ASR) have been highlighted with a background yellow colour for visual enhancement.  
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Sheet Layout

Sheet 01  
Sheet 02  
Sheet 03  
Sheet 04

Rev

Notes

Drawn

Date

Notes:

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Date Completed:

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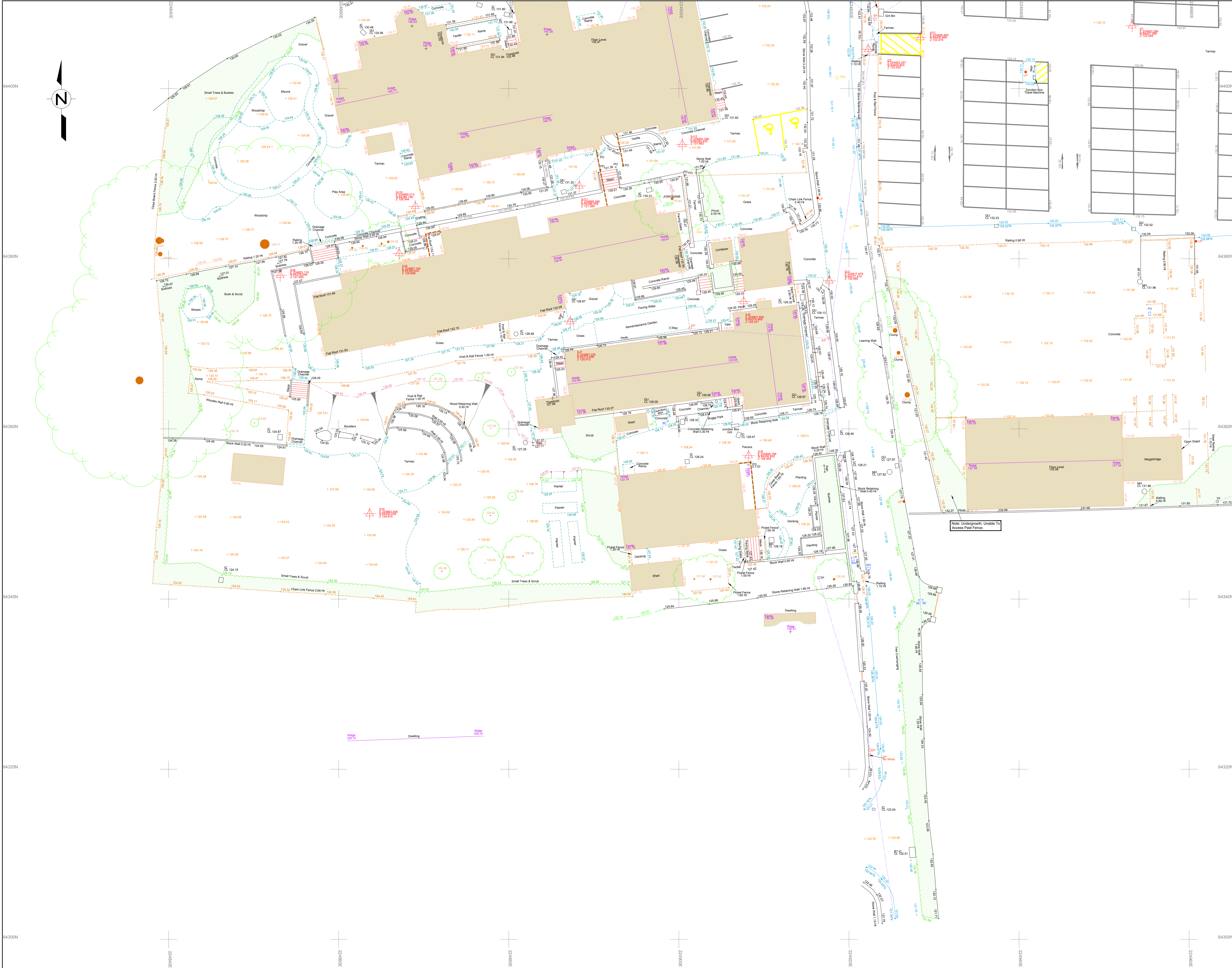
SOR015988

Dwg No:

02

Rev:





UTILITY LINTYPES

British Telecom  
Cable Television  
Closed Circuit Television  
Communications  
Drainage - Combined Water  
Drainage - Fuel Water  
Drainage - Storm Water  
Empty Duct  
Electric  
Fire Hydrant Man  
Fire Casing  
Fuel  
Assumed Service Route - See GENERAL NOTES  
(Using abbreviation of service and colour as above)

LEGEND

Gas  
Heating Pipes  
HV Cables  
Multiple Services Route  
Street Lighting  
Traffic Signal Loop  
Unknown Cable  
Unknown Pipeline  
Water  
ASR - XXXX - ASR - XXXX

UTILITY SURVEY INFORMATION

Located by Ground Penetrating Radar  
Area of Concern  
Contracted Survey Area  
Previous Survey Area  
Depth to Top of Service (metres)

GP  
Unable to Survey  
Unable to Lift (error)  
Unable to Trace  
Unable to Trace Further (to blockage)  
Unable to Trace Further  
End of Trace

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TOPOGRAPHIC & UTILITY DETAILS

Barrier (symbol - sized)  
Bottle Station (symbol)  
Bollard (symbol)  
Borehole (symbol)  
British Telecoms IC  
Building (incomplete detail)  
Cable TV Box (symbol)  
CCTV Camera  
Cover Level in metres  
Direction of Flow (Drainage)  
Distribution Board (symbol)  
Earth Rod (symbol)  
Electric Cabinet  
Electric Flow (symbol)  
Electric Sign (symbol)  
Enlightenment  
Feeder Pipe  
Fire Hydrant  
Flag Pole (symbol)  
Flat Roof Level in metres  
Flood Light (symbol)  
Gate  
Ground Level in metres  
Guyley  
Inspection Cover  
Invert Level in metres  
Junction Box - BT  
Junction Box - Comms  
Junction Box - Elec  
Lamp Post (symbol - sized)  
Light (symbol - sized)  
Light in ground (symbol)  
Manhole  
Manhole Capped Port  
Parapet Level in metres  
Pipe Diameter in millimetres  
Pipe into Ground (symbol)

Post (symbol)  
Rain Water Pipe (symbol)  
Road Sign (symbol)  
Roofing (symbol)  
Sagging (symbol)  
Sign Post (symbol)  
Soak Away  
Spot Light (symbol)  
Spot Height  
Skip Valve (symbol)  
Survey Station (symbol)  
Telephone Pole (symbol)  
Telephone Box (symbol)  
Traffic Bollard (symbol)  
Tree (dimensions in metres - e.g.)  
Trench  
Trench at 1m (size)  
Trench  
Traffic Light (symbol)  
Traffic Light  
FRL 50.00  
Vent Pipe (symbol)  
Vent Pipe (symbol)  
Waste Pipe (symbol)  
Water Meter (symbol)  
Water Valve (symbol)  
Building Canopy  
Crash Barrier  
Drainage Channel  
Drop Kerb (level in metres)  
Edge Detail (level in metres)  
Footpath (level in metres)  
Fence  
Horse Fence  
Kerb channel (level in metres)  
Kerb top (level in metres)  
Overhead Service Line  
Pedestrian Railing

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