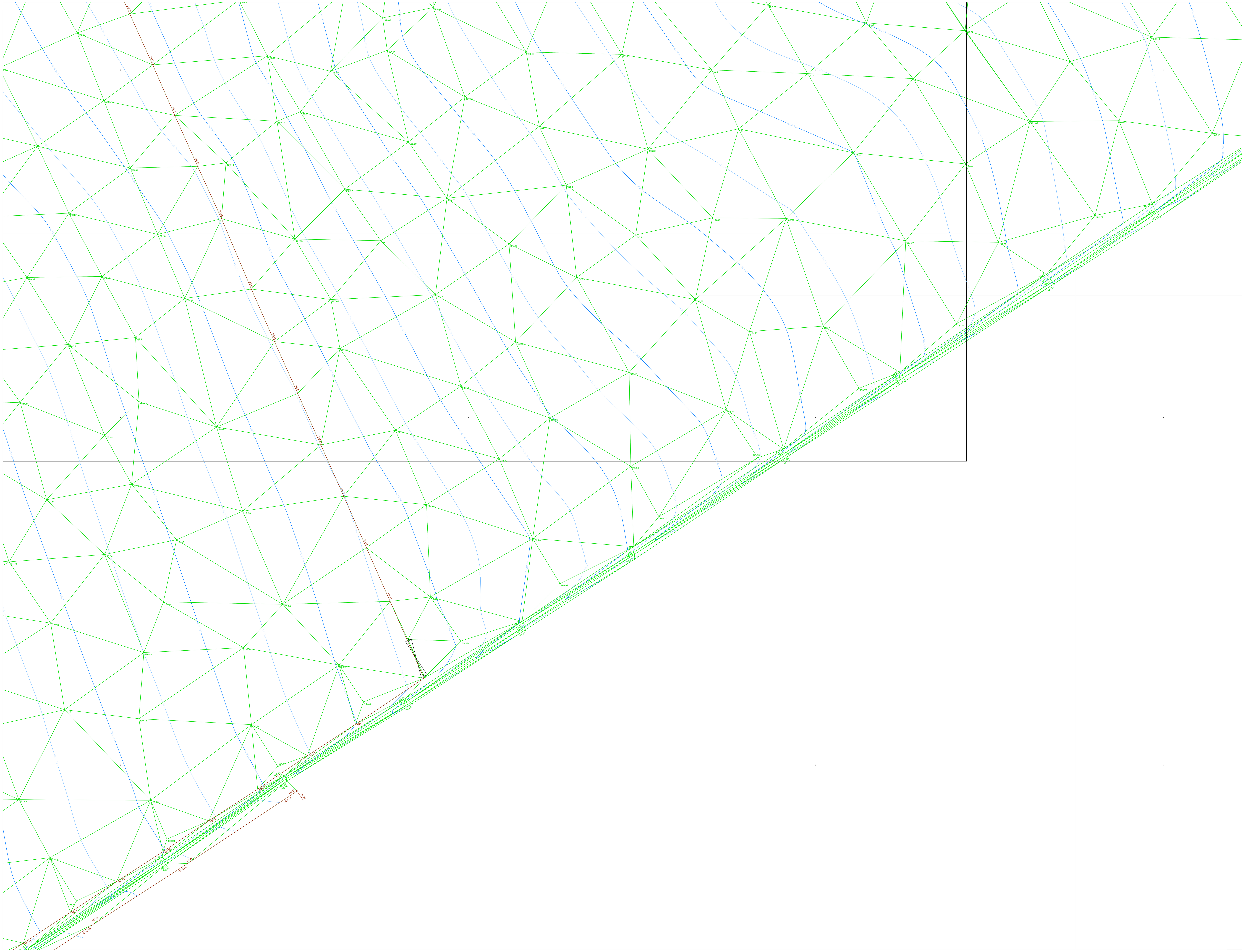

Notes:

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Survey carried out to client specification and in accordance with RICS publication:
SURVEYS OF LAND , BUILDING & UTILITY SERVICES AT SCALES 1:500 & LARGER, 3rd EDITION.

Utility Services Location Note:

This survey has been carried out using a combination of observation and detection using electrolocation and ground probing radar equipment. Connections between reference points such as manholes are assumed to be straight unless bends are indicated. The accuracy is limited to the tolerances normally expected from the equipment used.

The following indications of completeness and accuracy are for guidance only:

In areas where there is a large concentration of services, the completeness will be between 80% and 90%. This will be reduced where there are obstructions at ground level.

Positional accuracy will vary with depth and pipe / duct material; an accuracy of +/- 150 mm is achievable in normal circumstances but this will be reduced for plastic pipes.

Existing information from historical plans is likely to be unreliable and is shown for guidance only.

Excavations in the area should be carried out with care and in accordance with HSG 47. No absolute guarantee of accuracy should be inferred from these plans.

The following text is an extract from Surveys of Land, Buildings and Utility Surveys at scales of 1:500 and Larger, 3rd Edition

"Electronic tracing is a reliable, method of locating buried services. ***On Heavy, built up sites 85% completeness is probably all that can be expected.*** *Plan accuracies of +/- 150mm may be achieved but this figure will depend on the depth of the service below ground level.* ***Where similar services run in close proximity, separation may be impossible. Successful tracing of non-metallic pipes may be limited.*** *Existing record information showing underground services is often incomplete and of doubtful accuracy. It should be regarded only as an indication and cannot be guaranteed"*

Standard Abbreviations

ACO	LINEAR DRAINAGE CHANNEL	GIS	GAS INLET POINT	RWP	RAN WATER PIPE
AV	AIR VALVE	GP	GUIDE POST	Sap	SAPLING
A/R	ASSUMED ROUTE	GPR	GROUND PROBING RADAR	SB	SIGN BOARD
BB	BELISH BEACON	Grl	GRILLE COVER	Shlt	SHELTER
BdL	BED LEVEL	GV	GAS VALVE COVER	Si	SPUN IRON
BH	BOREHOLE	Hrl	HAND RAIL	SL	SOFFIT LEVEL
Bol	BOLLARD	IC	INSPECTION COVER	Slt	SILT LEVEL
BP	BOUNDARY POST	IL	INVERT LEVEL	SMP	SETTLEMENT MONITORING Pnt
B Pvg	BLOCK PAVING	I/R	IRON RAILING FENCE	SP	SIGN POST
BRck	BICYCLE RACK	KO	KERB OUTLET	SPt	SAMPLING POINT
BS	BUS STOP	Lby	LIFEBUOY	SS	STRUCTURE POINT
BT	BRITISH TELECOM COVER	Lck	LOCK GATE	ST	STAND PIPE / SUPPLY TAP
BW	BRICK WALL	Ldr	LADDER	Sti	STILE
BWF	BARBED WIRE FENCE	LOR	LOSS OF REFLECTION (gpr)	STL	STRUCTURE TOP LEVEL
CAP	CABLE WINDING MACHINE	LOS	LOSS OF SIGNAL (eml)	Stone Pvg	STONE PAVING SLABS
Cat	CATENARY LEVEL	LP	LAMP POST	STP	STAND PIPE
CATV	CABLE TV COVER	Mcy	MACHINERY	StPO	STAY POST
CB	CONTROL BOX	MH	MANHOLE	Stu	STUMP
C/B	CLOSE BOARDED FENCE	MgP	MOORING POST	StW	STAYWIRE
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Cgd	CATTLE GRID	MP	MILE POST	SW	STONE WALL
Ci	CAST IRON	MS	MILESTONE	Tac	TACTILE PAVING
CIP	CABLE INLET POINT	MU	ELECTRIC MOTOR	TBM	TEMPORARY BENCH MARK
CL	COVER LEVEL	NVP	NO VISIBLE PIPE	TBol	BOLLARD (Dept' Transport)
C/L	CHAIN LINK FENCE	NP	NAME PLATE	TCB	TELEPHONE CALL BOX
Col	COLUMN	OSA	OUTSIDE SURVEY AREA	TCP	TELEPHONE CALL POST
Conc	CONCRETE	OSBM	OS BENCH MARK	TEL	TELECOM COVER
Conc Pvg	CONCRETE PAVING	OGC	OVERGROUND CONDUIT	ThL	THRESHOLD LEVEL
CP	CATCHPIT	OHca	OVERHEAD CABLE Unidentified	TL	TRAFFIC SIGNAL POST
CpL	COPING LEVEL	OHC	OVERHEAD CONDUIT	TM	TICKET MACHINE
Cpsn	CAPSTAN	OHE	OVERHEAD ELECTRIC	ToV	TOP OF VALVE LEVEL
CR	CRANE / HOIST	OHG	OVERHEAD GANTRY	TP	TELEGRAPH POLE
Cul	CULVERT	OHStruct	OVERHEAD STRUCTURE	Tpt	TRIAL PIT
CW	CONCRETE WALL	OHT	OVERHEAD TELECOMS	Tr	TROUGH
Di	DUCTILE IRON	P	POST	UTA	UNABLE TO ACCESS
(dilap)	DILAPIDATED	PB	POST BOX	UTL	UNABLE TO LOCATE
(dis)	DISUSED	PC	SECURITY CAMERA	UTR	UNABLE TO RAISE
DPC	DAMP PROOF COURSE	Pcg	PEDESTRIAN CROSSING	UTS	UNABLE TO SURVEY
DS	DIRECTION SIGN	PD	PIT DEPTH	UTT	UNABLE TO TRACE (utilities)
DSW	DRYSTONE WALL	P/F	PANEL FENCE	VC	VITRIFIED CLAY
EIC	ELECTRICITY COVER	PP	PETROL PUMP	VDP	VEHICLE DETECTION PAD
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FS	FLAG STAFF	RSP	RAILWAY SIGNAL POST		
G	GULLY	RW	RETAINING WALL		

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BT	BRITISH TELECOM	HW	HOT WATER
BT(r)	TAKEN FROM RECORDS	HW(r)	TAKEN FROM RECORDS
CTV	CATV CABLE	O/F	OPTIC FIBRE
CTV(r)	TAKEN FROM RECORDS	O/F(r)	TAKEN FROM RECORDS
CTV	CCTV CABLE	OIL	OIL PIPELINE
CTV(r)	TAKEN FROM RECORDS	OIL(r)	TAKEN FROM RECORDS
CW	COMBINED WATER	PWR	POWER FEATURE
CW(r)	TAKEN FROM RECORDS	SW	SURFACE WATER
DUC	EMPTY DUCT	SW(r)	TAKEN FROM RECORDS
DUC(r)	TAKEN FROM RECORDS	T	TELECOMMUNICATION CABLE
EA	EARTHING FEATURE	T(r)	TAKEN FROM RECORDS
EA(r)	TAKEN FROM RECORDS	TLM	TELEMETRY CABLE
E	ELECTRIC CABLE	TRA	TRAFFIC SIGNALS
E(r)	TAKEN FROM RECORDS	TRA(r)	TAKEN FROM RECORDS
FL	FUEL LINE	UK	UNKNOWN SERVICE
FL(r)	TAKEN FROM RECORDS	UK(r)	TAKEN FROM RECORDS
FW	FOUL WATER	VNT	VENT
FW(r)	TAKEN FROM RECORDS	VNT(r)	TAKEN FROM RECORDS
GAS	GAS	W	WATER
GAS(r)	TAKEN FROM RECORDS	W(r)	TAKEN FROM RECORDS
GPR	GPR FEATURE	11kV	11KV HV ELECTRIC
GPR(r)	TAKEN FROM RECORDS	11kV(r)	TAKEN FROM RECORDS
Helium	HELIUM FEATURE	REF:GPR02	REFERENCE TO GPR DATA IN REPORT
Helium(r)	TAKEN FROM RECORDS		

PAS 128 Quality Levels:

SURVEY TYPE, QUALITY LEVELS AND ACCURACY	SUPPORTING DATA
VERIFICATION: QL-A: HORIZONTAL ± 50MM VERTICAL ± 25MM	HORIZONTAL & VERTICAL LOCATION OF THE TOP AND/OR BOTTOM OF THE ITEM.
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SITE RECONNAISSANCE: QL-C	---
DESKTOP: QL-D	---

NOTES: HORIZONTAL/VERTICAL VARIABLES BASED ON DETECTED LOCATION OF UTILITY
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Sheet Layouts

N

Grid:
National Grid
By GPS Observations
To The OS Active Network
OSTN15

Datum:
Ordnance Datum
By GPS Observations
To The OS Active Network
OSGM15

Revision:	Amendments:	Date:	Name:
-	-	-	-
-	-	-	-
B	ADDITIONAL AREA	April 23	EP
A	ORIGINAL ISSUE	Aug 21	KM

MAKING COMPLEX EASY

THE SURVEY ASSOCIATION AFFILIATE MEMBER

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Red Deer House, Dunston Business Village, Stafford Road, Dunston, Staffordshire, ST18 9AB

CLIENT:
Matt Davis
Project Manager
Noriker Power

PROJECT:
Blackhillock
Flexpower Ltd

TITLE:
Topographic Survey

Drawn: EP	Checked: JS
Date: April 2023	Scale: 1:200 @ A0
Drg No: UAT3230_A	Sheet: 1 of 9

MAKING
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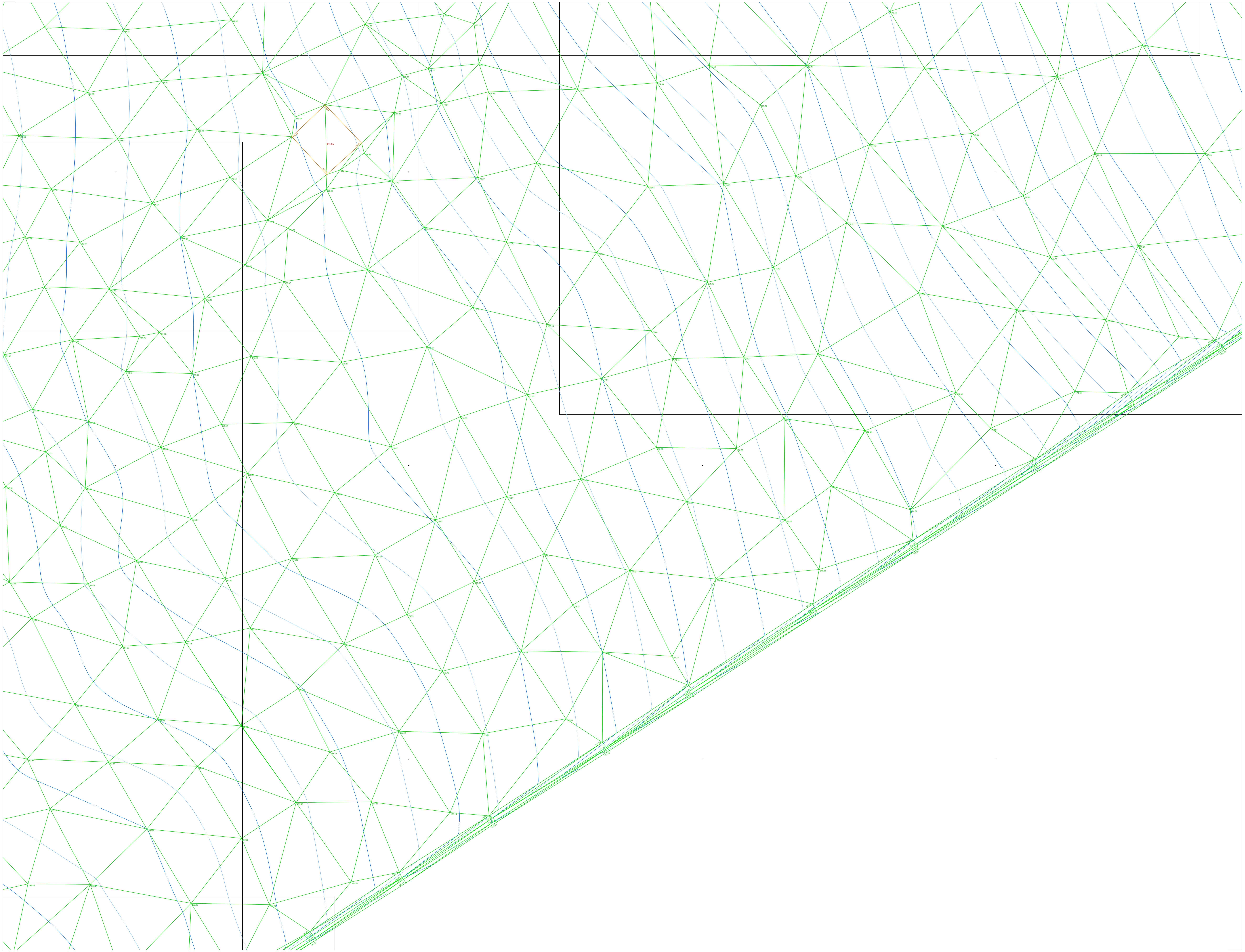
EASY



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Conc Pvg	CONCRETE PAVING	OGC	OVERGROUND CONDUIT	ThL	THRESHOLD LEVEL
CP	CATCHPIT	OHca	OVERHEAD CABLE Unidentified	TL	TRAFFIC SIGNAL POST
CpL	COPING LEVEL	OHC	OVERHEAD CONDUIT	TM	TICKET MACHINE
Cpsn	CAPSTAN	OHE	OVERHEAD ELECTRIC	ToV	TOP OF VALVE LEVEL
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Di	DUCTILE IRON	P	POST	UTA	UNABLE TO ACCESS
(dilap)	DILAPIDATED	PB	POST BOX	UTL	UNABLE TO LOCATE
(dis)	DISUSED	PC	SECURITY CAMERA	UTR	UNABLE TO RAISE
DPC	DAMP PROOF COURSE	Pcg	PEDESTRIAN CROSSING	UTS	UNABLE TO SURVEY
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Flgt	FLOOR LIGHT	RP	REFLECTOR POST	WSR	WATER LEVEL SENSOR
FH	FIRE HYDRANT	RS	ROAD SIGN		
FS	FLAG STAFF	RSP	RAILWAY SIGNAL POST		
G	GULLY	RW	RETAINING WALL		

	SURVEY EXTENTS	D=1.00m 1.00d	DEPTH INFORMATION
BT	BRITISH TELECOM	HW	HOT WATER
BT(r)	TAKEN FROM RECORDS	HW(r)	TAKEN FROM RECORDS
CTV	CATV CABLE	O/F	OPTIC FIBRE
CTV(r)	TAKEN FROM RECORDS	O/F(r)	TAKEN FROM RECORDS
CTV	CCTV CABLE	OIL	OIL PIPELINE
CTV(r)	TAKEN FROM RECORDS	OIL(r)	TAKEN FROM RECORDS
CW	COMBINED WATER	PWR	POWER FEATURE
CW(r)	TAKEN FROM RECORDS	SW	SURFACE WATER
DUC	EMPTY DUCT	SW(r)	TAKEN FROM RECORDS
DUC(r)	TAKEN FROM RECORDS	T	TELECOMMUNICATION CABLE
EA	EARTHING FEATURE	T(r)	TAKEN FROM RECORDS
EA(r)	TAKEN FROM RECORDS	TLM	TELEMETRY CABLE
E	ELECTRIC CABLE	TRA	TRAFFIC SIGNALS
E(r)	TAKEN FROM RECORDS	TRA(r)	TAKEN FROM RECORDS
FL	FUEL LINE	UK	UNKNOWN SERVICE
FL(r)	TAKEN FROM RECORDS	UK(r)	TAKEN FROM RECORDS
FW	FOUL WATER	VNT	VENT
FW(r)	TAKEN FROM RECORDS	VNT(r)	TAKEN FROM RECORDS
GAS	GAS	W	WATER
GAS(r)	TAKEN FROM RECORDS	W(r)	TAKEN FROM RECORDS
GPR	GPR FEATURE	11kV	11KV HV ELECTRIC
GPR(r)	TAKEN FROM RECORDS	11kV(r)	TAKEN FROM RECORDS
Helium	HELIUM FEATURE	REF:GPR02	REFERENCE TO GPR DATA IN REPORT
Helium(r)	TAKEN FROM RECORDS		

PAS 128 Quality Levels:

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SITE RECONNAISSANCE: QL-C	---
DESKTOP: QL-D	---

NOTES: HORIZONTAL/VERTICAL VARIABLES BASED ON DETECTED LOCATION OF UTILITY
P = POST PROCESSING
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Sheet Layouts

N

Grid:	Datum:
National Grid By GPS Observations To The OS Active Network OSTN15	Ordnance Datum By GPS Observations To The OS Active Network OSGM15

Revision:	Amendments:	Date:	Name:
-	-	-	-
-	-	-	-
B	ADDITIONAL AREA	April 23	EP
A	ORIGINAL ISSUE	Aug 21	KM

MAKING COMPLEX EASY

THE SURVEY ASSOCIATION AFFILIATE MEMBER

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Red Deer House, Dunston Business Village, Stafford Road, Dunston, Staffordshire, ST18 9AB

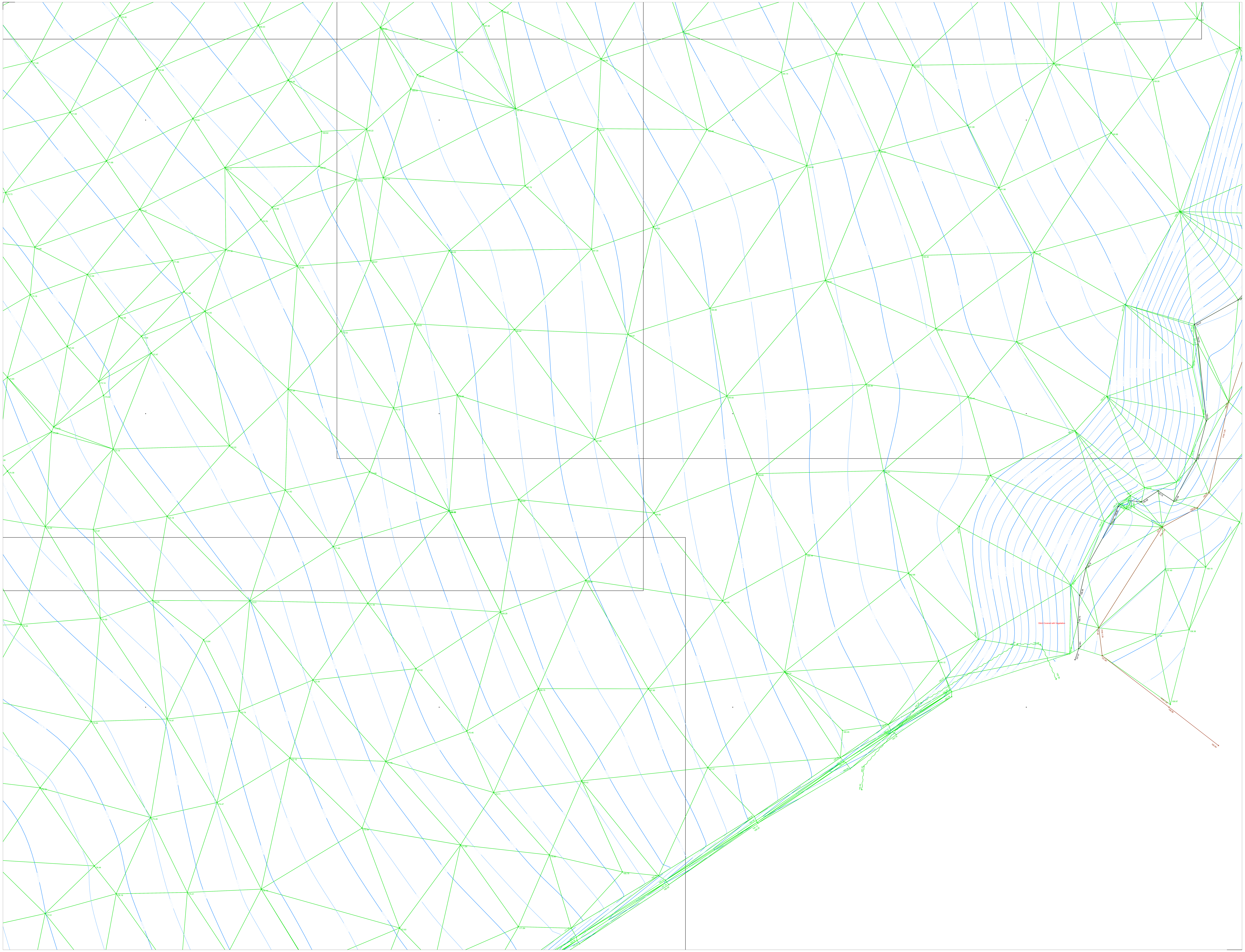
CLIENT:
Matt Davis
Project Manager
Noriker Power

PROJECT:
Blackhillock
Flexpower Ltd

TITLE:
Topographic Survey

Drawn: EP	Checked: JS
Date: April 2023	Scale: 1:200 @ A0
Drg No: UAT3230_A	Sheet: 2 of 9

MAKING COMPLEX EASY



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ACO	LINEAR DRAINAGE CHANNEL	GIS	GAS INLET POINT	RWP	RAN WATER PIPE
AV	AIR VALVE	GP	GUIDE POST	Sap	SAPLING
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BB	BELISH BEACON	Grl	GRILLE COVER	Shlt	SHELTER
BdL	BED LEVEL	GV	GAS VALVE COVER	Si	SPUN IRON
BH	BOREHOLE	Hrl	HAND RAIL	SL	SOFFIT LEVEL
Bol	BOLLARD	IC	INSPECTION COVER	Slt	SILT LEVEL
BP	BOUNDARY POST	IL	INVERT LEVEL	SMP	SETTLEMENT MONITORING Pnt
B Pvg	BLOCK PAVING	I/R	IRON RAILING FENCE	SP	SIGN POST
BRck	BICYCLE RACK	KO	KERB OUTLET	SPt	SAMPLING POINT
BS	BUS STOP	Lby	LIFEBUOY	SS	STRUCTURE POINT
BT	BRITISH TELECOM COVER	Lck	LOCK GATE	ST	STAND PIPE / SUPPLY TAP
BW	BRICK WALL	Ldr	LADDER	Sti	STILE
BWF	BARBED WIRE FENCE	LOR	LOSS OF REFLECTION (gpr)	STL	STRUCTURE TOP LEVEL
CAP	CABLE WINDING MACHINE	LOS	LOSS OF SIGNAL (eml)	Stone Pvg	STONE PAVING SLABS
Cat	CATENARY LEVEL	LP	LAMP POST	STP	STAND PIPE
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Col	COLUMN	OSA	OUTSIDE SURVEY AREA	TCP	TELEPHONE CALL POST
Conc	CONCRETE	OSBM	OS BENCH MARK	TEL	TELECOM COVER
Conc Pvg	CONCRETE PAVING	OGC	OVERGROUND CONDUIT	ThL	THRESHOLD LEVEL
CP	CATCHPIT	OHca	OVERHEAD CABLE Unidentified	TL	TRAFFIC SIGNAL POST
CpL	COPING LEVEL	OHC	OVERHEAD CONDUIT	TM	TICKET MACHINE
Cpsn	CAPSTAN	OHE	OVERHEAD ELECTRIC	ToV	TOP OF VALVE LEVEL
CR	CRANE / HOIST	OHG	OVERHEAD GANTRY	TP	TELEGRAPH POLE
Cul	CULVERT	OHStruct	OVERHEAD STRUCTURE	Tpt	TRIAL PIT
CW	CONCRETE WALL	OHT	OVERHEAD TELECOMS	Tr	TROUGH
Di	DUCTILE IRON	P	POST	UTA	UNABLE TO ACCESS
(dilap)	DILAPIDATED	PB	POST BOX	UTL	UNABLE TO LOCATE
(dis)	DISUSED	PC	SECURITY CAMERA	UTR	UNABLE TO RAISE
DPC	DAMP PROOF COURSE	Pcg	PEDESTRIAN CROSSING	UTS	UNABLE TO SURVEY
DS	DIRECTION SIGN	PD	PIT DEPTH	UTT	UNABLE TO TRACE (utilities)
DSW	DRYSTONE WALL	P/F	PANEL FENCE	VC	VITRIFIED CLAY
EIC	ELECTRICITY COVER	PP	PETROL PUMP	VDP	VEHICLE DETECTION PAD
EL	EAVES LEVEL	P/R	POST & RAIL FENCE	VP	VENT PIPE
EOT	END OF TRACE (utility)	Psk	PENSTOCK	VW	VALVE WHEEL
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G	GULLY	RW	RETAINING WALL		

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BT	BRITISH TELECOM	HW	HOT WATER
BT(r)	TAKEN FROM RECORDS	HW(r)	TAKEN FROM RECORDS
CTV	CATV CABLE	O/F	OPTIC FIBRE
CTV(r)	TAKEN FROM RECORDS	O/F(r)	TAKEN FROM RECORDS
CTV	CCTV CABLE	OIL	OIL PIPELINE
CTV(r)	TAKEN FROM RECORDS	OIL(r)	TAKEN FROM RECORDS
CW	COMBINED WATER	PWR	POWER FEATURE
CW(r)	TAKEN FROM RECORDS	SW	SURFACE WATER
DUC	EMPTY DUCT	SW(r)	TAKEN FROM RECORDS
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FW(r)	TAKEN FROM RECORDS	VNT(r)	TAKEN FROM RECORDS
GAS	GAS	W	WATER
GAS(r)	TAKEN FROM RECORDS	W(r)	TAKEN FROM RECORDS
GPR	GPR FEATURE	11kV	11KV HV ELECTRIC
GPR(r)	TAKEN FROM RECORDS	11kV(r)	TAKEN FROM RECORDS
Helium	HELIUM FEATURE	REF:GPR02	REFERENCE TO GPR DATA IN REPORT
Helium(r)	TAKEN FROM RECORDS		

PAS 128 Quality Levels:

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VERIFICATION: QL-A: HORIZONTAL ± 50MM VERTICAL ± 25MM	HORIZONTAL & VERTICAL LOCATION OF THE TOP AND/OR BOTTOM OF THE ITEM.
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QL-B1/p: HORIZONTAL ±150MM/±15% VERTICAL ±15%	HORIZONTAL AND VERTICAL LOCATION OF UTILITY DETECTED BY MULTIPLE TECHNIQUES.
SITE RECONNAISSANCE: QL-C	---
DESKTOP: QL-D	---

NOTES: HORIZONTAL/VERTICAL VARIABLES BASED ON DETECTED LOCATION OF UTILITY
P = POST PROCESSING
REFER TO FULL PAS128 DOCUMENT FOR FURTHER INFORMATION

Sheet Layouts

N

Grid:
National Grid
By GPS Observations
To The OS Active Network
OSTN15

Datum:
Ordnance Datum
By GPS Observations
To The OS Active Network
OSGM15

Revision:	Amendments:	Date:	Name:
-	-	-	-
-	-	-	-
B	ADDITIONAL AREA	April 23	EP
A	ORIGINAL ISSUE	Aug 21	KM

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MAKING COMPLEX EASY
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Red Deer House, Dunston Business Village, Stafford Road, Dunston, Staffordshire, ST18 9AB

CLIENT:
Matt Davis
Project Manager
Noriker Power

PROJECT:
Blackhillock
Flexpower Ltd

TITLE:
Topographic Survey

Drawn:	EP	Checked:	JS
Date:	April 2023	Scale:	1:200 @ A0
Drg No:	UAT3230_A	Sheet:	3 of 9

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COMPLEX
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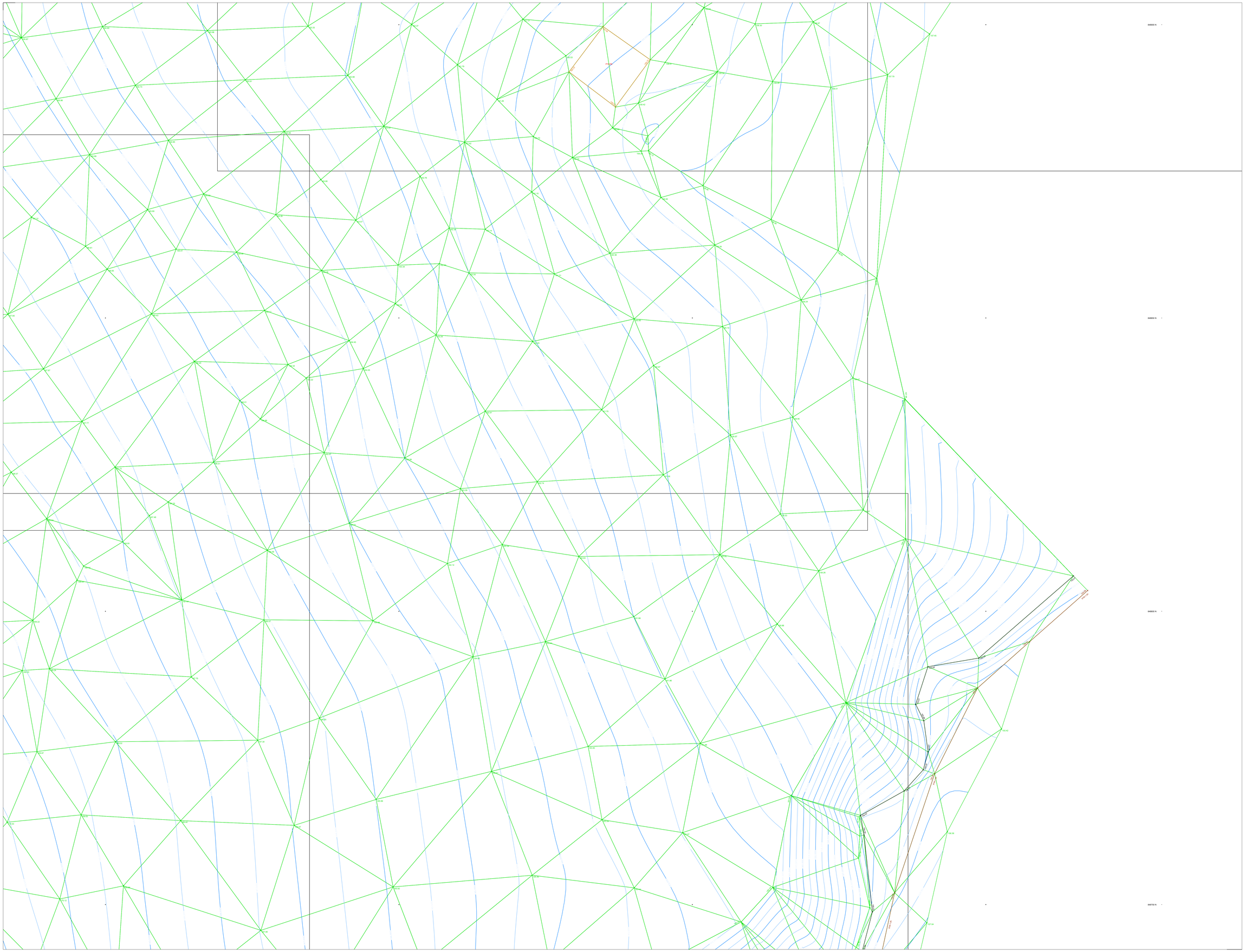
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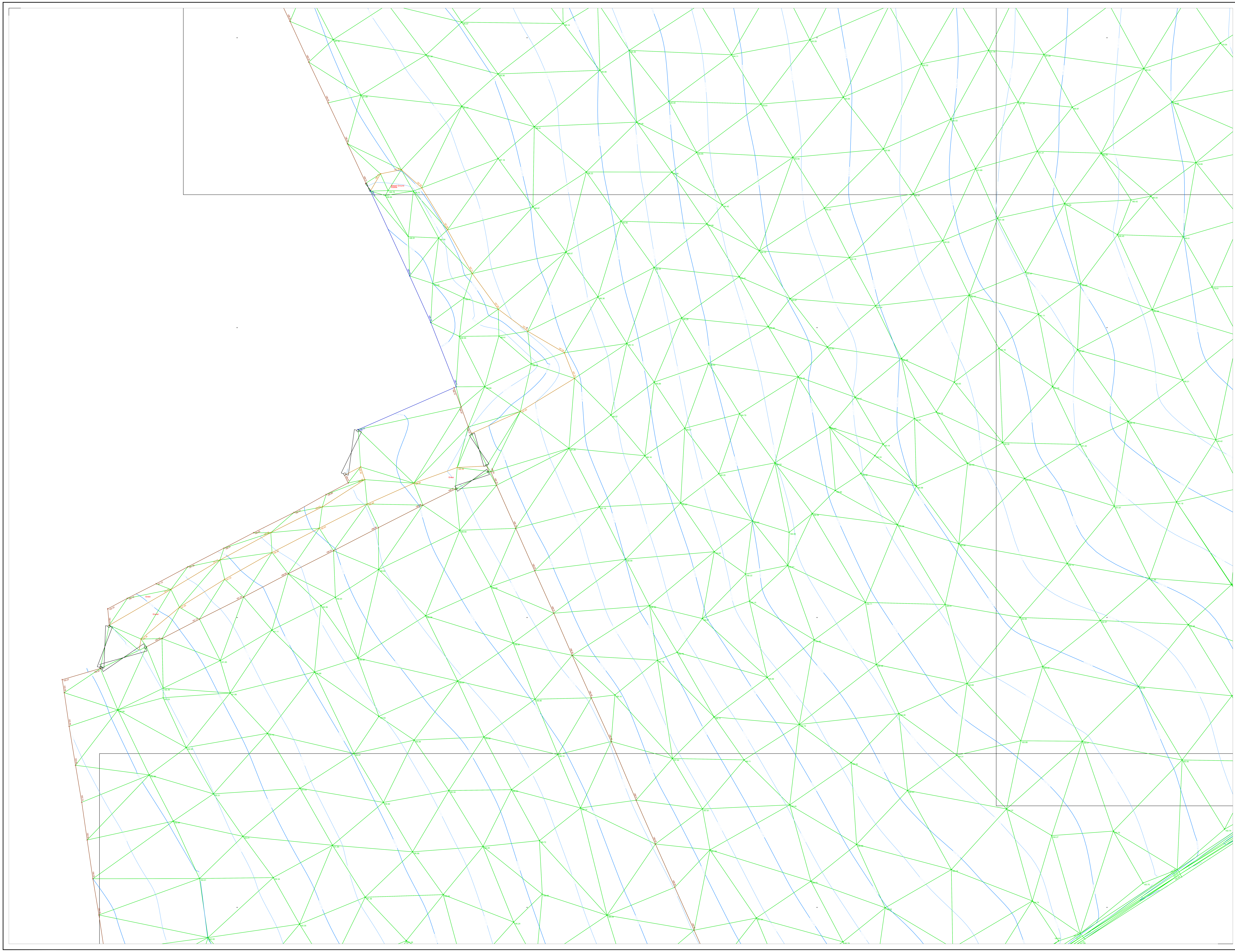

Notes:

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Survey carried out to client specification and in accordance with RICS publication:
SURVEYS OF LAND , BUILDING & UTILITY SERVICES AT SCALES 1:500 & LARGER, 3rd EDITION.

Utility Services Location Note:

This survey has been carried out using a combination of observation and detection using electrolocation and ground probing radar equipment. Connections between reference points such as manholes are assumed to be straight unless bends are indicated. The accuracy is limited to the tolerances normally expected from the equipment used.

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CTV	CATV CABLE	O/F	OPTIC FIBRE
CTV(r)	TAKEN FROM RECORDS	O/F(r)	TAKEN FROM RECORDS
CTV	CCTV CABLE	OIL	OIL PIPELINE
CTV(r)	TAKEN FROM RECORDS	OIL(r)	TAKEN FROM RECORDS
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GAS	GAS	W	WATER
GAS(r)	TAKEN FROM RECORDS	W(r)	TAKEN FROM RECORDS
GPR	GPR FEATURE	11kV	11KV HV ELECTRIC
GPR(r)	TAKEN FROM RECORDS	11kV(r)	TAKEN FROM RECORDS
Helium	HELIUM FEATURE	REF:GPR02	REFERENCE TO GPR DATA IN REPORT
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SITE RECONNAISSANCE: QL-C	---
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Sheet Layouts

N

Grid:
National Grid
By GPS Observations
To The OS Active Network
OSTN15

Datum:
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Revision:	Amendments:	Date:	Name:
-	-	-	-
-	-	-	-
B	ADDITIONAL AREA	April 23	EP
A	ORIGINAL ISSUE	Aug 21	KM

MAKING COMPLEX EASY

THE SURVEY ASSOCIATION AFFILIATE MEMBER

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T: 0800 917 8227 E: rps.survey@rpsgroup.com www.rpsgroup.com
Red Deer House, Dunston Business Village, Stafford Road, Dunston, Staffordshire, ST18 9AB

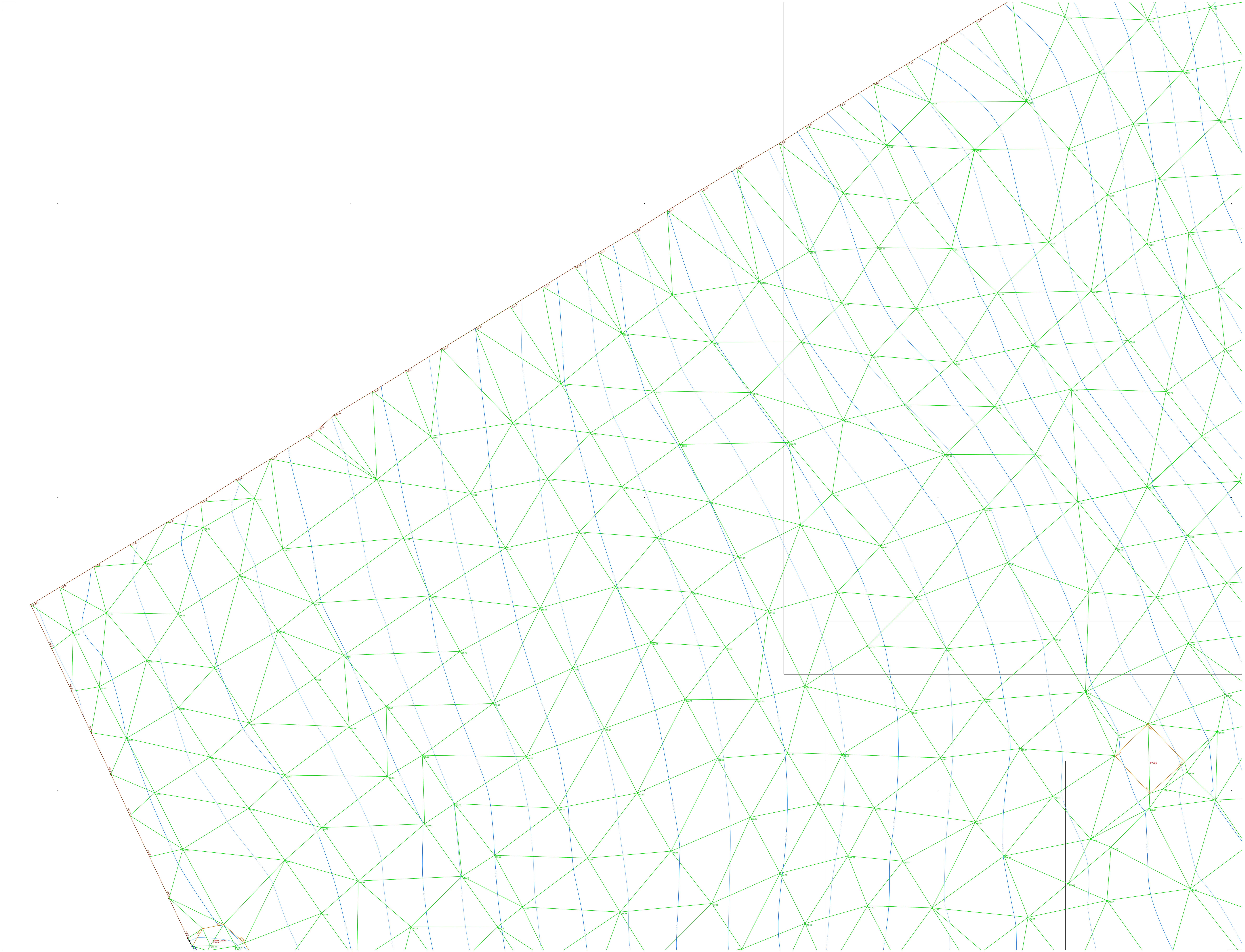
CLIENT:
Matt Davis
Project Manager
Noriker Power

PROJECT:
Blackhillock
Flexpower Ltd

TITLE:
Topographic Survey

Drawn: EP	Checked: JS
Date: April 2023	Scale: 1:200 @ A0
Drg No: UAT3230_A	Sheet: 5 of 9

MAKING COMPLEX EASY



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CL	COVER LEVEL	NVP	NO VISIBLE PIPE	TBol	BOLLARD (Dept' Transport)
C/L	CHAIN LINK FENCE	NP	NAME PLATE	TCB	TELEPHONE CALL BOX
Col	COLUMN	OSA	OUTSIDE SURVEY AREA	TCP	TELEPHONE CALL POST
Conc	CONCRETE	OSBM	OS BENCH MARK	TEL	TELECOM COVER
Conc Pvg	CONCRETE PAVING	OGC	OVERGROUND CONDUIT	ThL	THRESHOLD LEVEL
CP	CATCHPIT	OHca	OVERHEAD CABLE Unidentified	TL	TRAFFIC SIGNAL POST
CpL	COPING LEVEL	OHC	OVERHEAD CONDUIT	TM	TICKET MACHINE
Cpsn	CAPSTAN	OHE	OVERHEAD ELECTRIC	ToV	TOP OF VALVE LEVEL
CR	CRANE / HOIST	OHG	OVERHEAD GANTRY	TP	TELEGRAPH POLE
Cul	CULVERT	OHStruct	OVERHEAD STRUCTURE	Tpt	TRIAL PIT
CW	CONCRETE WALL	OHT	OVERHEAD TELECOMS	Tr	TROUGH
Di	DUCTILE IRON	P	POST	UTA	UNABLE TO ACCESS
(dilap)	DILAPIDATED	PB	POST BOX	UTL	UNABLE TO LOCATE
(dis)	DISUSED	PC	SECURITY CAMERA	UTR	UNABLE TO RAISE
DPC	DAMP PROOF COURSE	Pcg	PEDESTRIAN CROSSING	UTS	UNABLE TO SURVEY
DS	DIRECTION SIGN	PD	PIT DEPTH	UTT	UNABLE TO TRACE (utilities)
DSW	DRYSTONE WALL	P/F	PANEL FENCE	VC	VITRIFIED CLAY
EIC	ELECTRICITY COVER	PP	PETROL PUMP	VDP	VEHICLE DETECTION PAD
EL	EAVES LEVEL	P/R	POST & RAIL FENCE	VP	VENT PIPE
EOT	END OF TRACE (utility)	Psk	PENSTOCK	VW	VALVE WHEEL
EP	ELECTRICITY POLE	PV	VERTICAL PIPE	WB	WEIGH BRIDGE
ER	EARTH ROD	Pyl	PYLON	WG	WATER GAUGE
ESP	ELECTRICITY SUPPLY POINT	PZ	PIEZOMETER	WL	WATER LEVEL
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FL	FLOOR LEVEL	RL	RIDGE LEVEL	WO	WASHOUT COVER
FFL	FINISHED FLOOR LEVEL	RMP	RESRVOIR MONITORING Pnt	WS	WIND SOCK POLE
Flgt	FLOOR LIGHT	RP	REFLECTOR POST	WSR	WATER LEVEL SENSOR
FH	FIRE HYDRANT	RS	ROAD SIGN		
FS	FLAG STAFF	RSP	RAILWAY SIGNAL POST		
G	GULLY	RW	RETAINING WALL		

	SURVEY EXTENTS	D=1.00m 1.00d	DEPTH INFORMATION
BT	BRITISH TELECOM	HW	HOT WATER
BT(r)	TAKEN FROM RECORDS	HW(r)	TAKEN FROM RECORDS
CTV	CATV CABLE	O/F	OPTIC FIBRE
CTV(r)	TAKEN FROM RECORDS	O/F(r)	TAKEN FROM RECORDS
CTV	CCTV CABLE	OIL	OIL PIPELINE
CTV(r)	TAKEN FROM RECORDS	OIL(r)	TAKEN FROM RECORDS
CW	COMBINED WATER	PWR	POWER FEATURE
CW(r)	TAKEN FROM RECORDS	SW	SURFACE WATER
DUC	EMPTY DUCT	SW(r)	TAKEN FROM RECORDS
DUC(r)	TAKEN FROM RECORDS	T	TELECOMMUNICATION CABLE
EA	EARTHING FEATURE	T(r)	TAKEN FROM RECORDS
EA(r)	TAKEN FROM RECORDS	TLM	TELEMETRY CABLE
E	ELECTRIC CABLE	TRA	TRAFFIC SIGNALS
E(r)	TAKEN FROM RECORDS	TRA(r)	TAKEN FROM RECORDS
FL	FUEL LINE	UK	UNKNOWN SERVICE
FL(r)	TAKEN FROM RECORDS	UK(r)	TAKEN FROM RECORDS
FW	FOUL WATER	VNT	VENT
FW(r)	TAKEN FROM RECORDS	VNT(r)	TAKEN FROM RECORDS
GAS	GAS	W	WATER
GAS(r)	TAKEN FROM RECORDS	W(r)	TAKEN FROM RECORDS
GPR	GPR FEATURE	11kV	11KV HV ELECTRIC
GPR(r)	TAKEN FROM RECORDS	11kV(r)	TAKEN FROM RECORDS
Helium	HELIUM FEATURE	REF:GPR02	REFERENCE TO GPR DATA IN REPORT
Helium(r)	TAKEN FROM RECORDS		

PAS 128 Quality Levels:

SURVEY TYPE, QUALITY LEVELS AND ACCURACY	SUPPORTING DATA
VERIFICATION: QL-A: HORIZONTAL ± 50MM VERTICAL ± 25MM	HORIZONTAL & VERTICAL LOCATION OF THE TOP AND/OR BOTTOM OF THE ITEM.
DETECTION: QL-B4	A UTILITY WHICH IS SUSPECTED TO EXIST BUT HAS NOT BEEN DETECTED AND IS SHOWN AS AN ASSUMED ROUTE.
QL-B3/p: HORIZONTAL ±500MM	HORIZONTAL LOCATION ONLY OF THE UTILITY DETECTED BY ONE TECHNIQUE.
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QL-B1/p: HORIZONTAL ±150MM/±15% VERTICAL ±15%	HORIZONTAL AND VERTICAL LOCATION OF UTILITY DETECTED BY MULTIPLE TECHNIQUES.
SITE RECONNAISSANCE: QL-C	---
DESKTOP: QL-D	---

NOTES: HORIZONTAL/VERTICAL VARIABLES BASED ON DETECTED LOCATION OF UTILITY
P = POST PROCESSING
REFER TO FULL PAS128 DOCUMENT FOR FURTHER INFORMATION

Sheet Layouts

N

Grid:
National Grid
By GPS Observations
To The OS Active Network
OSTN15

Datum:
Ordnance Datum
By GPS Observations
To The OS Active Network
OSGM15

Revision:	Amendments:	Date:	Name:
-	-	-	-
-	-	-	-
B	ADDITIONAL AREA	April 23	EP
A	ORIGINAL ISSUE	Aug 21	KM

MAKING COMPLEX EASY

THE SURVEY ASSOCIATION
AFFILIATE MEMBER

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Red Deer House, Dunston Business Village, Stafford Road, Dunston, Staffordshire, ST18 9AB

CLIENT:
Matt Davis
Project Manager
Noriker Power

PROJECT:
Blackhillock
Flexpower Ltd

TITLE:
Topographic Survey

Drawn: EP	Checked: JS
Date: April 2023	Scale: 1:200 @ A0
Drg No: UAT3230_A	Sheet: 6 of 9

MAKING
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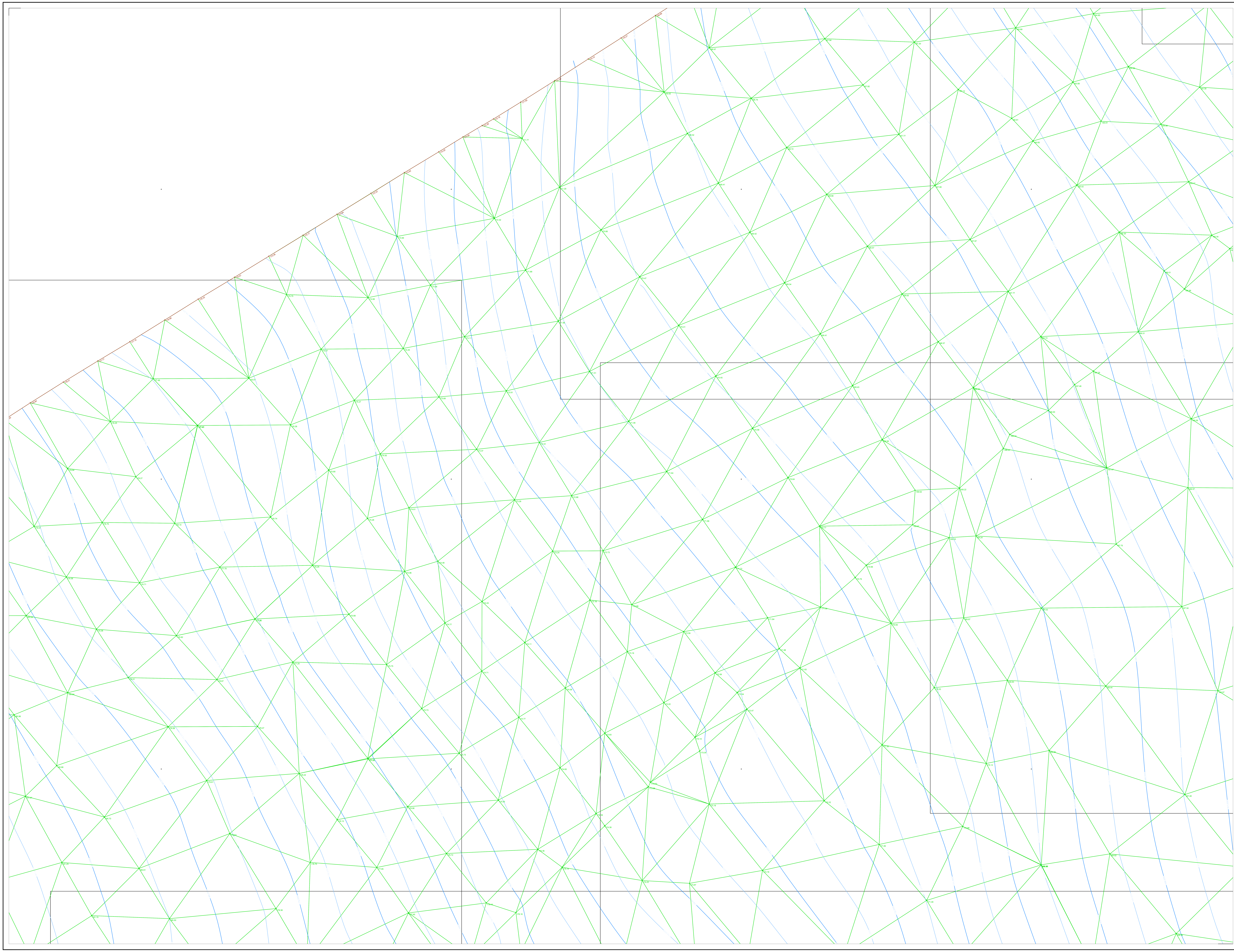
EASY



Notes:

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Where existing trees are to be retained they should be subject to a full Arboricultural inspection for safety. All trees are to be planted so as to ensure they are a minimum of 5 metres from buildings and 3 metres from drainage and services. A suitable method of foundation is to be provided to accommodate the proposed tree planting. All tree types are provided as a guide only and a full Arboricultural survey to be conducted to determine the exact tree types should be completed.

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Survey carried out to client specification and in accordance with RICS publication:
SURVEYS OF LAND , BUILDING & UTILITY SERVICES AT SCALES 1:500 & LARGER, 3rd EDITION.

Utility Services Location Note:

This survey has been carried out using a combination of observation and detection using electrolocation and ground probing radar equipment. Connections between reference points such as manholes are assumed to be straight unless bends are indicated. The accuracy is limited to the tolerances normally expected from the equipment used.

The following indications of completeness and accuracy are for guidance only:

In areas where there is a large concentration of services, the completeness will be between 80% and 90%. This will be reduced where there are obstructions at ground level.

Positional accuracy will vary with depth and pipe / duct material; an accuracy of +/- 150 mm is achievable in normal circumstances but this will be reduced for plastic pipes.

Existing information from historical plans is likely to be unreliable and is shown for guidance only.

Excavations in the area should be carried out with care and in accordance with HSG 47. No absolute guarantee of accuracy should be inferred from these plans.

The following text is an extract from Surveys of Land, Buildings and Utility Surveys at scales of 1:500 and Larger, 3rd Edition

"Electronic tracing is a reliable, method of locating buried services. ***On Heavy, built up sites 85% completeness is probably all that can be expected.*** *Plan accuracies of +/- 150mm may be achieved but this figure will depend on the depth of the service below ground level.* ***Where similar services run in close proximity, separation may be impossible. Successful tracing of non-metallic pipes may be limited.*** *Existing record information showing underground services is often incomplete and of doubtful accuracy. It should be regarded only as an indication and cannot be guaranteed"*

Standard Abbreviations

ACO	LINEAR DRAINAGE CHANNEL	GIS	GAS INLET POINT	RWP	RAN WATER PIPE
AV	AIR VALVE	GP	GUIDE POST	Sap	SAPLING
A/R	ASSUMED ROUTE	GPR	GROUND PROBING RADAR	SB	SIGN BOARD
BB	BELISH BEACON	Grl	GRILLE COVER	Shlt	SHELTER
BdL	BED LEVEL	GV	GAS VALVE COVER	Si	SPUN IRON
BH	BOREHOLE	Hrl	HAND RAIL	SL	SOFFIT LEVEL
Bol	BOLLARD	IC	INSPECTION COVER	Slt	SILT LEVEL
BP	BOUNDARY POST	IL	INVERT LEVEL	SMP	SETTLEMENT MONITORING Pnt
B Pvg	BLOCK PAVING	I/R	IRON RAILING FENCE	SP	SIGN POST
BRck	BICYCLE RACK	KO	KERB OUTLET	SPt	SAMPLING POINT
BS	BUS STOP	Lby	LIFEBUOY	SS	STRUCTURE POINT
BT	BRITISH TELECOM COVER	Lck	LOCK GATE	ST	STAND PIPE / SUPPLY TAP
BW	BRICK WALL	Ldr	LADDER	Sti	STILE
BWF	BARBED WIRE FENCE	LOR	LOSS OF REFLECTION (gpr)	STL	STRUCTURE TOP LEVEL
CAP	CABLE WINDING MACHINE	LOS	LOSS OF SIGNAL (eml)	Stone Pvg	STONE PAVING SLABS
Cat	CATENARY LEVEL	LP	LAMP POST	STP	STAND PIPE
CATV	CABLE TV COVER	Mcy	MACHINERY	StPO	STAY POST
CB	CONTROL BOX	MH	MANHOLE	Stu	STUMP
C/B	CLOSE BOARDED FENCE	MgP	MOORING POST	StW	STAYWIRE
CD	CHAMBER DEPTH	Mkr	MARKER POST	SV	STOP VALVE
Cgd	CATTLE GRID	MP	MILE POST	SW	STONE WALL
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Di	DUCTILE IRON	P	POST	UTA	UNABLE TO ACCESS
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(dis)	DISUSED	PC	SECURITY CAMERA	UTR	UNABLE TO RAISE
DPC	DAMP PROOF COURSE	Pcg	PEDESTRIAN CROSSING	UTS	UNABLE TO SURVEY
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G	GULLY	RW	RETAINING WALL		

	SURVEY EXTENTS	D=1.00m 1.00d	DEPTH INFORMATION
BT	BRITISH TELECOM	HW	HOT WATER
BT(r)	TAKEN FROM RECORDS	HW(r)	TAKEN FROM RECORDS
CTV	CATV CABLE	O/F	OPTIC FIBRE
CTV(r)	TAKEN FROM RECORDS	O/F(r)	TAKEN FROM RECORDS
CTV	CCTV CABLE	OIL	OIL PIPELINE
CTV(r)	TAKEN FROM RECORDS	OIL(r)	TAKEN FROM RECORDS
CW	COMBINED WATER	PWR	POWER FEATURE
CW(r)	TAKEN FROM RECORDS	SW	SURFACE WATER
DUC	EMPTY DUCT	SW(r)	TAKEN FROM RECORDS
DUC(r)	TAKEN FROM RECORDS	T	TELECOMMUNICATION CABLE
EA	EARTHING FEATURE	T(r)	TAKEN FROM RECORDS
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E	ELECTRIC CABLE	TRA	TRAFFIC SIGNALS
E(r)	TAKEN FROM RECORDS	TRA(r)	TAKEN FROM RECORDS
FL	FUEL LINE	UK	UNKNOWN SERVICE
FL(r)	TAKEN FROM RECORDS	UK(r)	TAKEN FROM RECORDS
FW	FOUL WATER	VNT	VENT
FW(r)	TAKEN FROM RECORDS	VNT(r)	TAKEN FROM RECORDS
GAS	GAS	W	WATER
GAS(r)	TAKEN FROM RECORDS	W(r)	TAKEN FROM RECORDS
GPR	GPR FEATURE	11kV	11KV HV ELECTRIC
GPR(r)	TAKEN FROM RECORDS	11kV(r)	TAKEN FROM RECORDS
Helium	HELIUM FEATURE	REF:GPR02	REFERENCE TO GPR DATA IN REPORT
Helium(r)	TAKEN FROM RECORDS		

PAS 128 Quality Levels:

SURVEY TYPE, QUALITY LEVELS AND ACCURACY	SUPPORTING DATA
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SITE RECONNAISSANCE: QL-C	---
DESKTOP: QL-D	---

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Sheet Layouts

N

Grid:
National Grid
By GPS Observations
To The OS Active Network
OSTN15

Datum:
Ordnance Datum
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To The OS Active Network
OSGM15

Revision:	Amendments:	Date:	Name:
-	-	-	-
-	-	-	-
B	ADDITIONAL AREA	April 23	EP
A	ORIGINAL ISSUE	Aug 21	KM

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THE SURVEY ASSOCIATION AFFILIATE MEMBER

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Red Deer House, Dunston Business Village, Stafford Road, Dunston, Staffordshire, ST18 9AB

CLIENT:
Matt Davis
Project Manager
Noriker Power

PROJECT:
Blackhillock
Flexpower Ltd

TITLE:
Topographic Survey

Drawn: EP	Checked: JS
Date: April 2023	Scale: 1:200 @ A0
Drg No: UAT3230_A	Sheet: 7 of 9

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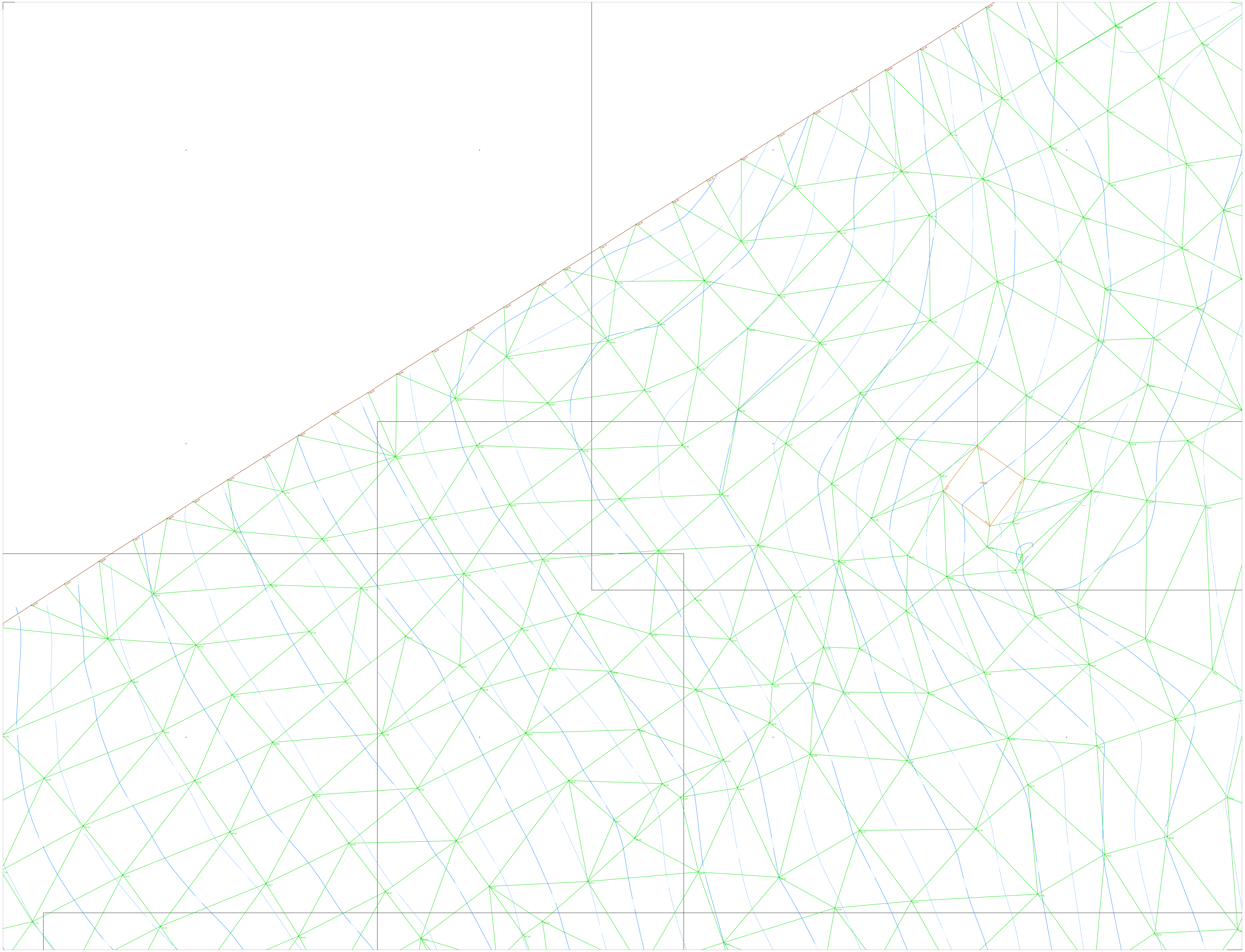

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G	GULLY	RW	RETAINING WALL		

	SURVEY EXTENTS	D=1.00m 1.00d	DEPTH INFORMATION
BT	BRITISH TELECOM	HW	HOT WATER
BT(r)	TAKEN FROM RECORDS	HW(r)	TAKEN FROM RECORDS
CTV	CATV CABLE	O/F	OPTIC FIBRE
CTV(r)	TAKEN FROM RECORDS	O/F(r)	TAKEN FROM RECORDS
CTV	CCTV CABLE	OIL	OIL PIPELINE
CTV(r)	TAKEN FROM RECORDS	OIL(r)	TAKEN FROM RECORDS
CW	COMBINED WATER	PWR	POWER FEATURE
CW(r)	TAKEN FROM RECORDS	SW	SURFACE WATER
DUC	EMPTY DUCT	SW(r)	TAKEN FROM RECORDS
DUC(r)	TAKEN FROM RECORDS	T	TELECOMMUNICATION CABLE
EA	EARTHING FEATURE	T(r)	TAKEN FROM RECORDS
EA(r)	TAKEN FROM RECORDS	TLM	TELEMETRY CABLE
E	ELECTRIC CABLE	TRA	TRAFFIC SIGNALS
E(r)	TAKEN FROM RECORDS	TRA(r)	TAKEN FROM RECORDS
FL	FUEL LINE	UK	UNKNOWN SERVICE
FL(r)	TAKEN FROM RECORDS	UK(r)	TAKEN FROM RECORDS
FW	FOUL WATER	VNT	VENT
FW(r)	TAKEN FROM RECORDS	VNT(r)	TAKEN FROM RECORDS
GAS	GAS	W	WATER
GAS(r)	TAKEN FROM RECORDS	W(r)	TAKEN FROM RECORDS
GPR	GPR FEATURE	11kV	11KV HV ELECTRIC
GPR(r)	TAKEN FROM RECORDS	11kV(r)	TAKEN FROM RECORDS
Helium	HELIUM FEATURE	REF:GPR02	REFERENCE TO GPR DATA IN REPORT
Helium(r)	TAKEN FROM RECORDS		

PAS 128 Quality Levels:

SURVEY TYPE, QUALITY LEVELS AND ACCURACY	SUPPORTING DATA
VERIFICATION: QL-A: HORIZONTAL ± 50MM VERTICAL ± 25MM	HORIZONTAL & VERTICAL LOCATION OF THE TOP AND/OR BOTTOM OF THE ITEM.
DETECTION: QL-B4	A UTILITY WHICH IS SUSPECTED TO EXIST BUT HAS NOT BEEN DETECTED AND IS SHOWN AS AN ASSUMED ROUTE.
QL-B3/p: HORIZONTAL ±500MM	HORIZONTAL LOCATION ONLY OF THE UTILITY DETECTED BY ONE TECHNIQUE.
QL-B2/p: HORIZONTAL ±250MM/±40% VERTICAL ±40%	HORIZONTAL AND VERTICAL LOCATION OF UTILITY DETECTED BY ONE TECHNIQUE ONLY.
QL-B1/p: HORIZONTAL ±150MM/±15% VERTICAL ±15%	HORIZONTAL AND VERTICAL LOCATION OF UTILITY DETECTED BY MULTIPLE TECHNIQUES.
SITE RECONNAISSANCE: QL-C	---
DESKTOP: QL-D	---

NOTES: HORIZONTAL/VERTICAL VARIABLES BASED ON DETECTED LOCATION OF UTILITY
P = POST PROCESSING
REFER TO FULL PAS128 DOCUMENT FOR FURTHER INFORMATION

Sheet Layouts

N

Grid:
National Grid
By GPS Observations
To The OS Active Network
OSTN15

Datum:
Ordnance Datum
By GPS Observations
To The OS Active Network
OSGM15

Revision:	Amendments:	Date:	Name:
-	-	-	-
-	-	-	-
B	ADDITIONAL AREA	April 23	EP
A	ORIGINAL ISSUE	Aug 21	KM

MAKING COMPLEX EASY
THE SURVEY ASSOCIATION AFFILIATE MEMBER
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Red Deer House, Dunston Business Village, Stafford Road, Dunston, Staffordshire, ST18 9AB

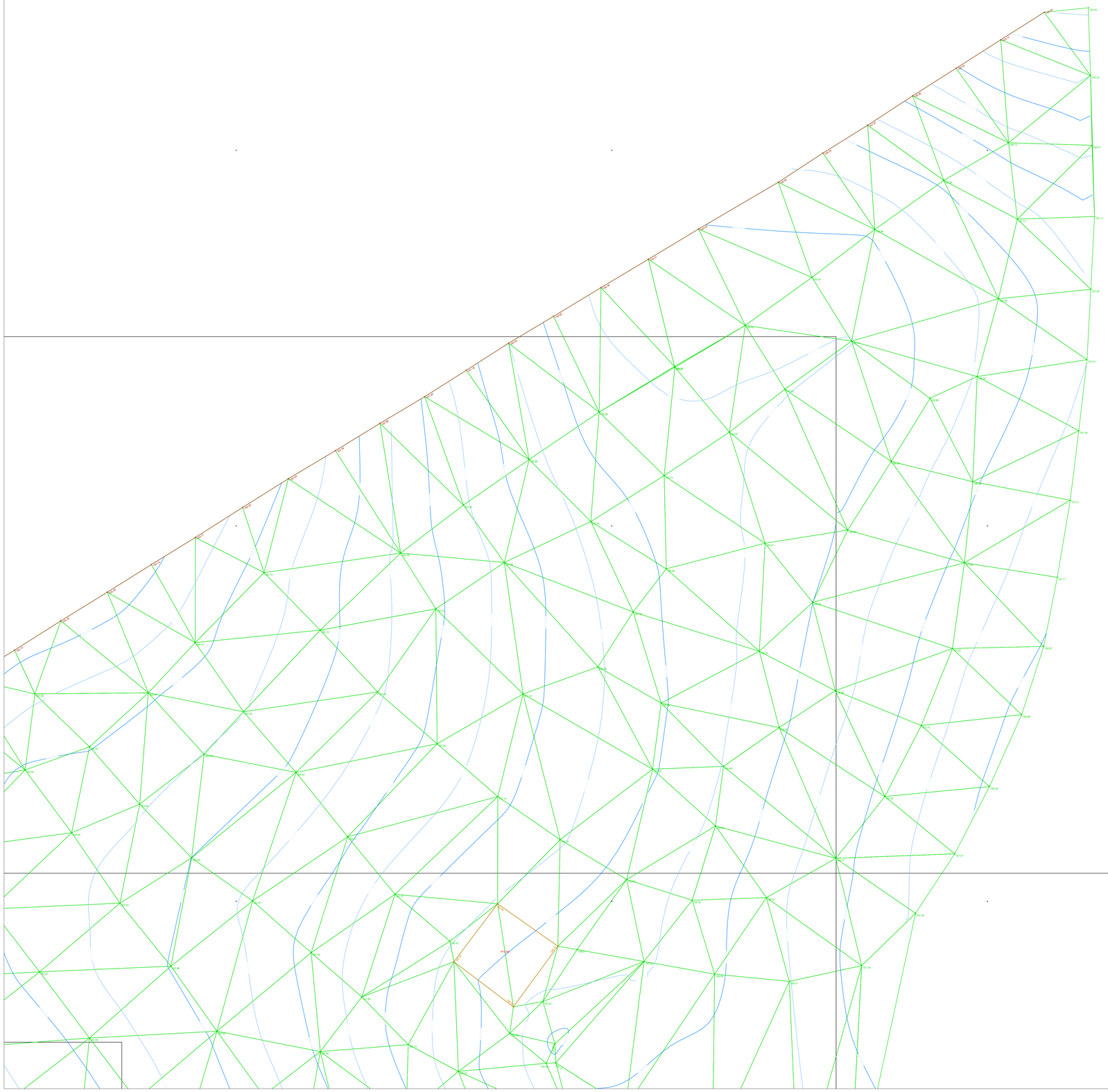
CLIENT:
Matt Davis
Project Manager
Noriker Power

PROJECT:
Blackhillock
Flexpower Ltd

TITLE:
Topographic Survey

Drawn: EP	Checked: JS
Date: April 2023	Scale: 1:200 @ A0
Drg No: UAT3230_A	Sheet: 8 of 9

MAKING
COMPLEX
EASY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