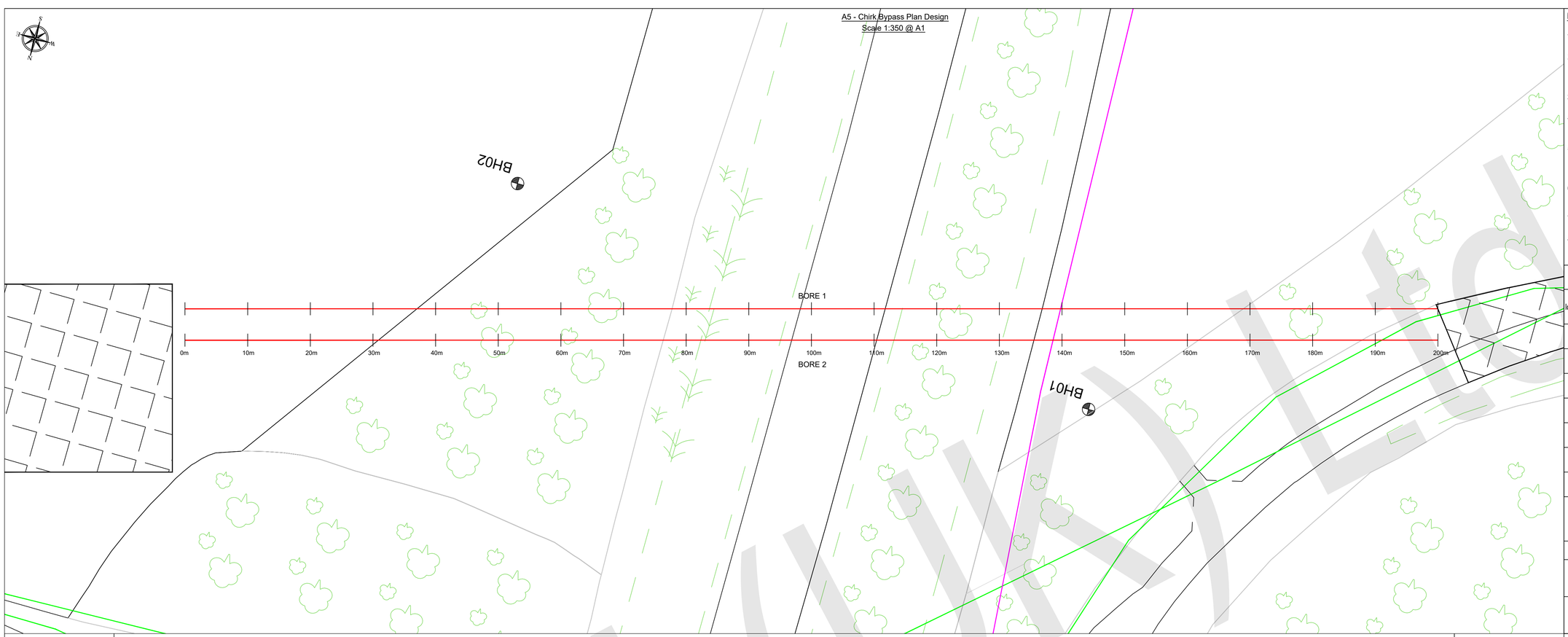
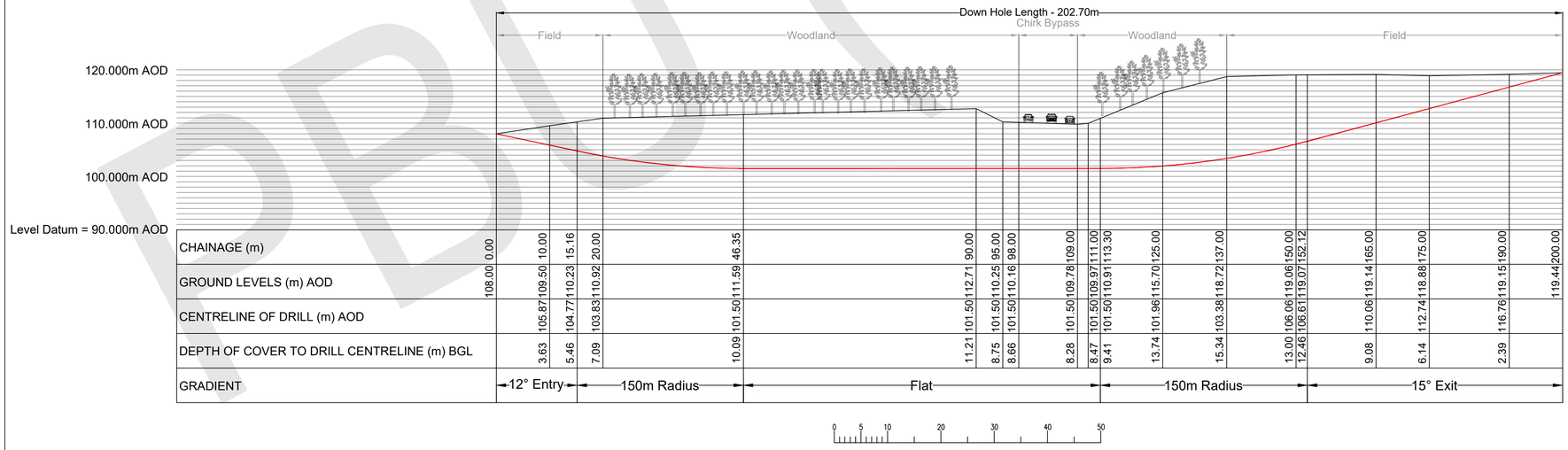
A5 - Chirk Bypass Plan Design
Scale 1:350 @ A1



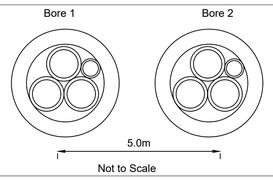
A5 - Chirk Bypass Bore Profile Design
Scale 1:500 @ A1



Bore 1
3x225mm OD SDR11 Cable Ducts +
1x125mm OD SDR-11 Duct

Bore 2
3x225mm OD SDR11 Cable Ducts +
1x125mm OD SDR-11 Duct

Bundle Diameter - 505mm
Bore Diameter - 700mm



Not to Scale

Notes:

1. All dimensions are in metres unless otherwise specified.
2. HDD Bore Profile design is a guideline for installation. Ground conditions and various site factors may result in some variation of installation to design.
3. All coordinates provided are in OSGB36 (15) unless otherwise specified.
4. Ground elevations are based on topographic survey data undertaken by Kronospan - File - 204028 High Voltage Route (South) 2d rev2.dwg.
5. Full utility site mark up and trial holes where required must be completed prior to works commencing to ensure design clash detection can be carried out.
6. Highways drainage and utility information not available at the time of drafting. This is required prior to design being 'for construction'.
7. Full approval with NMWTRA required prior to construction.
8. Complete boreholes not provided at the time of drafting - preliminary boreholes used. Complete borehole information required.

Residual Hazards

The below is a lost of hazards associated with the proposed HDD location. The below should be read in conjuction with the Site Specific Risk Assessment.

1	Settlement/Heave of carriageway
2	Interface with public
3	Lifting operations
4	Fluid Break out
5	Utility strikes
6	Working in the vicinity of live traffic
7	Proximity to wildlife

HDD Coordinates OSGB36 (15)

		X	Y
Bore 1	Entry	330054.069	338175.119
	Exit	329861.611	338120.714
Bore 2	Entry	330052.709	338179.931
	Exit	329860.251	338125.526

UNKNOWN
GAS - HP
GAS - MP
GAS - LP
COMMS
EHV
HV
LV
SEWER
WATER

Overburden
Top Soil / Made Ground
Peat
Sand
Silt
Clay
Gravel
Boulders & Cobbles
Note: Composite soil types will be identified by combined symbols. e.g.
Silty Sand

Rocks
Sedimentary
Sandstone
Siltstone
Mudstone/ Claystone
Breccia
Conglomerate
Chalk
Limestone
Coal
Gypsum, Rocksalt etc.

Rocks
Metamorphic
Coarse-grained
Medium-grained
Fine-grained

Igneous
Coarse-grained
Medium-grained
Fine-grained

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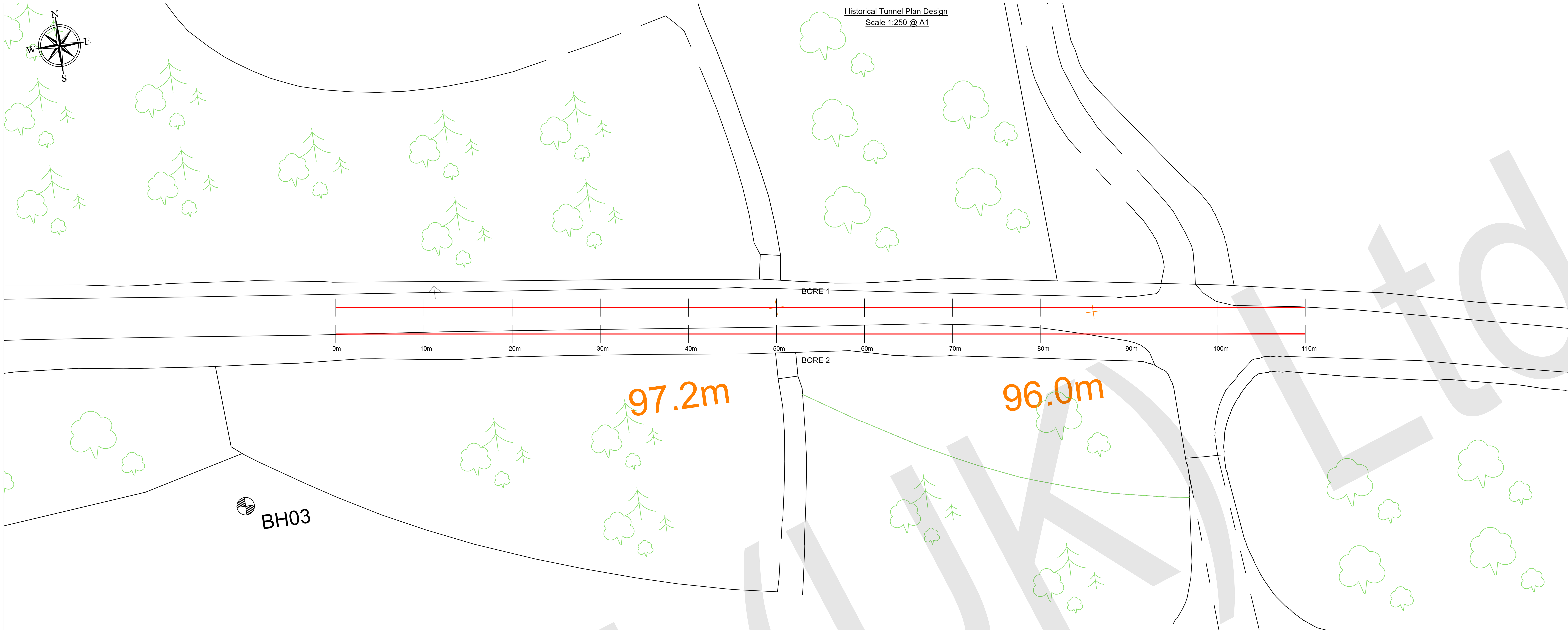
Kronospan Plant
132kV Grid Connection
Installation of 2 Bores
A5
Draft Bore Profile

Drawing Number	Revision	Plan Scale	Profile Scale
C3156-PBU-PRO-01	0	1:500@A1	1:500@A1

Revision	Details	Status	Drawn By	Date	Checked	Approved
0	Draft design issued for comment	FC	DR	20.08.25	MG	KM

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Historical Tunnel Plan Design
Scale 1:250 @ A1



Notes:

1. All dimensions are in metres unless otherwise specified.
2. HDD Bore Profile design is a guideline for installation. Ground conditions and various site factors may result in some variation of installation to design.
3. All coordinates provided are in OSGB36 (15) unless otherwise specified.
4. Ground elevations are based on topographic survey data undertaken by Kronospan - File - 204028 High Voltage Route (South) 2d rev2.dwg.
5. Full utility site mark up and trial holes where required must be completed prior to works commencing to ensure design clash detection can be carried out.
6. Complete boreholes not provided at the time of drafting - preliminary boreholes used. Complete borehole information required.
7. No structural information provided during design process of the tunnel. Nominated contractor must ensure proposed design is suitable for the structure crossing.

Residual Hazards

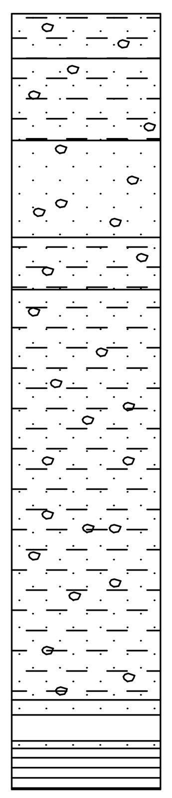
The below is a lost of hazards associated with the proposed HDD location. The below should be read in conjuction with the Site Specific Risk Assessment.

1	Settlement/Heave of carriageway
2	Interface with public
3	Lifting operations
4	Fluid Break out
5	Utility strikes
6	Working in the vicinity of live traffic
7	Proximity to wildlife

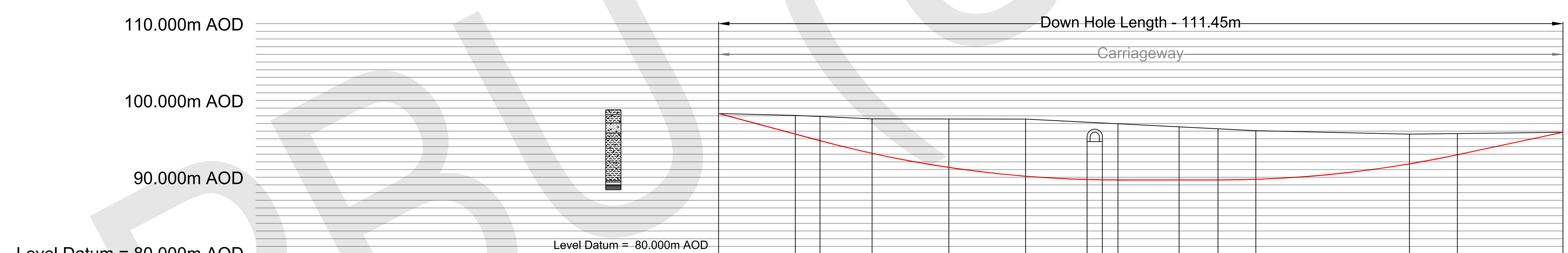
HDD Coordinates OSGB36 (15)

		X	Y
Bore 1	Entry	330196.586	338223.124
	Exit	330305.517	338207.825
Bore 2	Entry	330196.169	338220.153
	Exit	330305.100	338204.855

BH03



Historical Tunnel Bore Profile Design
Scale 1:350 @ A1



CHAINAGE (m)	0.00	10.00	13.21	20.00	30.00	40.00	48.00	50.00	52.03	60.00	65.07	70.00	90.00	96.25	110.00
GROUND LEVELS (m) AOD	98.30	98.05	97.91	97.60	97.58	97.57	94.65	94.65	96.96	96.56	96.31	96.06	95.61	95.69	95.85
CENTRELINE OF DRILL (m) AOD		95.62	94.76	93.11	91.28	90.13	89.70	89.66	89.65	89.65	89.65	89.73	91.74	92.93	
DEPTH OF COVER TO DRILL CENTRELINE (m) BGL		2.43	3.15	4.49	6.30	7.44	4.95	4.99	7.31	6.91	6.66	6.33	3.87	2.76	

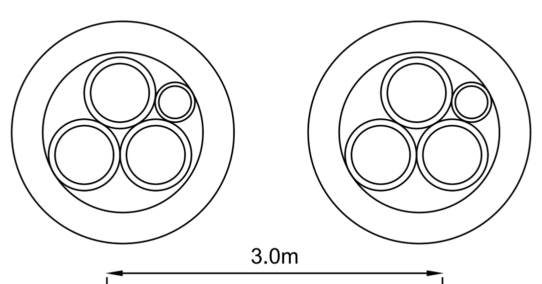
GRADIENT: 15° Entry | 150m Radius | Flat | 150m Radius | 12° Exit

0 5 10 20 30 40 50

Bore 1
3x225mm OD SDR11 Cable Ducts +
1x125mm OD SDR-11 Duct

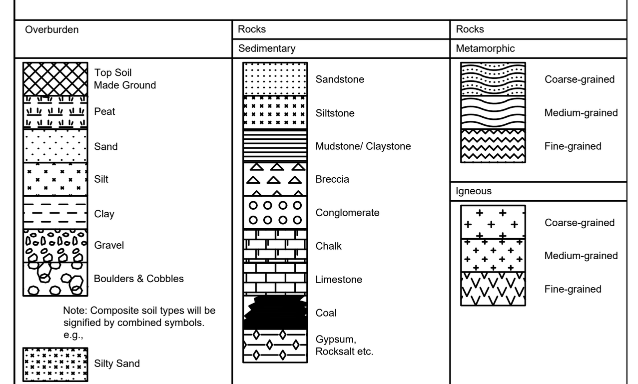
Bore 2
3x225mm OD SDR11 Cable Ducts +
1x125mm OD SDR-11 Duct

Bundle Diameter - 505mm
Bore Diameter - 700mm



Not to Scale

UNKNOWN	EHV
GAS - HP	HV
GAS - MP	LV
GAS - LP	SEWER
COMMS	WATER



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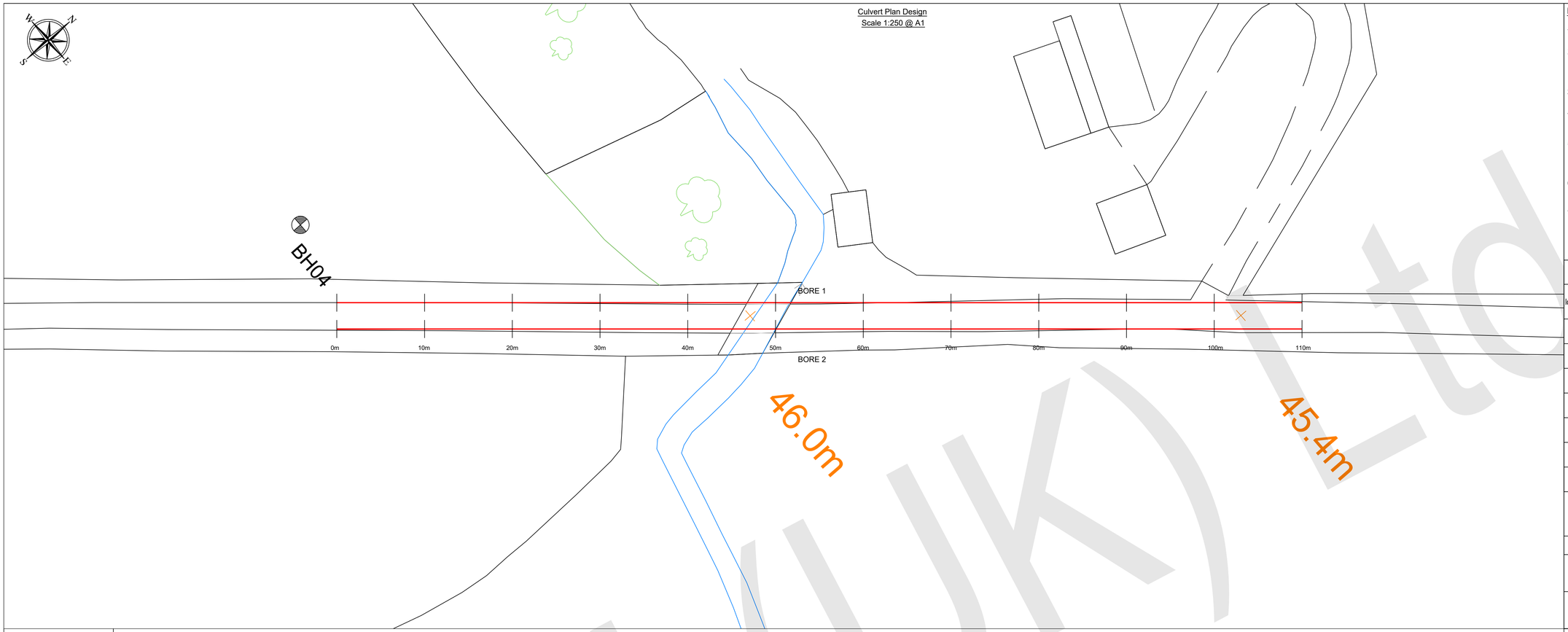
Kronospan Plant
132kV Grid Connection
Installation of 2 Bores
Historical Tunnel
Draft Bore Profile

Drawing Number	Revision	Plan Scale	Profile Scale
C3156-PBU-PRO-02	0	1:250@A1	1:350@A1

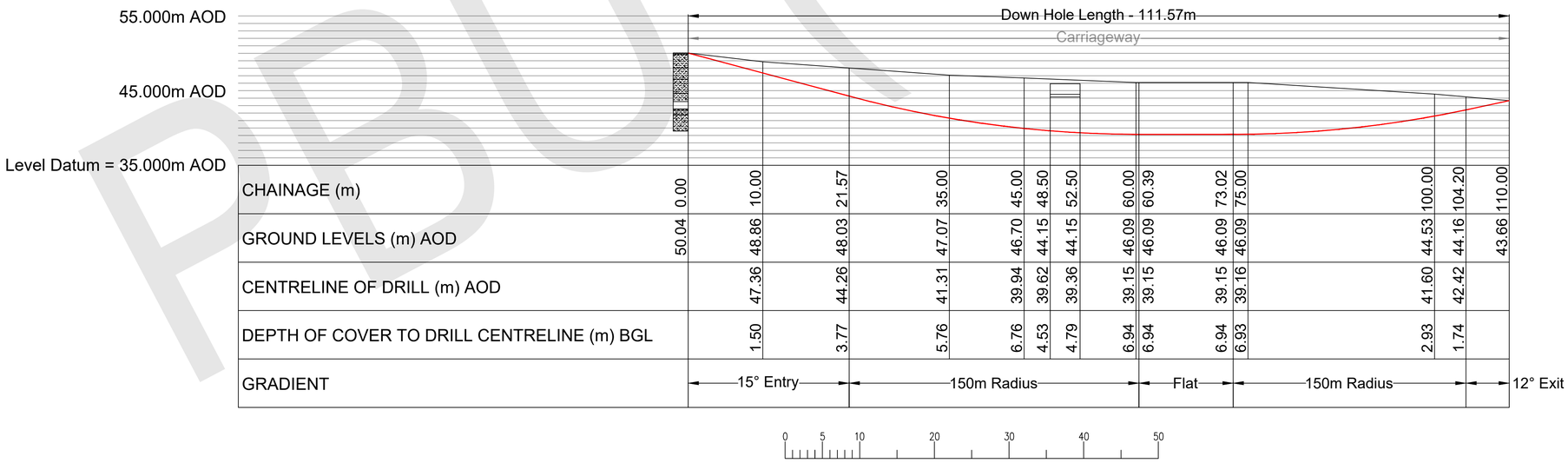
Revision	Details	Status	Drawn By	Date	Checked	Approved
0	Draft design issued for comment	FC	DR	12.09.25	MG	KM

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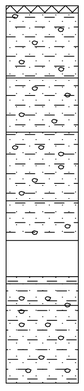
Culvert Plan Design
Scale 1:250 @ A1



Culvert Bore Profile Design
Scale 1:350 @ A1



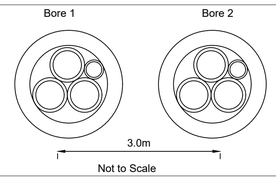
BH04



Bore 1
3x225mm OD SDR11 Cable Ducts +
1x125mm OD SDR-11 Duct

Bore 2
3x225mm OD SDR11 Cable Ducts +
1x125mm OD SDR-11 Duct

Bundle Diameter - 505mm
Bore Diameter - 700mm



Notes:

1. All dimensions are in metres unless otherwise specified.
2. HDD Bore Profile design is a guideline for installation. Ground conditions and various site factors may result in some variation of installation to design.
3. All coordinates provided are in OSGB36 (15) unless otherwise specified.
4. Ground elevations are based on topographic survey data undertaken by Kronospan - File - 204028 High Voltage Route (South) 2d rev2.dwg.
5. Full utility site mark up and trial holes where required must be completed prior to works commencing to ensure design clash detection can be carried out.
6. Complete boreholes not provided at the time of drafting - preliminary boreholes used. Complete borehole information required.
7. No structural information provided during design process for the culvert. Nominated contractor must ensure proposed design is suitable for the structure crossing.

Residual Hazards

The below is a lost of hazards associated with the proposed HDD location. The below should be read in conjuction with the Site Specific Risk Assessment.

1	Settlement/Heave of carriageway
2	Interface with public
3	Lifting operations
4	Fluid Break out
5	Utility strikes
6	Working in the vicinity of live traffic
7	Proximity to wildlife

HDD Coordinates OSGB36 (15)

		X	Y
Bore 1	Entry	331296.467	338958.459
	Exit	331368.551	339041.549
Bore 2	Entry	331298.733	338956.493
	Exit	331370.817	339039.583

UNKNOWN
GAS - HP
GAS - MP
GAS - LP
COMMS
EHV
HV
LV
SEWER
WATER

Overburden
Top Soil
Made Ground
Peat
Sand
Silt
Clay
Gravel
Boulders & Cobbles
Note: Composite soil types will be identified by combined symbols. e.g.
Silty Sand

Rocks
Sedimentary
Sandstone
Siltstone
Mudstone/ Claystone
Breccia
Conglomerate
Chalk
Limestone
Coal
Gypsum, Rocksalt etc.

Rocks
Metamorphic
Coarse-grained
Medium-grained
Fine-grained
Igneous
Coarse-grained
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Kronospan Plant
132kV Grid Connection
Installation of 2 Bores
Culvert
Draft Bore Profile

Drawing Number	Revision	Plan Scale	Profile Scale
C3156-PBU-PRO-03	0	1:250@A1	1:350@A1

Revision	Details	Status	Drawn By	Date	Checked	Approved
0	Draft design issued for comment	FC	DR	12.09.25	MG	KM

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