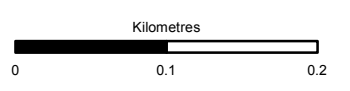


- Mainline Option 1 (Southbound Widening)
- 500m Buffer of existing A9
- Key Constraints**
- Artesian Water
- Potential for Compressible Ground Stability Hazard
- Potential for Landslide Ground Stability Hazard
- Extents of area at medium risk of flooding from river or watercourse
- PSSR Key Constraints**
- Alluvium
- Disused Quarry/Gravelpit
- Peat
- Bedrock at - Close to Ground Level



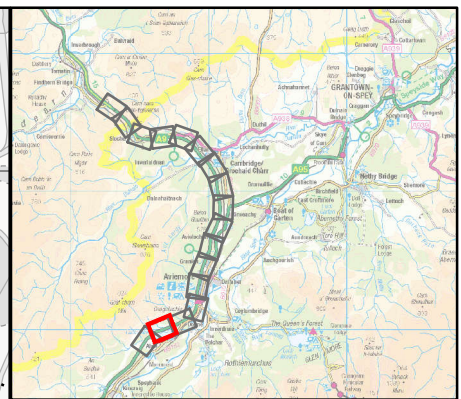
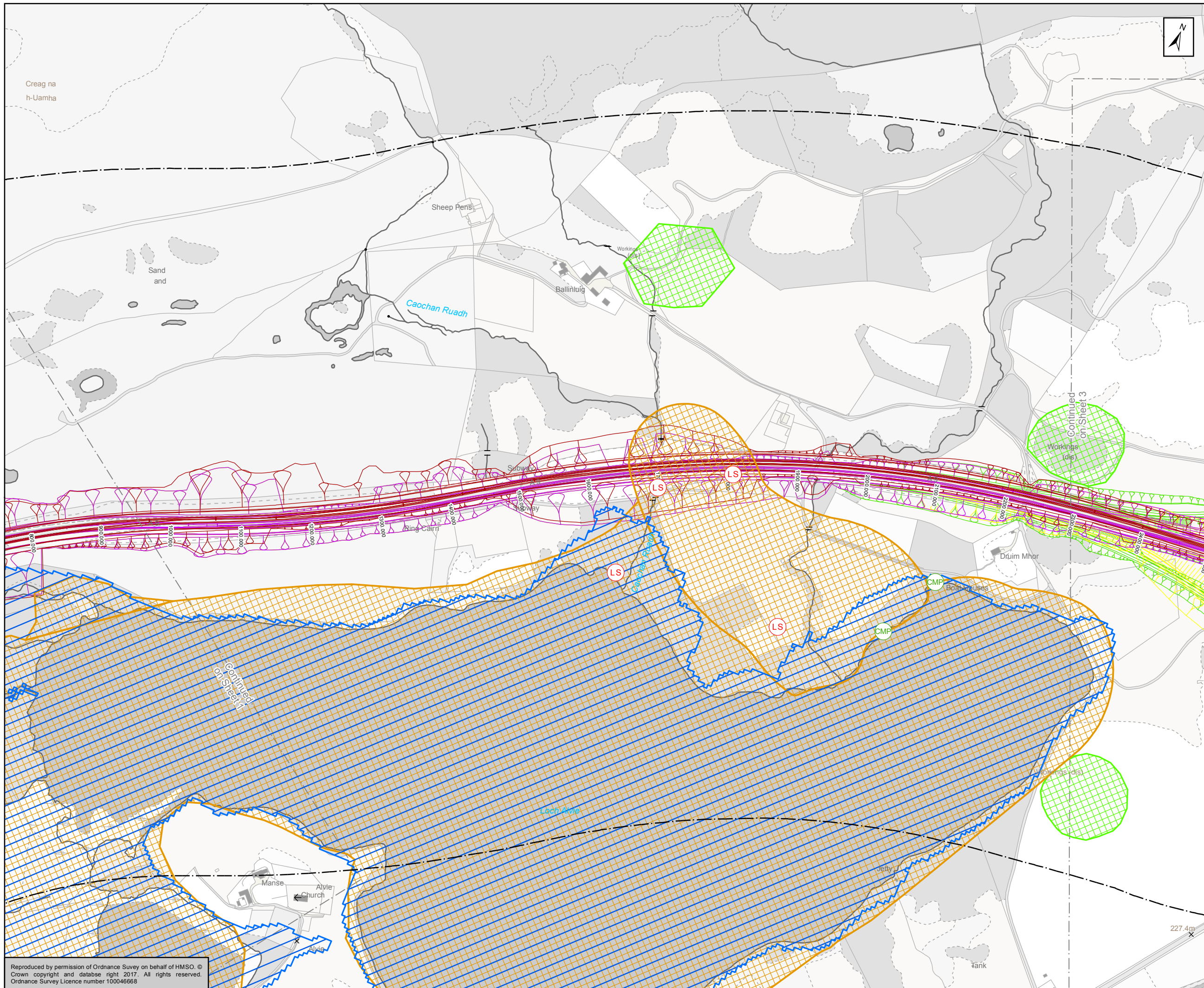
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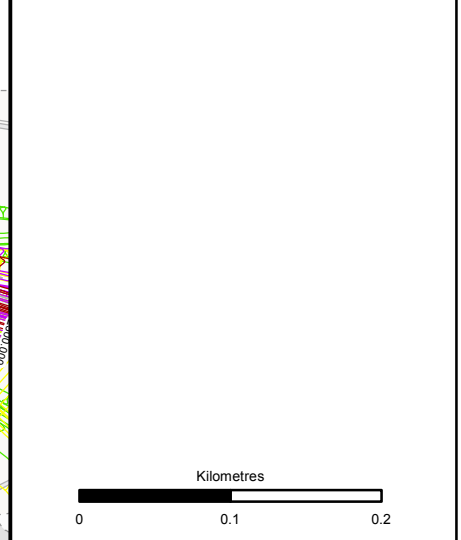
Figure 5.28a
Mainline Alignment Option 1 Geo-technical Constraints and Hazards
Sheet 1 of 17

Scale: 1:5,000	Drawn: JD	Checked: KP	Approved: MD	Authorised: RG
Document Number: A9P11-AMJ-EGT-E_ZZZZZ_XX-DR-GI-0037	Project Originator: Volume	Revision: P03		
Location:	Type:	Role:	Number:	

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- Mainline Option 1 (Southbound Widening)
- Aviemore South Junction Options**
- A02 - Half Cloverleaf - Quadrants 1 & 4
- A09 - Diamond Left Right with Ghost Island
- A18 - Left Right Stagger with B9152 Realigned
- 500m Buffer of existing A9
- Key Constraints**
- CMP Potential for Compressible Ground Stability Hazard
- LS Potential for Landslide Ground Stability Hazard
- Extents of area at medium risk of flooding from river or watercourse
- PSSR Key Constraints**
- Alluvium
- Disused Quarry/Gravelpit



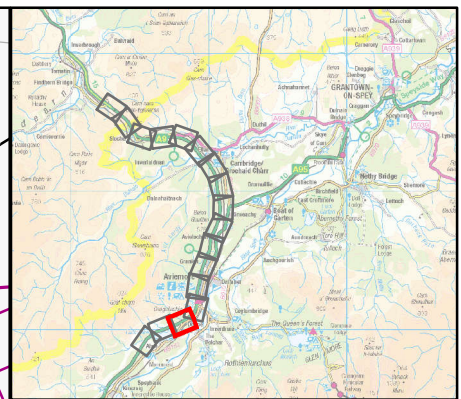
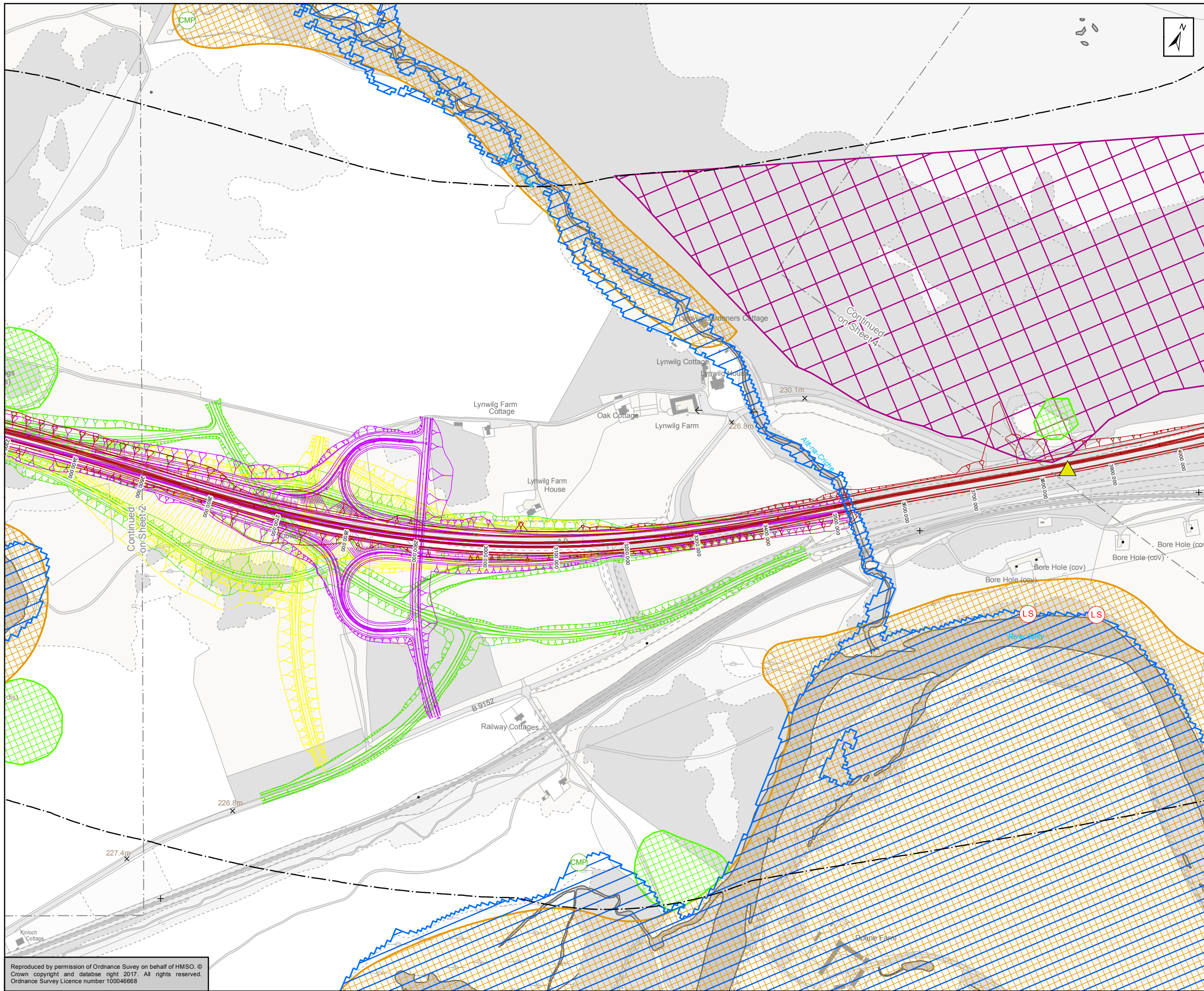
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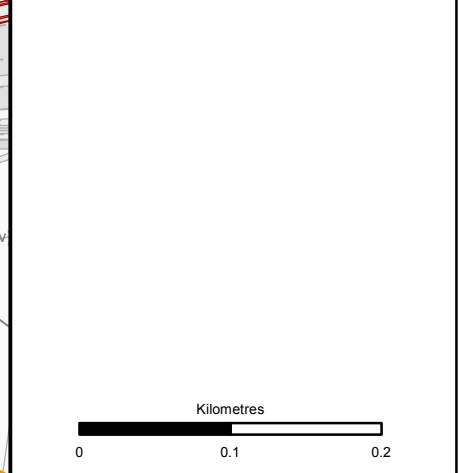
Figure 5.28b
Mainline Alignment Option 1 Geo-technical Constraints and Hazards
Sheet 2 of 17

Scale	Drawn	Checked	Approved	Authorised
1:5,000	JD	KP	MD	RG
Document Number	Project	Originator	Volume	Revision
A9P11-AMJ-EGT-E_ZZZZZ_XX-DR-GI-0038				P03
Location	Type	Role	Number	

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- Mainline Option 1 (Southbound Widening)
- Aviemore South Junction Options**
- A02 - Half Cloverleaf - Quadrants 1 & 4
- A09 - Diamond Left Right with Ghost Island
- A18 - Left Right Stagger with B9152 Realigned
- 500m Buffer of existing A9
- Key Constraints**
- Potential for Compressible Ground Stability Hazard
- Potential for Landslide Ground Stability Hazard
- Rock Cuts
- Extents of area at medium risk of flooding from river or watercourse
- PSSR Key Constraints**
- Alluvium
- Disused Quarry/Gravelpit
- Bedrock at - Close to Ground Level



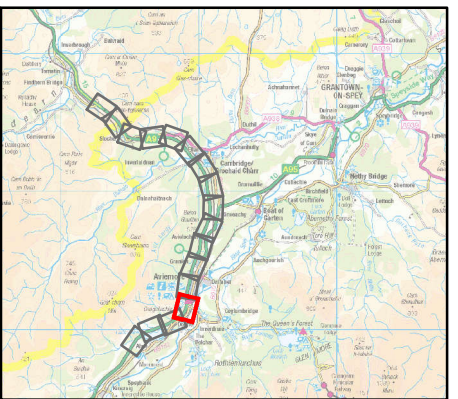
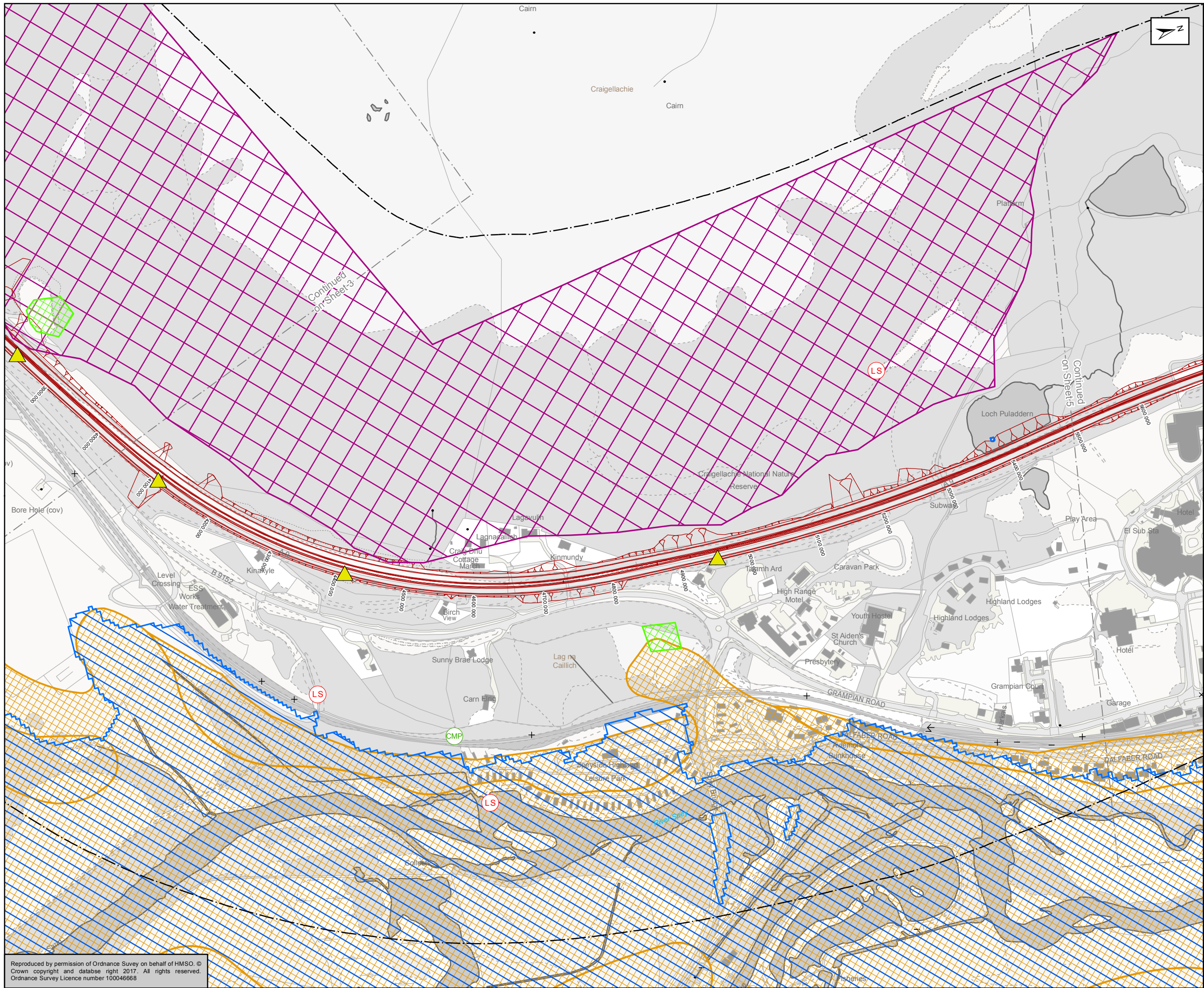
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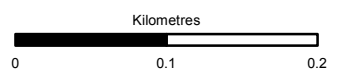
Figure 5.28c
Mainline Alignment Option 1 Geo-technical Constraints and Hazards
Sheet 3 of 17

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Project	Originator	Volume								
Location	Type	Role	Number							

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- Mainline Option 1 (Southbound Widening)
- 500m Buffer of existing A9
- Key Constraints**
- Potential for Compressible Ground Stability Hazard
- Potential for Landslide Ground Stability Hazard
- Rock Cuts
- Extents of area at medium risk of flooding from river or watercourse
- PSSR Key Constraints**
- Alluvium
- Disused Quarry/Gravelpit
- Bedrock at - Close to Ground Level



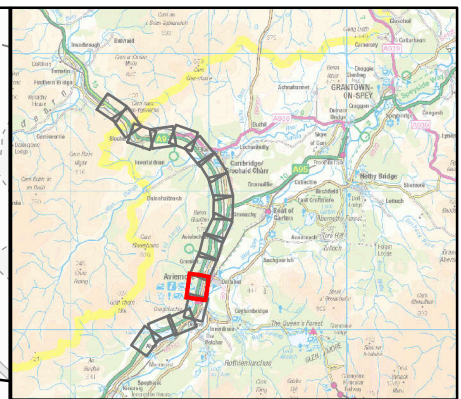
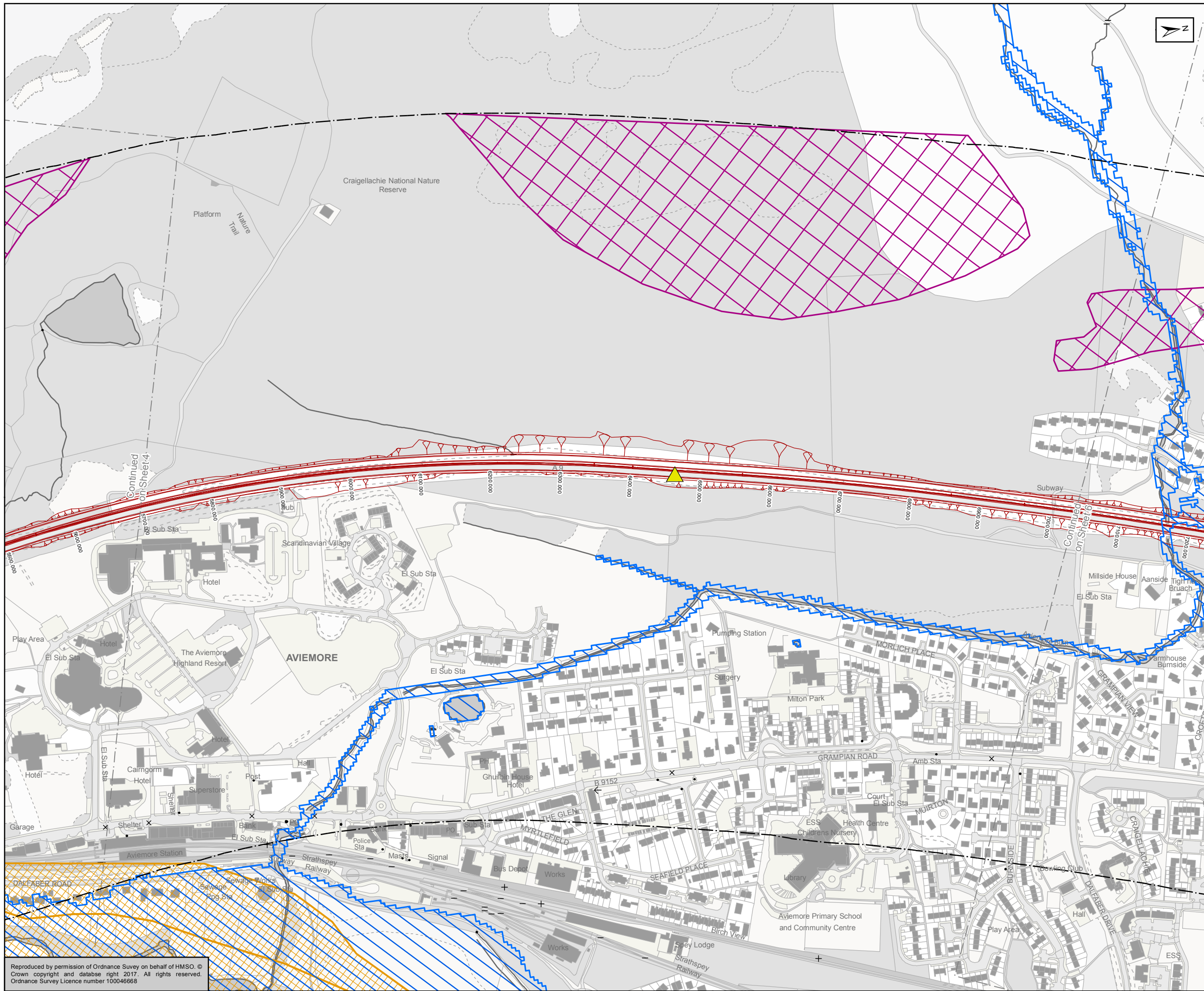
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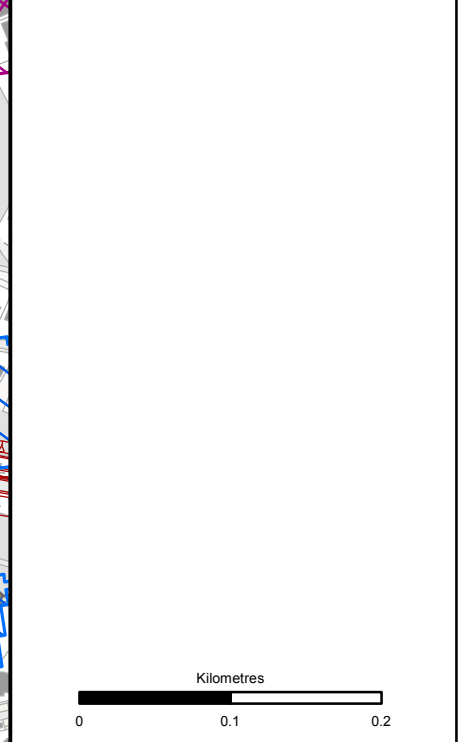
Figure 5.28d
Mainline Alignment Option 1 Geo-technical Constraints and Hazards
Sheet 4 of 17

Scale	1:5,000	Drawn	JD	Checked	KP	Approved	MD	Authorised	RG
Document Number	A9P11-AMJ-EGT-E_ZZZZZ_XX-DR-GI-0040								P03
Project	Originator	Volume	Location Type Role Number						

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- Mainline Option 1 (Southbound Widening)
- 500m Buffer of existing A9
- Rock Cuts
- Extents of area at medium risk of flooding from river or watercourse
- PSSR Key Constraints**
- Alluvium
- Bedrock at - Close to Ground Level



FINAL B

TRANSPORT SCOTLAND
Part of The Scottish Government

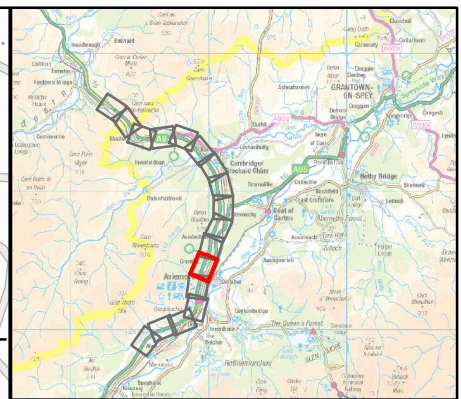
A9 DUALLING
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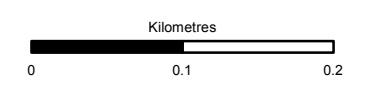
Figure 5.28e
 Mainline Alignment Option 1 Geo-technical Constraints and Hazards
 Sheet 5 of 17

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Project	Originator	Volume								
Location	Type	Role	Number							

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- Mainline Option 1 (Southbound Widening)
- Granish Southbound Junction Options**
- C31 - Diamond
- C34 - Half Dumbbell / Cloverleaf
- 500m Buffer of existing A9
- ▲ Rock Cuts
- Extents of area at medium risk of flooding from river or watercourse
- PSSR Key Constraints**
- Disused Quarry/Gravelpit
- Bedrock at - Close to Ground Level



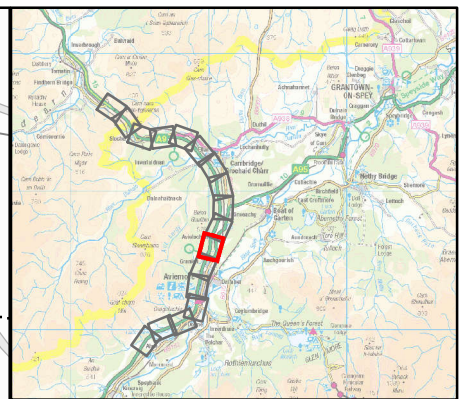
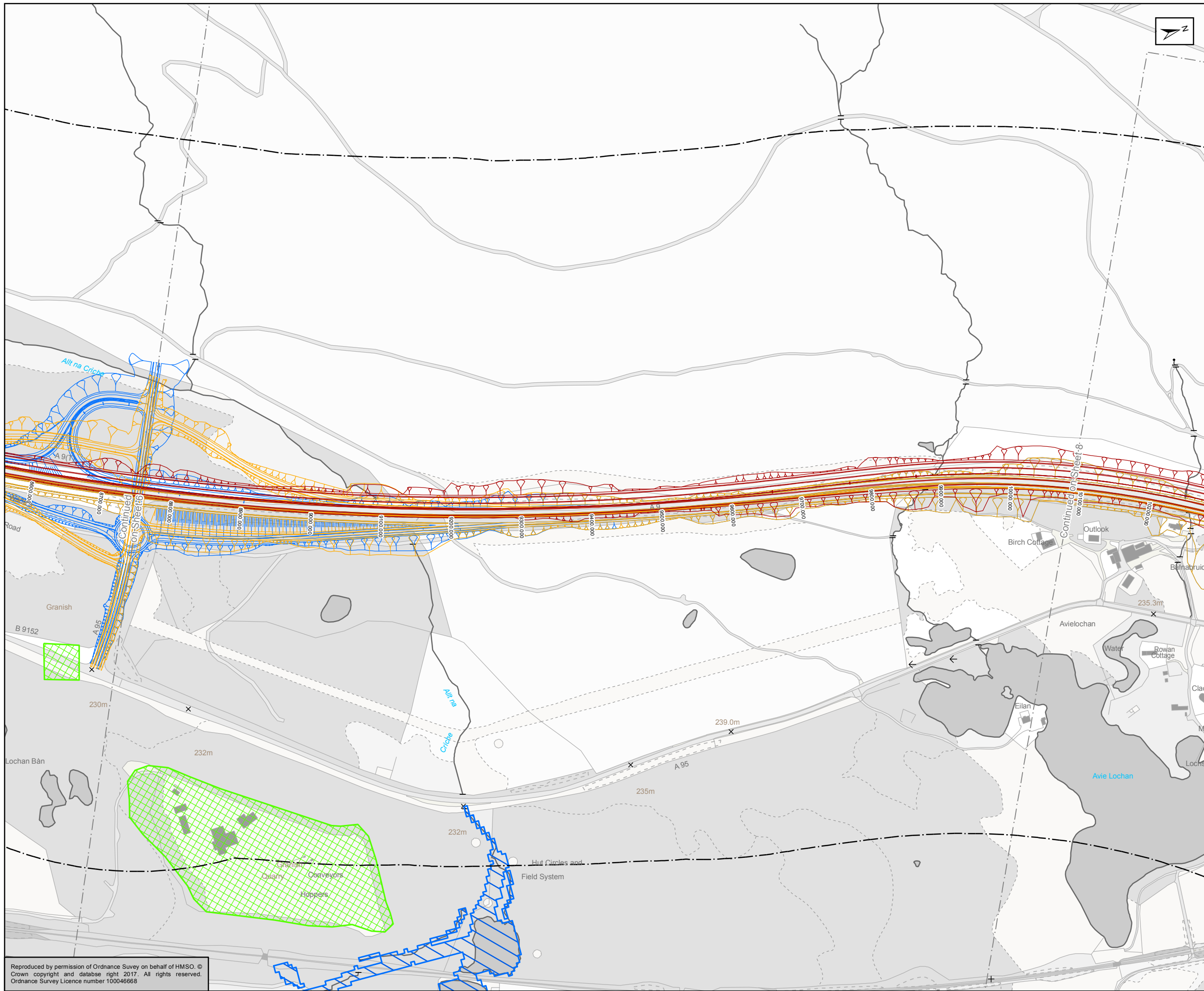
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FINAL	B



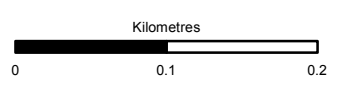
Figure 5.28f
Mainline Alignment Option 1 Geo-technical Constraints and Hazards
Sheet 6 of 17

Scale	Drawn	Checked	Approved	Authorised
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A9P11-AMJ-EGT-E_ZZZZZ_XZ-DR-GI-0042				P03
Location	Type	Role	Number	

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- Mainline Option 1 (Southbound Widening)
- Granish Southbound Junction Options**
- C31 - Diamond
- C34 - Half Dumbbell / Cloverleaf
- 500m Buffer of existing A9
- Extents of area at medium risk of flooding from river or watercourse
- PSSR Key Constraints**
- Disused Quarry/Gravelpit



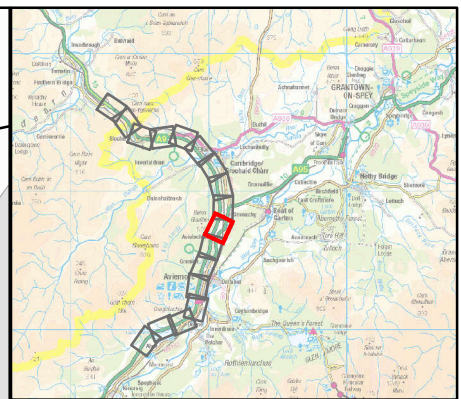
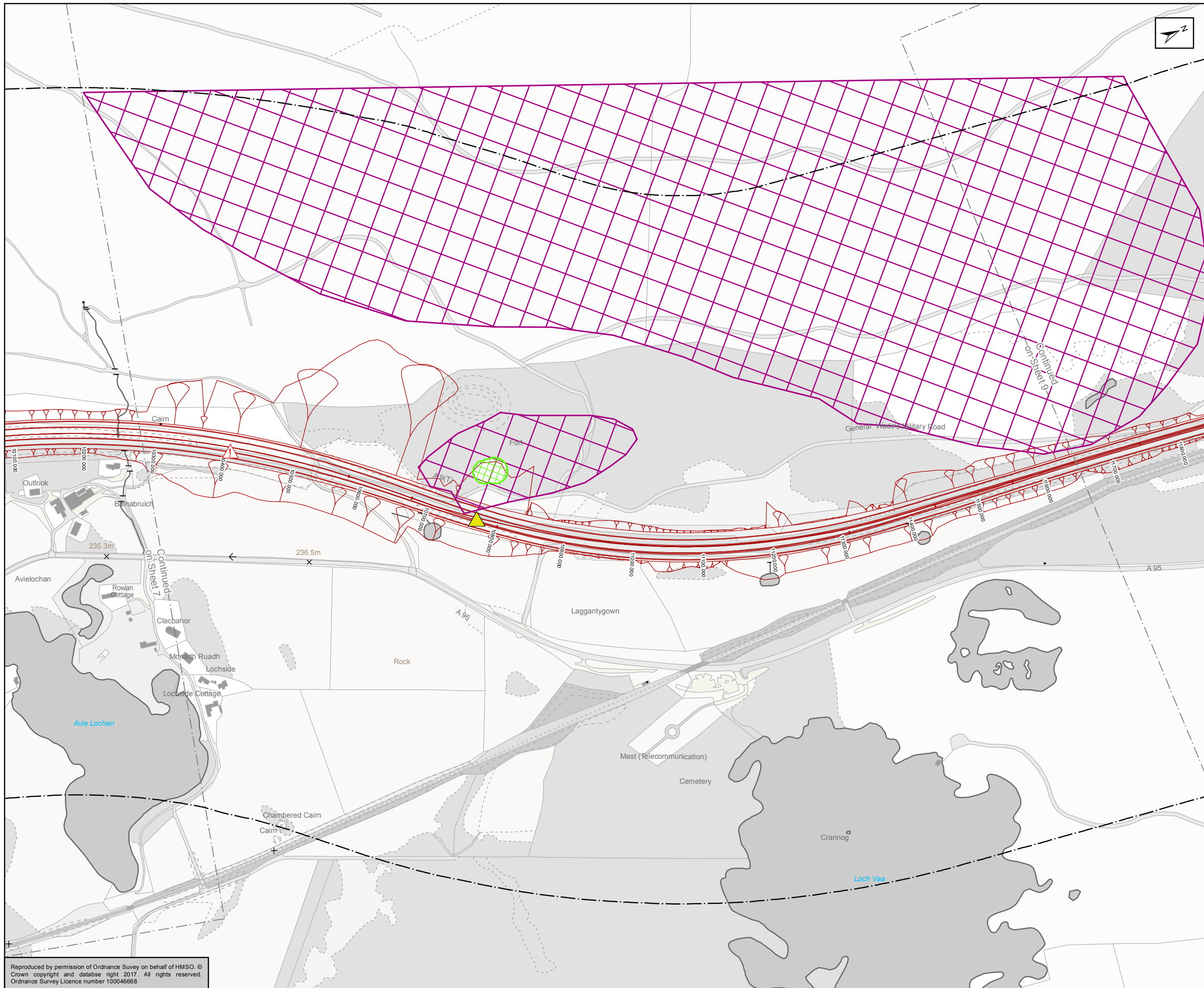
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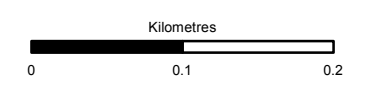
Figure 5.28g
Mainline Alignment Option 1 Geo-
technical Constraints and Hazards
Sheet 7 of 17

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Project	Originator	Volume							
Location	Type	Role	Number						

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- Mainline Option 1 (Southbound Widening)
- 500m Buffer of existing A9
- Key Constraints**
- Existing Geotechnical Problem
- Rock Cuts
- PSSR Key Constraints**
- Disused Quarry/Gravelpit
- Bedrock at - Close to Ground Level



Status: FINAL Sustainability: B

Client: **TRANSPORT SCOTLAND**
a member of The Scottish Government

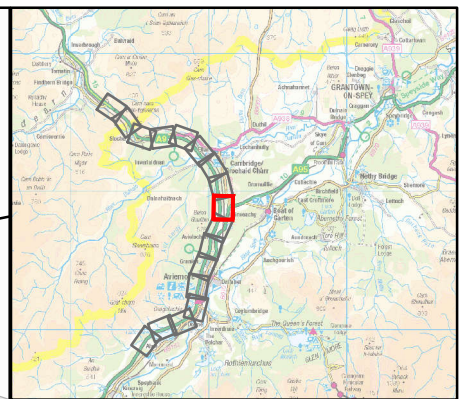
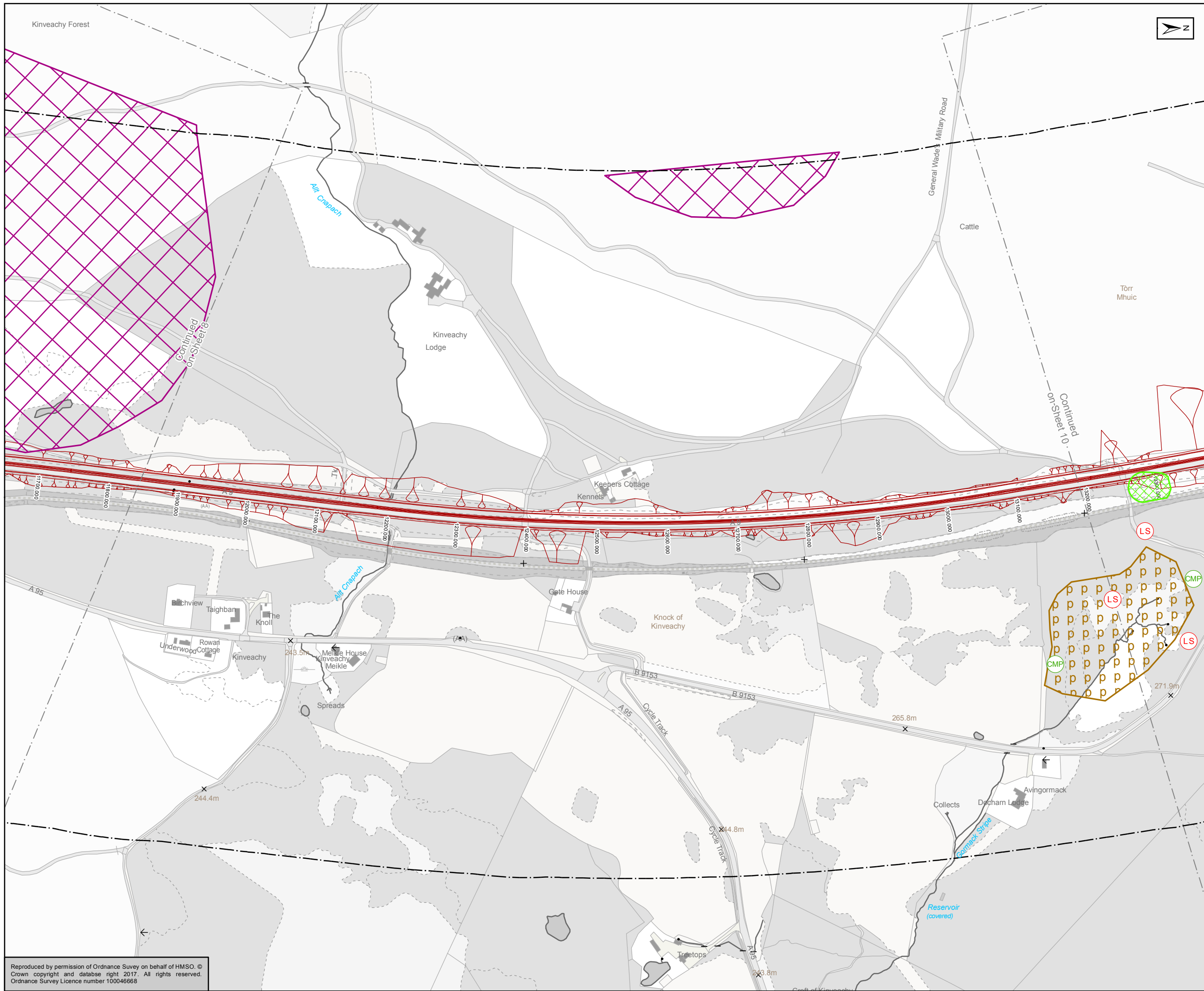


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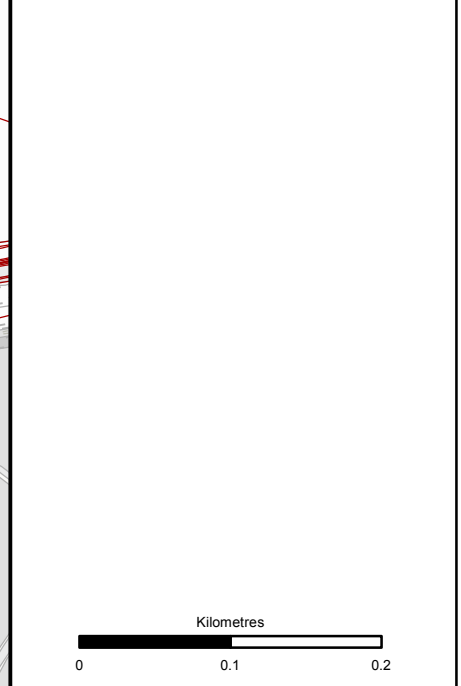
Figure 5.28h
 Mainline Alignment Option 1 Geo-technical Constraints and Hazards
 Sheet 8 of 17

Scale: 1:5,000	Drawn: JD	Checked: KP	Approved: MD	Authorised: RG
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Location:	Type:	Role:	Number:	

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- Mainline Option 1 (Southbound Widening)
- 500m Buffer of existing A9
- Key Constraints**
- Potential for Compressible Ground Stability Hazard
- Potential for Landslide Ground Stability Hazard
- PSSR Key Constraints**
- Disused Quarry/Gravelpit
- Peat
- Bedrock at - Close to Ground Level



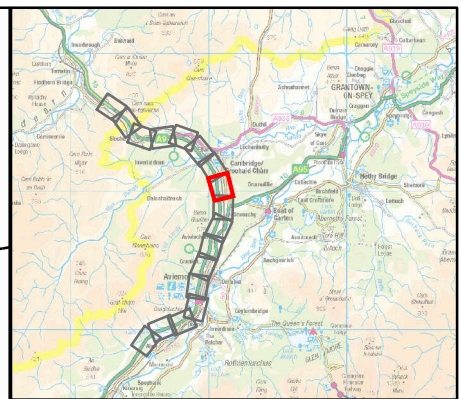
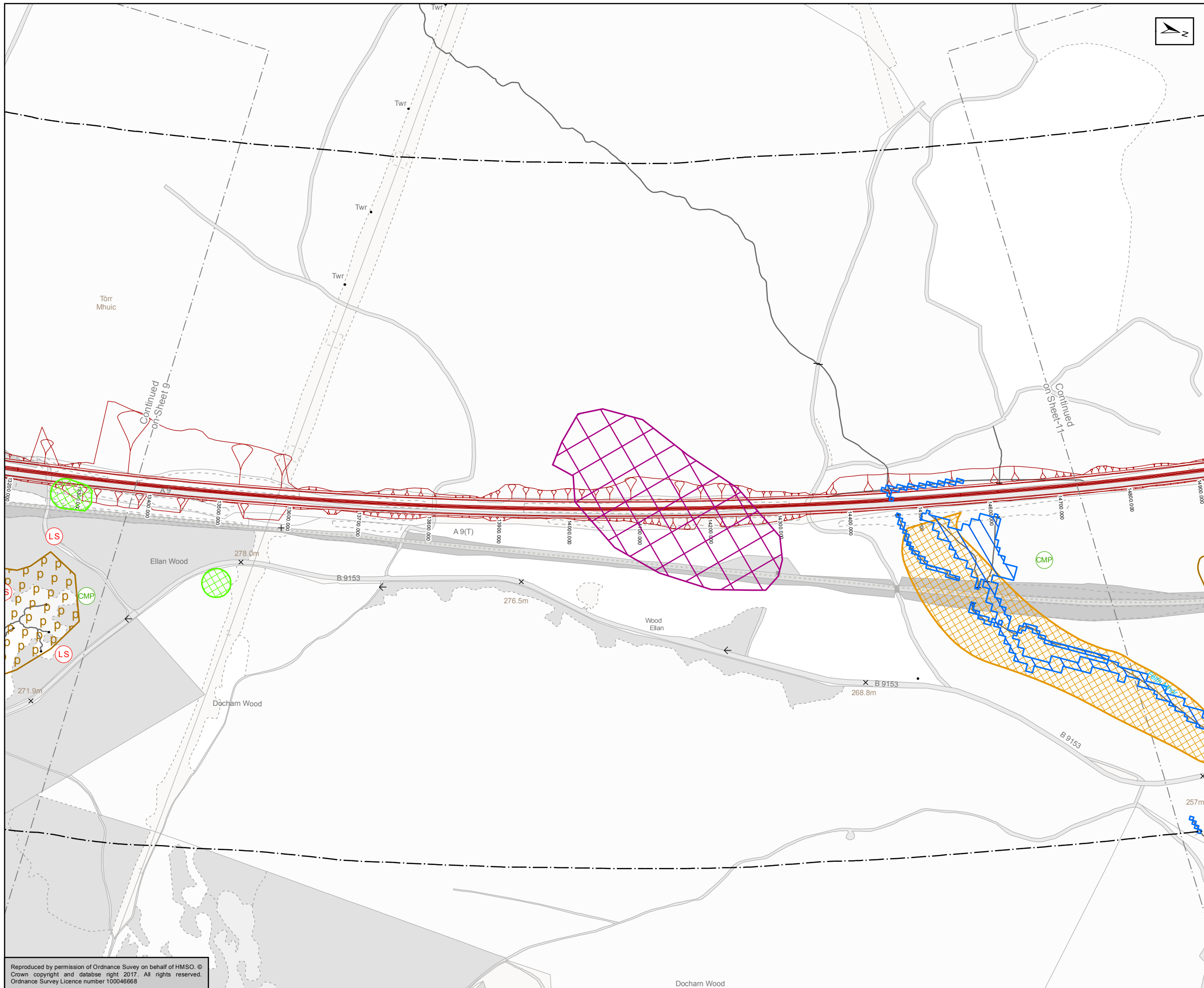
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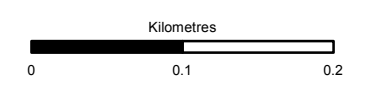
Figure 5.28i
Mainline Alignment Option 1 Geo-technical Constraints and Hazards
Sheet 9 of 17

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Project	Originator	Volume							
Location	Type	Role	Number						

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- Mainline Option 1 (Southbound Widening)
- 500m Buffer of existing A9
- Key Constraints**
- Potential for Compressible Ground Stability Hazard
- Potential for Landslide Ground Stability Hazard
- Extents of area at medium risk of flooding from river or watercourse
- PSSR Key Constraints**
- Alluvium
- Disused Quarry/Gravelpit
- Peat
- Bedrock at - Close to Ground Level



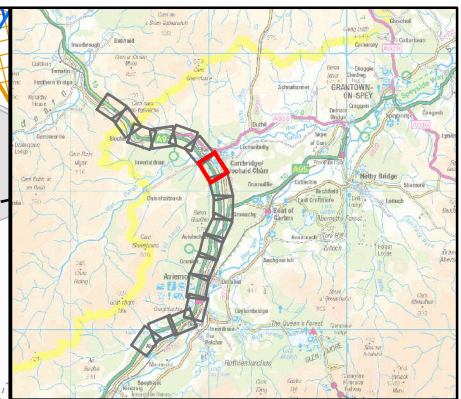
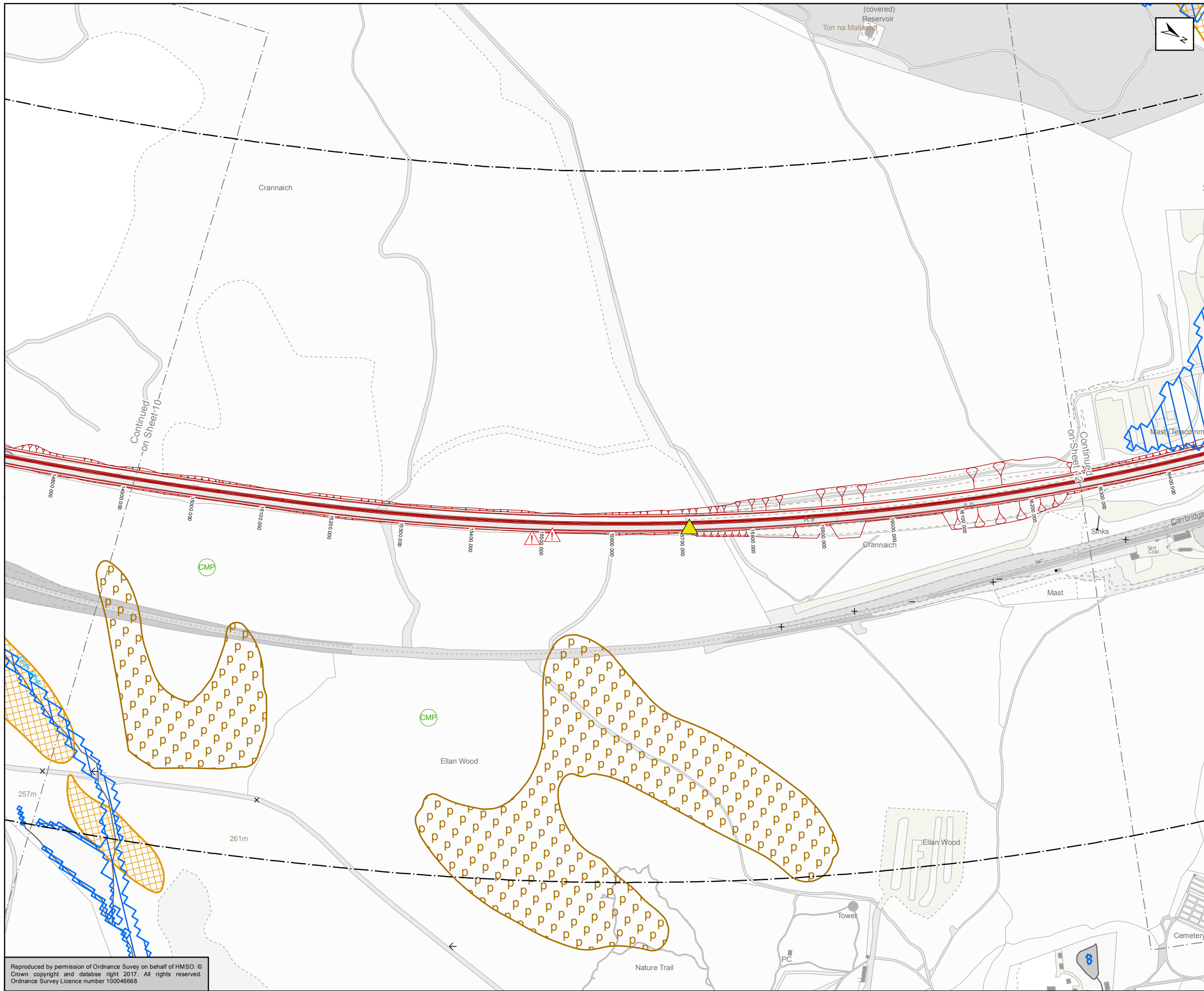
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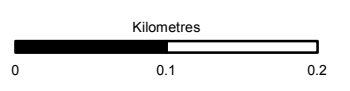
Figure 5.28j
Mainline Alignment Option 1 Geo-technical Constraints and Hazards
Sheet 10 of 17

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Project	Originator	Volume							
Location	Type	Role	Number						

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- Mainline Option 1 (Southbound Widening)
- 500m Buffer of existing A9
- Key Constraints**
- Potential for Compressible Ground Stability Hazard
- Existing Geotechnical Problem
- Rock Cuts
- Extents of area at medium risk of flooding from river or watercourse
- PSSR Key Constraints**
- Alluvium
- Peat



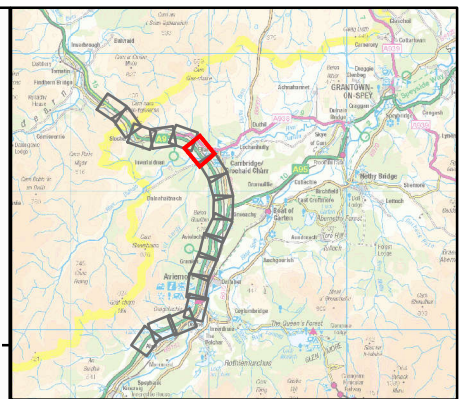
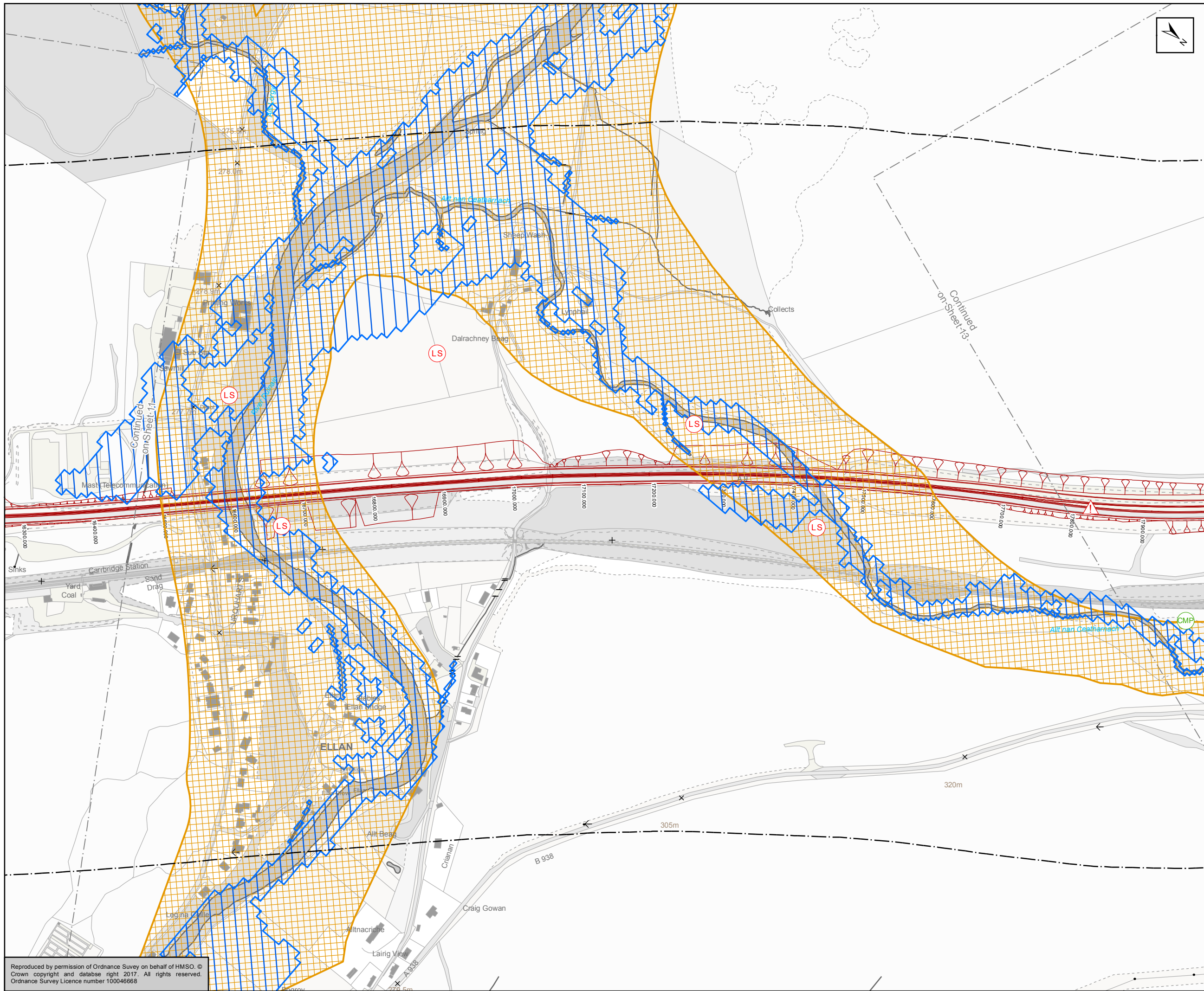
Status	FINAL	Sustainability	B
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Figure 5.28k
Mainline Alignment Option 1 Geo-technical Constraints and Hazards
Sheet 11 of 17

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Document Number	A9P11-AMJ-EGT-E_ZZZZZ_XX-DR-GI-0047							Revision	P03
Project	Originator	Volume							
Location	Type	Role	Number						

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- Mainline Option 1 (Southbound Widening)
- 500m Buffer of existing A9
- Key Constraints**
- Potential for Compressible Ground Stability Hazard
- Potential for Landslide Ground Stability Hazard
- Existing Geotechnical Problem
- Extents of area at medium risk of flooding from river or watercourse
- PSSR Key Constraints**
- Alluvium

Continued on Sheet 13

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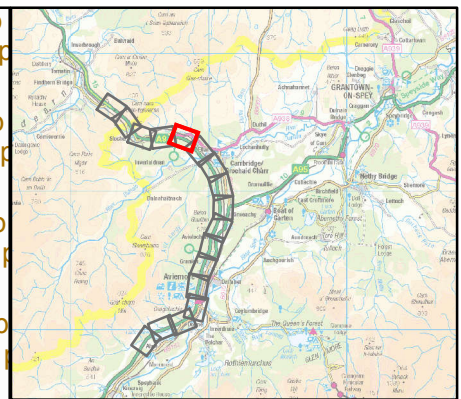
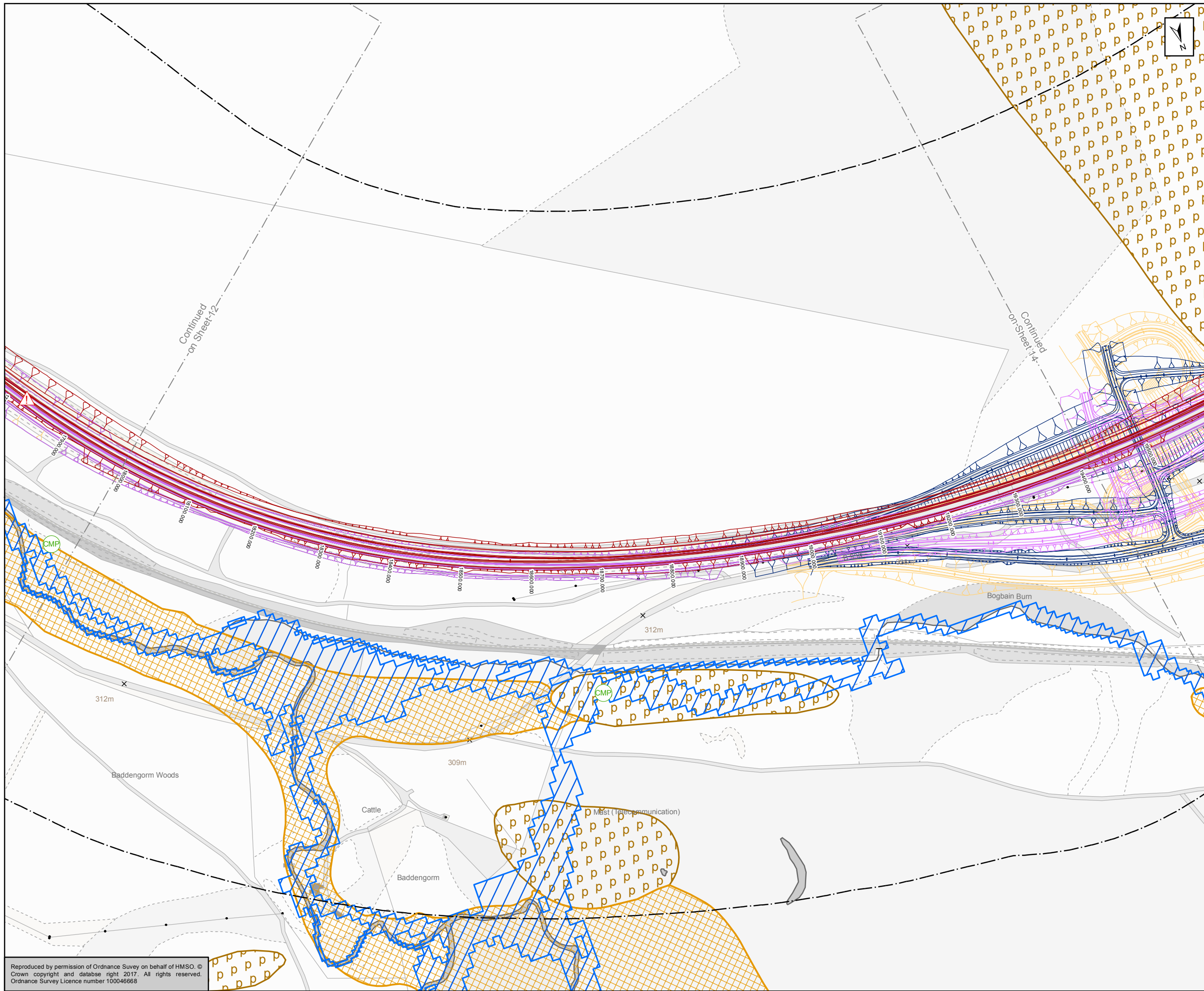
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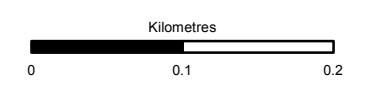
Figure 5.281
Mainline Alignment Option 1 Geo-technical Constraints and Hazards
Sheet 12 of 17

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Location	Type	Role	Number	

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- Mainline Option 1 (Southbound Widening)
- Black Mount Southbound Junctions Options**
- D03 - Restricted Movements Diamond
- D12 - Diamond with Left Right Stagger
- D51 - Half Cloverleaf - Quadrants 2 & 4
- 500m Buffer of existing A9
- Key Constraints**
- Potential for Compressible Ground Stability Hazard
- Existing Geotechnical Problem
- Extents of area at medium risk of flooding from river or watercourse
- PSSR Key Constraints**
- Alluvium
- Peat



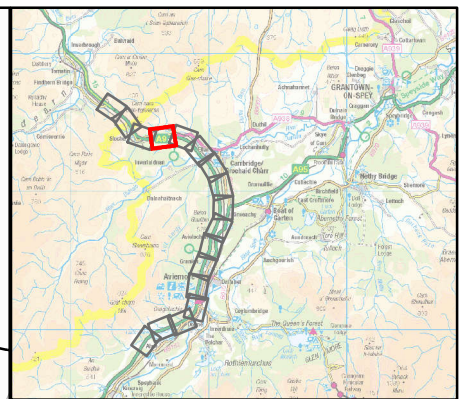
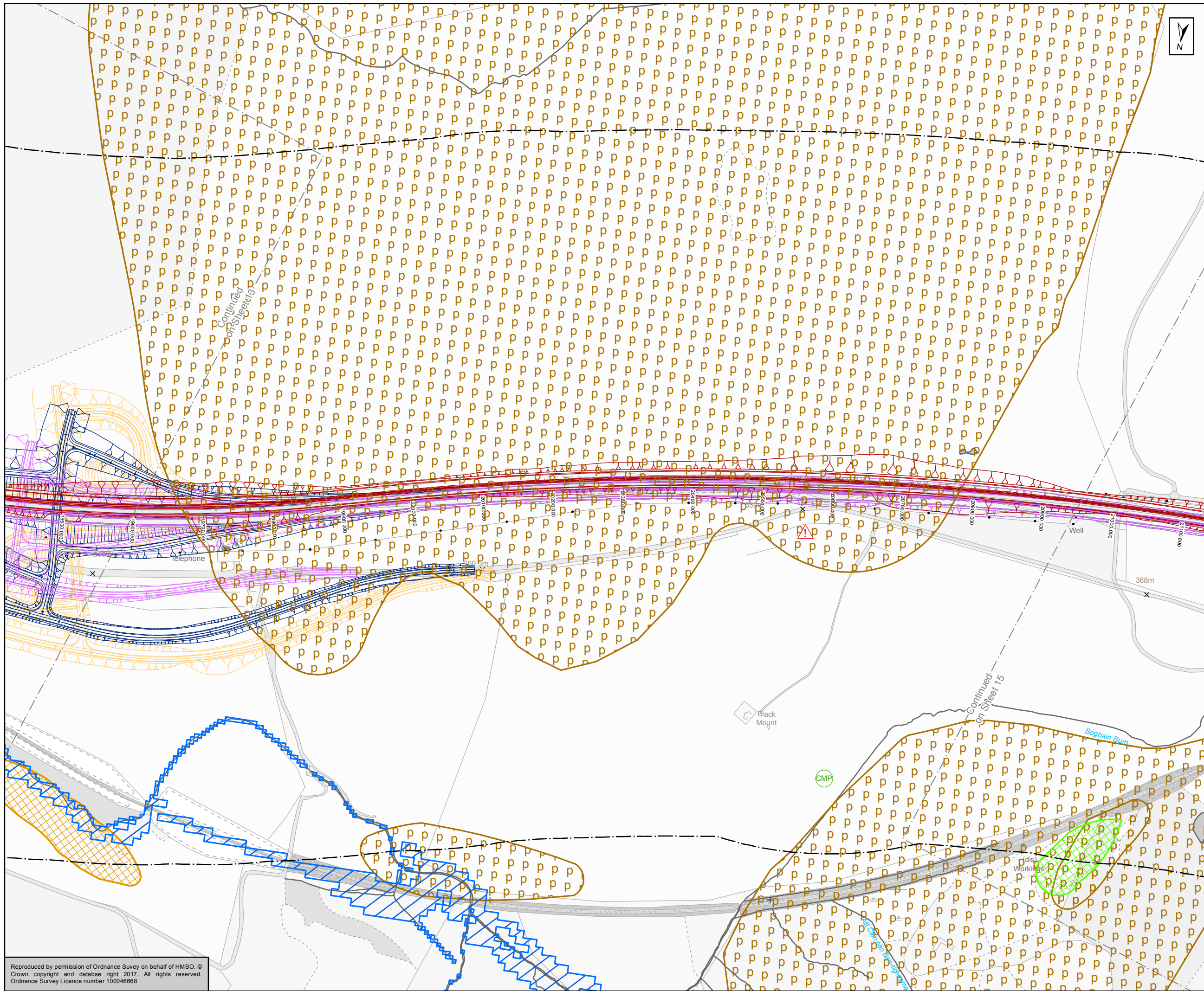
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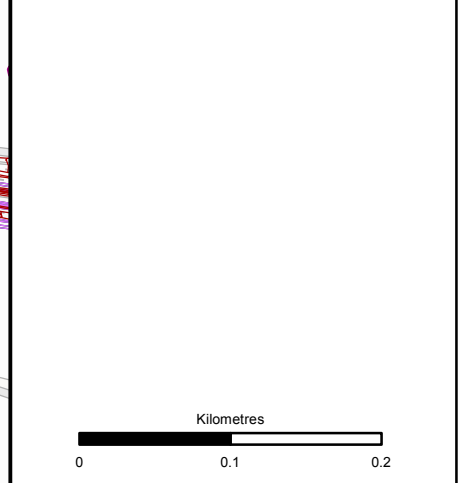
Figure 5.28m
Mainline Alignment Option 1 Geo-technical Constraints and Hazards
Sheet 13 of 17

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Project	Originator	Volume							
Location	Type	Role	Number						

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- Mainline Option 1 (Southbound Widening)
- Black Mount Southbound Junctions Options**
- D03 - Restricted Movements Diamond
- D12 - Diamond with Left Right Stagger
- D51 - Half Cloverleaf - Quadrants 2 & 4
- 500m Buffer of existing A9
- Key Constraints**
- Potential for Compressible Ground Stability Hazard
- Existing Geotechnical Problem
- Extents of area at medium risk of flooding from river or watercourse
- PSSR Key Constraints**
- Alluvium
- Disused Quarry/Gravelpit
- Peat
- Bedrock at - Close to Ground Level



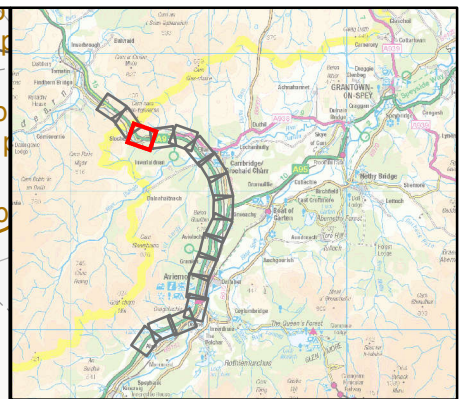
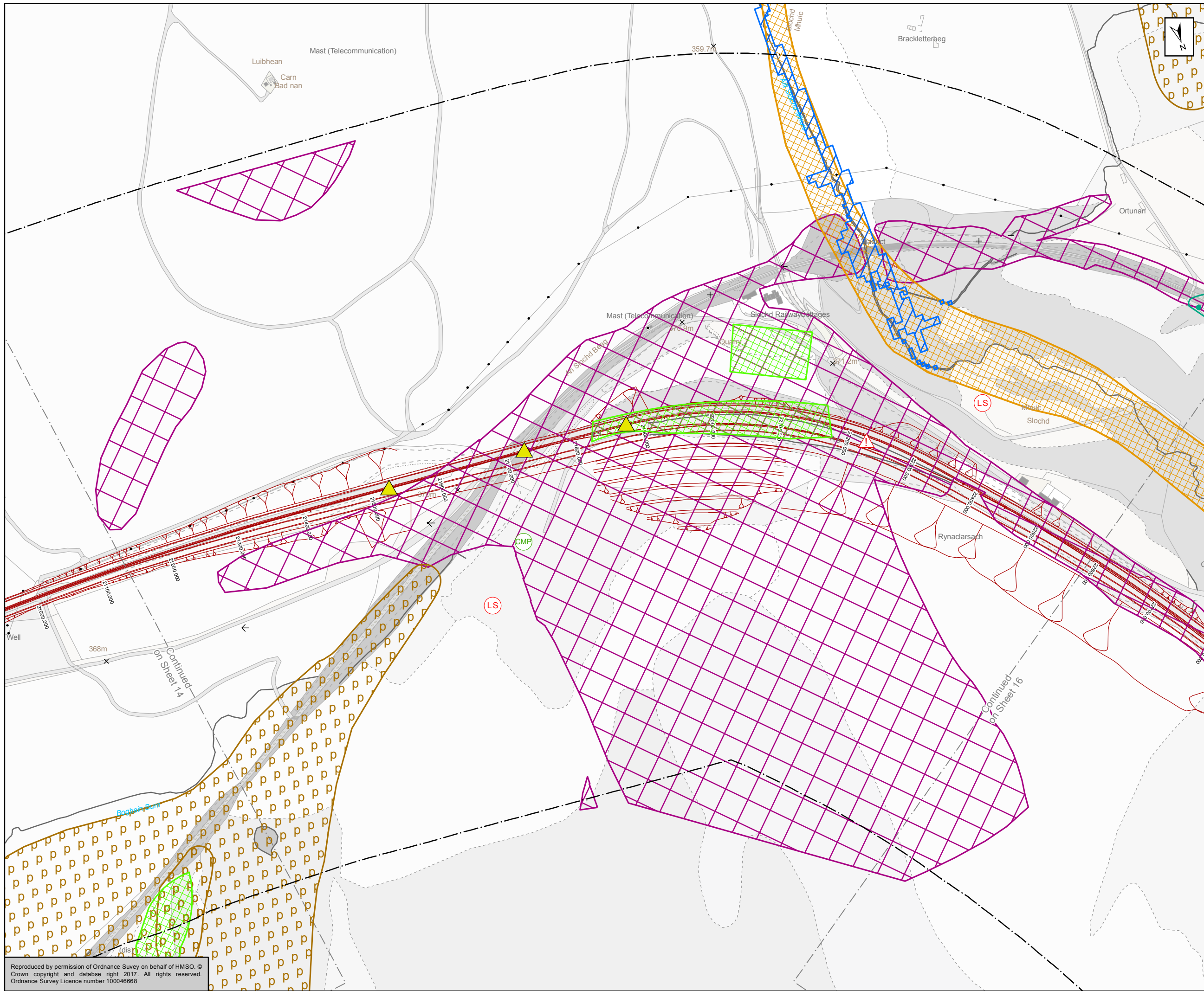
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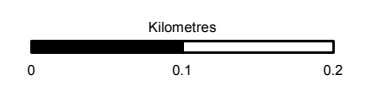
Figure 5.28n
Mainline Alignment Option 1 Geo-technical Constraints and Hazards
Sheet 14 of 17

Scale	1:5,000	Drawn	JD	Checked	KP	Approved	MD	Authorised	RG
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Project	Originator	Volume							
Location	Type	Role	Number						

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- Mainline Option 1 (Southbound Widening)
- 500m Buffer of existing A9
- Key Constraints**
- Potential for Compressible Ground Stability Hazard
- Potential for Landslide Ground Stability Hazard
- Existing Geotechnical Problem
- Rock Cuts
- Geological Conservation Review Site
- Extents of area at medium risk of flooding from river or watercourse
- PSSR Key Constraints**
- Alluvium
- Disused Quarry/Gravelpit
- Peat
- Bedrock at - Close to Ground Level



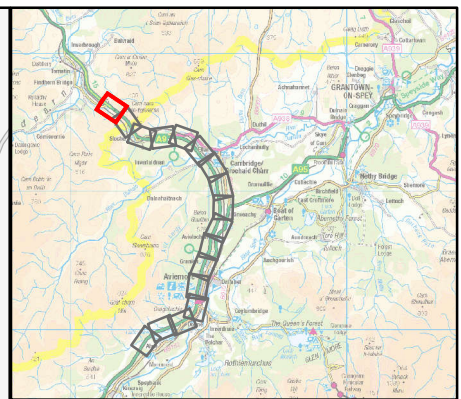
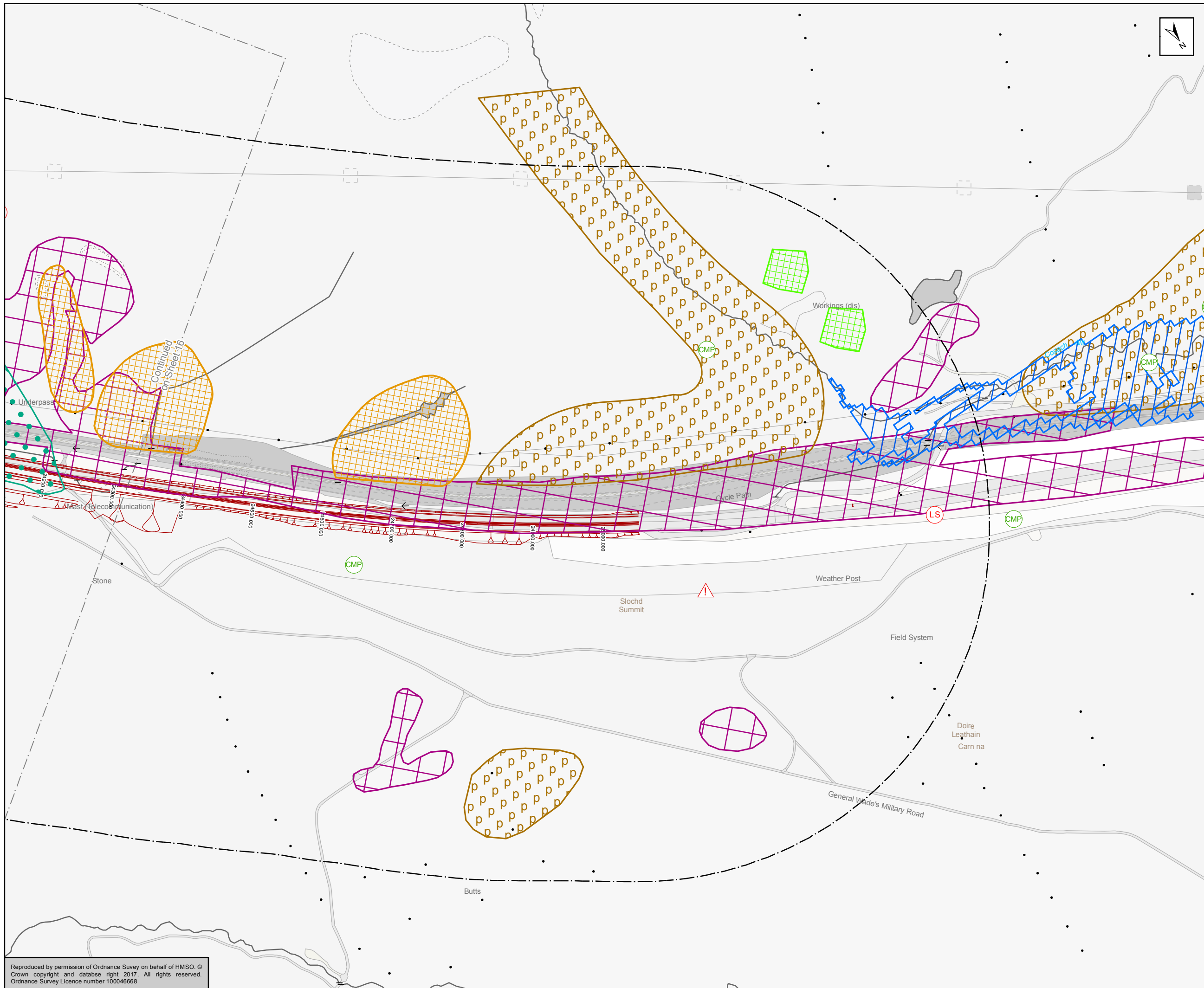
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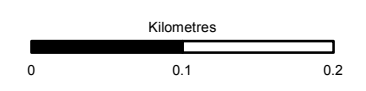
Figure 5.28o
Mainline Alignment Option 1 Geo-technical Constraints and Hazards
Sheet 15 of 17

Scale	1:5,000	Drawn	JD	Checked	KP	Approved	MD	Authorised	RG
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Project	Originator	Volume							
Location	Type	Role	Number						

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- Mainline Option 1 (Southbound Widening)
- 500m Buffer of existing A9
- Key Constraints**
- Potential for Compressible Ground Stability Hazard
- Potential for Landslide Ground Stability Hazard
- Existing Geotechnical Problem
- Geological Conservation Review Site
- Extents of area at medium risk of flooding from river or watercourse
- PSSR Key Constraints**
- Alluvium
- Disused Quarry/Gravelpit
- Peat
- Bedrock at - Close to Ground Level



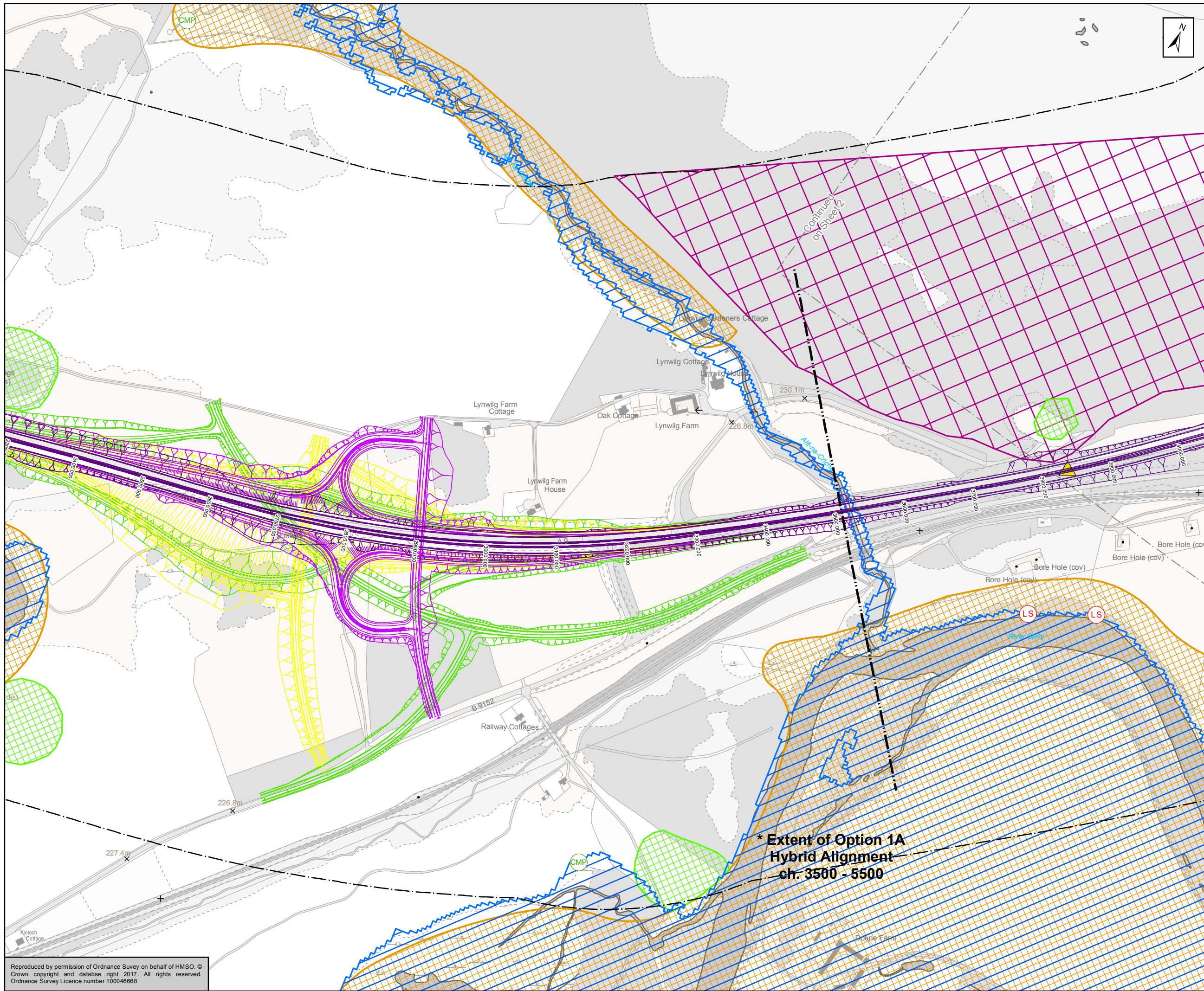
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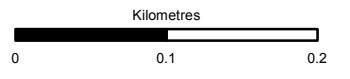
Figure 5.28q
Mainline Alignment Option 1 Geo-technical Constraints and Hazards
Sheet 17 of 17

Scale	1:5,000	Drawn	JD	Checked	KP	Approved	MD	Authorised	RG
Document Number	A9P11-AMJ-EGT-E_ZZZZZ_XX-DR-GI-0053							Revision	P03
Project	Originator	Volume							
Location	Type	Role	Number						

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- Mainline Option 1A (Southbound Widening, Aviemore Variant)
- Aviemore South Junction Options (Southbound Widening)**
- A02 - Half Cloverleaf - Quadrants 1 & 4
- A09 - Diamond Left Right with Ghost Island
- A18 - Left Right Stagger with B9152 Realigned
- Key Constraints**
- Potential for Compressible Ground Stability Hazard
- Potential for Landslide Ground Stability Hazard
- Rock Cuts
- 500m Buffer of existing A9
- Extents of area at medium risk of flooding from river or watercourse
- PSSR Key Constraints**
- Alluvium
- Disused Quarry/Gravelpit
- Bedrock at - Close to Ground Level



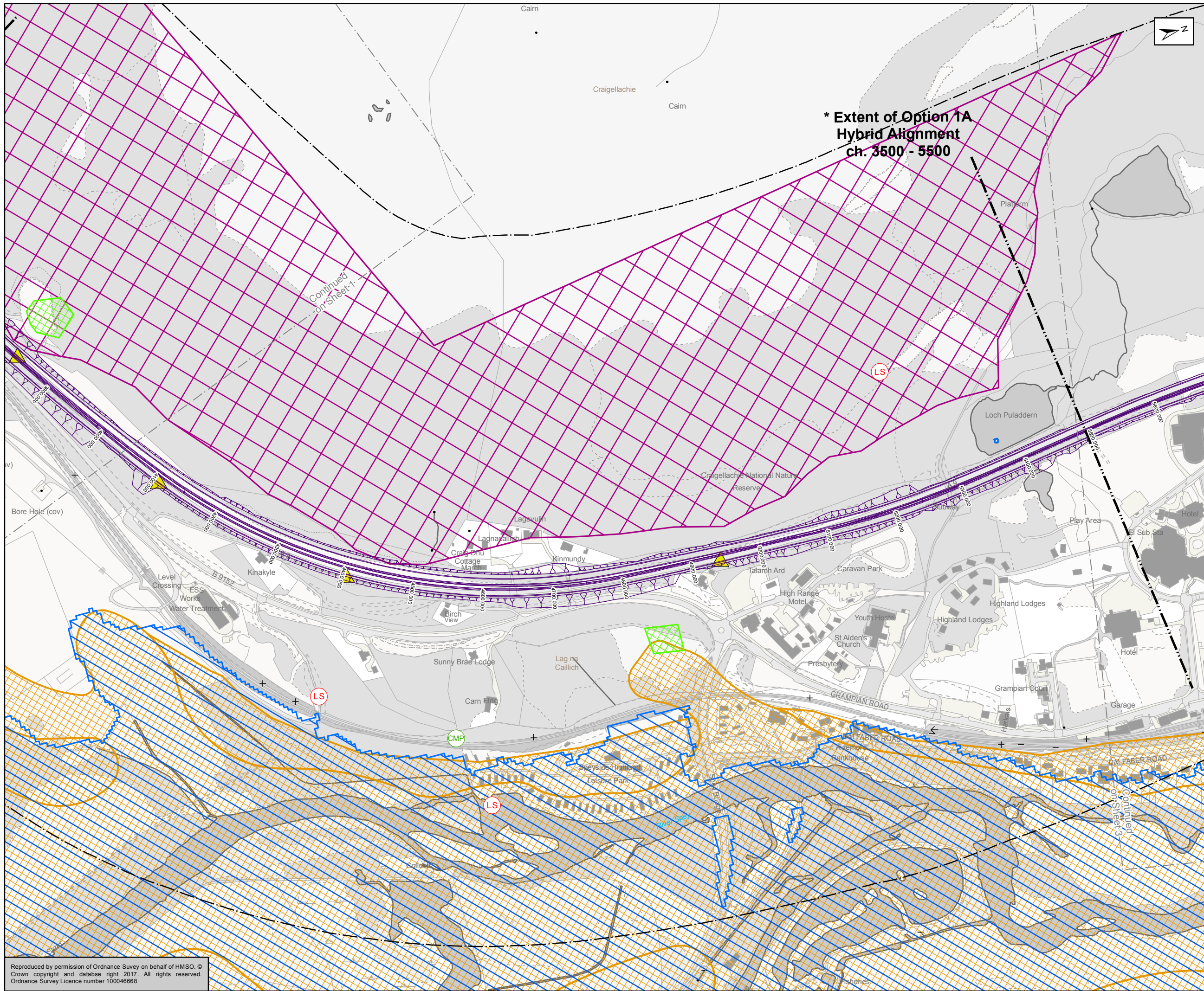
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Figure 5.29a
Mainline Alignment Option 1A Geo-technical Constraints and Hazards
Sheet 1 of 3

Scale	1:5,000	Drawn	JD	Checked	KP	Approved	MD	Authorised	RG
Document Number	A9P11-AMJ-EGT-G_ZZZZZ_XX-DR-GI-0007								P02
Project	Originator	Volume	Location Type Role Number						

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Mainline Option 1A
(Southbound Widening, Aviemore Variant)

Key Constraints

- Potential for Compressible Ground Stability Hazard
- Potential for Landslide Ground Stability Hazard
- Rock Cuts
- 500m Buffer of existing A9
- Extents of area at medium risk of flooding from river or watercourse

PSSR Key Constraints

- Alluvium
- Disused Quarry/Gravelpit
- Bedrock at - Close to Ground Level

Kilometres
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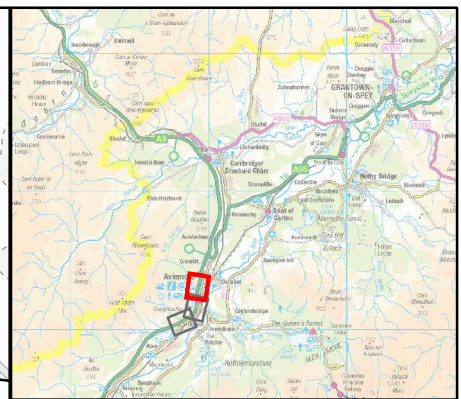
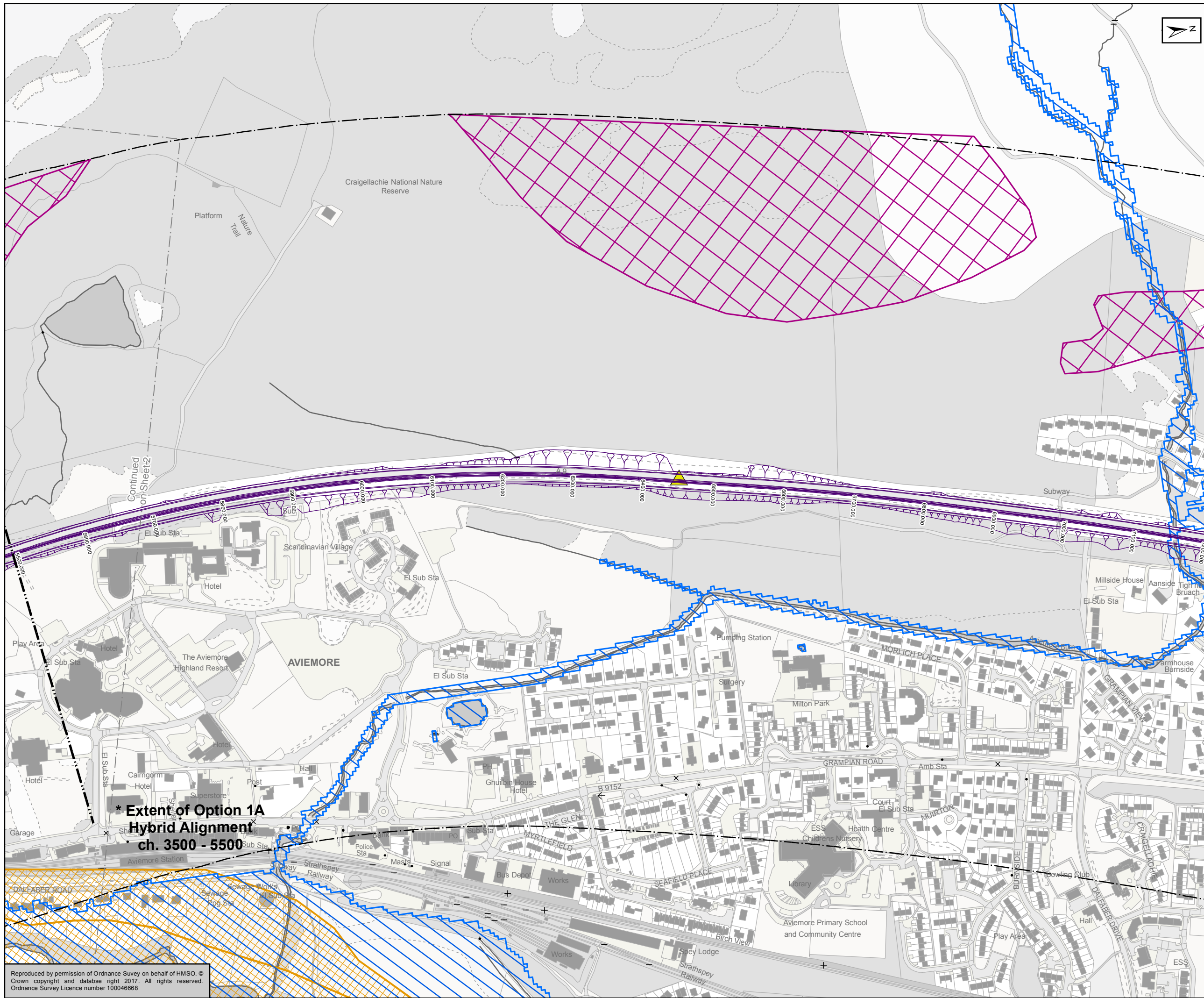
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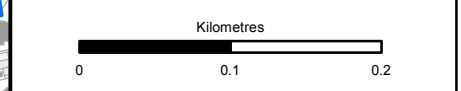
Figure 5.29b
Mainline Alignment Option 1A Geo-technical Constraints and Hazards
Sheet 2 of 3

Scale	1:5,000	Drawn	JD	Checked	KP	Approved	MD	Authorised	RG
Document Number	A9P11-AMJ-EGT-G_ZZZZ_XZ-DR-GI-0008								P02
Project	Originator	Volume	Location						
A9P11-AMJ-EGT-G_ZZZZ_XZ-DR-GI-0008			Location						

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- Mainline Option 1A (Southbound Widening, Aviemore Variant)
- Rock Cuts
- 500m Buffer of existing A9
- Extents of area at medium risk of flooding from river or watercourse
- PSSR Key Constraints**
- Alluvium
- Bedrock at - Close to Ground Level



FINAL B



Figure 5.29c
Mainline Alignment Option 1A Geo-technical Constraints and Hazards
Sheet 3 of 3

Scale	1:5,000	Drawn	JD	Checked	KP	Approved	MD	Authorised	RG
Document Number	A9P11-AMJ-EGT-G_ZZZZ_XX-DR-GI-0009								P02
Project	Originator	Volume							
Location	Type	Role	Number						

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