

Legend

- Route option
- 500m Buffer around Shortlisted Option
- Well - from historic map interpretation
- Active mineral site
- Watercourse
- Historical railway line (includes main Aberdeen-Inverness line)

Historical map features*

- General quarrying
- Quarrying of sand & clay, operation of sand & gravel pits
- Infilled quarry or water feature
- Heap, unknown constituents (identified from historical mapping review)
- Heap, unknown constituents (data provided by landmark)
- Marshlands

Landmark potentially infilled land (water feature)**

- Landmark potentially infilled land (non-water feature)**

Potential hazard

- Landslide ground stability
 - Moderate
 - Low
- Compressible ground stability ***
 - High
 - Moderate
- Collapsible ground stability
 - Very Low
 - Ground dissolution stability
 - Very Low
 - Shrinking or swelling clay ground stability
 - Low
 - Very Low

Artificial Deposits - Superficial

- Infilled Ground - Made Ground (Composition Unspecified), IG
- Landscaped Ground (Undivided) - Unknown Lithology, LGU
- Made Ground (Undivided) - Made Ground (Composition Unspecified), MGU
- Worked Ground (Undivided) - Void, WGU

* Derived from Landmark Potentially Contaminative Industrial Sites (Past Land Use) dataset and a review of the historical maps
 ** Data received from Landmark, from their small scale mapping product
 *** Due to the extensive coverage and overlay of the data presented on the Geotechnical Constraints drawings, areas of low hazard for potential compressible ground, areas of very low and low hazard for running sand ground stability and areas of very low hazard for landslide ground are included within the GIS database only, and are not indicated on the drawings

0 500 1,000 Metres

CD1	27/11/2018	Approved as Stage Complete	JB	SR
Rev.	Rev. Date	Drawing Suitability	Drawn	Apprd

Mott MacDonald Sweco

Client

Project

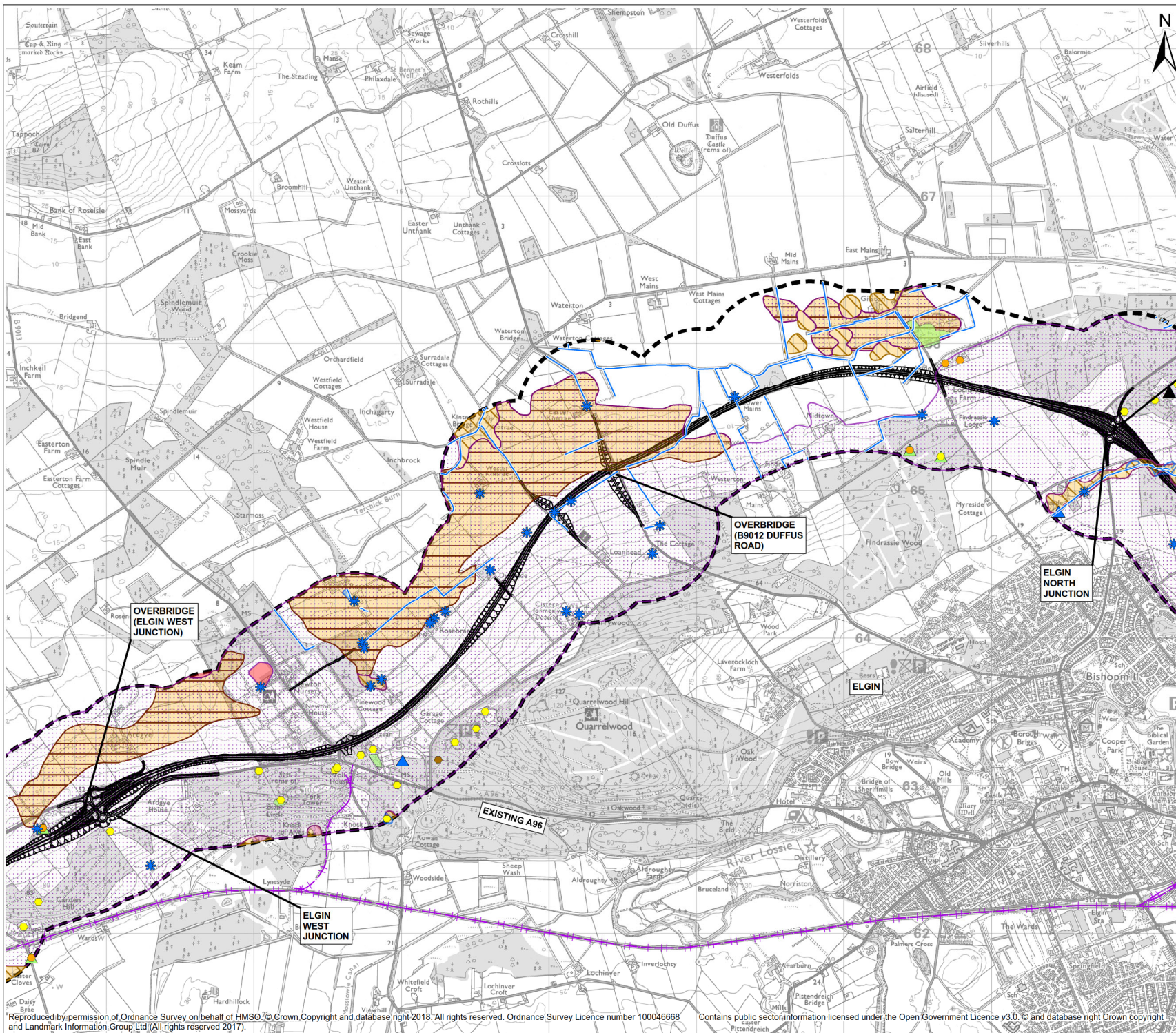
**A96 DUALLING
HARDMUIR TO FOCHABERS**

Drawing Title

**FIGURE 6.21 HILLHEAD TO LHANBRYDE
NORTH OPTION GEOTECHNICAL CONSTRAINTS
SHEET 1 OF 3**

Scale @ A3	1:25,000	DO NOT SCALE
Project No.	117880	Status
BIM No.	A96PHF-MMS-EGT-00000-DR-GE-00033	

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- Marshlands

Landmark potentially infilled land (water feature)**

- Blue triangle
- Blue square
- Blue dashed line

Landmark potentially infilled land (non-water feature)**

- Green triangle
- Green square

Potential hazard

- Landslide ground stability
 - Moderate
 - Low
- Compressible ground stability***
 - High
 - Moderate
 - Very Low
- Collapsible ground stability
 - Very Low
- Ground dissolution stability
 - Very Low
- Shrinking or swelling clay ground stability
 - Low
 - Very Low

Artificial Deposits - Superficial

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- Landscape Ground (Undivided) - Unknown Lithology, LGU
- Made Ground (Undivided) - Made Ground (Composition Unspecified), MGU
- Worked Ground (Undivided) - Void, WGU

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0 500 1,000 Metres

CD1	27/11/2018	Approved as Stage Complete	JB	SR
Rev.	Rev. Date	Drawing Suitability	Drawn	Apprd

Mott MacDonald Sweco

Client: **ASD DUALLING**
 HARDMUIR TO FOCHABERS

Project: **A96 DUALLING**
 HARDMUIR TO FOCHABERS

Drawing Title: **FIGURE 6.22 HILLHEAD TO LHANBRYDE**
 NORTH OPTION GEOTECHNICAL CONSTRAINTS
 SHEET 2 OF 3

Scale @ A3	1:25,000	DO NOT SCALE
Project No.	117780	Status
BIM No.	A96PHF-MMS-EGT-00000-DR-GE-00034	

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- Heap, unknown constituents (data provided by landmark)
- Marshlands

Landmark potentially infilled land (water feature)**

- Blue triangle

Landmark potentially infilled land (non-water feature)**

- Green triangle

Potential hazard

- Landslide ground stability
 - Moderate
 - Low
- Compressible ground stability ***
 - High
 - Moderate
- Collapsible ground stability
 - Very Low
- Ground dissolution stability
 - Very Low
- Shrinking or swelling clay ground stability
 - Low
 - Very Low

Artificial Deposits - Superficial

- Infilled Ground - Made Ground (Composition Unspecified), IG
- Landscaped Ground (Undivided) - Unknown Lithology, LGU
- Made Ground (Undivided) - Made Ground (Composition Unspecified), MGU
- Worked Ground (Undivided) - Void, WGU

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0 500 1000 Metres

CD1	27/11/2018	Approved as Stage Complete	JB	SR
Rev.	Rev. Date	Drawing Suitability	Drawn	Apprd

Mott MacDonald Sweco

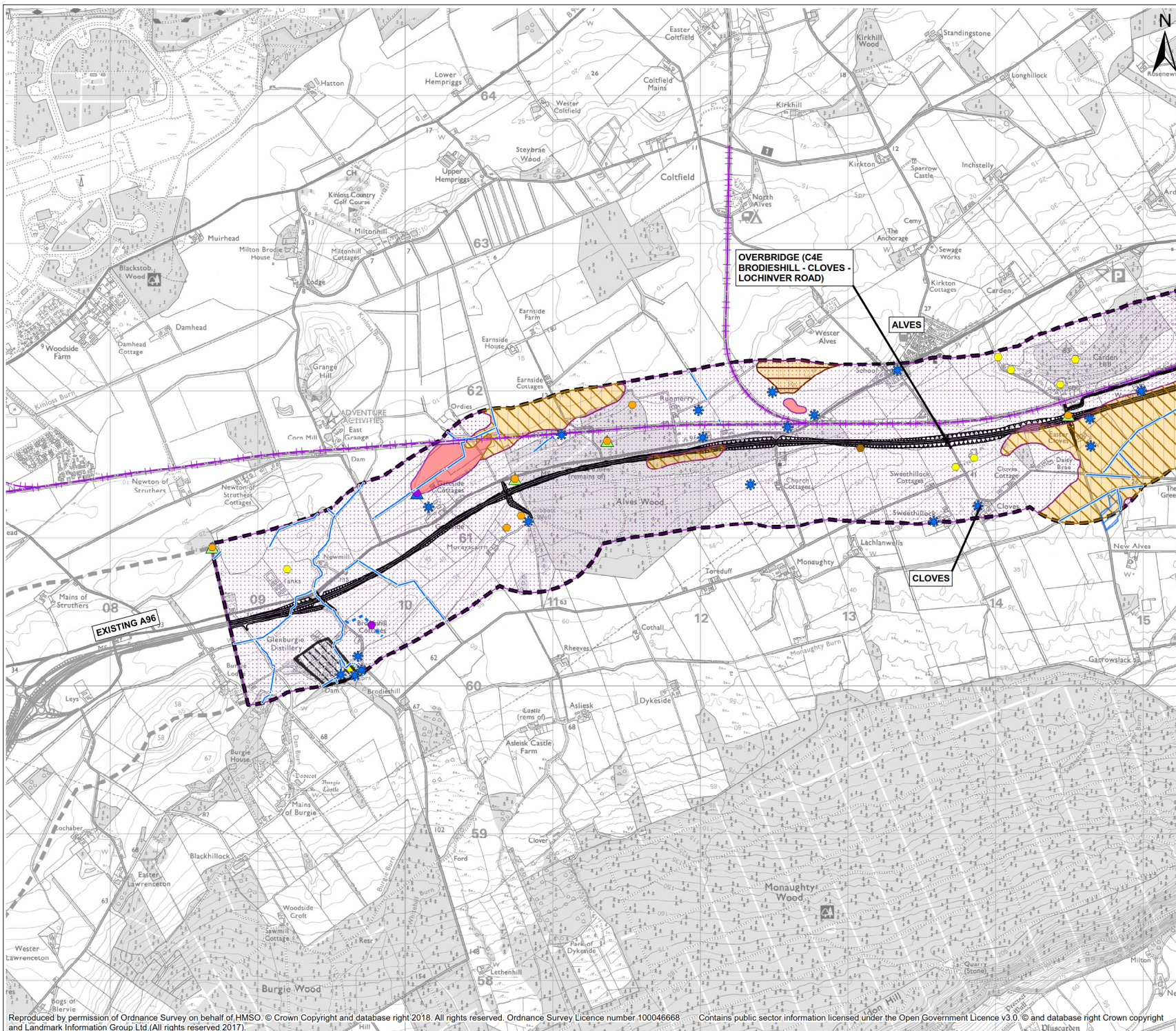
Client: **TRANSFOR SCOTLAND** **A96 DUALING**
 HARDMUIR TO FOCHABERS

Project: **A96 DUALING**
HARDMUIR TO FOCHABERS

Drawing Title: **FIGURE 6.23 HILLHEAD TO LHANBRYDE**
NORTH OPTION GEOTECHNICAL CONSTRAINTS
SHEET 3 OF 3

Scale @ A3	1:25,000	DO NOT SCALE
Project No.	117780	Status
BIM No.	A96PHF-MMS-EGT-00000-DR-GE-00035	A2

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- Heap, unknown constituents (data provided by landmark)
- Marshlands

Landmark potentially infilled land (water feature)**

- Landmark potentially infilled land (non-water feature)**

Potential hazard

- Landslide ground stability
 - Moderate
 - Low
- Compressible ground stability***
 - High
 - Moderate
- Collapsible ground stability
 - Very Low
- Ground dissolution stability
 - Very Low
- Shrinking or swelling clay ground stability
 - Low
 - Very Low

Artificial Deposits - Superficial

- Infilled Ground - Made Ground (Composition Unspecified), IG
- Landscape Ground (Undivided) - Unknown Lithology, LGU
- Made Ground (Undivided) - Made Ground (Composition Unspecified), MGU
- Worked Ground (Undivided) - Void, WGU

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0 500 1,000 Metres

C01	27/11/2018	Approved as Stage Complete	JB	SR
Rev.	Rev. Date	Drawing Suitability	Drawn	Apprd

Mott MacDonald Sweco

Client

Project

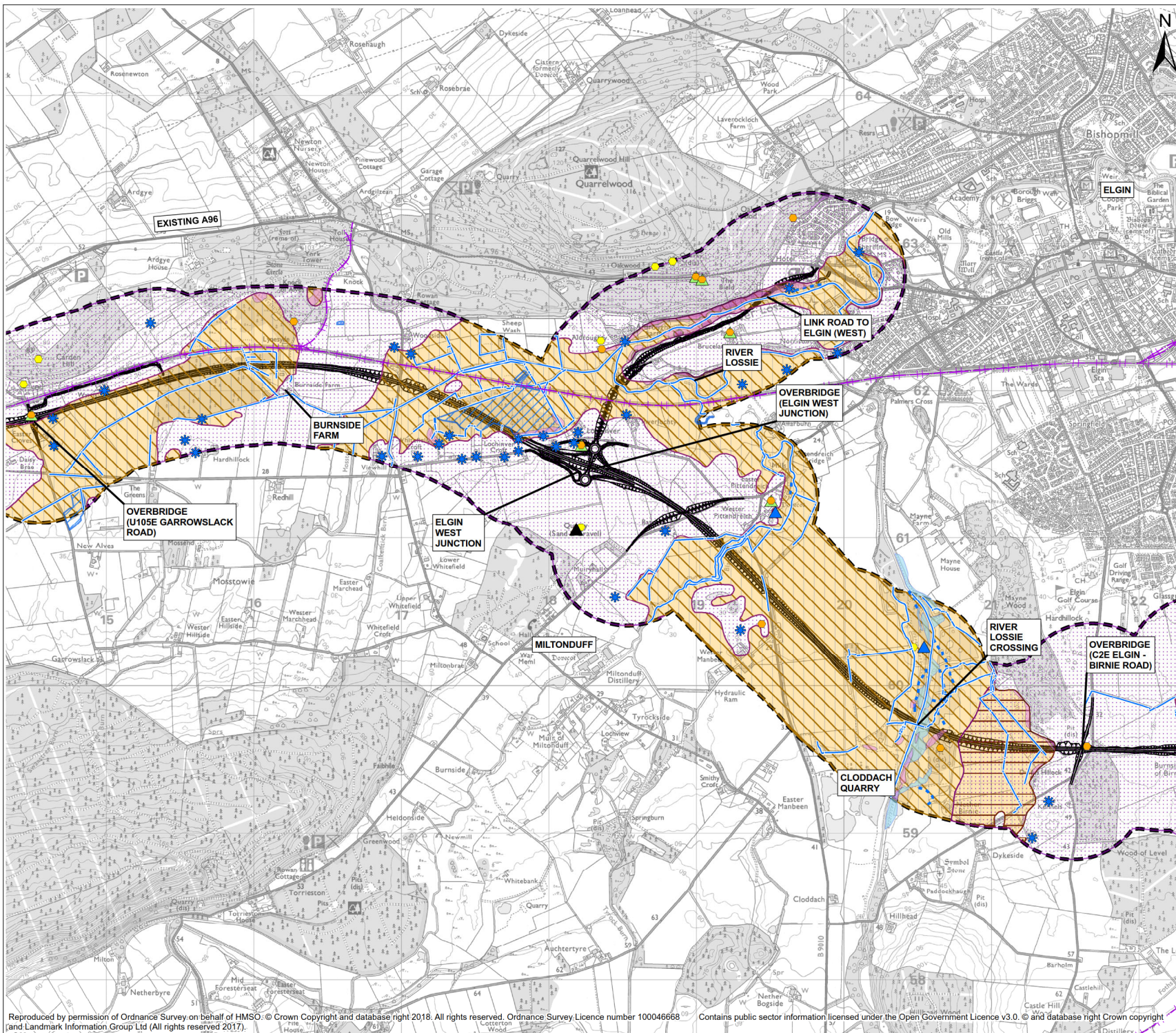
**A96 DUALLING
HARDMUIR TO FOCHABERS**

Drawing Title

**FIGURE 6.24 HILLHEAD TO LHANBRYDE
SOUTH OPTION GEOTECHNICAL CONSTRAINTS
SHEET 1 OF 3**

Scale @ A3	1:25,000	DO NOT SCALE
Project No.	117880	Status
BIM No.	A96PHF-MMS-EGT-00000-DR-GE-00036	A2

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- Heap, unknown constituents (data provided by landmark)
- Marshlands

Landmark potentially infilled land (water feature)**

- Landmark potentially infilled land (non-water feature)**

Potential hazard

- Landslide ground stability
 - Moderate
 - Low
- Compressible ground stability ***
 - High
 - Moderate
 - Low
 - Very Low
- Artificial Deposits - Superficial
 - Infilled Ground - Made Ground (Composition Unspecified), IG
 - Landscape Ground (Undivided) - Unknown Lithology, LGU
 - Made Ground (Undivided) - Made Ground (Composition Unspecified), MGU
 - Worked Ground (Undivided) - Void, WGU

Collapsible ground stability

- Very Low

Ground dissolution stability

- Very Low

Shrinking or swelling clay ground stability

- Low
- Very Low

Derived from Landmark Potentially Contaminative Industrial Uses (Past Land Use) dataset and a review of the historical maps
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0 500 1,000 Metres

C01	27/11/2018	Approved as Stage Complete	JB	SR
Rev.	Rev. Date	Drawing Suitability	Drawn	Apprd

Mott MacDonald Sweco

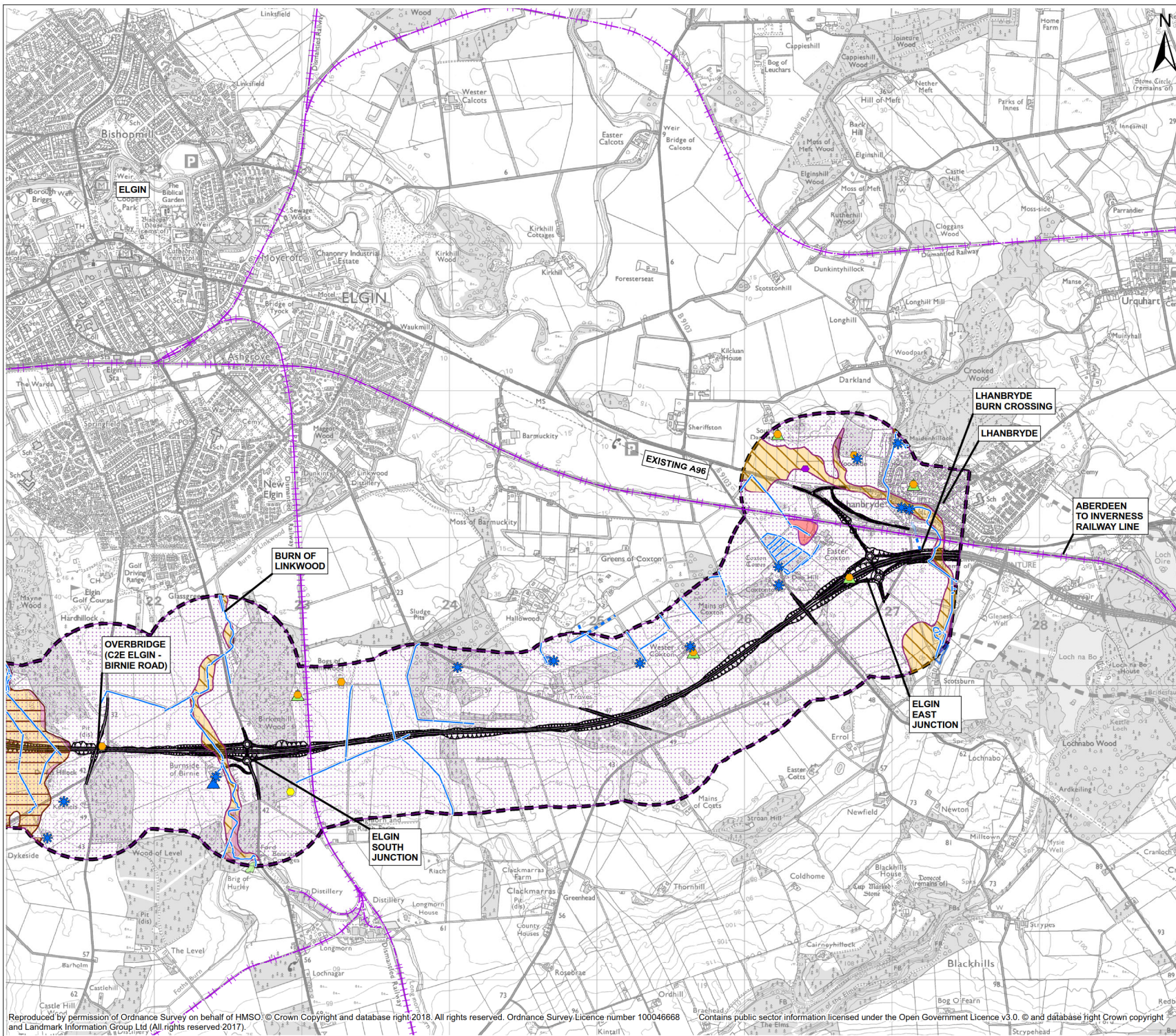
Client: **TRANSPO SCOTLAND** **A96 DUALLING**
HARDMUIR TO FOCHABERS

Project: **A96 DUALLING**
HARDMUIR TO FOCHABERS

Drawing Title: **FIGURE 6.25 HILLHEAD TO LHANBRYDE**
SOUTH OPTION GEOTECHNICAL CONSTRAINTS
SHEET 2 OF 3

Scale @ A3	1:25,000	DO NOT SCALE
Project No.	117880	Status
BIM No.	A96PHF-MMS-EGT-00000-DR-GE-00037	A2

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- Quarrying of sand & clay, operation of sand & gravel pits
- Infilled quarry or water feature
- Heap, unknown constituents (identified from historical mapping review)
- Heap, unknown constituents (data provided by landmark)
- Marshlands

Landmark potentially infilled land (water feature)**

- Landmark potentially infilled land (non-water feature)**

Potential hazard

- Landslide ground stability
 - Moderate
 - Low
- Compressible ground stability***
 - High
 - Moderate
- Artificial Deposits - Superficial
 - Infilled Ground - Made Ground (Composition Unspecified), IG
 - Landscape Ground (Undivided) - Unknown Lithology, LGU
 - Made Ground (Undivided) - Made Ground (Composition Unspecified), MGU
 - Worked Ground (Undivided) - Void, WGU

Collapsible ground stability

- Very Low

Ground dissolution stability

- Very Low

Shrinking or swelling clay ground stability

- Low
- Very Low

Scale

0 500 1,000 Metres

C01	27/11/2018	Approved as Stage Complete	JB	SR
Rev.	Rev. Date	Drawing Suitability	Drawn	Apprd

Mott MacDonald Sweco

Client: **TRANSPO SCOTLAND** **A96 DUALLING HARDMUIR TO FOCHABERS**

Project: **A96 DUALLING HARDMUIR TO FOCHABERS**

Drawing Title: **FIGURE 6.26 HILLHEAD TO LHANBRYDE SOUTH OPTION GEOTECHNICAL CONSTRAINTS SHEET 3 OF 3**

Scale @ A3	1:25,000	DO NOT SCALE
Project No.	117780	Status
BIM No.	A96PHF-MMS-EGT-00000-DR-GE-00038	A2

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