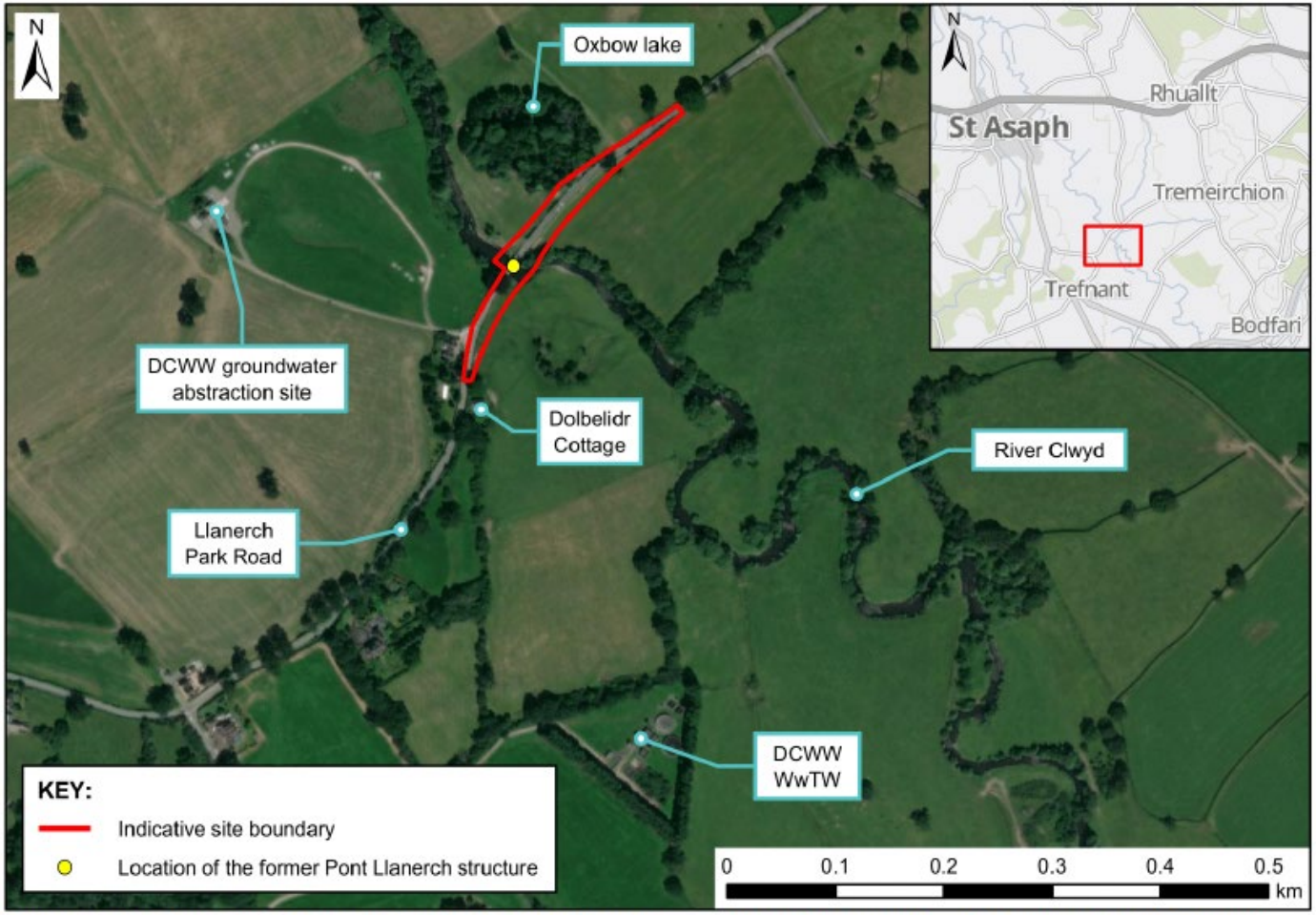
APPENDIX A

Partnerships Scrutiny Committee – 3 April 2025

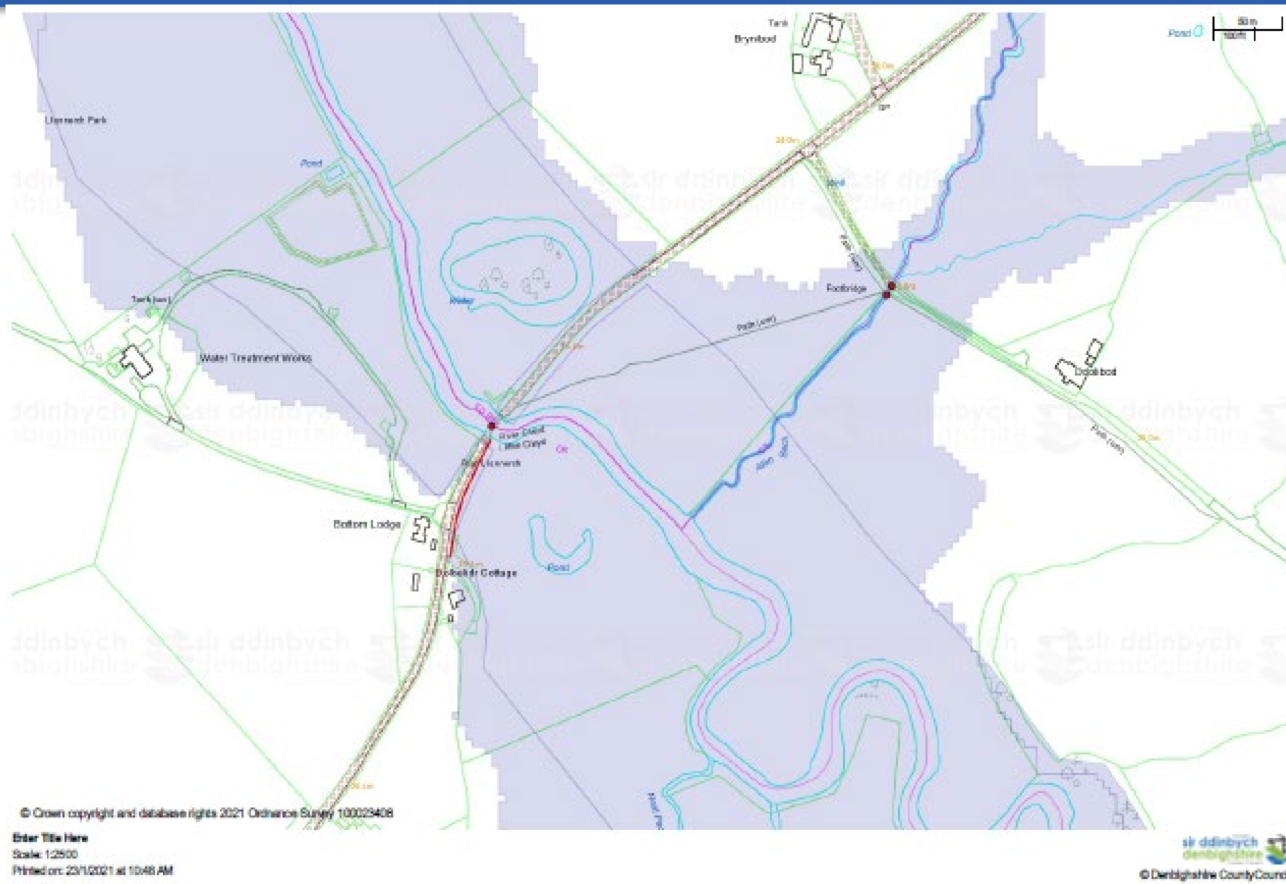
Pont Llannerch - Appendix A

Pont Llannerch - Location



Source: Contains Esri, Maxar, Earthstar Geographics and GIS User Community data. Additional labels inserted by Mott MacDonald (2023).

Flood Map


Brynibod
Llannerch Park
Pond
Water Treatment Works
Footbridge
Bottom Lodge
Dolbelidr Cottage
Pond
Dolbelidr
© Crown copyright and database rights 2021 Ordnance Survey 100023408
Enter Title Here
Scale: 1:2500
Printed on: 23/1/2021 at 10:48 AM
© Denbighshire County Council

Pont Llannerch
The early stages

Balfour Beatty

153+ SCAPE projects completed

valued at £949M+, on time and to budget

£608M of total project value

spent with supply chains within 40 miles

£404M social value

added to local communities

SCAPE

SCAPE is a public sector organisation, dedicated to creating efficiency and social value via the built environment.

MOTT MACDONALD

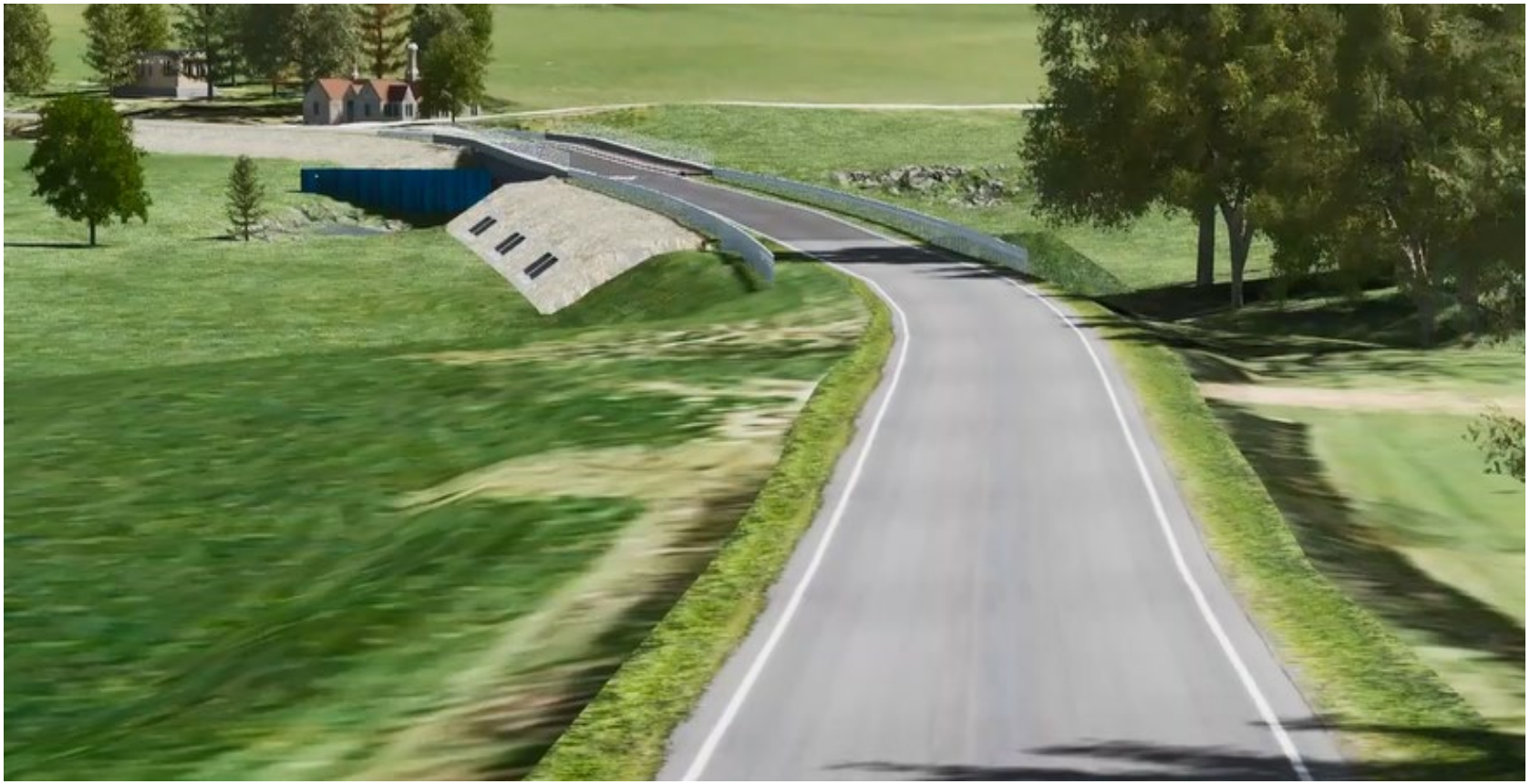
Cyfoeth Naturiol Cymru
Natural Resources Wales

Ymgynghoriaeth GWYNEDD Consultancy YGC

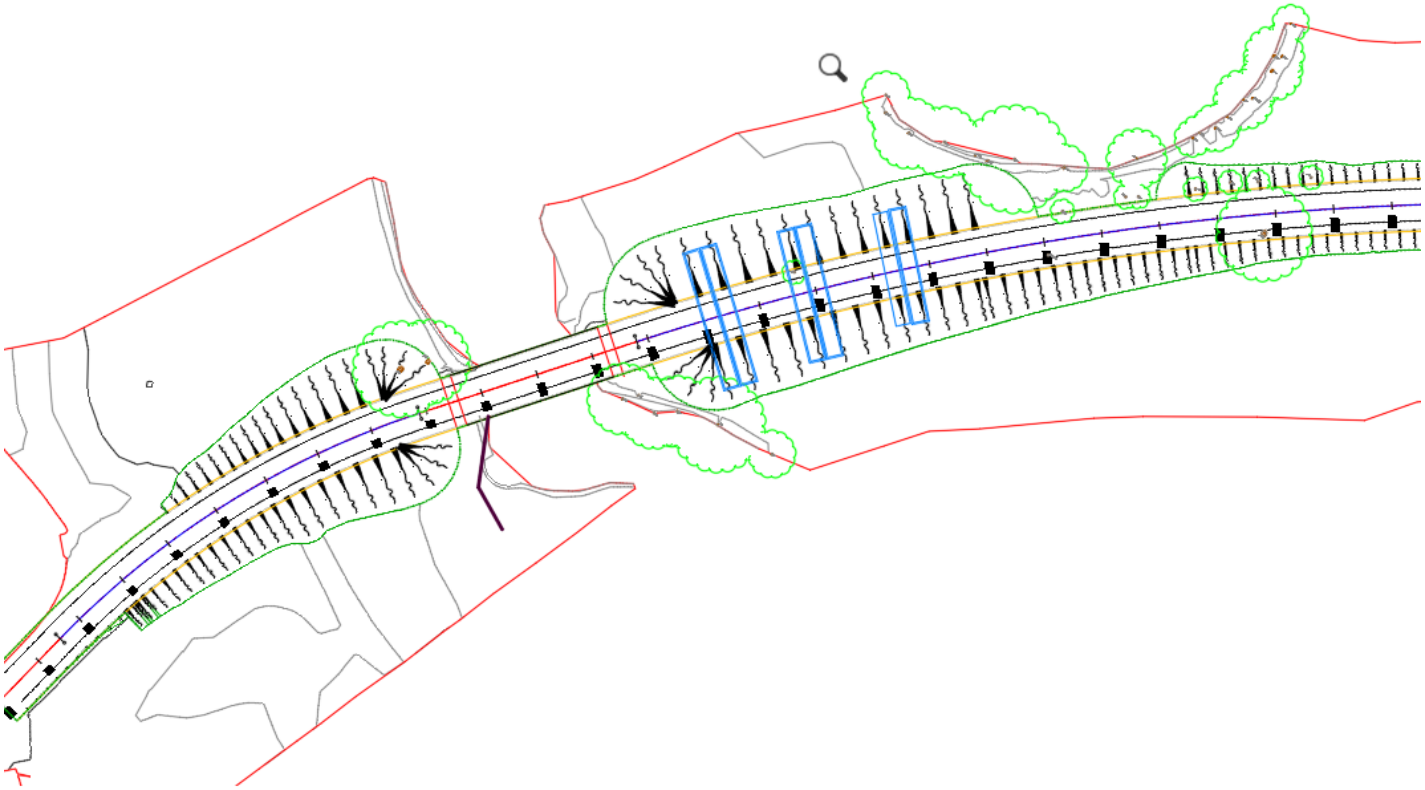
Dŵr Cymru
Welsh Water

Pont Llannerch
Optioneering – Preferred Option

Pont Llannerch
Optioneering – Preferred Option



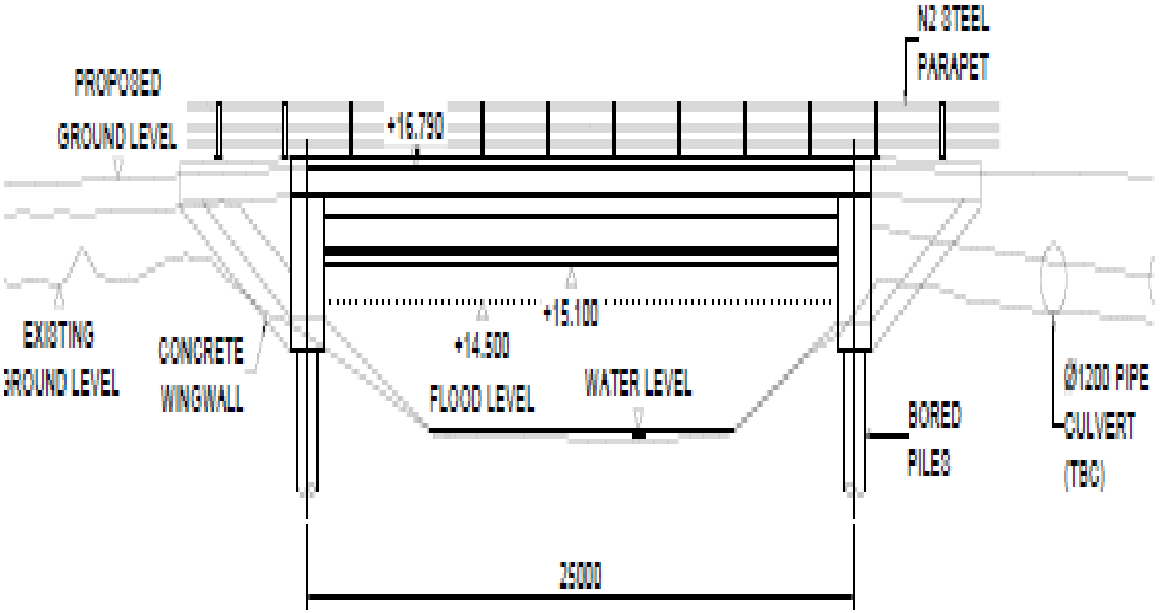
Pont Llannerch
Optioneering – Preferred Option



Pont Llannerch
Optioneering – Preferred Option

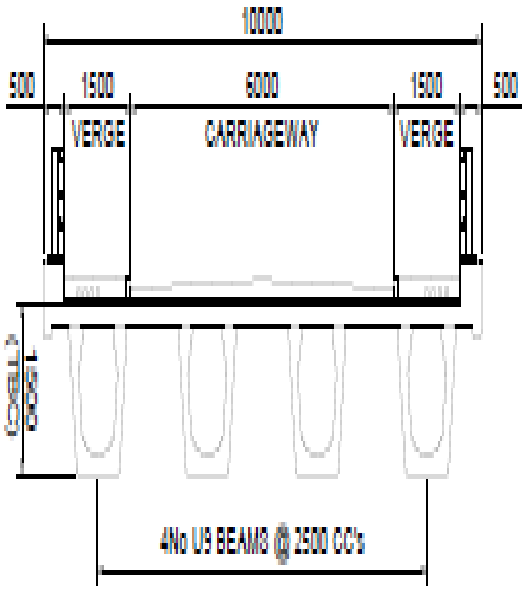
OPTION 1 - PRECAST CONCRETE INTEGRAL BRIDGE

Scale 1:200

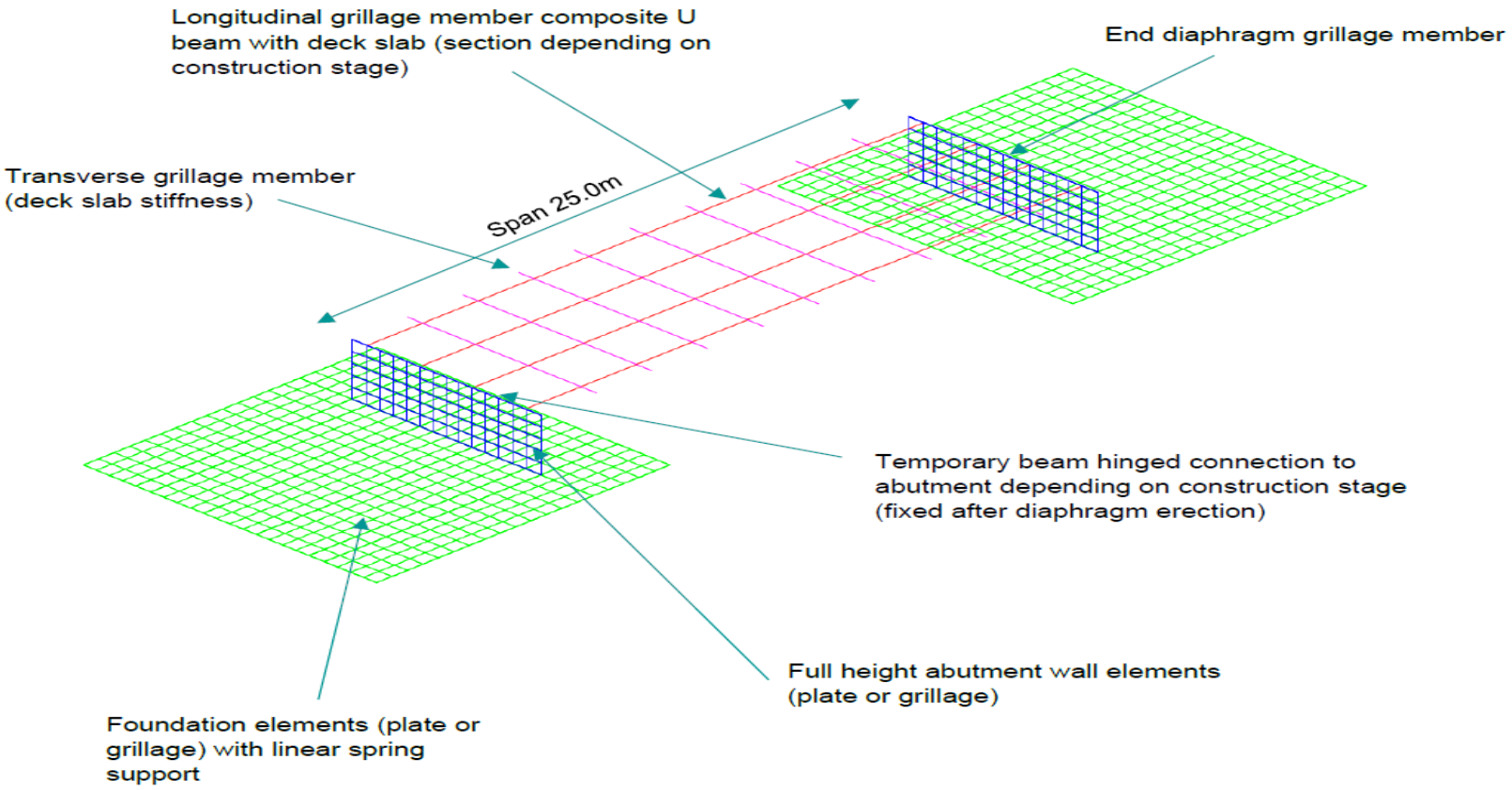


OPTION 1a - CROSS-SECTION

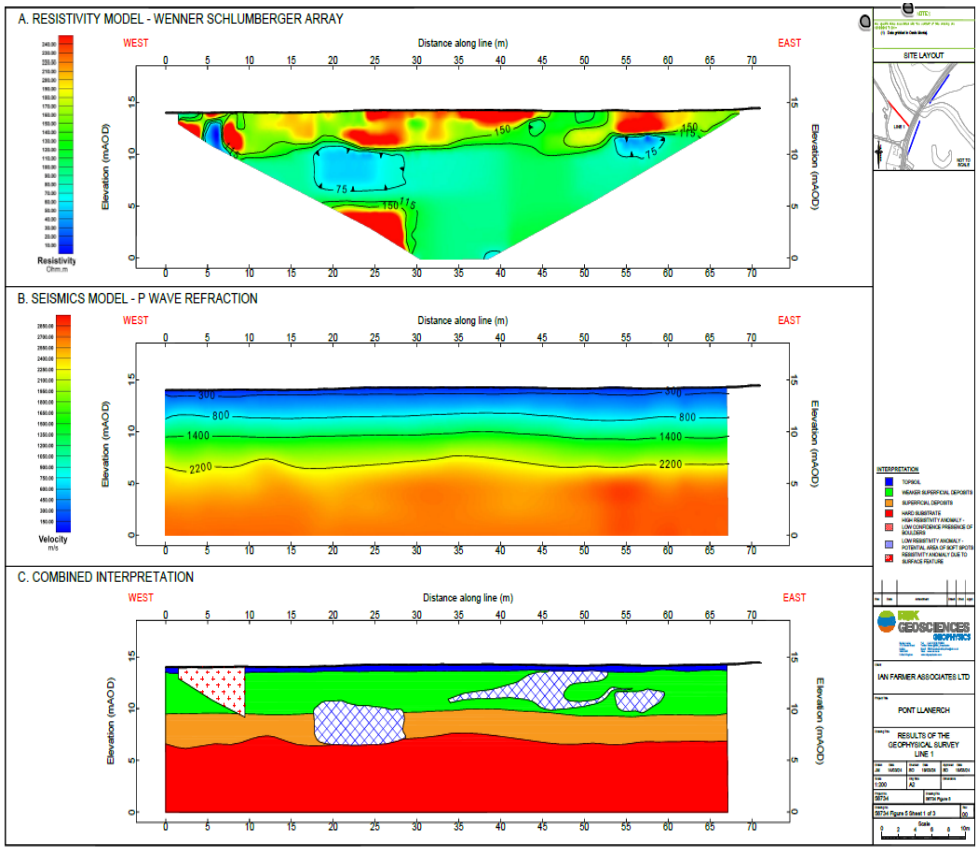
Scale 1:100

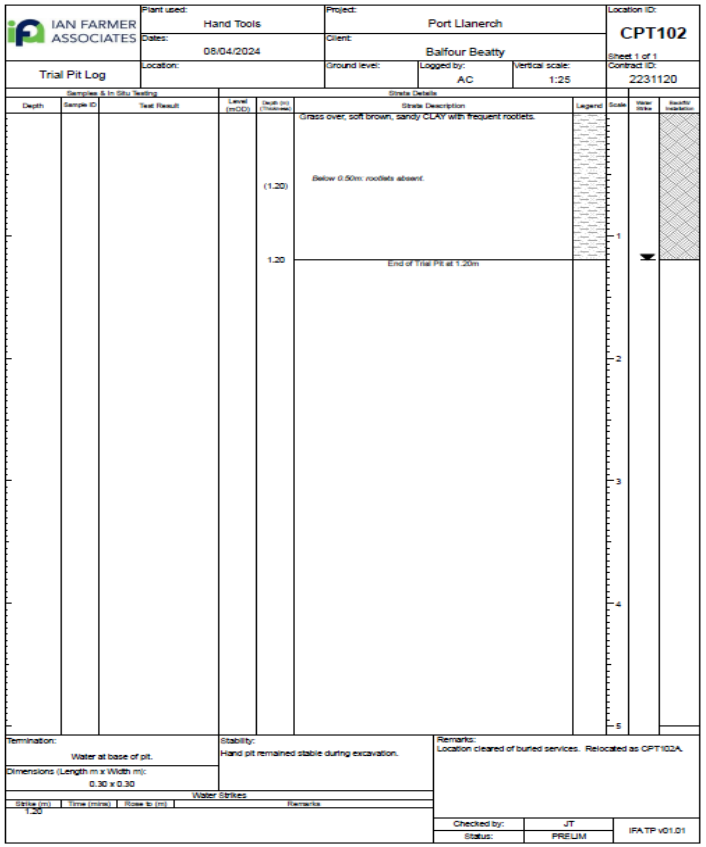


Pont Llannerch
Detailed Design - Foundations

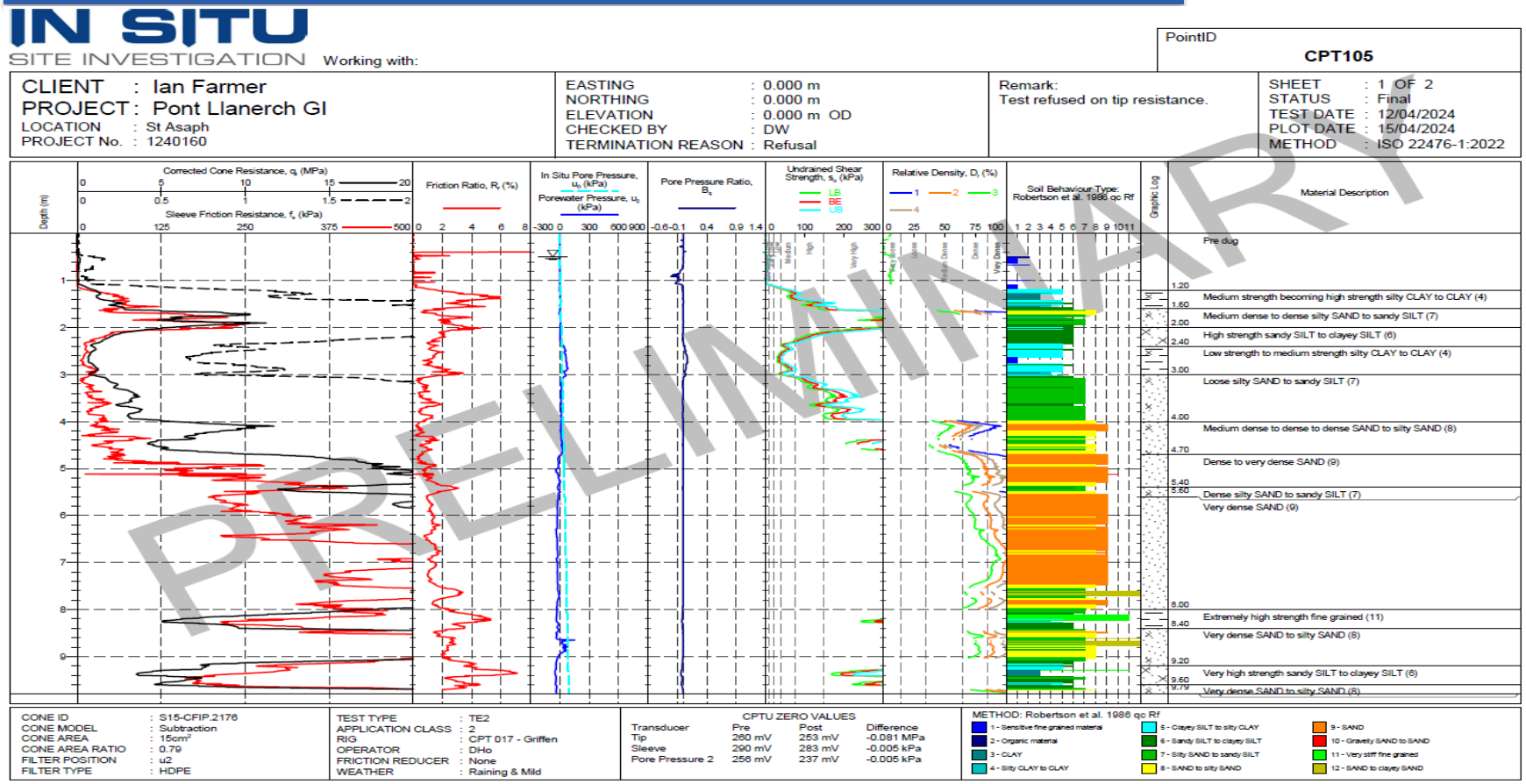


Pont Llannerch
Ground Investigations





Pont Llannerch
Ground Investigations



Ground Investigation / Detailed Design - Outcome

- By the end of the ground investigation process it was discovered that the depth of the river gravels is roughly 10m on one side of the river and 11m on the other.
- Beneath the river gravels we have been able to establish where the weathered section of sandstone is.

Ground Investigations / Detailed Design - Outcome

- However…we do not know, and it cannot be known how deep the weathered section is, where any fissures are, or how they are inter-connected.
- This means we do not know where the aquifer water that forms the abstraction is under the bridge location.

Ground Investigations / Detailed Design - Outcome

- The raft foundation concept is the most suitable solution.
- To avoid the new bridge failing due to future predicted scour levels we need to drive the cofferdam pile into the weathered section of sandstone.