



APPENDIX 8-1

GEOTECHNICAL AND PEAT STABILITY ASSESSMENT REPORT



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

SLIEVEACURRY RENEWABLE ENERGY DEVELOPMENT

GEOTECHNICAL AND PEAT STABILITY REPORT

Prepared for: MKO Ltd



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GEOTECHNICAL & PEAT STABILITY ASSESSMENT REPORT SLIEVEACURRY RENEWABLE ENERGY DEVELOPMENT

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Abstract: Fehily Timoney and Company (FT) were engaged by MKO to undertake a geotechnical assessment of the proposed Slieveacurry Renewable Energy Development with respect to peat stability. As part of the geotechnical assessment of the Proposed Project, FT completed walkover surveys at the Site. The findings of the geotechnical and peat stability assessment showed that the Site has an acceptable margin of safety and is suitable for the proposed renewable energy development.

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1. NON-TECHNICAL SUMMARY

Fehily Timoney and Company (FT) was engaged by MKO Ltd to undertake a geotechnical and peat stability assessment of the proposed Slieveacurry Renewable Energy Development, the 'Proposed Project', located in west Co. Clare. In accordance with planning guidelines compiled by the Department of the Environment, Heritage and Local Government (Draft Revised Wind Energy Development Guidelines, DoHPLG, 2019), where peat >0.5m thickness is present on a proposed wind farm development, a peat stability assessment is required.

A walkover including intrusive peat depth probing, trial pits, geophysical survey, desk study, stability analysis and risk assessment was carried out to assess the susceptibility of the Site to peat failure following the principles in Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments (PLHRAG), (2nd Edition, Scottish Government, 2017). A ground investigation comprising trial pits and a geophysical survey was also undertaken across the Site.

The findings, which involved a stability analysis of 280 locations, show that the Site has an acceptable margin of safety, a low risk of peat failure and is suitable for the Proposed Project. The findings include recommendations and control measures for construction work in peat lands to ensure that all works adhere to an acceptable standard of safety.

The Proposed Project comprises 9 no. wind turbines and associated infrastructure. A detailed description of the Proposed Project is included in Chapter 4 of the EIAR. The Site comprises gently undulating to hilly terrain and is typically covered in blanket peat that has either been planted with conifer plantations, used as grazing land or harvested for turf production. Up to 2.5km of existing roads are present on the Site and have been in operation for a number of years.

Slope inclinations at the main infrastructure locations range from 1 to 10 degrees. The flat topography/nature of the terrain on the Site reflects the low risk of peat failure. Ground conditions comprised mainly of peaty topsoil or peat overlying clay or silt overlying bedrock.

Peat depth recorded during the site walkovers by FT, MKO, HES and AGECE (2012, 2020, 2021, 2024 and 2025) from 914 probes ranged from 0 to 5.0m with an average peat depth of 0.7m. 81% of the probes recorded peat depths of less than 1.0m with 94% of peat depth probes recorded peat depths of less than 2.0m. A number of localised readings recorded peat depths from 2.0 to 5.0m. The deeper peat areas were avoided when optimising the wind farm layout within the Site. The average peat depth at the Proposed Turbines is 0.8m.

The purpose of the stability analysis was to determine the stability i.e. Factor of Safety (FoS), of the peat slopes. The FoS provides a direct measure of the degree of stability of a peat slope. A FoS of less than 1.0 indicates that a slope is unstable; a FoS of greater than 1.0 indicates a stable slope. An acceptable FoS for slopes is generally taken as a minimum of 1.4. The stability analysis for the Proposed Project, which analysed the turbine locations, access roads and related infrastructure, resulted in FoS above the minimum acceptable value of 1.4 and hence the Site has a satisfactory margin of safety.

The risk assessment uses the results of the stability analysis in combination with qualitative factors, which cannot be reasonably included in a stability calculation but nevertheless may affect the occurrence of peat instability, to assess the risk of peat failure at the Site. The results of the risk assessment are given in Appendix B. A construction buffer zone plan based on qualitative factors identified during the site walkover is included as Drawing P24-264-0600-0002.

In summary, the Site has an acceptable margin of safety, and therefore is considered to be at **low** risk of peat failure subject to the specified mitigation measures and is suitable for the Proposed Project.



2. INTRODUCTION

2.1 Fehily Timoney and Company

Fehily Timoney and Company (FT) is an Irish engineering, environmental science and planning consultancy with offices in Cork, Dublin and Carlow. The practice was established in 1990 and currently has c.100 members of staff, including engineers, scientists, planners and technical support staff. FT deliver projects in Ireland and internationally in our core competency areas of Waste Management, Environment and Energy, Civils Infrastructure, Planning and GIS and Data Management.

FT have been involved in over 100 wind farm developments in both Ireland and the UK at various stages of development i.e., preliminary feasibility, planning, design, construction, and operational stage and have established themselves as one of the leading engineering consultancies in peat stability assessment, geohazard mapping in peat land areas, investigation of peat failures and site assessment of peat.

This Report was written by Ian Higgins (FT Technical Director, PGeo, MSc in Geotechnical Engineering) Ian is a Technical Director with Fehily Timoney and has over 25 years' experience in geotechnical engineering.

2.2 Project Description

FT was engaged in October 2024 by MKO Ltd. to undertake a geotechnical and peat stability assessment of the Proposed Project.

The Site is located approx. 7km south of Ennistimon, Co. Clare and 8km west of Inagh, Co. Clare. The town of Miltown Malbay is located approx. 5.8km east of the nearest proposed turbine (T07).

The Site comprises blanket peat area of approximately 12.6km². The surrounding landscape comprises low hills with land-use comprising forestry, agricultural land and cutaway peatland.

The Proposed Project will comprise 9 no. wind turbines and associated hardstanding areas, 1 no. borrow pit, 2 no. temporary construction compounds, upgrade of existing roads, construction of new site access roads, underground electrical connection cabling, road widening and accommodation works along the turbine delivery route, 1 no. meteorological mast, biodiversity enhancement measures, site drainage and all associated work as described in Chapter 4 of the EIAR. This will include the clear felling of trees around a number of the turbines.

2.3 Peat Stability Assessment Methodology

FT undertook the assessment following the principles outlined in Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments (2nd Edition, Scottish Government, 2017). The Peat Landslide Hazard and Risk Assessment Guide (PLHRAG) is used in this report as it provides best practice guidance to identify, mitigate and manage peat slide hazards and associated risks in respect of consent applications for electricity generation projects. The GSI/NPWS technical notes "Data Gaps Relating to Impact Assessment and Planning" (GSI, 2024) and "Impact Assessment of Land Use Changes on Peat Stability on Blanket Bog/Peatland Habitats" (GSI, 2024) have also been used to ensure that the stability assessment is as comprehensive as is possible based on the ground conditions present at the Site.

The aforementioned best practice guide was produced following peat failures in the Shetland Islands, Scotland in September 2003 but more pertinently following the peat failure in October 2003, during the construction of a wind farm at Derrybrien, County Galway, Ireland.



This peat stability assessment has been undertaken taking into account peat failures that have occurred on upland peatland sites (such as recent failures at Shass Mountain (2020), Co. Leitrim and Meenbog (2020), Co. Donegal). The lessons learned from both peat slide events have been incorporated into the design of this project and the construction methodologies to be implemented. The Meenbog failure, which occurred during wind farm construction works, involved a large area of deep, soft peat, poorly maintained forestry drainage, and the presence of a break in slope along the downslope margin of the area of deep peat, all of which were considered contributory factors to the failure which occurred as a floating road was under construction. There are only localised areas of deep peat on the Site, and there are no works proposed close to breaks in slope in areas of deep peat. A floating road is only proposed in one area on the Site, along an area of flat ground along the Proposed Wind Farm Site entrance road where an existing floating road has been in operation for a number of years, which will be upgraded.

The failure at Shass Mountain occurred where a large volume of water draining from a forestry plantation was concentrated into the headwaters of a stream. The existing drainage, in conjunction with the Proposed Project drainage, will be maintained during construction to avoid the potential for a similar failure to that on Shass Mountain, which occurred following heavy rainfall, and this is referenced in the Risk Assessments for the turbines/access roads. However, it should be noted that the peat depth at Shass Mountain was significantly deeper (up to 5m) than the peat depth recorded across the majority of the Proposed Project, making the likelihood of this type of failure occurring very low. The topography of the Site is also different to that at Shass Mountain and does not contain any areas where a large catchment area is focused into a localised area of deep peat.

It is also noted that there have been numerous wind farms successfully constructed on blanket bog sites over the past 15 years without any issues relating to peat failure, such as Galway Wind Park and Ardderroe Wind Farm (both Co. Galway) and Slievecallan Wind Farm (Co. Clare).

A constraints study was initially undertaken by the Environmental, Hydrogeological and Ecological members of the design team to determine the developable area on the Site, prior to the site reconnaissance by engineering geologists/geotechnical engineers from FT. The extent and depth of ground investigation and peat stability analysis by FT have been undertaken in accordance with guidance within PLHRAG (2nd Edition, Scottish Government, 2017) to investigate peat slopes that have the potential to impact on the Proposed Project, as applicable. Sufficient peat depth and ground investigation data has been recorded during the site walkovers to enable the characterisation of the peat depth across the Site as shown in Drawing 24-264-600-0001, with additional detail at infrastructure locations. The techniques used in the ground investigation (including the geophysical investigation) and the level of detail obtained from these methods are considered appropriate for the ground conditions at the Site and the nature and extent of the Proposed Project. The peat stability assessment is undertaken to identify peat slopes at risk from the Proposed Project, and to identify peat slopes that may pose a risk to the Proposed Project.

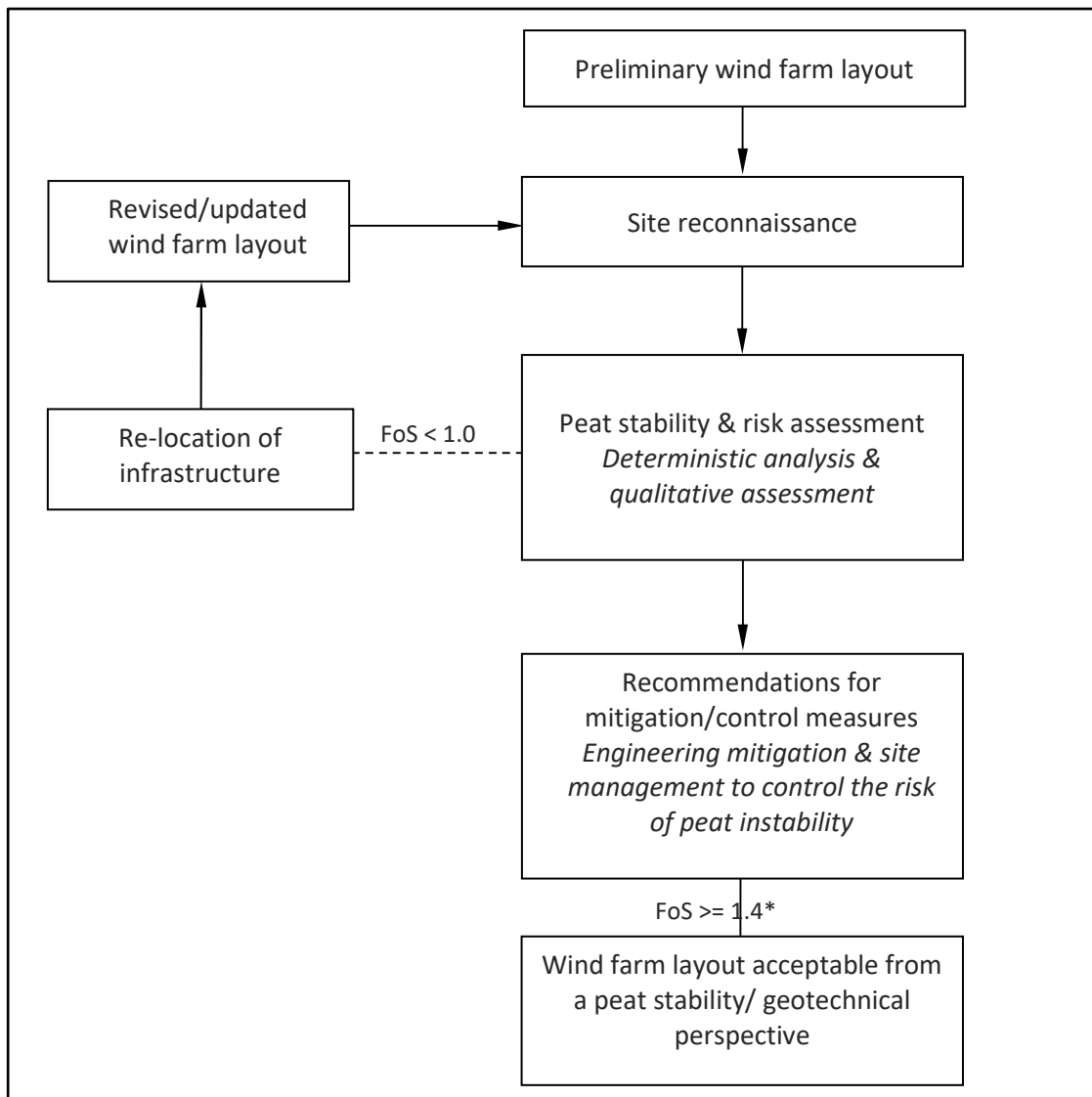
The geotechnical and peat stability assessment at the Site included the following activities:

- (1) Desk study, involving the review of publicly available soils and geology maps, records of historical peat failures, aerial photography.
- (2) Site reconnaissance including shear strength and peat depth measurements undertaken following initial multidisciplinary constraints study (by the design team) to determine the proposed construction areas within the Site i.e. the area within the overall Site where development is possible following multidisciplinary review and assessment of constraints (refer to Chapter 3 of the EIAR).
- (3) Appropriate ground investigation comprising trial pits at turbine and borrow pit locations and a geophysical survey (ERT and Seismic) by Minerex at the borrow pit and four turbine locations.



- (4) Peat stability assessment of the peat slopes on the Site using a deterministic and qualitative approach.
- (5) Peat contour depth plan – compiled based on the peat depth probes carried out across the Site by FT (2020 and 2025), MKO (2021, 2024 and 2025), AGEC (2012) and HES (2012).
- (6) Factor of safety plan – compiled for the short-term critical condition (undrained) for 280 no. FoS points analysed along the proposed infrastructure envelope on the Site.
- (7) Construction buffer zone plan – identifies areas with an elevated or higher construction risk where mitigation/control measures will need to be implemented during construction to minimise the potential risks, as well as areas where construction works should be avoided.
- (8) A peat stability risk register was compiled to assess the potential design/construction risks at the infrastructure locations and determine adequate mitigation/control measures for each location to minimise the potential risks and ensure they are kept within an acceptable range, where necessary.
- (9) Commentary of founding details for other infrastructure elements such as access roads, crane hardstands, extension to existing substation & construction compound platforms and met mast foundation.

A flow diagram showing the general methodology for the peat stability assessment is shown in Figure 2.1. The methodology illustrates the optimisation of the Proposed Project layout based on the findings from the site reconnaissance and stability analysis and subsequent feedback.



*An FoS of between 1.0 and 1.4 does not mean that a failure will occur, but that the area requires attention. Mitigation measures can be provided for areas with an FoS of between 1.0 and 1.4 to reduce the risk of failure.

Figure 2.1: Methodology for Peat Stability Assessment

As for all construction projects, a detailed engineering construction design must be carried out by the appointed construction stage designer prior to any construction work commencing on a site. This must take account of the consented project details and any conditions imposed by that consent. This must include a confirmatory peat stability assessment to account for any changes in the environment which may have occurred in the time leading up to the commencement of construction.

2.4 Peat Failure Definition

Peat failure in this report refers to a significant mass movement of a body of peat that would have an adverse impact on the Proposed Project and the surrounding environment. Peat failure excludes localised movement of peat that would occur below an access road, creep movement or erosion type events.



The potential for peat failure at the Site is examined with respect to wind farm construction and associated activity.

2.5 Main Approaches to Assessing Peat Stability

The main approaches for assessing peat stability for wind farm developments include the following:

- (1) Geomorphological
- (2) Qualitative (judgement)
- (3) Index/Probabilistic (probability)
- (4) Deterministic (factor of safety)

Approaches (1) to (3) listed above are considered subjective and do not provide a definitive indication of stability; in addition, a high level of judgement/experience is required which makes it difficult to relate the findings to real conditions. FT apply a more objective approach, the deterministic approach (as discussed in Section 2.6).

As part of FT's deterministic approach, a qualitative risk assessment is also carried out taking into account qualitative factors, which cannot necessarily be quantified, such as the presence of mechanically cut peat, quaking peat, bog pools, sub peat water flow, slope characteristics and numerous other factors. The qualitative factors used in the risk assessment are compiled based on FT's experience of assessments and construction in peat land sites and peat failures throughout Ireland and the UK. FT have been involved with in excess of 100 wind farm developments across Ireland and the UK at various stages of development, from preliminary feasibility stage through planning and from scheme development at tender design and detailed design stage, through to the construction and operational stages. This approach follows the guidelines for geotechnical risk management as given in Clayton (2001), as referenced in the best practice for Peat Landslide Hazard and Risk Assessment Guide (2nd Edition, Scottish Government, 2017), and takes into account the approach of MacCulloch (2005).

The risk assessment uses the results of the deterministic approach in combination with qualitative factors, which cannot be reasonably included in a stability calculation but nevertheless may affect the occurrence of peat instability to assess the risk of instability on a peat land site.

2.6 Peat Stability Assessment – Deterministic Approach

The peat stability assessment is carried out across a wide area of peatland to determine the stability of peat slopes and to identify areas of peatland that are suitable for development; this allows the layout of infrastructure on a particular wind farm site to be optimised. The assessment provides a numerical value (factor of safety) of the stability of individual parcels of peatland. The findings of the assessment discriminate between areas of stable and unstable peat, and areas of marginal stability where restrictions may apply. This allows for the identification of the most suitable locations for turbines, access roads and infrastructure.

A deterministic assessment requires geotechnical information and site characteristics which are obtained from desk study and site walkover, e.g. properties of peat/soil/rock, slope geometry, depth of peat, underlying strata, groundwater, etc. An adverse combination of the factors listed above could potentially result in instability. Using the information above, a factor of safety is calculated for the stability of individual parcels of peatland on a site (as discussed in Section 7).



The factor of safety is a measure of the stability of a particular slope. For any slope, the degree of stability depends on the balance of forces between the weight of the soil/peat working downslope (destabilising force) and the inherent strength of the peat/soil (shear resistance) to resist the downslope weight, see Figure 2.2.

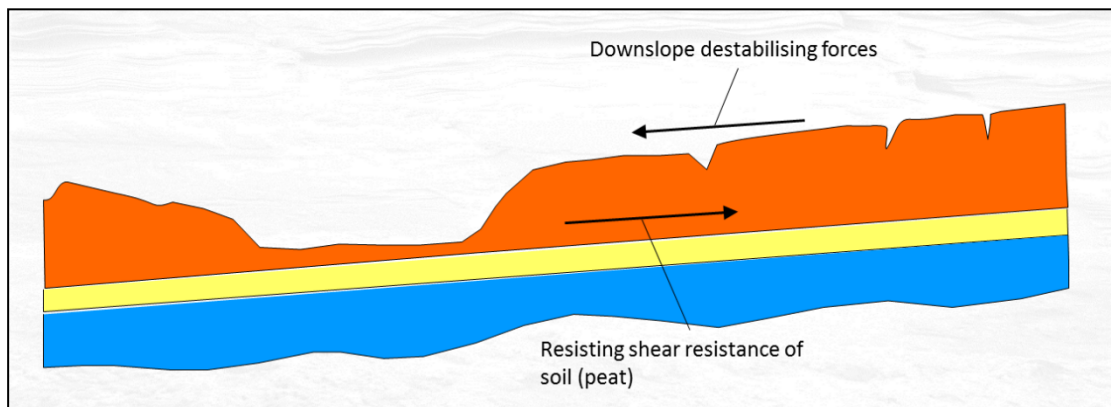


Figure 2.2: Peat Slope Showing Balance of Forces to Maintain Stability

The factor of safety provides a direct measure of the degree of stability of a slope and is the ratio of the shear resistance over the downslope destabilising force. Provided the available shear resistance is greater than the downslope destabilising force then the factor of safety will be greater than 1.0 and the slope will remain stable. If the factor of safety is less than 1.0 the slope is unstable and liable to fail. The acceptable range for factor of safety is typically from 1.3 to 1.4 (BS6031, 1981). A FoS of 1.4 is taken as indicative of sufficient stability within this report, which would be deemed a conservative approach.

2.7 Applicability of the Factor of Safety (Deterministic) Approach for Peat Slopes

The factor of safety approach is a standard engineering approach in assessing slopes which is applied to many engineering materials, such as peat, soil, rock, etc.

The factor of safety approach is included in the Peat Landslide Hazard and Risk Assessments Best Practice Guide for Proposed Electricity Generation Developments (2nd Edition, Scottish Government, 2017); see Section 5.3.1 of the guide. This guide provides best practice methods to identify, mitigate and manage peat slide hazards and associated risks in respect of consent applications for electricity generation projects.

Furthermore, the best practice guide notes that the results from the factor of safety approach 'has provided the most informative results' with respect to analysing peat stability (Section 5.3.1 of the guide).

The factor of safety approach in this report includes undrained (short-term stability) and drained (long-term stability) analyses. The undrained condition is the critical condition for the development. The purpose of the drained analysis is to identify the relative susceptibility of rainfall-induced failures at the Site.

Notwithstanding the above, the stability analysis used by FT in this report also includes qualitative factors to determine the potential for peat stability i.e. the analysis used does not solely rely on the factor of safety approach.

The deterministic analysis is considered an acceptable engineering design approach. This concurs with the best practice guide referenced above.



2.8 Assessment of Change in Water Level on the Peat Slope

The deterministic approach carried out by FT examines changes in water level within the peat layer. The deterministic approach includes undrained (short-term stability) and drained (long-term stability) analysis to assess the factor of safety for the peat slopes against a peat failure.

The drained loading condition applies in the long-term. This condition examines the effect of the change in groundwater level as a result of rainfall on the existing stability of the natural peat slopes. For the drained analysis the level of the water table above the failure surface is required to calculate the factor of safety for the peat slope.

In order to represent varying water levels within the peat slopes, a sensitivity analysis is carried out which assesses varying water level in the peat slopes i.e. water levels ranging from 0 to 100% of the peat depth is conducted, where 0% equates to the peat being completely dry and 100% equates to the peat being fully saturated, such as would occur during the winter months.

By carrying out such a sensitivity analysis the varying water levels in the peat slopes are considered and analysed. The results of this are presented in Section 7 of this report.



3. DESK STUDY

3.1 Desk Study

The main relevant sources of interest with respect to the Site include:

- Geological plans and Geological Survey of Ireland database
- EPA and NPWS online mapping
- Ordnance survey plans
- Literature review of peat failures

The Geological Survey of Ireland online dataset viewer (GSI, 2026) for the Site was used to verify the soil and bedrock conditions.

The Ordnance Survey plans were reviewed to determine if any notable features or areas of particular interest (from a geotechnical point of view) are present on the Site.

The desk study also includes a review of both published literature and GSI online dataset viewer (GSI, 2026) on peat failures/landslides in the vicinity of the Site.

3.2 Soils, Subsoil & Bedrock

A review of the Geological Survey of Ireland online database and published documents from the GSI, namely Sheet 17 Geology of Shannon Estuary was carried out.

The GSI subsoils maps indicates that the Site is underlain by a combination of blanket peat and till derived from Namurian sandstones and shales.

In relation to bedrock, the Site and surrounding area is underlain by the Central Clare Group. The group comprises five cyclotherms (I to V), of mudstone, siltstone, and sandstone. The basal mudstone is 7 to 18m thick and laminated.

There is one mapped fault running across the Site, which has a southwest to northeast trend. This fault appears to be associated with a ridgeline than runs through the Site. There are no stability issues considered likely to occur due to the presence of the fault.

A number of rock exposures are present within the Site. Rock exposures inspected by FT were found to contain light brown/orange sandstone bedrock which is consistent with the description of the Central Clare Group rocks described by the Geological Survey of Ireland maps (GSI, 1999).

There is a quarry recorded approximately 300m south of the boundary of the Site.

No karst features were identified on/near the Site.

No geological heritage sites are noted within the Site. The closest feature is approximately 6.7km west of the Site at Spanish Point. This feature is described as a “coastal section – foreshore exposure”.



There are no recorded peat failures within the Site (GSI, 2025). The nearest recorded peat failures are located some 50km from the Site. These failures occurred at Corbehagh in 1935, Slieve Bearnagh in 2003 and Maghera in 2004 and were all described as flow type failures. Based on the Geological Survey of Ireland's dataset viewer (GSI, 2025) the Corbehagh and the Maghera sites are situated within 500m of each other.

There are also non-peat failures recorded 16 to 17km north of the Site. The failure at Ballaghline is reported to have occurred in 1900, no description of the failure is given. The more recent failure at Doonnagore is reported to have occurred in 2011, however no description of the failure is given.

The landslide susceptibility of the Site was classified by the GSI (2026) as low to high susceptibility, which is expected given the undulating terrain present.

3.3 Ground Conditions at the Proposed Grid Connection Site

The Proposed Project will connect to the grid via:

- An 33kV underground cable (7.1 km in length) running from the Proposed Turbines to the proposed extension to the existing 110 kV Slievecallan substation. The proposed underground cable connection will be predominately located on existing or proposed roads and within the public road corridor.

See Drawing P24-264-0600-0001 for the general layout of the 33kV underground cabling in the vicinity of the Site.

Peat depths range from 0 to 1.9m along the proposed 33kV underground cabling. Peat depths along the section of public road are <1m. An assessment of peat stability was undertaken in the location of deepest peat, recorded between T06 and the public road to the south, where a peat depth of 1.9m was recorded. The proposed extension to the existing Slievecallan 110kV substation will be constructed within level ground within the footprint of the existing compound, with no additional groundworks required. No peat stability or geotechnical issues are envisaged as a result of the Proposed Grid Connection Site.



4. FINDINGS OF SITE RECONNAISSANCE

4.1 Site Reconnaissance

As part of the assessment of potential peat failure at the Site, FT carried out a site reconnaissance in 2025 in conjunction with the desk study review described in Section 3. This comprised a walkover inspection of the Site with recording of salient geomorphological features with respect to the Proposed Project which included peat depth and preliminary assessment of peat strength. Previous walkovers had been undertaken in 2012 and 2013 by AGECE and HES, as well as by FT in 2020. General photographs of the Site are included at the end of the main text of this report.

The following salient geomorphological features were considered:

- Active, incipient or relict instability (where present) within the peat deposits
- Presence of shallow valley or drainage lines/flush zones
- Wet areas
- Any change in vegetation
- Peat depth
- Slope inclination and break in slope (concave/convex slope)

The survey covered the proposed locations for the turbine bases and associated infrastructure.

The method adopted for carrying out the site reconnaissance relied on experienced practitioners carrying out a visual assessment of the Site supplemented with measurement of slope inclinations.

4.2 Findings of Site Reconnaissance

The most recent site reconnaissance undertaken by FT comprised a walkover inspection of the site on the 5th March 2025. Weather conditions for the site visit were mainly dry. Previous site reconnaissance had been undertaken in 2012, 2013 and 2020. Additional peat probing was undertaken by MKO during June 2021, October 2024 and November 2025 and by HES in 2012.

The findings from the site walkover have been used to optimise the layout of the infrastructure on site.

The main findings of the site walkover of the Site are as follows:

- (1) The Site is typically covered in a layer of peat and has undulating terrain. Peat depths vary across the Site depending mainly on topography. Generally, deeper peat was encountered in the flatter areas in the northwestern corner of the Site (around the existing forestry access road), with thinner peat on the surrounding slopes that comprise the majority of the Site. Mature forestry and open peatland are present across the Site (see Appendix A). Peat depths in the open peatland are typically >1.0m.
- (2) A total of 914 no. peat depth probes were carried out across the Site (Drawing P24262-0600-0001). Peat depths recorded ranged from 0 to 5.0m with an average depth of 0.7m. Approximately 94 percent of peat depth probes recorded peat depths of less than 2.0m. A number of localised readings were recorded where peat depths were 2.0 to 5.0m. The deepest peat within the Proposed Wind Farm Site was recorded at a single point to the west of the Site, where a short section of an existing road will be upgraded to act as an access point to the Site. One area of proposed forestry felling



within the Proposed Enhancement Site to the southeast of the Site (Area F) recorded peat depths of up to 5.0m.

- (3) No evidence of instability in the peat or the underlying soils was noted during the site walkovers. The Site is generally well drained, with little to no evidence of ponding water or saturated peat.
- (4) The peat depths recorded at the turbine locations varied from 0.2 to 2.0m with an average depth of 0.8m. Of the nine turbine locations, only three recorded peat depths in excess of 1.0m (T01, T04 and T09).
- (5) With respect to the proposed new access roads, peat depths are typically less than 1.0m (average 0.8m) with localised depths of up to 2.7m recorded (along the main access road west of T01).
- (6) The Proposed Project will comprise both the upgrade of existing roads and the construction of new proposed access roads, as well as localised widening of the local public road. The construction of new proposed access roads will be carried out using an excavate and replace construction technique which involves the removal and replacement of peat or soft ground where encountered, and replacement with granular fill.
- (7) Slope angles at the turbine locations ranged from 1 to 10 degrees. These slope angle readings were obtained using a combination of readings taken during the site reconnaissance by FT using handheld equipment, such as the Silva Clino Master which has an accuracy of +/- 0.25 degrees and from contour survey plans for the Site.
- (8) The slope angle quoted typically reflects the slope within the footprint of each infrastructure location.
- (9) Areas of peat cutting are visible in localised areas across the Site. These areas have had drains excavated in order to drain the peat. These worked areas are historical in nature, and there is no evidence of recent peat extraction or of any peat instability in these areas.
- (10) Clear felling of forestry is proposed around turbines T01, T02, T04, T07, T08, T09 and within the Proposed Enhancement Site. No issues with peat stability were noted in these locations during the site walkovers.
- (11) Peat strengths recorded across the Site vary from 6 to 90kPa. The strengths recorded are typical of well drained peat as is present on the Site. The lowest peat strength was recorded adjacent to the existing access road on the west side of T01.
- (12) A summary of the site walkover findings for the Proposed Project are as follows:
 - (a) The Site is typically covered in a layer of peat with undulating terrain open peatland. Peat depths recorded across the Site ranged from 0 to 5.0m, with an average depth of 0.7m. This average would be considered relatively shallow for an upland blanket bog site.
 - (b) A construction buffer zone plan has been produced for the Proposed Project (Drawing P24-264-0600-0002). This shows areas on the Site with an elevated or higher construction risk. The above identified buffer areas are based on qualitative factors identified during the walkover survey e.g. relatively deep peat, quaking peat, bog pools, mechanically cut peat, historical peat landslide, etc.
 - (c) The results of the peat depth probing, shear strength testing of the peat and qualitative factors identified on the Site have been used in the stability and risk assessments, see Sections 6, 7 and 8 of this report for details.
 - (d) The Site is quite typical of an upland blanket bog site, with no evidence of historical instability.
 - (e) Based on the findings from the walkover survey, the Site is considered to have a **low** risk of peat failure.



5. GROUND INVESTIGATION

Two separate phases of ground investigation have been undertaken across the Site and are described below. The methods used for the ground investigation are considered to be the most suitable for the Proposed Project based on site accessibility and the ground conditions present across the Site.

5.1 Intrusive Ground Investigation (FT, 2021)

An intrusive ground investigation comprising trial pitting was undertaken on 17 June 2021. A total of seven trial pits were excavated under the supervision of an engineer from FT at five turbines (T01, T02, T03, T05 and T06) and the borrow pit location. The remaining turbine locations could not be accessed by the excavator. Trial pit logs are included in Appendix E and the locations of the trial pits are shown on drawing P24-264-0600-0003. Peat depth ranged from 0 to 0.6m and was described as a soft brown fibrous Peat. This was underlain by a soft to firm gravelly Clay and Silt, with bedrock recorded in all of the trial pits at depths of between 0.3 and 2.0m bgl.

5.1.1 Summary of Geotechnical Parameters

Table 5-1 contains characteristic geotechnical parameters for the main material types likely to be encountered on the Site. Where direct measurement of parameters has not been carried out, established correlations with measured properties have been used to derive values. Characteristic values are defined as a cautious estimate of the value affecting the occurrence of limit state based on clause 2.4.5.2 from Eurocode 7.

Table 5-1: Summary of Geotechnical Parameters

Material Type/Strata	Unit Weight	Geotechnical Parameters		
		Undrained Parameters	Drained Parameters	
	γ (kN/m ³)	c_u (kPa)	ϕ' (°) ⁽⁴⁾	c' (kPa)
Peat	10	6 ⁽³⁾	25	4
Glacial Till	19	30	30	0
Sandstone/Siltstone bedrock (at borrow pit)	23	-	30	500

Notes

Note (1) The above parameters are indicative only and have been derived based on experience and from a review of the ground investigation carried out.

Note (2) Where direct measurement of parameters has not been carried out, established correlations with measured properties have been used to derive values.

Note (3) A lower bound undrained shear strength, c_u for the peat of 6kPa was selected. The lowest recorded value within the Proposed Project was 6kPa, recorded in one location within the development footprint, hence a value of 6kPa is considered to be a conservative value.

Note (4) ϕ' (°) – internal angle of shearing resistance.

5.2 Geophysical Survey (Minerex, 2025)

In addition to the intrusive ground investigation, a geophysical investigation was undertaken in February 2025 at four turbine locations (T04, T07, T08 and T09) and at the borrow pit. The purpose of the survey was to determine the depth to bedrock at the turbine locations that could not be accessed by the excavator during the



intrusive investigation and to determine the condition of the bedrock at depth within the borrow pit. Seismic refraction and 2D resistivity (ERT) techniques were used in the survey, as these were considered the most suitable to determine the depth to bedrock and the quality/stiffness of the bedrock.

A copy of the geophysical report is included in Appendix F. At the borrow pit, bedrock (weak sandstone) was recorded at 0.5-1.0m bgl, altering to a strong Siltstone at 1.0-3.0m bgl. At turbines T04, T07 and T08 intact bedrock is indicated at 1.0-3.0m bgl. At T09 a layer of stiff overburden/weathered bedrock is present to a depth of 4.5-6.0m bgl, with intact bedrock below this. No areas of deep soft soil or evidence of faulting in the bedrock was recorded at the locations surveyed.



6. PEAT DEPTHS, STRENGTH & SLOPE AT PROPOSED INFRASTRUCTURE LOCATIONS

As part of the site walkover, peat depth, in-situ peat strength and slope angles were recorded at various locations across the Site.

6.1 Peat Depth

Peat depth probes were carried out at/near to Proposed Turbines, access roads and other main infrastructure elements. At turbine locations 5 no. probes were carried out around the turbine location, and an average peat depth was calculated.

6.2 Peat Strength

The strength testing was carried out in-situ using a Geonor H-60 Hand-Field Vane Tester. From FT's experience hand vanes give indicative results for in-situ strength of peat and would be considered best practice for the field assessment of peat strength.

6.3 Slope Angle

The slope angles at each of the main infrastructure locations were obtained using a combination of readings taken during the site reconnaissance by FT using handheld equipment, such as the Silva Clino Master and from contour survey plans for the Site.

The slope angle quoted typically reflects the slope within the footprint of each infrastructure location. It should be noted that slope angles derived from contour survey plans would be considered approximate, as such surveys are dependent on the density of survey data and do not always reflect local variations in ground topography. Slope angles recorded during the site reconnaissance by FT using handheld equipment would generally be deemed more accurate and representative of local topography.

6.4 Summary of Findings

Based on the peat depths recorded across the Site by FT, AGEC, MKO and HES, the peat varied in depth from 0 to 5.0m with an average depth of 0.7m. All peat depth probes carried out on the Site have been utilised to produce a peat depth contour plan for the Site (Drawing P24-264-0600-0001).

A summary of the peat depths at the proposed infrastructure locations is given in Table 6.1. The data presented in Table 6.1 is used in the peat stability assessment of the Site. It can be seen from this table that the peat depths are shallow, with only T04 and T09 recording an average peat depth of >1.5m. There were no stability issues noted at any of the turbine locations during the site walkovers.



Table 6.1: Peat Depth & Slope Angle at Proposed Infrastructure Locations

Turbine	Easting	Northing	Peat Depth Range (m) ⁽¹⁾	Average Peat Depth (m)	Slope Angle (°) ⁽²⁾
T01	511800	680767	0.9-2.1	1.6	1
T02	512456	680815	0.2-0.6	0.6	8
T03	511518	680283	0.2-0.6	0.4	2
T04	512025	680280	0.4-2.4	1.6	4
T05	512851	680510	0.0-0.8	0.7	4
T06	512392	679845	0.5-0.8	0.8	8
T07	511487	679203	0.0-0.2	0.5	2
T08	511996	679451	0.0-0.4	0.6	14
T09	511797	679833	0.1-2.6	1.5	3
Construction Compound (North)	511805	680812	1.5-2.7	2.0	1
Construction Compound (Met Mast)	512706	680125	0.1-0.2	0.15	4
Met Mast	512714	680150	0.1-0.2	0.15	4
Borrow Pit	512658	680160	0.0-0.2	0.1	5

Note (1) Based on probe results from the site walkovers. The range of peat depths for the infrastructure locations are typically based on a 10m grid carried out around the infrastructure element.

Note (2) The slope angles at each of the main infrastructure locations were obtained using a combination of readings taken during the site reconnaissance by FT using handheld equipment, such as the Silva Clino Master (which has an accuracy of +/- 0.25 degrees) and from contour survey plans for the Site. The slope angle quoted typically reflects the slope within the footprint of each infrastructure location.

Note (3) The data presented in the Table above is used in the peat stability assessment of the Site.

In addition to probing, in-situ shear vane testing was carried out as part of the site walkover. Strength testing was carried out at turbine and other selected locations across the site to provide representative coverage of indicative peat strengths. The results of the vane testing with depth are presented in Figure 6.1.

The hand vane results indicate undrained shear strengths in the range 6 to 90kPa, with an average value of about 30kPa. The majority of the strengths recorded would be typical of drained peat as is present on the Site. The lowest strength was recorded adjacent to the existing access road to the west of T01 in an area of flat ground.

Peat strength at sites of known peat failures (assuming undrained loading failure) are generally very low, for example the undrained shear strength at the Derrybrien failure (AGEC, 2004) as derived from back-analysis, was estimated at 2.5kPa. The recorded undrained strength at the Site is greater than the lower bound values for Derrybrien indicating that there is no close correlation to the peat conditions at the Derrybrien site and that there is less likelihood of failure on the Site. However, a small number of relatively low strength values were recorded across the Site, and as such additional mitigation measures are proposed to reduce the risk of peat failure during construction (see Section 8.1).

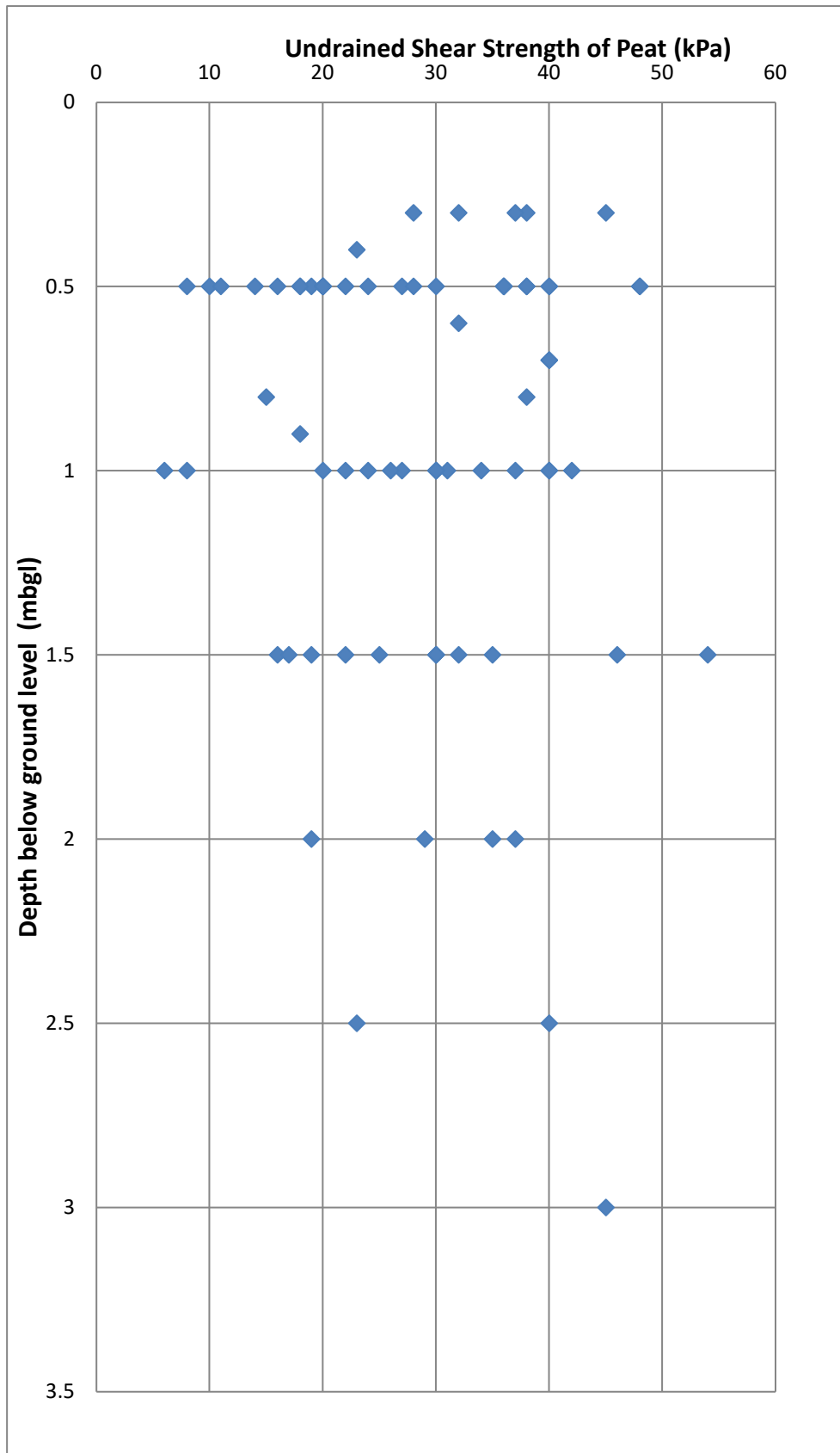


Figure 6.1: Undrained Shear Strength (c_u) Profile for Peat with Depth



7. PEAT STABILITY ASSESSMENTS

The peat stability assessment includes an assessment of the stability of the natural peat slopes for individual parcels across the Site including at the turbine locations and along the proposed access roads. The assessment also analyses the stability of the natural peat slopes with a surcharge loading of 10kPa, equivalent to placing 1m of stockpiled peat on the surface of the peat slope.

7.1 Methodology for Peat Stability Assessment

Stability of a peat slope is dependent on several factors working in combination. The main factors that influence peat stability are slope angle, shear strength of peat, depth of peat, pore water pressure and loading conditions.

An adverse combination of factors could potentially result in peat sliding. An adverse condition of one of the above-mentioned factors alone is unlikely to result in peat failure. The infinite slope model (Skempton and DeLory, 1957) is used to combine these factors to determine a factor of safety for peat sliding. This model is based on a translational slide, which is a reasonable representation of the dominant mode of movement for peat failures.

To assess the factor of safety for a peat slide, an undrained (short-term stability) and drained (long-term stability) analysis has been undertaken to determine the stability of the peat slopes on the Site.

1. The undrained loading condition applies in the short-term during construction and until construction induced pore water pressures dissipate.
2. The drained loading condition applies in the long-term. The condition examines the effect of the change in groundwater level as a result of rainfall on the existing stability of the natural peat slopes.

Undrained shear strength values (c_u) for peat are used for the total stress analysis. Based on the findings of the 2003 Derrybrien failure and other failures in peat, undrained loading during construction was found to be the critical failure mechanism.

A drained analysis requires effective cohesion (c') and effective friction angle (ϕ') values for the calculations. These values can be difficult to obtain because of disturbance experienced when sampling peat and the difficulties in interpreting test results due to the excessive strain induced within the peat. To determine suitable drained strength values a review of published information on peat was carried out. Table 7.1 shows a summary of the published information on peat together with drained strength values.

From Table 7.1 the values for c' ranged from 1.1 to 8.74kPa and ϕ' ranged from 21.6 to 43°. The average c' and ϕ' values are 4.5kPa and 30° respectively. Based on the above, it was considered to adopt a conservative approach and to use design values below the averages. For design the following general drained strength values have been used for the Site:

$$\begin{aligned}c' &= 4\text{kPa} \\ \phi' &= 25^\circ\end{aligned}$$



Table 7.1: List of Effective Cohesion and Friction Angle Values for Peat

Reference	Cohesion, c' (kPa)	Friction Angle, ϕ' (degs)	Testing Apparatus/ Comments
Hanrahan et al (1967)	5 to 7	36 to 43	From triaxial apparatus
Rowe and Mylleville (1996)	2.5	28	From simple shear apparatus
Landva (1980)	2 to 4	27.1 to 32.5	Mainly ring shear apparatus for normal stress greater than 13kPa
	5 to 6	-	At zero normal stress
Carling (1986)	6.5	0	-
Farrell and Hebib (1998)	0	38	From ring shear and shear box apparatus. Results are not considered representative.
	0.61	31	From direct simple shear (DSS) apparatus. Result considered too low therefore DSS not considered appropriate
Rowe, Maclean and Soderman (1984)	1.1	26	From simple shear apparatus
	3	27	From DSS apparatus
McGreever and Farrell (1988)	6	38	From triaxial apparatus using soil with 20% organic content
	6	31	From shear box apparatus using soil with 20% organic content
Hungr and Evans (1985)	3.3	-	Back-analysed from failure
Dykes and Kirk (2006)	3.2	30.4	Test within acrotelm
Dykes and Kirk (2006)	4	28.8	Test within catotelm
Warburton et al (2003)	5	23.9	Test in basal peat
Warburton et al (2003)	8.74	21.6	Test using fibrous peat
Hendry et al (2012)	0	31	Remoulded test specimen
Komatsu et al (2011)	8	34	Remoulded test specimen
Zwanenburg et al (2012)	2.3	32.3	From DSS apparatus
Den Haan & Grognet (2014)	-	37.4	From large DSS apparatus
O'Kelly & Zhang (2013)	0	28.9 to 30.3	Tests carried out on reconstituted, undisturbed and blended peat samples



7.2 Analysis to Determine Factor of Safety (Deterministic Approach)

The purpose of the analysis was to determine the Factor of Safety (FoS) of the peat slopes using infinite slope analysis. The analysis was carried out at the turbine locations, along the proposed access roads and at various locations across the Site.

The FoS provides a direct measure of the degree of stability of the slope. A FoS of less than 1.0 indicates that a slope is unstable, a FoS of greater than 1.0 indicates a stable slope.

The acceptable safe range for FoS typically ranges from 1.3 to 1.4. The previous code of practice for earthworks BS 6031:1981 (BSI, 1981), provided advice on design of earthworks slopes. It stated that for a first-time failure with a good standard of site investigation the design FoS should be greater than 1.3. For the purposes of this assessment, a value of 1.4 has been used as a conservative value.

As a general guide the FoS limits for peat slopes in this report are summarised in Table 7.2.

Table 7.2: Factor of Safety Limits for Slopes

Factor of Safety (FoS)	Degree of Stability
Less than 1.0	Unstable (red)
Between 1.0 and 1.4	Marginally stable (yellow)
1.4 or greater	Acceptable (green)

Eurocode 7 (EC7) (IS EN 1997-1:2005) now serves as the reference document and the basis for design geotechnical engineering works. The design philosophy used in EC7 applies partial factors to soil parameters, actions and resistances. Unlike the traditional approach, EC7 does not provide a direct measure of stability, since global Factors of Safety are not used.

As such, and in order to provide a direct measure of the level of safety on a site, EC7 partial factors have not been used in this stability assessment. The results are given in terms of FoS.

A lower bound undrained shear strength, c_u for the peat of 6kPa was selected for the assessment based on the c_u values recorded within the Site. It should be noted that a c_u of 6kPa for the peat is considered a conservative value for the analysis and is not representative of all peat present across the Site. In reality the peat generally has a higher undrained strength, with only a localised area of low strength peat recorded.

The formula used to determine the factor of safety for the undrained condition in the peat (Bromhead, 1986) is as follows:

$$F = \frac{c_u}{\gamma \sin \alpha \cos \alpha}$$

Where:

- F = Factor of Safety
- c_u = Undrained strength



- γ = Bulk unit weight of material
- z = Depth to failure plane assumed as depth of peat
- α = Slope angle

The formula used to determine the factor of safety for the drained condition in the peat (Bromhead, 1986) is as follows:

$$F = \frac{c' + (\gamma - \gamma_w h_w) \cos^2 \alpha \tan \phi'}{\gamma \sin \alpha \cos \alpha}$$

Where:

- F = Factor of Safety
- c' = Effective cohesion
- γ = Bulk unit weight of material (Peat)
- z = Depth to failure plane assumed as depth of peat
- γ_w = Unit weight of water
- h_w = Height of water table above failure plane
- α = Slope angle
- ϕ' = Effective friction angle

For the drained analysis the level of the water table above the failure surface is required to calculate the factor of safety for the slope. Since the water level in blanket peat can be variable and can be recharged by rainfall, it is not feasible to establish its precise location throughout the Site. Therefore, a sensitivity analysis using water level ranging between 0% and 100% of the peat depth was conducted, where 0% equates to the peat being completely dry and 100% equates to the peat being fully saturated, corresponding to the ground conditions during the winter months.

The following general assumptions were used in the analysis of peat slopes at each location:

- (1) Peat depths are based on the maximum peat depth recorded at each location from the walkover surveys.
- (2) The slope angles used in the peat stability assessment were obtained using a combination of readings taken during the site reconnaissance by FT using handheld equipment and from contour survey plans for Site. It should be noted that slope angles derived from contour survey plans would be considered approximate, as such surveys are dependent on the density of survey data and do not always reflect local variations in ground topography.
- (3) Slope angle at base of sliding assumed to be parallel to ground surface.
- (4) A lower bound undrained shear strength, c_u for the peat of 6kPa was selected for the assessment. The lowest recorded value on the Site during the 2020 and 2025 walkovers was 6kPa recorded, in an area of open peatland to the west of T01. It should be noted that a c_u of 6kPa for the peat is considered a conservative value for the analysis and is not representative of all peat present across the Site. In reality, the peat has a higher undrained strength due to the shallow nature of the peat and the forestry drainage works which have been carried out across the Site.

For the stability analysis two load conditions were examined, namely:



- Condition (1): no surcharge loading
- Condition (2): surcharge of 10 kPa, equivalent to 1m of stockpiled peat assumed as a worst case. Note that this is increased to 12kPa (equivalent to 1.2m of peat) for the peat management areas.

7.3 Results of Analysis

7.3.1 Undrained Analysis for the Peat

The results of the undrained analysis for the natural peat slopes at all locations analysed are presented in Appendix C and the results of the undrained analysis for the most critical load case (load condition 2) are shown on Figure 7.1. The undrained analysis for load condition 2 is considered the most critical load case as most peat failures occur in the short term upon loading of the peat surface. The results from the main infrastructure locations, including along access roads and in areas of peat placement, are summarised in Table 7.3 to 7.6. The peat management areas will store a maximum height of 1.2m of peat on top of the existing peat.

The peat management areas are located in clearfell areas within the Proposed Wind Farm Site, following the removal of the tree trunks and branches, however the tree stumps and roots are left in-situ, and as such this clearfelling is not considered to significantly reduce the peat strength or directly impact on the peat stability. The same clearfelling technique applies to areas of forestry felling for biodiversity enhancement measures within the Proposed Enhancement Site. Peat stored within the borrow pit will be stored below ground level, and as such no peat instability will be associated with the storage of peat in this area.

The calculated FoS for load condition 1 is in excess of 1.40 for each of the 280 locations analysed with a range of FoS of 3.11 to 687.58, indicating a relatively low risk of peat instability.

The calculated FoS for load condition 2 is in excess of 1.40 for each of the 280 locations analysed with a range of FoS of 1.42 to 114.59, indicating a low risk of peat instability.

Table 7.3: Factor of Safety Results (Undrained Condition)

Location	Easting	Northing	Factor of Safety for Load Condition	
			Condition (1)	Condition (2)
T01	511800	680767	17.20	8.60
T02	512456	680815	6.22	2.56
T03	511518	680283	43.01	12.29
T04	512025	680280	5.74	3.83
T05	512851	680510	11.50	4.93
T06	512392	679845	8.71	2.90
T07	511487	679203	34.41	11.47
T08	511996	679451	5.11	1.70
T09	511797	679833	7.65	4.59



Location	Easting	Northing	Factor of Safety for Load Condition	
			Condition (1)	Condition (2)
Construction Compound (North)	511648	680800	6.37	4.65
Construction Compound (at Met Mast)	512706	680125	86.22	7.84
Met Mast	512714	680150	86.22	7.84

Table 7.4: Factor of Safety Results along Access Roads (Undrained Condition)

Access Road	Easting	Northing	Factor of Safety for Load Condition	
			Condition (1)	Condition (2)
Main Access Road	Varies		4.99	3.48
T01 to Junction	Varies		6.28	3.29
Junction to T03	Varies		5.01	2.06
Junction to T04	Varies		13.82	4.61
T04 to T09	Varies		3.11	1.81
Junction to T02	Varies		5.44	2.41
T02 to T05	Varies		4.61	2.76
T05 to T06	Varies		15.95	2.65
T06 to T08	Varies		29.81	2.70
T08 to T07	Varies		29.38	2.67

Table 7.5: Factor of Safety Results for Peat Management Areas (Undrained Condition)

Location	Easting	Northing	Factor of Safety for Load Condition	
			Condition (1)	Condition (2)
T01	Varies		11.47	5.22
T02	Varies		6.22	2.29
T04	Varies		3.59	2.40
T09	Varies		6.91	3.14



Table 7.6: Factor of Safety Results for Enhancement Areas (Undrained Condition)

Location	Easting	Northing	Factor of Safety for Load Condition	
			Condition (1)	Condition (2)
Area A	Varies		5.77	2.89
Area B	Varies		No peat at this location	
Area C	Varies		7.50	2.32
Area D	Varies		2.51	1.75
Area E	Varies		3.51	1.75
Area F	Varies		6.88	5.73
Area G	Varies		4.28	2.98
Area H	Varies		9.93	6.70
Area I	Varies		5.77	2.89
Area J	Varies		6.63	3.75

7.3.2 Drained Analysis for the Peat

The results of the drained analysis for the peat are presented in Appendix C. The results from the main infrastructure locations, including along access roads and in areas of peat management, are summarised in Table 7.7 to 7.10. As stated previously, the drained loading condition examines the effect of in particular, rainfall on the existing stability of the natural peat slopes and represents the post construction phase of the Proposed Project.

The calculated FoS for load condition 1 is in excess of 1.40 for each of the 280 locations analysed with a range of FoS of 2.07 to 458.39, indicating a relatively low risk of peat instability.

The calculated FoS for load condition 2 is in excess of 1.40 for each of the 280 locations analysed with a range of FoS of 1.92 to 165.45, indicating a low risk of peat instability.

Table 7.7: Factor of Safety Results (Drained Conditions)

Location	Easting	Northing	Factor of Safety for Load Condition	
			Condition (1)	Condition (2)
T01	511800	680767	11.47	12.41
T02	512456	680815	4.15	3.66
T03	511518	680283	28.67	17.73
T04	512025	680280	3.83	5.52
T05	512851	680510	7.66	7.10



Location	Easting	Northing	Factor of Safety for Load Condition	
			Condition (1)	Condition (2)
T06	512392	679845	5.80	4.15
T07	511487	679203	22.94	16.55
T08	511996	679451	3.41	2.38
T09	511797	679833	5.10	6.62
Construction Compound (north)	511800	680767	4.25	6.71
Construction Compound (at met mast)	512706	680125	57.48	11.29
Met Mast	512714	680150	57.48	11.29

Table 7.8: Factor of Safety Results along access roads (Drained Condition)

Access Road	Easting	Northing	Factor of Safety for Load Condition	
			Condition (1)	Condition (2)
Main Access Road	Varies		3.33	5.02
T01 to Junction	Varies		4.19	4.73
Junction to T03	Varies		3.34	2.93
Junction to T04	Varies		11.50	8.28
T04 to T09	Varies		2.07	2.59
Junction to T02	Varies		3.63	3.46
T02 to T05	Varies		3.07	3.97
T05 to T06	Varies		10.63	3.76
T06 to T08	Varies		19.87	3.82
T08 to T07	Varies		19.59	3.77

Table 7.9: Factor of Safety Results for Peat Management Areas (Drained Condition)

Location	Easting	Northing	Factor of Safety for Load Condition	
			Condition (1)	Condition (2)
T01	Varies		5.75	6.25
T02	Varies		4.15	3.62
T04	Varies		17.60	16.29



Location	Easting	Northing	Factor of Safety for Load Condition	
			Condition (1)	Condition (2)
T09	Varies		9.94	7.42

Table 7.10: Factor of Safety Results for Enhancement Areas (Drained Condition)

Location	Easting	Northing	Factor of Safety for Load Condition	
			Condition (1)	Condition (2)
Area A	Varies		8.28	6.36
Area B	Varies		No peat at this location	
Area C	Varies		7.50	2.32
Area D	Varies		6.11	5.60
Area E	Varies		4.98	3.81
Area F	Varies		31.3	30.54
Area G	Varies		10.48	9.61
Area H	Varies		8.25	3.40
Area I	Varies		8.28	6.36
Area J	Varies		11.09	9.17

Details of the proposed biodiversity enhancement measures are detailed in Chapter 4 Description and Appendix 6-4 Biodiversity Management and Enhancement Plan included in the EIAR. Where clearfelling is proposed, it is not considered to significantly reduce the peat strength or significantly impact on the peat stability.

7.4 Stability of Borrow Pit

A stability analysis has been undertaken to demonstrate the stability of the proposed borrow pit. Slope stability has been checked using SlopeW© slope stability software. The analysis was carried out to EC7 design standards. The design philosophy used in EC7 applies partial factors to soil parameters, actions and resistances. Unlike the traditional approach, EC7 does not provide a direct measure of stability, since global Factors of Safety are not used. Rather, it provides a result in terms of an overdesign ratio (ODR), where an ODR of >1.0 is stable, and an ODR of <1.0 is unstable.

The following material properties have been used in the stability assessment, which have been derived based on the ground investigation results. Material properties for the mixed peat/spoil to be retained within the borrow pit/repositories have been assumed from material descriptions. For the purposes of the assessment shallow failures in the surface of the berm have not been considered.



Table 7.11: Material Properties

Material	Unit Weight (kN/m ³)	Undrained Shear Strength, c_u (kPa)	Angle of Shearing Resistance, ϕ (degrees)	Effective Cohesive, c' (kPa)
Intact Peat	10.5	6	25	4
Glacial till (cohesive)	19	40	30	0
Retained Peat within Borrow Pit (disturbed)	10.5	4	20	2
Retained Spoil within Borrow Pit (disturbed)	19	20	26	0
Bedrock	22	-	30	100

This assessment considers the western side of the borrow pit. Bedrock has been assessed at 1m below ground level based on the available ground investigation information, overlain by 0.2m of organic topsoil and 0.7m of cohesive glacial material. An intermediate berm is proposed to separate the placed overburden spoil and peat in individual cells. No perimeter berms are proposed for the borrow pit. The inside slope of the borrow pit has been modelled as a 60-degree slope (1V:0.6H) in intact bedrock. Groundwater has been assumed at 1m below ground level on the downslope side of the borrow pit.

The stability analysis has been undertaken using drained (long term) strength parameters and shows that the proposed borrow pit layout is stable.

Table 7.12: Borrow Pit Stability Analysis

Borrow Pit	Over Design Ratio (ODR)	
	DA1C1	DA1C2
Drained Analysis	5.07	3.33

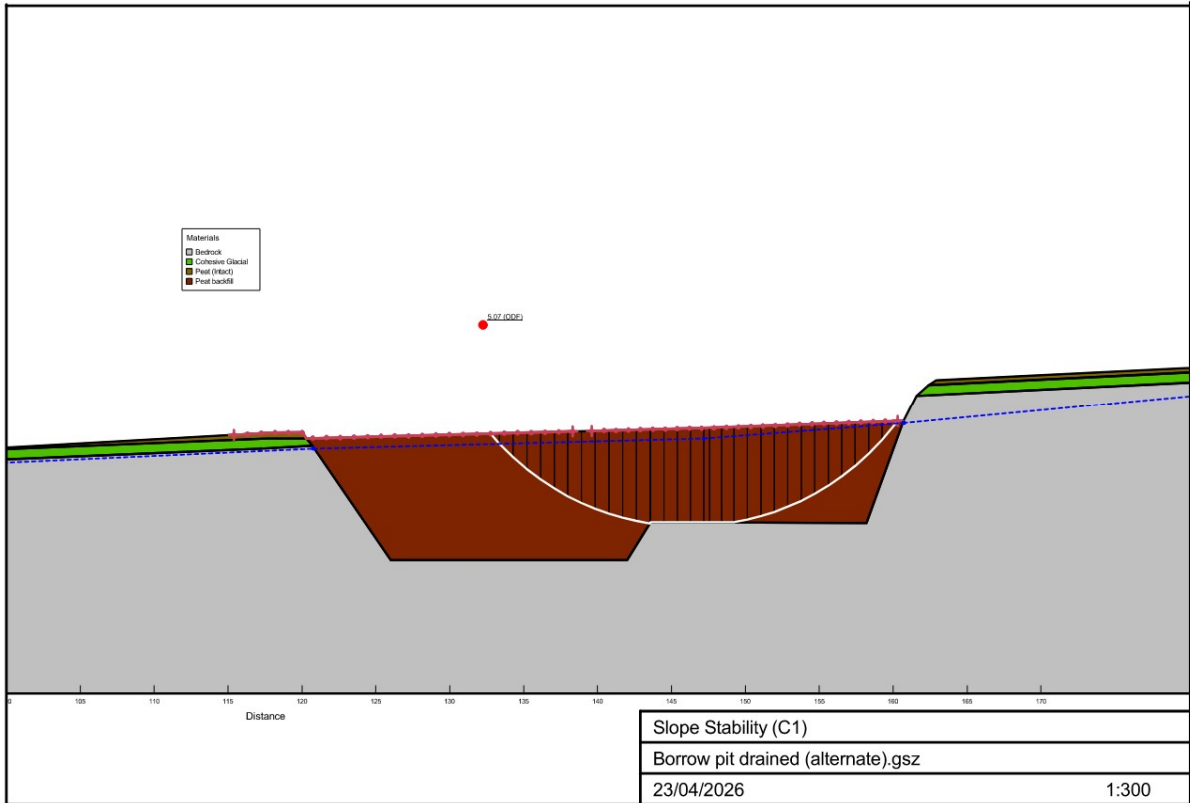


Figure 7.1: Borrow Pit Stability (DA1C1)

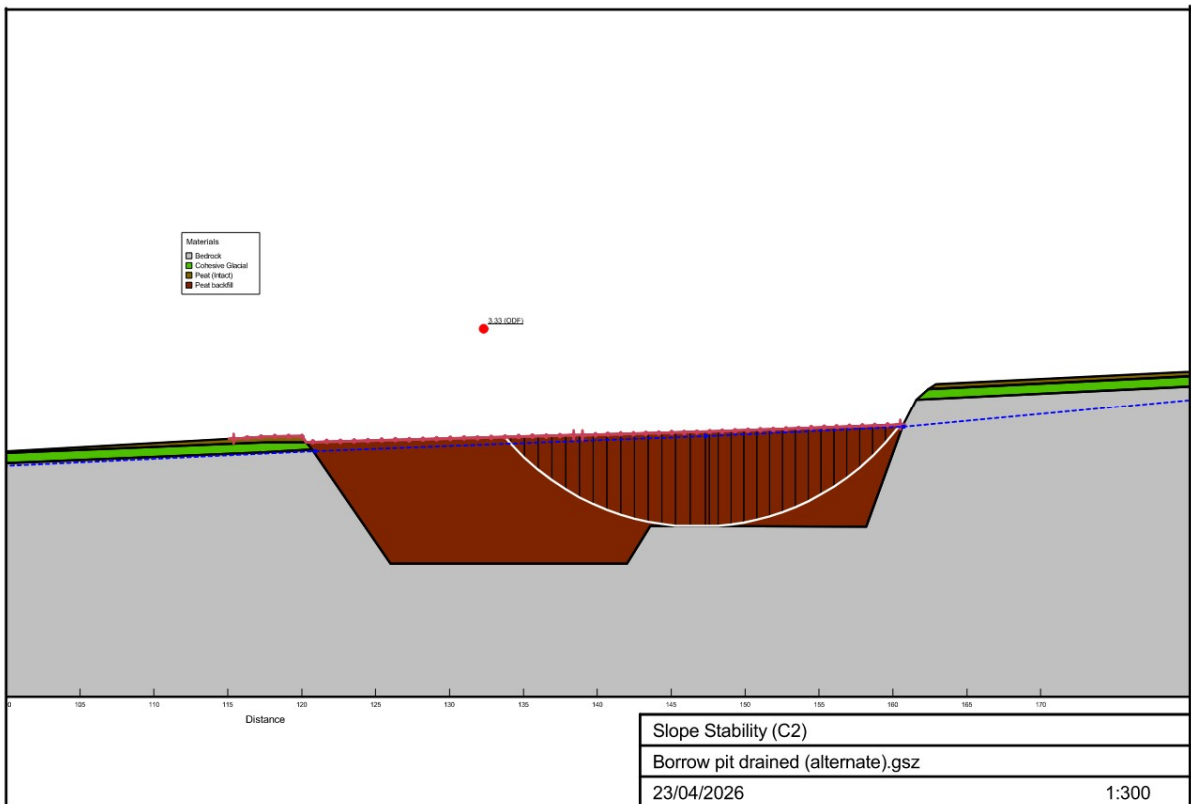


Figure 7.2: Borrow Pit Stability (DA1C2)



8. PEAT STABILITY RISK ASSESSMENT

A peat stability risk assessment was carried out for the main infrastructure elements of the Proposed Project (including the Proposed Enhancement Site). This approach takes into account guidelines for geotechnical/peat stability risk assessments as given in PLHRA (2017) and MacCulloch (2005).

The risk assessment uses the results of the stability analysis (deterministic approach) in combination with qualitative factors, which cannot be reasonably included in a stability calculation but nevertheless may affect the occurrence of peat instability, to assess the risk for each infrastructure element.

For each of the main infrastructure elements, a risk rating (product of probability and impact) is calculated and rated as shown in Table 8.1. Where a subsection is rated 'Medium' or 'High', control measures are required to reduce the risk to at least a 'Low' risk rating. Where a subsection is rated 'Low' or 'Negligible', only routine control measures are required.

Table 8.1: Risk Rating Legend

17 to 25	High: avoid works in area or significant control measures required
11 to 16	Medium: notable control measures required
5 to 10	Low: only routine control measures required
1 to 4	Negligible: none or only routine control measures required

A full methodology for the peat stability risk assessment is given in Appendix D.

8.1 Summary of Risk Assessment Results

The results of the peat stability risk assessment for potential peat failure at the main infrastructure elements is presented as a Geotechnical Risk Register in Appendix B and summarised in Table 8.2.

The risk rating for each infrastructure element at the Proposed Project is designated Negligible or Low following some general mitigation/control measures being implemented. Sections of access roads to the nearest infrastructure element will be subject to the same mitigation/control measures that apply to the nearest infrastructure element.

Details of the required mitigation/control measures can be found in the Geotechnical Risk Register for each infrastructure element (Appendix B) and are summarised below:

- Detailed ground investigation to confirm peat, mineral soil and bedrock condition and properties.
- Use of experienced geotechnical staff for site investigation.
- Excavations in deeper peat areas will require temporary support and regular inspection.
- Side casting of excavated material only in designated areas.
- Maintain hydrology of area as far as possible by maintaining existing drains to prevent the build-up of water pressures in the peat, leading to the peat becoming "buoyant".
- Use of experienced contractors and trained operators to carry out the work.
- Monitoring upslope and downslope of open excavations.
- Limits on the length of excavation (20m) left open before backfilling along access roads.



- Use of low ground pressure machinery in areas of deep peat

Table 8.2: Summary of Peat Stability Risk Register

Location	Pre-Control Measure Implementation on Risk Rating	Pre-Control Measure Implementation on Risk Rating Category	Notable Control Measures Required	Post-General Control Measure Implementation Risk Rating	Post-General Control Measure Implementation Risk Rating Category
T01	Low	5 to 10	No	Low	5 to 10
T02	Low	5 to 10	No	Low	5 to 10
T03	Negligible	1 to 4	No	Negligible	1 to 4
T04	Negligible	1 to 4	No	Negligible	1 to 4
T05	Negligible	1 to 4	No	Negligible	1 to 4
T06	Negligible	1 to 4	No	Negligible	1 to 4
T07	Negligible	1 to 4	No	Negligible	1 to 4
T08	Negligible	1 to 4	No	Negligible	1 to 4
T09	Low	5 to 10	No	Low	5 to 10
Construction Compound	Negligible	1 to 4	No	Negligible	1 to 4
Met Mast/Construction Compound	Negligible	1 to 4	No	Negligible	1 to 4
Borrow Pit	Low	5 to 10	No	Low	5 to 10
Access Tracks					
Entrance Road to T01	Low	5 to 10	No	Low	5 to 10
T01 to Main Junction	Low	5 to 10	No	Negligible	1 to 4
Main Junction to T02	Low	5 to 10	No	Negligible	1 to 4
Spur to T03	Low	5 to 10	No	Negligible	1 to 4
Spur to T04	Low	5 to 10	No	Negligible	1 to 4
T04 to T09	Low	5 to 10	No	Negligible	1 to 4
T02 to T05	Negligible	1 to 4	No	Negligible	1 to 4
T05 to T06	Negligible	1 to 4	No	Negligible	1 to 4
T06 to T08	Negligible	1 to 4	No	Negligible	1 to 4
T08 to T07	Negligible	1 to 4	No	Negligible	1 to 4
Peat Management Areas					



Peat Management T01	Low	5 to 10	No	Low	5 to 10
Peat Management T02	Low	5 to 10	No	Low	5 to 10
Peat Management T04	Low	5 to 10	No	Low	5 to 10
Peat Management T09	Low	5 to 10	No	Low	5 to 10
Proposed Enhancement Site					
Enhancement Area A	Low	5 to 10	No	Low	5 to 10
Enhancement Area B	No peat recorded at this location				
Enhancement Area C	Low	5 to 10	No	Low	5 to 10
Enhancement Area D	Negligible	1 to 4	No	Negligible	1 to 4
Enhancement Area E	Low	5 to 10	No	Low	5 to 10
Enhancement Area F	Medium	11 to 16	Yes	Low	5 to 10
Enhancement Area G	Negligible	1 to 4	No	Negligible	1 to 4
Enhancement Area H	Negligible	1 to 4	No	Negligible	1 to 4
Enhancement Area I	Negligible	1 to 4	No	Negligible	1 to 4
Enhancement Area J	Low	5 to 10	No	Low	5 to 10



9. INDICATIVE FOUNDATION TYPE AND FOUNDATION DEPTH FOR TURBINES

9.1 Summary

Based on a review of the ground investigation and walkover information for the Proposed Wind Farm Site, an assessment of the likely foundation type and founding depths for each turbine location was carried out. A summary of this assessment is provided in Table 9-1.

Table 9-1: Summary of Indicative Turbine Foundation Type and Founding Depths

Turbine No.	Turbine Foundation Type	Relevant GI	Indicative founding depth (m bgl)	Comment
T01	Gravity foundation	Trial pit/ Peat probes	3.0m	Found on bedrock below 2.0m bgl.
T02	Gravity foundation	Trial pit/ Peat probes	3.0m	Found on bedrock (weathered mudstone) below 1.4m bgl.
T03	Gravity foundation	Trial pit/ Peat probes	3.0m	Found on bedrock (weathered mudstone/siltstone) below 1.0m bgl.
T04	Gravity foundation	Peat probes/ geophysics	3.0-4.0m	Found on bedrock (weathered siltstone) below 3.0m bgl.
T05	Gravity foundation	Trial pit/ Peat probes	3.0m	Found on bedrock (weathered mudstone) below 1.0m bgl.
T06	Gravity foundation	Trial pit/ Peat probes	3.0m	Found on bedrock (weathered mudstone) below 0.9m bgl.
T07	Gravity foundation	Peat probes/ geophysics	3.0m	Found on bedrock (weathered siltstone) below 2.0m bgl.
T08	Gravity foundation	Peat probes/ geophysics	3.0m	Found on bedrock (weathered sandstone/siltstone) below 2.0m bgl.
T09	Gravity foundation	Peat probes/ geophysics	3.0-4.0m	Found on stiff overburden/ weathered bedrock (siltstone) below 3.0m bgl.

It should be noted that confirmatory ground investigation will be carried out prior to construction at each turbine location, in the form of a borehole with in-situ SPT testing at 1m intervals in the overburden and follow-on rotary core through bedrock, to confirm the foundation types and founding stratum indicated in Table 9-1. It is likely that following the completion of further ground investigation prior to construction that the turbine bases will be deemed suitable for gravity type foundations.

For gravity type turbine foundations, where the depth of excavation exceeds the required founding depth for the proposed turbine base, up-fill material consisting of granular fill (6N) shall be used to backfill the excavation to the required founding depth.



10. FOUNDING DETAILS FOR INFRASTRUCTURE ELEMENTS (EXCEPT TURBINES)

This section provides a summary of the founding details for various elements of the proposed infrastructure across the Site. The detailed methodologies for the construction these elements of the Proposed Project are included in Chapter 4 of the EIAR.

10.1 Access Roads

The access roads on the Proposed Project will generally be constructed as excavate and replace (founded) type construction, which, given the ground conditions and type of terrain present, is deemed the most appropriate construction approach. Floating road construction will be undertaken on the main site entrance road as far as T01, as an upgrade to an existing floating road, as this area is flat, there is low risk of a peat failure, and this area is considered suitable for this method of construction. A section of this will be new floating road, beginning 130m west of T01.

The total length of new proposed access road to be constructed on the Site is 6.4km (see Drawing P24-264-0600-0005 of the Peat and Spoil Management Plan – Appendix 4-2 of the EIAR).

The proposed make-up of the founded access roads is an average stone thickness of 500mm, or 1000mm for the section of floating road. The requirement for a layer of geotextile and geogrid and the necessary stone thickness will be confirmed at pre-construction stage.

See the Peat & Spoil Management Plan for the Proposed Project for further details on the access roads.

10.2 Crane Hardstands

The crane hardstands will be constructed using the founded technique (i.e. not floated) technique.

Crane hardstands are constructed using compacted Class 1/6F material on a suitable sub-formation to achieve the required bearing resistance. The hardstands will be designed for the most critical loading combinations from the crane.

The hardstands will require to be founded on competent material underlying the peat deposits. The founding levels for the hardstands will be variable across the Site and will be confirmed at pre-construction stage.

The make-up of the hardstands will include an average of 1000mm of granular stone fill with a layer of geotextile and/or geogrid, if deemed necessary by the Designer.

10.3 Construction Compound Platforms/Met Mast Foundation

The construction compound platform adjacent to T01 will be constructed using the floated technique. The construction compound adjacent to the borrow pit will be a founded platform, founded on the overburden/weathered rock present at this location.

The construction compound platforms will be constructed using compacted Class 1/6F material on a suitable sub-formation to achieve the required bearing resistance. The typical make-up of the construction compound platform will include an average of 1000mm of granular stone fill with a layer of geotextile and geogrid at the



base of the stone fill for the floating compound. The founded compound and met mast foundation will be constructed using an average of 500mm of stone.

10.4 Silevecallan Substation

As part of the Proposed Project an extension is proposed to the existing 100kV Slievecallan Substation. This extension is within an area already excavated into the underlying bedrock. As such no groundworks, and no peat stability risks are associated with this extension.

10.5 Peat and Spoil Management Areas

A number of peat management locations were reviewed as part of the assessment of the Site. These are located at four of the turbines across the Proposed Wind Farm Site, T01, T02, T04 and T09. The placement of peat in these areas will be limited to a maximum of 1.2m in height, and the stability of these areas is covered under load condition 2 as reported in Section 7 of this report. These peat placement areas are located in areas of clearfell around turbines, where the tree trunks and branches will be removed, but the tree stumps and roots left in-situ. This clearfelling is not considered to significantly reduce the peat strength or significantly impact on the peat stability.

A spoil placement area is located to the south of the borrow pit, where there is little or no peat present. Spoil will be placed directly onto the existing ground surface up to a height of 1.5m. The edges of the placed spoil will be shaped to shed water.

Additional discussion of the peat and spoil management areas is provided in the Peat and Spoil Management Plan (FT, 2026) for the Proposed Project.



11. SUMMARY AND RECOMMENDATIONS

11.1 Summary

The following summary is given.

FT was engaged by MKO on behalf of the Applicant to undertake a geotechnical and peat stability assessment of the Site for the Slieveacurry Renewable Energy Development.

The findings of the peat assessment showed that the Site has a **low** risk of peat failure and is suitable for the Proposed Project. The findings include recommendations and control measures for construction work in peat lands, all of which will be implemented in full to ensure that all works adhere to an acceptable standard of safety.

The Site is typically covered in blanket peat with undulating terrain of open peatland and commercial forestry. Bedrock comprises mudstone, siltstone, and sandstone of the Central Clare Group. There is one mapped fault running across the Site, which has a southwest to northeast trend. This fault is not considered to be a negative influence on the stability of the peat on the Site.

Peat thicknesses recorded during the site walkovers from 914 probes ranged from 0.0 to 5.0m with an average depth of 0.7m. 94% of the probes recorded peat depths of less than 2.0m. A number of localised readings were recorded where peat depths from 2.0 to 5.0m. The deeper peat areas were generally avoided when optimising the layout for the Proposed Wind Farm Site. Peat thickness along the proposed 33kV underground cabling ranged from 0 to 1.9m. The peat depths recorded at the turbine locations varied from 0.2 to 2.0m with an average depth of 0.8m. Of the nine turbine locations, only three recorded peat depths in excess of 1m (T01, T04 and T09).

Slope inclinations at the main infrastructure locations range from 1 to 10 degrees.

An analysis of peat sliding was carried out at the main infrastructure locations, including proposed peat storage locations across the Site and within the Proposed Enhancement Site for both the undrained and drained conditions. The purpose of the analysis was to determine the Factor of Safety (FoS) of the peat slopes.

An undrained analysis was carried out, which applies in the short-term during construction. For the undrained condition, the calculated FoS for load conditions 1 and 2 for the locations analysed, showed that all locations have an acceptable FoS of greater than 1.4, indicating a low risk of peat failure. The undrained analysis is considered the most critical condition for the peat slopes.

A drained analysis was also carried out, which examined the effect of in particular, rainfall on the existing stability of the natural peat slopes on the Site. For the drained condition, the calculated FoS for load conditions (1) & (2) for the locations analysed, showed that all locations have an acceptable FoS of greater than 1.4.

The peat stability risk assessment at each infrastructure location, along access roads, and at peat placement areas identified a number of mitigation/control measures to reduce the potential risk of peat failure. See Appendix B for details of the required mitigation/control measures for each infrastructure element.

In summary, the findings of the peat assessment showed that the Site has an acceptable margin of safety, is suitable for the Proposed Project and is considered to be at **low** risk of peat failure provided appropriate mitigation measures, such as using founded roads, and implementing and maintaining an appropriate drainage system are implemented. The findings include recommendations and mitigation/control measures for



construction work in peat lands, all of which will be implemented in full to ensure that all works adhere to an acceptable standard of safety.

11.2 Recommendations

The following recommendations are given, all of which will be implemented in full.

Notwithstanding that the Site has a low to moderate risk of peat failure a number of mitigation/control measures are prescribed to ensure that all works adhere to an acceptable standard of safety for work in peatlands. Mitigation/control measures identified for each of the infrastructure elements in the risk assessment will be implemented throughout design and construction works, which will reduce the risk of peat failure to Low or Negligible (Appendix B).

The measures prescribed given in FT's report 'Peat & Spoil Management Plan - Slieveacurry Renewable Energy Development, County Clare' (FT, 2026) will be implemented in full during the design and construction stage of the Proposed Project.

To minimise the risk of construction activity causing potential peat instability the Construction Method Statements (CMS's) for the project will implement in full, but not be limited to, the recommendations above. This will ensure that best practice guidance regarding the management of peat stability will be inherent in the construction phase.



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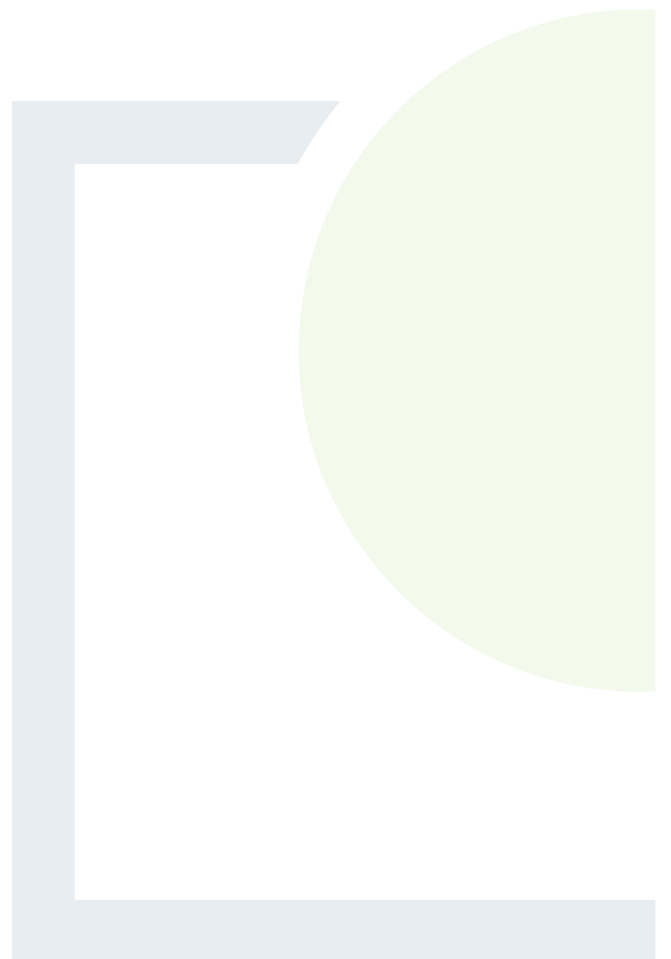
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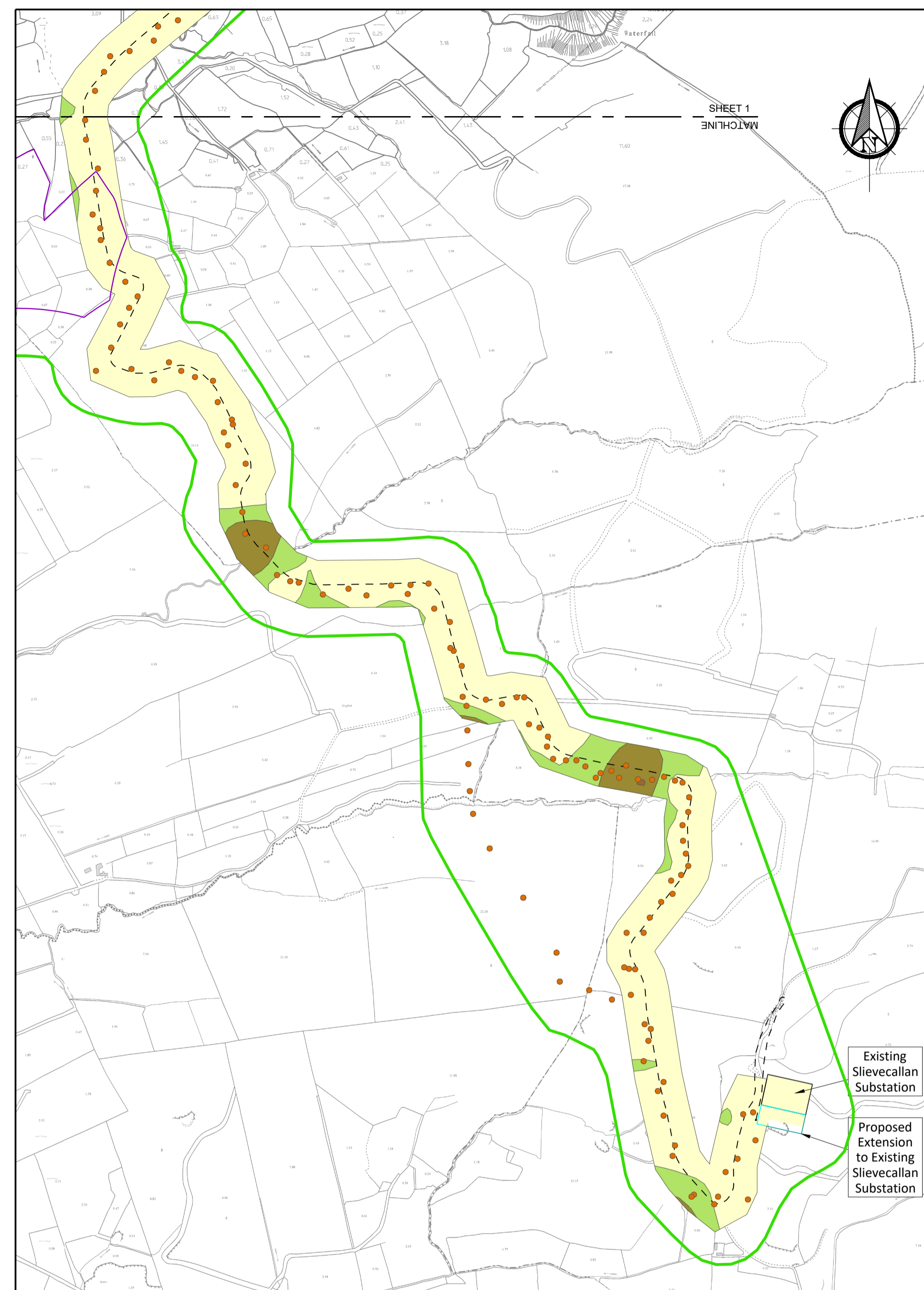
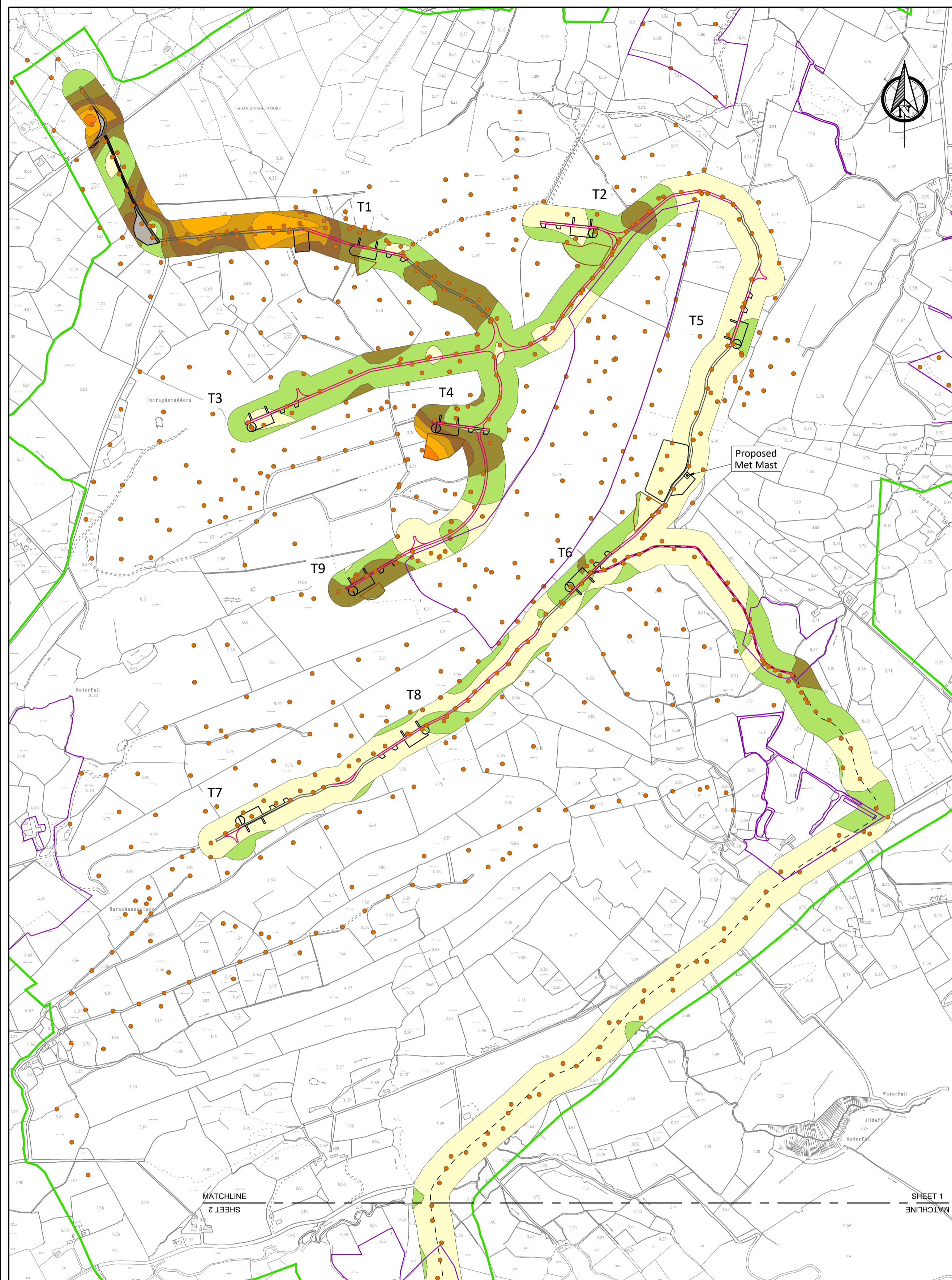
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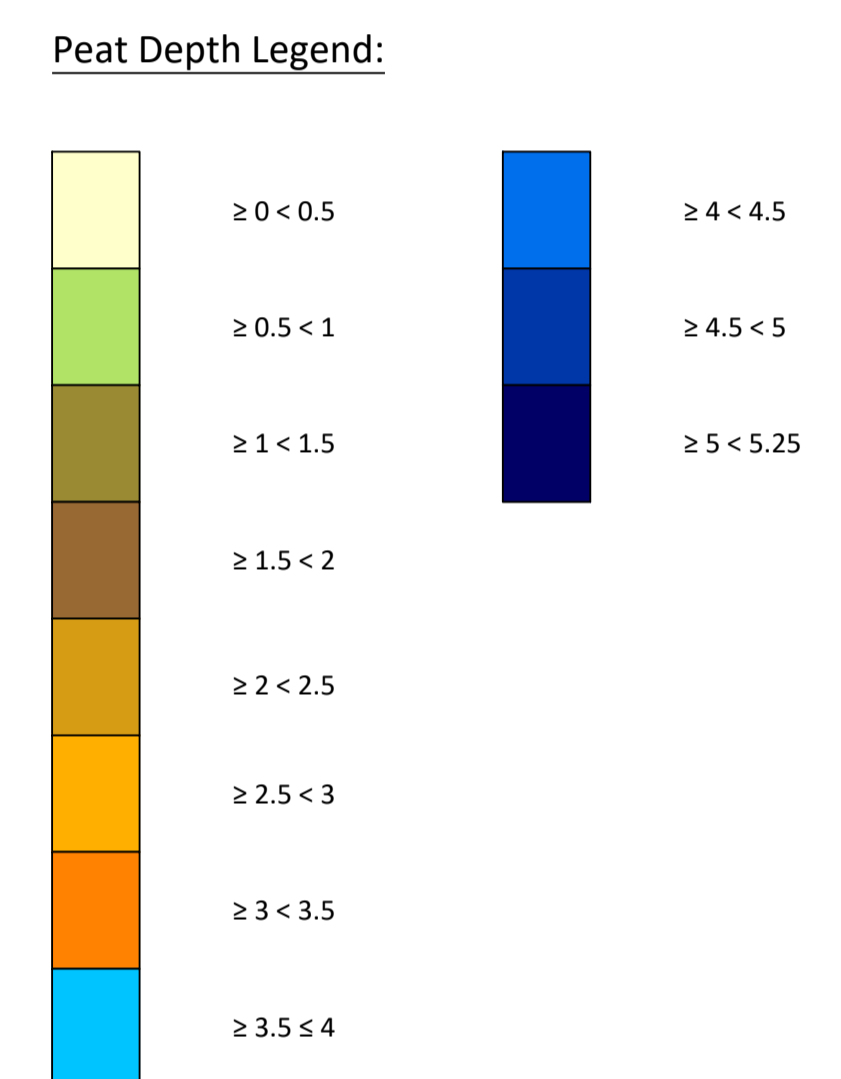
DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

DRAWINGS

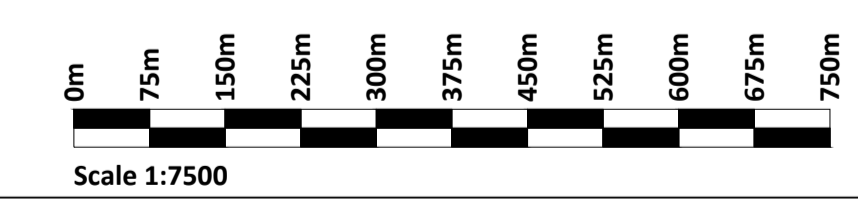




- Legend:**
- EIA Site Boundary
 - Proposed Turbine
 - Proposed Upgrades to Existing Road
 - Proposed New Road
 - Proposed Temporary Construction Compound
 - Proposed Borrow Pit
 - Proposed Underground Cable Connection
 - Proposed Turbine Delivery Route
 - Proposed Peat & Spoil Management Area
 - Proposed Biodiversity Enhancement Area
 - Proposed Delivery Overrun Area
 - Proposed Public Road to be Upgraded
 - Proposed Public Road to be Maintained
 - Peat Depth Probe Location



PLAN 0001
1:7500



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P02	FOR INFORMATION	BDH	17.02.26
P03	FOR INFORMATION	BDH	15.04.26

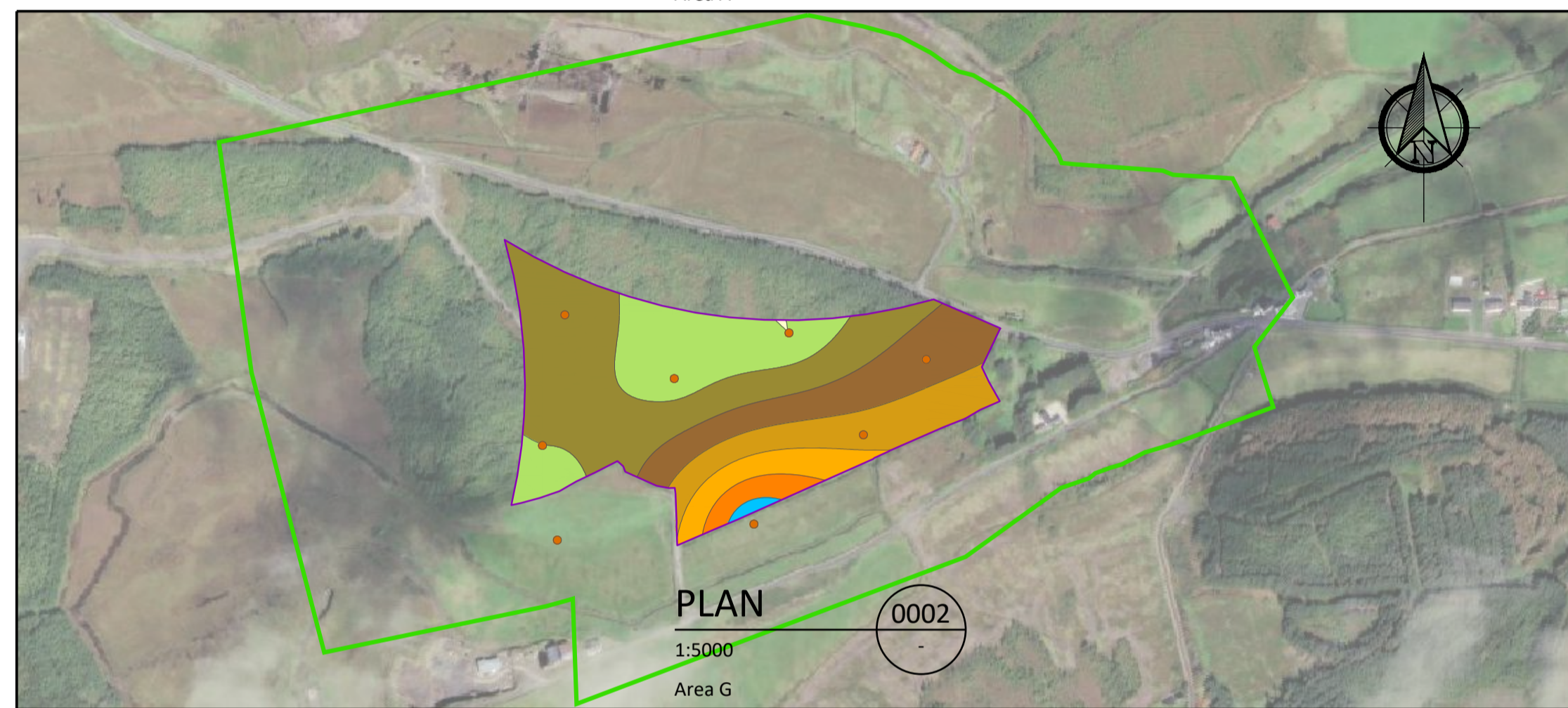
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					Checked by	IH		<small>(Sheet set subject 0600)</small>	

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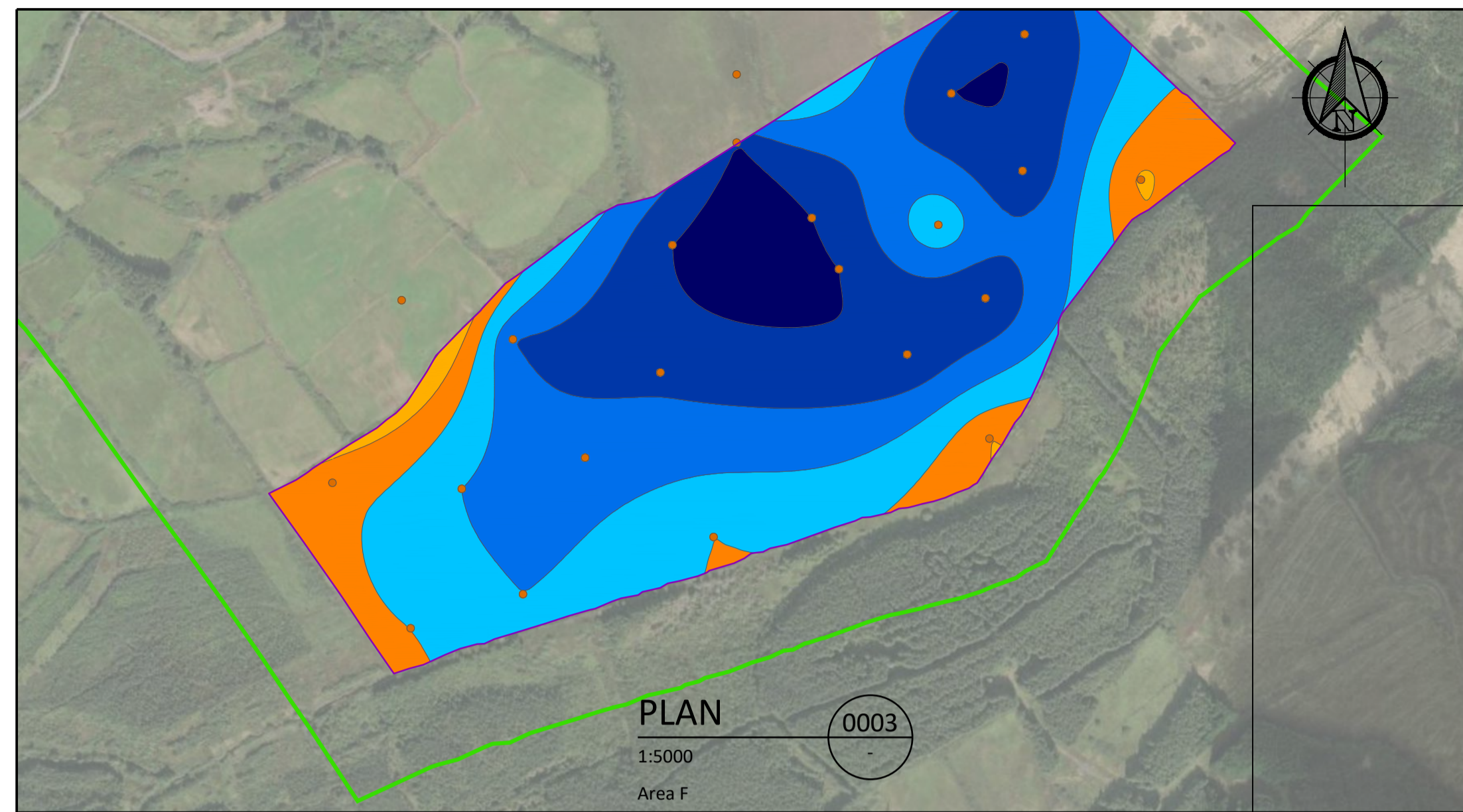
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1:5000
Area A



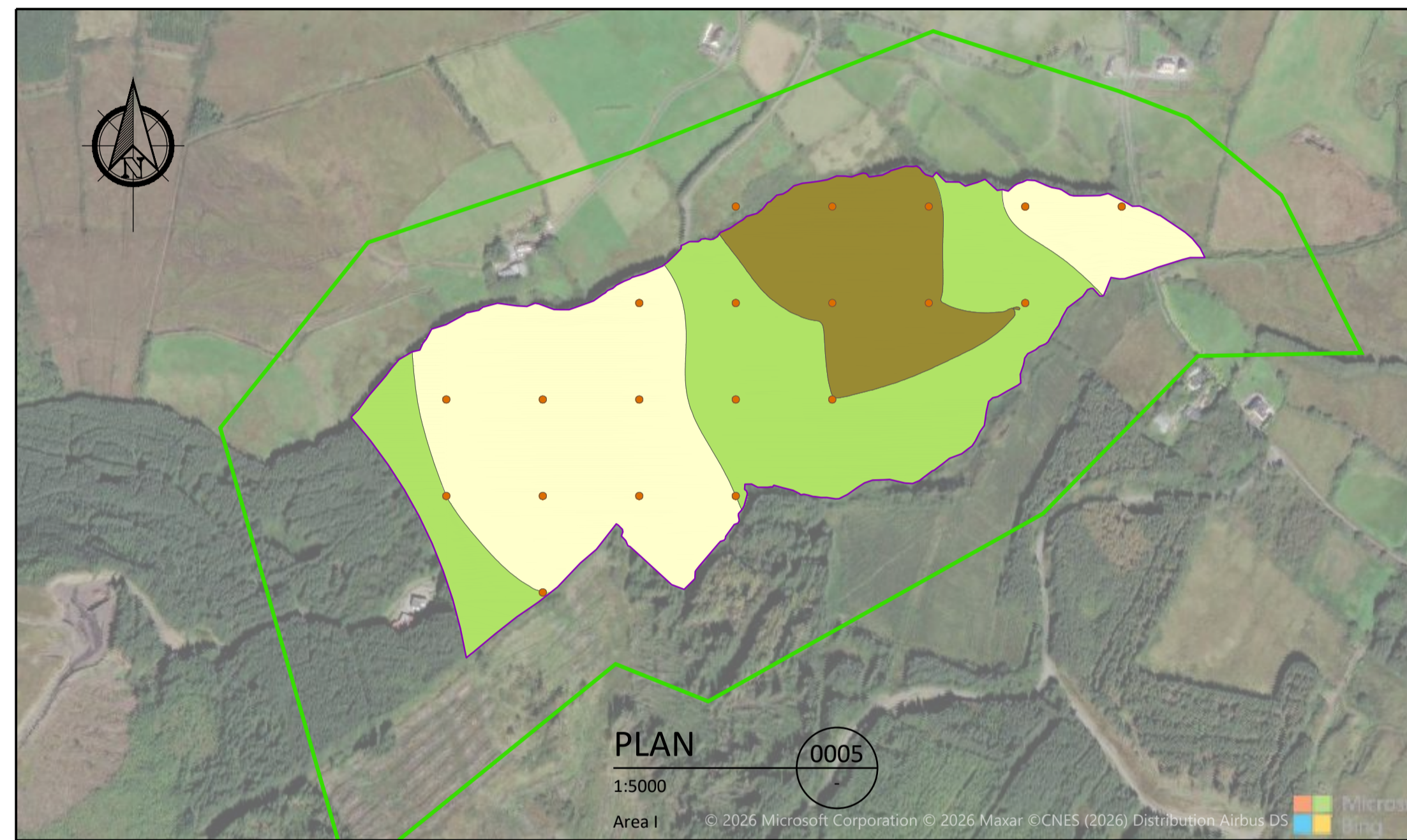
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Area G



PLAN 0004
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Area H



PLAN 0003
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Area F

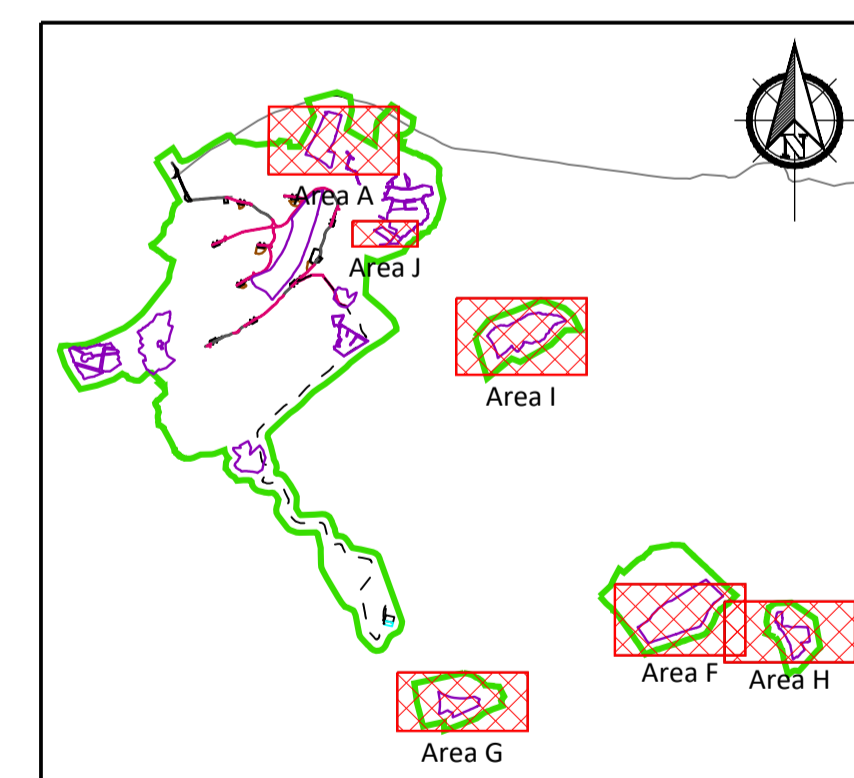
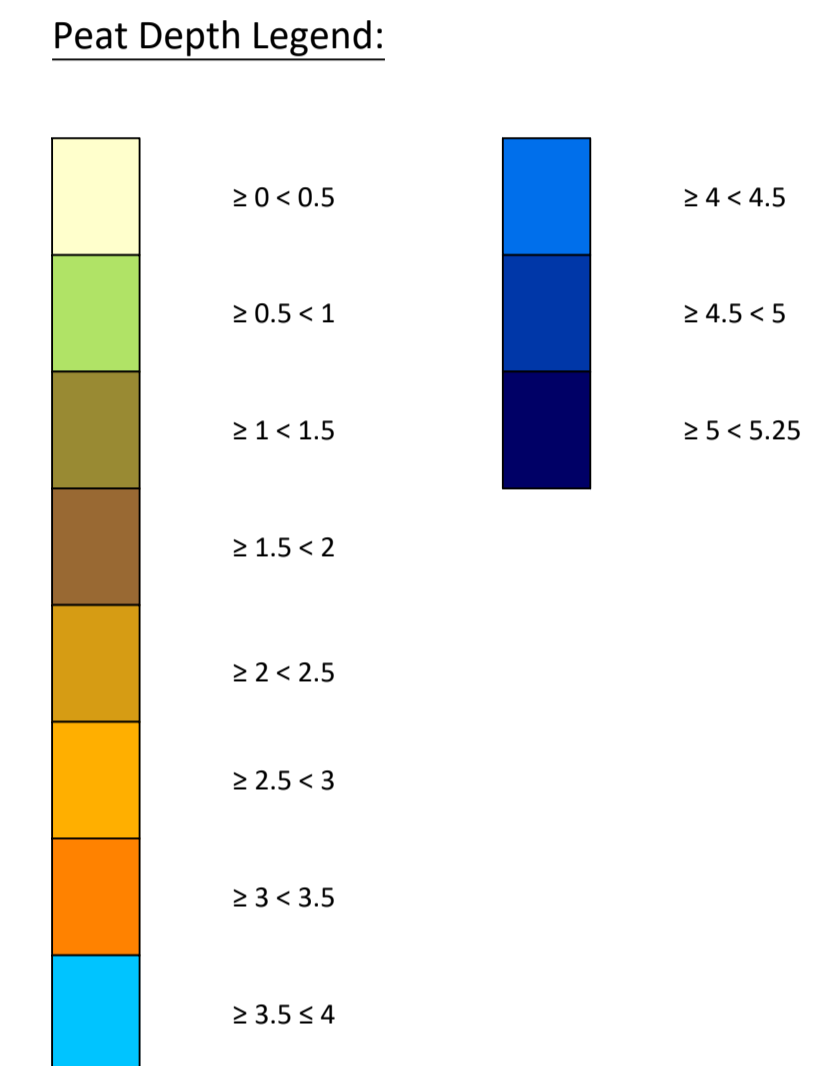


PLAN 0005
1:5000
Area I



PLAN 0006
1:2500
Area J

- Legend:**
- EIAR Site Boundary
 - Proposed Biodiversity Enhancement Area
 - Peat Depth Probe Location



KEY PLAN
1:85000

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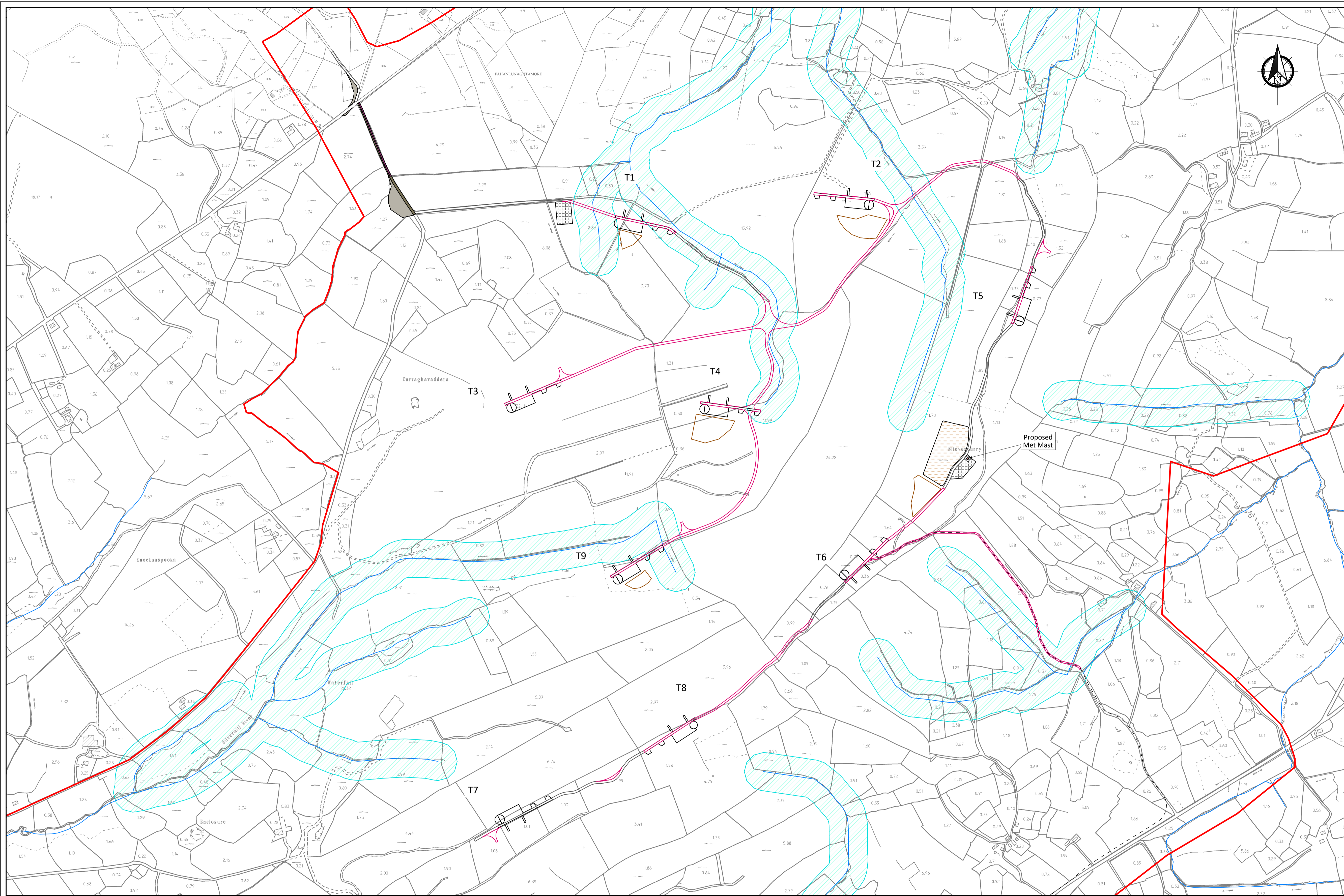
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Rev.	Description	App By	Date
P01	FOR INFORMATION	BDH	18.12.25
P02	FOR INFORMATION	BDH	17.02.26
P03	FOR INFORMATION	BDH	15.04.26

PROJECT SLIEVEACURRY RENEWABLE ENERGY DEVELOPMENT		CLIENT MKO	
SHEET PEAT DEPTH CONTOUR PLAN - BIODIVERSITY AREAS		Date 15.04.26	Project number P24-264
		Drawn by POR	Drawing Number P24-264-0600-0002
		Checked by IH	Rev P03
		Scale (@ A1) As Shown	

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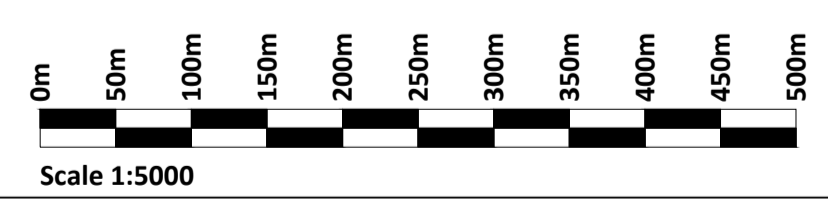
20 April 2026 (0:\ACAD\2024\P24-264\P24-264-0600-0002)



- Legend:**
- EIA Site Boundary
 - Proposed Turbine
 - Proposed Upgrades to Existing Road
 - Proposed New Road
 - Proposed Temporary Construction Compound
 - Proposed Borrow Pit
 - Proposed Underground Cable Connection
 - Proposed Turbine Delivery Route
 - Proposed Peat & Spoil Management Area
 - Proposed Biodiversity Enhancement Area
 - Proposed Delivery Overrun Area
 - Proposed Public Road to be Upgraded
 - Proposed Public Road to be Maintained

- Construction Buffer Zone Legend:**
- Buffer zone to areas of deep, soft peat where no construction will be undertaken.
 - Watercourses / Lakes with 50m buffer

PLAN 0001
1:5000



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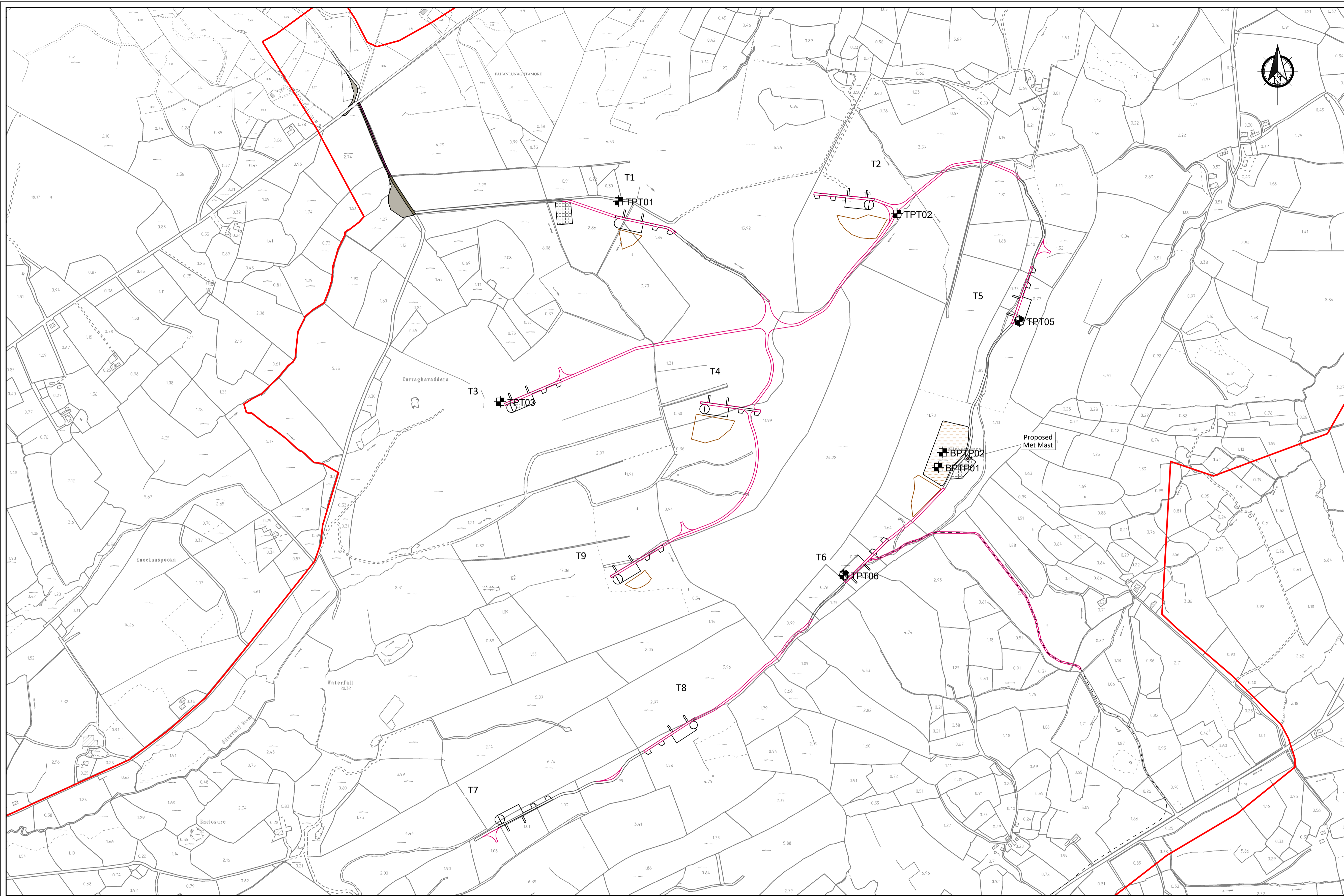
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P02	FOR INFORMATION	BDH	17.02.26

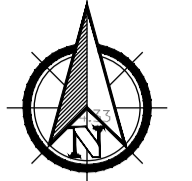
PROJECT	SLIEVEACURRY RENEWABLE ENERGY DEVELOPMENT			CLIENT	MKO				
	SHEET	CONSTRUCTION BUFFER ZONE PLAN			Date	17.02.26	Project number	P24-264	
					Scale (@ A1)	5000			
					Drawn by	POR		Drawing Number	P24-264-0600-0003
					Checked by	IH		Rev	P02

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16 April 2026 (0:\ACAD\2024\P24-264\P24-264-0600-0003)



- Legend:**
- EIAR Site Boundary
 - Proposed Turbine
 - Proposed Upgrades to Existing Road
 - Proposed New Road
 - Proposed Temporary Construction Compound
 - Proposed Borrow Pit
 - Proposed Underground Cable Connection
 - Proposed Turbine Delivery Route
 - Proposed Peat & Spoil Management Area
 - Proposed Biodiversity Enhancement Area
 - Proposed Delivery Overrun Area
 - Proposed Public Road to be Upgraded
 - Proposed Public Road to be Maintained
 - Trial Pit Location



PLAN 0001
1:5000



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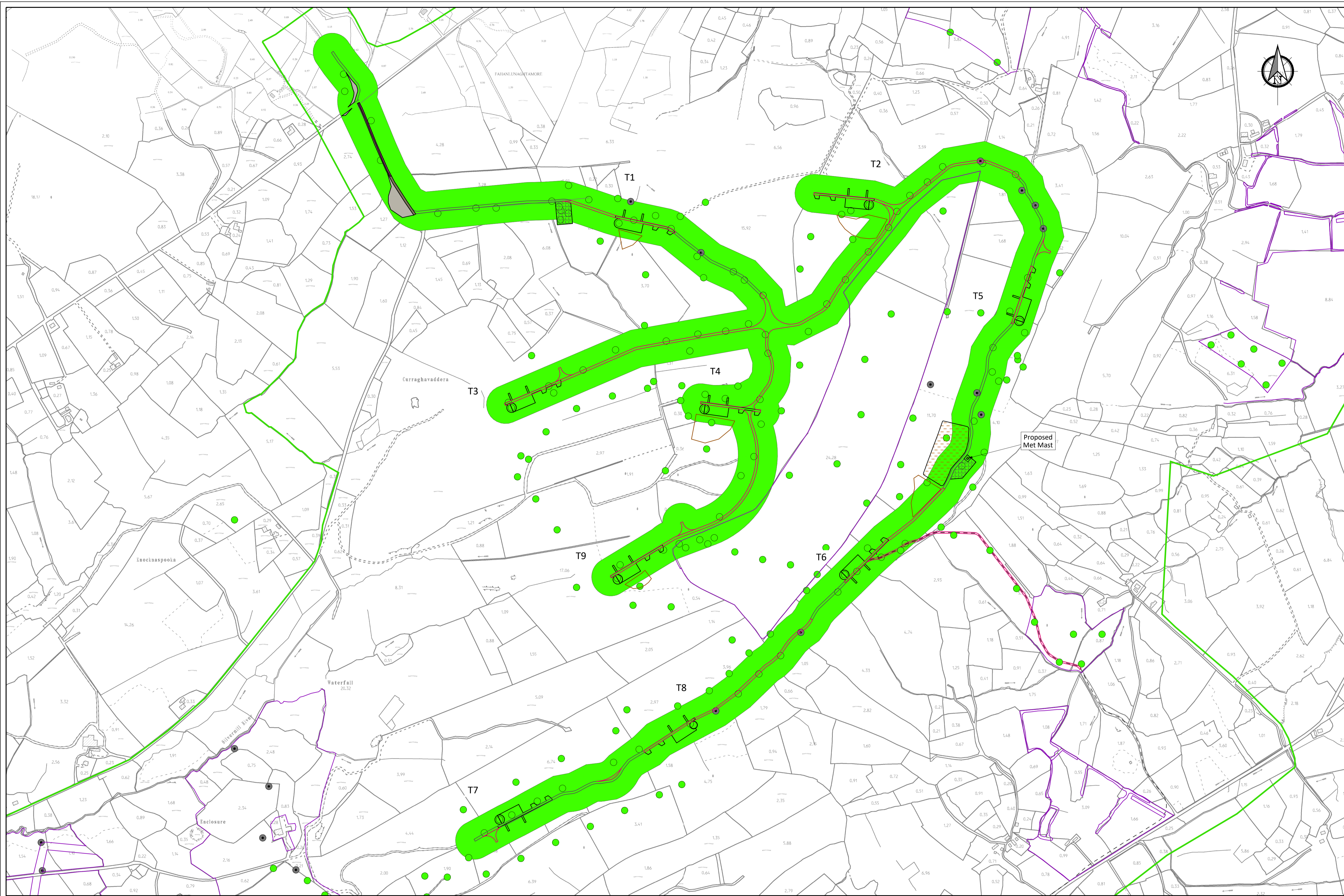
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Rev.	Description	App By	Date
P01	FOR INFORMATION	BDH	18.12.25
P02	FOR INFORMATION	BDH	17.02.26

PROJECT	SLIEVEACURRY RENEWABLE ENERGY DEVELOPMENT			CLIENT	MKO			
	SHEET	GROUND INVESTIGATION LOCATION PLAN			Date	17.02.26	Project number	P24-264
				Scale (@ A1)	5000			
				Drawn by	POR	Drawing Number	P24-264-0600-0004	
				Checked by	IH	Rev	P02	

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16 April 2026 (0:\ACAD\2024\P24-264\P24-264-0600-0004)



- Legend:**
- EIA Site Boundary
 - Proposed Turbine
 - Proposed Upgrades to Existing Road
 - Proposed New Road
 - Proposed Temporary Construction Compound
 - Proposed Borrow Pit
 - Proposed Underground Cable Connection
 - Proposed Turbine Delivery Route
 - Proposed Peat & Spoil Management Area
 - Proposed Biodiversity Enhancement Area
 - Proposed Delivery Overrun Area
 - Proposed Public Road to be Upgraded
 - Proposed Public Road to be Maintained

- Factor of Safety Legend:**
- 0 < 1.0 ●
 - ≥ 1.0 < 1.3 ●
 - ≥ 1.3 ●
- No Peat Recorded At This Location
- Increasing Stability ↓

PLAN 0001
1:5000



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P01	FOR INFORMATION	BDH	18.12.25
P02	FOR INFORMATION	BDH	17.02.26
P03	FOR INFORMATION	BDH	15.04.26

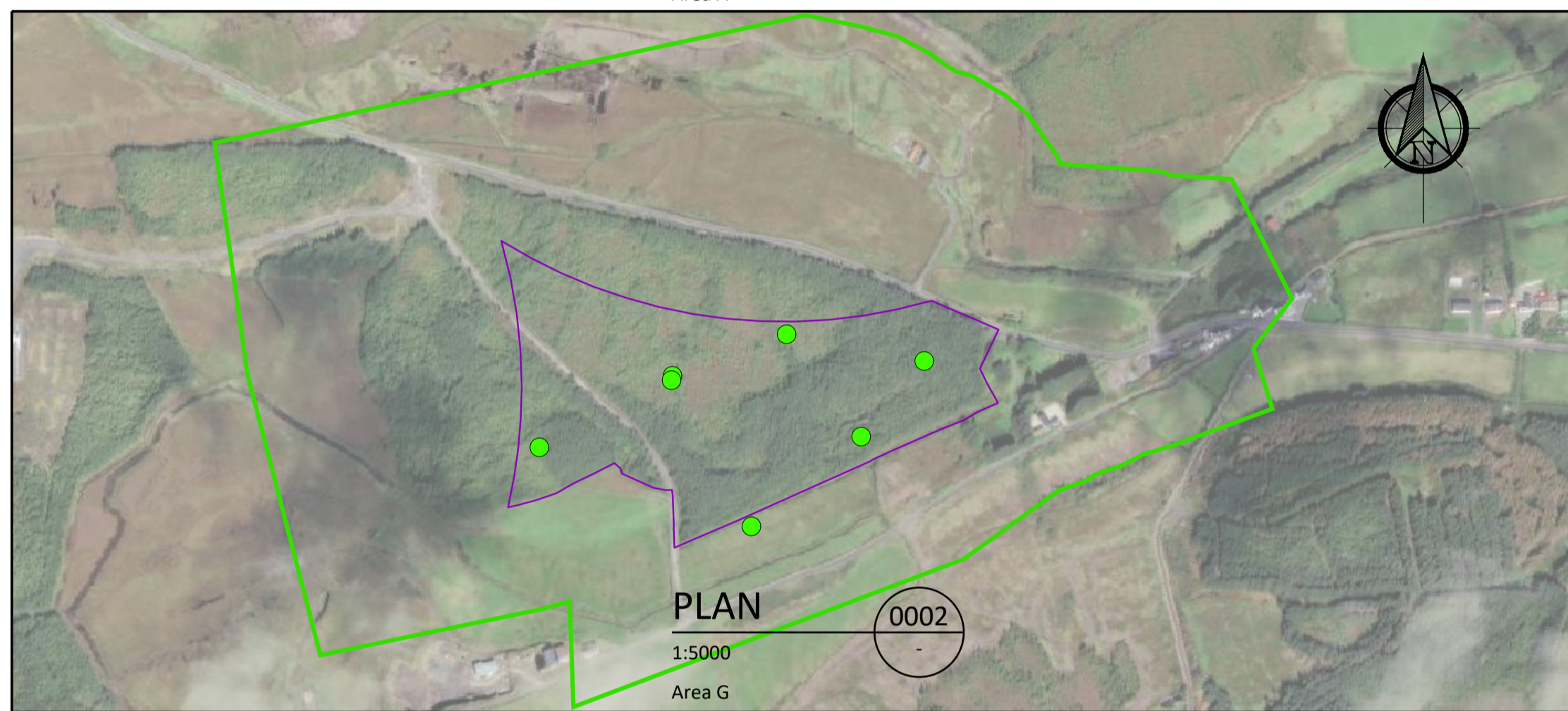
PROJECT		CLIENT	
SLIEVEACURRY RENEWABLE ENERGY DEVELOPMENT		MKO	
SHEET		Date	Project number
FACTOR OF SAFETY PLAN - SHORT TERM CRITICAL		15.04.26	P24-264
		Scale (@ A1)	5000
		Drawn by	Drawing Number
		POR	P24-264-0600-0005
		Checked by	Rev
		IH	P03

16 April 2026 (O:\ACAD\2024\P24-264\P24-264-0600-0005)



PLAN
1:5000
Area A

0001



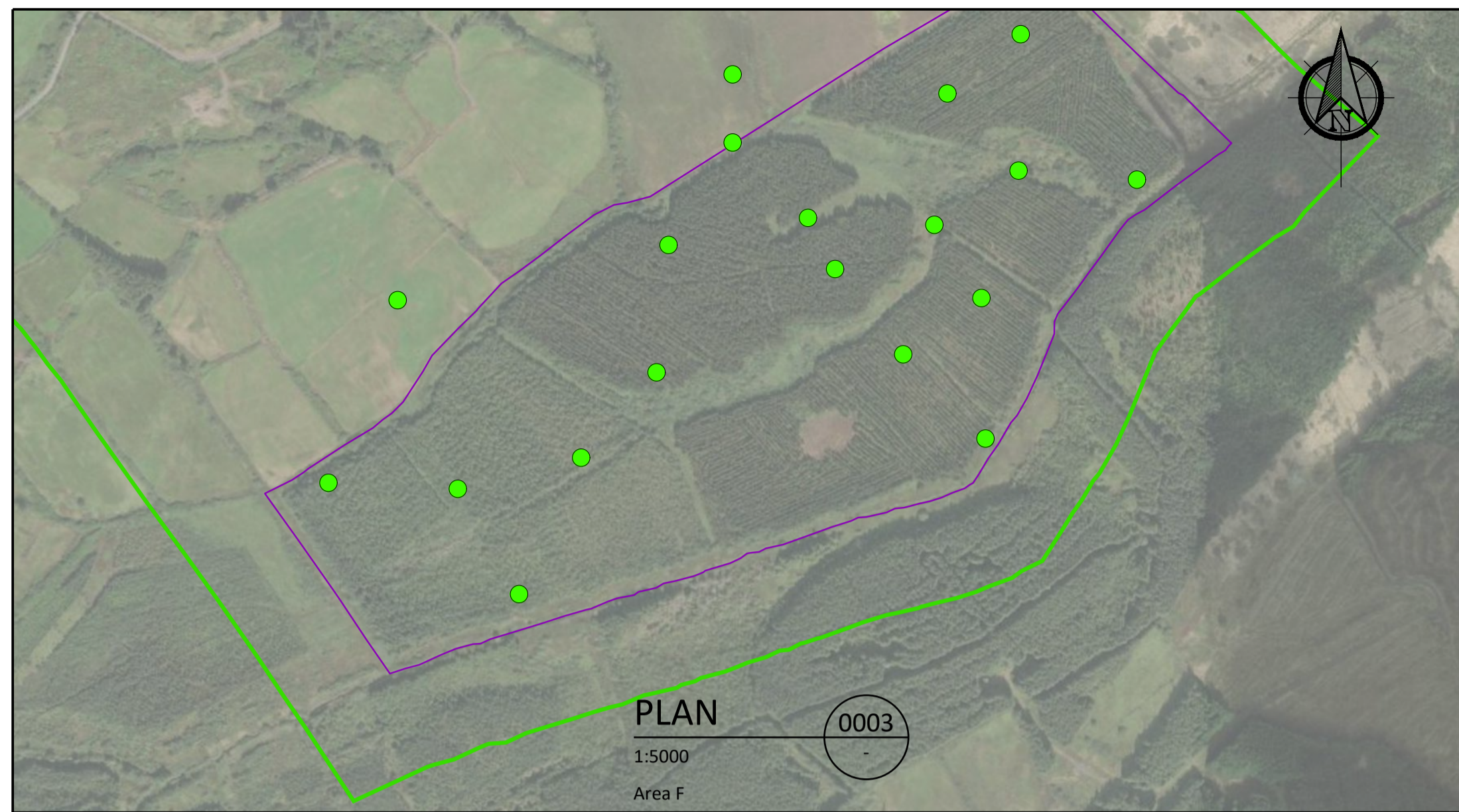
PLAN
1:5000
Area G

0002



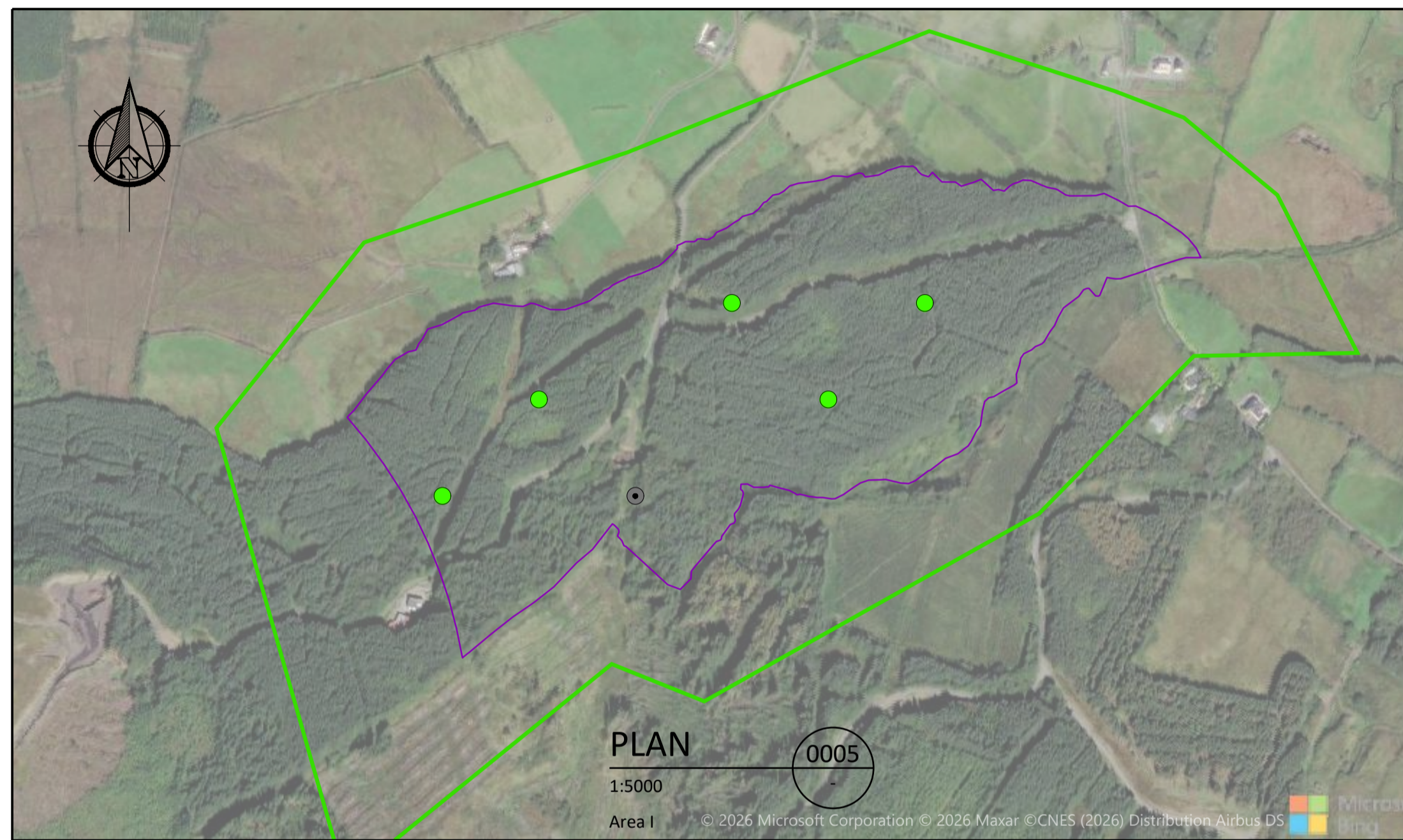
PLAN
1:5000
Area H

0004



PLAN
1:5000
Area F

0003



PLAN
1:5000
Area I

0005



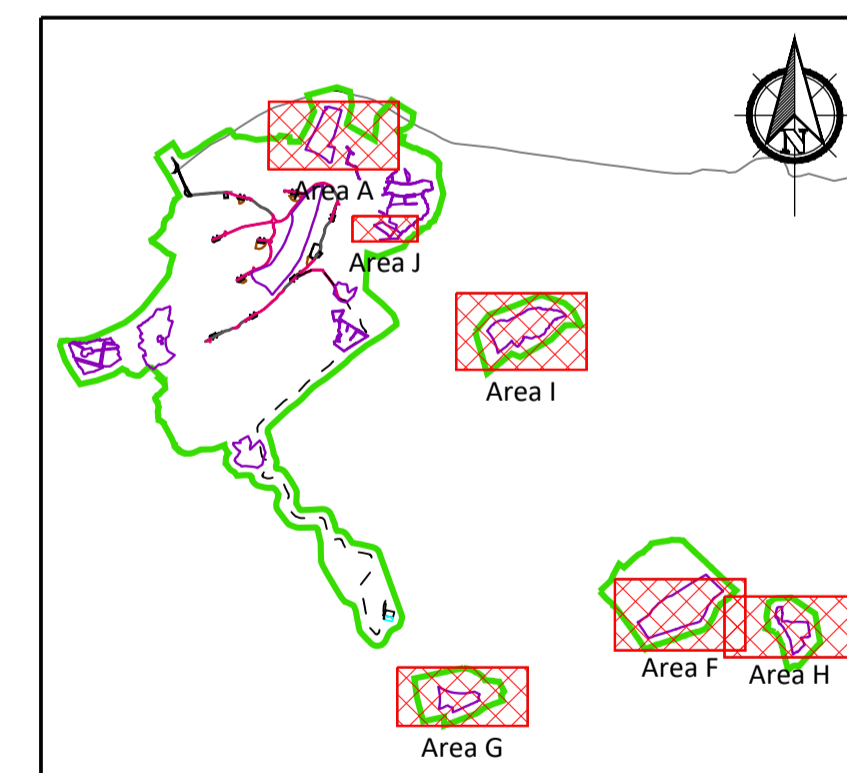
PLAN
1:2500
Area J

0006

Legend:
EIA Site Boundary

Factor of Safety Legend:
0 < 1.0
≥ 1.0 < 1.3
≥ 1.3
No Peat Recorded At This Location

Increasing Stability ↓



KEY PLAN
1:85000

-

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P01	FOR INFORMATION	BDH	18.12.25
P02	FOR INFORMATION	BDH	17.02.26
P03	FOR INFORMATION	BDH	15.04.26

PROJECT	SLIEVEACURRY RENEWABLE ENERGY DEVELOPMENT			CLIENT	MKO		
SHEET	FACTOR OF SAFETY PLAN - SHORT TERM CRITICAL (BIODIVERSITY AREAS)			Date	15.04.26	Project number	P24-264
				Drawn by	POR	Drawing Number	P24-264-0600-0018
				Checked by	IH	Scale (@ A1) As Shown	Rev
							P03

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20 April 2026 (0:\ACAD\2024\P24-264\P24-264-0600-0018)



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

APPENDIX A

Photos from Site Walkover

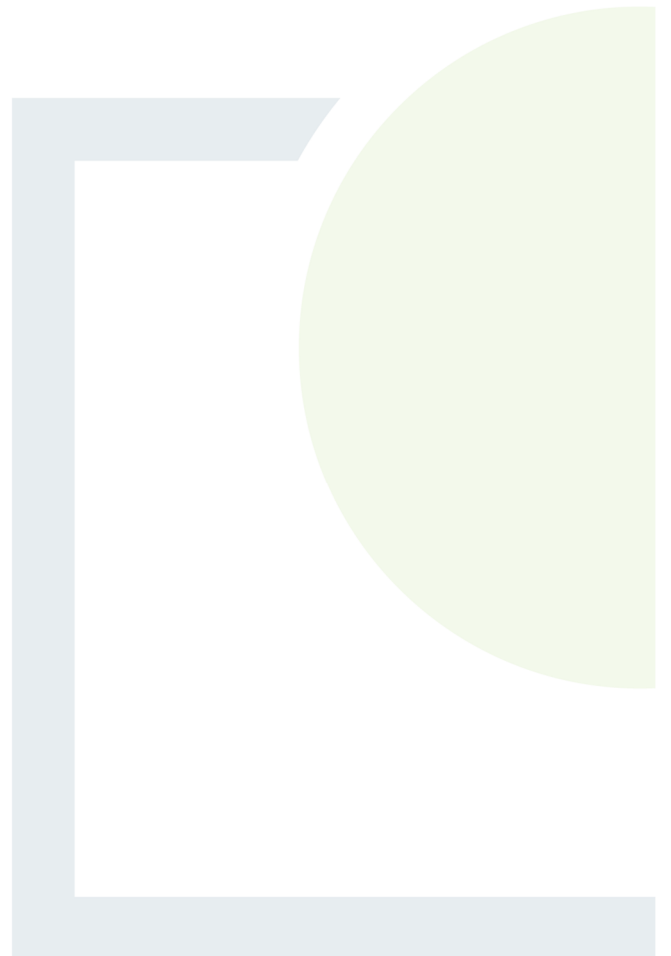




Photo 1: Existing founded access track



Photo 2: Open peatland near T6



Photo 3: Existing entrance road from north-east of site



Photo 4: View west towards T7

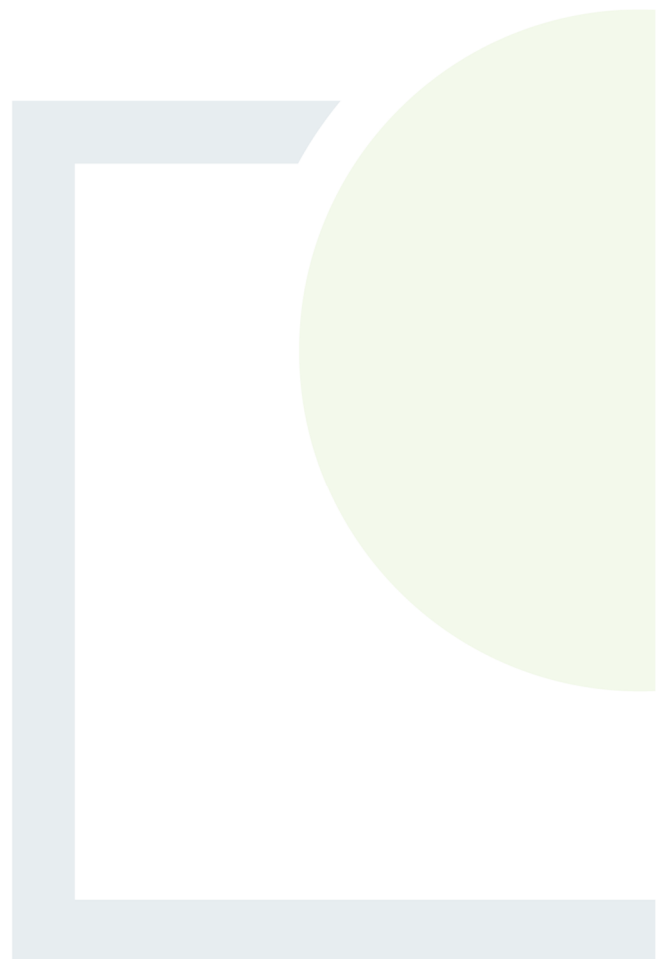


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TIMONEY**

**DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE**

APPENDIX B

Peat Stability Risk Registers



Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Turbine T01
------------------	--------------------

Grid Reference (Eastings, Northings):	511800	680767
Distance to Watercourse (m)	50 - 100	
Min & Max Measured Peat Depth (m):	1.7-2.1	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation					Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating	Prob (Note 2)			Impact (Note 3)	Risk	Risk Rating	
1	FOS = 8.60 (u), 11.47 (d)	1	3	3	Negligible	No	See Below	1	3	3	Negligible	
2	Evidence of sub peat water flow	1	3	3	Negligible	No		1	3	3	Negligible	
3	Evidence of surface water flow	3	3	9	Low	Yes		2	3	6	Low	
4	Evidence of previous failures/slips	0	3	0	Not Applicable	No		0	3	0	Not Applicable	
5	Type of vegetation	2	3	6	Low	No		2	3	6	Low	
6	General slope characteristics upslope/downslope from infrastructure location	2	3	6	Low	No		2	3	6	Low	
7	Evidence of very soft/soft clay at base of peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable	
8	Evidence of mechanically cut peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable	
9	Evidence of quaking or buoyant peat	1	3	3	Negligible	No		1	3	3	Negligible	
10	Evidence of bog pools	0	3	0	Not Applicable	No		0	3	0	Not Applicable	
11	Other	0	3	0	Not Applicable	No		0	3	0	Not Applicable	

Control Measures to be Implemented Prior to/and During Construction for Turbine T01	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
 (2) Probability assessed as per Table A and B of Appendix E.
 (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Turbine T02
------------------	--------------------

Grid Reference (Eastings, Northings):	512456	680815
Distance to Watercourse (m)	50 - 100	
Min & Max Measured Peat Depth (m):	0.2-0.6	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 2.56 (u), 3.66 (d)	1	3	3	Negligible	No	See Below	1	3	3	Negligible
2	Evidence of sub peat water flow	1	3	3	Negligible	No		1	3	3	Negligible
3	Evidence of surface water flow	2	3	6	Low	No		2	3	6	Low
4	Evidence of previous failures/slips	0	3	0	Not Applicable	No		0	3	0	Not Applicable
5	Type of vegetation	2	3	6	Low	No		2	3	6	Low
6	General slope characteristics upslope/downslope from infrastructure location	2	3	6	Low	No		2	3	6	Low
7	Evidence of very soft/soft clay at base of peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
8	Evidence of mechanically cut peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
10	Evidence of bog pools	0	3	0	Not Applicable	No		0	3	0	Not Applicable
11	Other	0	3	0	Not Applicable	No		0	3	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Turbine T02	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Turbine T03
------------------	--------------------

Grid Reference (Eastings, Northings):	511518	680283
Distance to Watercourse (m)	> 150	
Min & Max Measured Peat Depth (m):	0.2-0.6	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 12.29 (u), 17.73 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	2	1	2	Negligible	No		2	1	2	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		2	1	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	1	2	Negligible	No		2	1	2	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Other	0	1	0	Not Applicable	No		0	1	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Turbine T03	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
 (2) Probability assessed as per Table A and B of Appendix E.
 (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Turbine T04
------------------	--------------------

Grid Reference (Eastings, Northings):	512024	680278
Distance to Watercourse (m)	100 - 150	
Min & Max Measured Peat Depth (m):	0.4-1.0	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 3.83 (u), 5.52 (d)	1	2	2	Negligible	No	See Below	1	2	2	Negligible
2	Evidence of sub peat water flow	1	2	2	Negligible	No		1	2	2	Negligible
3	Evidence of surface water flow	2	2	4	Negligible	No		2	2	4	Negligible
4	Evidence of previous failures/slips	0	2	0	Not Applicable	No		0	2	0	Not Applicable
5	Type of vegetation	2	2	4	Negligible	No		2	2	4	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	2	4	Negligible	No		2	2	4	Negligible
7	Evidence of very soft/soft clay at base of peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
8	Evidence of mechanically cut peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
10	Evidence of bog pools	0	2	0	Not Applicable	No		0	2	0	Not Applicable
11	Other	0	2	0	Not Applicable	No		0	2	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Turbine T04	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Turbine T05
------------------	--------------------

Grid Reference (Eastings, Northings):	512851	680510
Distance to Watercourse (m)	> 150	
Min & Max Measured Peat Depth (m):	0.0-0.8	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 4.93 (u), 7.10 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	2	1	2	Negligible	No		2	1	2	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		2	1	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	1	2	Negligible	No		2	1	2	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Other	0	1	0	Not Applicable	No		0	1	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Turbine T05	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
 (2) Probability assessed as per Table A and B of Appendix E.
 (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Turbine T06
------------------	--------------------

Grid Reference (Eastings, Northings):	512392	679845
Distance to Watercourse (m)	100 - 150	
Min & Max Measured Peat Depth (m):	0.5-0.8	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 2.90 (u), 4.15 (d)	1	2	2	Negligible	No	See Below	1	2	2	Negligible
2	Evidence of sub peat water flow	1	2	2	Negligible	No		1	2	2	Negligible
3	Evidence of surface water flow	2	2	4	Negligible	No		2	2	4	Negligible
4	Evidence of previous failures/slips	0	2	0	Not Applicable	No		0	2	0	Not Applicable
5	Type of vegetation	2	2	4	Negligible	No		2	2	4	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	2	4	Negligible	No		2	2	4	Negligible
7	Evidence of very soft/soft clay at base of peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
8	Evidence of mechanically cut peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
10	Evidence of bog pools	0	2	0	Not Applicable	No		0	2	0	Not Applicable
11	Other	0	2	0	Not Applicable	No		0	2	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Turbine T06	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Turbine T07
------------------	--------------------

Grid Reference (Eastings, Northings):	511487	679203
Distance to Watercourse (m)	> 150	
Min & Max Measured Peat Depth (m):	0.0-0.2	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 11.47 (u), 16.55 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	2	1	2	Negligible	No		2	1	2	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		2	1	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	1	2	Negligible	No		2	1	2	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Other	0	1	0	Not Applicable	No		0	1	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Turbine T7	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Turbine T08
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Grid Reference (Eastings, Northings):	511996	679451
Distance to Watercourse (m)	> 150	
Min & Max Measured Peat Depth (m):	0.0-0.4	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 1.70 (u), 2.38 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	2	1	2	Negligible	No		2	1	2	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		2	1	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	1	2	Negligible	No		2	1	2	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Other	0	1	0	Not Applicable	No		0	1	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Turbine T08	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
 (2) Probability assessed as per Table A and B of Appendix E.
 (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Turbine T09
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Grid Reference (Eastings, Northings):	511797	679833
Distance to Watercourse (m)	50 - 100	
Min & Max Measured Peat Depth (m):	0.1-2.0	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 4.59 (u), 5.10 (d)	1	3	3	Negligible	No	See Below	1	3	3	Negligible
2	Evidence of sub peat water flow	1	3	3	Negligible	No		1	3	3	Negligible
3	Evidence of surface water flow	2	3	6	Low	No		2	3	6	Low
4	Evidence of previous failures/slips	0	3	0	Not Applicable	No		0	3	0	Not Applicable
5	Type of vegetation	2	3	6	Low	No		2	3	6	Low
6	General slope characteristics upslope/downslope from infrastructure location	2	3	6	Low	No		2	3	6	Low
7	Evidence of very soft/soft clay at base of peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
8	Evidence of mechanically cut peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
10	Evidence of bog pools	0	3	0	Not Applicable	No		0	3	0	Not Applicable
11	Other	0	3	0	Not Applicable	No		0	3	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Turbine T09	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Const. Comp.
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Grid Reference (Easting, Northings):	511648	680800
Distance to Watercourse (m)	> 150	
Min & Max Measured Peat Depth (m):	1.5-2.7	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 4.65 (u), 4.25 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	2	1	2	Negligible	No		1	1	1	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		2	1	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	1	1	1	Negligible	No		1	1	1	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Other	0	1	0	Not Applicable	No		0	1	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Construction Compound	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Met Mast
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Grid Reference (Easting, Northings):	512714	680150
Distance to Watercourse (m)	> 150	
Min & Max Measured Peat Depth (m):	0-0.2	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 11.29 (u), 7.84 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	2	1	2	Negligible	No		1	1	1	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		2	1	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	1	1	1	Negligible	No		1	1	1	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Other	0	1	0	Not Applicable	No		0	1	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Met Mast	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Const. Comp (Met Mast)
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Grid Reference (Eastings, Northings):	512706	680125
Distance to Watercourse (m)	> 150	
Min & Max Measured Peat Depth (m):	0.0 - 0.2	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 11.29 (u), 7.84 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	2	1	2	Negligible	No		1	1	1	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		2	1	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	1	1	1	Negligible	No		1	1	1	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Other	0	1	0	Not Applicable	No		0	1	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Construction Compound (Met. Mast)	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.
vi	Movement monitoring posts to be installed upslope of the turbine/hardsand excavation and monitored on a regular basis

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Borrow Pit
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Grid Reference (Eastings, Northings):	512662	680162
Distance to Watercourse (m)	50 - 100	
Min & Max Measured Peat Depth (m):	0.0 - 0.2	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 8.20 (u), 11.82 (d)	1	3	3	Negligible	No	See Below	1	3	3	Negligible
2	Evidence of sub peat water flow	1	3	3	Negligible	No		1	3	3	Negligible
3	Evidence of surface water flow	2	3	6	Low	No		1	3	3	Negligible
4	Evidence of previous failures/slips	0	3	0	Not Applicable	No		0	3	0	Not Applicable
5	Type of vegetation	2	3	6	Low	No		2	3	6	Low
6	General slope characteristics upslope/downslope from infrastructure location	1	3	3	Negligible	No		1	3	3	Negligible
7	Evidence of very soft/soft clay at base of peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
8	Evidence of mechanically cut peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
10	Evidence of bog pools	0	3	0	Not Applicable	No		0	3	0	Not Applicable
11	Other	0	3	0	Not Applicable	No		0	3	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Substation	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed.
vi	Movement monitoring posts to be installed upslope of the turbine/hardstand excavation and monitored on a regular basis

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Entrance Road to T01
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Grid Reference (Eastings, Northings):	Varies
Distance to Watercourse (m)	< 50
Min & Max Measured Peat Depth (m):	1.7-2.5
Notable Control Measures Required:	No

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 3.48 (u), 3.33 (d)	1	4	4	Negligible	No	See Below	1	4	4	Negligible
2	Evidence of sub peat water flow	1	4	4	Negligible	No		1	4	4	Negligible
3	Evidence of surface water flow	3	4	12	Medium	No		2	4	8	Low
4	Evidence of previous failures/slips	0	4	0	Not Applicable	No		0	4	0	Not Applicable
5	Type of vegetation	2	4	8	Low	No		2	4	8	Low
6	General slope characteristics upslope/downslope from infrastructure location	2	4	8	Low	No		2	4	8	Low
7	Evidence of very soft/soft clay at base of peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
8	Evidence of mechanically cut peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
9	Evidence of quaking or buoyant peat	2	4	8	Low	No		2	4	8	Low
10	Evidence of bog pools	0	4	0	Not Applicable	No		0	4	0	Not Applicable
11	Relatively deep peat	3	4	12	Medium	Yes		2	4	8	Low

Control Measures to be Implemented Prior to/and During Construction for Entrance Road to T01	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
vi	Movement monitoring posts to be installed along floated section of track and monitored on a regular basis

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
 (2) Probability assessed as per Table A and B of Appendix D in PSA.
 (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	T01 to Main Junction
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Grid Reference (Eastings, Northings):	Varies
Distance to Watercourse (m)	< 50
Min & Max Measured Peat Depth (m):	0.3-0.9
Notable Control Measures Required:	No

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 3.29 (u), 4.19 (d)	1	4	4	Negligible	No	See Below	1	4	4	Negligible
2	Evidence of sub peat water flow	1	4	4	Negligible	No		1	4	4	Negligible
3	Evidence of surface water flow	2	4	8	Low	No		1	4	4	Negligible
4	Evidence of previous failures/slips	0	4	0	Not Applicable	No		0	4	0	Not Applicable
5	Type of vegetation	2	4	8	Low	No		1	4	4	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	4	8	Low	No		1	4	4	Negligible
7	Evidence of very soft/soft clay at base of peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
8	Evidence of mechanically cut peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
10	Evidence of bog pools	0	4	0	Not Applicable	No		0	4	0	Not Applicable
11	Relatively deep peat	3	4	12	Medium	No		2	4	8	Low

Control Measures to be Implemented Prior to/and During Construction for T01 to Main Junction	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix D in PSA.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Main Junction to T02
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Grid Reference (Eastings, Northings):	Varies
Distance to Watercourse (m)	50 - 100
Min & Max Measured Peat Depth (m):	0.2-0.6
Notable Control Measures Required:	No

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 2.41 (u), 3.46 (d)	1	3	3	Negligible	No	See Below	1	3	3	Negligible
2	Evidence of sub peat water flow	1	3	3	Negligible	No		1	3	3	Negligible
3	Evidence of surface water flow	2	3	6	Low	No		1	3	3	Negligible
4	Evidence of previous failures/slips	0	3	0	Not Applicable	No		0	3	0	Not Applicable
5	Type of vegetation	2	3	6	Low	No		1	3	3	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	3	6	Low	No		1	3	3	Negligible
7	Evidence of very soft/soft clay at base of peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
8	Evidence of mechanically cut peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
10	Evidence of bog pools	0	3	0	Not Applicable	No		0	3	0	Not Applicable
11	Other	0	3	0	Not Applicable	No		0	3	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Main Junction to T02	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix D in PSA.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Spur to T03
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Grid Reference (Eastings, Northings):	Varies
Distance to Watercourse (m)	50 - 100
Min & Max Measured Peat Depth (m):	0.5-1.8
Notable Control Measures Required:	No

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 2.06 (u), 2.93 (d)	1	3	3	Negligible	No	See Below	1	3	3	Negligible
2	Evidence of sub peat water flow	1	3	3	Negligible	No		1	3	3	Negligible
3	Evidence of surface water flow	2	3	6	Low	No		1	3	3	Negligible
4	Evidence of previous failures/slips	0	3	0	Not Applicable	No		0	3	0	Not Applicable
5	Type of vegetation	2	3	6	Low	No		1	3	3	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	3	6	Low	No		1	3	3	Negligible
7	Evidence of very soft/soft clay at base of peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
8	Evidence of mechanically cut peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
10	Evidence of bog pools	0	3	0	Not Applicable	No		0	3	0	Not Applicable
11	Relatively deep peat	3	3	9	Low	No		2	3	6	Low

Control Measures to be Implemented Prior to/and During Construction for Spur to T03	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix D in PSA.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Spur to T04
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Grid Reference (Eastings, Northings):	Varies
Distance to Watercourse (m)	< 50
Min & Max Measured Peat Depth (m):	1.0-2.1
Notable Control Measures Required:	No

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 4.61 (u), 8.28 (d)	1	4	4	Negligible	No	See Below	1	4	4	Negligible
2	Evidence of sub peat water flow	1	4	4	Negligible	No		1	4	4	Negligible
3	Evidence of surface water flow	2	4	8	Low	No		1	4	4	Negligible
4	Evidence of previous failures/slips	0	4	0	Not Applicable	No		0	4	0	Not Applicable
5	Type of vegetation	2	4	8	Low	No		1	4	4	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	4	8	Low	No		1	4	4	Negligible
7	Evidence of very soft/soft clay at base of peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
8	Evidence of mechanically cut peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
10	Evidence of bog pools	0	4	0	Not Applicable	No		0	4	0	Not Applicable
11	Relatively deep peat	3	4	12	Medium	No		2	4	8	Low

Control Measures to be Implemented Prior to/and During Construction for Spur to T04	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix D in PSA.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	T02 to T05
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Grid Reference (Eastings, Northings):	Varies
Distance to Watercourse (m)	> 150
Min & Max Measured Peat Depth (m):	0.2-0.6
Notable Control Measures Required:	No

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 2.76 (u), 3.97 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	2	1	2	Negligible	No		1	1	1	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		1	1	1	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	1	2	Negligible	No		1	1	1	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Other	0	1	0	Not Applicable	No		0	1	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Road T02 to T05	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix D in PSA.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	T05 to T06
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Grid Reference (Eastings, Northings):	Varies
Distance to Watercourse (m)	> 150
Min & Max Measured Peat Depth (m):	0.4-0.7
Notable Control Measures Required:	No

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 2.65 (u), 3.76 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	2	1	2	Negligible	No		2	1	2	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		2	1	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	1	2	Negligible	No		2	1	2	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Other	0	1	0	Not Applicable	No		0	1	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Road T05 to T06	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	T06 to T08
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Grid Reference (Eastings, Northings):	Varies
Distance to Watercourse (m)	> 150
Min & Max Measured Peat Depth (m):	0.2-1.0
Notable Control Measures Required:	No

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 2.70 (u), 3.82 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	2	1	2	Negligible	No		2	1	2	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		2	1	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	1	2	Negligible	No		2	1	2	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Other	0	1	0	Not Applicable	No		0	1	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Road T06 to T08	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	T08 to T07
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Grid Reference (Eastings, Northings):	Varies
Distance to Watercourse (m)	100 - 150
Min & Max Measured Peat Depth (m):	0.2-0.7
Notable Control Measures Required:	No

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 2.67 (u), 3.77 (d)	1	2	2	Negligible	No	See Below	1	2	2	Negligible
2	Evidence of sub peat water flow	1	2	2	Negligible	No		1	2	2	Negligible
3	Evidence of surface water flow	2	2	4	Negligible	No		2	2	4	Negligible
4	Evidence of previous failures/slips	0	2	0	Not Applicable	No		0	2	0	Not Applicable
5	Type of vegetation	2	2	4	Negligible	No		2	2	4	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	2	2	4	Negligible	No		2	2	4	Negligible
7	Evidence of very soft/soft clay at base of peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
8	Evidence of mechanically cut peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
10	Evidence of bog pools	0	2	0	Not Applicable	No		0	2	0	Not Applicable
11	Other	0	2	0	Not Applicable	No		0	2	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Road T08 to T07	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	T04 to T09
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Grid Reference (Eastings, Northings):	Varies
Distance to Watercourse (m)	< 50
Min & Max Measured Peat Depth (m):	0.1-2.6
Notable Control Measures Required:	No

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 1.81 (u), 2.07 (d)	1	4	4	Negligible	No	See Below	1	4	4	Negligible
2	Evidence of sub peat water flow	1	4	4	Negligible	No		1	4	4	Negligible
3	Evidence of surface water flow	2	4	8	Low	No		2	4	8	Low
4	Evidence of previous failures/slips	0	4	0	Not Applicable	No		0	4	0	Not Applicable
5	Type of vegetation	2	4	8	Low	No		2	4	8	Low
6	General slope characteristics upslope/downslope from infrastructure location	2	4	8	Low	No		2	4	8	Low
7	Evidence of very soft/soft clay at base of peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
8	Evidence of mechanically cut peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
10	Evidence of bog pools	0	4	0	Not Applicable	No		0	4	0	Not Applicable
11	Other	0	4	0	Not Applicable	No		0	4	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Road T04 to T09	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Peat Management T01
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Grid Reference (Eastings, Northings):	511790	680787
Distance to Watercourse (m)	50 - 100	
Min & Max Measured Peat Depth (m):	1.0-1.5	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 5.22 (u), 6.25 (d)	1	3	3	Negligible	No	See Below	1	3	3	Negligible
2	Evidence of sub peat water flow	1	3	3	Negligible	No		1	3	3	Negligible
3	Evidence of surface water flow	3	3	9	Low	Yes		2	3	6	Low
4	Evidence of previous failures/slips	0	3	0	Not Applicable	No		0	3	0	Not Applicable
5	Type of vegetation	2	3	6	Low	No		2	3	6	Low
6	General slope characteristics upslope/downslope from infrastructure location	2	3	6	Low	No		2	3	6	Low
7	Evidence of very soft/soft clay at base of peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
8	Evidence of mechanically cut peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
9	Evidence of quaking or buoyant peat	1	3	3	Negligible	No		1	3	3	Negligible
10	Evidence of bog pools	0	3	0	Not Applicable	No		0	3	0	Not Applicable
11	Other	0	3	0	Not Applicable	No		0	3	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Peat Management T01	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Inspection & approval of area by a competent person prior to peat placement.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Peat Management T02
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Grid Reference (Eastings, Northings):	512455	680815
Distance to Watercourse (m)	50 - 100	
Min & Max Measured Peat Depth (m):	0.5-0.8	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 2.29 (u), 3.62 (d)	1	3	3	Negligible	No	See Below	1	3	3	Negligible
2	Evidence of sub peat water flow	1	3	3	Negligible	No		1	3	3	Negligible
3	Evidence of surface water flow	2	3	6	Low	No		1	3	3	Negligible
4	Evidence of previous failures/slips	0	3	0	Not Applicable	No		0	3	0	Not Applicable
5	Type of vegetation	2	3	6	Low	No		2	3	6	Low
6	General slope characteristics upslope/downslope from infrastructure location	2	3	6	Low	No		2	3	6	Low
7	Evidence of very soft/soft clay at base of peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
8	Evidence of mechanically cut peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
10	Evidence of bog pools	0	3	0	Not Applicable	No		0	3	0	Not Applicable
11	Other	0	3	0	Not Applicable	No		0	3	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Peat Management T02	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Inspection & approval of area by a competent person prior to peat placement.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Peat Management T04
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Grid Reference (Eastings, Northings):	512024	680278
Distance to Watercourse (m)	50 - 100	
Min & Max Measured Peat Depth (m):	0.4-2.7	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 2.40 (u), 16.29 (d)	1	3	3	Negligible	No	See Below	1	3	3	Negligible
2	Evidence of sub peat water flow	1	3	3	Negligible	No		1	3	3	Negligible
3	Evidence of surface water flow	2	3	6	Low	No		2	3	6	Low
4	Evidence of previous failures/slips	0	3	0	Not Applicable	No		0	3	0	Not Applicable
5	Type of vegetation	2	3	6	Low	No		2	3	6	Low
6	General slope characteristics upslope/downslope from infrastructure location	2	3	6	Low	No		2	3	6	Low
7	Evidence of very soft/soft clay at base of peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
8	Evidence of mechanically cut peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
10	Evidence of bog pools	0	3	0	Not Applicable	No		0	3	0	Not Applicable
11	Other	0	3	0	Not Applicable	No		0	3	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Peat Management T04	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Inspection & approval of area by a competent person prior to peat placement.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Peat Management T09
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Grid Reference (Eastings, Northings):	511795	679835
Distance to Watercourse (m)	50 - 100	
Min & Max Measured Peat Depth (m):	1.0-1.5	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 3.14 (u), 7.42 (d)	1	3	3	Negligible	No	See Below	1	3	3	Negligible
2	Evidence of sub peat water flow	1	3	3	Negligible	No		1	3	3	Negligible
3	Evidence of surface water flow	2	3	6	Low	No		2	3	6	Low
4	Evidence of previous failures/slips	0	3	0	Not Applicable	No		0	3	0	Not Applicable
5	Type of vegetation	2	3	6	Low	No		2	3	6	Low
6	General slope characteristics upslope/downslope from infrastructure location	2	3	6	Low	No		2	3	6	Low
7	Evidence of very soft/soft clay at base of peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
8	Evidence of mechanically cut peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	3	0	Not Applicable	No		0	3	0	Not Applicable
10	Evidence of bog pools	0	3	0	Not Applicable	No		0	3	0	Not Applicable
11	Other	0	3	0	Not Applicable	No		0	3	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Peat Management T09	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced geotechnical staff for site investigation;
iii	Use of experienced contractors and trained operators to carry out the work;
iv	Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties.
v	Inspection & approval of area by a competent person prior to peat placement.

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Enhancement Area A
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Grid Reference (Eastings, Northings):	varies	varies
Distance to Watercourse (m)	< 50	
Min & Max Measured Peat Depth (m):	0.0 - 0.9	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 2.89 (u), 5.39 (d)	1	4	4	Negligible	No	See Below	1	4	4	Negligible
2	Evidence of sub peat water flow	1	4	4	Negligible	No		1	4	4	Negligible
3	Evidence of surface water flow	2	4	8	Low	No		1	4	4	Negligible
4	Evidence of previous failures/slips	0	4	0	Not Applicable	No		0	4	0	Not Applicable
5	Type of vegetation	2	4	8	Low	No		2	4	8	Low
6	General slope characteristics upslope/downslope from infrastructure location	1	4	4	Negligible	No		1	4	4	Negligible
7	Evidence of very soft/soft clay at base of peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
8	Evidence of mechanically cut peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
10	Evidence of bog pools	0	4	0	Not Applicable	No		0	4	0	Not Applicable
11	Other	0	4	0	Not Applicable	No		0	4	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Enhancement Area A	
i	Maintain hydrology of area as far as possible;
iii	Use of experienced contractors and trained operators to carry out the work;

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Enhancement Area B
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Grid Reference (Eastings, Northings):	varies	varies
Distance to Watercourse (m)	< 50	
Min & Max Measured Peat Depth (m):	0.0	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = - (u), - (d)	0	4	0	Not Applicable	No	See Below	0	4	0	Not Applicable
2	Evidence of sub peat water flow	0	4	0	Not Applicable	No		0	4	0	Not Applicable
3	Evidence of surface water flow	0	4	0	Not Applicable	No		0	4	0	Not Applicable
4	Evidence of previous failures/slips	0	4	0	Not Applicable	No		0	4	0	Not Applicable
5	Type of vegetation	0	4	0	Not Applicable	No		0	4	0	Not Applicable
6	General slope characteristics upslope/downslope from infrastructure location	0	4	0	Not Applicable	No		0	4	0	Not Applicable
7	Evidence of very soft/soft clay at base of peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
8	Evidence of mechanically cut peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
10	Evidence of bog pools	0	4	0	Not Applicable	No		0	4	0	Not Applicable
11	Other	0	4	0	Not Applicable	No		0	4	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Enhancement Area B	
i	Maintain hydrology of area as far as possible;
iii	Use of experienced contractors and trained operators to carry out the work;

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Enhancement Area C
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Grid Reference (Eastings, Northings):	varies	varies
Distance to Watercourse (m)	< 50	
Min & Max Measured Peat Depth (m):	0-1.5	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 2.76 (u), 7.17 (d)	1	4	4	Negligible	No	See Below	1	4	4	Negligible
2	Evidence of sub peat water flow	1	4	4	Negligible	No		1	4	4	Negligible
3	Evidence of surface water flow	2	4	8	Low	No		1	4	4	Negligible
4	Evidence of previous failures/slips	0	4	0	Not Applicable	No		0	4	0	Not Applicable
5	Type of vegetation	2	4	8	Low	No		2	4	8	Low
6	General slope characteristics upslope/downslope from infrastructure location	1	4	4	Negligible	No		1	4	4	Negligible
7	Evidence of very soft/soft clay at base of peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
8	Evidence of mechanically cut peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
10	Evidence of bog pools	0	4	0	Not Applicable	No		0	4	0	Not Applicable
11	Other	0	4	0	Not Applicable	No		0	4	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Enhancement Area C	
i	Maintain hydrology of area as far as possible;
iii	Use of experienced contractors and trained operators to carry out the work;

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Enhancement Area D
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Grid Reference (Eastings, Northings):	varies	varies
Distance to Watercourse (m)	100 - 150	
Min & Max Measured Peat Depth (m):	0.9-2.3	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 1.75 (u), 5.60 (d)	1	2	2	Negligible	No	See Below	1	2	2	Negligible
2	Evidence of sub peat water flow	1	2	2	Negligible	No		1	2	2	Negligible
3	Evidence of surface water flow	2	2	4	Negligible	No		1	2	2	Negligible
4	Evidence of previous failures/slips	0	2	0	Not Applicable	No		0	2	0	Not Applicable
5	Type of vegetation	2	2	4	Negligible	No		2	2	4	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	1	2	2	Negligible	No		1	2	2	Negligible
7	Evidence of very soft/soft clay at base of peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
8	Evidence of mechanically cut peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
10	Evidence of bog pools	0	2	0	Not Applicable	No		0	2	0	Not Applicable
11	Other	0	2	0	Not Applicable	No		0	2	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Enhancement Area D	
i	Maintain hydrology of area as far as possible;
iii	Use of experienced contractors and trained operators to carry out the work;

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Enhancement Area E
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Grid Reference (Eastings, Northings):	varies	varies
Distance to Watercourse (m)	< 50	
Min & Max Measured Peat Depth (m):	0.0 - 0.9	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 1.75 (u), 3.81 (d)	1	4	4	Negligible	No	See Below	1	4	4	Negligible
2	Evidence of sub peat water flow	1	4	4	Negligible	No		1	4	4	Negligible
3	Evidence of surface water flow	2	4	8	Low	No		1	4	4	Negligible
4	Evidence of previous failures/slips	0	4	0	Not Applicable	No		0	4	0	Not Applicable
5	Type of vegetation	2	4	8	Low	No		2	4	8	Low
6	General slope characteristics upslope/downslope from infrastructure location	1	4	4	Negligible	No		1	4	4	Negligible
7	Evidence of very soft/soft clay at base of peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
8	Evidence of mechanically cut peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
10	Evidence of bog pools	0	4	0	Not Applicable	No		0	4	0	Not Applicable
11	Other	0	4	0	Not Applicable	No		0	4	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Enhancement Area E	
i	Maintain hydrology of area as far as possible;
iii	Use of experienced contractors and trained operators to carry out the work;

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Enhancement Area F
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Grid Reference (Eastings, Northings):	varies	varies
Distance to Watercourse (m)	< 50	
Min & Max Measured Peat Depth (m):	2.9-5.0	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 5.73 (u), 30.54 (d)	1	4	4	Negligible	No	See Below	1	4	4	Negligible
2	Evidence of sub peat water flow	1	4	4	Negligible	No		1	4	4	Negligible
3	Evidence of surface water flow	3	4	12	Medium	No		1	4	4	Negligible
4	Evidence of previous failures/slips	0	4	0	Not Applicable	No		0	4	0	Not Applicable
5	Type of vegetation	3	4	12	Medium	No		2	4	8	Low
6	General slope characteristics upslope/downslope from infrastructure location	1	4	4	Negligible	No		1	4	4	Negligible
7	Evidence of very soft/soft clay at base of peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
8	Evidence of mechanically cut peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
10	Evidence of bog pools	0	4	0	Not Applicable	No		0	4	0	Not Applicable
11	Deep peat	4	4	16	Medium	Yes		2	4	8	Low

Control Measures to be Implemented Prior to/and During Construction for Enhancement Area F	
i	Maintain hydrology of area as far as possible;
ii	Use of experienced contractors and trained operators to carry out the work;
iii	Use of low ground pressure machinery in deep peat area

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Enhancement Area G
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Grid Reference (Eastings, Northings):	varies	varies
Distance to Watercourse (m)	100 - 150	
Min & Max Measured Peat Depth (m):	0.0 - 0.2	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 2.98 (u), 9.61 (d)	1	2	2	Negligible	No	See Below	1	2	2	Negligible
2	Evidence of sub peat water flow	1	2	2	Negligible	No		1	2	2	Negligible
3	Evidence of surface water flow	2	2	4	Negligible	No		1	2	2	Negligible
4	Evidence of previous failures/slips	0	2	0	Not Applicable	No		0	2	0	Not Applicable
5	Type of vegetation	2	2	4	Negligible	No		2	2	4	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	1	2	2	Negligible	No		1	2	2	Negligible
7	Evidence of very soft/soft clay at base of peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
8	Evidence of mechanically cut peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
10	Evidence of bog pools	0	2	0	Not Applicable	No		0	2	0	Not Applicable
11	Other	0	2	0	Not Applicable	No		0	2	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Enhancement Area G	
i	Maintain hydrology of area as far as possible;
iii	Use of experienced contractors and trained operators to carry out the work;

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Enhancement Area H
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Grid Reference (Eastings, Northings):	varies	varies
Distance to Watercourse (m)	> 150	
Min & Max Measured Peat Depth (m):	0.0 - 0.8	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 3.40 (u), 6.70 (d)	1	1	1	Negligible	No	See Below	1	1	1	Negligible
2	Evidence of sub peat water flow	1	1	1	Negligible	No		1	1	1	Negligible
3	Evidence of surface water flow	2	1	2	Negligible	No		1	1	1	Negligible
4	Evidence of previous failures/slips	0	1	0	Not Applicable	No		0	1	0	Not Applicable
5	Type of vegetation	2	1	2	Negligible	No		2	1	2	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	1	1	1	Negligible	No		1	1	1	Negligible
7	Evidence of very soft/soft clay at base of peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
8	Evidence of mechanically cut peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	1	0	Not Applicable	No		0	1	0	Not Applicable
10	Evidence of bog pools	0	1	0	Not Applicable	No		0	1	0	Not Applicable
11	Other	0	1	0	Not Applicable	No		0	1	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Enhancement Area H	
i	Maintain hydrology of area as far as possible;
iii	Use of experienced contractors and trained operators to carry out the work;

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Enhancement Area I
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Grid Reference (Eastings, Northings):	varies	varies
Distance to Watercourse (m)	100 - 150	
Min & Max Measured Peat Depth (m):	0.0 - 0.9	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 1.75 (u), 6.36 (d)	1	2	2	Negligible	No	See Below	1	2	2	Negligible
2	Evidence of sub peat water flow	1	2	2	Negligible	No		1	2	2	Negligible
3	Evidence of surface water flow	2	2	4	Negligible	No		1	2	2	Negligible
4	Evidence of previous failures/slips	0	2	0	Not Applicable	No		0	2	0	Not Applicable
5	Type of vegetation	2	2	4	Negligible	No		2	2	4	Negligible
6	General slope characteristics upslope/downslope from infrastructure location	1	2	2	Negligible	No		1	2	2	Negligible
7	Evidence of very soft/soft clay at base of peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
8	Evidence of mechanically cut peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	2	0	Not Applicable	No		0	2	0	Not Applicable
10	Evidence of bog pools	0	2	0	Not Applicable	No		0	2	0	Not Applicable
11	Other	0	2	0	Not Applicable	No		0	2	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Enhancement Area I	
i	Maintain hydrology of area as far as possible;
iii	Use of experienced contractors and trained operators to carry out the work;

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

Slieveacurry Renewable Energy Development - Peat Stability Risk Register (Rev 0)

Location:	Enhancement Area J
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Grid Reference (Eastings, Northings):	varies	varies
Distance to Watercourse (m)	< 50	
Min & Max Measured Peat Depth (m):	0.2-1.3	
Notable Control Measures Required:	No	

Ref.	Contributory/Qualitative Factors to Potential Peat Failure	Pre-Control Measure Implementation				Control Required	Control measures to be implemented during construction	Post-Control Measure Implementation			
		Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating			Prob (Note 2)	Impact (Note 3)	Risk	Risk Rating
1	FOS = 3.75 (u), 9.17 (d)	1	4	4	Negligible	No	See Below	1	4	4	Negligible
2	Evidence of sub peat water flow	1	4	4	Negligible	No		1	4	4	Negligible
3	Evidence of surface water flow	2	4	8	Low	No		1	4	4	Negligible
4	Evidence of previous failures/slips	0	4	0	Not Applicable	No		0	4	0	Not Applicable
5	Type of vegetation	2	4	8	Low	No		2	4	8	Low
6	General slope characteristics upslope/downslope from infrastructure location	2	4	8	Low	No		1	4	4	Negligible
7	Evidence of very soft/soft clay at base of peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
8	Evidence of mechanically cut peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
9	Evidence of quaking or buoyant peat	0	4	0	Not Applicable	No		0	4	0	Not Applicable
10	Evidence of bog pools	0	4	0	Not Applicable	No		0	4	0	Not Applicable
11	Other	0	4	0	Not Applicable	No		0	4	0	Not Applicable

Control Measures to be Implemented Prior to/and During Construction for Enhancement Area J	
i	Maintain hydrology of area as far as possible;
iii	Use of experienced contractors and trained operators to carry out the work;

Note

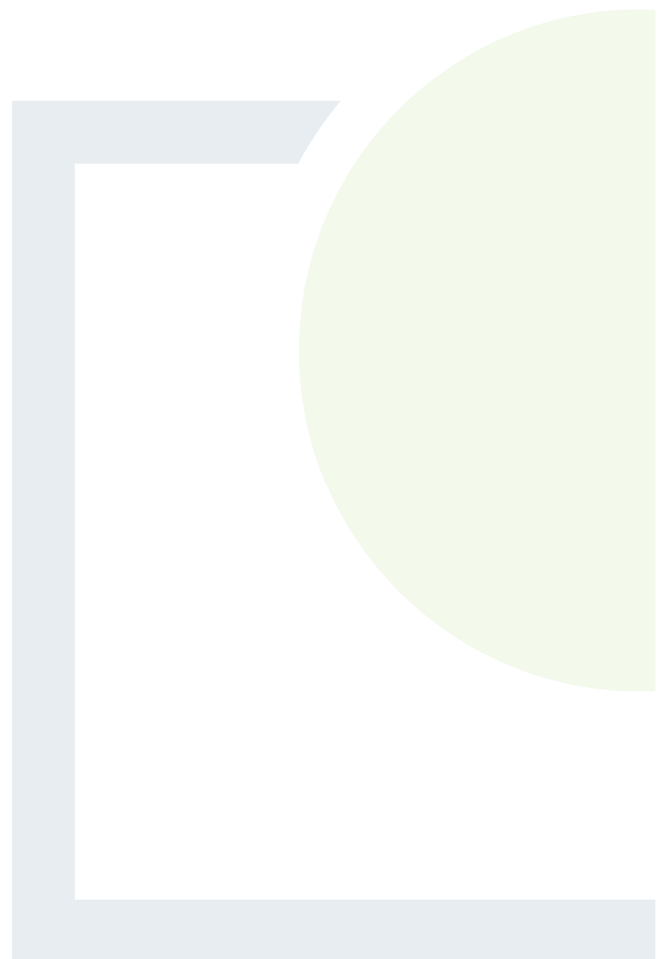
- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

APPENDIX C

Calculated FOS for Peat Slopes
on Site



Calculated FoS of Natural Peat Slopes for Slievecurry Renewable Energy Development - Undrained Analysis

Turbine No./Waypoint	Easting	Northing	Slope	Undrained shear strength	Bulk unit weight of Peat	Peat Depth	Surcharge Equivalent Placed Fill Depth (m)	Factor of Safety for Load Condition	
			β (deg)	c_u (kPa)	γ (kN/m ³)	(m)	Condition (2)	Condition (1)	Condition (2)
T01	511800	680767	2	6	10	1.00	2.0	17.20	8.60
T02	512456	680815	8	6	10	0.70	1.7	6.22	2.56
T03	511518	680283	2	6	10	0.40	1.4	43.01	12.29
T04	512025	680280	3	6	10	2.00	3.0	5.74	3.83
T05	512851	680510	4	6	10	0.75	1.8	11.50	4.93
T06	512392	679845	8	6	10	0.50	1.5	8.71	2.90
T07	511487	679203	2	6	10	0.50	1.5	34.41	11.47
T08	511996	679451	14	6	10	0.50	1.5	5.11	1.70
T09	511797	679833	3	6	10	1.50	2.5	7.65	4.59
Construction Compound (north)	511648	680800	2	6	10	2.70	3.7	6.37	4.65
Construction Compound (met mast)	512706	680125	4	6	10	0.10	1.1	86.22	7.84
Met Mast	512714	680150	4	6	10	0.10	1.1	86.22	7.84
Northern Borrow Pit	512699	680131	7	6	10	0.50	1.5	9.92	3.31
Cable Route	113044	179572	5	6	10	1.90	1.9	3.64	3.64
FT (2025)									
APP001	511937	679761	6	6	10	0.40	1.4	14.43	4.12
APP002	511837	679765	20	6	10	0.30	1.3	6.22	1.44
APP003	511855	679815	5	6	10	1.00	2.2	6.91	3.14
APP004	511962	680302	2	6	10	2.60	3.6	6.62	4.78
APP005	511982	680261	2	6	10	2.70	3.9	6.37	4.41
APP006	512043	680244	4	6	10	2.40	3.6	3.59	2.40
APP007	512026	680318	2	6	10	2.50	3.5	6.88	4.92
APP008	512030	680175	3	6	10	3.40	4.4	3.38	2.61
APP009	511643	680810	2	6	10	2.70	3.7	6.37	4.65
APP010	511647	680776	2	6	10	1.50	2.5	11.47	6.88
APP011	511667	680793	2	6	10	1.80	2.8	9.56	6.14
OL_29	511278	678730	4	6	10	0.2	1.2	40.60	6.77
OL_32	511063	678684	7	6	10	0.1	1.1	50.31	4.57
OL_33	511024	678730	17	6	10	0.1	1.1	21.82	1.98
OL_34	511080	678792	21	6	10	0.2	1.2	9.01	1.50
OL_35	511136	678842	21	6	10	0.1	1.1	17.90	1.63
OL_36	511190	678894	18	6	10	0.1	1.1	20.10	1.83
OL_37	511242	678948	20	6	10	0.1	1.1	18.90	1.72
OL_38	511296	679000	15	6	10	0.1	1.1	24.05	2.19
OL_39	511350	679052	10	6	10	0.1	1.1	33.58	3.05
OL_40	511406	679103	15	6	10	0.1	1.1	23.60	2.15
OL_41	511447	679168	5	6	10	0.1	1.1	74.56	6.78
OL_42	511519	679215	1	6	10	0.2	1.2	343.79	57.30
OL_43	511586	679251	1	6	10	0.1	1.1	687.58	62.51
OL_44	511652	679285	4	6	10	0.2	1.2	42.95	7.16
OL_46	511786	679353	6	6	10	0.3	1.3	19.42	4.48
OL_47	511853	679387	12	6	10	0.1	1.1	29.38	2.67
OL_49	511987	679454	12	6	10	0.4	1.4	7.32	2.09
OL_50	512054	679488						No peat recorded at this location	
OL_51	512113	679533	8	6	10	0.1	1.1	41.19	3.74
OL_52	512167	679585	12	6	10	0.1	1.1	29.81	2.71
OL_53	512224	679633	9	6	10	0.2	1.2	19.86	3.31
OL_54	512277	679694						No peat recorded at this location	
OL_56	512374	679800	11	6	10	0.2	1.2	16.09	2.68
OL_57	512424	679854	9	6	10	0.5	1.5	7.78	2.59
OL_58	512488	679891	11	6	10	0.1	1.1	32.98	3.00
OL_59	512551	679927	11	6	10	0.2	1.2	15.95	2.66
OL_64	512731	680248	11	6	10	0.2	1.2	15.99	2.67
OL_65	512739	680322						No peat recorded at this location	
OL_66	512779	680377	6	6	10	0.5	1.5	12.00	4.00
OL_67	512846	680409	4	6	10	0.3	1.3	25.96	5.99
OL_78	512320	679846	5	6	10	0.4	1.4	19.03	5.44
OL_79	512250	679871	6	6	10	0.2	1.2	28.36	4.73
OL_80	512177	679885	8	6	10	0.2	1.2	21.31	3.55
OL_81	512104	679905	8	6	10	0.2	1.2	22.47	3.74
OL_82	512033	679926	4	6	10	0.3	1.3	26.33	6.08
OL_83	511958	679926	2	6	10	1.0	2.0	14.66	7.33
OL_97	511563	680148	2	6	10	1.6	2.6	13.31	8.19
OL_110	512408	680800	7	6	10	0.2	1.2	26.01	4.34
OL_116	512027	680822	4	6	10	0.2	1.2	39.50	6.58
OL_117	511961	680785	4	6	10	0.2	1.2	42.95	7.16
OL_118	511896	680787	4	6	10	0.1	1.1	82.74	7.52
OL_119	511831	680824						No peat recorded at this location	
OL_120	511797	680832	2	6	10	0.3	1.3	57.34	13.23
G15	512754	680924	4	6	10	0.1	1.1	86.22	7.84
G3	512617	680344						No peat recorded at this location	
PP23	512860	680390	3.9	6	10	0.6	1.6	14.74	5.53
PP25	512864	680480	3.3	6	10	0.3	1.3	34.80	8.03
PP26	512845	680420	4.2	6	10	0.4	1.4	20.54	5.87
PP27	512817	680356	3.6	6	10	0.1	1.1	95.74	8.70
PP37	511534	680102	0.2	6	10	0.5	1.5	343.78	114.59
PP56	511975	679916	2.1	6	10	0.9	1.9	18.21	8.62
PP57	512050	679942	4	6	10	0.2	1.2	43.11	7.19
PP79	511392	679229	4.2	6	10	0.7	1.7	11.74	4.83
PP87	511543	680157	1.6	6	10	1	2.0	21.50	10.75
PP88	511609	680220	0.3	6	10	1.2	2.2	95.49	52.09
PP89	511689	680281	2.5	6	10	1	2.0	13.77	6.88
PP90	511783	680314	0.8	6	10	2	3.0	21.49	14.33
PP91	511891	680352	3.2	6	10	1	2.0	10.77	5.38
PP93	511629	680322	4.5	6	10	0.1	1.1	76.71	6.97
PP94	511510	680297	4.3	6	10	0.5	1.5	16.05	5.35
T7-T5 (P)	512050	679942	4	6	10	0.8	1.8	10.78	4.79
T9-T2 (P)	511875	680334	3.4	6	10	2.7	3.7	3.75	2.74

Calculated FoS of Natural Peat Slopes for Slievecurry Renewable Energy Development - Undrained Analysis

Turbine No./Waypoint	Easting	Northing	Slope	Undrained shear strength	Bulk unit weight of Peat	Peat Depth	Surcharge Equivalent Placed Fill Depth (m)	Factor of Safety for Load Condition	
				c_u (kPa)	γ (kN/m ³)	(m)	Condition (2)	Condition (1)	Condition (2)
			β (deg)						
3	511425	680807	2	6	10	2.5	3.5	6.88	4.92
5	511624	680825	2	6	10	1.1	2.1	15.64	8.19
8	511839	680775	2	6	10	0.9	1.9	19.11	9.05
9	511937	680753	5	6	10	1	2.0	6.91	3.46
10	512015	680690						No peat recorded at this location	
11	512100	680640	5	6	10	1.1	2.1	6.28	3.29
12	512178	680578	6	6	10	0.3	1.3	19.24	4.44
15	512275	680647	3	6	10	0.9	1.9	12.76	6.04
16	512303	680732	2	6	10	1.4	2.4	12.29	7.17
17	512384	680790	3	6	10	0.8	1.8	14.35	6.38
20	512649	680915	5	6	10	1	2.0	6.91	3.46
21	512748	680930						No peat recorded at this location	
22	512840	680895	3	6	10	0.2	1.2	57.40	9.57
25	512872	680624	4	6	10	0.4	1.4	21.56	6.16
26	512825	680536	4	6	10	0.5	1.5	17.24	5.75
28	512796	680353	3	6	10	0.6	1.6	19.13	7.18
29	512750	680265						No peat recorded at this location	
30	512758	680166	22	6	10	0.2	1.2	8.64	1.44
31	512728	680075	18	6	10	0.2	1.2	10.21	1.70
33	512645	679970	9	6	10	0.3	1.3	12.94	2.99
35	512226	680275	7	6	10	0.8	1.8	6.20	2.76
37	512120	680105	3	6	10	0.3	1.3	38.27	8.83
39	512012	679937	4	6	10	0.3	1.3	28.74	6.63
40	511917	679910	2	6	10	2.2	3.2	7.82	5.38
43	511638	679963	2	6	10	1.5	2.5	11.47	6.88
44	511582	680044	3	6	10	2.6	3.6	4.42	3.19
45	512297	680483	4	6	10	0.6	1.6	14.37	5.39
46	512274	680395	6	6	10	1	2.0	5.77	2.89
50	511965	680341	3	6	10	1.7	2.7	6.75	4.25
51	512022	680624	5	6	10	0.9	1.9	7.68	3.64
53	511867	680499	6	6	10	1.4	2.4	4.12	2.40
54	511791	680435	8	6	10	0.6	1.6	7.26	2.72
55	511706	680382	7	6	10	0.3	1.3	16.53	3.82
56	511616	680340	5	6	10	0.8	1.8	8.64	3.84
61	511071	678231	4	6	10	0.2	1.2	43.11	7.19
62	511025	678320	4	6	10	0.2	1.2	43.11	7.19
63	510984	678411						No peat recorded at this location	
65	511024	678593						No peat recorded at this location	
67	511039	678394						No peat recorded at this location	
69	511112	678576						No peat recorded at this location	
70	511188	678639						No peat recorded at this location	
71	511270	678694						No peat recorded at this location	
72	511291	678786	15	6	10	0.2	1.2	12.00	2.00
73	511241	678872	10	6	10	0.2	1.2	17.54	2.92
74	511230	678929	10	6	10	0.4	1.4	8.77	2.51
75	511452	679060	6	6	10	1.3	2.3	4.44	2.51
76	511543	679101	8	6	10	1.3	2.3	3.35	1.89
77	511634	679143	7	6	10	0.7	1.7	7.09	2.92
78	511725	679185	8	6	10	0.8	1.8	5.44	2.42
79	511815	679227	9	6	10	0.7	1.7	5.55	2.28
80	511906	679268	5	6	10	1.3	2.3	5.32	3.00
81	511965	679295	10	6	10	0.8	1.8	4.39	1.95
1	511081	681113	2	6	10	4.5	5.5	3.82	3.13
500	512563	680840	5	6	10	1.5	2.5	4.61	2.76
501	512345	680555	2	6	10	0.4	1.4	43.01	12.29
25	512872	680624	3	6	10	0.4	1.4	28.70	8.20
T4-1	512112	680340	4	6	10	0.5	1.5	17.24	5.75
53	511175	680932	2	6	10	1	2.0	17.20	8.60
43	511478	680807	2	6	10	1.5	2.5	11.47	6.88
109	512413	680725	3	6	10	0.7	1.7	16.40	6.75
88	512913	680753						No peat recorded at this location	
57	512191	680426	5	6	10	0.5	1.5	13.82	4.61
63	512080	680484	4	6	10	0.8	1.8	10.78	4.79
61	511924	680458	4	6	10	0.3	1.3	28.74	6.63
62	512007	680476	3	6	10	0.3	1.3	38.27	8.83
(2021)									
1	511150	681036	4	6	10	0.5	1.5	17.24	5.75
2	511078	681158	2	6	10	2.0	3.0	8.60	5.73
13	512097	679674	3	6	10	2.2	3.2	5.22	3.59
14	512037	679541	2	6	10	0.2	1.2	86.01	14.34
15	512089	679586	2	6	10	1.5	2.5	11.47	6.88
16	512141	679640	2	6	10	0.6	1.6	28.67	10.75
17	512197	679690	2	6	10	0.9	1.9	19.11	9.05
19	512292	679804	4	6	10	0.4	1.4	21.56	6.16
24	511571	680420	14	6	10	0.8	1.8	3.20	1.42
29	512129	680618	4	6	10	1.9	2.9	4.54	2.97
32	512005	680680	5	6	10	1.1	2.1	6.28	3.29
37	512394	680619	6	6	10	1.0	2.0	5.77	2.89
38	511721	680829	2	6	10	2.0	3.0	8.60	5.73
39	512454	680692	5	6	10	1.1	2.1	6.28	3.29
41	512507	680756	4	6	10	0.7	1.7	12.32	5.07
45	511751	680720	4	6	10	1.5	2.5	5.75	3.45
45	512609	680875	4	6	10	1.5	2.5	5.75	3.45
46	511325	680793	2	6	10	2.5	3.5	6.88	4.92
48	511870	680632	5	6	10	0.6	1.6	11.52	4.32
49	511217	680841	3	6	10	2.3	3.3	4.99	3.48
51	512857	680853	6					No peat recorded at this location	
52	512892	680814	10					No peat recorded at this location	

Calculated FoS of Natural Peat Slopes for Slievecurry Renewable Energy Development - Undrained Analysis

Turbine No./Waypoint	Easting	Northing	Slope	Undrained shear strength	Bulk unit weight of Peat	Peat Depth	Surcharge Equivalent Placed Fill Depth (m)	Factor of Safety for Load Condition			
			β (deg)	c _u (kPa)	γ (kN/m ³)	(m)	Condition (2)	Condition (1)	Condition (2)		
56	512184	680475	4	6	10	0.6	1.6	14.37	5.39		
56	512781	680441	5	6	10	0.1	1.1	69.11	6.28		
59	512170	680305	4	6	10	0.5	1.5	17.24	5.75		
64	512140	680503	6	6	10	1.3	2.3	4.44	2.51		
65	512173	680240	8	6	10	1.4	2.4	3.11	1.81		
65	512739	680322	8	No peat recorded at this location							
66	512154	680155	2	6	10	1.1	2.1	15.64	8.19		
69	511954	679501	3	6	10	0.9	1.9	12.76	6.04		
70	511821	679491	6	6	10	1.6	2.6	3.61	2.22		
89	512659	680204	6	6	10	0.2	1.2	28.86	4.81		
100	512608	680087	2	6	10	0.4	1.4	43.01	12.29		
T2-1	512529	680798	8	6	10	0.8	1.8	5.44	2.42		
G1	512571	680256	5	6	10	0.9	1.9	7.68	3.64		
G7	512661	680535	8	6	10	0.4	1.4	10.88	3.11		
PP28	512539	680134	5	6	10	0.8	1.8	8.64	3.84		
PP60	512536	680050	4	6	10	0.9	1.9	9.58	4.54		
PP80	511530	679301	2	6	10	0.5	1.5	34.41	11.47		
PP81	511649	679363	4	6	10	0.6	1.6	14.37	5.39		
PP82	511792	679436	4	6	10	0.3	1.3	28.74	6.63		
582	512445	680410	4	6	10	0.3	1.3	28.74	6.63		
584	512435	680265	10	6	10	0.3	1.3	11.70	2.70		
592	512372	680136	2	6	10	0.6	1.6	28.67	10.75		
590	512450	680033	3	6	10	1.1	2.1	10.44	5.47		
595	512247	680106	6	6	10	0.5	1.5	11.54	3.85		
599	512064	679997	5	6	10	1.1	2.1	6.28	3.29		
602	512452	679915	4	6	10	1.0	2.0	8.62	4.31		
603	512343	679916	15	6	10	0.4	1.4	6.00	1.71		
609	512749	680532	8	6	10	0.2	1.2	21.77	3.63		
611	512956	680637	5	6	10	0.3	1.3	23.04	5.32		
619	512650	680799	5	6	10	1.3	2.3	5.32	3.00		
2017											
T12	511668	680866	2	6	10	2.6	3.6	6.62	4.78		
PP32	512514	680529	5	6	10	0.5	1.5	13.82	4.61		
2020 (FT)											
T9	511986	680432	10	6	10	0.7	1.7	5.01	2.06		
MKO											
895	512079	680307	2	6	10	0.4	1.4	43.01	12.29		
900	511922	680118	3	6	10	1	2.0	11.48	5.74		
2-0	511803	679871	4	6	10	2	3.0	4.31	2.87		
910	511689	679812	3	6	10	2	3.0	5.74	3.83		
MKO/Enerco (2025)											
1	516748	676415	1	6	10	1.8	2.8	19.10	12.28		
2	516823	676272	1	6	10	5.0	6.0	6.88	5.73		
3	516850	676221	1	6	10	5.0	6.0	6.88	5.73		
4	516918	676136	1	6	10	5.0	6.0	6.88	5.73		
5	517000	676052	1	6	10	3.0	4.0	11.46	8.60		
6	516996	676192	1	6	10	5.0	6.0	6.88	5.73		
7	516949	676265	1	6	10	3.5	4.5	9.82	7.64		
8	517033	676319	1	6	10	5.0	6.0	6.88	5.73		
9	517151	676310	1	6	10	2.9	3.9	11.86	8.82		
10	517035	676455	1	6	10	5.0	6.0	6.88	5.73		
11	516962	676396	1	6	10	5.0	6.0	6.88	5.73		
12	516748	676347	1	6	10	5.0	6.0	6.88	5.73		
13	516684	676245	1	6	10	5.0	6.0	6.88	5.73		
14	516672	676118	1	6	10	4.6	5.6	7.47	6.14		
15	516597	676033	1	6	10	4.2	5.2	8.19	6.61		
16	516535	675897	1	6	10	4.0	5.0	8.60	6.88		
17	516474	676002	1	6	10	4.0	5.0	8.60	6.88		
18	516345	676008	1	6	10	3.3	4.3	10.42	8.00		
19	516414	676190	10	6	10	0.4	1.4	8.77	2.51		
20	517892	676087	2	6	10	0.8	1.8	28.66	12.74		
21	517876	676158	3	6	10	0.6	1.6	19.13	7.18		
22	517820	676165	3	6	10	0.4	1.4	28.70	8.20		
23	517854	676068	2	6	10	2.0	3.0	11.46	7.64		
24	517921	675963	6	6	10	0.1	1.1	57.72	5.25		
25	517973	675875	6	6	10	0.7	1.7	8.25	3.40		
26	518027	675753	6	6	10	0.2	1.2	28.86	4.81		
27	514277	675004	2	6	10	4.1	5.1	4.20	3.37		
28	514380	675088	4	6	10	2.3	3.3	4.28	2.98		
29	514439	675159	4	6	10	1.8	2.8	5.47	3.52		
30	514310	675184	3	6	10	0.5	1.5	22.96	7.65		
31	514203	675145	3	6	10	0.6	1.6	19.13	7.18		
32	514202	675141	3	6	10	0.7	1.7	16.40	6.75		
33	514078	675078	3	6	10	1.0	2.0	11.48	5.74		
34	510953	679071	18	No peat recorded at this location							
35	510983	679043	20	6	10	0.2	1.2	9.33	1.56		
36	511029	679005	20	6	10	0.2	1.2	9.33	1.56		
37	510981	678993	18	No peat recorded at this location							
38	510866	679155	8	No peat recorded at this location							
39	512863	681555	4	6	10	1.0	2.0	8.62	4.31		
40	512750	681604	4	6	10	1.2	2.2	7.19	3.92		
41	512814	681661	3	6	10	1.1	2.1	10.44	5.47		
42	512789	681716	2	6	10	0.9	1.9	19.11	9.05		
43	512912	681724	2	6	10	0.9	1.9	19.11	9.05		
44	510288	679069	20	No peat recorded at this location							
868	511842	677764	5	6	10	0.9	1.9	7.68	3.64		

Calculated FoS of Natural Peat Slopes for Slievecurry Renewable Energy Development - Undrained Analysis

Turbine No./Waypoint	Easting	Northing	Slope	Undrained shear strength	Bulk unit weight of Peat	Peat Depth	Surcharge Equivalent Placed Fill Depth (m)	Factor of Safety for Load Condition			
			β (deg)	c_u (kPa)	γ (kN/m ³)	(m)	Condition (2)	Condition (1)	Condition (2)		
869	511842	677939	6	6	10	2.3	3.3	2.51	1.75		
870	511933	677857	5	6	10	0.8	1.8	8.64	3.84		
871	511893	678059	6	6	10	0.9	1.9	6.41	3.04		
872	510894	679075	5	6	10	1.5	2.5	4.61	2.76		
873	510792	679989	5	6	10	1.2	2.2	5.76	3.14		
874	510792	678889	4	6	10	0.6	1.6	14.37	5.39		
875	510792	679389	6	No peat recorded at this location							
876	510882	679290	9	No peat recorded at this location							
880	514792	679289	8	6	10	0.4	1.4	10.88	3.11		
882	514692	679189	4	6	10	0.5	1.5	17.24	5.75		
883	515092	679289	5	6	10	1.0	2.0	6.91	3.46		
889	514992	679389	5	6	10	0.9	1.9	7.68	3.64		
893	514892	679189	7	No peat recorded at this location							
896	515192	679389	6	6	10	1.0	2.0	5.77	2.89		
900	510285	679143	15	No peat recorded at this location							
901	510073	678974	15	No peat recorded at this location							
904	513067	679689	3	6	10	2.5	3.5	5.51	3.93		
905	512992	679689	10	6	10	1.0	2.0	3.51	1.75		
910	512592	681389	5	6	10	0.5	1.5	13.82	4.61		
911	512792	681389	5	6	10	0.5	1.5	13.82	4.61		
912	512692	681389	4	6	10	0.5	1.5	17.24	5.75		
913	512792	681189	4	6	10	0.9	1.9	9.58	4.54		
914	512669	681268	6	6	10	1.0	2.0	5.77	2.89		
915	513353	680448	4	6	10	1.3	2.3	6.63	3.75		
916	513405	680474	4	6	10	0.6	1.6	14.37	5.39		
917	513432	680398	2	6	10	0.3	1.3	57.34	13.23		
918	513465	680437	2	6	10	0.2	1.2	86.01	14.34		
919	513497	680343	4	6	10	1.0	2.0	8.62	4.31		
920	513539	680400	4	6	10	0.2	1.2	43.11	7.19		

Minimum =	2.51	1.42
Maximum =	687.58	114.59
Average =	23.34	6.26

Notes:

- (1) Assuming a bulk unit weight for peat of 10kN/m³
- (2) Assuming a surcharge equivalent to fill depth of 1m of peat i.e. 10kPa.
- (3) Slope inclination (β) based on site readings and site contour plans.
- (4) A lower bound undrained shear strength, c_u for the peat of 6kPa was selected for the assessment. It should be noted that a c_u of 6kPa for the peat is considered a conservative value for the analysis and is not representative of all peat present across the site. In reality the peat has a significantly higher undrained strength.
- (5) Peat depths based on probes carried out by FT.
- (6) For load conditions see report text.

Calculated FoS of Natural Peat Slopes for Slievecurry Renewable Energy Development - Drained Analysis

Turbine No./Waypoint	Slope	Design c'	Bulk unit weight of Peat	Unit weight of Water	Depth of In situ Peat	Friction Angle	Surcharge Equivalent Placed Fill	Equivalent Total Depth of Peat (m)	Factor of Safety for Load Condition	
	α (deg)	c' (kPa)	γ (kN/m³)	γ _w (kN/m³)	(m)	φ' (deg)	Condition (2)	Condition (2)	Condition (1)	Condition (2)
									100% Water	100% Water
T01	2	4	10.0	10.0	1.00	25	1.0	2.0	11.47	12.41
T02	8	4	10.0	10.0	0.70	25	1.0	1.7	4.15	3.66
T03	2	4	10.0	10.0	0.40	25	1.0	1.4	28.67	17.73
T04	3	4	10.0	10.0	2.00	25	1.0	3.0	3.83	5.52
T05	4	4	10.0	10.0	0.75	25	1.0	1.8	7.66	7.10
T06	8	4	10.0	10.0	0.50	25	1.0	1.5	5.80	4.15
T07	2	4	10.0	10.0	0.50	25	1.0	1.5	22.94	16.55
T08	14	4	10.0	10.0	0.50	25	1.0	1.5	3.41	2.38
T09	3	4	10.0	10.0	1.50	25	1.0	2.5	5.10	6.62
Construction Compound (north)	2	4	10.0	10.0	2.70	25	1.0	3.7	4.25	6.71
Construction Compound (met mast)	4	4	10.0	10.0	0.10	25	1.0	1.1	57.48	11.29
Met Mast	4	4	10.0	10.0	0.10	25	1.0	1.1	57.48	11.29
Northern Borrow Pit	7	4	10.0	10.0	0.50	25	1.0	1.5	6.61	4.74
Cable Route	5	4	10.0	10.0	1.90	25	1.0	2.9	2.42	3.43
FT (2025)										
APP001	6	4	10.0	10.0	0.40	25	1.0	1.4	14.06	7.19
APP002	20	4	10.0	10.0	0.30	25	1.0	1.3	5.43	2.24
APP003	5	4	10.0	10.0	1.00	25	1.0	2.2	9.94	7.42
APP004	2	4	10.0	10.0	2.60	25	1.0	3.6	17.76	16.54
APP005	2	4	10.0	10.0	2.70	25	1.0	3.9	17.60	16.29
APP006	4	4	10.0	10.0	2.40	25	1.0	3.4	9.06	8.36
APP007	2	4	10.0	10.0	2.50	25	1.0	3.5	17.94	16.63
APP008	3	4	10.0	10.0	3.40	25	1.0	4.4	11.15	10.64
APP009	2	4	10.0	10.0	2.70	25	1.0	3.7	17.60	16.45
APP010	2	4	10.0	10.0	1.50	25	1.0	2.5	21.00	17.94
APP011	2	4	10.0	10.0	1.80	25	1.0	2.8	19.72	17.45
MKO (2025)										
1	1	4	10.0	10.0	1.8	25	1.0	2.8	39.45	34.90
2	1	4	10.0	10.0	5.0	25	1.0	6.0	31.30	30.54
3	1	4	10.0	10.0	5.0	25	1.0	6.0	31.30	30.54
4	1	4	10.0	10.0	5.0	25	1.0	6.0	31.30	30.54
5	1	4	10.0	10.0	3.0	25	1.0	4.0	34.36	32.45
6	1	4	10.0	10.0	5.0	25	1.0	6.0	31.30	30.54
7	1	4	10.0	10.0	3.5	25	1.0	4.5	33.26	31.81
8	1	4	10.0	10.0	5.0	25	1.0	6.0	31.30	30.54
9	1	4	10.0	10.0	2.9	25	1.0	3.9	34.62	32.59
10	1	4	10.0	10.0	5.0	25	1.0	6.0	31.30	30.54
11	1	4	10.0	10.0	5.0	25	1.0	6.0	31.30	30.54
12	1	4	10.0	10.0	5.0	25	1.0	6.0	31.30	30.54
13	1	4	10.0	10.0	5.0	25	1.0	6.0	31.30	30.54
14	1	4	10.0	10.0	4.6	25	1.0	5.6	31.70	30.81
15	1	4	10.0	10.0	4.2	25	1.0	5.2	32.17	31.12
16	1	4	10.0	10.0	4.0	25	1.0	5.0	32.45	31.30
17	1	4	10.0	10.0	4.0	25	1.0	5.0	32.45	31.30
18	1	4	10.0	10.0	3.3	25	1.0	4.3	33.66	32.05
19	10	4	10.0	10.0	0.4	25	1.0	1.4	8.49	4.32
20	2	4	10.0	10.0	0.8	25	1.0	1.8	36.91	26.30
21	3	4	10.0	10.0	0.6	25	1.0	1.6	21.65	13.68
22	3	4	10.0	10.0	0.4	25	1.0	1.4	28.03	14.36
23	2	4	10.0	10.0	2.0	25	1.0	3.0	25.45	22.90
24	6	4	10.0	10.0	0.1	25	1.0	1.1	42.91	7.93
25	6	4	10.0	10.0	0.7	25	1.0	1.7	9.93	6.70
26	6	4	10.0	10.0	0.2	25	1.0	1.2	23.68	7.64
27	2	4	10.0	10.0	4.1	25	1.0	5.1	16.15	15.60
28	4	4	10.0	10.0	2.3	25	1.0	3.3	10.48	9.61
29	4	4	10.0	10.0	1.8	25	1.0	2.8	11.27	9.97
30	3	4	10.0	10.0	0.5	25	1.0	1.5	24.20	14.00
31	3	4	10.0	10.0	0.6	25	1.0	1.6	21.65	13.68
32	3	4	10.0	10.0	0.7	25	1.0	1.7	19.83	13.40
33	3	4	10.0	10.0	1.0	25	1.0	2.0	16.55	12.72
34	No peat recorded at this location									
35	20	4	10.0	10.0	0.2	25	1.0	1.2	7.50	2.32
36	20	4	10.0	10.0	0.2	25	1.0	1.2	7.50	2.32
37	No peat recorded at this location									
38	No peat recorded at this location									
39	4	4	10.0	10.0	1.0	25	1.0	2.0	12.42	9.54
40	4	4	10.0	10.0	1.2	25	1.0	2.2	11.46	9.28
41	3	4	10.0	10.0	1.1	25	1.0	2.1	15.86	12.54
42	2	4	10.0	10.0	0.9	25	1.0	1.9	26.10	19.39
43	2	4	10.0	10.0	0.9	25	1.0	1.9	26.10	19.39
44	No peat recorded at this location									
868	5	4	10.0	10.0	0.9	25	1.0	1.9	10.45	7.75
869	6	4	10.0	10.0	2.3	25	1.0	3.3	6.11	5.60
870	5	4	10.0	10.0	0.8	25	1.0	1.8	11.09	7.89
871	6	4	10.0	10.0	0.9	25	1.0	1.9	8.71	6.46
872	5	4	10.0	10.0	1.5	25	1.0	2.5	8.40	7.17
873	5	4	10.0	10.0	1.2	25	1.0	2.2	9.17	7.42
874	4	4	10.0	10.0	0.6	25	1.0	1.6	16.25	10.26
875	No peat recorded at this location									
876	No peat recorded at this location									
880	8	4	10.0	10.0	0.4	25	1.0	1.4	10.57	5.39
882	4	4	10.0	10.0	0.5	25	1.0	1.5	18.16	10.50
883	5	4	10.0	10.0	1.0	25	1.0	2.0	9.94	7.63
889	5	4	10.0	10.0	0.9	25	1.0	1.9	10.45	7.75
893	No peat recorded at this location									
896	6	4	10.0	10.0	1.0	25	1.0	2.0	8.28	6.36
900	No peat recorded at this location									
901	No peat recorded at this location									
904	3	4	10.0	10.0	2.5	25	1.0	3.5	11.96	11.08
905	10	4	10.0	10.0	1.0	25	1.0	2.0	4.98	3.81

Calculated FoS of Natural Peat Slopes for Slievecurry Renewable Energy Development - Drained Analysis

Turbine No./Waypoint	Slope	Design c'	Bulk unit weight of Peat	Unit weight of Water	Depth of In situ Peat	Friction Angle	Surcharge Equivalent Placed Fill	Equivalent Total Depth of Peat (m)	Factor of Safety for Load Condition	
	α (deg)	c' (kPa)	γ (kN/m ³)	γ _w (kN/m ³)	(m)	φ' (deg)	Condition (2)	Condition (2)	Condition (1)	Condition (2)
									100% Water	100% Water
910	5	4	10.0	10.0	0.5	25	1.0	1.5	14.54	8.40
911	5	4	10.0	10.0	0.5	25	1.0	1.5	14.54	8.40
912	4	4	10.0	10.0	0.5	25	1.0	1.5	18.16	10.50
913	4	4	10.0	10.0	0.9	25	1.0	1.9	13.06	9.69
914	6	4	10.0	10.0	1.0	25	1.0	2.0	8.28	6.36
915	4	4	10.0	10.0	1.3	25	1.0	2.3	11.09	9.17
916	4	4	10.0	10.0	0.6	25	1.0	1.6	16.25	10.26
917	2	4	10.0	10.0	0.3	25	1.0	1.3	51.58	22.18
918	2	4	10.0	10.0	0.2	25	1.0	1.2	70.70	22.91
919	4	4	10.0	10.0	1.0	25	1.0	2.0	12.42	9.54
920	4	4	10.0	10.0	0.2	25	1.0	1.2	35.41	11.46
OL_29	4	4	10.0	10.0	0.2	25	1.0	1.2	27.07	9.74
OL_32	7	4	10.0	10.0	0.1	25	1.0	1.1	33.54	6.55
OL_33	17	4	10.0	10.0	0.1	25	1.0	1.1	14.55	2.74
OL_34	21	4	10.0	10.0	0.2	25	1.0	1.2	6.01	2.02
OL_35	21	4	10.0	10.0	0.1	25	1.0	1.1	11.94	2.19
OL_36	18	4	10.0	10.0	0.1	25	1.0	1.1	13.40	2.50
OL_37	20	4	10.0	10.0	0.1	25	1.0	1.1	12.60	2.33
OL_38	15	4	10.0	10.0	0.1	25	1.0	1.1	16.03	3.04
OL_39	10	4	10.0	10.0	0.1	25	1.0	1.1	22.38	4.33
OL_40	15	4	10.0	10.0	0.1	25	1.0	1.1	15.73	2.98
OL_41	5	4	10.0	10.0	0.1	25	1.0	1.1	49.71	9.75
OL_42	1	4	10.0	10.0	0.2	25	1.0	1.2	229.19	82.73
OL_43	1	4	10.0	10.0	0.1	25	1.0	1.1	458.39	90.25
OL_44	4	4	10.0	10.0	0.2	25	1.0	1.2	28.63	10.31
OL_46	6	4	10.0	10.0	0.3	25	1.0	1.3	12.95	6.43
OL_47	12	4	10.0	10.0	0.1	25	1.0	1.1	19.59	3.77
OL_49	12	4	10.0	10.0	0.4	25	1.0	1.4	4.88	2.95
OL_50	No peat recorded at this location									
OL_51	8	4	10.0	10.0	0.1	25	1.0	1.1	27.46	5.34
OL_52	12	4	10.0	10.0	0.1	25	1.0	1.1	19.87	3.82
OL_53	9	4	10.0	10.0	0.2	25	1.0	1.2	13.24	4.72
OL_54	No peat recorded at this location									
OL_56	11	4	10.0	10.0	0.2	25	1.0	1.2	10.73	3.80
OL_57	9	4	10.0	10.0	0.5	25	1.0	1.5	5.19	3.70
OL_58	11	4	10.0	10.0	0.1	25	1.0	1.1	21.99	4.25
OL_59	11	4	10.0	10.0	0.2	25	1.0	1.2	10.63	3.76
OL_64	11	4	10.0	10.0	0.2	25	1.0	1.2	10.66	3.77
OL_65	No peat recorded at this location									
OL_66	6	4	10.0	10.0	0.5	25	1.0	1.5	8.00	5.75
OL_67	4	4	10.0	10.0	0.3	25	1.0	1.3	17.31	8.62
OL_78	5	4	10.0	10.0	0.4	25	1.0	1.4	12.69	7.83
OL_79	6	4	10.0	10.0	0.2	25	1.0	1.2	18.91	6.78
OL_80	8	4	10.0	10.0	0.2	25	1.0	1.2	14.21	5.07
OL_81	8	4	10.0	10.0	0.2	25	1.0	1.2	14.98	5.35
OL_82	4	4	10.0	10.0	0.3	25	1.0	1.3	17.55	8.75
OL_83	2	4	10.0	10.0	1.0	25	1.0	2.0	9.77	10.57
OL_97	2	4	10.0	10.0	1.6	25	1.0	2.6	8.87	11.82
OL_110	7	4	10.0	10.0	0.2	25	1.0	1.2	17.34	6.21
OL_116	4	4	10.0	10.0	0.2	25	1.0	1.2	26.33	9.47
OL_117	4	4	10.0	10.0	0.2	25	1.0	1.2	28.63	10.31
OL_118	4	4	10.0	10.0	0.1	25	1.0	1.1	55.16	10.83
OL_119	No peat recorded at this location									
OL_120	2	4	10.0	10.0	0.3	25	1.0	1.3	38.23	19.09
G15	4	4	10.0	10.0	0.1	25	1.0	1.1	57.48	11.29
G3	No peat recorded at this location									
PP23	3.9	4	10.0	10.0	0.6	25	1.0	1.6	9.82	7.96
PP25	3.3	4	10.0	10.0	0.3	25	1.0	1.3	23.20	11.58
PP26	4.2	4	10.0	10.0	0.4	25	1.0	1.4	13.69	8.45
PP27	3.6	4	10.0	10.0	0.1	25	1.0	1.1	63.83	12.54
PP37	0.2	4	10.0	10.0	0.5	25	1.0	1.5	229.18	165.45
PP56	2.1	4	10.0	10.0	0.9	25	1.0	1.9	12.14	12.44
PP57	4	4	10.0	10.0	0.2	25	1.0	1.2	28.74	10.35
PP79	4.2	4	10.0	10.0	0.7	25	1.0	1.7	7.82	6.96
PP87	1.6	4	10.0	10.0	1	25	1.0	2.0	14.33	15.51
PP88	0.3	4	10.0	10.0	1.2	25	1.0	2.2	63.66	75.21
PP89	2.5	4	10.0	10.0	1	25	1.0	2.0	9.18	9.93
PP90	0.8	4	10.0	10.0	2	25	1.0	3.0	14.33	20.68
PP91	3.2	4	10.0	10.0	1	25	1.0	2.0	7.18	7.76
PP93	4.5	4	10.0	10.0	0.1	25	1.0	1.1	51.14	10.04
PP94	4.3	4	10.0	10.0	0.5	25	1.0	1.5	10.70	7.70
PP-T5 (P)	4	4	10.0	10.0	0.8	25	1.0	1.8	7.19	6.90
PP-T2 (P)	3.4	4	10.0	10.0	2.7	25	1.0	3.7	2.50	3.95
3	2	4	10.0	10.0	2.5	25	1.0	3.5	4.59	7.09
5	2	4	10.0	10.0	1.1	25	1.0	2.1	10.43	11.82
8	2	4	10.0	10.0	0.9	25	1.0	1.9	12.74	13.06
9	5	4	10.0	10.0	1	25	1.0	2.0	4.61	4.97
10	No peat recorded at this location									
11	5	4	10.0	10.0	1.1	25	1.0	2.1	4.19	4.73
12	6	4	10.0	10.0	0.3	26	1.0	1.3	12.83	6.53
15	3	4	10.0	10.0	0.9	25	1.0	1.9	8.50	8.71
16	2	4	10.0	10.0	1.4	25	1.0	2.4	8.19	10.34
17	3	4	10.0	10.0	0.8	25	1.0	1.8	9.57	9.20
20	5	4	10.0	10.0	1	25	1.0	2.0	4.61	4.97
21	No peat recorded at this location									
22	3	4	10.0	10.0	0.2	25	1.0	1.2	38.27	13.79
25	4	4	10.0	10.0	0.4	25	1.0	1.4	14.37	8.87
26	4	4	10.0	10.0	0.5	25	1.0	1.5	11.50	8.28
28	3	4	10.0	10.0	0.6	25	1.0	1.6	12.76	10.34
29	No peat recorded at this location									
30	22	4	10.0	10.0	0.2	25	1.0	1.2	5.76	1.92
31	18	4	10.0	10.0	0.2	25	1.0	1.2	6.81	2.33

Calculated FoS of Natural Peat Slopes for Slievecurry Renewable Energy Development - Drained Analysis

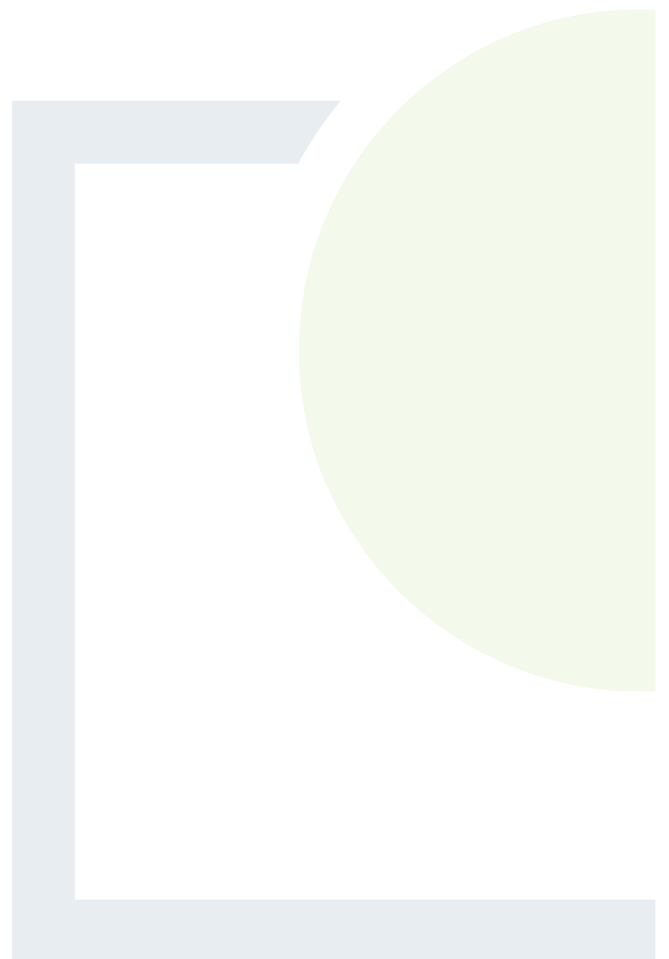
Turbine No./Waypoint	Slope	Design c'	Bulk unit weight of Peat	Unit weight of Water	Depth of In situ Peat	Friction Angle	Surcharge Equivalent Placed Fill	Equivalent Total Depth of Peat (m)	Factor of Safety for Load Condition									
									α (deg)	c' (kPa)	γ (kN/m³)	γ _w (kN/m³)	(m)	φ' (deg)	Condition (2)	Condition (2)	Condition (1)	Condition (2)
																	100% Water	100% Water
33	9	4	10.0	10.0	0.3	25	1.0	1.3	8.63	4.26								
35	7	4	10.0	10.0	0.8	25	1.0	1.8	4.13	3.95								
37	3	4	10.0	10.0	0.3	25	1.0	1.3	25.51	12.73								
39	4	4	10.0	10.0	0.3	25	1.0	1.3	19.16	9.55								
40	2	4	10.0	10.0	2.2	25	1.0	3.2	5.21	7.76								
43	2	4	10.0	10.0	1.5	25	1.0	2.5	7.65	9.93								
44	3	4	10.0	10.0	2.6	25	1.0	3.6	2.94	4.60								
45	4	4	10.0	10.0	0.6	25	1.0	1.6	9.58	7.76								
46	6	4	10.0	10.0	1	25	1.0	2.0	3.85	4.14								
50	3	4	10.0	10.0	1.7	25	1.0	2.7	4.50	6.13								
51	5	4	10.0	10.0	0.9	25	1.0	1.9	5.12	5.23								
53	6	4	10.0	10.0	1.4	25	1.0	2.4	2.75	3.45								
54	8	4	10.0	10.0	0.6	25	1.0	1.6	4.84	3.89								
55	7	4	10.0	10.0	0.3	25	1.0	1.3	11.02	5.47								
56	5	4	10.0	10.0	0.8	25	1.0	1.8	5.76	5.52								
61	4	4	10.0	10.0	0.2	25	1.0	1.2	28.74	10.35								
62	4	4	10.0	10.0	0.2	25	1.0	1.2	28.74	10.35								
63	No peat recorded at this location																	
65	No peat recorded at this location																	
67	No peat recorded at this location																	
69	No peat recorded at this location																	
70	No peat recorded at this location																	
71	No peat recorded at this location																	
72	15	4	10.0	10.0	0.2	25	1.0	1.2	8.00	2.78								
73	10	4	10.0	10.0	0.2	25	1.0	1.2	11.70	4.15								
74	10	4	10.0	10.0	0.4	25	1.0	1.4	5.85	3.56								
75	6	4	10.0	10.0	1.3	25	1.0	2.3	2.96	3.60								
76	8	4	10.0	10.0	1.3	25	1.0	2.3	2.23	2.70								
77	7	4	10.0	10.0	0.7	25	1.0	1.7	4.72	4.18								
78	8	4	10.0	10.0	0.8	25	1.0	1.8	3.63	3.46								
79	9	4	10.0	10.0	0.7	25	1.0	1.7	3.70	3.25								
80	5	4	10.0	10.0	1.3	25	1.0	2.3	3.54	4.32								
81	10	4	10.0	10.0	0.8	25	1.0	1.8	2.92	2.77								
1	2	4	10.0	10.0	4.5	25	1.0	5.5	2.55	4.51								
500	5	4	10.0	10.0	1.5	25	1.0	2.5	3.07	3.97								
501	2	4	10.0	10.0	0.4	25	1.0	1.4	28.67	17.73								
25	3	4	10.0	10.0	0.4	25	1.0	1.4	19.13	11.82								
T4-1	4	4	10.0	10.0	0.5	25	1.0	1.5	11.50	8.28								
53	2	4	10.0	10.0	1	25	1.0	2.0	11.47	12.41								
43	2	4	10.0	10.0	1.5	25	1.0	2.5	7.65	9.93								
109	3	4	10.0	10.0	0.7	25	1.0	1.7	10.93	9.74								
88	No peat recorded at this location																	
57	5	4	10.0	10.0	0.5	25	1.0	1.5	9.21	6.62								
63	4	4	10.0	10.0	0.8	25	1.0	1.8	7.19	6.90								
61	4	4	10.0	10.0	0.3	25	1.0	1.3	19.16	9.55								
62	3	4	10.0	10.0	0.3	25	1.0	1.3	25.51	12.73								
(2021)																		
1	4	4	10.0	10.0	0.5	25	1.0	1.5	11.50	8.28								
2	2	4	10.0	10.0	2.0	25	1.0	3.0	5.73	8.27								
13	3	4	10.0	10.0	2.2	25	1.0	3.2	3.48	5.17								
14	2	4	10.0	10.0	0.2	25	1.0	1.2	57.34	20.68								
15	2	4	10.0	10.0	1.5	25	1.0	2.5	7.65	9.93								
16	2	4	10.0	10.0	0.6	25	1.0	1.6	19.11	15.51								
17	2	4	10.0	10.0	0.9	25	1.0	1.9	12.74	13.06								
19	4	4	10.0	10.0	0.4	25	1.0	1.4	14.37	8.87								
24	14	4	10.0	10.0	0.8	25	1.0	1.8	2.13	1.99								
29	4	4	10.0	10.0	1.9	25	1.0	2.9	3.03	4.28								
32	5	4	10.0	10.0	1.1	25	1.0	2.1	4.19	4.73								
37	6	4	10.0	10.0	1.0	25	1.0	2.0	3.85	4.14								
38	2	4	10.0	10.0	2.0	25	1.0	3.0	5.73	8.27								
39	5	4	10.0	10.0	1.1	25	1.0	2.1	4.19	4.73								
41	4	4	10.0	10.0	0.7	25	1.0	1.7	8.21	7.30								
45	4	4	10.0	10.0	1.5	25	1.0	2.5	3.83	4.97								
45	4	4	10.0	10.0	1.5	25	1.0	2.5	3.83	4.97								
46	2	4	10.0	10.0	2.5	25	1.0	3.5	4.59	7.09								
48	5	4	10.0	10.0	0.6	25	1.0	1.6	7.68	6.21								
49	3	4	10.0	10.0	2.3	25	1.0	3.3	3.33	5.02								
51	No peat recorded at this location																	
52	No peat recorded at this location																	
56	4	4	10.0	10.0	0.6	25	1.0	1.6	9.58	7.76								
56	5	4	10.0	10.0	0.1	25	1.0	1.1	46.07	9.03								
59	4	4	10.0	10.0	0.5	25	1.0	1.5	11.50	8.28								
64	6	4	10.0	10.0	1.3	25	1.0	2.3	2.96	3.60								
65	8	4	10.0	10.0	1.4	25	1.0	2.4	2.07	2.59								
65	No peat recorded at this location																	
66	2	4	10.0	10.0	1.1	25	1.0	2.1	10.43	11.82								
69	3	4	10.0	10.0	0.9	25	1.0	1.9	8.50	8.71								
70	6	4	10.0	10.0	1.6	25	1.0	2.6	2.40	3.19								
89	6	4	10.0	10.0	0.2	25	1.0	1.2	19.24	6.90								
100	2	4	10.0	10.0	0.4	25	1.0	1.4	28.67	17.73								
T2-1	8	4	10.0	10.0	0.8	25	1.0	1.8	3.63	3.46								
G1	5	4	10.0	10.0	0.9	25	1.0	1.9	5.12	5.23								
G7	8	4	10.0	10.0	0.4	25	1.0	1.4	7.26	4.44								
PP28	5	4	10.0	10.0	0.8	25	1.0	1.8	5.76	5.52								
PP60	4	4	10.0	10.0	0.9	25	1.0	1.9	6.39	6.54								
PP80	2	4	10.0	10.0	0.5	25	1.0	1.5	22.94	16.55								
PP81	4	4	10.0	10.0	0.6	25	1.0	1.6	9.58	7.76								
PP82	4	4	10.0	10.0	0.3	25	1.0	1.3	19.16	9.55								
582	4	4	10.0	10.0	0.3	25	1.0	1.3	19.16	9.55								
584	10	4	10.0	10.0	0.3	25	1.0	1.3	7.80	3.83								
592	2	4	10.0	10.0	0.6	25	1.0	1.6	19.11	15.51								



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APPENDIX D

Methodology for Peat
Stability Risk Assessment



Methodology for Peat Stability Risk Assessment

A peat stability risk assessment was carried out for each of the main infrastructure elements at the proposed wind farm development. This approach takes into account guidelines for geotechnical/peat stability risk assessments as given in PLHRAG (2017) and MacCulloch (2005). The degree of risk is determined as a Risk Rating (R), which is the product of probability (P) and impact (I). How these factors are determined and applied in the analysis is described below.

The main approaches for assessing peat stability include the following:

- (a) Geomorphological
- (b) Qualitative (judgement)
- (c) Index/Probabilistic (probability)
- (d) Deterministic (factor of safety)

Approaches (a) to (c) listed above would be considered subjective and do not provide a definitive indication of stability; in addition, a high level of judgement/experience is required which makes it difficult to relate the findings to real conditions. FT apply a more objective approach, the deterministic approach. As part of FT's deterministic approach, a qualitative risk assessment is also carried out taking into account qualitative factors, which cannot necessarily be quantified.

Probability

The likelihood of a peat failure occurring was assessed based on the results of both the quantitative results of stability calculations (deterministic approach using factors of safety) and the assessment of the severity of several qualitative factors which cannot be reasonably included in a stability calculation but nevertheless may affect the occurrence of peat instability.

The qualitative factors used in the risk assessment are outlined in Table A and have been compiled based on FT's experience of assessments and construction in peatland sites and peat failures throughout Ireland and the UK.

Table A: Qualitative Factors used to Assess Potential for Peat Failure

Qualitative Factor	Type of Feature/Indicator for each Qualitative Factor ⁽¹⁾	Explanation/Description of Qualitative Factor
Evidence of sub peat water flow	No	Based on site walkover observations. Sub peat water flow generally occurs in the form of natural piping at the base of peat. Where there is a constriction or blockage in natural pipes a build-up of water can occur at the base of the peat causing a reduction in effective stress at the base of the peat resulting in failure; this is particularly critical during periods of intense rainfall.
	Possibly	
	Probably	
	Yes	

Qualitative Factor	Type of Feature/Indicator for each Qualitative Factor ⁽¹⁾	Explanation/Description of Qualitative Factor
Evidence of surface water flow	Dry	Based on site walkover observations. The presence of surface water flow indicates if peat in an area is well drained or saturated and if any additional loading from the ponding of surface water onto the peat is likely.
	Localised/Flowing in drains	
	Ponded in drains	
	Springs/surface water	
Evidence of previous failures/slips	No	Based on site walkover observations. The presence of clustering of relict failures may indicate that particular pre-existing site conditions predispose a site to failure.
	In general area	
	On site	
	Within 500m of location	
Type of vegetation	Grass/Crops	Based on site walkover observations. The type of vegetation present indicates if peat in an area is well drained, saturated, etc. Vegetation that indicates wetter ground may also indicate softer underlying peat deposits.
	Improved Grass/Dry Heather	
	Wet Grassland/Juncus (Rushes)	
	Wetlands Sphagnum (Peat moss)	
General slope characteristics upslope/downslope from infrastructure location	Concave	Based on site walkover observations. Slope morphology in the area of the infrastructure location is an important factor. A number of recorded peat failures have occurred in close proximity to a convex break in slope.
	Planar to concave	
	Planar to convex	
	Convex	
Evidence of very soft/soft clay at base of peat	No	Based on inspection of exposures in general area from site walkover. Several reported peat failures identify the presence of a weak layer at the base of the peat along which shear failure has occurred.
	Yes	
Evidence of mechanically cut peat	No	Based on site walkover observations. Mechanically cut peat typically cut using a 'sausage' machine to extract

Qualitative Factor	Type of Feature/Indicator for each Qualitative Factor ⁽¹⁾	Explanation/Description of Qualitative Factor
	Yes	peat for harvesting. Areas which have been cut in this manner have been linked to peat instability. The mechanical cuts can notably reduce the intrinsic strength of the peat and also allow ingress of rainfall/surface water.
Evidence of quaking or buoyant peat	No	Based on site walkover observations. Quaking/buoyant peat is indicative of highly saturated peat, which would generally be considered to have a low strength. Quaking peat is a feature on sites that have been previously linked with peat instability.
	Yes	
Evidence of bog pools	No	Based on site walkover observations. Bog pools are generally an indicator of areas of weak, saturated peat. Commonly where there are open areas of water within peat these can be interconnected, with the result that there may be sub-surface bodies of water. The presence of bog pools have been previously linked with peat instability.
	Yes	
Other	Varies	In addition to the above features/indicators and based on site recordings the following are some of the features which may be identified: Excessively deep peat, weak peat, overly steep slope angles, etc.

Note (1) The list of features/indicators for each qualitative factor are given in increasing order of probability of leading to peat instability/failure.

It should be noted that the presence of one of the qualitative factors alone from Table A is unlikely to lead to peat instability/failure. Peat instability/failure at a site is generally the combination of a number of these factors occurring at the same time at a particular location. The probability rating assigned to the quantitative and qualitative factors is judged on a 5-point scale from 1 (indicating negligible or no probability of failure) to 5 (indicating a very likely failure), as outlined in Table B.

Table B: Probability Scale

Scale	Factor of Safety	Probability
1	1.40 or greater	Negligible/None
2	1.39 to 1.20	Unlikely
3	1.19 to 1.11	Likely
4	1.01 to 1.10	Probable
5	≤1.0	Very Likely

Scale	Likelihood of Qualitative Factor leading to Peat Failure	Probability of Failure
1	Negligible/None	Least
2	Unlikely	
3	Probable	
4	Likely	
5	Very Likely	Greatest

Impact

The severity of the risk is also assessed qualitatively in terms of impact. The impact of a peat failure on the environment within and beyond the immediate wind farm site is assessed based on the potential travel distance of a peat failure. Where a peat failure enters a watercourse, it can travel a considerable distance downstream. Therefore, the proximity of a potential peat failure to a drainage course is a significant indicator of the likely potential impact.

The risk is determined based on the combination of hazard and impact. A qualitative scale has been derived for the impact of the hazard based on distance of infrastructure element to a watercourse (Table C).

The location of watercourses is based on topographic maps and supplemented by site observations from walkover survey. Note that not all watercourses are shown on maps.

Table C: Impact Scale

Scale	Criteria	Impact
1	Proposed infrastructure element greater than 150m of watercourse	Negligible/None
2	Proposed infrastructure element within 150 to 101m of watercourse	Low
3	Proposed infrastructure element within 100 to 51m of watercourse	Medium

4	Proposed infrastructure element within 50 m of watercourse	High
5	Proposed infrastructure element within 50 m of watercourse, in an environmentally sensitive area	Extremely High

Risk Rating

The degree of risk is determined as the product of probability (P) and impact (I), which gives the Risk Rating (R) as follows:

The Risk Rating is calculated from: $R = P \times I$

Due to the 5-point scales used to assess Probability and Impact, the Risk Rating can range from 1 to 25 as shown in Table D.

Table D: Qualitative Risk Rating

		Probability				
		1	2	3	4	5
Impact	5	5	10	15	20	25
	4	4	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5

Risk Rating & Control Measures	
17 to 25	High: avoid working in area or significant control measures required
11 to 16	Medium: notable control measures required
5 to 10	Low: only routine control measures required
1 to 4	Negligible: none or only routine control measures required

The risk rating is calculated individually for each contributory factor. Control measures are required to reduce the risk to at least a 'Low' risk rating. The control measures in response to the qualitative risk ratings are included in the peat stability risk registers for each main infrastructure element in Appendix B.

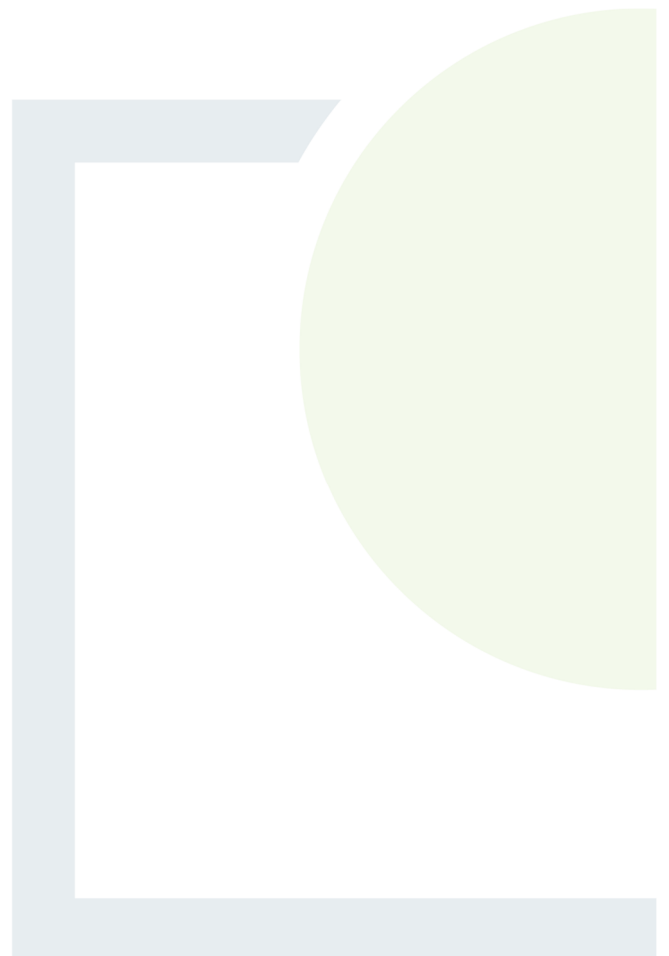
The risk rating is calculated individually for each contributory factor. Control measures are required to reduce the risk to at least a 'Tolerable' risk rating



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APPENDIX E

Trial Pit Logs (FT, 2021)





Trial Pit Log

Trialpit No

T01

Sheet 1 of 1

Project Name: Slieveacurry Wind Farm

Project No. P20-051

Co-ords: 111830.00 - 180786.00
Level:Date
17/06/2021

Location: Co. Clare

Dimensions (m):

Scale

1:25

Logged

Client: MKO

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.60			Soft brown fibrous Peat
				1.80			Soft to firm grey slightly sandy slightly gravelly Clay
				2.00			Possible bedrock - grey angular gravel and cobbles
							End of pit at 2.00 m

1

3

4

5

Remarks: Sides stable. Moderate groundwater inflow at 1.5m bgl

Stability:





Trial Pit Log

Trialpit No

T02

Sheet 1 of 1

Project Name: Slieveacurry Wind Farm

Project No. P20-051

Co-ords: 112560.00 - 180753.00
Level:Date
17/06/2021

Location: Co. Clare




Dimensions (m):

Scale
1:25

Client: MKO

Depth
1.40

Logged

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.60			Soft brown fibrous Peat
				1.40			Firm grey slightly sandy Clay
				1.40			Weak grey thinly bedded Mudstone End of pit at 1.40 m

1

2

3

4

5

Remarks: Sides stable. Slow seepage at 1.4m bgl

Stability:





Trial Pit Log

Trialpit No
T03
Sheet 1 of 1

Project Name: Slieveacurry Wind Farm

Project No.
P20-051

Co-ords: 111519.00 - 180260.00
Level:

Date
17/06/2021

Location: Co. Clare

Dimensions (m):

Scale

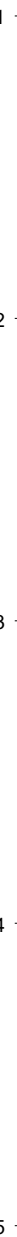
1:25

Logged

Client: MKO

Depth
1.00

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.40			Firm brown fibrous Peat
				1.00			Firm light brown gravelly Silt
				1.00			Weak grey thinly bedded Mudstone End of pit at 1.00 m



Remarks: Sides stable

Stability:





Trial Pit Log

Trialpit No
T05
Sheet 1 of 1

Project Name: Slieveacurry Wind Farm

Project No.
P20-051

Co-ords: 112881.00 - 180472.00
Level:

Date
17/06/2021

Location: Co. Clare

Dimensions (m):


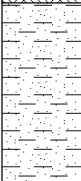

Scale

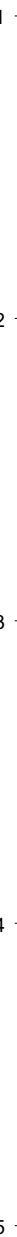
1:25

Logged

Client: MKO

Depth
1.00

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.20			Soft brown organic Topsoil
							Firm light brown to grey slightly sandy Clay
				0.80			Weak grey thin bedded Mudstone, slightly to moderately weathered.
				1.00			End of pit at 1.00 m



Remarks: Sides stable

Stability:





Trial Pit Log

Trialpit No

T06

Sheet 1 of 1

Project Name: Slieveacurry Wind Farm

Project No.
P20-051Co-ords: 112420.00 - 179805.00
Level:Date
17/06/2021

Location: Co. Clare

Dimensions (m):

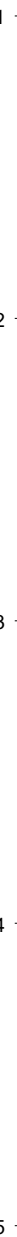
Scale
1:25

Client: MKO

Depth
0.90

Logged

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.30			Firm brown fibrous Peat
				0.90			Firm to stiff grey slightly gravelly Clay
				0.90			Weak grey Mudstone, thinly bedded, ironstained. End of pit at 0.90 m



Remarks: Sides stable.

Stability:





Trial Pit Log

Trialpit No
TP01 at BP
Sheet 1 of 1

Project Name: Slieveacurry Wind Farm

Project No.
P20-051

Co-ords: 112668.00 - 180088.00
Level:




Date
17/06/2021

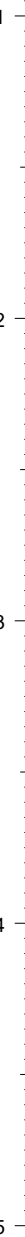
Location: Co. Clare

Dimensions (m):

Scale
1:25
Logged

Client: MKO

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.10			Brown organic Topsoil
				0.20			Firm grey brown Clay
				0.20			Strong grey muddy Sandstone, fresh to slightly weathered.
							End of pit at 0.20 m



Remarks: Sides stable

Stability:





Trial Pit Log

Trialpit No
TP02 at BP
Sheet 1 of 1

Project Name: Slieveacurry Wind Farm

Project No.
P20-051

Co-ords: 112680.00 - 180127.00
Level:

Date
17/06/2021



Location: Co. Clare

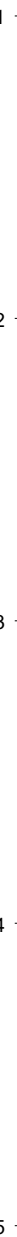
Dimensions (m):

Scale
1:25
Logged

Client: MKO

Depth
0.50

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.20			Brown organic Topsoil
				0.50			Firm grey Clay
				0.50			Strong grey muddy Sandstone, fresh to slightly weathered. End of pit at 0.50 m



Remarks: Sides stable.

Stability:

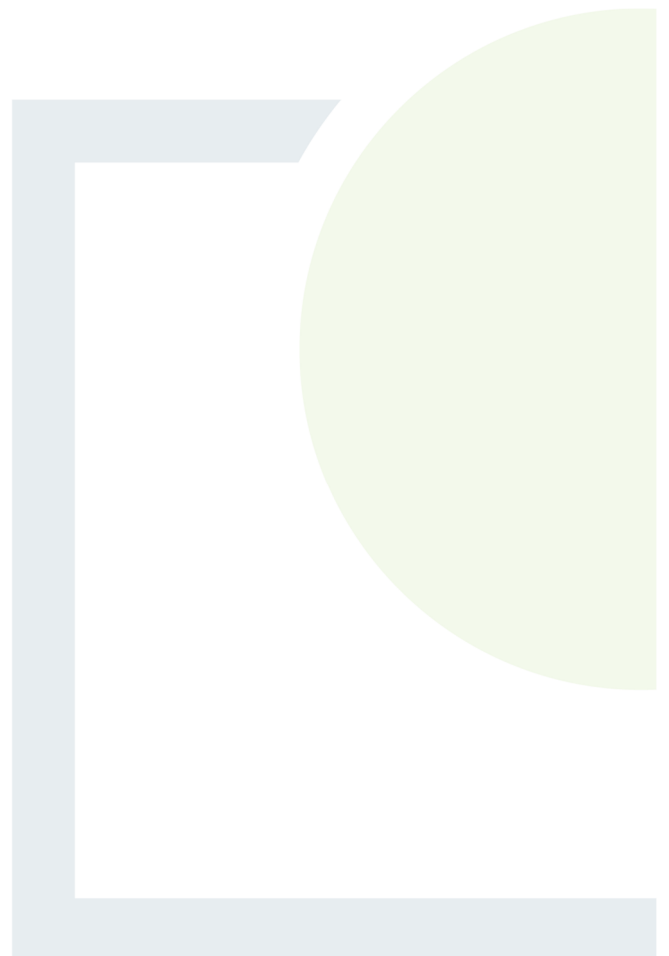




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APPENDIX F

Geophysical Investigation
Information (Minerex, 2025)



Slieveacurry Windfarm
Co. Clare

Geophysical Survey

Report Status: Draft

MGX Project Number: 6849

MGX File Reference: 6849d-005.doc

19th February 2025

Confidential Report To:

Fehily Timoney & Co.
Unit 6, Bagenalstown Industrial Estate
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Bagenalstown
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Report submitted by:
Minerex Geophysics Limited

Issued by:

Unit F4, Maynooth Business Campus
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Tel.: 01-6510030
Email: info@mgx.ie

Author: John Connaughton (Geophysicist)

Reviewer: Hartmut Krahn (Senior Geophysicist)



Subsurface Geophysical Investigations

EXECUTIVE SUMMARY

1. Minerex Geophysics Ltd. (MGX) carried out a geophysical survey consisting of the methods 2D-Resistivity (ERT) and Seismic Refraction (p-wave). The survey was carried out at five locations for the ground investigation for a proposed wind farm in Slieveacurry, Co. Clare.
2. The main objectives of the survey were to determine the ground conditions under the site, to determine the depth to rock and the overburden thickness, to estimate the strength or stiffness or compaction of overburden and the rock quality.
3. The data was modelled with a total of five layers and the rock is interpreted as siltstone or sandstone.
4. At the borrow pit, soft or loose soil has a thickness of 0.5 – 1m, poor to fair weathered sandstone, has a thickness of 0.5 – 2m and the depth to the top of the good to very good rock layer is interpreted between 1 – 3m below ground level (bgl).
5. At T4, soft or loose soil has a thickness of between 0.5 and 2m, poor to fair weathered sandstone, has a thickness of 0.5 – 2m. The depth to the top of the good to very good rock layer ranges from 1 – 3m bgl.
6. At T7, soft or loose soil has a thickness of 0.5 – 1m, poor to fair weathered sandstone has a thickness of 1.5 – 3m and good to very good rock layer is interpreted at a depth of 2 – 4m bgl.
7. At T8, soft or loose soil has a thickness of 0.5 – 1m. Poor to fair weathered sandstone has a thickness of 0.5 – 2m and the top of the good to very good rock ranges between 1 and 3m bgl.
8. At T9, soft or loose soil has a thickness of 1.5 – 2m, very stiff to hard overburden or poor to fair weathered siltstone has a thickness of 2.5 – 4.5m and the depth to the top of the good to very good siltstone is between 4.5 and 6.5m bgl.
9. Along all the survey lines, to top of good to very good rock is interpreted at depths of between 1 – 6.5m bgl.

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List of Tables, Maps, Figures, Plans and Appendices:

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Table 1: Geophysical Survey Locations and Acquisition Parameters	1 x A4	6849d_Tab1.xls
Table 2: Summary of Interpretation	In text	In text
Map 1: Geophysical Survey Overview Map	1 x A3	6849d_Drawings.dwg
Figure 1a: Models of Geophysical Survey at Borrow Pit	1 x A3	6849d_Drawings.dwg
Figure 1b: Interpretation of Geophysical Survey at Borrow Pit	1 x A3	6849d_Drawings.dwg
Figure 2: Models and Interpretation of Geophysical Survey at T4	1 x A3	6849d_Drawings.dwg
Figure 3: Models and Interpretation of Geophysical Survey at T7	1 x A3	6849d_Drawings.dwg
Figure 4: Models and Interpretation of Geophysical Survey at T8	1 x A3	6849d_Drawings.dwg
Figure 5: Models and Interpretation of Geophysical Survey at T9	1 x A3	6849d_Drawings.dwg

1. INTRODUCTION

1.1 Background

Minerex Geophysics Ltd. (MGX) carried out a geophysical survey for the ground investigation for Slieveacurry Windfarm in Co. Clare. The survey consisted of 2D-Resistivity (ERT) and Seismic Refraction (p-wave). The survey was commissioned by Fehily Timoney & Co.

This survey utilized two complementary geophysical methods to improve final interpretation. The role of geophysics as a non-destructive fast method is to provide a geological interpretation over a wide area to complement direct ground investigation at specific locations. The direct ground investigation results can be used to improve the initial geophysical results and interpretation.

The survey was carried out at four proposed turbine locations and a borrow pit. The aim of the survey was to gain information on the ground conditions and depth to rock at locations which are difficult to access with an excavator.

1.2 Objectives

The main objectives of the geophysical survey were:

- To determine the ground conditions under the site
- To determine the depth to rock and the overburden thickness
- To estimate the strength or stiffness or compaction of overburden materials and the rock quality
- To determine the type of overburden and rock
- To detect lateral changes within the geological layers
- To map the extent of possible very soft ground layers

1.3 Site Description

The site is located in the townlands of Curraghodea, Silverhill and Glendine North on the hill of Slieveacurry, Co. Clare. The survey was carried out at five locations across a roughly 70Ha area. Access was agreed with the client from two locations in the east and west of the site. Elevations at the survey locations range from 211mOD in the north to 248mOD in the east.

1.4 Geology

Online geological maps of Ireland (GSI, 2025) give the following information:

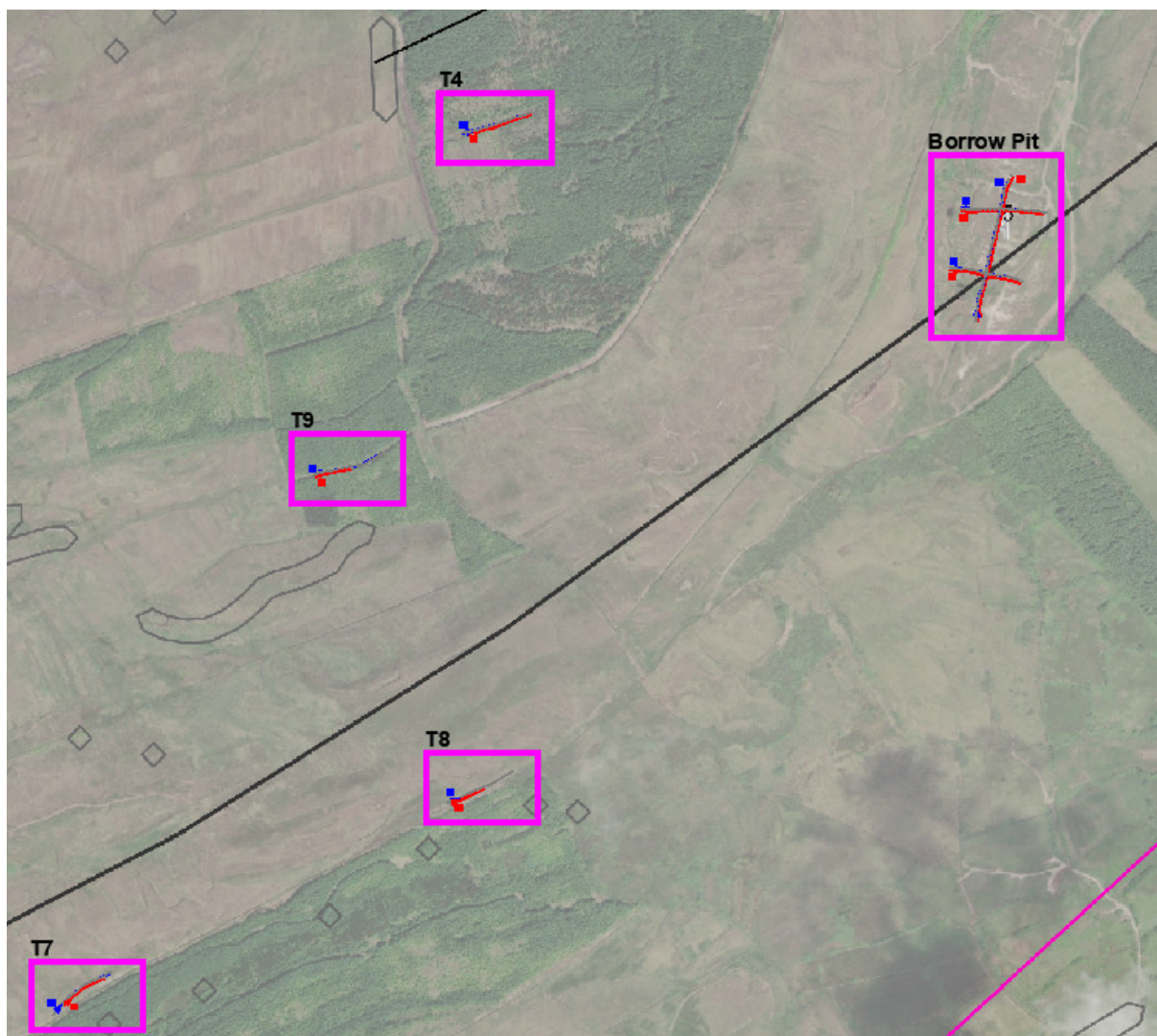
The overburden geology is described as bedrock outcrop or subcrop at T7, T8 and the Borrow Pit and as blanket peat at T4 and T9.

In terms of rock the survey area is underlain by the Central Clare Group, described as sandstone, siltstone and mudstone.

There is a SW-NE fault crossing the site. There is shallow rock noted close to T4, T7 and T8.

No peat was noted along the survey lines during the survey.

Image 1: Geological Bedrock Geology 100k, GSI



1.5 Report

This report includes the results and interpretation of the geophysical survey. Maps, figures and tables are included to illustrate the results of the survey. More detailed descriptions of geophysical methods and measurements can be found in GSEG (2002), Milsom (1989) and Reynolds (1997).

The description of soil, rock and the use of geotechnical terms (soft, stiff, dense etc) follows Eurocode (2007) and BSI (2020) standards. The terms are defined in the standards and the physical parameters are related from experience. This geophysical survey has been acquired, processed, interpreted and reported in accordance with these guidelines. An aerial image was used as the map background as we did not receive a topographical survey map or Ordnance Survey background map. Elevations were surveyed on site and are used in the vertical sections.

The interpretative nature and the non-invasive survey methods must be taken into account when considering the results of this survey and Minerex Geophysics Limited, while using appropriate practice to execute, interpret and present the data, give no guarantees in relation to the existing subsurface.

2. GEOPHYSICAL SURVEY

2.1 Methodology

The methodology consisted of using 2D-Resistivity and seismic refraction surveying along lines proposed by the client. The 2D-Resistivity lines were extended to a minimum length of 93m to allow sufficient data to be acquired.

The survey locations are indicated on Map 1. The lines, locations, and parameters are tabulated in Table 1.

2.2 2D-Resistivity (ERT)

2D-Resistivity lines were surveyed with electrode spacing of 3m, up to 64 electrodes per set-up and a maximum length of 189m per set-up. The readings were taken with a Tigre Resistivity Meter, Imager Cables, stainless steel electrodes and a laptop with ImagerPro acquisition software.

During 2D-Resistivity surveying, data is acquired in the form of linear arrays using a suite of metal electrodes. A current is induced into the ground via a pair of electrodes whilst a potential difference is measured across a second pair of electrodes. This allows for the recording of the apparent resistivity in a two-dimensional arrangement below the line. The data is inverted after the survey to obtain a model of subsurface resistivities. The generated model resistivity values and their spatial distribution can then be related to typical values for different geological materials.

The penetration depth of a resistivity set-up increases towards the centre where it reaches an approx. value of 15m bgl.

The 2D-Resistivity Method is designed to work on a two dimensional subsurface, and the more the ground deviates from this and has a more complex 3D structure, the less accurate the resistivity models will be. The accuracy can be best seen at crossings of the 2D lines. 2D-Resistivity has previously proven zones of anomalous rock with lateral extents of 5m and more.

2.3 Seismic Refraction (p-waves)

Seismic refraction lines were surveyed with geophone spacing of 2m and 24 geophones per set-up resulting in a 46m length per set-up. The recording equipment consisted of a 24 Channel GEOMETRICS ES-3000 engineering seismograph with 4.5Hz vertical geophones. The seismic energy source consisted of a hammer and plate. A zero-delay trigger was used to start the recording. Normally 7 shot points per p-wave set-up were used.

Set-ups were acquired in longer continuous lines using common shot points between set-ups and concatenating into longer lines at the processing stage.

The seismic refraction survey method focuses on propagating p-waves travelling through the subsurface, which are generated by a seismic source. As the wave propagates through the subsurface, its velocity varies as it travels through overburden, rock with different elastic properties, and along geological boundaries. Velocity data is recorded via the surveying equipment, which is then processed, allowing geological layer thicknesses and boundaries to be established.

Seismic Refraction generally determines the depth to horizontal or near horizontal layers where the compaction or strength or rock quality changes with an accuracy of around 20% of the depth to that layer. Where the layers are shallower than the geophone spacing depth deviations of +/- 1m to top of layers can occur. Where low velocity layers or shadow zones are present (e.g., below solid ground surface) or where layers dip with more than 20 degree angle the accuracy becomes much less.

The seismic refraction set-ups with 46m individual length have a reasonable penetration depth of around 10m. An internationally accepted maximum depth estimate for a seismic refraction set-up is 1/6 of the set-up length including offshots. The depth penetration varies according to the velocity structure of the subsurface.

On this site, good to very good rock was encountered along all survey lines at depths shallower than 6.5m and this rock is deepest refraction layer across the site.

2.4 Site Work

The data acquisition was carried out between the 10th and 12th of February 2025. The weather conditions were fair throughout the acquisition period. Health and safety standards were adhered to at all times.

The locations and elevations were surveyed with a Carlson NR3 RTK-GPS to accuracy < 0.05m.

3. RESULTS AND INTERPRETATION

The interpretation of geophysical data was executed utilizing the known response of geophysical measurements, typical physical parameters for subsurface features that may underlay the site, and the experience of the authors.

3.1 2D-Resistivity (ERT)

The 2D-Resistivity data was positioned and inverted with the RES2DINV inversion package. The programme uses a smoothness constrained least-squares inversion method to produce a 2D model of the subsurface resistivities from the recorded apparent resistivity values. Three variations of the least squares method are available and for this project the Jacobian Matrix was recalculated for the first three iterations, then a Quasi-Newton approximation was used for subsequent iterations. Each dataset was inverted using seven iterations resulting in a typical RMS error of <3.0%. The resulting models were colour contoured with the same resistivity scale for all lines and they are displayed as cross sections (Figures 1a & Top of Figures 2, 3, 4 & 5).

Resistivities are characteristic for certain overburden and rock types. If there is a high content of clay minerals (which are electrically conductive) then the overburden resistivity will be lower than as if there is a high content of clastic grains like sand or gravel. The purer the clay and the lower the sand and gravel content, the lower the resistivity. Water content in overburden layers can influence the resistivities, but generally clay content has a more dominating effect.

Within bedrock types like sandstone, high resistivities indicate a fresh, strong, unweathered rock. As the weathering in the rock increases the resistivity gets lower because of weathering products, remineralisation of rock and infill of cracks, faults and voids with clay and water. Weathering within rock is typically indicated by lower resistivity values in the cross sections.

The resistivities cover a range typical for materials from clay rich overburden (low resistivities) to fresh strong unweathered bedrock (high resistivities). The ranges have been taken into the consideration for the interpretation. low values (<500 Ω m) indicate a siltstone bedrock. High resistivities (>500 Ω m) indicate sandstone bedrock. Within the overburden, higher resistivities indicate a more sandy gravelly overburden material.

3.2 Seismic Refraction (p-wave)

The seismic refraction data was positioned and processed with the SEISIMAGER software package to give a layered model of the subsurface. The number of layers has been determined by analysing the seismic traces and 3 layers were used in the models. All seismic lines were subject to a standardised processing sequence which consisted of a topographic correction which was based on integrated elevation data, first break

picking, tomographic inversion, travel-time computation via ray-tracing and velocity modelling. Residual deviations of typically 0.4 to 1.8 msec RMS have been obtained for each line. Following each processing stage QC procedures were adhered to. The resulting layer boundaries are shown as thick lines overlaid on the 2D-Resistivity cross sections (Figures 1a & Top of Figures 2, 3, 4, 5). The average seismic velocities obtained within the layers are annotated on the sections as bold black numbers.

The p-wave seismic velocity is closely linked to the density of subsurface materials and to parameters like compaction, stiffness, strength and rock quality. The higher the density of the subsurface materials the higher the seismic velocity. More compacted, stiffer, denser and stronger material will have a higher seismic velocity. For rock, the seismic velocity is higher when the rock is stronger, less weathered and has a higher quality. If the rock is more weathered, broken, fractured, fissured or karstified then the seismic velocity will be reduced compared to that of intact fresh rock.

Because of the above relationship, the seismic refraction method and seismic velocities are suitable to investigate ground where the layers get denser, more compacted and stronger with depth. A disadvantage is that some materials may have the same seismic velocity: Very stiff to hard or very dense highly consolidated overburden and a weathered rock can have the same seismic velocity range (as is the case in the layer 2 below).

The modelled seismic data has created the following layered ground model:

Layer 1 has a thickness of 0.5 - 3m and seismic velocities of 200 - 400m/s. This overburden would be soil with a soft or loose stiffness or compaction.

Layer 2 velocities of 1800 - 2000m/s indicate a weathered rock that varies in thickness between 0.5 and 4.5m. The layer can also contain very stiff to hard or very dense overburden.

Competent rock (Layer 3) is indicated by seismic velocities of 3000 - 4000m/s and the depth to the top of this rock varies between 1 and 6.5m below ground level (bgl).

3.3 Interpretation of Resistivity and Seismic Refraction

Table 2 summarises the interpretation. The stiffness or compaction of overburden and the rock strength or quality have been estimated from the seismic velocity. The estimation of the excavatability for the bedrock has been made according to the caterpillar chart published in Reynolds (1997). The geotechnical assessment for rippability will have to take factors like rock type and jointing into account and the estimation in this report is solely based on the seismic velocities.

Interpreted cross sections are shown in Figure 1b & Bottom of Figures 2, 3, 4, 5. The interpretation has been made from all available information. For overburden layers and the top of the rock the seismic refraction data has been used as seismic refraction is the best method to delineate layer boundaries. The resistivity model values have been used to delineate overburden material and rock types. Resistivity data is

better suited to show overburden material, rock types and features within the rock while seismic refraction velocities are indicating the change of compaction, stiffness or rock quality with depth. Along short sections where only one data type is available an interpolation for the interpreted layers was made.

Table 2: Summary of Interpretation

Layer	General Seismic Velocity Range (m/sec)	General Resistivity Range (Ω m)	Stiffness or Compaction or Rock Quality	Interpretation	Estimated Excavation Method
1	200 – 400	Any	Soft or loose	Soil	Diggable
2a	1800 - 2000	<500	Very stiff to hard or poor to fair Rock	Overburden or Weathered Siltstone	Diggable or rippable to marginal rippable
2b	1800 - 2000	>500	Poor to fair Rock	Weathered Sandstone	rippable to marginal rippable
3a	3000 - 4000	<500	Good to very good	Siltstone	Breaking & Blasting
3b	3000 - 4000	>500	Good to very good	Sandstone	Breaking & Blasting

4. CONCLUSIONS

The following conclusions are made:

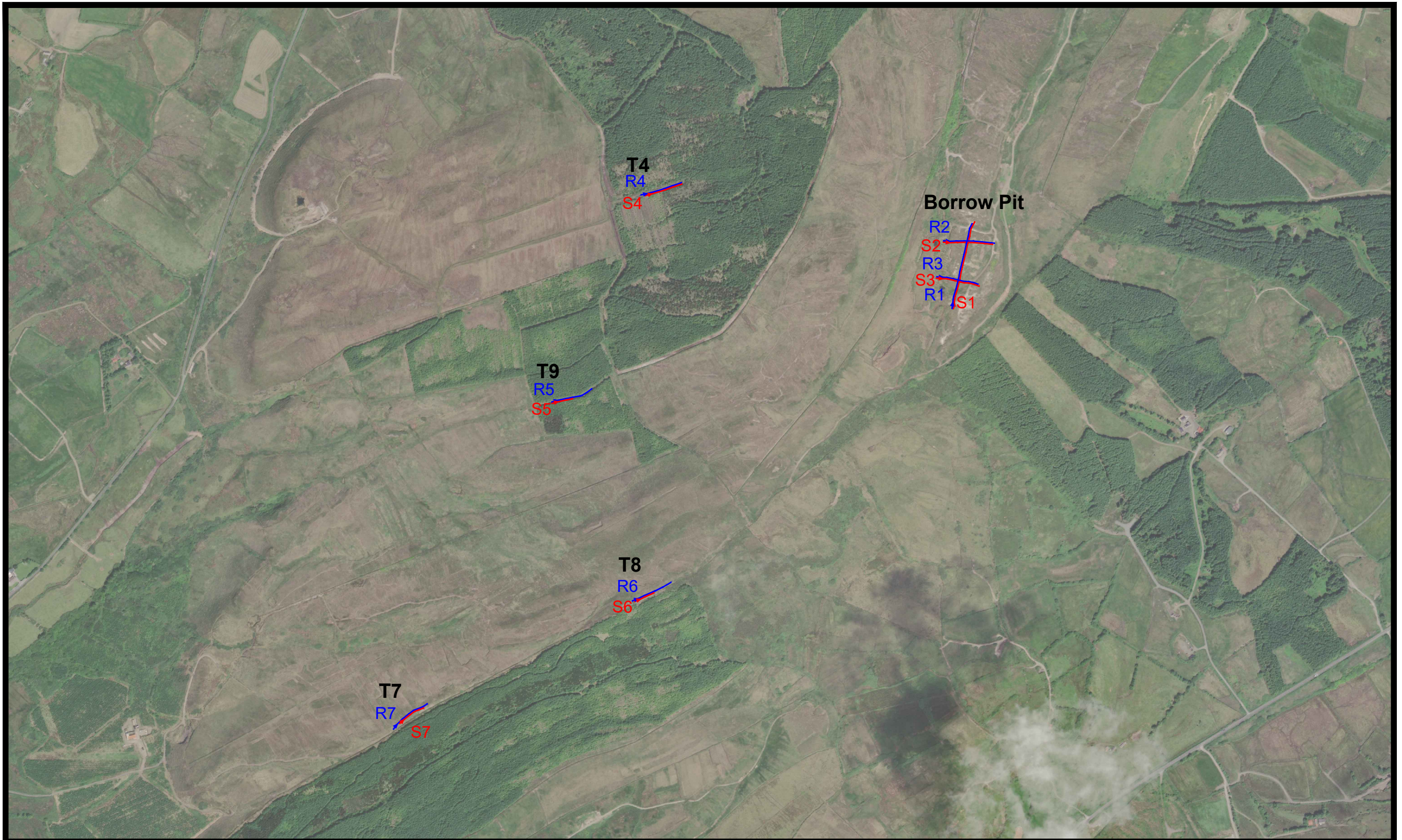
- The geophysical surveys carried out at the proposed Slieveacurry Windfarm, Co. Clare consisted of 2D-Resistivity (ERT) and Seismic Refraction (p-wave) at five sites across the area.
- The data was modelled with 5 layers based on three seismic velocities and Layers 2 and 3 being divided using the electrical resistivities (giving Layers 1, 2a, 2b, 3a and 3b).
- The rock is interpreted as siltstone or sandstone based on changes in the resistivities. At T7, T8 and the borrow pit, there is a layer of sandstone interpreted above the siltstone. At T4 and T9, the rock is interpreted as siltstone.
- At the borrow pit, Layer 1, soft or loose soil, has a thickness of between 0.5 and 2m, Layer 2b, poor to fair weathered sandstone, has a thickness of 0.5 – 2m while the depth to the top of the good to very good rock layer (Layers 3a & 3b) ranges from 1 – 3m bgl.
- At T4, Layer 1, soft or loose soil, has a thickness of 2 – 3m. This line was carried out along the firebreak where the ground was higher than the surrounding forest floor and this layer would contain some fill materials. Layer 2a, very stiff to hard overburden or poor to fair weathered siltstone, has a thickness of 0.5 - 2.5m while the top of the good to very good siltstone (Layer 3a) is between 3 and 5m bgl.
- At T7, Layer 1, soft or loose soil, has a thickness of 0.5 – 1m. Layer 2b, poor to fair weathered sandstone has a thickness of 1.5 – 3m while the good to very good rock layer is interpreted at a depth of 2 – 4m bgl.
- At T8, soft or loose soil (Layer 1) has a thickness of 0.5 – 1m. Poor to fair weathered sandstone (Layer 2b) has a thickness of 0.5 – 2m and the top of the good to very good rock (Layers 3a & 3b) is between 1 and 3m bgl.
- At T9, soft or loose soil (Layer 1) has a thickness of 1.5 – 2m. This layer was carried out along the firebreak where the ground was higher than the surrounding forest floor and this layer would contain some fill materials. Layer 2a, very stiff to hard overburden or poor to fair weathered siltstone, has a thickness of 2.5 – 4.5m and the depth to the top of the good to very good siltstone (Layer 3a) is between 4.5 and 6.5m bgl.
- At the borrow pit, T7 and T8, the depth of the poor to fair weathered sandstone layer is between 0.5 – 2m bgl while the depth to the top of the good to very good rock layer is between 1 - 5m bgl.
- At T4 and T9, the depth to the top of layer 2a, very stiff to hard overburden or poor to fair weathered siltstone, is between 1-5 – 3m bgl while the depth to the top of the good siltstone layer is 3 – 6.5m bgl.

5. REFERENCES

1. **BSI, 2020.** BS5930: 2015+A1:2020, Code of Practice for Ground Investigations, British Standards Institute 2020
2. **Eurocode, 2007.** EN 1997-2:2007. Eurocode 7. Part 2 Ground Investigation and Testing 2007
3. **GSEG, 2002.** Geophysics in Engineering Investigations. Geological Society Engineering Geology Special Publication 19, London, 2002
4. **GSI, 2024.** Online Geological Map of Ireland. Geological Survey of Ireland 2024
5. **Milsom, 1989.** Field Geophysics. John Wiley and Sons, 1989
6. **Reynolds, 1997.** An Introduction to Applied and Environmental Geophysics. John Wiley and Son, 1997
7. **Weaver, 1975.** Geological Factors significant in the Assessment of Rippability, 1975

Table 1: Geophysical Survey Locations and Acquisition Parameters

2D-Resistivity (ERT) Survey				
Site	Line	Electrode Spacing (m)	Length (m)	Display direction
Borrow Pit	R1	3	189	S-N
Borrow Pit	R2	3	111	W-E
Borrow Pit	R3	3	93	W-E
T4	R4	3	93	W-E
T9	R5	3	93	W-E
T8	R6	3	93	SW-NE
T7	R7	3	93	SW-NE
		SUM	765	
Seismic Refraction Survey				
Site	Line	Geophone Spacing (m)	Length (m)	Display direction
Borrow Pit	S1	2	190	S-N
Borrow Pit	S2	2	106	W-E
Borrow Pit	S3	2	94	W-E
T4	S4	2	82	W-E
T9	S5	2	46	W-E
T8	S6	2	46	SW-NE
T7	S7	2	62	SW-NE
		SUM	626	



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CLIENT Fehily Timoney and Company

PROJECT Slieveacurry WF, County Clare
 Geophysical Survey

TITLE Map 1: Geophysical Survey
 Overview Map

SCALE: 1:7500 @ A3

PROJECT: 6849

DRAWN: JMK

DATE: 14/02/2025

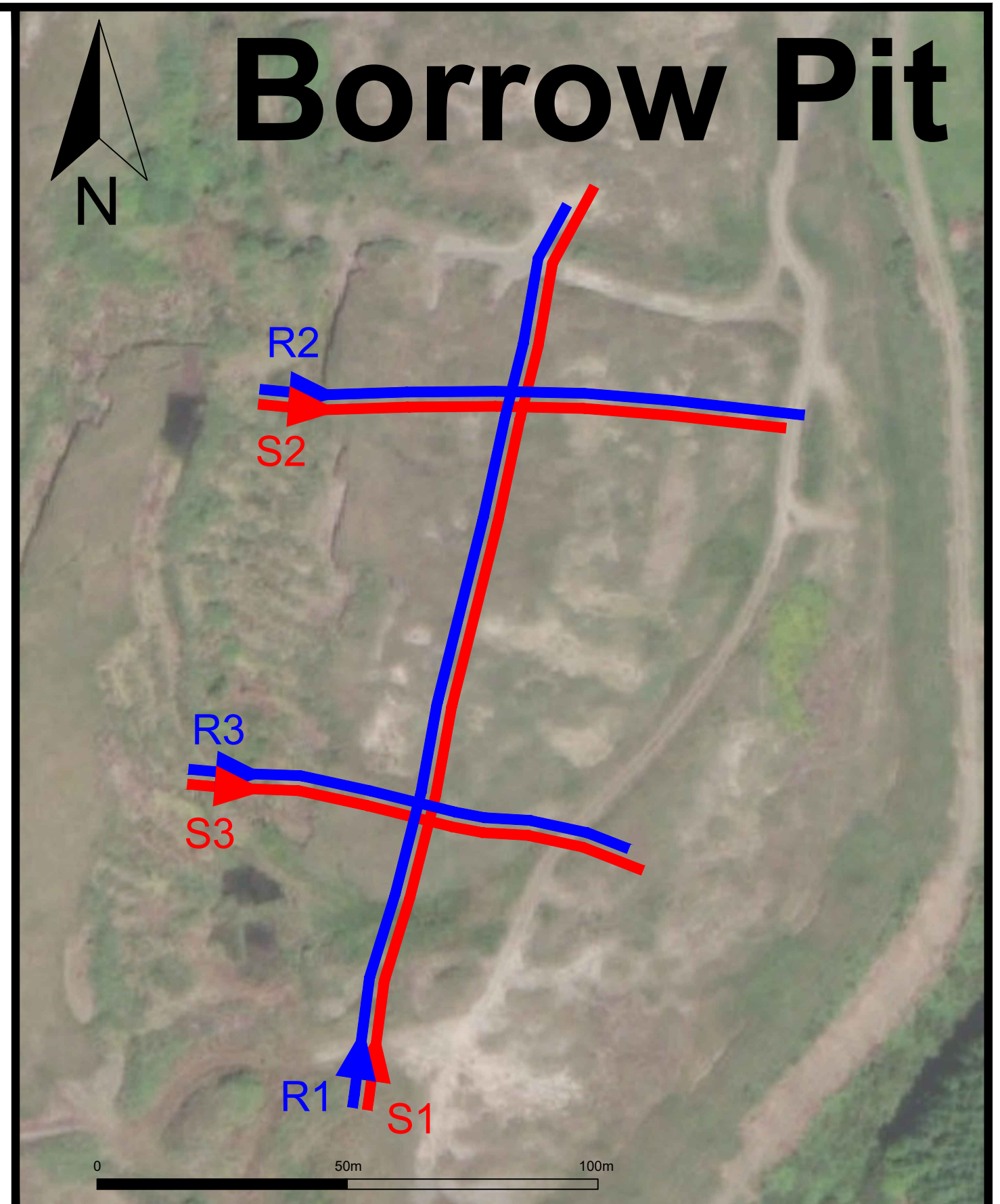
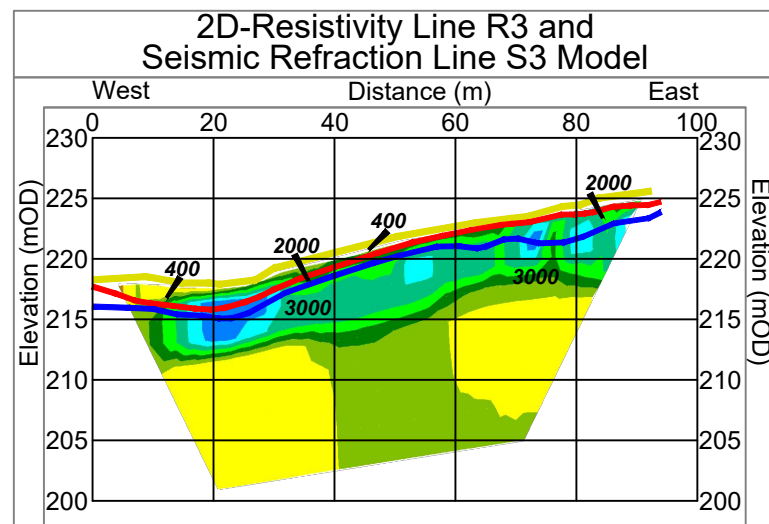
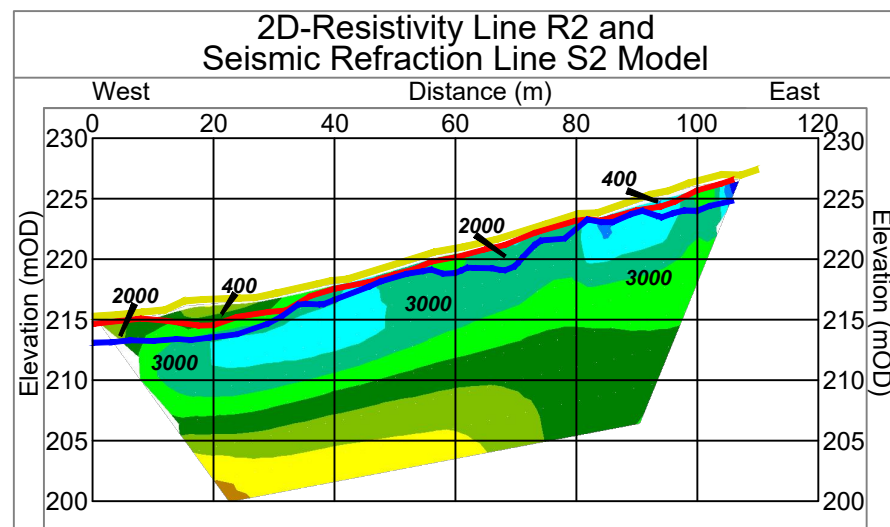
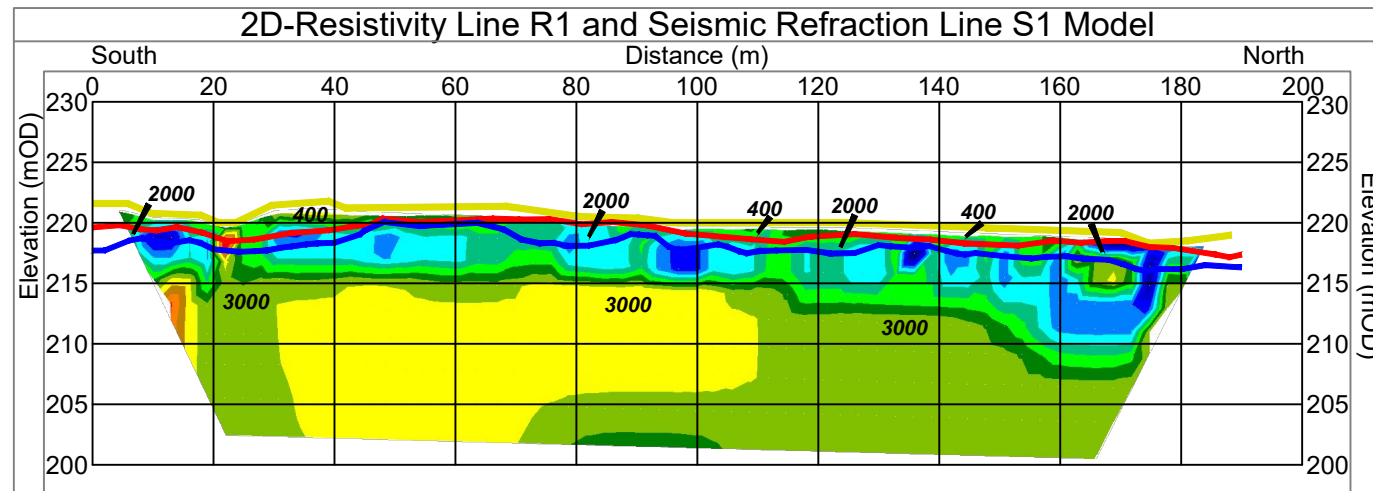
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STATUS: Draft

Geophysical Survey Locations:

- R2 2D-Resistivity Line
- S1 Seismic Refraction Line

Locations are in Irish Transverse Mercator (ITM), Elevations are in mOD (Malin Head)



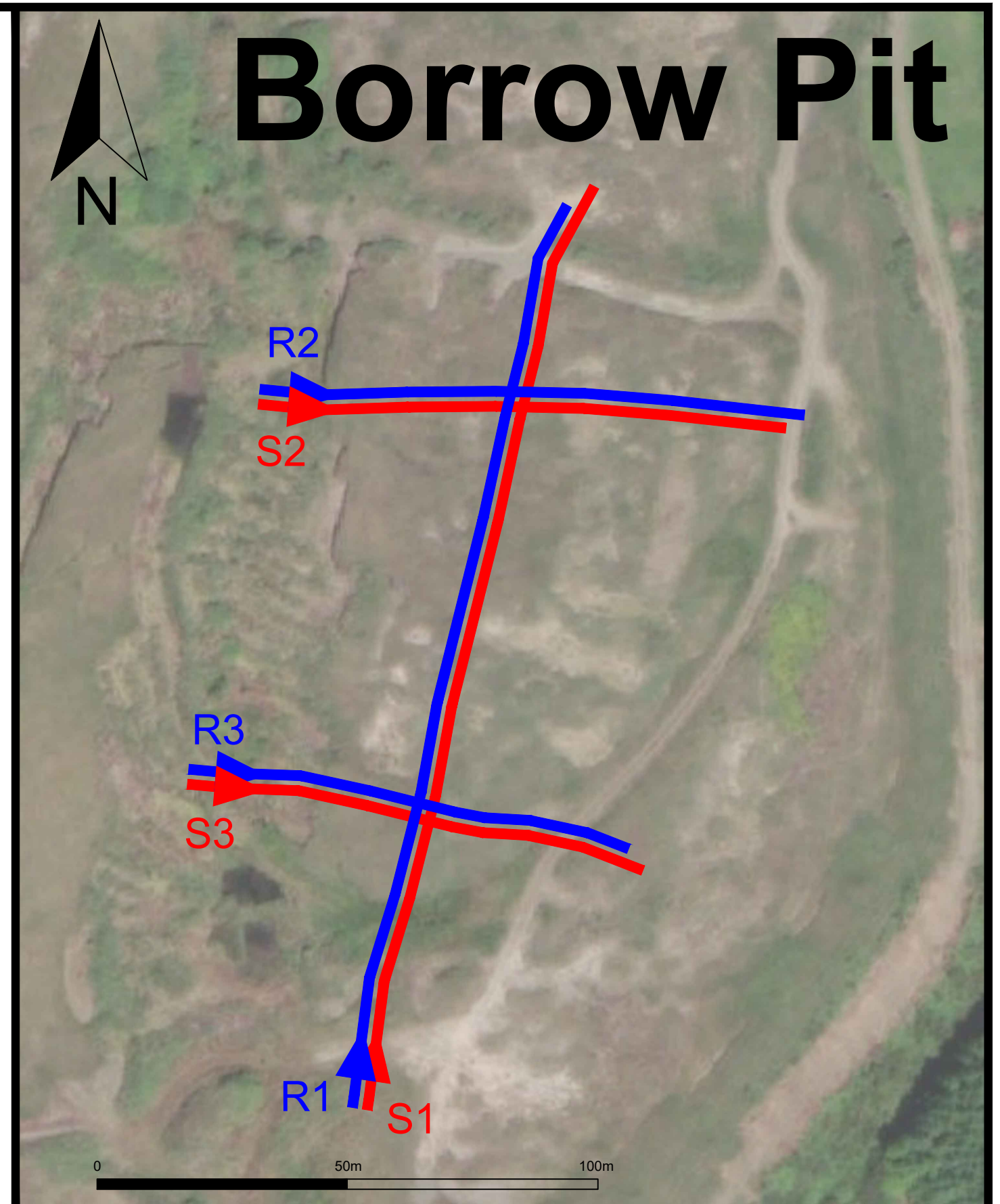
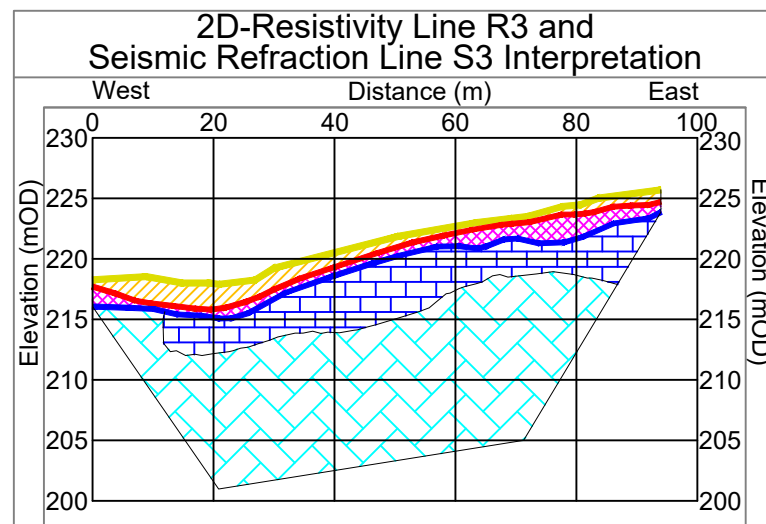
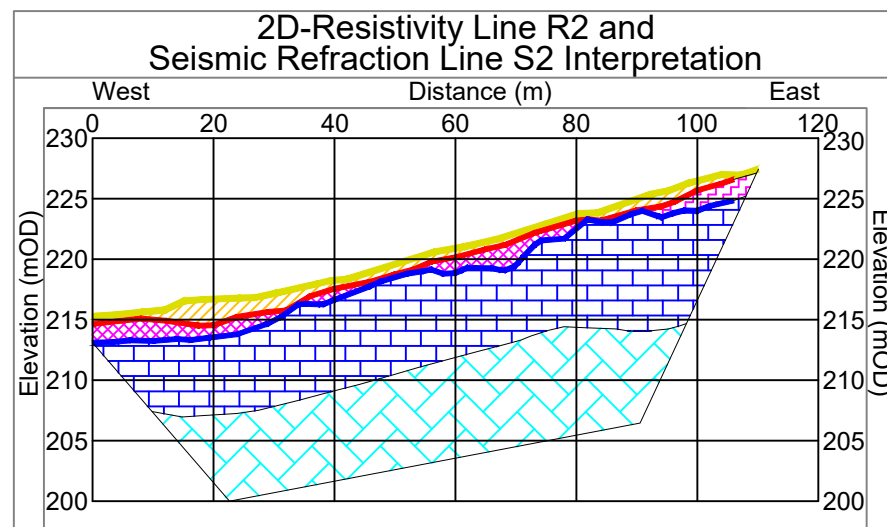
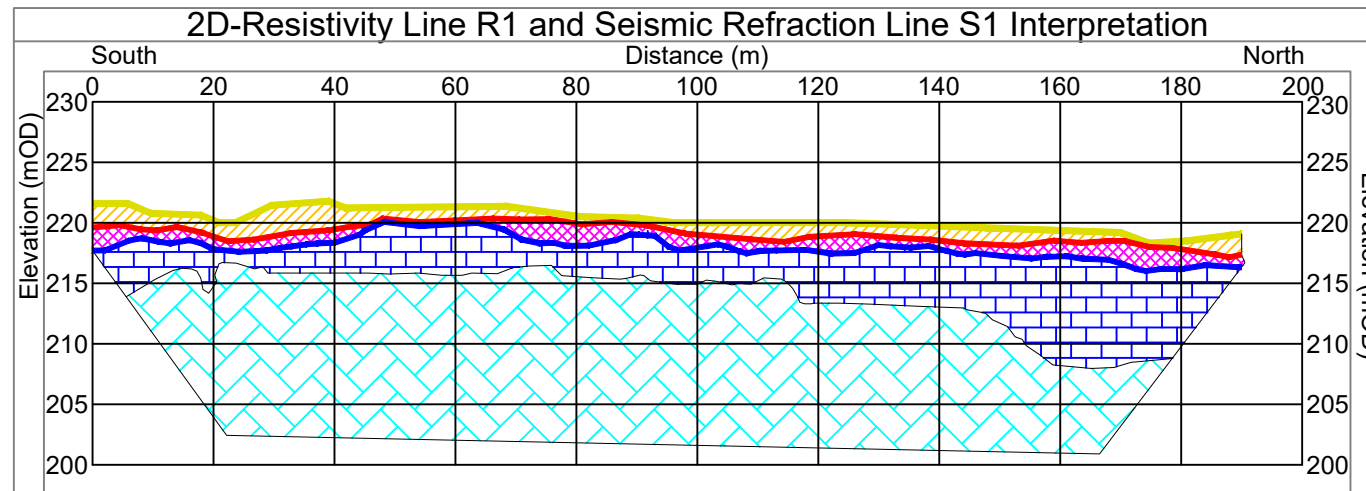
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CLIENT: Fehily Timoney and Company
PROJECT: Slieveacurry WF, County Clare Geophysical Survey
TITLE: Figure 1a: Models of Geophysical Survey at Borrow Pit

SCALE: Fig: 1:1250 @ A3, VE x 2, Map: 1:750
PROJECT: 6849
DRAWN: JMK
DATE: 14/02/2025
MGX FILE: 6849d_Drawings.dwg
STATUS: Draft

Layers from Seismic Refraction Model:
 Ground Surface/Top of Layer 1 (200 - 500 m/s)
 Top of Layer 2 (1800 - 2000 m/s)
 Top of Layer 3 (3000 - 4000 m/s)
1800 Seismic Velocity in m/s

2D-Resistivity Model Values:
Resistivities (Ohmm)
 31.2 62.5 125 250 500 1000 2000 4000



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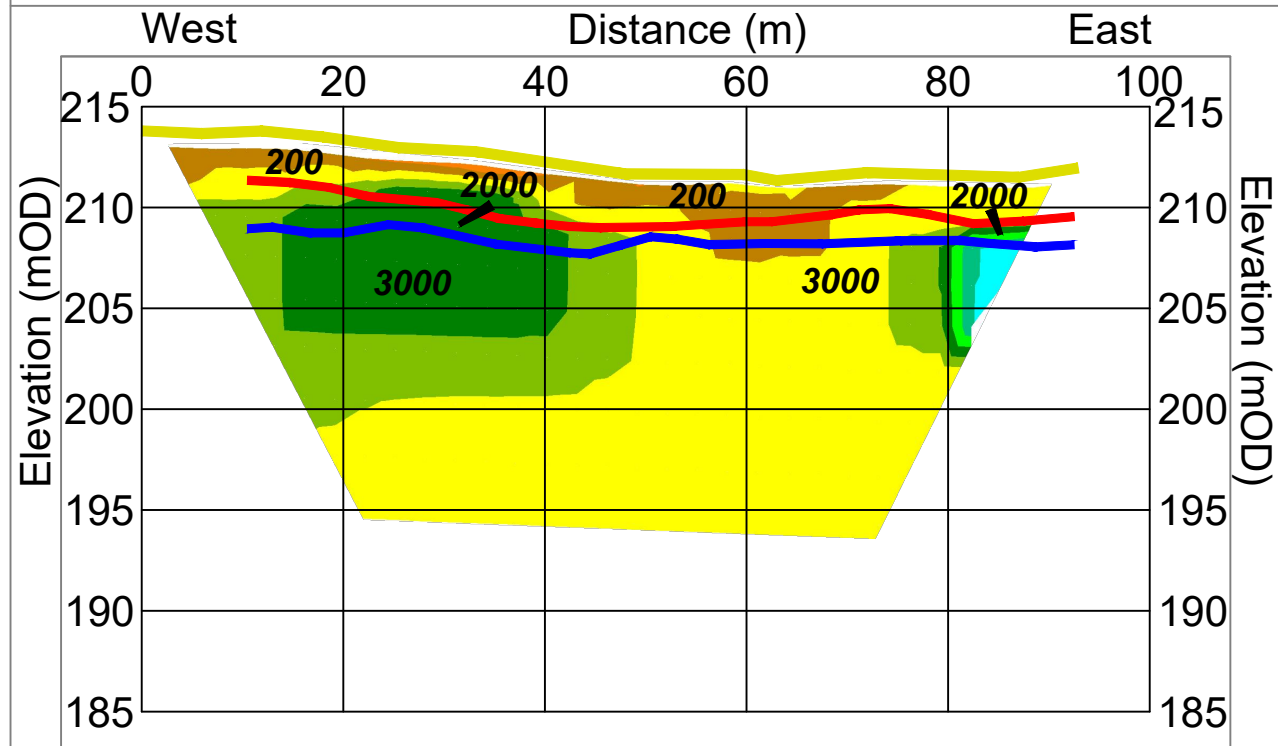
CLIENT Fehily Timoney and Company
PROJECT Slieveacurry WF, County Clare
Geophysical Survey
TITLE Figure 1b: Interpretation of
Geophysical Survey at Borrow Pit

SCALE: Fig: 1:1250 @ A3, VE x 2, Map: 1:750
PROJECT: 6849
DRAWN: JMK
DATE: 14/02/2025
MGX FILE: 6849d_Drawings.dwg
STATUS: Draft

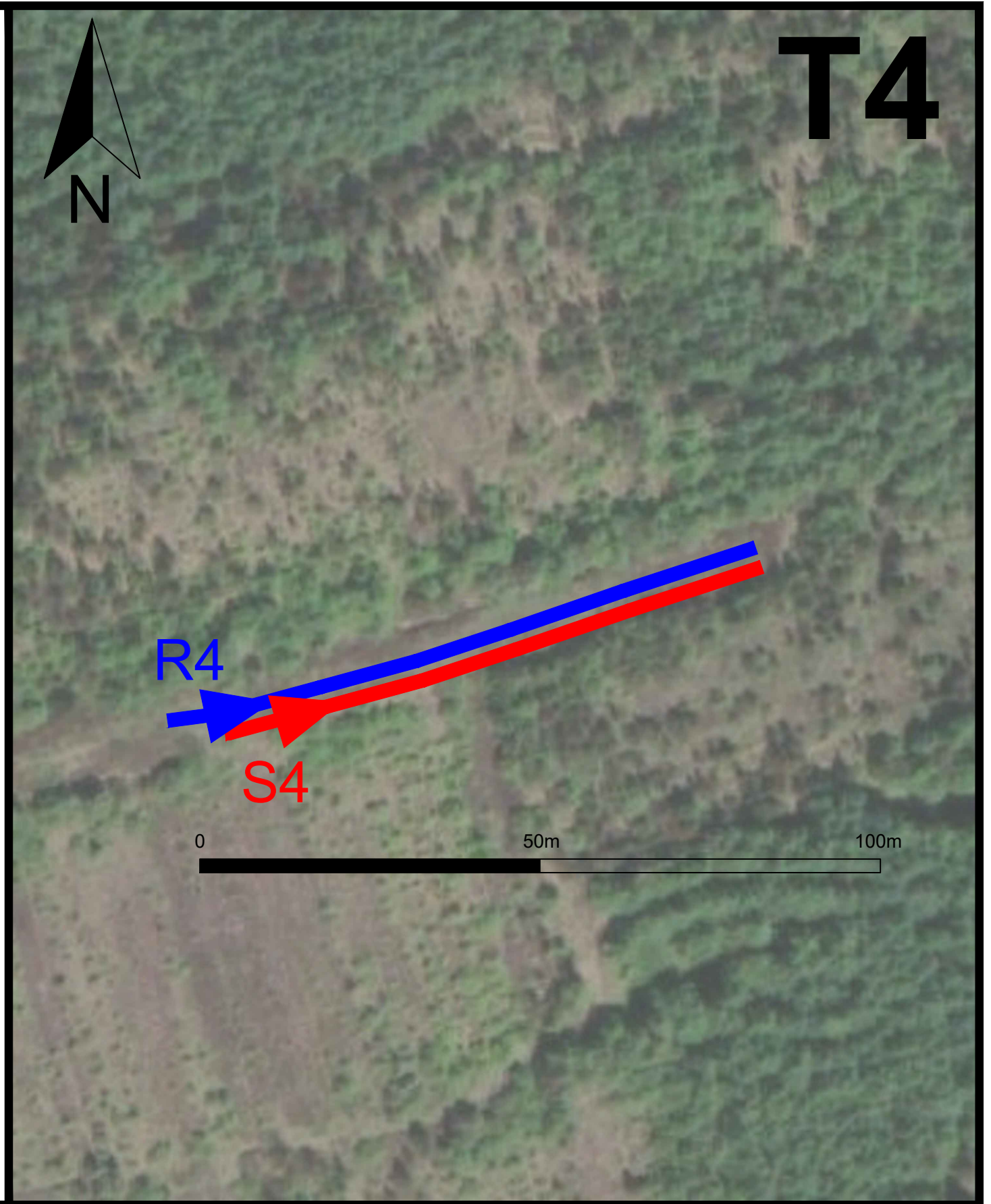
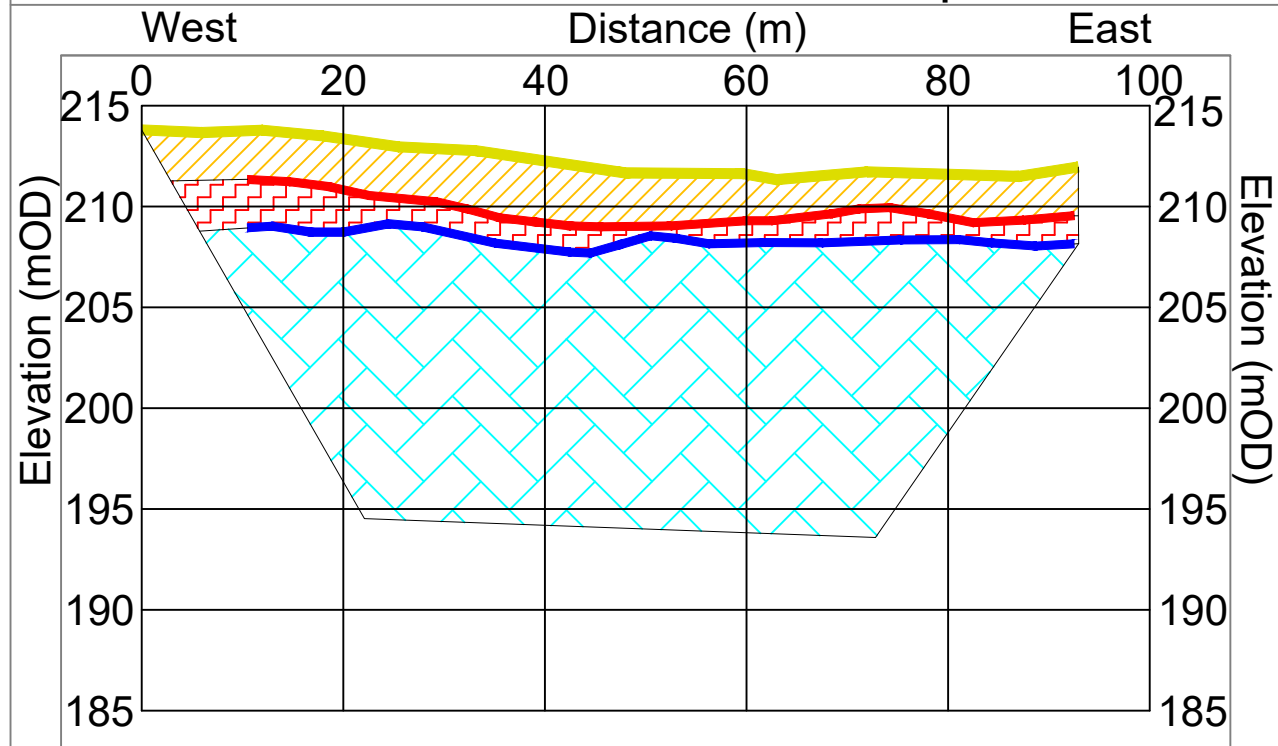
Interpretation Figures:

- 1 Soft or loose Soil
- 2a Very stiff to hard Overburden or poor to fair Weathered Siltstone
- 2b Poor to fair Weathered Sandstone
- 3a Good to very good Siltstone
- 3b Good to very good Sandstone

2D-Resistivity Line R4 and Seismic Refraction Line S4 Model



2D-Resistivity Line R4 and Seismic Refraction Line S4 Interpretation



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CLIENT Fehily Timoney and Company

PROJECT Slieveacurry WF, County Clare
Geophysical Survey

TITLE Figure 2: Models & Interpretation
of Geophysical Survey at T4

SCALE: Fig: 1:750 @ A3, VE x 2, Map: 1:750

PROJECT: 6849

DRAWN: JMK

DATE: 14/02/2025

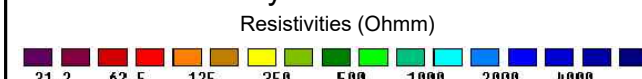
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STATUS: Draft

Layers from Seismic Refraction Model:

- Ground Surface/Top of Layer 1 (200 - 400 m/s)
- Top of Layer 2 (1800 - 2000 m/s)
- Top of Layer 3 (3000 - 4000 m/s)
- 1800** Seismic Velocity in m/s

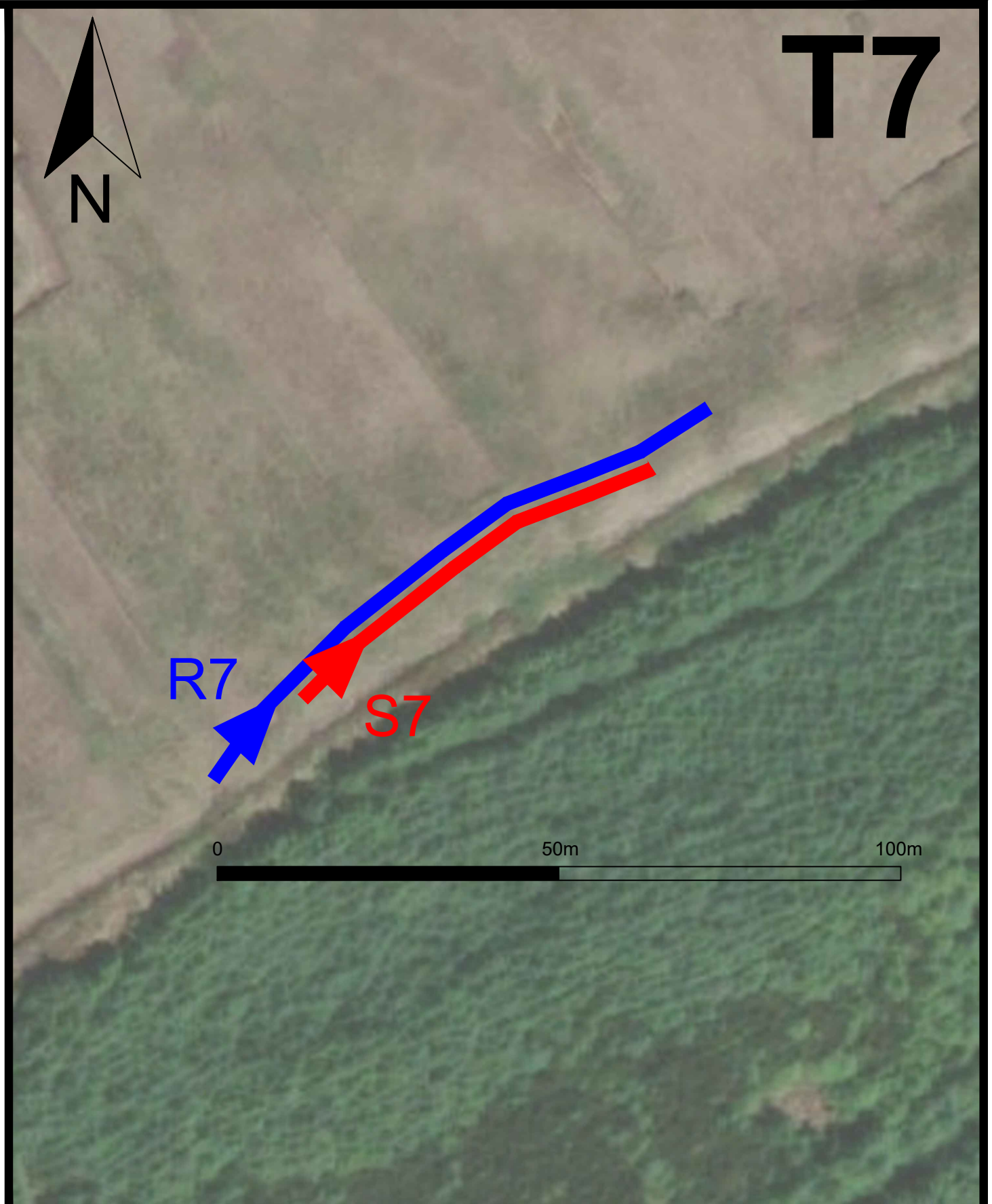
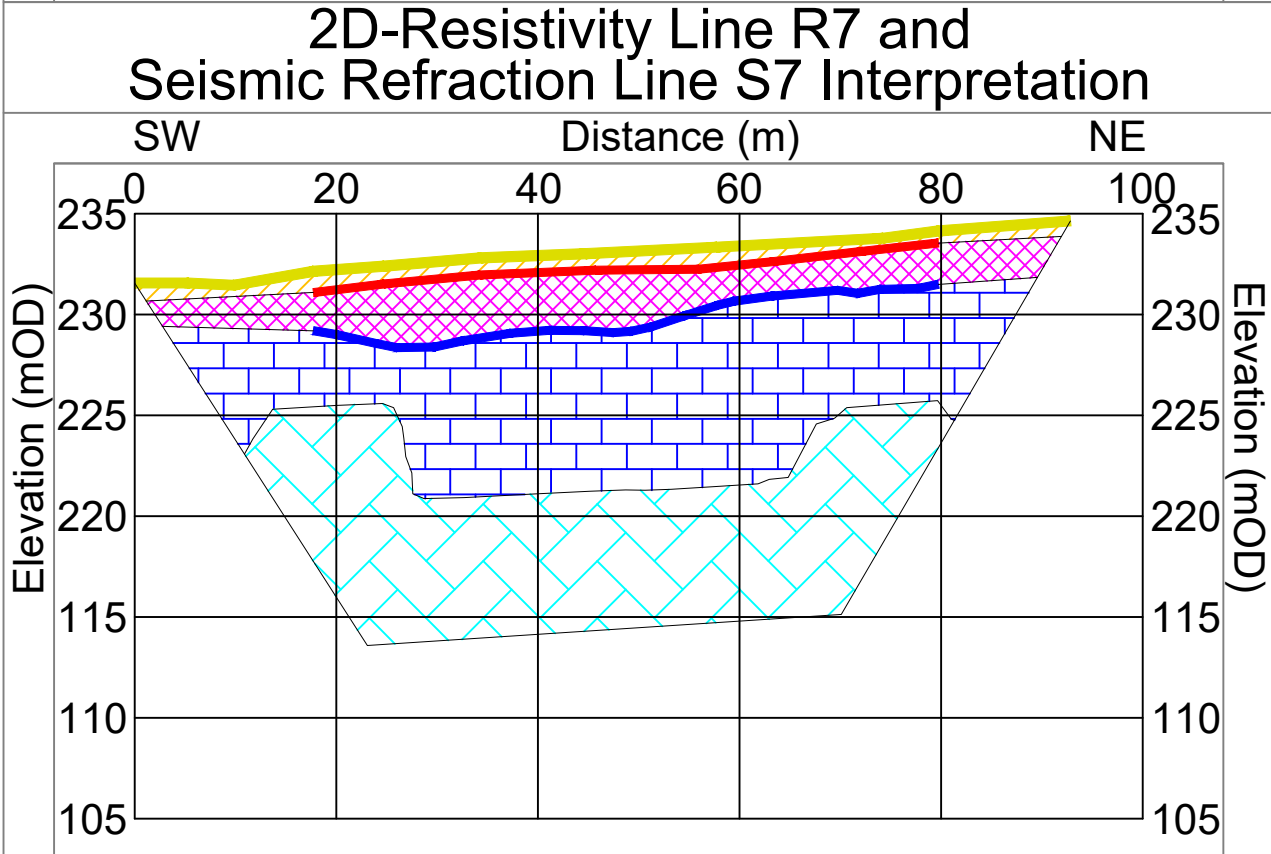
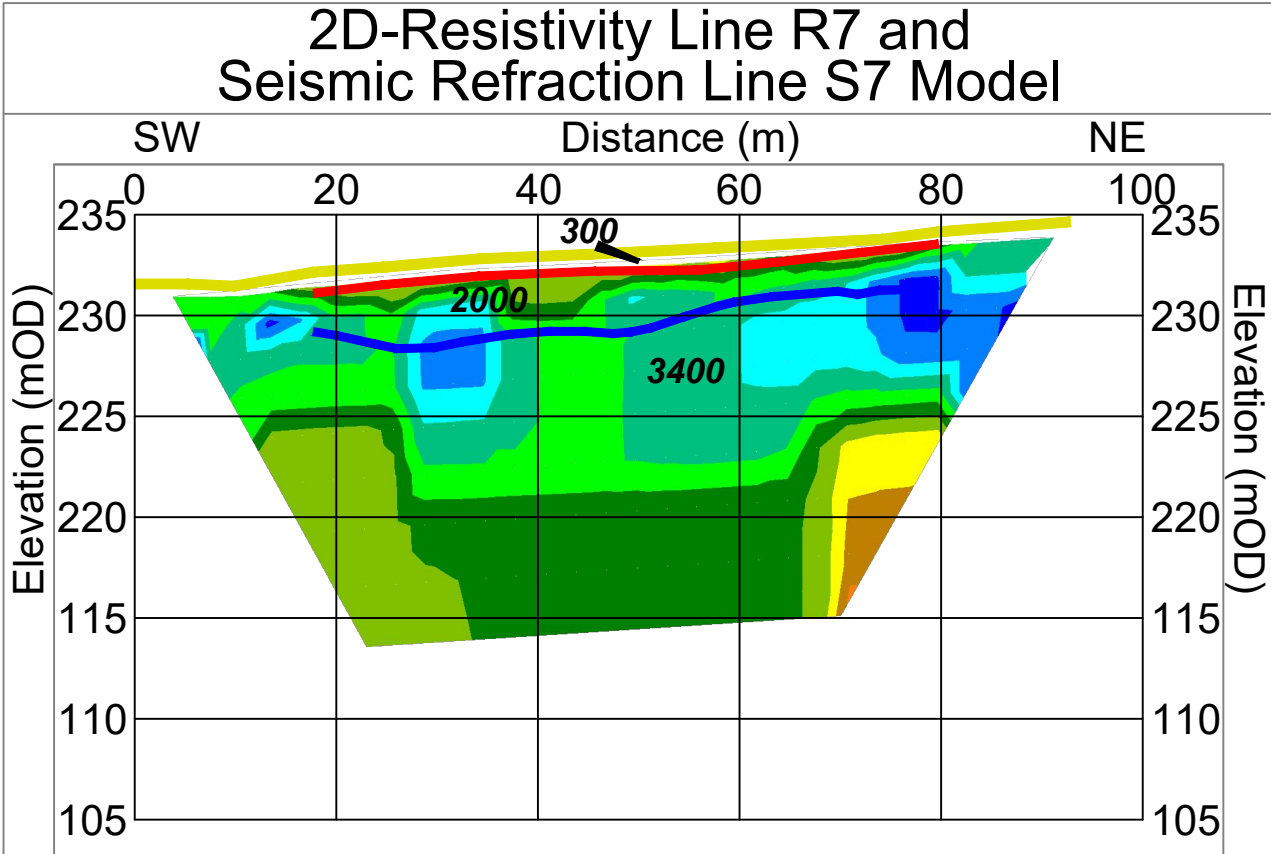
2D-Resistivity Model Values:



Interpretation Figures:

- 1 Soft or loose Soil
- 2a Very stiff to hard Overburden or poor to fair Weathered Siltstone
- 2b Poor to fair Weathered Sandstone
- 3a Good to very good Siltstone
- 3b Good to very good Sandstone

T7



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CLIENT: Fehily Timoney and Company
PROJECT: Slieveacurry WF, County Clare Geophysical Survey
TITLE: Figure 3: Models & Interpretation of Geophysical Survey at T7

SCALE: Fig: 1:750 @ A3, VE x 2, Map: 1:750
PROJECT: 6849
DRAWN: JMK
DATE: 14/02/2025
MGX FILE: 6849d_Drawings.dwg
STATUS: Draft

Layers from Seismic Refraction Model:

- Ground Surface/Top of Layer 1 (200 - 400 m/s)
- Top of Layer 2 (1800 - 2000 m/s)
- Top of Layer 3 (3000 - 4000 m/s)

1800 Seismic Velocity in m/s

2D-Resistivity Model Values:

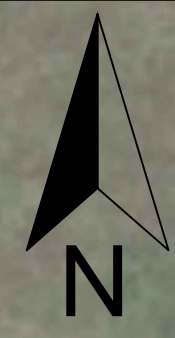
Resistivities (Ohmm)

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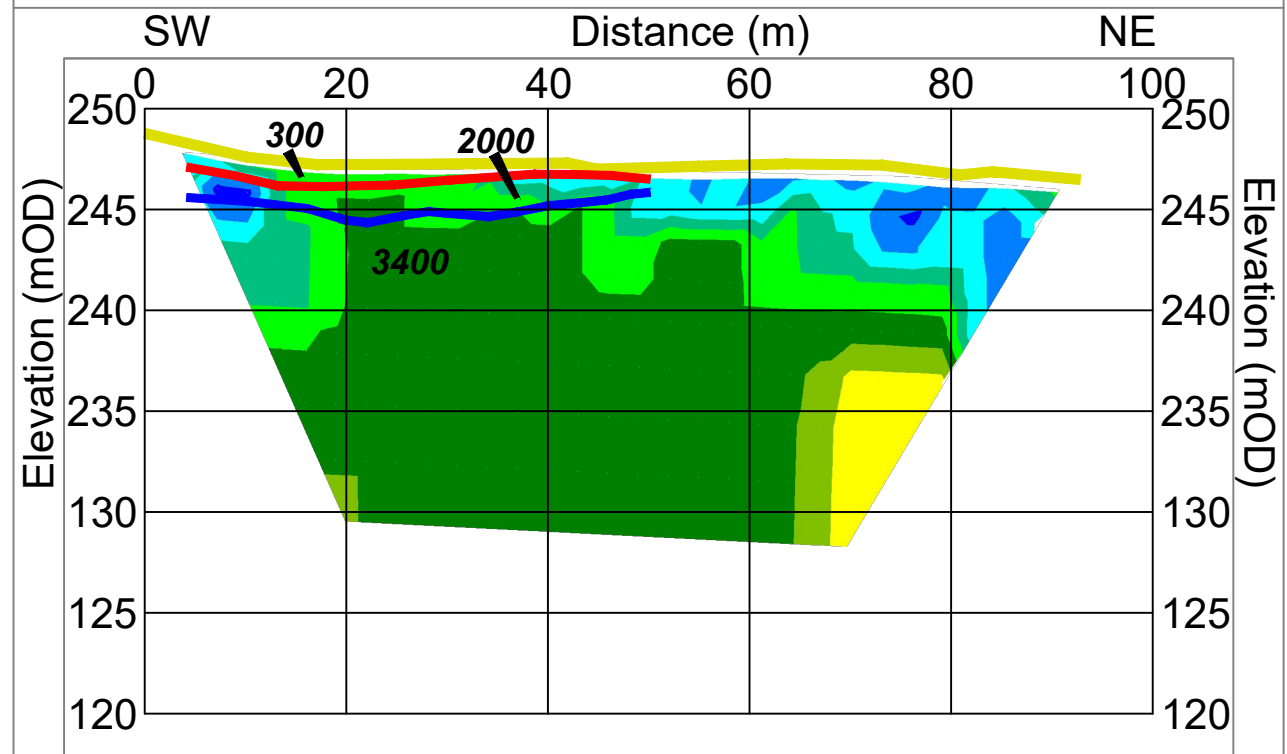
Interpretation Figures:

- 1 Soft or loose Soil
- 2a Very stiff to hard Overburden or poor to fair Weathered Siltstone
- 2b Poor to fair Weathered Sandstone
- 3a Good to very good Siltstone
- 3b Good to very good Sandstone

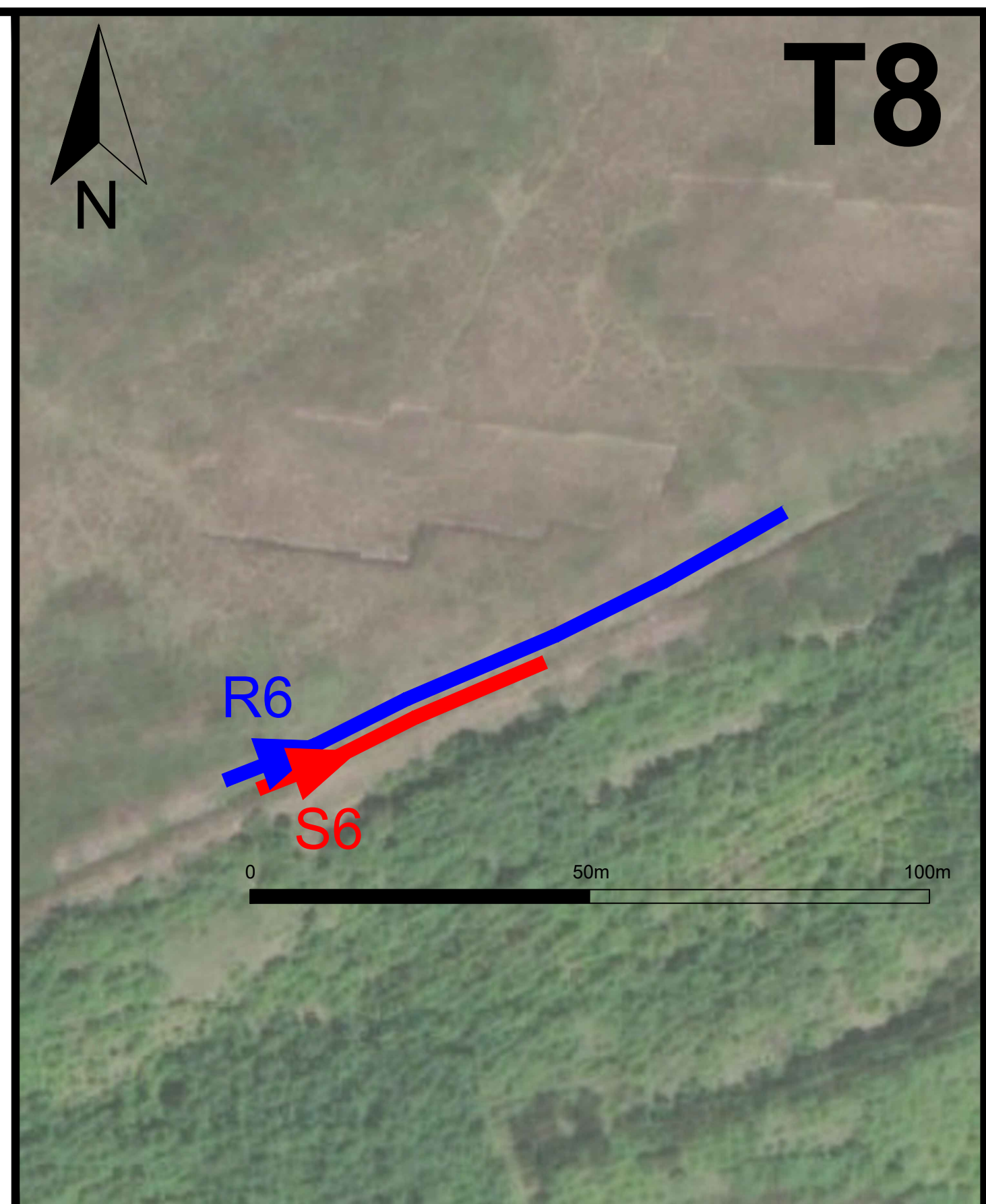
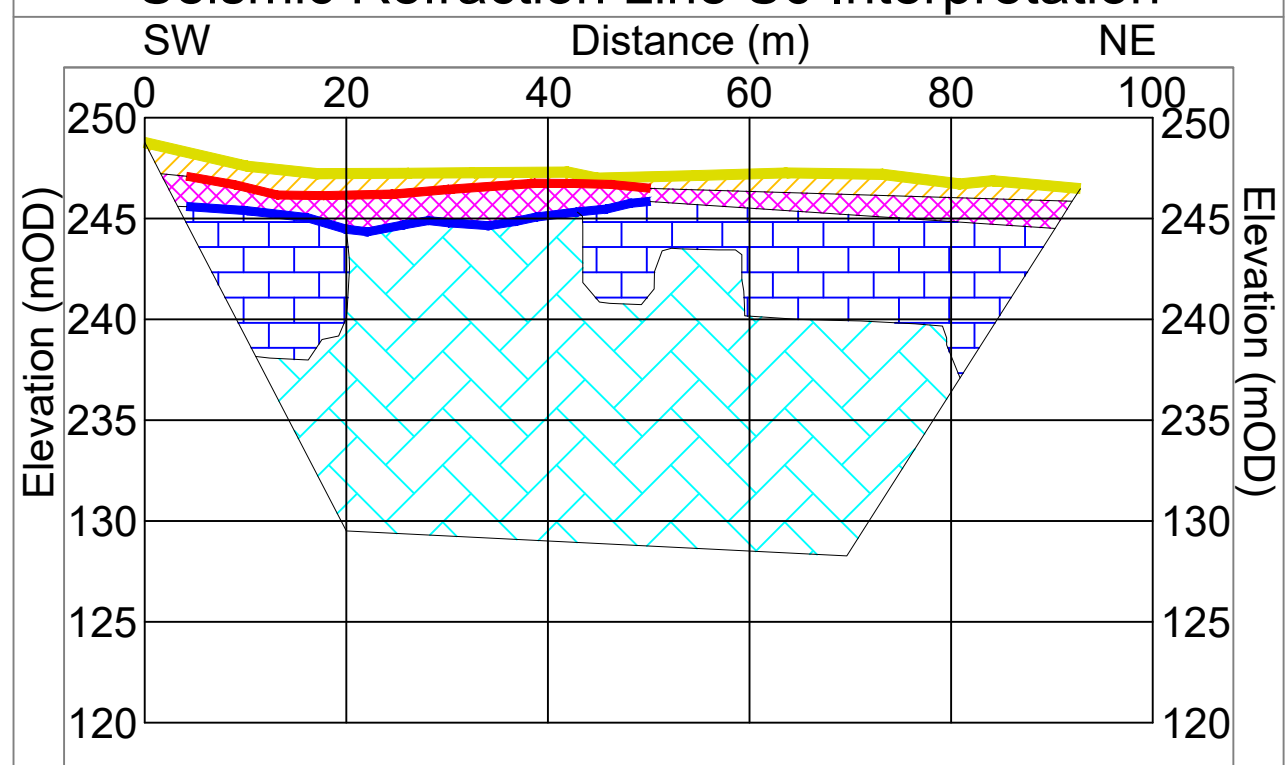
T8



2D-Resistivity Line R6 and Seismic Refraction Line S6 Model



2D-Resistivity Line R6 and Seismic Refraction Line S6 Interpretation



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CLIENT: Fehily Timoney and Company
PROJECT: Slieveacurry WF, County Clare Geophysical Survey
TITLE: Figure 4: Models & Interpretation of Geophysical Survey at T8

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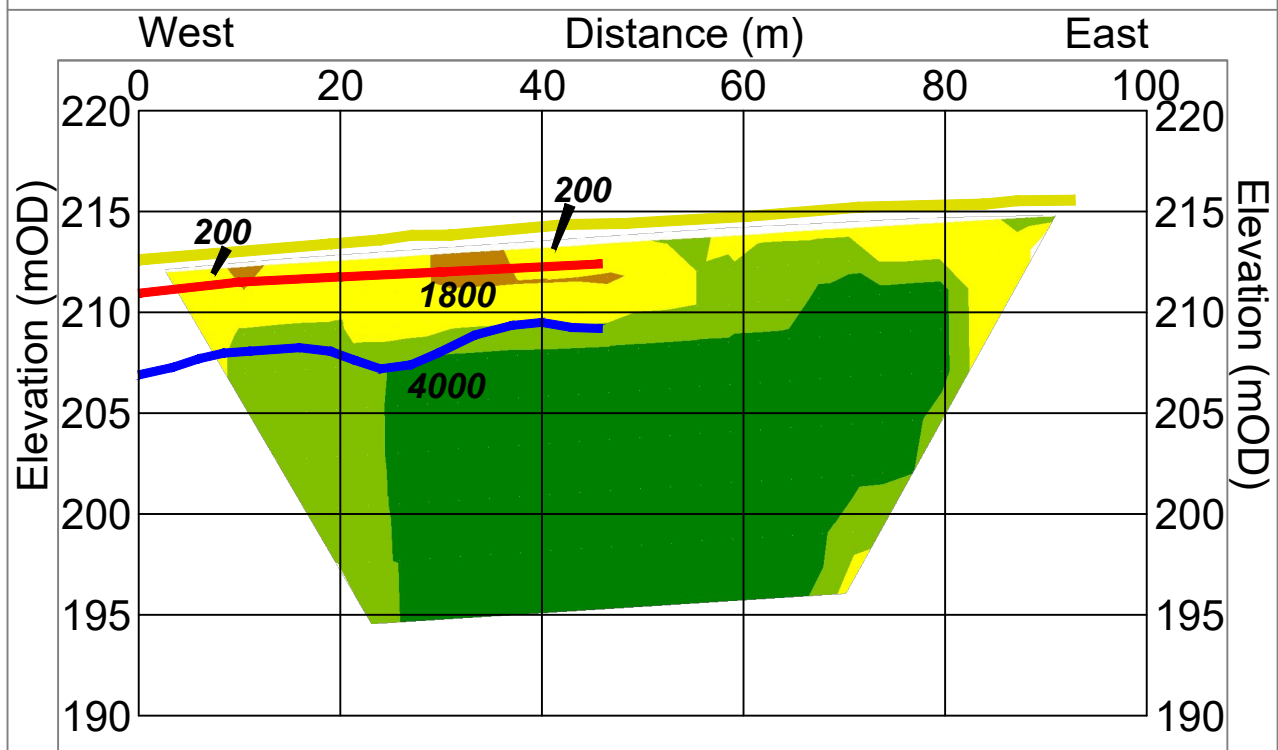
Layers from Seismic Refraction Model:
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 - Red line: Top of Layer 2 (1800 - 2000 m/s)
 - Blue line: Top of Layer 3 (3000 - 4000 m/s)
 - 1800: Seismic Velocity in m/s

2D-Resistivity Model Values:
Resistivities (Ohmm)
 31.2, 62.5, 125, 250, 500, 1000, 2000, 4000

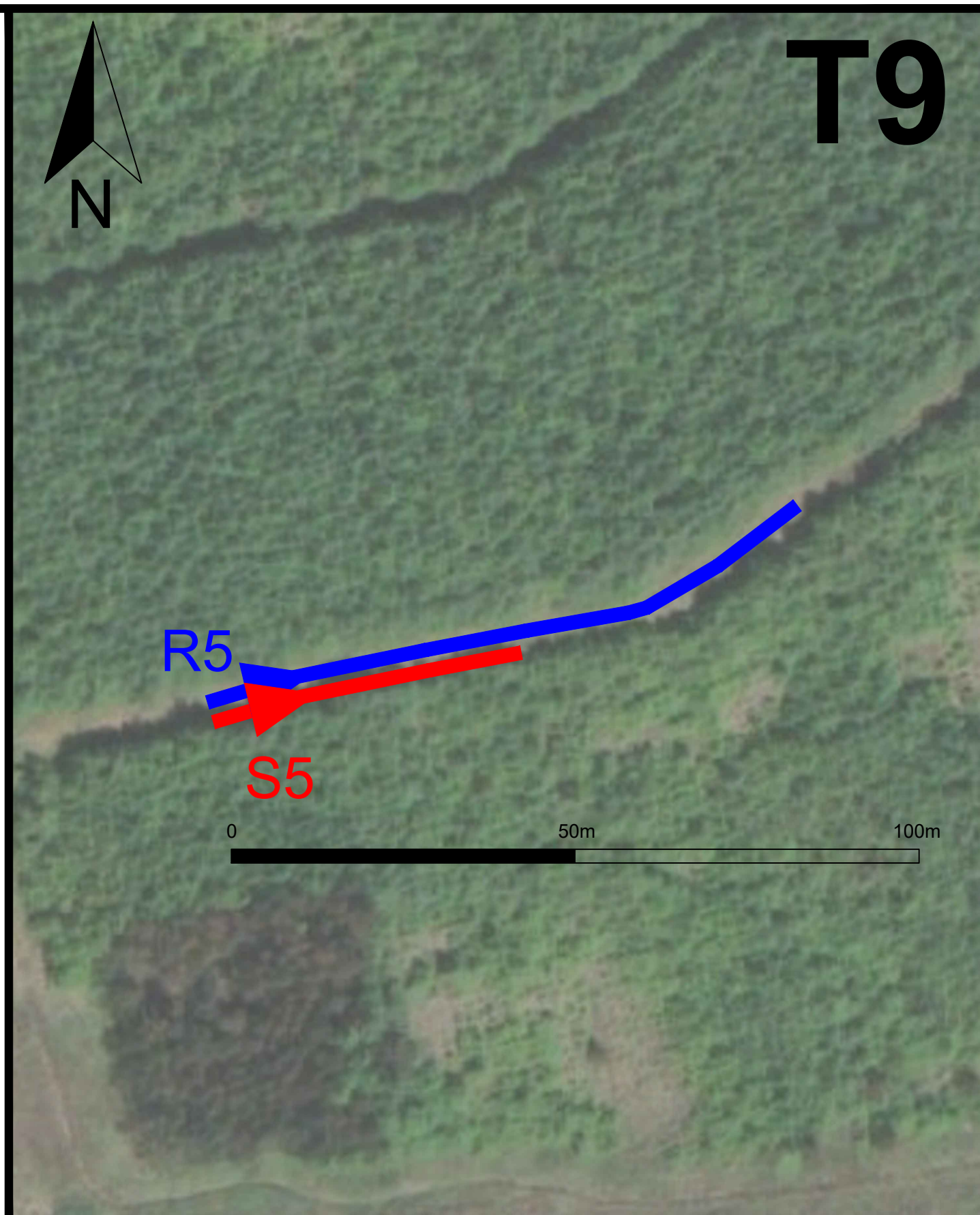
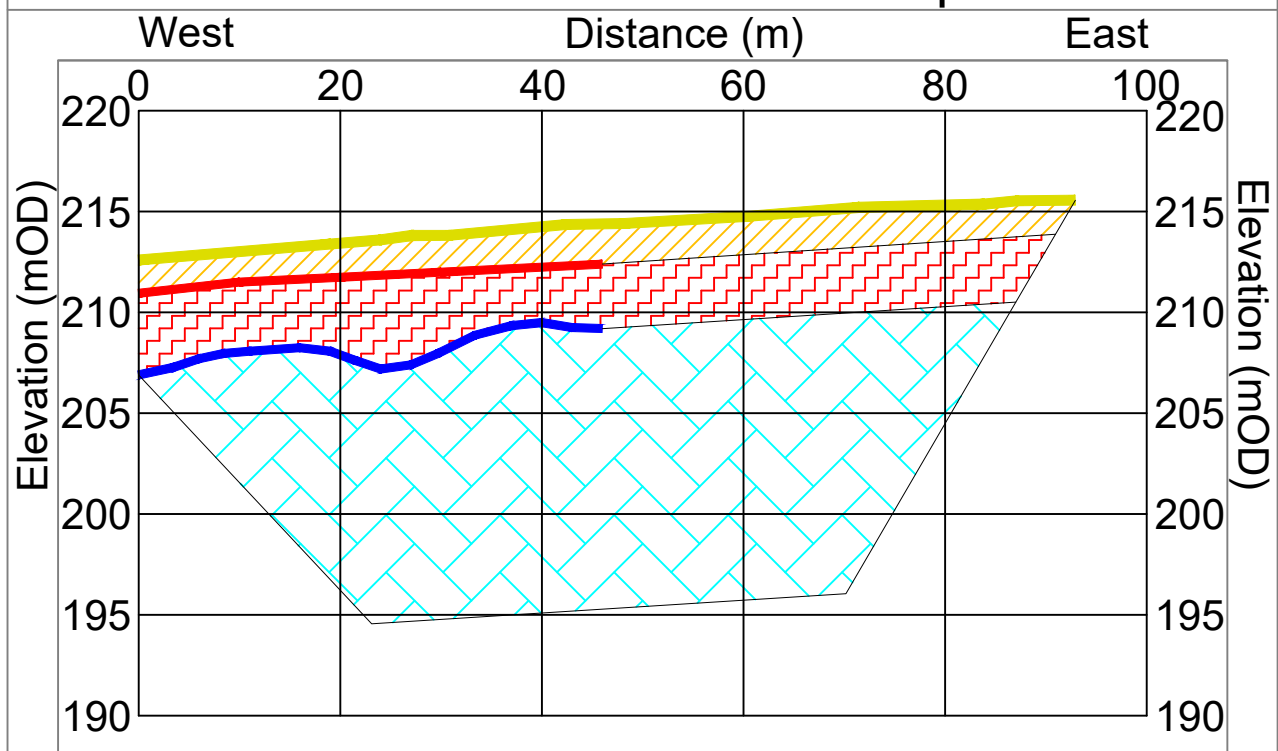
Interpretation Figures:

- 1 Soft or loose Soil
- 2a Very stiff to hard Overburden or poor to fair Weathered Siltstone
- 2b Poor to fair Weathered Sandstone
- 3a Good to very good Siltstone
- 3b Good to very good Sandstone

2D-Resistivity Line R5 and Seismic Refraction Line S5 Model



2D-Resistivity Line R5 and Seismic Refraction Line S5 Interpretation



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CLIENT: Fehily Timoney and Company
PROJECT: Slieveacurry WF, County Clare Geophysical Survey
TITLE: Figure 5: Models & Interpretation of Geophysical Survey at T9

SCALE: Fig: 1:750 @ A3, VE x 2, Map: 1:750
PROJECT: 6849
DRAWN: JMK
DATE: 14/02/2025
MGX FILE: 6849d_Drawings.dwg
STATUS: Draft

Layers from Seismic Refraction Model:
 Ground Surface/Top of Layer 1 (200 - 400 m/s)
 Top of Layer 2 (1800 - 2000 m/s)
 Top of Layer 3 (3000 - 4000 m/s)
1800 Seismic Velocity in m/s

2D-Resistivity Model Values:
Resistivities (Ohm-m)

Interpretation Figures:

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