APPENDIX 3

PEAT AND SPOIL MANAGEMENT PLAN

FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

PEAT & SPOIL MANAGEMENT PLAN

MAUGHANACLEA RENEWABLE ENERGY DEVELOPMENT

Prepared for: **MKO Ltd**

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PEAT AND SPOIL MANAGEMENT PLAN
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Abstract: Fehily Timoney and Company (FT) were engaged by MKO Ltd. to compile a Peat and Spoil Management Plan (PSMP) for the proposed Maughanaclea Renewable Energy Development. The purpose of this report is to provide a Peat and Spoil Management Plan for the construction phase of the Proposed Wind Farm. The report describes how peat and spoil which will be excavated from infrastructure locations such as turbine bases and roads and will be handled and placed/reinstated onsite. The report also provides construction details for the types of roads which will be put in place at the Site and proposed peat and spoil placement/reinstatement areas which will be developed at the Site.

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1. INTRODUCTION

1.1 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. We 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.

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

1.2 Project Description

Fehily Timoney and Company (FT) was engaged in May 2024 by MKO Ltd. to compile a Peat and Spoil Management Plan for the proposed Maughanaclea Renewable Energy Development site (the 'Proposed Project').

The Proposed Project will be located at a Site located approximately 2.5km east of Kealkill, Co. Cork.

The Site comprises open blanket peatland and forestry. The surrounding landscape to the south and north is rolling hillsides with land-use comprising forestry, agricultural land and blanket peatland.

1.3 Purpose

The purpose of this report is to provide a peat and spoil management plan with particular reference to peat stability for the construction phase of the Proposed Project. The report describes how peat and spoil which will be excavated from infrastructure locations such as turbine bases and roads will be handled and placed/reinstated onsite. The report also provides construction details for the types of roads which will be put in place at the Proposed Wind Farm site and proposed peat and spoil management areas which will be developed at the Proposed Wind Farm site .

This peat and spoil management plan also includes a monitoring programme which will be implemented during the construction phase of the Proposed Project and a contingency plan should peat instability/failure occur at the Proposed Wind Farm site.

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 the Site. This must take account of the consented project details and any conditions imposed by that consent. This must include a detailed 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 and a peat and spoil management plan to allow for the most appropriate geotechnical and environmental led solutions to be developed for the management of peat and spoil.

As work is carried out on Site the contents of the peat and spoil management plan and peat stability monitoring programme will be implemented in full and updated (if required) in the Construction & Environmental Management Plan (CEMP) for the construction phase.

This peat and spoil management plan contains some drainage guidelines for construction works and for management of peat on Site. It should be noted that the control of water quality and drainage measures for the Site is outlined in detail in Chapter 9 of the Environmental Impact Assessment Report (EIAR).

1.4 Peat Instability Definition

Peat instability in this report is defined as a mass movement of a body of peat that would have a significant adverse impact on the surrounding environment. Peat instability excludes localised movement of peat that would occur below a floating access road, creep movement or localised erosion type events.

Adherence to the peat and spoil management plan should reasonably minimise the potential for all such peat movements. However, it is noted that due to the soft ground nature of the peat terrain it is not possible to completely avoid such localised peat movement as described above.

1.5 Relevant Guidance

The relevant guidance used and referred to throughout this report includes;

- Good Practice during Windfarm Construction (NatureScot, 2024);
- Guidance on Developments on Peatland: Site Surveys (Scottish Government, Scottish Natural Heritage and SEPA, 2017;
- Munro, R, 2004. Dealing with bearing capacity problems on low volume roads constructed on peat. Roadex II Northern Periphery;
- Scottish Natural Heritage/Forestry Commission Scotland, 2010. Floating Roads on Peat;
- Scottish Natural Heritage, 2015. Constructed Roads in the Scottish Uplands. Scottish Natural Heritage.

2. CONSTRUCTION ACTIVITIES COVERED BY PEAT AND SPOIL MANAGEMENT PLAN

2.1 Construction Activities

For the construction phase of the Proposed Project the activities that will generate peat and spoil are as follows:

(1) Upgrade of existing access roads (as excavate and replace roads)

(2) Construction of new excavated roads through peat

(3) Construction of floating roads over peat (will not generate peat and spoil but the methodology for construction is included for completeness)

(4) Excavation and placement of arisings

(5) Excavations in peat and overburden for borrow pits

(6) Excavations in peat for turbine bases, hardstands, substation platform and other infrastructure foundations

(7) Excavations for underground cables

Peat and spoil management of the above construction activities are covered individually in this report.

2.2 Road Construction Types

To provide access within the Proposed Wind Farm site and to connect the wind turbines and associated infrastructure existing roads will need to be upgraded and new access roads will need to be constructed. The road construction preliminary design has taken into account the following key factors:

(1) Buildability considerations

(2) Maximising use of existing infrastructure

(3) Minimising excavation arisings

(4) Peat stability

(5) Serviceability requirements for construction and wind turbine delivery and maintenance vehicles

(6) Requirement to minimise disruption to peat hydrology

Whilst the above key factors are used to determine the road design the actual construction technique employed for a particular length of road will be determined by the prevailing ground conditions encountered along that length of road.

The general road construction techniques to be considered are given in Table 2-1.

This report describes the most suitable type of road construction for each section of access road based on the ground/site conditions recorded during the site walkovers. It should be noted that this report does not include a detailed design for the access roads on the Proposed Wind Farm site. This report includes the most suitable type of road construction envisaged for each section of access road based on the ground/site conditions recorded during the Site walkovers and intrusive site investigation works. Where floating roads are proposed in this report, a proposed methodology is presented, however a detailed design will be carried out prior to

construction commencing on Site. These measures are based on available guidance, including 'Constructed Roads in the Scottish Uplands (Scottish Natural Heritage, 2nd Edition ,2015), Floating Roads on Peat (Scottish Natural Heritage/Forestry Commission Scotland, 2010) and 'Dealing with Bearing Capacity Problems on Low Volume Roads Constructed on Peat (ROADEX II, 2004).

Table 2.1: General Road Construction Techniques

Construction Method	Typical Site Conditions			Comment
	Construction Type	Typical Peat Depth (m)	Typical Slope Inclination (degs)	
Upgrade of existing access roads	Type A	<1.0	Varies	Upgrade existing excavated access roads to the required width and finished with a layer of selected granular fill – Drawing P24-118-0600-0009 and 0010.
Construction of new excavated roads through peat	Type B	<2.0m	Varies	New access road construction technique envisaged for various locations– Drawing P24-118-0600-0009 and 0010.
Construction of new floating roads over peat	Type C	>3.0m	<5 degrees	New access road construction technique envisaged for a single location on site – Drawing P24-118-0600-0013.

Further details on access road construction types A to C are given in Sections 3 to 5 of the report.

3. UPGRADE OF EXISTING ACCESS ROADS – TYPE A

Approximately 2.1km of existing access roads requiring upgrade are present across the Proposed Wind Farm site and have been in operation for a significant number of years. The existing access roads appear to have been constructed using a founded construction technique. Upgrade works will involve the widening and improvement of the existing access roads. The proposed locations for upgrade of the existing access roads on the Proposed Wind Farm site are shown in Drawing P24-118-0600-0009 and 0010 and details are shown in Drawing P24-118-0600-0011.

3.1 Upgrading Existing Access Roads Construction Methodology

This methodology includes procedures that will be included in the construction to minimise any adverse impact on peat stability. The methodology is not intended to cover all aspects of construction such as drainage and environmental considerations, which are discussed separately in Chapter 4 and 9 of the EIAR.

(1) Access road construction will be to the line and level requirements as per design drawings.

(2) For upgrading of all existing access roads (Type A – Drawing P24-118-0600-0011) the following guidelines apply:

  (a) Excavation of the access road will take place to a competent stratum beneath the peat, removing all peat and soft clay and backfilled with suitable granular fill.

  (b) Benching of the excavation will be required between the existing section of access road and the widened section of access road where the depth of excavation exceeds 500mm.

  (c) For a founded access road, the surface of the existing access road will be overlaid with up to 500mm of selected granular fill.

  (d) Access roads will be finished with a layer of capping across the full width of the road.

  (e) A layer of geogrid/geotextile may be required at the surface of the existing access road where the existing roads shows signs of rutting, etc.

  (f) For excavations in peat, side slopes will be not greater than 1 (v): 3 (h). This slope inclination will be reviewed during construction, as appropriate. Where areas of weaker peat are encountered then slacker slopes will be required to ensure stability.

(3) The finished road width will have a minimum running width of 5m, with wider sections on bends and corners.

(4) On side long sloping ground any road widening works required will be done on the upslope side of the existing access road, where possible.

4. CONSTRUCTION OF NEW EXCAVATED ROADS THROUGH PEAT – TYPE B

The excavation of peat and spoil and founding of access roads on competent stratum (below the peat) for new access roads will be carried out at various locations on the Proposed Wind Farm site. The proposed locations for new excavated access roads on the Site are shown in Drawing P24-118-0600-0009 and 0010 and details are shown in Drawing P24-118-0600-0012.

Excavate and replace type access roads are the conventional method for construction of access roads on peatland sites and the preferred construction technique for this Site provided sufficient placement/reinstatement capacity is available on Site for the excavated peat.

4.1 New Excavated Road Construction Methodology

This methodology includes procedures that will be adopted in the construction to minimise any adverse impact on peat stability. The methodology is not intended to cover all aspects of construction such as drainage and environmental considerations, which are discussed in Chapter 4 and 9 of the EIAR.

(1) Prior to commencing the construction of the excavated roads, movement monitoring posts will be installed in areas where the peat depth is greater than 2.0m, and in areas identified within the peat stability risk assessment (see Geotechnical & Peat Stability Assessment, FT, 2025) as requiring monitoring.

(2) Interceptor drains will be installed upslope of the access road alignment to divert any surface water away from the construction area.

(3) Excavation of roads will be to the line and level given in the design requirements. Excavation will take place to a competent stratum beneath the peat.

(4) Road construction will be carried out in sections of approximately 20m lengths i.e. no more than 20m of access road will be excavated without replacement with stone fill. This length will be reduced to 5m in areas identified within the peat stability risk assessments.

(5) Excavation of materials with respect to control of peat stability:

  (a) Acrotelm (to about 0.3 to 0.4m of peat) will be required for landscaping and will be stripped and temporarily stockpiled for re-use as required. Acrotelm stripping will be undertaken prior to main excavations.

  (b) Where possible, the acrotelm will be placed with the vegetation part of the sod facing the right way up to encourage growth of plants and vegetation.

  (c) All catotelm peat (peat below about 0.3 to 0.4m depth) will be transported immediately on excavation to the designated peat and spoil management areas or the borrow pit.

(6) Once excavated, non-catotelm peat will be temporarily stored in localised areas adjacent to excavations for roads and hardstands before being placed into the permanent storage areas within the borrow pits, in the designated peat and spoil management areas, or reused for landscaping purposes.
All peat placement areas will be inspected by the Project Geotechnical Engineer before material is stored in the area. No material is to be sidecast on the downslope side of the access roads.

(7) Excavation side slopes in peat will be not greater than 1 (v): 3 (h). This slope inclination will be reviewed during construction, as appropriate. Should areas of weaker peat be encountered then slacker slopes will be required. Battering of the side slopes of the excavations will be carried out as the excavation progresses.

(8) End-tipping of stone onto the road during the construction/upgrading of the access road will be carefully monitored to ensure that excessive impact loading, which may adversely affect the adjacent peat, is limited.

(9) The excavated access road will be constructed with an average of 750mm of selected granular fill. Granular fill to be placed and compacted in layers in accordance with the TII Specification for Road Works.

(10) Access roads will be finished with a layer of capping across the full width of the road.

(11) A layer of geogrid/geotextile may be required at the surface of the competent stratum, where this stratum is cohesive in nature.

(12) Where slopes of greater than 5 degrees are encountered along with relatively deep peat (i.e. greater than 1.5m) and where it is proposed to construct the access road perpendicular to the slope contours it is best practice to start construction at the bottom of the slope and work towards the top, where possible. This method avoids any unnecessary loading to the adjacent peat and greatly reduces any risk of peat instability.

(13) Where the above is not possible, a specific Risk Assessment Method Statement (RAMS) from the contractor will be produced, detailing how the downslope works will be undertaken, including that all plant would operate from the already constructed section of road, with no loading of the peat on the downslope slope and limiting the length of ground to be stripped/excavated at any one time. Movement monitoring posts (as described in the Peat & Spoil Management Plan, Section 9.1) will also be installed downslope of the works area to allow for ongoing monitoring during the construction works.

(14) A final surface layer will be placed over the excavated road and graded to accommodate wind turbine construction and delivery traffic.

5. CONSTRUCTION OF NEW FLOATED ROADS OVER PEAT – TYPE C

A new floating road will be constructed in a single area on the Proposed Wind Farm Site (to the east of T14, 85m in length) where the peat depth is in excess of 3m and the slope angle is less than a 5 degree slope. The proposed location for this section of floating road within the Site is shown in drawing P24-118-0600-0010 and details are shown on drawing P24-118-0600-0013.

A confirmatory stability analysis should be carried out by the designer where it is proposed to install floating access roads over the peat prior to any construction work commencing on Site.

Floating roads minimise impact on the peat, particularly peat hydrology. As there is no excavation required no peat arisings are generated. However, where the underlying peat has insufficient bearing capacity or due to topographic restrictions an excavate and replace type access road may be more suitable (see Section 4).

5.1 Floating Road Construction Methodology

This methodology includes procedures that are to be included in the construction to minimise any adverse impact on peat stability. The methodology is not intended to cover all aspects of construction such as drainage and environmental considerations, which are considered in the relevant chapter of the EIAR.

Note: Details of geogrid arrangement will be provided by the specialist geogrid provider/designer.

(1) Prior to commencing floating road construction, movement monitoring posts will be installed upslope and downslope of the floating road and will be monitored daily as the road is constructed. Monitoring posts will be located along the road at 10m intervals in areas of deep peat (greater than 2m). These survey points will be surveyed on a weekly basis, and more frequently when construction activities are ongoing in the area.

(2) Base geogrid will be laid directly onto the existing peat surface along the line of the road in accordance with geogrid provider's requirements.

(3) Tracking of machinery on the open peatland will be restricted to the machinery required to construct this section of floating road.

(4) The typical make-up of the new floated access road will be up to 1,000mm of selected granular fill with 2 no. layers of geogrid with possibly the inclusion of a geotextile separator (drawing P24-118-0600-0013).

(5) Granular fill to be placed and compacted in layers in accordance with the TII Specification for Road Works, Series 600 (2024).

(6) Following the detailed design of the floated access roads it may be deemed necessary to include pressure berms either side of the access road in some of the deeper peat areas. The inclusion of a 2 to 5m wide pressure berm (typically 0.5m in height) either side of the access road will reduce the likelihood of potential bearing failures beneath the access road.

(7) The finished road width will be approximately 5m, with wider sections on bends and corners.

(8) Stone delivered to the floating road construction will be end-tipped onto the constructed floating road. Direct tipping of stone onto the peat will not be carried out.

(9) To avoid excessive impact loading on the peat due to concentrated end-tipping all stone delivered to the floating road will be tipped over at least a 10m length of constructed floating road.

(10) Where it is not possible to end-tip over a 10m length of constructed floating road then dumpers delivering stone to the floating road will carry a reduced stone load (not greater than half full) until such time as end-tipping can be carried out over a 10m length of constructed floating road.

(11) Following end-tipping suitable machinery will be employed to spread and place the tipped stone over the base geogrid along the line of the road.

(12) A final surface layer will be placed over the full width of the floating road, as per design requirements, to provide a road profile and graded to accommodate wind turbine construction and delivery traffic.

(13) No excavations (e.g., drainage, peat cuttings) will be carried out within 5m distance of a completed floated access road edge, or at a distance determined following site inspection. The presence of excavations can destabilise the road. Temporary excavations will be excavated in short lengths and backfilled as soon as practicable.

(14) No materials will be sidecast or stored on the peat on either side of the floating road during construction.

(15) Settlement of a floated access road is expected and will likely be in the order of several 100mm in the deeper peat areas; as such it will be necessary to re-level the road at convenient intervals during the works. The magnitude and extent of settlement is likely to be greater in areas of deeper peat with the rate of settlement reducing over time. Prior to completion of the works, the road will be re-levelled using crushed stone.

(16) The construction and upgrading of access roads in areas of deep peat (greater than 2m) will be inspected on a routine basis during the works, particularly before/following trafficking by heavy vehicular loads.

6. EXCAVATION AND STORAGE OF PEAT AND SPOIL

6.1 Excavation and Storage of Arisings Methodology

This methodology includes procedures that are to be included in the construction phase to minimise any adverse impact on peat stability. The methodology is not intended to cover all aspects of construction such as drainage and environmental considerations, described in Chapter 4 and 9 of the EIAR.

(1) All excavated peat and spoil will be either temporarily stockpiled locally at turbine hardstands or transported immediately on excavation to one of the borrow pits (see Drawing P24-118-0600-0005) or to one of the designated peat and spoil management areas alongside the access roads or adjacent to the turbine locations. No material is to be sidecast on the in-situ peat on the downslope side of the access roads/hardstands.

(2) Further details on the construction and reinstatement of the borrow pits are given in Section 6.4.

(3) Further details on the placement of excavated material to designated peat and spoil management areas close to turbines are given in Section 6.5.

(4) Some of the peat, in particular the acrotelm (upper layer of the peat), excavated during construction will be used for landscaping purposes.

6.2 Summary of Peat and Spoil Volumes on Site

A summary of the excavated peat and spoil volumes calculated for the Proposed Project is given in Table 6-1.

Table 6.1: Summary of Excvated Peat and Spoil Volumes on Site

Infrastructure Element (1)	Proposed Dimensions	Peat Volume (m^3) (2)	Spoil (non-peat) Volume (m^3) (2) and (3)	Comment
14 no. Turbines and Hardstands	25m diameter excavation footprint for turbine foundation with 55 x 35m hardstand area.	52,200	85,800	15,000m^3 of rock assumed for reuse in addition to the quote spoil volume.
Access Roads	Assumed 5m running surface.	76,500	23,300	All roads are founded except for one section of floating road to the east of T14.
Temporary Construction Compounds	Hardstanding area of 80 x 60m (S) and 60m x 40m (N).	10,300	800	
Met mast		320	100	
Substation	Hardstanding area of 165 x 70m.	18,000	15,000	5,000m^3 of rock assumed for reuse in addition to the quote spoil volume.
Borrow Pits	Varies.	16,100	32,200	
Grid Connection	Varies.	-	10,200	Spoil to be transported to an appropriate licenced facility for disposal
	Total =	**173,420m^3**	**167,400m^3**	**Total = 340,820m^3 (peat and spoil volume)**

Note (1) The location of the infrastructure elements on Site are shown on Drawing P24-118-0600-0005.

Note (2) A factor of 10% (bulking factor of 10%) has been applied to the excavated peat and spoil volumes to allow for expected increase in volume upon excavation and to allow for a variation in ground conditions across the Site.

Note (3) It should be noted that rock is expected to be encountered at a number of the hardstand locations. It is assumed that this excavated rock volume will be re-used on Site as part of the construction works for the development and hence will not require reinstatement on Site.

6.3 Summary of Peat and Spoil Management Areas on Site

A summary of the proposed peat and spoil management areas at the Proposed Wind Farm site are given in Table 6-2.

Table 6.2: Summary of Peat and Spoil Management Areas on Site

Location (1)	Peat and Spoil Volume (m^3)	Comment
Borrow Pits	265,600	See Drawing P24-118-0600-0008 to 0011 for further details.
Reuse of rock excavated from proposed infrastructure	20,000	Rock excavated from turbine bases, hardstands, roads and the substation.
Peat placement alongside access roads/ in clearfell areas	61,800	Up to 1.5m in height, along upslope side of founded roads, where slopes are relatively shallow (Drawing P24-118-0600-0008 to 0011).
Landscaping (2)	21,000	It is estimated that 1,500m^3 of peat/spoil will be required for landscaping purposes and as ballast backfill at each of the 14 no. turbine locations.
Total =	**368,400m^3**	

Note (1) The location of the proposed borrow pits at the Site are shown on Drawing P24118-0600-0005.

Note (2) Some of the acrotelm (upper layer of the peat) excavated during construction will be used for landscaping purposes.

6.4 Summary of Stone Volume Requirements

Table 6.3 below summarises the stone volume requirement for the Proposed Project, excluding the final blinding layer, all of which will come from an external source.

Table 6.3: Summary of Stone Volume Requirements

Infrastructure Element (1)	Typical Dimensions	Stone Volume (m3) (2)	Comment
14 no. Turbines and Hardstands	25m diameter excavation footprint for turbine foundation with 55 x 35m finished hardstand surface.	72,200	Hardstanding area and foundation footprint. Allowance included for mini-crane pads and blade finger hardstands associated with the main hardstand, plus allowance for side slopes in areas of fill.
Access Roads (including cabling)	Assumed 5m running surface with 6m wide development footprint. Typical stone depth of 0.75m.	87,000	Allowance includes for widening on bends, at junctions, laybys, and tie-ins to hardstands.
Substation	Hardstanding area of 165 x 70m	22,400	
Meteorological Mast	4.5 x 4.5m foundation footprint and 15 x 15m hardstanding area.	340	-
Temporary Construction Compounds	Hardstanding area of 80 x 60m (S) and 60m x 40m (N).	7,300	
Borrow Pits	Berms for borrow pits	8,000	
Grid Connection		7,400	
	Total =	**204,640m^3**	

Notes

Note (1) A contingency factor of 10% has been applied to the volumes to allow for expected bulking upon excavation and to allow for a variation in ground conditions across the Site.

Note (2) It should be noted that the volumes given in Table 6-3 are subject to confirmatory design.

6.5 Construction and Reinstatement of Borrow Pits

The locations of the proposed borrow pits are shown on Drawing P24-118-0600-0013 to 0016. The peat depth within the development footprint of the borrow pits is between 0.5 and 1.4m. The peat is underlain by a slightly clayey gravelly Sand, with weathered bedrock (sandstone and siltstone) at approximately 1.5m bgl. The borrow pit locations were selected based on the relatively shallow depth to bedrock. Bedrock (sandstone and siltstone) will be excavated and reused across the Site as granular fill for roads and hardstands.

Upon removal of the rock from the individual cells within the borrow pits, it is proposed to reinstate the borrow pit using excavated peat and spoil. The excavated rock from the borrow pits will be used in the construction of the infrastructure elements (turbine bases, roads, etc.) at the Proposed Wind Farm site. The contractor excavating the rock will be required to develop the borrow pits in a way which will allow the excavated peat and spoil to be placed safely. It is proposed to construct cells within the borrow pits for the placement of the excavated peat and spoil. This is to allow for the safe placement and grading of the peat and spoil using dumper trucks and excavators. The text below provides design and construction commitments for the borrow pits.

It should be noted that there are significant excavation works required in order to develop the borrow pits at the Proposed Wind Farm site. Excavation works will be undertaken and supervised by an experienced contractor and the Project Geotechnical Engineer. The text below provides some design and construction guidelines for the borrow pit.

Drawing P24-118-0600-0013 to 0016 show typical construction details for the borrow pits.

The borrow pit will be constructed as follows:

(1) Peat and overburden will be removed and temporarily stored in localised areas adjacent to the borrow pit locations before being placed into the permanent peat and spoil management areas within the borrow pits. Data from the available ground investigation undertaken to date indicates that the rock can be removed by breaking. It is unlikely that blasting will be required to remove the bedrock, although this would be a suitable method for removal of the rock.

(2) It is proposed to construct the borrow pits so that the base of the borrow pit is below the level of the adjacent section of access road. As excavation progresses into the back edge of the borrow pits, localised deepening of the borrow pit floors may be required depending on extraction operations.

(3) Slopes within the excavated rock formed around the perimeter of the borrow pits will be formed at stable inclinations to suit local in-situ rock conditions. Exposed sections of the rock slopes will be left with irregular faces and declivities to promote re-vegetation and provide a naturalistic appearance.

(4) The stability of the rock faces within the borrow pits will be inspected by the Project Geotechnical Engineer upon excavation to ensure stability during construction works and in the long term. This inspection will allow unfavourable rock conditions to be identified and suitable mitigation measures to be applied such as removal of loose rock, in line with best practice guidelines.

(5) Infilling of the peat and spoil will commence at the back edge of the borrow pit and progress towards the borrow pit entrance/rock berm. The contractor excavating the rock will be required to develop the borrow pit in a way which will allow the excavated peat and spoil to be reinstated safely.

(6) In order to maximise the storage capacity, a perimeter buttress will be required along the lower edge of the borrow pits. The berm will be constructed of rock fill from the borrow pit excavation, placed and compacted in layers. The founding stratum for the perimeter berm will be intact bedrock and will be inspected and approved by the Project Geotechnical Engineer.

(7) The height of the perimeter buttress will be greater than the height of the stored peat and spoil to prevent any surface run-off. The height of the stone buttress will be a minimum of 0.5m above the height of the placed peat and spoil.

(8) It will be necessary to construct internal rock buttresses founded on in-situ rock within borrow pits 3 and 4 to create individual cells (either 1 or 2 no.). The cells will be opened in sequence and filled as needed. The rock buttresses will be constructed of rock fill from the borrow pit excavation, placed and compacted in layers. The founding stratum for each rock buttress will be intact bedrock and will be inspected and approved by the Project Geotechnical Engineer.

(9) The rock buttresses will be constructed in stages to allow infilling of peat and spoil within cells. The buttress will be constructed of selected rock fill and placed and compacted in suitable layers to form a buttress of sufficient stability to retain the placed peat and spoil.

(10) Rock buttresses to form cells within borrow pits 3 and 4 will be required to ensure access for trucks and excavators can be achieved. See Drawings P24-118-0600-0013 to 0016 for the location of the internal rock buttresses. The locations of the rock buttresses shown on Drawing P24-118-0600-0013 to 0016 for the borrow pits are indicative only and may change subject to local conditions encountered on Site during construction and as a result of the confirmatory ground investigation.

(11) The internal rock buttresses will be wide enough (up to 4m at the crest) to allow construction traffic access for tipping and grading during the placement of the excavated peat and spoil. The permanent side slopes of the rock buttress will be constructed between 35 (outside slope) to 60 (inside slope) degrees.

(12) In order to prevent water retention occurring behind the buttresses, the buttresses will be constructed of coarse boulder fill with a high permeability. The buttress will be constructed of well graded granular rock fill of about 100mm up to typically 500mm in size. In addition, drains will be placed through the buttresses to allow surface water to drain from the surface of the placed peat.

(13) The use of temporary access ramps and long reach excavators during the placement of the excavated peat and spoil will be required.

(14) The surface of the placed peat and spoil will be shaped to allow efficient run-off of surface water from the placed arisings towards the perimeter of the borrow pit.

(15) As the internal buttresses are slightly higher than the retained peat, drains will be provided at regular intervals through the berms, at the same level as the top of the peat surface, to prevent ponding of water around the edges of the repositories. These drains will be 150mm diameter flexible plastic drainage pipe or equivalent.

(16) A layer of geogrid to strengthen the surface of the placed peat and spoil within the borrow pits will be required.

(17) An interceptor drain will also be installed around the perimeter of the borrow pit. This drain will divert any surface water away from the borrow pit and hence prevent water from ponding and lodging during construction and also when reinstated.

(18) Temporary control of groundwater within the borrow pits will be required and measures will be determined as part of the ground investigation programme. A temporary pump and suitable outfall locations will be required during construction.

(19) Settlement ponds have been designed at the lower side/outfall location of the borrow pits.

(20) The acrotelm will be placed with the vegetation part of the sod facing the right way up to encourage growth of plants and vegetation at the surface of the peat and spoil within the borrow pits.

(21) Supervision by the Project Geotechnical Engineer is required for the development of the borrow pits.

(22) All the above-mentioned requirements will be implemented by the Contractor during construction.

6.6 Designated Peat and Spoil Management Areas alongside Access Roads/Clearfell Areas

The following commitments for the placement of peat within designated peat and spoil management areas, within turbine clearfell areas and as landscaping around turbines will be implemented during construction. These areas have been selected based on the depth of peat and the slope angle.

(1) The designated peat management locations are shown in Drawings P24-118-0600-0009 and 0010 and details provided on drawings P24-118-0600-0018 to 0021.

(2) The peat placed within the areas shown on Drawings P24-118-0600-0009 and 0010 will be restricted to a maximum height of 1.5m. Weak/liquified peat must be placed within the proposed borrow pits and not stored within these areas.

(3) The placement of excavated peat will be avoided without first establishing the adequacy of the ground to support the load. The placement of peat and spoil within the placement areas will require the use of long reach excavators, low ground pressure machinery and possibly bog mats in particular for drainage works.

(4) Where there is any doubt as to the stability of the peat surface then no material will be placed on to the peat surface. The risk of peat instability is reduced by not placing any loading onto the peat surface.

(5) It will be ensured that the surface of the placed peat is shaped to allow efficient run-off of surface water. Shaping of the surface of the peat will be carried out as placement of peat within the management area progresses. This will reduce the likelihood of debris run-off and reduce the risk of instability in the placed peat.

(6) Finished/shaped side slopes in the placed peat will be not greater than 1 (v): 3 (h). This slope inclination will be reviewed during construction, as appropriate.

(7) On the downslope side of the storage areas at T08 a stone berm is shown to provide stability to the placed peat. The berm is 1.5m in height and will be constructed of free draining crushed rock. The berm will be founded on competent ground below the in-situ peat.

(8) The acrotelm will be placed on the finished surface with the vegetation part of the sod facing the right way up to encourage growth of plants and vegetation at the surface of the placed peat within the management areas.

(9) Movement monitoring instrumentation will be placed around the areas where peat has been placed. The locations where monitoring is required will be identified by the Project Geotechnical Engineer on Site.

(10) Supervision by the Project Geotechnical Engineer is required for the works.

(11) An interceptor drain will be installed upslope of the designated peat placement areas to divert any surface water away from these areas. This will help ensure stability of the placed peat and reduce the likelihood of debris run-off.

(12) A collector drain will be installed on the downslope side of the peat management areas to capture any surface runoff from the storage areas.

(13) All the above-mentioned commitments will be undertaken by the Contractor during construction.

7. EXCAVATIONS IN PEAT FOR TURBINE BASES, HARDSTANDINGS AND INFRASTRUCTURE FOUNDATIONS

The turbine bases will be founded on competent founding strata which will require excavation through peat and any soft overburden.

Similarly, crane hardstandings, construction compound, substation platforms and met mast foundations are to be founded on competent mineral soil which will also require excavation through peat and spoil. Excavations for the borrow pits will also require the removal of peat and non-peat spoil overlying the rock.

7.1 Methodology

This methodology includes procedures that will be included in the construction to minimise any adverse impact on peat stability. The methodology is not intended to cover all aspects of construction such as drainage and environmental considerations, which are covered in Chapter 4 and 9 of the EIAR.

(1) With respect to placement of arisings from excavations the commitments given in Section 6 are to be followed.

(2) All excavations within peat will be adequately supported or peat slopes will be battered to a safe slope inclination typically of 1(v): 3(h). This slope inclination will be reviewed during construction, as appropriate. Where areas of weaker peat are encountered then slacker slopes will be required.

(3) Excavations will be kept reasonably free from water at all times. Water will be prevented from being impounded within excavations by either using drainage channels cut into the excavation face or by pumping.

(4) Where water is channelled or pumped from an excavation then this water will be fed into an established watercourse or drainage ditch following suitable treatment, as described in Chapter 9 of the EIAR.

8. EXCAVATIONS FOR UNDERGROUND CABLES

A 110kV connection between the Proposed Wind Farm site and the national electricity grid will be necessary to export electricity. It is proposed that the Proposed Project will connect to the national grid via an existing substation located at Dunmanway to the east of the Proposed Project. The Proposed Grid Connection is approximately 20.5km in length and will follow existing roads and the public road corridor.

The Proposed Grid Connection construction methodology, including proposals for water crossings on the underground cabling routes is described in Appendix 3.2 of the EIAR.

It is proposed to install the underground cable at a uniform level within the footprint of the access roads and public roads. The Proposed Grid Connection route will encounter till derived from limestone, till derived from sandstone and alluvium and will be constructed on solid ground to Eirgird specifications.

8.1 Methodology

This methodology includes procedures that are to be included in the construction to minimise any adverse impact on peat stability. The methodology is not intended to cover all aspects of construction such as drainage and environmental considerations, which are described in Chapter 4 and 9 of the EIAR.

(1) With respect to placement of arisings from excavations the guidelines given in Section 6 will be followed.

(2) Similarly, all excavations within non-peat overburden for the cable trench will be adequately supported or battered to a safe slope inclination typically of 1(v): 1.5 or 2(h). This slope inclination will be reviewed during construction, as appropriate.

(3) Excavations will be kept reasonably free from water at all times.

(4) Any overburden excavated from the cable trench will be transported to the borrow pits for storage. Any pavement materials containing tar will be transported to an authorised waste facility.

9. GENERAL COMMITMENTS FOR GOOD CONSTRUCTION PRACTICE

To minimise the risk of construction activity causing potential peat instability the Construction Method Statements (CMS) for the project will also implement, but not be limited to, the general measures below together with the specific measures.

(1) Uncontrolled concentrated water discharge onto peat slopes identified as being unsuitable for such discharge will be avoided. All water discharged from excavations during work will be piped over areas specifically assessed as being unsuitable and hence directly into suitable drainage lines.

(2) All excavations will be suitably supported to prevent collapse and development of tension cracks.

(3) Avoidance of placing fill and excavations in the vicinity of steeper peat slopes, that is at the crest or toe of the slope.

(4) Installation and regular monitoring of geotechnical instrumentation during construction in areas of possible poor ground, such as deeper peat deposits (see Section 10).

(5) Site reporting procedures will be implemented to ensure that working practices are suitable for the encountered ground conditions. Ground conditions to be assessed by suitably experienced geotechnical engineer.

(6) Regular briefing of all site staff (e.g. toolbox talks) to provide feedback on construction and ground performance and to promote reporting of any observed change in ground conditions.

(7) Routine inspection of the Proposed Wind Farm by the Contractor and Project Geotechnical Engineer will be undertaken and will include an assessment of ground stability conditions (e.g. cracking, excessive floating road settlement, disrupted surface, closed-up drains) and drainage conditions (e.g. blocked drains, absence of water in previously flowing drains, springs, etc).

10. INSTRUMENTATION

10.1 Movement Monitoring Posts

To monitor possible peat movements, it is proposed to install sighting posts upslope and downslope of the access roads and turbine hardstands at staggered intervals at locations where the peat depth is greater than 1.5m. Additional monitoring locations will be required at infrastructure locations with deeper peat deposits, as determined by the Designer or Project Geotechnical Engineer. Details of sighting posts are given below.

(1) A line of sighting posts will comprise:

- (a) A line of wooden stakes (typically 1 to 1.5m long) placed vertically into the peat to form a straight line.
- (b) The sighting line will comprise 6 no. posts at 5m centres that is a line some 25m long.
- (c) A string line will be attached to the first and last posts and all intervening posts will be adjusted so they are just touching the string line.

(2) Lines of sighting posts will be placed across the existing slope about 5m away from the area to be worked. The posts will be located along the road at 10m intervals in areas of deep peat (say greater than 2.0m). Where there are relatively steeper slopes or softer ground a sighting line will be placed down the slope, or at any location where monitoring is deemed necessary by the Designer or the Project Geotechnical Engineer.

(3) Each line of sighting posts will be uniquely referenced with each post in the line given a reference. The post reference will be marked on each post (e.g. reference 1-1, 1-2, 1-3, 1-4, 1-5, 1-6 for posts in line 1).

(4) The sighting lines will be monitored at the beginning of each working day, and during the day where considered appropriate (e.g. when working activity is concentrated at a specific location) or following heavy/prolonged rainfall.

(5) Monitoring of the posts will comprise sighting along the line and recording any relative movement of posts from the string line.

(6) Where increased movements are recorded the frequency of monitoring will be increased, or works in the area restricted until movement ceases.

(7) A monitoring record will be kept of the date, time and relative movement of each post, if any. This record will be updated and stored as a spreadsheet.

11. CONTINGENCY MEASURES

11.1 Excessive Movement

Where there is excessive movement or continuing peat movement recorded at a monitoring location or identified at any location within the Site but no apparent signs of distress to the peat (e.g. cracking, surface rippling) then the following will be carried out.

(1) All activities (if any) will cease within the affected area.

(2) Increased monitoring at the location will be carried out. The area will be monitored until such time as movements have ceased.

(3) Re-commencement of activities will only start following a cessation of movement and agreement with all parties (Contractor/Engineer/Designer).

11.2 Onset of Peat Slide

In the unlikely event where there is the onset or actual detachment of peat (e.g. cracking, surface rippling) then the following will be carried out.

(1) On alert of a peat slide incident, all activities (if any) in the area will cease and all available resources will be diverted to assist in the required mitigation procedures.

(2) Action will be taken to prevent a peat slide reaching any watercourse. This will take the form of the construction of check barrages on land. Due to the terrain and the inability to predict locations it may not be possible to implement any on-land prevention measures, in this case a watercourse check barrage will be implemented.

(3) All relevant authorities will be notified if a peat slide event occurs on the Site.

(4) For localised peat slides that do not represent a risk to a watercourse and have essentially come to rest the area will be stabilised initially by rock infill, if required. The failed area and surrounding area will then be assessed by the engineering staff and stabilisation procedures implemented. The area will be monitored, as appropriate, until such time as movements have ceased.

11.3 Check Barrages

Whilst it is not anticipated based on the analysis undertaken that a peat slide will occur on the Proposed Wind Farm site, as a contingency a check barrage procedure is included below.

The check barrage procedure deals with preventing a peat slide from moving downstream within a watercourse.

The most effective method of preventing excessive peat slide debris from travelling downstream in a watercourse is the use of a check barrage. A check barrage comprises the placement of rock fill across a watercourse. The check barrage is a highly permeable construction that will allow the passage of water but will prevent peat debris from passing through. Rock fill will comprise well-graded coarse rock pieces from about 300mm up to typically 1000mm.

The rock fill for the check barrage will be sourced from the borrow pits on Site.

The size of the barrage will vary depending on the scale of the peat debris to be contained and the geometry of the watercourse at the barrage location. In general, due to the low speed of a peat slide there is generally little impact force and most of the lateral load is due to fluid pressure on the upslope face of the barrage.

The check barrage will fill the entire channel width of the watercourse up to a height of 3 to 4m with a crest width of typically 2m and side slopes of about 45 degrees depending on the geometry of the barrage location.

The check barrage procedure is as follows:

(1) Access to the check barrage location will be along the existing access roads on the Proposed Wind Farm site and/or along public roads, where possible. When it is necessary to form the barrage then rock fill will be placed across the watercourse to effectively block the passage of peat debris.

(2) Operatives employed to carry out the construction of the check barrage will be inducted by means of a briefing by on-site supervisors as to the proposed location of the check barrage.

(3) The check barrage provides containment for peat debris in the highly unlikely event of a major peat slide. Further remedial measures, should they be required, will be assessed by the Contractor and the Project Geotechnical Engineer, and carried out as soon as physically possible when the location and extent of the failure is established.

(4) Where a barrage was constructed as a precaution and no peat debris reached the watercourse then the barrage will be removed as soon as any measures to prevent further peat sliding is agreed with all parties (Contractor/Engineer/Designer).

12. CUT & FILL EARTHWORKS ASSESSMENT

FT carried out an assessment for the Site which quantifies the total volume of cut and fill earthworks required for the construction of the wind farm, based on the layout provided by the Client.

The outputs from the cut & fill earthworks assessment includes the following:

- Preliminary cut & fill earthwork volumes (see Table 12-1 of this report)

12.1 Commentary on Earthworks Volumes

It will be noted that the earthwork volumes given in Table 12-1 are estimates and subject to detailed design. This section of the report should be read in conjunction with Sections 6.2 and 6.3 of the report which summarises the peat and spoil volumes for the Site and the placement/reinstatement areas on Site.

In summary the following points are given,

1) The total volume of spoil (peat and non-peat superficial deposits) requiring placement/reinstatement on Site is estimated at 360,820m^3. This material will be excavated and placed/reinstated to the borrow pits, with 61,800m^3 stored across clearfell areas near turbines and 21,000m^3 used for landscaping around the turbines.

2) The estimated quantity of available rock within the borrow pits is 170,000m^3. Conservative assumptions were made in estimating the quantity of rock available in the borrow pits.

3) Note a number of assumptions were made during the cut & fill assessment, see Appendix A. A bulking factor of 10% has been applied to the excavation volumes.

Table 12.1: Summary of Cut & Fill Earthworks Volumes

Infrastructure Element	Description	Total Earthwork Volume (1) & (2) – Peat	Earthwork Volume (3) – Estimated non-peat overburden material	Earthwork Volume (4) - Estimated rock volume only	Stone Volume Requirements	Comment
		Cut (m^3)	Cut (m^3) (3)	Cut (m^3)	(m^3)	
14 no. Turbines and Hardstands	25m diameter excavation footprint for turbine foundation with 55 x 35m hardstand area	52,200	85,800	15,000	72,200	
Access Roads	Proposed 5m running surface with 6m wide development footprint	76,500	23,300	-	87,000	
Various Infrastructure Locations	Includes substation, 2 no. construction compounds and met mast	28,620	15,900	5,000	30,040	
Grid Connection		-	10,200	-	7,400	All stone for trench backfill to be imported.
Borrow Pits	4 no. Borrow Pits	16,100	32,200	170,000	8,000	Estimated potential rock volume from borrow pits is **170,000m^3**.
	Total =	**173,420**	**167,400**	**190,000**	**204,640**	

Notes

Note (1) The total earthwork volumes includes peat, non-peat superficial deposits and rock from the borrow pit.
Note (2) The earthwork volumes quoted for the non-peat material were calculated based on the total earthwork volume (peat & non-peat material) minus the peat volumes calculated and presented in Table 6-1 within Section 6.2 of this report.
Note (3) The in-situ rock volume from the borrow pits was estimated based on available ground investigation data to define rockhead level.
Note (4) It should be noted that the earthwork volumes given in Table 12-1 are subject to confirmatory design.

13. REFERENCES

Munro, R, 2004. Dealing with bearing capacity problems on low volume roads constructed on peat. Roadex II Northern Periphery.

Scottish Natural Heritage/Forestry Commission Scotland, 2010. Floating Roads on Peat.

Scottish Natural Heritage, 2015. Constructed Roads in the Scottish Uplands. Scottish Natural Heritage.

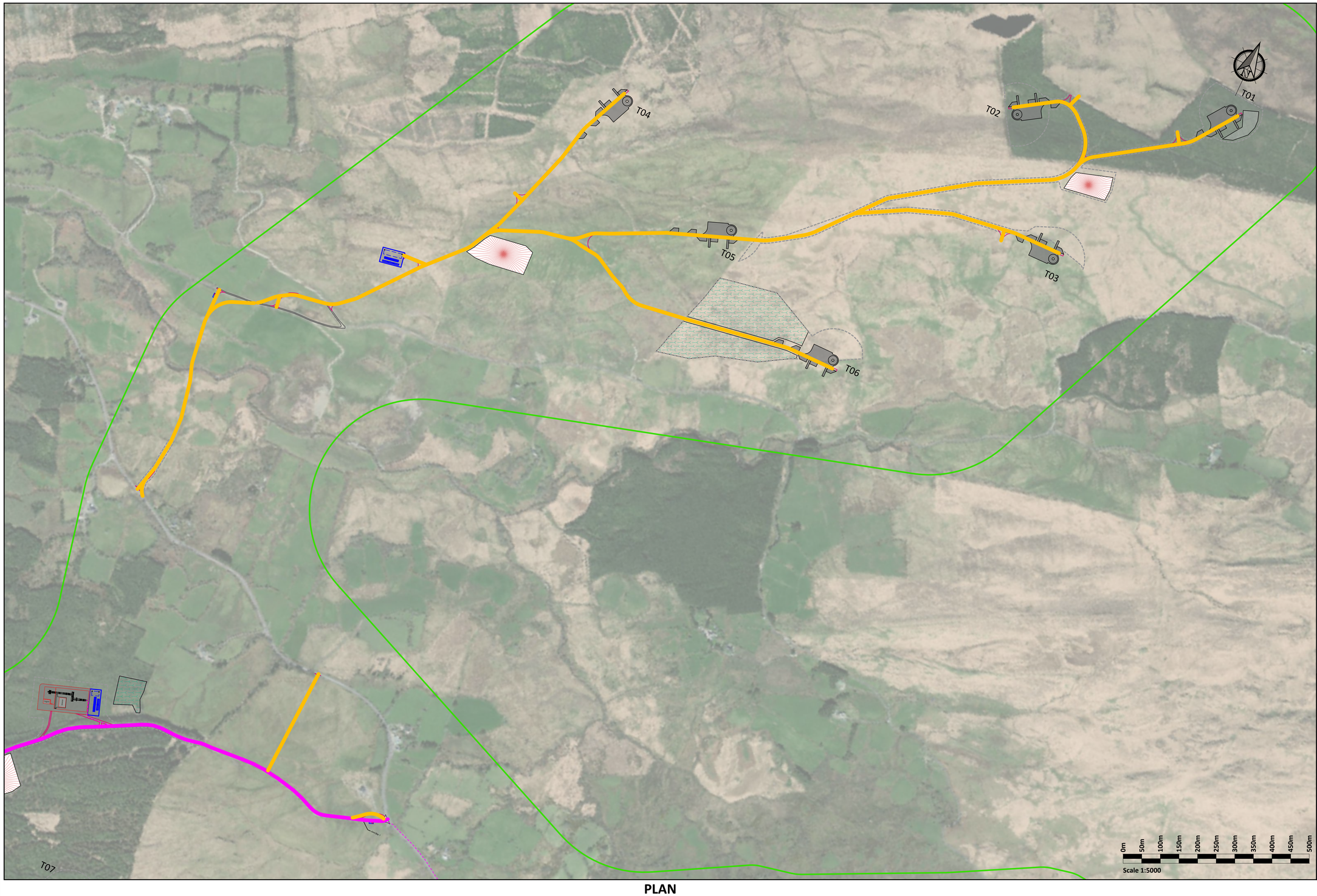
Good Practice during Windfarm Construction (Scottish Renewables, SNH, SEPA & Forestry Commission Scotland, 5th Edition 20249).

Guidance on Developments on Peatland: Site Surveys (Scottish Government, Scottish Natural Heritage and SEPA, 2017.

FEHILY TIMONEY

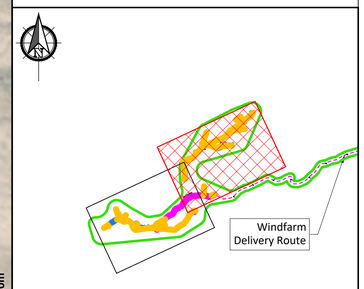
DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

DRAWINGS



Legend:

- EIAR Study Boundary
- Proposed Access Tracks
- Proposed Peat & Spoil Management Areas
- Proposed Temporary Construction Compound
- Proposed Borrow Pit
- Proposed Turbine & Hardstanding
- BMEP Habitat Restoration Area
- Forestry Felling
- Type A - Upgrade of Existing Excavated Access Tracks
- Type B - New Excavate & Replace Access Road
- Type C - New Floated Access Road



PLAN
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KEYPLAN
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Rev.	Description	App By	Date
P01	FOR INFORMATION	BDH	07.07.25
P02	FOR INFORMATION	BDH	16.02.26

PROJECT
MAUGHANACLEA RENEWABLE ENERGY DEVELOPMENT

CLIENT
MKO

SHEET
ROAD CONSTRUCTION TYPES PLAN
SHEET 1 0F 2

Date 16.02.26	Project number P24-118	Scale (@ A1) 1:5000	
Drawn by POR	Drawing Number P24-118-0600-0009		Rev P02
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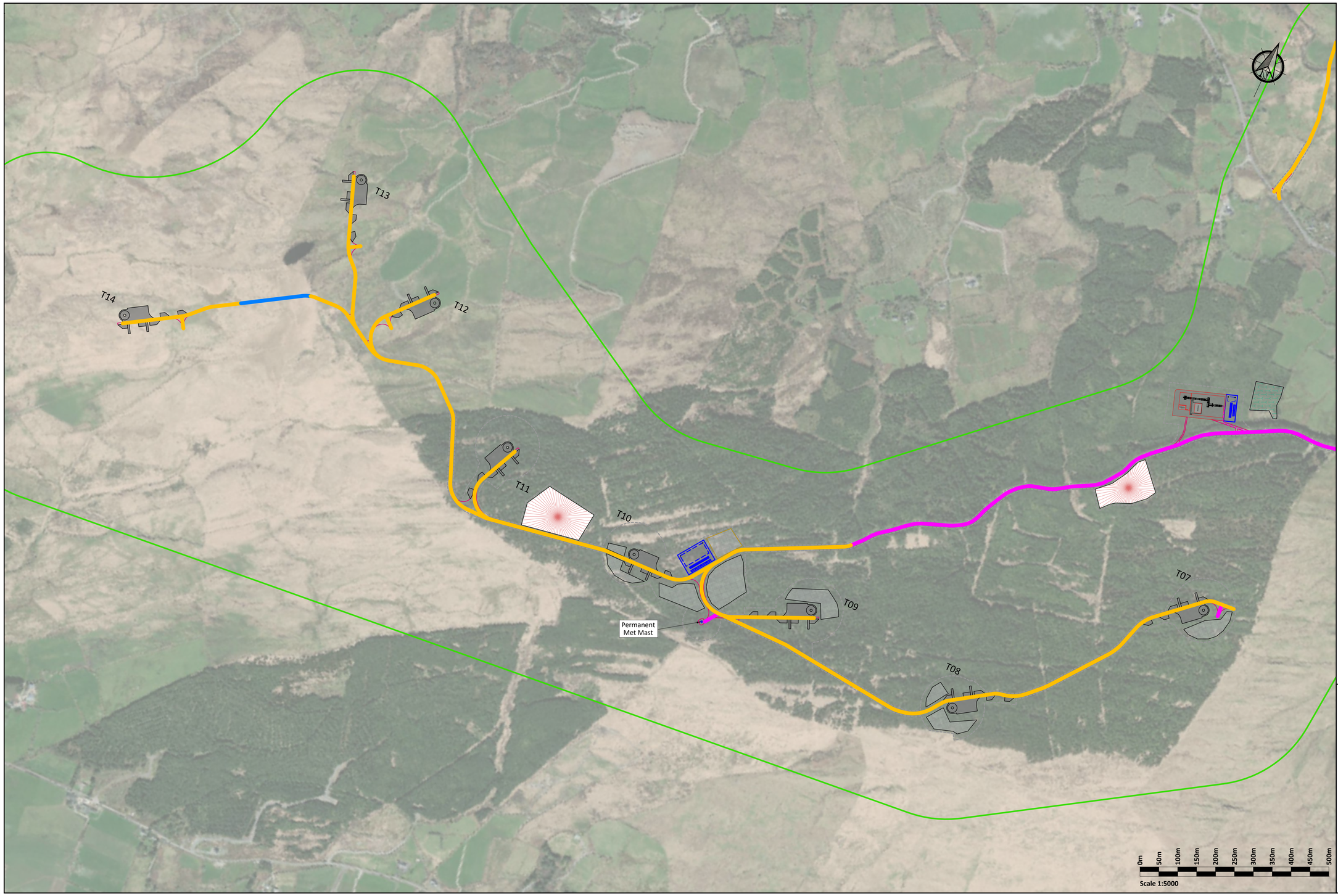
25 February 2026



Legend:

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- Type C - New Floated Access Road

PLAN
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KEYPLAN
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Rev.	Description	App By	Date
P01	FOR INFORMATION	BDH	07.07.25
P02	FOR INFORMATION	BDH	16.02.26

PROJECT
MAUGHANACLEA RENEWABLE ENERGY DEVELOPMENT

CLIENT
MKO

SHEET
ROAD CONSTRUCTION TYPES PLAN
SHEET 2 0F 2

Date 16.02.26	Project number P24-118	Scale (@ A1) 1:5000	
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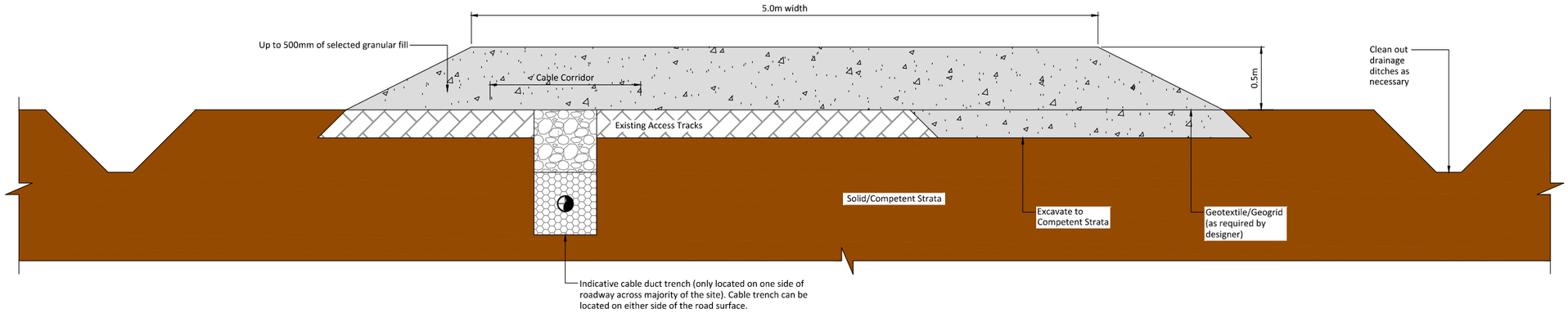

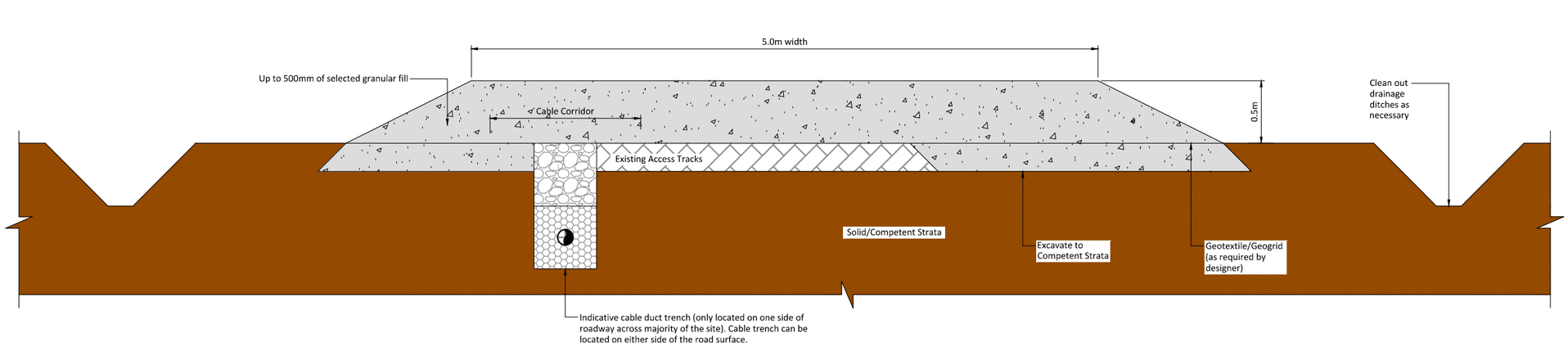

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P01	FOR INFORMATION	BDH	07.07.25

PROJECT
MAUGHANACLEA RENEWABLE ENERGY DEVELOPMENT

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SHEET
TYPE A UPGRADE OF EXISTING EXCAVATED ACCESS ROAD

Date 16.02.26	Project number P24-118	Scale (@ A1) Scale N/A	
Drawn by POR	Drawing Number P24-118-0600-0011		Rev P01
Checked by IH			

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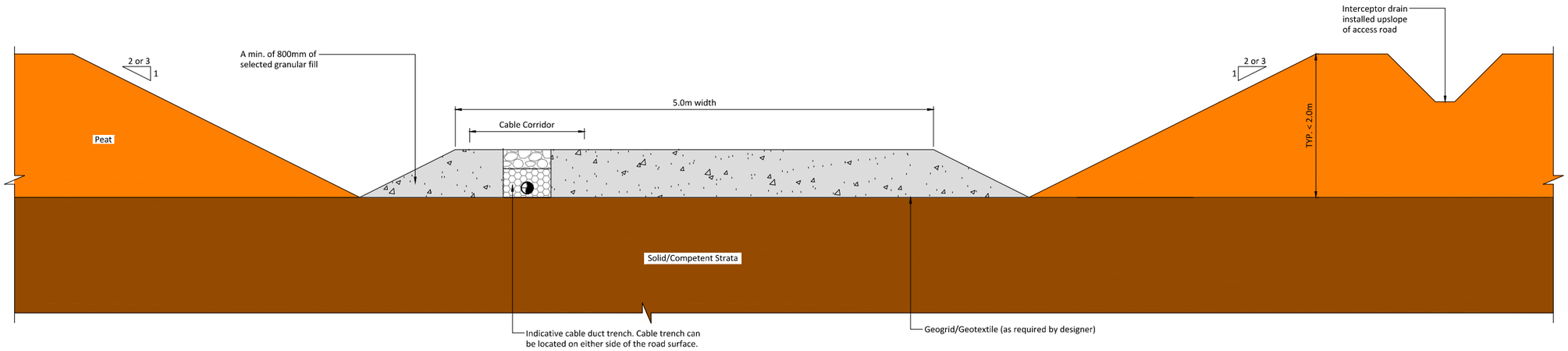
25 February 2026



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Rev.	Description	App By	Date
P01	FOR INFORMATION	BDH	07.07.25

PROJECT
MAUGHANACLEA RENEWABLE ENERGY DEVELOPMENT

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SHEET
TYPE B NEW EXCAVATE AND REPLACE ACCESS TRACK

Date 16.02.26	Project number P24-118	Scale (@ A1) As Shown	
Drawn by POR	Drawing Number P24-118-0600-0012		Rev P01
Checked by IH			

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25 February 2026

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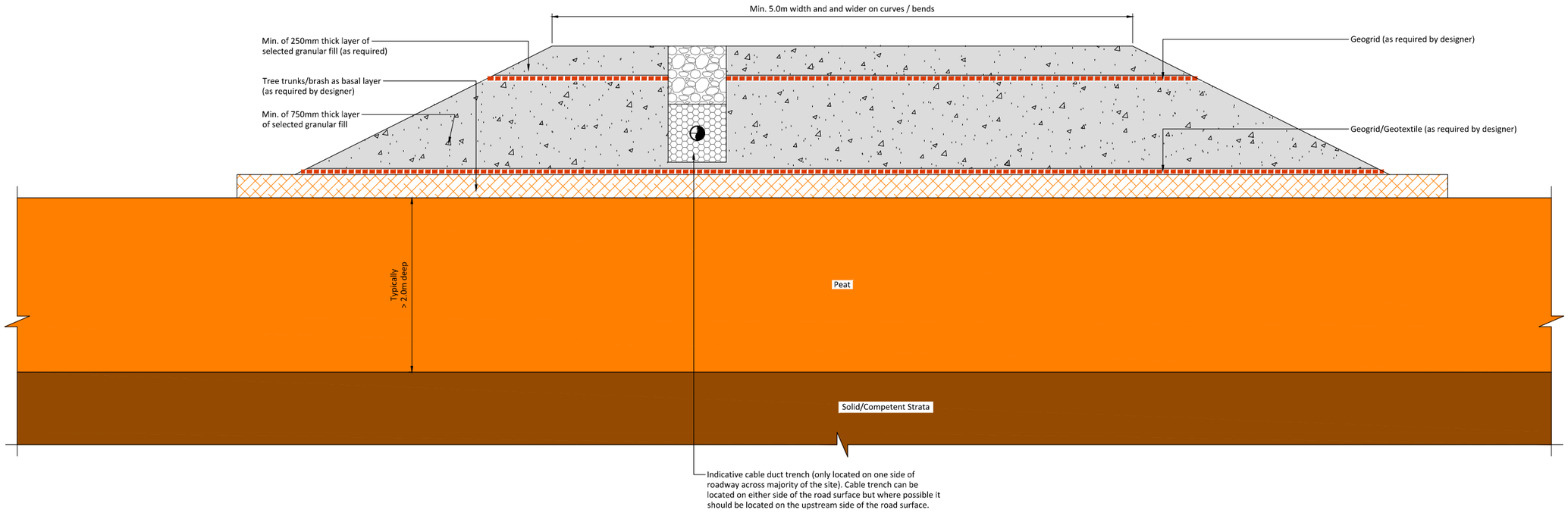

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P01	FOR INFORMATION	BDH	16.02.26

PROJECT

MAUGHANACLEA RENEWABLE ENERGY DEVELOPMENT

CLIENT

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SHEET

TYPE C NEW FLOATED ACCESS ROAD

Date 16.02.26	Project number P24-118	Scale (@ A1) 1:20	
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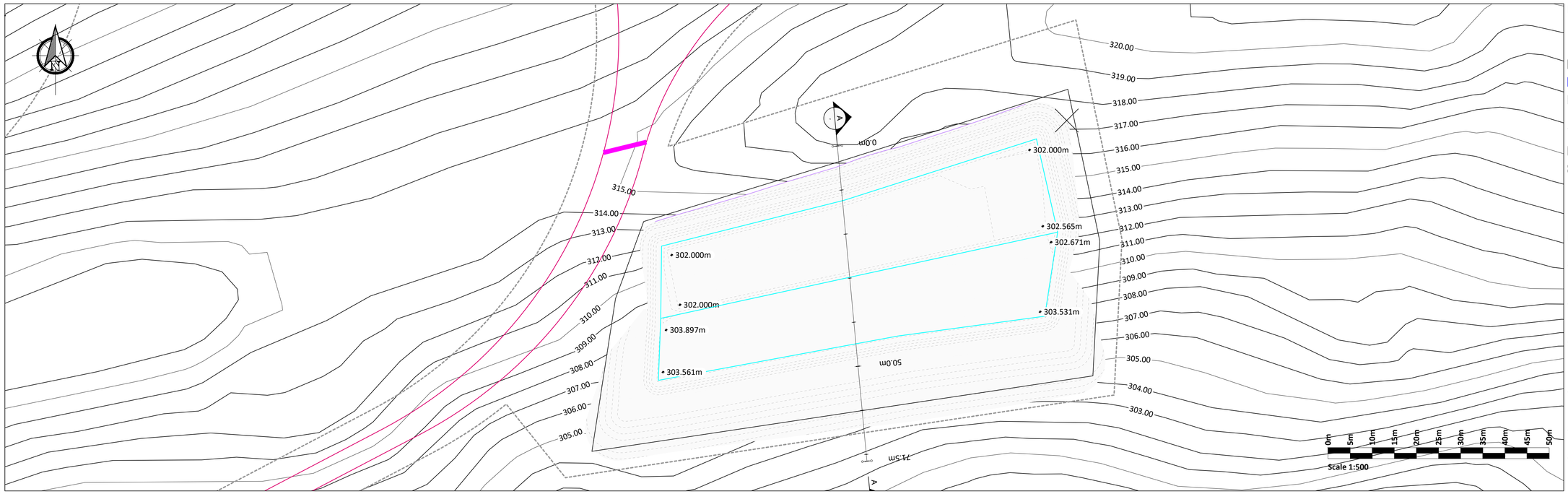
25 February 2026



PLAN
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Legend:

- EIAR Study Boundary
- Proposed Access Tracks
- Proposed Peat & Spoil Management Areas
- Proposed Temporary Construction Compound
- Proposed Borrow Pit
- Proposed Turbine & Hardstanding
- BMEP Habitat Restoration Area
- Forestry Felling

Borrow Pit Construction Notes:

(1) It is proposed to construct the borrow pit so that the base of the borrow pit is below the level of the adjacent section of access road.

(2) Slopes within the excavated rock formed around the perimeter of the borrow pit will be formed at stable inclinations to suit local in-situ rock conditions.

(3) Infilling of the peat & spoil will commence at the back edge of the borrow pit and progress towards the borrow pit entrance/rock buttress. Excavation and infilling of the borrow pit will need to be sequenced and programmed.

(4) The contractor excavating the rock will sequence the borrow pit construction in a way which will allow the excavated peat & spoil to be reinstated safely.

(5) The borrow pit will be developed in cells, with two cells for storage of peat and two for spoil/overburden.

(6) The rock buttress will be founded on competent strata. The founding stratum for the rock buttress will be inspected and approved by the Project Geotechnical Engineer.

(7) In order to prevent water retention occurring behind the buttresses, the buttresses will be constructed of coarse boulder fill with a high permeability.

(8) The surface of the placed peat & spoil will be shaped to allow efficient run-off of surface water from the placed arising's. The finished surface of the spoil cells will have a maximum grade of 5 degrees.

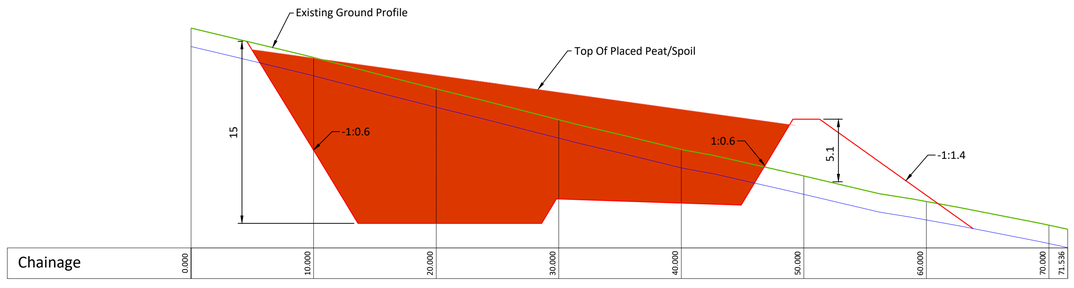
(9) Control of groundwater within the borrow pit will be required and measures will be determined as part of the ground investigation programme.

(10) An interceptor drain will be installed around the upslope side of the borrow pit to capture surface water flow and divert it around the borrow pit.

(11) A perimeter drain will be installed around the individual cells, which will outfall to a settlement pond on the downslope side of the borrow pit (not shown on plan).

(12) All the above-mentioned general guidelines and requirements will be confirmed by the designer prior to construction.

(13) Further guidelines on the construction of the borrow pit is included within Section 6.5 of the Peat & Spoil Management Plan.



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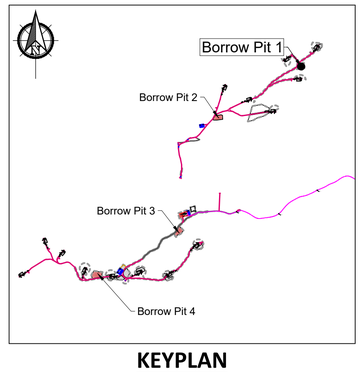

KEYPLAN
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Rev.	Description	App By	Date
P01	FOR INFORMATION	BDH	07.07.25
P02	FOR INFORMATION	BDH	16.02.26

PROJECT
MAUGHANACLEA RENEWABLE ENERGY DEVELOPMENT

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SHEET
BORROW PIT 1 PLAN AND SECTION

Date 16.02.26	Project number P24-118	Scale (@ A1) 1:500	
Drawn by POR	Drawing Number P24-118-0600-0014 (Sheet set subset 0600)		Rev P02
Checked by IH			

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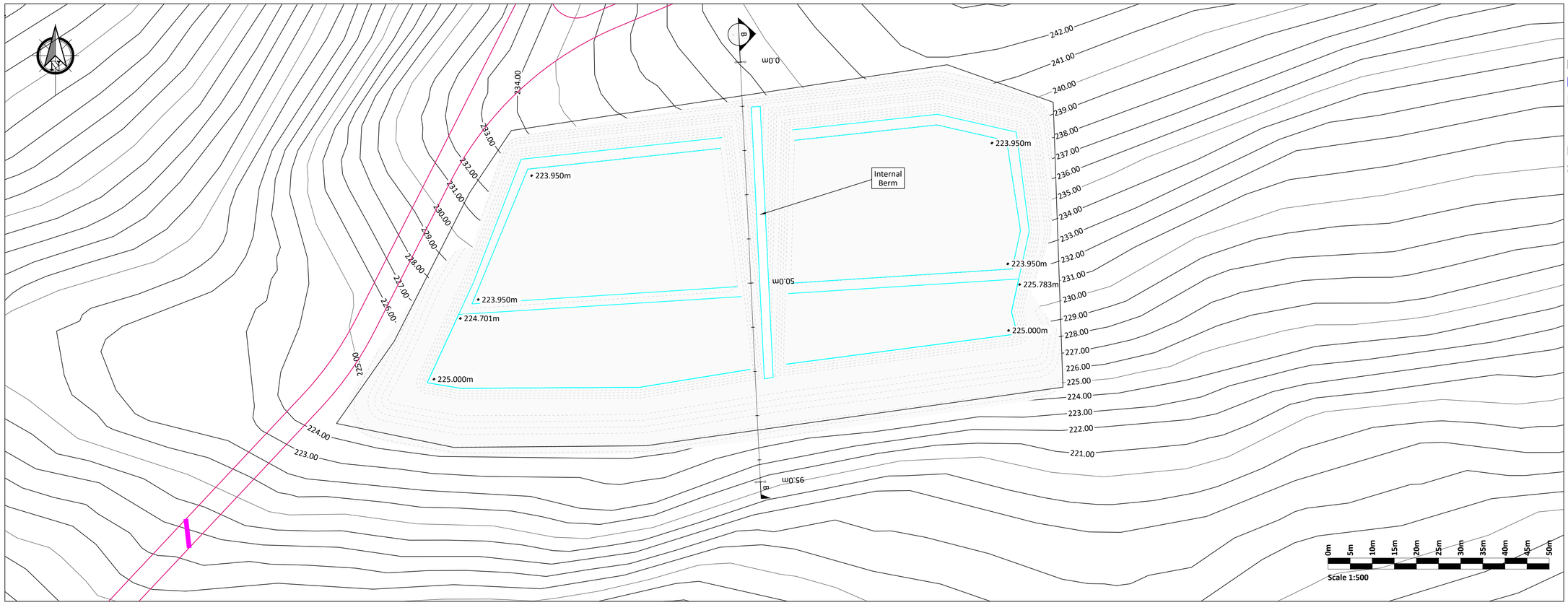
25 February 2026



PLAN
1:500
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Legend:

- EIAR Study Boundary
- Proposed Access Tracks
- Proposed Peat & Spoil Management Areas
- Proposed Temporary Construction Compound
- Proposed Borrow Pit
- Proposed Turbine & Hardstanding
- BMEP Habitat Restoration Area
- Forestry Felling

Borrow Pit Construction Notes:

(1) It is proposed to construct the borrow pit so that the base of the borrow pit is below the level of the adjacent section of access road.

(2) Slopes within the excavated rock formed around the perimeter of the borrow pit will be formed at stable inclinations to suit local in-situ rock conditions.

(3) Infilling of the peat & spoil will commence at the back edge of the borrow pit and progress towards the borrow pit entrance/rock buttress. Excavation and infilling of the borrow pit will need to be sequenced and programmed.

(4) The contractor excavating the rock will sequence the borrow pit construction in a way which will allow the excavated peat & spoil to be reinstated safely.

(5) The borrow pit will be developed in cells, with two cells for storage of peat and two for spoil/overburden.

(6) The rock buttress will be founded on competent strata. The founding stratum for the rock buttress will be inspected and approved by the Project Geotechnical Engineer.

(7) In order to prevent water retention occurring behind the buttresses, the buttresses will be constructed of coarse boulder fill with a high permeability.

(8) The surface of the placed peat & spoil will be shaped to allow efficient run-off of surface water from the placed arising's. The finished surface of the spoil cells will have a maximum grade of 5 degrees.

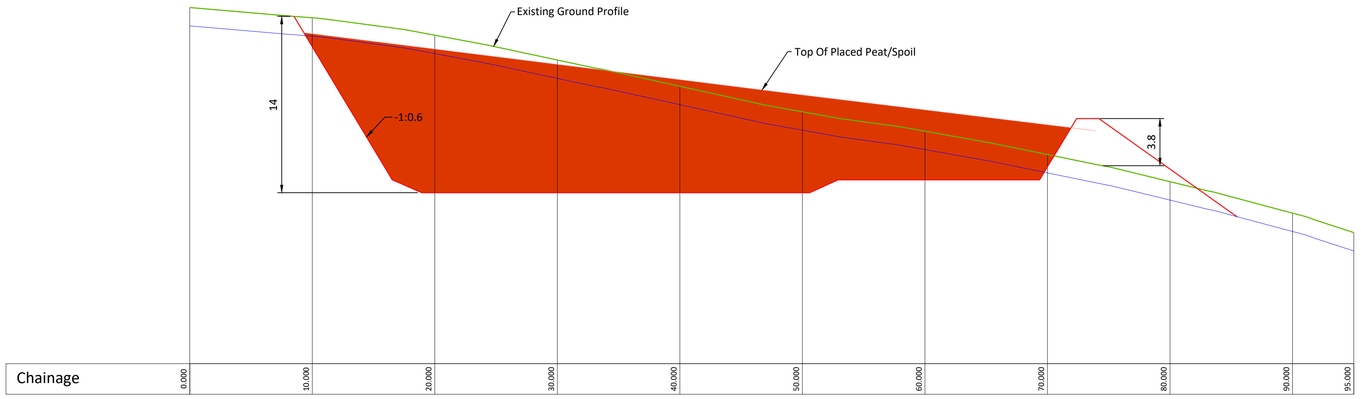
(9) Control of groundwater within the borrow pit will be required and measures will be determined as part of the ground investigation programme.

(10) An interceptor drain will be installed around the upslope side of the borrow pit to capture surface water flow and divert it around the borrow pit.

(11) A perimeter drain will be installed around the individual cells, which will outfall to a settlement pond on the downslope side of the borrow pit (not shown on plan).

(12) All the above-mentioned general guidelines and requirements will be confirmed by the designer prior to construction.

(13) Further guidelines on the construction of the borrow pit is included within Section 6.5 of the Peat & Spoil Management Plan.



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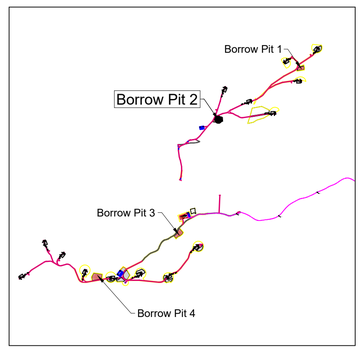

KEYPLAN
Scale 1:50000

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P01	FOR INFORMATION	BDH	07.07.25
P02	FOR INFORMATION	BDH	16.02.26

PROJECT
MAUGHANACLEA RENEWABLE ENERGY DEVELOPMENT

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SHEET
BORROW PIT 2 PLAN AND SECTION

Date 16.02.26	Project number P24-118	Scale (@ A1) 1:500	
Drawn by POR	Drawing Number P24-118-0600-0015 (Sheet set subset 0600)		Rev P02
Checked by IH			

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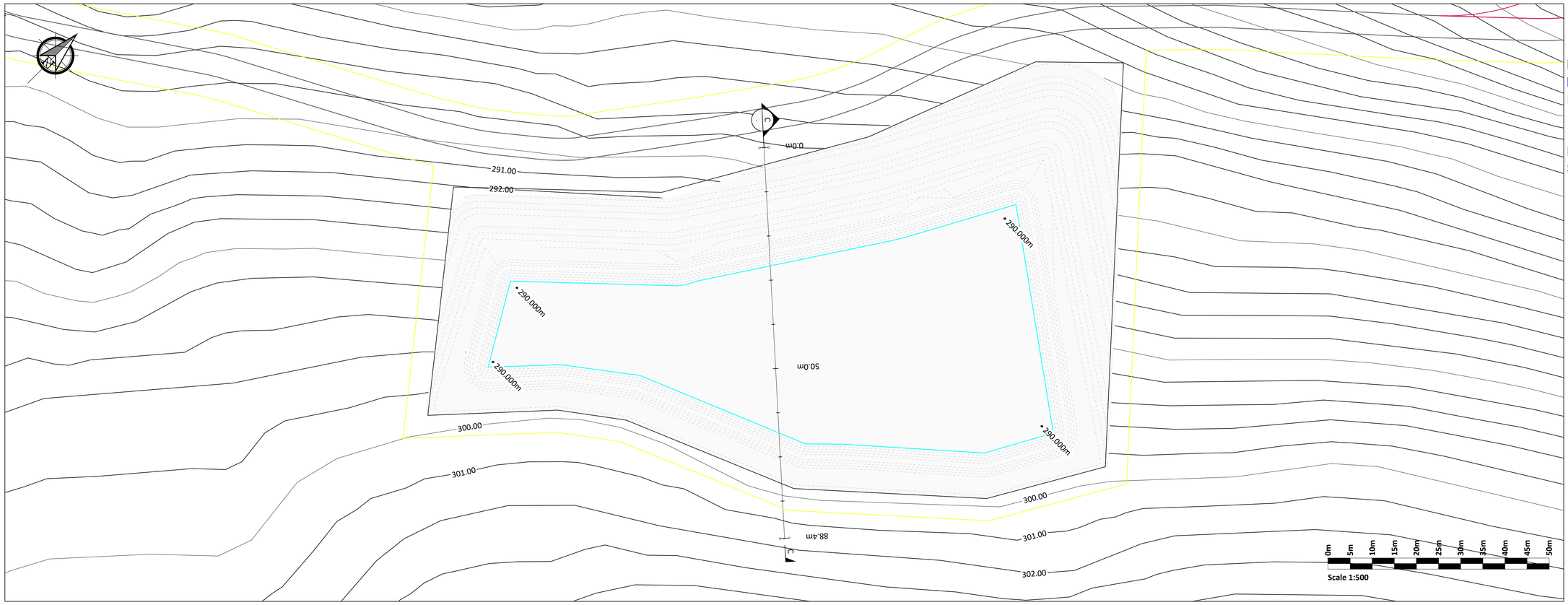

PLAN
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Legend:

- EIAR Study Boundary
- Proposed Access Tracks
- Proposed Peat & Spoil Management Areas
- Proposed Temporary Construction Compound
- Proposed Borrow Pit
- Proposed Turbine & Hardstanding
- BMEP Habitat Restoration Area
- Forestry Felling

Borrow Pit Construction Notes:

(1) It is proposed to construct the borrow pit so that the base of the borrow pit is below the level of the adjacent section of access road.

(2) Slopes within the excavated rock formed around the perimeter of the borrow pit will be formed at stable inclinations to suit local in-situ rock conditions.

(3) Infilling of the peat & spoil will commence at the back edge of the borrow pit and progress towards the borrow pit entrance/rock buttress. Excavation and infilling of the borrow pit will need to be sequenced and programmed.

(4) The contractor excavating the rock will sequence the borrow pit construction in a way which will allow the excavated peat & spoil to be reinstated safely.

(5) The borrow pit will be developed in cells, with two cells for storage of peat and two for spoil/overburden.

(6) The rock buttress will be founded on competent strata. The founding stratum for the rock buttress will be inspected and approved by the Project Geotechnical Engineer.

(7) In order to prevent water retention occurring behind the buttresses, the buttresses will be constructed of coarse boulder fill with a high permeability.

(8) The surface of the placed peat & spoil will be shaped to allow efficient run-off of surface water from the placed arising's. The finished surface of the spoil cells will have a maximum grade of 5 degrees.

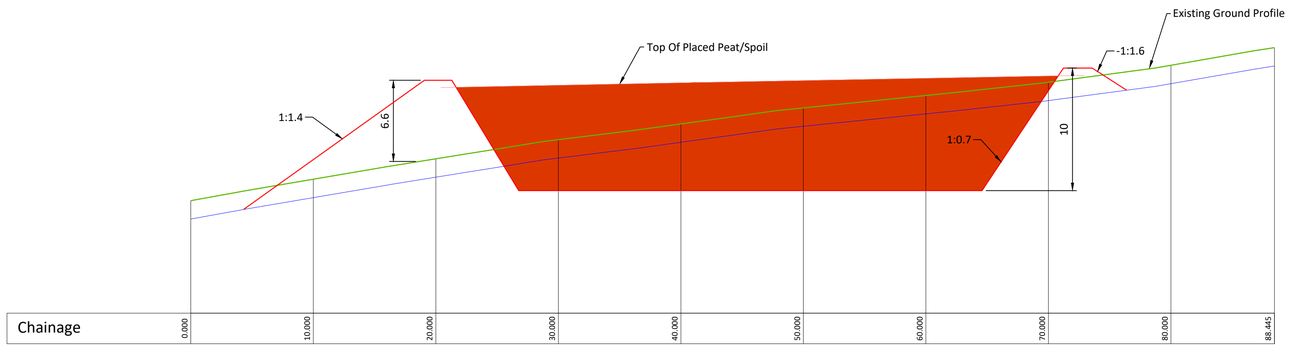
(9) Control of groundwater within the borrow pit will be required and measures will be determined as part of the ground investigation programme.

(10) An interceptor drain will be installed around the upslope side of the borrow pit to capture surface water flow and divert it around the borrow pit.

(11) A perimeter drain will be installed around the individual cells, which will outfall to a settlement pond on the downslope side of the borrow pit (not shown on plan).

(12) All the above-mentioned general guidelines and requirements will be confirmed by the designer prior to construction.

(13) Further guidelines on the construction of the borrow pit is included within Section 6.5 of the Peat & Spoil Management Plan.



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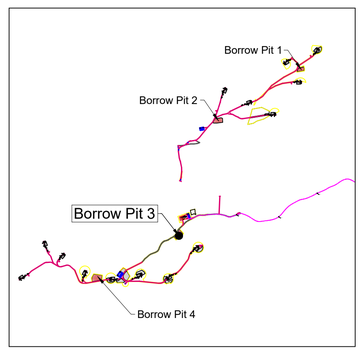

KEYPLAN
Scale 1:50000

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Rev.	Description	App By	Date
P01	FOR INFORMATION	BDH	07.07.25
P02	FOR INFORMATION	BDH	16.02.26

PROJECT
MAUGHANACLEA RENEWABLE ENERGY DEVELOPMENT

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SHEET
BORROW PIT 3 PLAN AND SECTION

Date 16.02.26	Project number P24-118	Scale (@ A1) 1:500	
Drawn by POR	Drawing Number P24-118-0600-0016 (Sheet set subset 0600)		Rev P02
Checked by IH			

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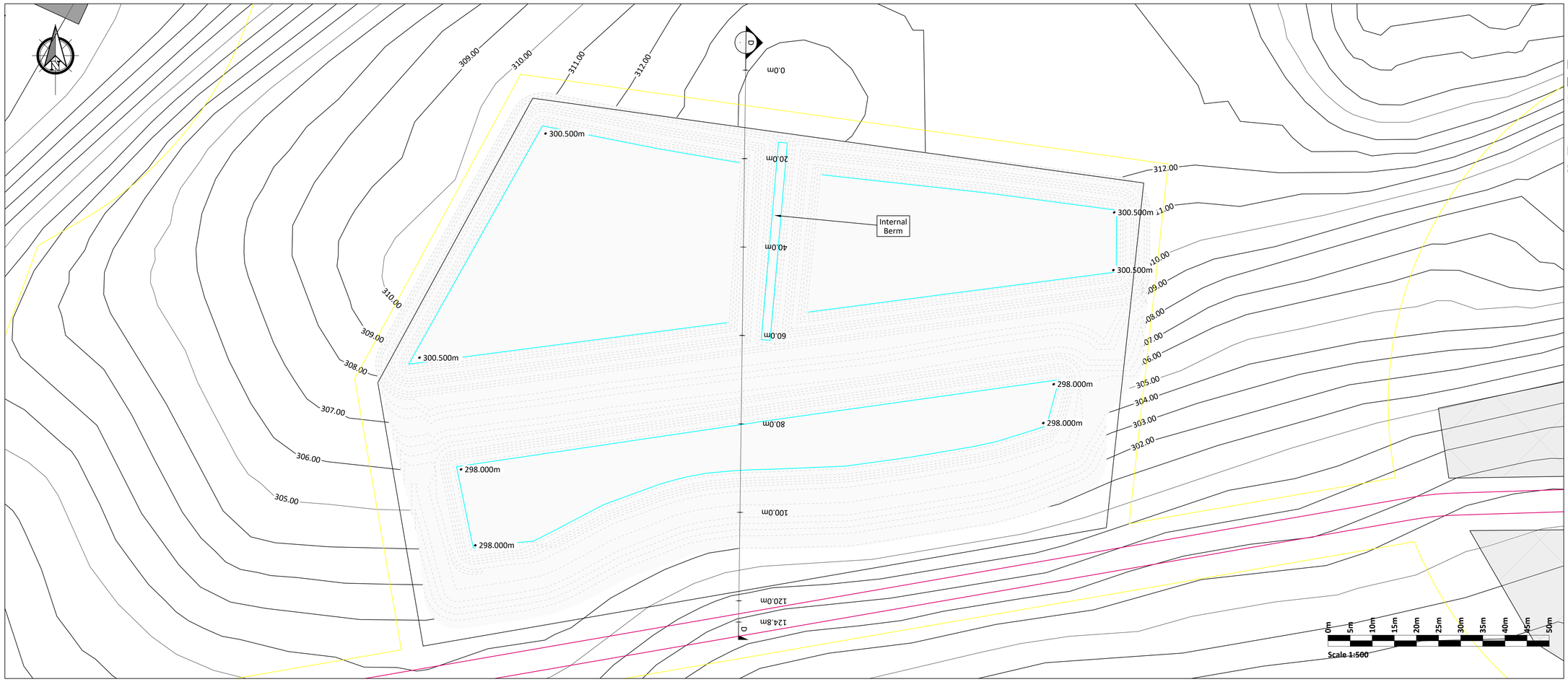

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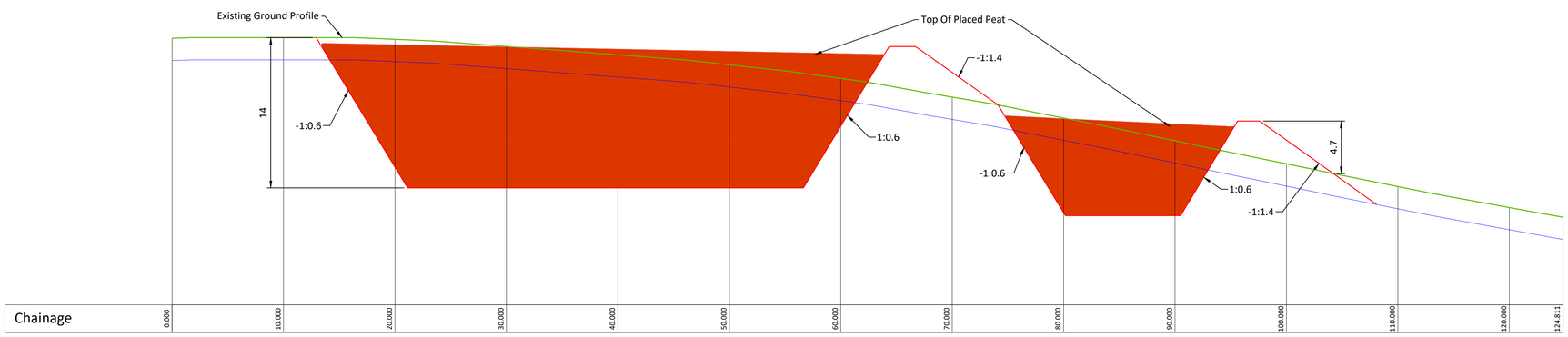

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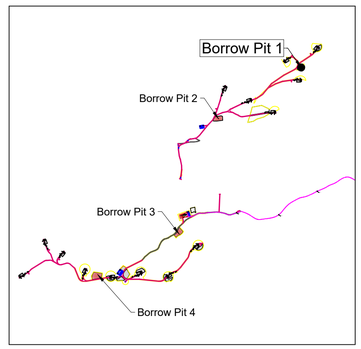

KEYPLAN
Scale 1:50000

Legend:

- EIAR Study Boundary
- Proposed Access Tracks
- Proposed Peat & Spoil Management Areas
- Proposed Temporary Construction Compound
- Proposed Borrow Pit
- Proposed Turbine & Hardstanding
- BMEP Habitat Restoration Area
- Forestry Felling

Borrow Pit Construction Notes:

(1) It is proposed to construct the borrow pit so that the base of the borrow pit is below the level of the adjacent section of access road.

(2) Slopes within the excavated rock formed around the perimeter of the borrow pit will be formed at stable inclinations to suit local in-situ rock conditions.

(3) Infilling of the peat & spoil will commence at the back edge of the borrow pit and progress towards the borrow pit entrance/rock buttress. Excavation and infilling of the borrow pit will need to be sequenced and programmed.

(4) The contractor excavating the rock will sequence the borrow pit construction in a way which will allow the excavated peat & spoil to be reinstated safely.

(5) The borrow pit will be developed in cells, with two cells for storage of peat and two for spoil/overburden.

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(7) In order to prevent water retention occurring behind the buttresses, the buttresses will be constructed of coarse boulder fill with a high permeability.

(8) The surface of the placed peat & spoil will be shaped to allow efficient run-off of surface water from the placed arising's. The finished surface of the spoil cells will have a maximum grade of 5 degrees.

(9) Control of groundwater within the borrow pit will be required and measures will be determined as part of the ground investigation programme.

(10) An interceptor drain will be installed around the upslope side of the borrow pit to capture surface water flow and divert it around the borrow pit.

(11) A perimeter drain will be installed around the individual cells, which will outfall to a settlement pond on the downslope side of the borrow pit (not shown on plan).

(12) All the above-mentioned general guidelines and requirements will be confirmed by the designer prior to construction.

(13) Further guidelines on the construction of the borrow pit is included within Section 6.5 of the Peat & Spoil Management Plan.

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PROJECT
MAUGHANACLEA RENEWABLE ENERGY DEVELOPMENT

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SHEET
BORROW PIT 4 PLAN AND SECTION

Date 16.02.26	Project number P24-118	Scale (@ A1) 1:500	
Drawn by POR	Drawing Number P24-118-0600-0017 (Sheet set subset 0600)		Rev P02
Checked by IH			

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25 February 2026

PLAN

Scale 1:500

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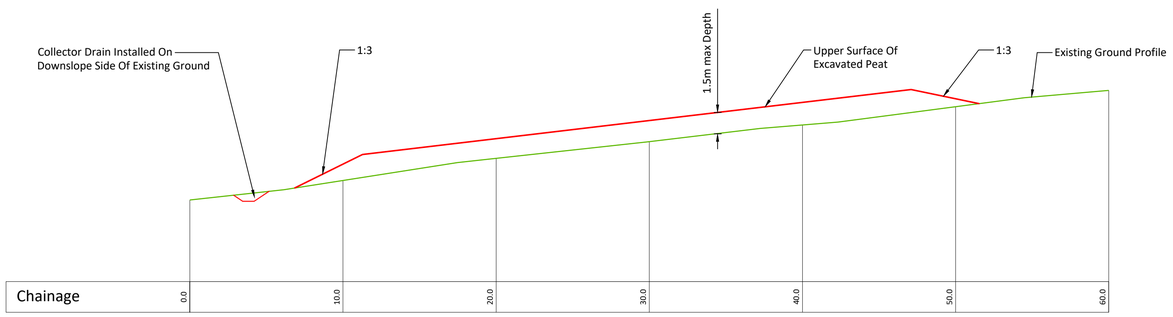
Scale 1:500



SECTION 1-1

Scale 1:200

Legend:

- EIAR Study Boundary
- Proposed Access Tracks
- Proposed Peat & Spoil Management Areas
- Proposed Temporary Construction Compound
- Proposed Borrow Pit
- Proposed Turbine & Hardstanding
- BMEP Habitat Restoration Area
- Forestry Felling

Construction Notes Peat Repository Areas:

(1) An interceptor drain will also be installed upslope of the peat repository areas.

(2) A silting pond will be required at the lower side of the peat repository areas.

(3) It is important that the surface of the stored peat be shaped to allow efficient run-off of water from the stored spoil.

(4) Supervision by a geotechnical engineer or appropriately competent person is recommended for the construction of the peat repository area.

(5) All the above-mentioned general guidelines and requirements will be implemented during construction.

(6) Further guidelines on the construction of the peat storage area are included within Section 6.6 of the Peat & Spoil Management Plan.

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Rev.	Description	App By	Date
P01	FOR INFORMATION	BDH	25.02.26

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MAUGHANACLEA RENEWABLE ENERGY DEVELOPMENT

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SHEET
PEAT & SPOIL MANAGEMENT AREA DETAILS (T01)

Date 25.02.26	Project number P24-118	Scale (@ A1) As Shown	
Drawn by POR	Drawing Number P24-118-0600-0018 (Sheet set subset 0600)		Rev P01
Checked by IH			

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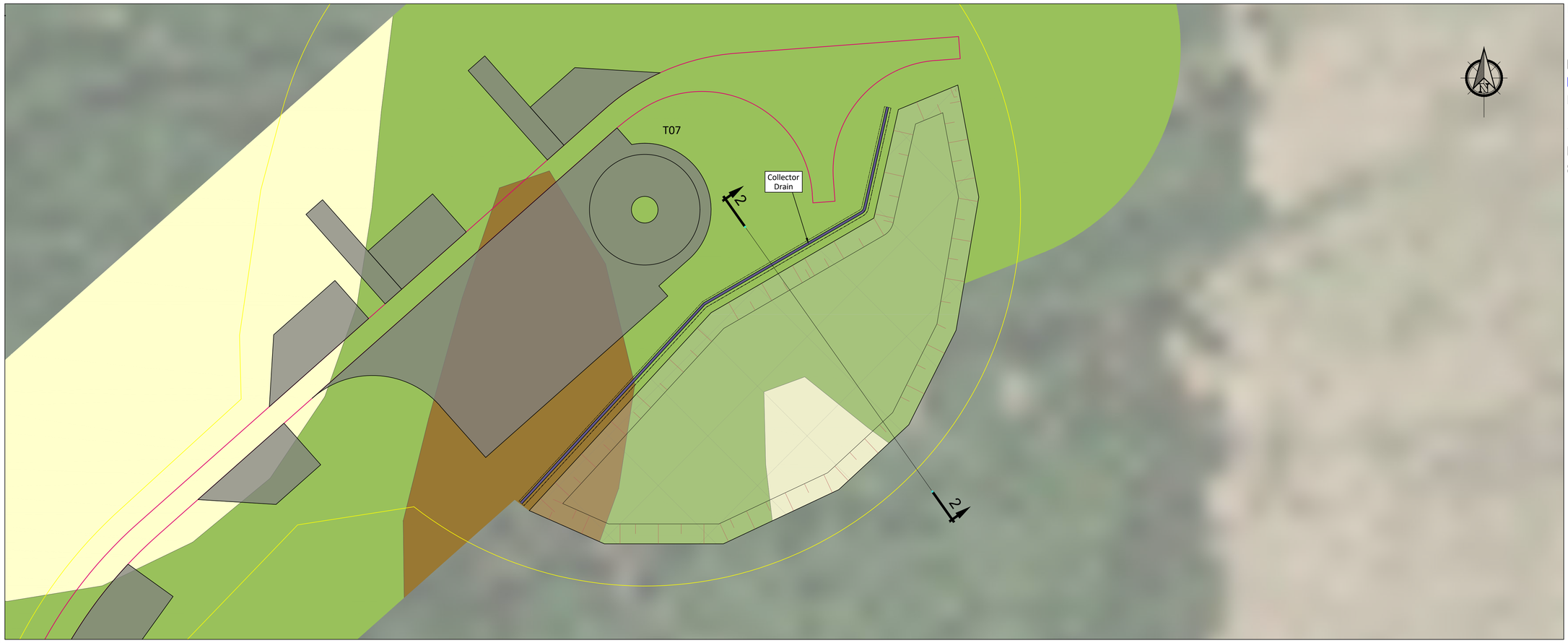
26 February 2026



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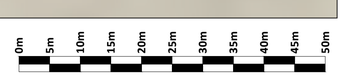
Scale 1:500



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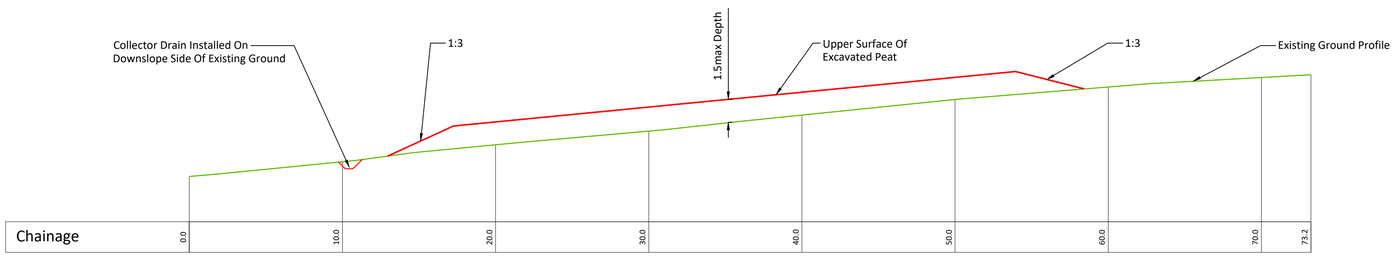

SECTION 2-2

Scale 1:200

Legend:

- EIAR Study Boundary
- Proposed Access Tracks
- Proposed Peat & Spoil Management Areas
- Proposed Temporary Construction Compound
- Proposed Borrow Pit
- Proposed Turbine & Hardstanding
- BMEP Habitat Restoration Area
- Forestry Felling

Construction Notes Peat Repository Areas:

(1) An interceptor drain will also be installed upslope of the peat repository areas.

(2) A silting pond will be required at the lower side of the peat repository areas.

(3) It is important that the surface of the stored peat be shaped to allow efficient run-off of water from the stored spoil.

(4) Supervision by a geotechnical engineer or appropriately competent person is recommended for the construction of the peat repository area.

(5) All the above-mentioned general guidelines and requirements will be implemented during construction.

(6) Further guidelines on the construction of the peat storage area are included within Section 6.6 of the Peat & Spoil Management Plan.

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Rev.	Description	App By	Date
P01	FOR INFORMATION	BDH	25.02.26

PROJECT
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SHEET
PEAT & SPOIL MANAGEMENT **AREA DETAILS (T07)**

Date 25.02.26	Project number P24-118	Scale (@ A1) As Shown	
Drawn by POR	Drawing Number P24-118-0600-0019		Rev P01
Checked by IH	(Sheet set subset 0600)		

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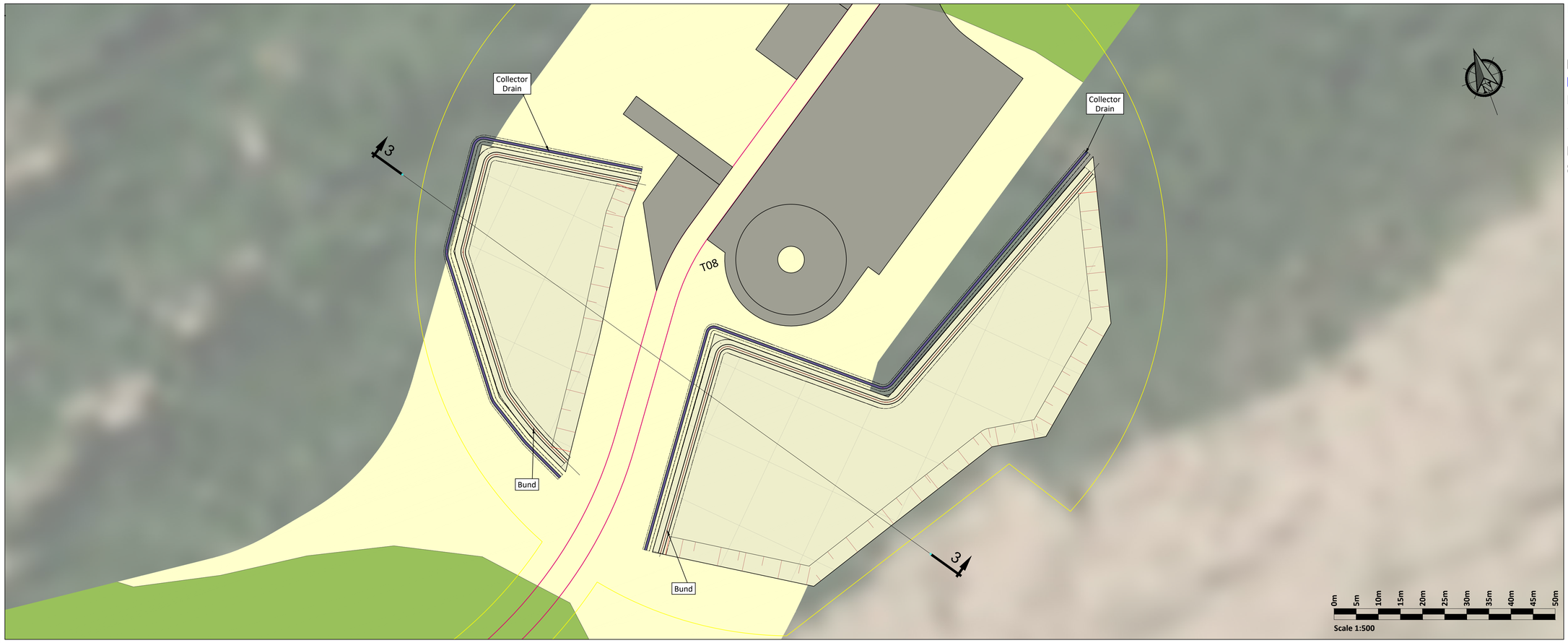
26 February 2026



Legend:

- EIAR Study Boundary
- Proposed Access Tracks
- Proposed Peat & Spoil Management Areas
- Proposed Temporary Construction Compound
- Proposed Borrow Pit
- Proposed Turbine & Hardstanding
- BMEP Habitat Restoration Area
- Forestry Felling

Construction Notes Peat Repository Areas:

(1) An interceptor drain will also be installed upslope of the peat repository areas.

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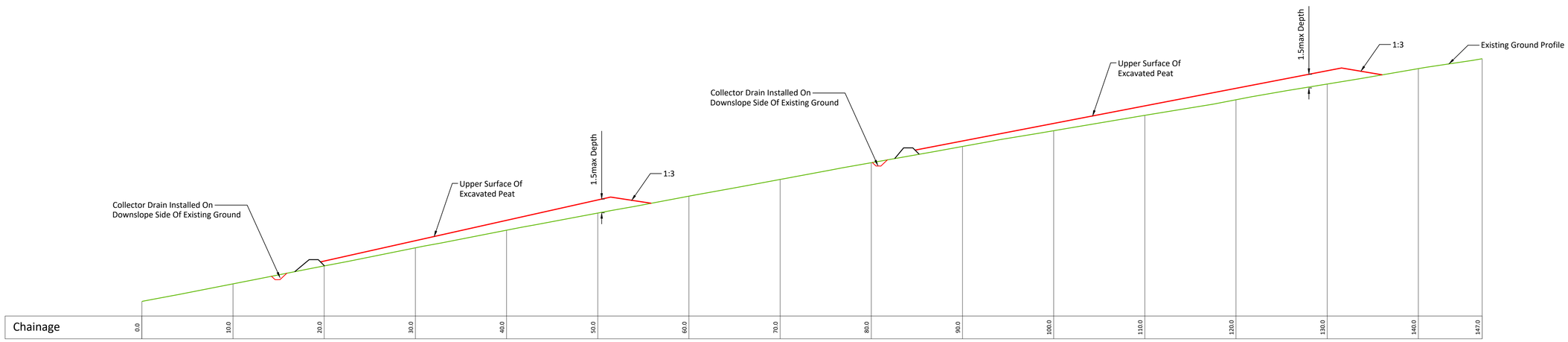
(5) All the above-mentioned general guidelines and requirements will be implemented during construction.

(6) Further guidelines on the construction of the peat storage area are included within Section 6.6 of the Peat & Spoil Management Plan.

PLAN

Scale 1:500



SECTION 3-3

Scale 1:250

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PROJECT

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PEAT & SPOIL MANAGEMENT **AREA DETAILS (T08)**

Date 25.02.26	Project number P24-118	Scale (@ A1) As Shown	
Drawn by POR	Drawing Number P24-118-0600-0020 (Sheet set subset 0600)		Rev P01
Checked by IH			

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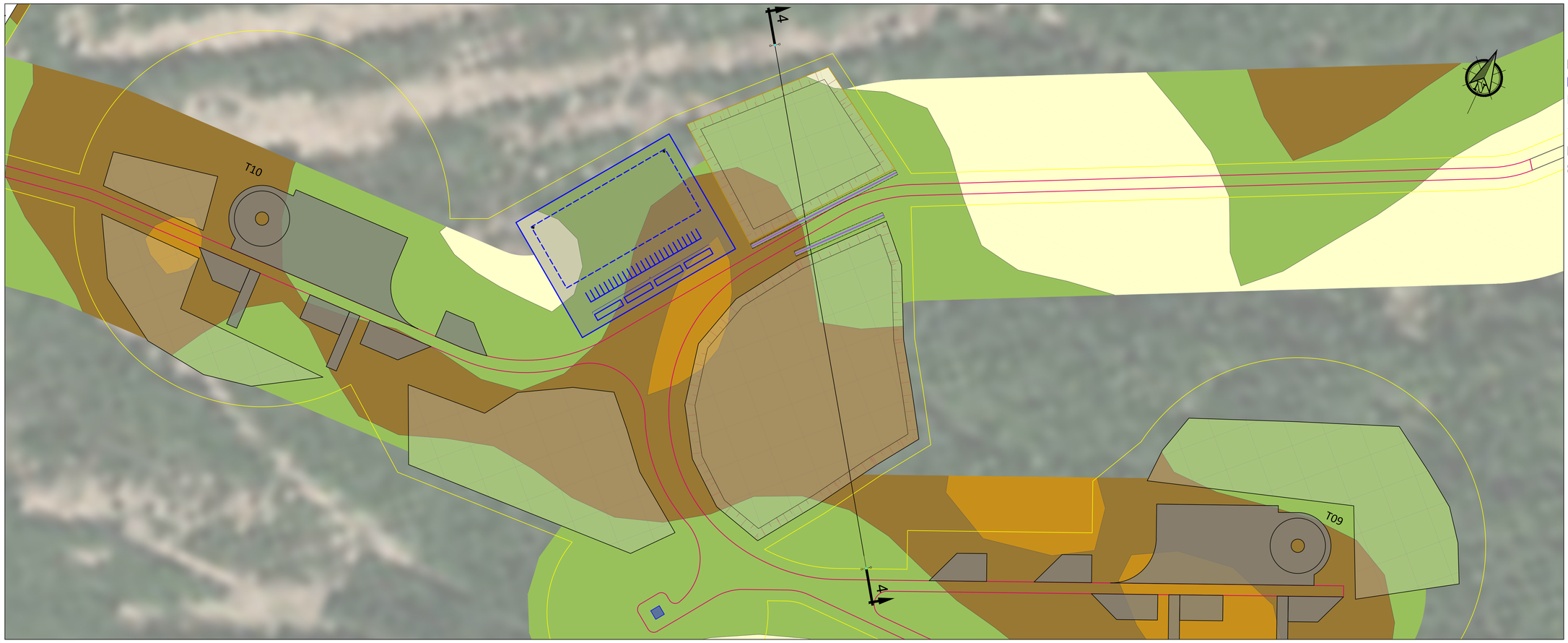
26 February 2026



PLAN

Scale 1:1000

Legend:

- EIAR Study Boundary
- Proposed Access Tracks
- Proposed Peat & Spoil Management Areas
- Proposed Temporary Construction Compound
- Proposed Borrow Pit
- Proposed Turbine & Hardstanding
- BMEP Habitat Restoration Area
- Forestry Felling

0m 10m 20m 30m 40m 50m 60m 70m 80m 90m 100m

Scale 1:1000

Construction Notes Peat Repository Areas:

(1) An interceptor drain will also be installed upslope of the peat repository areas.

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(3) It is important that the surface of the stored peat be shaped to allow efficient run-off of water from the stored spoil.

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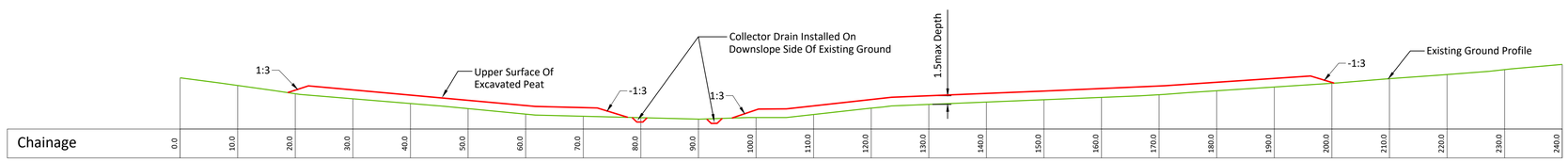

SECTION 4-4

Scale 1:500

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P01	FOR INFORMATION	BDH	07.07.25
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PROJECT

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PEAT & SPOIL MANAGEMENT **AREA DETAILS (T09)**

Date 16.02.26	Project number P24-118	Scale (@ A1) 1:1000	
Drawn by POR	Drawing Number P24-118-0600-0021 (Sheet set subset 0600)		Rev P02
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26 February 2026

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