



Design and Access Statement

Mossmulloch Wind Farm

Wind Power North 3 Limited

Prepared by:

SLR Consulting Limited

Suite 223ab, 4 Redheughs Rigg Westpoint, South
Gyle, Edinburgh EH12 9DQ

SLR Project No.: 405.06572.00001

Client Reference No: 06026

4 December 2024

Revision: 2nd Draft



Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
1 st Draft	20 November 2024	JH	LD	FS
2 nd Draft	4 December 2024	LD	FS	FS

Basis of Report

This document has been prepared by SLR Consulting Limited (SLR) with reasonable skill, care and diligence, and taking account of the timescales and resources devoted to it by agreement with Wind Power North 3 Limited (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

SLR shall not be liable for the use of or reliance on any information, advice, recommendations and opinions in this document for any purpose by any person other than the Client. Reliance may be granted to a third party only in the event that SLR and the third party have executed a reliance agreement or collateral warranty.

Information reported herein may be based on the interpretation of public domain data collected by SLR, and/or information supplied by the Client and/or its other advisors and associates. These data have been accepted in good faith as being accurate and valid.

The copyright and intellectual property in all drawings, reports, specifications, bills of quantities, calculations and other information set out in this report remain vested in SLR unless the terms of appointment state otherwise.

This document may contain information of a specialised and/or highly technical nature and the Client is advised to seek clarification on any elements which may be unclear to it.

Information, advice, recommendations and opinions in this document should only be relied upon in the context of the whole document and any documents referenced explicitly herein and should then only be used within the context of the appointment.



Table of Contents

1.0 Introduction	1
2.0 Site Location.....	2
3.0 Design Policies.....	5
South Lanarkshire Local Development Plan 2.....	6
4.0 Design Principles	9
4.1 Turbine Layout Evolution.....	10
4.2 Site Access and Site Tracks.....	12
4.3 Temporary Construction Compound.....	13
4.4 Substation Compound.....	13
5.0 Proposed Development	15
6.0 Access	16
Internal Access Tracks.....	16
7.0 Conclusion.....	18
References	19

Figures

Figure 1 - Site Location Plan

Figure 2 - Location of site relative to SLC Tall Wind Turbines: Landscape Capacity, Siting and Design Guidance

Figure 3 - Site Layout

Figure 4 - Turbine Layout Evolution

Figure 5 - Track Layout Evolution



Acronyms and Abbreviations

AOD	Above Ordnance Datum
CEMP	Construction Environmental Management Plan
DAS	Design and Access Statement
EIA	Environmental Impact Assessment
GIS	Geographic Information System
ha	hectare
kV	kilovolt
LDP	Local Development Plan
MW	Megawatt
NGR	National Grid Reference
NPF4	National Planning Framework 4
NS	NatureScot (formerly Scottish Natural Heritage)
PAN	Planning Advice Note
PMP	Peat Management Plan
SAC	Special Area of Conservation
SG	Supplementary Guidance
SLC	South Lanarkshire Council
SPP	Scottish Planning Policy
SSSI	Site of Special Scientific Interest



1.0 Introduction

1. Wind Power North 3 Limited (the Applicant) proposes to install and operate up to five wind turbines with associated infrastructure (the Proposed Development) on land (the site) situated on two adjacent areas of commercial forest, Mossmulloch and Hookhead, located approximately 7km to the south west of Strathaven, South Lanarkshire. The Proposed Development would be located within the South Lanarkshire Council (SLC) area, centred on National Grid Reference (NGR) 263443, 642044 (**Figure 1**) and would be known as Mossmulloch Wind Farm.
2. The Proposed Development would comprise of five three-bladed horizontal axis turbines up to 200m blade tip height with a combined rated output of up to 36MW.
3. As the generating capacity of the Proposed Development would exceed 20MW, but be no greater than 50MW, the Proposed Development is defined as a 'major' development in the Town and Country Planning (Scotland) Act 1997 and the Town and Country Planning (Hierarchy of Developments) (Scotland) Regulations 2009. Circular 3: 2013 advises that applications for major development must be accompanied by a Design and Access Statement (DAS) in accordance with Regulation 13 of the Town and Country Planning (Development Management Procedures) (Scotland) Regulations 2013 and the provisions of the Town and Country Planning (Scotland) Act 1997 as amended by the Planning etc. (Scotland) Act 2006.
4. This DAS is submitted to accompany the application for planning permission which has been submitted by the Applicant for the Proposed Development. The DAS does not form part of the Environmental Impact Assessment Report (EIA Report) however it should be read in the context of the EIA Report.



2.0 Site Location

5. To understand the design of the Proposed Development, it is important to understand the location of the site and its context. A site location plan is shown on **Figure 1**.

Site Selection

6. A number of factors were considered when selecting the site for the Proposed Development including:
 - the site is not located in a National Park or National Scenic Area (and therefore NPF4 is supportive of the location for renewable energy in principle);
 - the site does not support any international or national ecological or landscape designations;
 - initial desk-based studies and wind monitoring onsite suggest that there is a very good wind resource, and the site is available for wind energy development;
 - there are good access options from the public road network (A71);
 - the site is located in central Scotland, in relatively close proximity to large population centres, and has a viable route to the national grid network (anticipated to be via East Kilbride South substation);
 - the site is identified as having high to medium capacity for tall turbines in SLC's Tall Wind Turbines: Landscape Capacity, Siting and Design Guidance (addendum to Landscape Capacity Study for Wind Energy 2016), June 2019 (**Figure 2**); and
 - the site is located in an area of South Lanarkshire which has been subject to wind farm development, as it is adjacent to the operational Whitelee, West Browncastle, and Calder Water Wind Farms. As such, the Proposed Development would add turbines to an area which already hosts onshore wind infrastructure.

Site Description

7. A detailed site description is contained within **Chapter 2: Site Description and Design Evolution** of the EIA Report. The following paragraphs provide a general description of the site.
8. The site, which measures approximately 260 hectares (ha), is located on the eastern edge of Whitelee Forest approximately 7km to the south west of Strathaven, in South Lanarkshire. Land cover across the site is comprised of approximately 161.5ha of forestry, and approximately 98.5ha of open ground/rough grazing land.
9. Elevations within the site range from approximately 250m Above Ordnance Datum (AOD) within the centre of the site to approximately 210m AOD along the eastern boundary of the site, near the Calder Water and near the proposed site entrance off the A71.
10. The site lies within the catchments of Calder Water and Avon Water. Three watercourses run through the site: Rotten Burn, Calder Water and Hall Burn.
11. There are no landscape, ecological or cultural heritage designations within the site boundary.



Surrounding Area

12. The site's immediate surroundings are characterised by a mixture of moorland and livestock grazing land, while a series of minor roads circumnavigate the site, and electricity pylons traverse the landscape to the west of the site in a south west to north east direction.
13. The surrounding area is rural in nature and there are residential properties and agricultural buildings located in the immediate landscape surrounding the Proposed Development. Strathaven is the largest local settlement to the Proposed Development, located approximately 7km north east of the centre of the site, with a population of approximately 8,339. The town of Kilmarnock (approximate population 51,245¹) is located approximately 18km west of the site.
14. The area surrounding the site comprises a landscape with numerous wind turbines. The closest operational wind farms are West Browncastle (12 turbines) and Calder Water (13 turbines), located approximately 0.9km to the north west and 1km west respectively. The 140 turbines of Whitelee Wind Farm are located approximately 2.7km to the north of the site, with an additional 75 turbines of Whitelee Extension Phase 1 & 2 5.7km to the west. Dungavel Wind Farm (13 turbines) is also located approximately 5.3km south east of the site. Other wind turbines within 15km of the site are fully listed in **Chapter 4: EIA, Scoping and Consultation**.
15. The closest designated site is Muirkirk Uplands Site of Special Scientific Interest (SSSI), located approximately 5.9km to the south west of the site, which is designated for its upland habitats consisting of a mosaic of blanket bog, wet and dry heath and acid grassland.
16. There are a further four statutory designated sites present within 10km of the site boundary, including three Special Site of Scientific Interest (SSSIs) and one Special Area of Conservation (SAC):
 - Waukenwae Moss SAC and SSSI, approximately 7.8km to the north east of the site, has extensive areas of active raised bog habitat and displays some of the best Sphagnum-hollow patterning to be found in bogs in this part of Scotland.
 - Blood Moss and Slot Burn SSSI, approximately 9.1km to the south of the site has protected features that include fossil-bearing rocks (yielding fossil fish and water scorpions) alongside the Slot Burn, and blanket bog.
 - Blantyre Muir SSSI, approximately 9.1km to the north of the site, is one of the best examples of a raised bog habitat in South Lanarkshire. Additionally, Blantyre Muir is of a bog type that is of national importance for its actively growing Sphagnum-rich vegetation.
17. Muirkirk Uplands SSSI and Muirkirk & North Lowther Uplands SAC are also designated for other geological and ornithological features including hen harrier, short-eared owl, peregrine merlin and golden plover. The SAC is also designated for its breeding bird assemblage, including hen harrier and short-eared owl.
18. There are no designated or non-designated heritage assets within the site boundary. A number of designated cultural heritage assets are in close proximity outwith the site and in the wider area. These assets are largely agricultural in nature, with most comprising

¹ Scotland's Census 2022 - National Records of Scotland – Available at: <https://www.scotlandscensus.gov.uk/>



postmedieval farmsteads or related infrastructure. Three of these assets are also Category C Listed Buildings and one is the location of the Battle of Drumclog (BTL21).

19. There are clusters of residential properties located to the north of the Proposed Development in the vicinity of East and West Browncastle, approximately 1.2km from the nearest proposed turbine location. Similarly, to the east of the site, residential properties at East and West Hookhead sit approximately 1.2km from the nearest proposed turbines with East Hookhead located within approximately 300m of the proposed new section of access track. The closest residential properties to the turbines on its southern and western boundaries are located approximately 1-1.1km from the nearest proposed turbine locations.



3.0 Design Policies

20. This section identifies the policy and guidance documents that have been considered in the layout and design process for the Proposed Development.

National Planning Framework 4

21. NPF4 contains strong policy support in relation to the weight that should be given to addressing the climate emergency and nature crisis in assessing applications.

22. Considering Scotland as a whole, NPF4 states that *“A large and rapid increase in electricity generation from renewable sources will be essential for Scotland to meet its net zero emissions targets.”* This clearly establishes the strengthened need for the continued development of renewable electricity generation, and by extension, the development of onshore wind.

23. Within the spatial strategy, NPF4 identifies that there will be significant climate challenges for the Central Scotland Area (which includes the proposed site), stating that *“The growing risk of flooding could have significant impacts in the future, as many key settlements and economic assets are located on the Clyde, Forth and Tay estuaries.”*

24. NPF4 further states that within this area *“we need to work together to decarbonise buildings and transport and tackle congestion, make more efficient use of existing land and buildings, generate renewable energy and establish supporting electricity and heat networks and create more inclusive, greener and sustainable places that will stand the test of time.”* To achieve these aims, NPF4 states that the priority is *“A coherent strategy that focuses on climate change and responds to the challenges of the pandemic will drive forward change to tackle inequalities and build a new, greener, future for this part of the country.”*

25. In terms of national planning policy, a key policy is Policy 1: Tackling the Climate and nature crises. This policy requires that *“significant weight will be given to the global climate and nature crises”* when considering all development proposals. The other main policy that is applicable within the context of the Proposed Development is Policy 11: Energy. Policy 11 part (a) makes clear that all types of renewable energy are supported in principle, with part (b) identifying the only exception to this policy support is wind farm developments in National Parks and National Scenic Areas. Accordingly, the Proposed Development, which is located out of any such designations, draws policy support from Parts (a) and (b) of Policy 11.

Local Development Plan

26. The Local Development Plan covering the application site is the SLC Local Development Plan (LDP2) (adopted April 2021) and associated Supplementary Guidance (SG).

27. Section 24 of the Town and Country Planning (Scotland) Act 1997, as amended by Section 13 of the Planning (Scotland) Act 2019, provides that in the event of any incompatibility between the provision of the National Planning Framework and a provision of the Local Development Plan, whichever of them is the later in date is to prevail. That includes where a Local Development Plan is silent on an issue that is now provided for in NPF4.



South Lanarkshire Local Development Plan 2

28. The overall strategic vision of the LDP2 is *“to promote the continued growth and regeneration of South Lanarkshire by seeking sustainable economic and social development within a low carbon economy whilst protecting and enhancing the environment.”*
29. LDP2 is divided into two volumes with Volume 1 containing the overall strategy and core policies while Volume 2 contains additional development management policies.
30. Within Volume 1, Policy 5: Development Management and Placemaking sets out design and access considerations including ensuring that development does not present an unacceptable impact on the natural or historic environment nor on the amenity of residential properties. The policy goes on to state that unacceptable impacts on soil quality and the water environment should not be brought about by proposed developments and that proposals should have suitable access and water management.
31. Policy 18: Renewable Energy sets out SLC’s support in principle for renewable energy developments subject to an assessment against principles set out in Scottish Planning Policy (SPP). The SPP criteria to be considered in determining a proposal for a wind farm have now been superseded by those set out in NPF4 Policy 11.
32. Whilst the requirement to produce a spatial framework has also been superseded as a result of NPF4, it is noted that the Proposed Development is located within a Group 3 Area where wind farms are likely to be acceptable, subject to detailed consideration against identified policy criteria. The policy goes on to state that *“All renewable energy proposals shall be assessed against the relevant criteria and requirements set out in the Assessment Checklist for Renewable Energy Proposals contained in Volume 2.”*
33. Policy 1: Spatial Strategy, of the LDP states, inter alia, that supporting renewable energy developments in appropriate locations is one of a number of ways the strategic vision of the Plan will be met.
34. Other relevant policies of the LDP include:
- Policy 2: Climate Change;
 - Policy 4: Green Belt and Rural Area;
 - Policy 14: Natural and Historic Environment; and
 - Policy 16: Water Environment and Flooding.

South Lanarkshire Council Supplementary Guidance and Supporting Planning Guidance

LDP2 – Supporting Planning Guidance: Renewable Energy

35. The Supporting Planning Guidance on ‘Renewable Energy’ was adopted in 2021. This supplements the renewable energy policies within LDP2, by providing more detailed advice and technical requirements for wind energy and other renewable energy developments. The SG also provides further guidance on the use of the spatial framework for onshore wind energy developments within the LDP.



36. Within the Spatial Framework set out in the SG, it is confirmed that the Proposed Development site falls under 'Group 3: Areas with Potential for Wind Energy Development', meaning that the "*wind farms are likely to be acceptable subject to detailed consideration against identified policy criteria.*"

Tall Wind Turbines: Landscape Capacity, Siting and Design Guidance

37. Within the SLC Landscape Capacity Study for Tall Wind Turbines (LCS 2019) (SLC, 2019), the site is located within one of only two areas identified as having a 'high' underlying landscape capacity for wind turbines between 150 to 250m in height to blade tip (**Figure 2**).

Other Guidance

Siting and Designing Wind Farms in the Landscape

38. NatureScot (formerly SNH) has produced guidance entitled 'Siting and Designing Windfarms in the Landscape', originally published in 2009 but updated in 2014 and 2017. NatureScot believes that good siting and design of wind farms is important for all parties involved, helping to maximise the landscape capacity to absorb development by producing schemes which are appropriate to a landscape whilst delivering Scottish renewables targets.
39. The content of the guidance focuses on the landscape and visual impact of wind farms, wind turbine design and layout, wind farm siting and design, and designing in landscapes with multiple wind farms. Guidance is provided on the appropriate turbine form, size, scale, layout and on siting and design of wind farms in relation to landscape character, landscapes of scenic value, landscape pattern, landform, perspective, and focal features. This guidance document has therefore informed the content of the design strategy for the Proposed Development, which outlines the site characteristics, the design principles, and the proposed design solution for the development.

Planning Advice Note 68: Design Statements

40. This DAS has been prepared in accordance with the guidance set out in the Planning Advice Note (PAN) 68: Design Statements (2003). PAN 68 focuses on design statements, their purpose, use and presentation to consider and set out the design principles which determine the design and layout of a development proposal. The content of this DAS covers the main issues which should be covered in a design statement, as recommended in PAN 68, to provide a clear and logical design philosophy for the Proposed Development. This approach provides a clear explanation of the design of the Proposed Development in a structured way and provides an opportunity to demonstrate what has been done to appraise the context, and how the design has taken account of it sensitively.

Onshore Wind Policy Statement 2022

41. The Scottish Government's 'Onshore Wind: Policy Statement 2022' (OWPS '22) was published in December 2022. The OWPS clarifies the strengthened Scottish Government position on the construction of new wind farms, stating: "*The only areas where wind energy is not supported are National Parks and National Scenic Areas. Outside of these areas, the criteria for assessing proposals have been updated, including stronger weight being afforded to the contribution of the development to the climate emergency, as well as community benefits*"



42. In terms of design principles, the OWPS highlights the necessity for taller turbines in section 3.4.6 stating “...*What would previously have been considered ‘taller’ turbines are now more common and must continue to be deployed in appropriate locations...*” whilst in section 3.4.7 it reiterates why these, taller, turbines are required “*Taller turbines have a higher installed capacity which results in the need for fewer turbines per site.*”



4.0 Design Principles

43. The layout and design of the Proposed Development were considered as part of an iterative design process aimed at reducing the potential environmental effects of the Proposed Development whilst maximising yield.

44. The key constraints which were considered during the design process for the Proposed Development included:

- topography and ground conditions (particularly in relation to peat);
- adjacent wind development and distance to any operational wind turbines;
- identified landscape and visual sensitivities;
- proximity to residential receptors (with regards visual amenity, shadow flicker and noise);
- presence of ornithology, protected habitats and species;
- presence of watercourses, private water supplies and related infrastructure;
- presence of cultural heritage features;
- fixed telecommunication links;
- forestry;
- recreation; and
- aviation and radar constraints.

45. The findings of the technical and environmental studies undertaken for the EIA were used to inform the design of the Proposed Development and hence achieved a 'best fit' within the environment of the site. Where potentially significant effects were identified, efforts were made to avoid these through evolving the design of the Proposed Development, and 'embedding' mitigation into the design. 'Embedded mitigation' includes but is not limited to:

- considering the size and scale of the Proposed Development appropriate to the location;
- use of existing tracks within the site where possible and upgrading these as necessary to minimise groundworks;
- sensitive siting of the proposed infrastructure incorporating appropriate buffer distances from environmental receptors to avoid or reduce effects on the environment;
- considering the scale, appearance, finish and colour of wind turbines and the control buildings in accordance with the now NatureScot (NS) (formerly Scottish Natural Heritage (SNH) guidance 'Siting and Designing Wind Farms in the Landscape', Version 3a (SNH, 2017); and
- potential for up to 50m micrositing of infrastructure during construction to ensure the best possible location is chosen based on site investigations.

46. Stakeholder consultation on the evolving design was also undertaken.



47. A pre-application advice request was submitted to SLC in February 2024, within which an accompanied site visit was requested along with an opportunity to discuss key constraints and opportunities which apply to the site and Proposed Development. An initial layout also accompanied this request. In correspondence received from SLC dated 07 March 2024, the Planning Officer advised that *“at this moment the planning service is unable to provide any detailed pre app advice on renewable proposals.”*
48. A Scoping Report was submitted to SLC in April 2024, requesting a Scoping Opinion however, a formal Scoping Opinion was not received from SLC or any other statutory consultees. SLC responded to the Applicant by email on 06 June 2024 noting: *“I do think it’s unlikely that we will be able to provide a full formal response in the near future. Nevertheless, I have reviewed the scoping report and can advise that the topics covered and the detail provided appears acceptable. I hope this is acceptable to you and allows you to progress the application. The application will be subject to full consultation and consultees will be able to provide comments at that time”.*
49. As a result, it has not been possible to discuss the initial design or design considerations with SLC ahead of formal submission of the planning application for the Proposed Development.
50. Two public consultation events were undertaken in Gilmourton Rural Hall, in May and September 2024, which allowed members of the local community to comment on the design proposals and feedback was incorporated into the design evolution process where possible. A project website was also set up in May 2024 and updated in September 2024 to allow those unable to attend public consultation events to comment on the proposals. The PAC Report submitted with the application sets out how consultation has influenced the design process.
51. Disabled design and access requirements are not considered applicable to the design of the Proposed Development.

4.1 Turbine Layout Evolution

52. The initial potential development area within the site boundary was refined using Geographic Information Systems (GIS) constraints mapping. These constraints (comprised of various environmental, technical and landscape and visual constraints) were used to inform the evolution of the location of the proposed turbines and associated infrastructure.
53. Different layouts were examined from key design viewpoints to assess and optimise the number, size and layout of the proposed turbines in relation to the landform of the site and surrounds insofar as possible, whilst also taking into consideration energy generation (e.g. wake loss) and other environmental, technical and economic considerations.
54. During initial feasibility, turbine tip heights up to 230m were considered. It was decided early on in the design process that turbines no greater than 200m blade tip height were most suitable for the site.
55. The key objectives of the turbine layout design process were:
 - to create a visually legible design, insofar as was possible on a site, which is constrained by other environmental and technical issues, and create a simple, cohesive and compact layout, viewed consistently from different positions;



- to locate wind turbines within the core of Mossmulloch Forest to maximise separation distances from residential properties, and in so doing that minimise effects upon their visual amenity;
- to use the existing access tracks as much as possible, minimising the need for additional tracks;
- to site buildings within areas of forestry which affords them a level of screening from the surrounding landscape; and
- the planting of native woodland around the perimeter of the site to provide a level of screening to infrastructure associated with the Proposed Development and the bases of the wind turbines.

56. The design improvements that have resulted from meeting these objectives have notably reduced the effects of the Proposed Development on landscape, visual and residential receptors in the Study Area.

57. Four of the key design iterations for the Proposed Development are shown on **Figure 4** and detailed in **Table 1**.

Table 1: Design Iterations (Turbine Layout)

Layout	Stage	No. of Turbines	Tip Height (m)	Turbine Capacity (MW)	Total Capacity (MW)	Description
A	Initial	9	180	4.3	38.7	Maximum project inception layout. A larger number of smaller turbines were initially considered for the site.
B	Scoping	6	200	7.2	43.2	Submitted scoping layout 2024. Takes account of initial environmental constraints.
C	Telecommunications Considerations	6	200	7.2	43.2	Consultation with Arqiva determined that two turbines from the scoping layout were located within a 100m buffer to a fixed link running across the site. The 6 turbine layout was refined to ensure all turbines were outwith this buffer zone.
D	Design Freeze	5	200	7.2	36	Design freeze layout. Further work on residential visual amenity resulted in locating the turbines further away from nearby residential receptors, necessitating the removal of one of the turbines from the layout.



58. The final Proposed Development layout comprises five wind turbines with a blade tip height of up to 200m. When compared with the initial layout, this optimised design has an installed capacity of approximately 36MW, only 2.7MW less than the initial layout's 38.7MW, whilst using almost half the number of turbines, with an increase in blade tip height of only 20m.

4.2 Site Access and Site Tracks

59. The site would be accessed via a new access track from the A71 into the eastern section of the site. The access track would enter the site via the eastern boundary, approximately 60m south of the Ardochrig Road junction, before extending westwards towards the proposed turbine locations.

60. The first section of this access track would be the same access junction and track used for the proposed South Brownhill Wind Farm application, thereby sharing an access point to minimise new track being built in the event that both schemes are consented.

61. The proposed new access tracks have been designed to be as direct and short as possible, whilst attempting to minimise the number of watercourse crossings required and minimise the potential effects on peat. Floating track is proposed for 3.2km of the new track to minimise the amount of peat that needs to be excavated from the site, the amount of cut and fill required and to help maintain hydrological connectivity across the site.

62. Existing tracks and forest rides have been used where possible to minimise the amount of new track construction and ground disturbance. In the final track layout (shown as Layout 4, **Figure 5**), approximately 1km of existing forestry access tracks on the site have been utilised thereby minimising the length of new tracks required to be built for the Proposed Development to approximately 4.3km.

Turbine Foundations and Hardstanding Areas

63. The turbine foundations and adjacent crane hardstanding and laydown areas have been designed, located and orientated appropriately to minimise peat disturbance and the amount of cut and fill required. Specific design options have been reviewed in regard to their suitability for use on deep peat and best practice construction methods would be employed in line with the final Peat Management Plan (PMP) and Construction Environmental Management Plan (CEMP) to ensure disturbance to peat is minimised and peat remains stable. The key design iterations for foundations and crane hardstandings for the Proposed Development are shown on **Figure 5** and described in **Table 2**.

Table 2: Design Iterations: (Site Tracks and Crane Hardstanding Layout)

Layout	Stage	Description
1	Initial Site Infrastructure	An initial configuration of site tracks and hardstandings was developed on the five turbine layout based on use of existing track, minimising the number of required watercourse crossings, slope gradients and constructability.
2	Track Length Optimisation	An improvement to the site tracks leading to Turbines 4 and 5 was made to shorten the length of track and peat disturbance required. The crane pad for Turbine 5 was reorientated so that it could maintain its position outside of the 50m watercourse buffer.



Layout	Stage	Description
3	Habitat and Peat Avoidance	Instead of a spur to Turbine 5, the track alignment was continued to the north west instead of deviating south. Another improvement was made to the site tracks leading to Turbines 4 and 5 in order to further avoid sensitive bog habitat classified as f2c8 'Transition Mires and Quaking Bogs'; Upland (H7140) habitat and f1a5 Blanket Bog habitat (H7130) in UK Habitat Classification.
4	Design Freeze Layout	The north to south alignment of the section of track leading to Turbine 1 was shifted to the west to match a recently constructed forestry spur road implemented by the landowner maximising use of existing tracks on the site.

4.3 Temporary Construction Compound

64. The temporary construction compound would be located by the site entrance, adjacent to the new access track, as shown on **Figure 2**. The compound would measure up to 50m x 50m and would accommodate space for construction staff car parking, site offices and welfare facilities, a storage area and would be surrounded by a security fence up to 2.5m high. This location is considered most appropriate as it:

- has appropriate topography;
- is easily accessible;
- is located outwith forestry, minimising the felling required for the Proposed Development; and
- is located within an area where peat depth is less than 0.5m (i.e. peaty soils), minimising amount of cut and fill required and disturbance to peat.

4.4 Substation Compound

65. The substation compound would be located in the northern extent of the site, adjacent to the site boundary, and to the existing/upgraded forestry access track, with its centre point at NGR 262978, 642822. The substation compound would measure up to 80m x 80m and would accommodate transformer and switchgear along with vehicle parking bays and a control building. This location is considered appropriate as it:

- has appropriate topography;
- is easily accessible;
- is located within an area where peat depth is less than 0.5m (i.e. peaty soils), minimising amount of cut and fill required and disturbance to peat; and
- is the closest point within the site boundary to the proposed connection point at East Kilbride South substation, minimising the amount of cabling required.

66. The control building, within the substation compound, would be located greater than topple distance from the proposed turbines. The internal site grid connection cables would be



underground within the site from each turbine to the control building, therefore avoiding visual impact.



5.0 Proposed Development

67. The Proposed Development is described in detail in **Chapter 3** of the EIA Report. An Outline CEMP is contained in the EIA Report as **Technical Appendix 3.2**. The layout of the Proposed Development is shown on **Figure 3**. In summary, the Proposed Development would comprise:

- five wind turbines (with blade tip heights of up to 200m);
- turbine foundations (up to 30m diameter) and associated crane hardstandings (approximately 80m x 35m) plus laydown areas;
- up to 4.3km of new access tracks, and 1.6km of existing access tracks (0.6km of which may need to be upgraded) with a typical 5m running width and associated drainage. 3.2km of new track is anticipated to be floating track where consistent peat depths of 1-1.5m or greater are identified along with shallow topography in the area (below 5%);
- underground cabling and electrical infrastructure along access tracks to connect the turbine locations, and the onsite electrical substation;
- an onsite substation which would accommodate 33 Kilovolt (kV) switchgear to collect electricity from the wind turbines. The substation compound would have a typical area of 80m x 80m and would include a control and metering building;
- access junction to the site via the eastern boundary, approximately 60m south of the Ardochrig Road junction for construction and site traffic;
- four new watercourse crossings and one existing watercourse crossing which may be upgraded;
- a temporary construction compound (50m x 50m); and
- clearance of approximately 130ha of conifer forest to allow for construction and operation of the infrastructure and for habitat restoration and enhancement measures.

68. Based on the proposed maximum turbine tip height, the installed nominal capacity of each turbine would be up to 7.2MW, with a total generation capacity of up to 36MW.

69. A distribution grid connection offer has been made for the project capacity, based on an underground 33kV grid connection. The grid connection point for the Proposed Development is subject to confirmation by the network operator, however, the anticipated connection point to the electrical grid system is East Kilbride South substation, approximately 9km to the north of the site.



6.0 Access

Construction and Operational Access to Site

70. The proposed abnormal load route required to transport turbine components to the site would begin from King George V dock in Glasgow, then via the M8 and M74 motorway network, and then westwards on the A71 to the access to the Proposed Development, passing through Strathaven.
71. It is proposed that access to the site for construction and operation of the Proposed Development would be via a new access constructed from the A71 to the west of Strathaven and approximately 60m to the south of Ardochrig Road, as set out on **Figure 3**.

Internal Access Tracks

72. Up to 4.3km of new onsite access tracks with a typical running width of 5 m (wider on bends) and 1.6km of upgraded existing access tracks (0.6km of which may need to be upgraded) and associated drainage would be required. Site visits have confirmed that peat >1m is extensive over the site with an average depth of 3.26m, as presented on **Figure 11.1.4**. Due to the depths of peat recorded, it is proposed that the majority of the new track formation (3.2km) within the site would be floating track to minimise peat disturbance. Approximately 1.1km of the section of track leading from the A71 from the site access would be constructed by cut and fill or by a cut operation where there is a slope. Where the peat layer is more than 1m in depth and where there is a side slope the peat would be removed to an appropriate horizon.
73. The tracks would be left in place following construction to provide access for maintenance, repairs, and eventual decommissioning of the Proposed Development. At the end of the construction period, the edges of all new tracks would be restored using materials stripped from excavations.
74. The design of the infrastructure has attempted to minimise the number of new watercourse crossings. However, four new watercourse crossings would be required along with the potential for one further watercourse crossing to be upgraded within the site.

Public Access - Pedestrian

75. Public access to the Proposed Development would be restricted during the construction of the wind farm for health and safety reasons due to construction activities, the movement of heavy plant and the erection of turbines.
76. When operational, however, while no formal access arrangements would be implemented, members of the public would be able to access the site on foot and make use of the access tracks under the provisions of the Land Reform Act.
77. During periods of maintenance, access by the public could be restricted depending on the nature of the maintenance activity.



Public Access – Vehicular

78. During operation of the Proposed Development, vehicular access would be limited to individuals directly involved in the maintenance of the wind farm, the landowners and their agents, and emergency vehicles.

Turbine Access and Substation Compound

79. It is not proposed that there would be public access to the proposed wind turbines or substation compound. Due to health and safety reasons, access to these areas will be restricted to employees of, and contractors appointed by Wind Power North 3 Limited.



7.0 Conclusion

80. The evolution of the design and layout of the Proposed Development was an iterative constraint-led process driven by the technical and environmental studies undertaken for the EIA along with inputs arising from public consultation.
81. The design optimisation process was iterative, involving a review of multiple layouts and adjustment to turbine locations to minimise potentially adverse impacts insofar as possible.
82. In conjunction with the design evolution and optimisation process, EIA studies have been used to achieve a 'best fit' within the environment of the site. Access to the site would use existing tracks where possible, to minimise construction work and environmental impacts. The Proposed Development would also share the access junction and track used for the proposed South Brownhill Wind Farm application, thereby sharing an access point to minimise new track being built in the event that both schemes are consented.
83. The final layout comprises five wind turbines. This is considered to be the most appropriate number of turbines to be accommodated on the site, balancing both energy yield and contribution towards renewable energy generation targets, with key planning and environmental constraints.



References

- Scottish Government (2014). Scottish Planning Policy. Available at: <https://www.gov.scot/publications/scottish-planning-policy/> [Accessed 20 November 2024]
- Scottish Government (2022). Onshore Wind Policy Statement. Available at: <https://www.gov.scot/publications/onshore-wind-policy-statement-2022/> [Accessed 20 November 2024]
- Scottish Government (2023). National Planning Framework 4. Available at: <https://www.gov.scot/publications/national-planning-framework-4/> [Accessed 20 November 2024]
- South Lanarkshire Council (2016). Landscape Capacity Study for Wind Energy. Available at: https://www.southlanarkshire.gov.uk/downloads/download/868/renewable_energy_supplementary_guidance [Accessed 20 November 2024]
- South Lanarkshire Council (2019). Tall Wind Turbines: Landscape Capacity, Siting and Design Guidance. Available at: https://www.southlanarkshire.gov.uk/downloads/download/868/renewable_energy_supplementary_guidance [Accessed 20 November 2024]
- South Lanarkshire Council (2021). Local Development Plan 2. Available at: https://www.southlanarkshire.gov.uk/info/200305/development_plans/2253/local_development_plan_2_ldp2 [Accessed 20 November 2024]
- South Lanarkshire Council (2021). Supporting Planning Guidance: Renewable Energy. Available at: https://www.southlanarkshire.gov.uk/downloads/download/868/renewable_energy_supplementary_guidance [Accessed 20 November 2024]



250000

260000

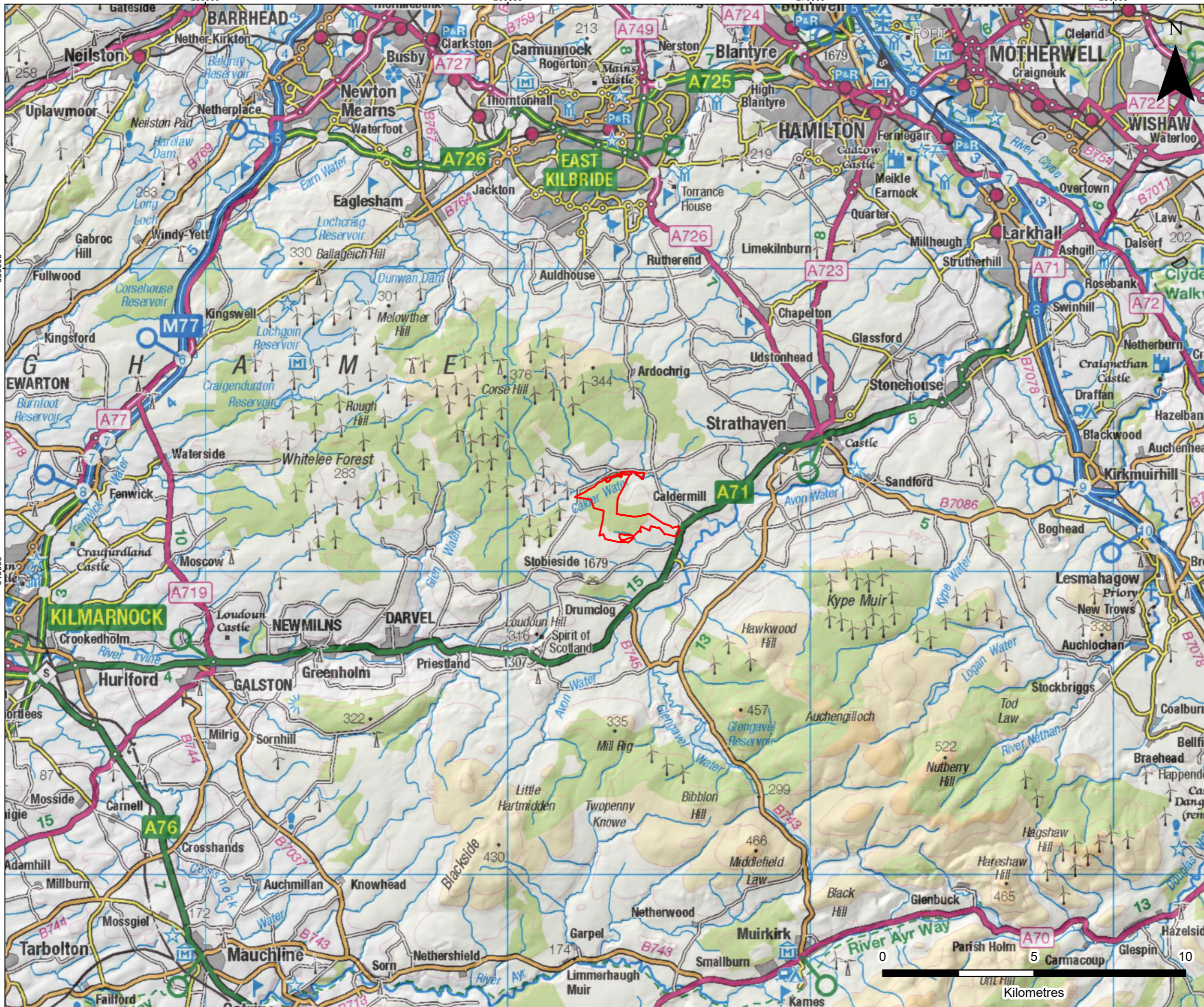
270000

280000

650000

640000

405.065072.00001.0149.0 Site Location



LEGEND

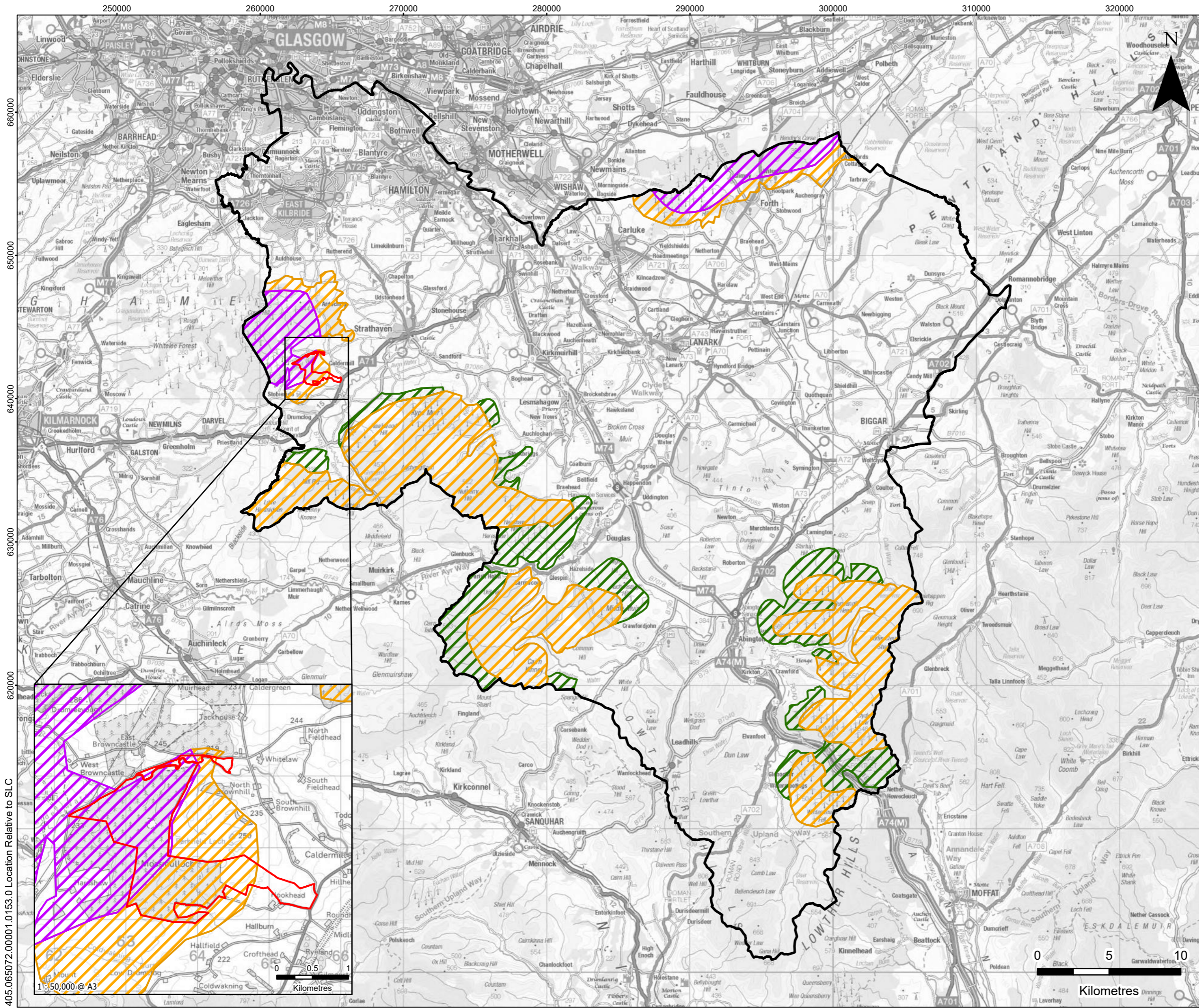
 Site Boundary








MOSSMULLOCH WIND FARM EIAR
 DESIGN AND ACCESS STATEMENT
 SITE CONTEXT AND LOCATION PLAN

FIGURE 1

Scale 1:120,000 @ A3 Date NOVEMBER 2024



LEGEND

-  Site Boundary
-  South Lanarkshire Council (SLC) Boundary
- Landscape Capacity (150 to 250 m Turbines)**
-  High
-  Medium
-  Low



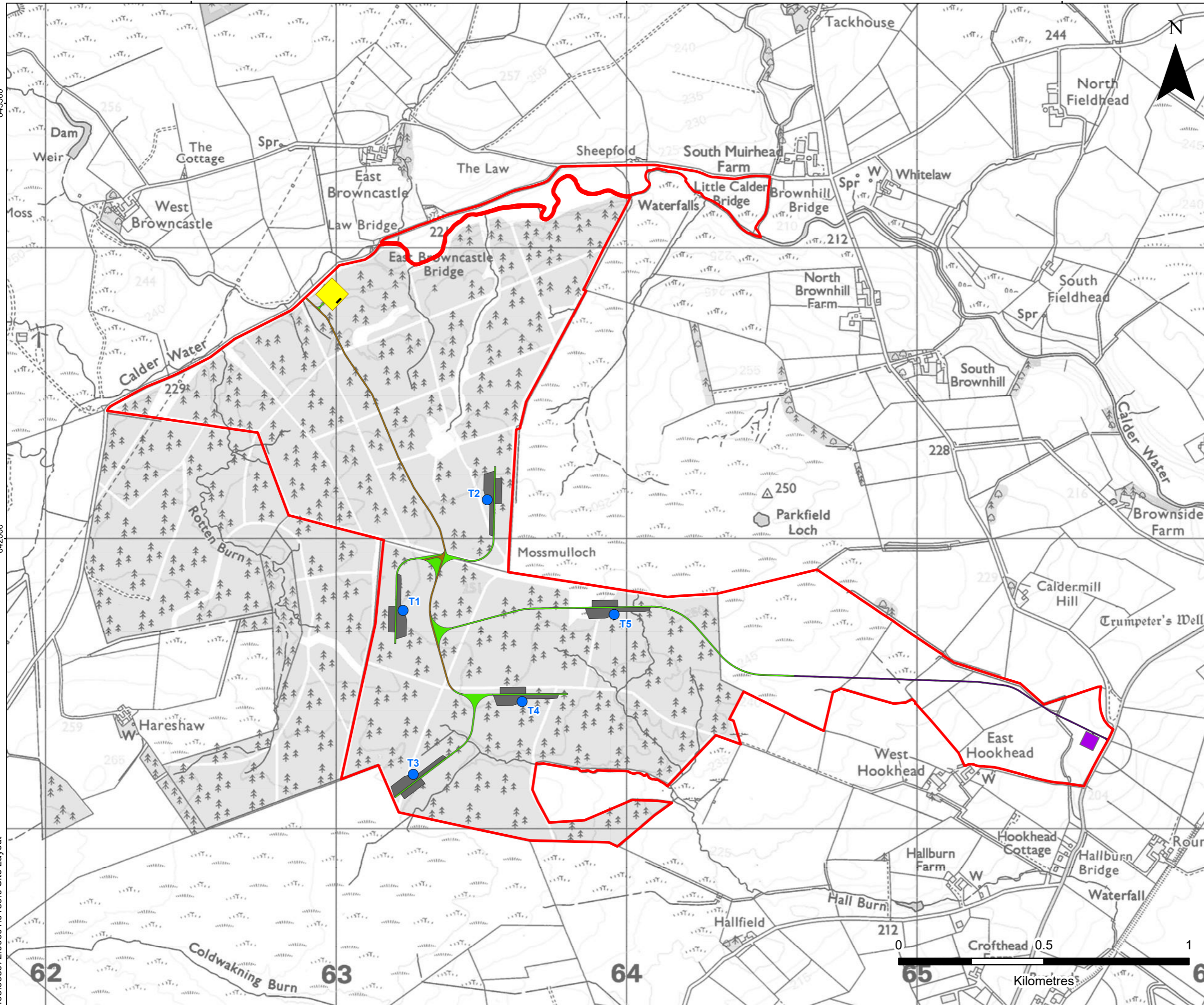



**MOSSMULLOCH WIND FARM EIAR
DESIGN AND ACCESS STATEMENT**

**LOCATION OF SITE RELATIVE
TO SLC TALL WIND TURBINES:
LANDSCAPE CAPACITY, SITING
AND DESIGN GUIDANCE**

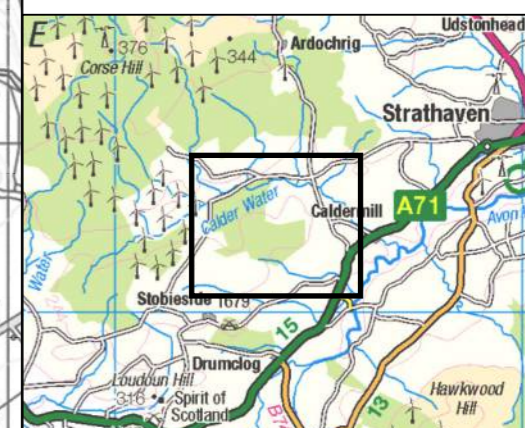
FIGURE 2

Scale 1:250,000 @ A3 Date DECEMBER 2024



LEGEND

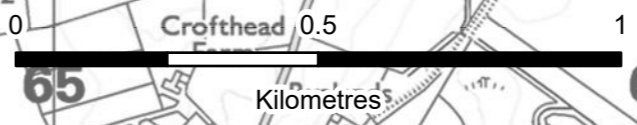
- Site Boundary
- Proposed Turbine Location
- Proposed Hardstanding and Laydown Area
- Proposed Substation Compound
- Proposed Substation Control Building
- Proposed Temporary Construction Compound
- Proposed Cut Access Track
- Proposed Floating Access Track
- Existing Access Track

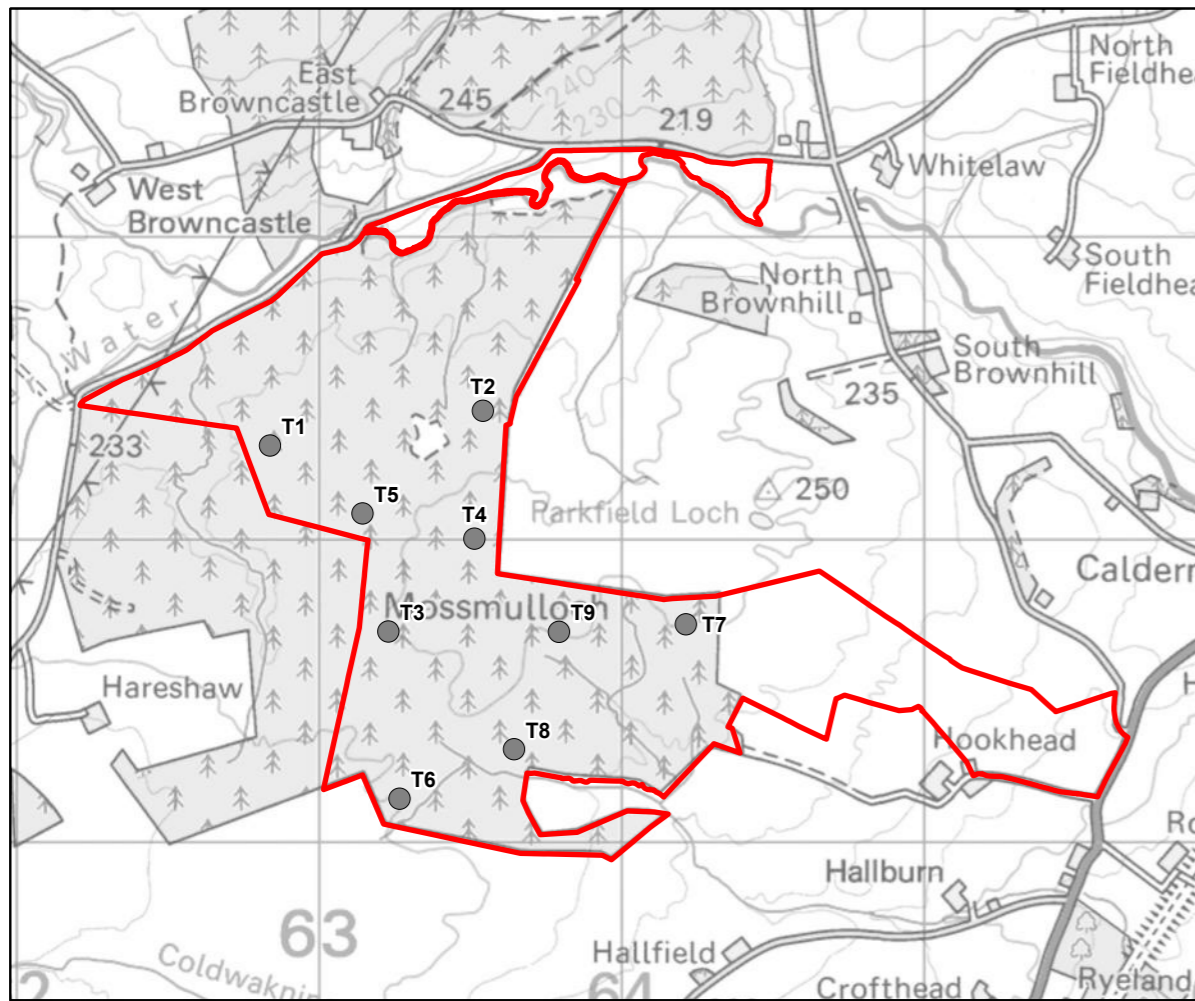


MOSSMULLOCH WIND FARM EIAR
 DESIGN AND ACCESS STATEMENT
PROPOSED SITE LAYOUT

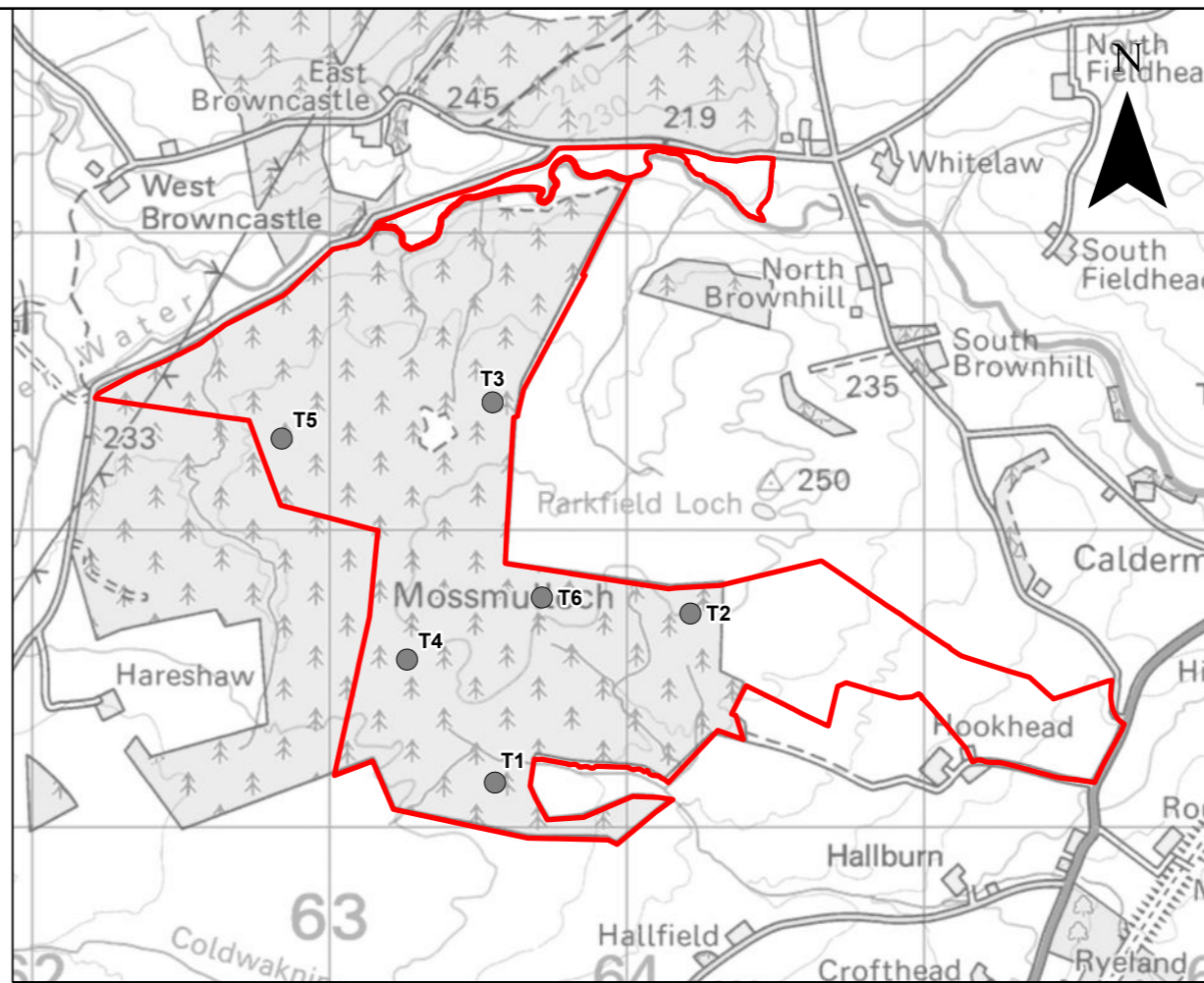
FIGURE 3

Scale 1:12,500 @ A3 Date NOVEMBER 2024

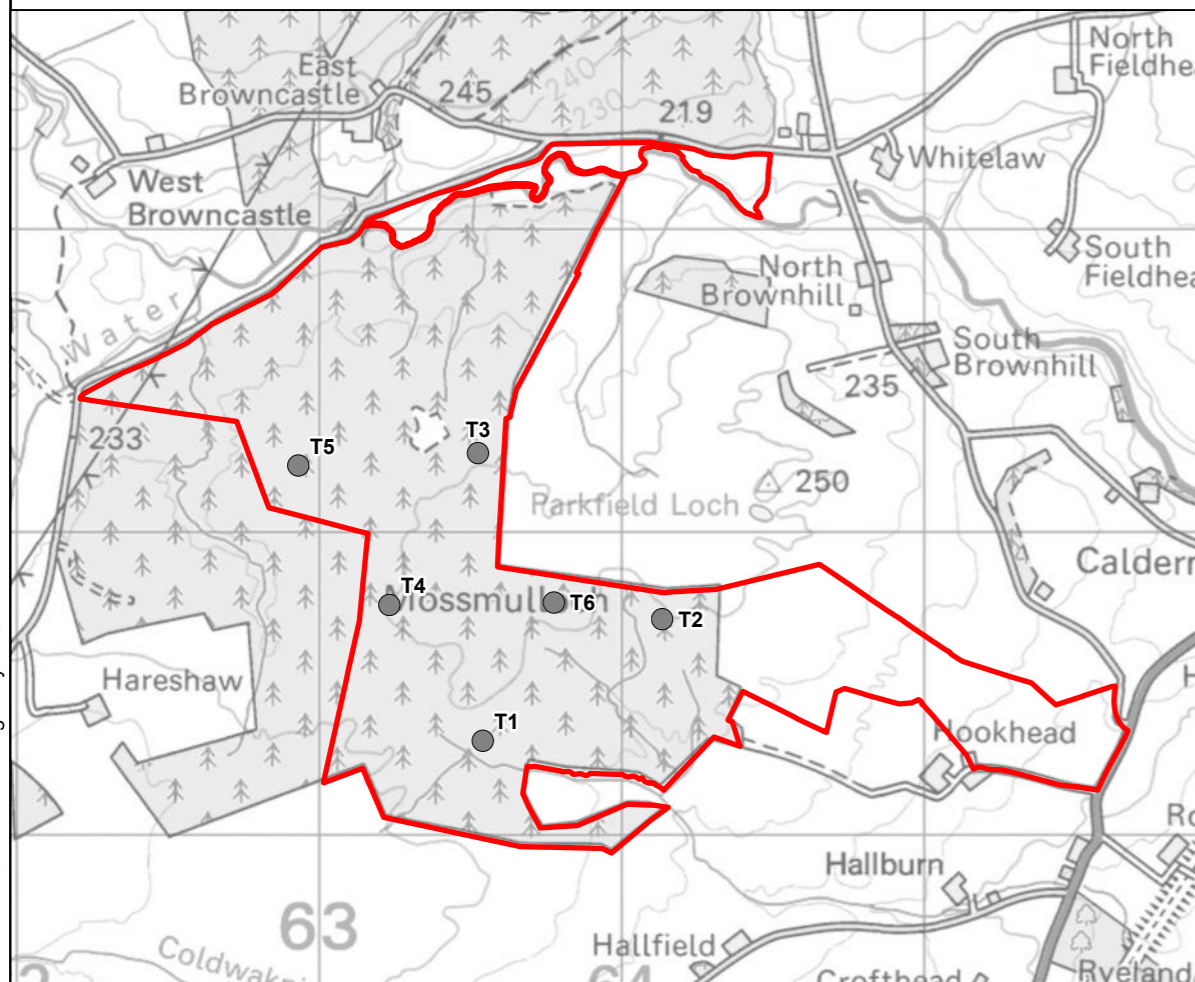




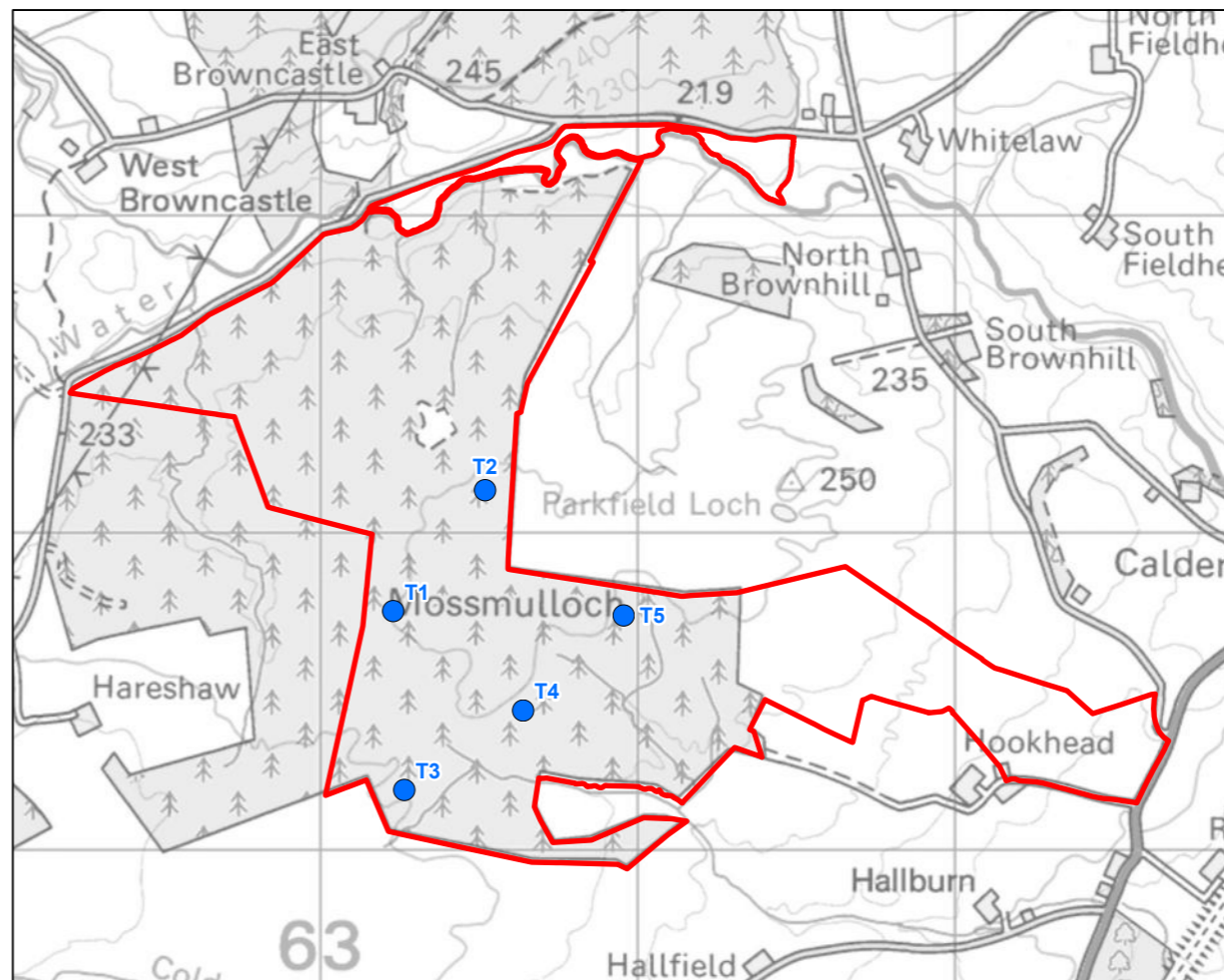
Layout A : Initial Design, 9 Turbines at 180 m



Layout B : Scoping Design, 6 Turbines at 200 m



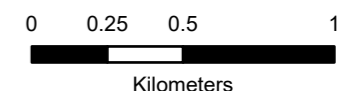
Layout C : Link Path Buffer, 6 Turbines at 200 m



Layout D : Design Freeze, 5 Turbines at 200 m

LEGEND

- Site Boundary
- Proposed Turbine Location
- Design Evolution - Previous Proposed Turbine Location

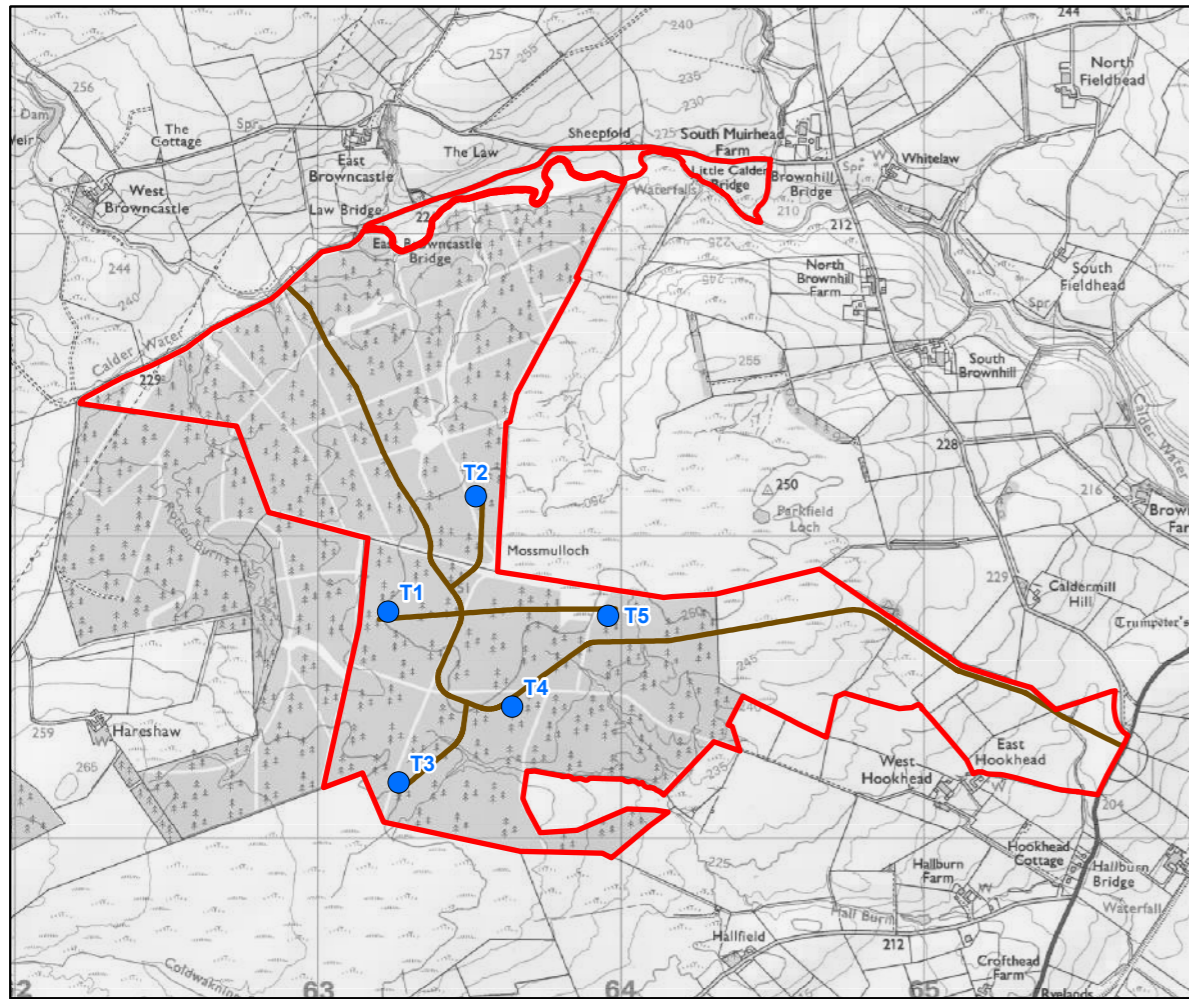


MOSSMULLOCH WIND FARM EIAR
 DESIGN AND ACCESS STATEMENT
 TURBINE LAYOUT EVOLUTION

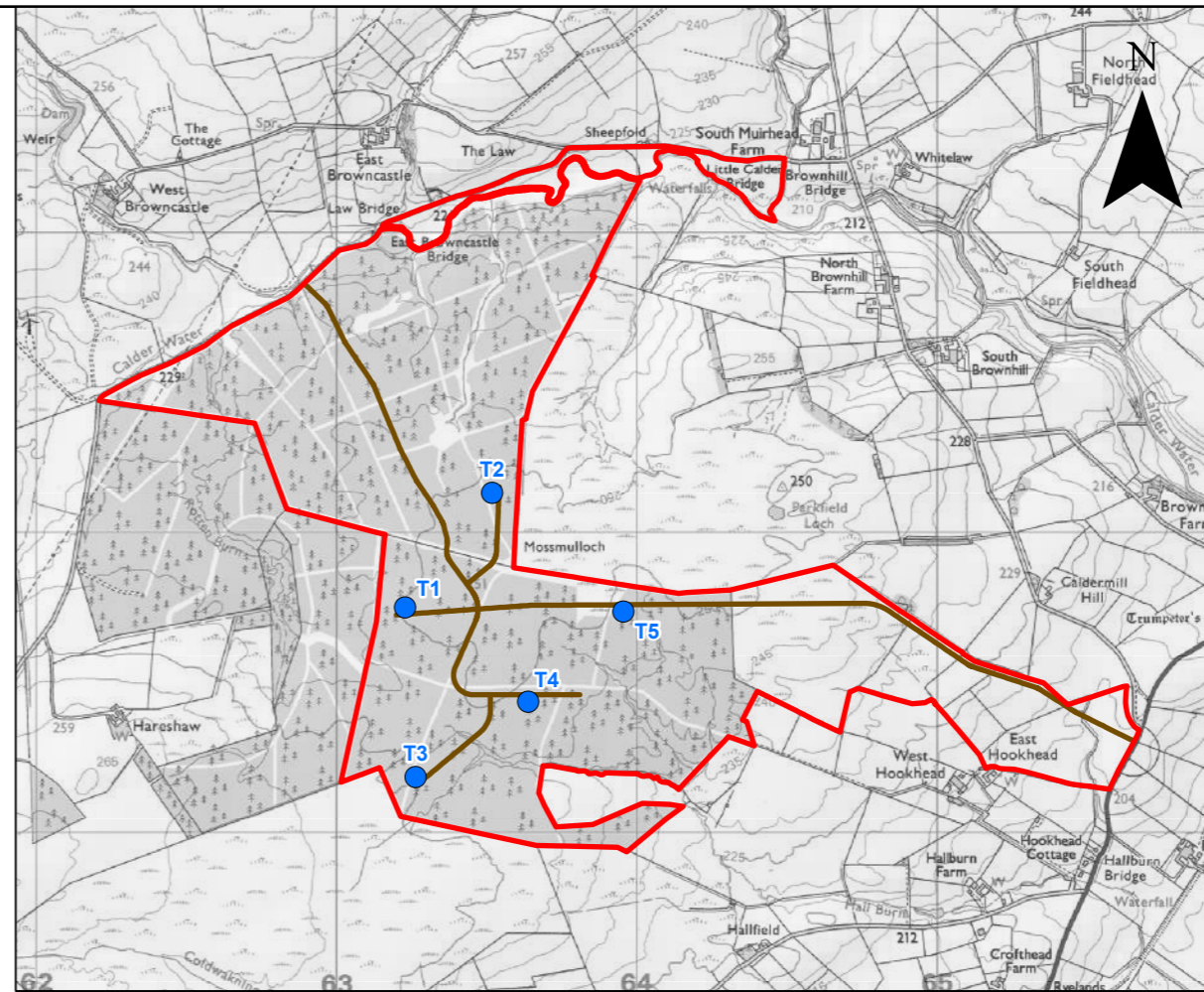
FIGURE 4

Scale: 1:25,000 @ A3 Date: NOVEMBER 2024

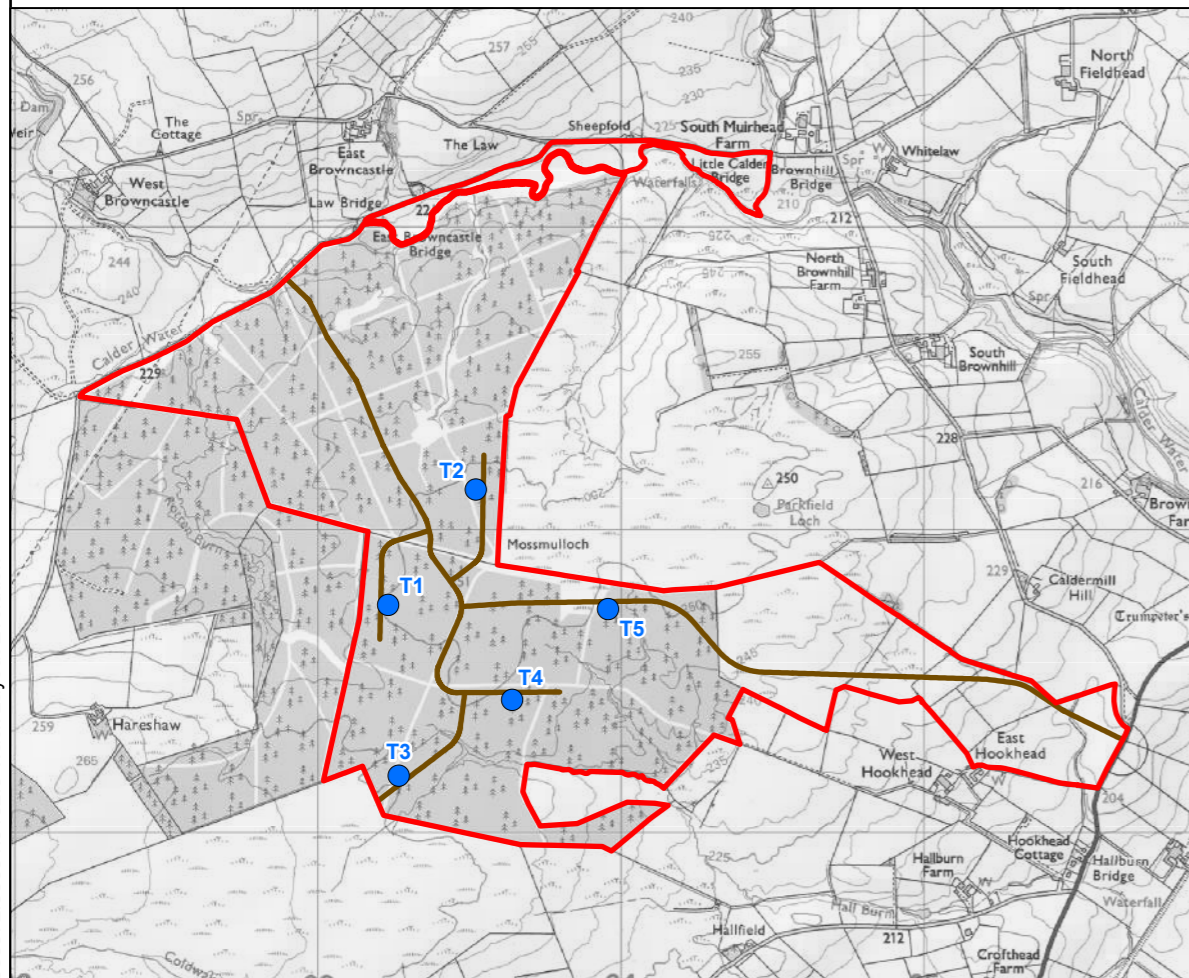
405.065072.00001.0151.0 Design Layout Evolution



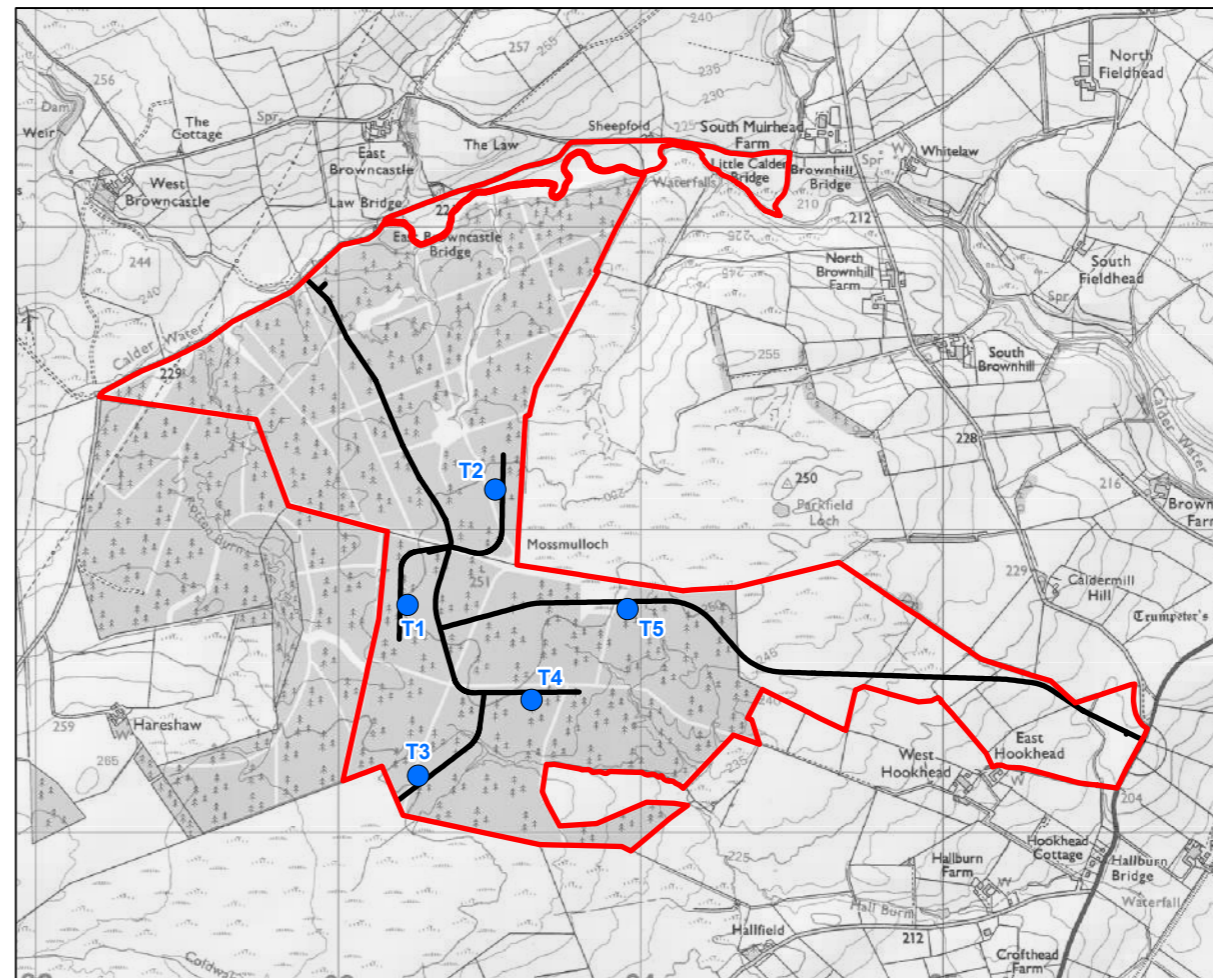
Iteration 1



Iteration 2



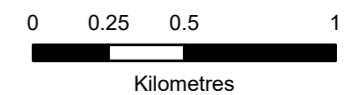
Iteration 3



Iteration 4: Design Freeze

LEGEND

- Proposed Site Boundary
- Proposed Turbine Location
- Proposed Track Layout
- Track Layout Evolution - Previous Proposed Track Layout



MOSSMULLOCH WIND FARM EIAR
 DESIGN AND ACCESS STATEMENT
 TRACK LAYOUT EVOLUTION

FIGURE 5

Scale 1:25,000 @ A3 Date NOVEMBER 2024

405.065072.00001.0152.0 Track Layout Evolution