



SCOTTISHPOWER RENEWABLES

Hollandmey Renewable Energy Development EIA Technical Appendix 12.1

Draft Construction Traffic Management Plan

662888

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1 INTRODUCTION

1.1 Purpose and Scope

This outline Construction Traffic Management Plan (CTMP) provides information to the Highland Council (THC) and Transport Scotland (TS) in regard to the management of all the construction traffic related to the proposed Development, with particular reference to environmental safeguards and mitigation required to address impacts identified in the Environmental Impact Assessment (EIA). **Chapter 12: Access, Traffic and Transport** of the EIA Report has been referenced where relevant.

The purpose of the outline CTMP is to set out the areas for consideration when preparing the programme of works and when undertaking the Site construction. It would be used during the construction phase of the development and updated as necessary, acting as a 'live' document to ensure it is always current. Where the document is updated it will clearly be noted as a variation.

This CTMP will need to be updated by the Principal Contractor, with detailed traffic management measures for various sections of the construction route for the abnormal loads.

1.2 Key Considerations

This CTMP is the first stage of the requirement to manage and control all related traffic activity during the construction phase of the Development. This CTMP contains the following information outlined in **Table 1.1**

Table 1.1: Key CTMP Topics

Section	Topic
Section 1	Introduction
Section 2	Background to the Development
Section 3	Construction
Section 4	Mitigation Measures
Section 5	Complaints and Enquiries Procedure
Section 6	Summary and Closure

The principal mitigation measures that the CTMP will cover may be summarised as follows:

- Methods for accessing the Site;
- Site access improvements;
- Contractor responsibilities;
- Abnormal load management;
- On-site management;
- Adverse weather conditions; and
- Driving and speed restrictions.

2 BACKGROUND

2.1 Proposed Development

Hollandmey Renewable Energy Development (proposed Development) is located approximately 8 km south west of John o' Groats and 16 km east of Thurso, situated within the north eastern part of Caithness and Sutherland of the Highland Council region.

The proposed Development is a renewable energy development that intends to make the best use of available renewable energy technologies to maximise and optimise the renewable energy potential of the Site. For this consent application, ScottishPower Renewables (SPR) intend to construct a blend of renewable energy technologies, including 10 wind turbines up to 149.9 m in height, with an installed capacity of around 50 MW, and around 15 MW of ground mounted solar arrays producing a combined output of around 65 MW. The application also includes approximately 15 MW of battery storage (BESS) to store energy, approximately 12 km of new and upgraded access tracks, 8 new or upgraded licensed water crossings, hardstandings, underground cabling, temporary site construction compounds and anemometry mast.

The proposed site access option is shown in **Figure 12.1: Site Access Details**, and is provided in Appendix 1 of this CTMP.

2.2 Local Highway Network

2.2.1 Site Access

There is an existing access track off the main highway network (the C1033 Everly-Crockster Toll Road), adjacent to West Lodge, south of the village of Mey.

2.2.2 C1033 Everly-Crockster Toll Road

The C1033 runs broadly parallel and south of the A836 in the vicinity of the Site and provides the main access to the Site. It is of a rural single-track road construction with passing places. Distances between passing places/widened carriageway varies between 100-150 m and 400 m. The road has good forward visibility and is subject to the National Speed Limit. It is bounded by open rural land with intermittent field accesses. Frontage access is limited to the occasional single dwelling or small cluster of dwellings. There is no pedestrian infrastructure provision.

2.2.3 U1633 East Lodge road

East Lodge road connects the Everly Crockster Toll Road to the A836 around 1 km to the east of the Site access road. The road is of rural single-track construction with passing places/road widenings. It widens to a single carriageway, for its final 10m, as it approaches its junction with the A836. It is subject to the National Speed Limit. There is no pedestrian infrastructure.

2.2.4 A836 Dornoch-Tongue-John O'Groats Road

The A836 connects Thurso to the A99 at John O'Groats and provides a key route for access to the Site which is located to the south of the village of Mey. Directly north of the Site access, West Lodge Road extends northwards to the A836. However, this is not suitable for construction traffic given its narrow width and poor forward visibility. Within the vicinity of the site, the A836 is a two-lane single carriageway road, and is subject to a 40mph speed limit through the village of Mey. Outwith the

village boundary the speed limit increases to the National Speed Limit. Pedestrian footway provision is limited to the main village centre, to the northern side of the carriageway extending from the Castle Arms Hotel eastwards to Royal Crescent. Street lighting is also limited to the main built-up area. A9(T) Stirling-Perth-Inverness-Thurso Trunk Road.

The southern end of the A99 connects to the A9(T) at Latheron at a simple priority junction. Modifications have been made to this junction historically to cater for the transport of wind turbine generator (WTG) components. The approach to the junction from the south includes a diverge-taper layout. This two-lane single carriageway trunk road proceeds northwest towards Thurso with intermittent overtaking restrictions. Around 28 km to the north of Latheron, it meets the A882 at priority junction at Georgemas. The A9, which forms the minor southern arm, continues in a north-westerly direction as the northern part of the major arm of the junction. The road then continues north into the town of Thurso.

The road is a two-lane single-carriageway, subject to the National Speed Limit, although on entering Thurso from the south, the speed limit reduces to 30 mph before connecting to the A836 at a signalised junction, then continuing through the town. On the northern outskirts of the town, the speed limit increases to 40 mph.

Within Latheron, there are limited pedestrian facilities, with just a short section of footway present on the A9 (T). There is also a short section of footway on the A9 (T) between Mybster and Spittal, with the addition of street lighting throughout Spittal. When the A9 (T) reaches Thurso, there are footways on both sides of the carriageway and street lights throughout the town

2.2.5 A882 Wick-Georgemas Road

From Wick the A882 heads west through the village of Watten and on to the junction with the A9 (T) at Georgemas. The road is single carriageway with generally good visibility and flanked by verges on both sides. There are relatively few residential dwellings along the road with the exception of a cluster within the village of Watten that also notably includes Watten Primary School which is set well back from the carriageway. On entering Wick, the A882 passes a small stretch of residential dwellings before terminating at a crossroad junction with Newton Road and Bankhead. In rural areas the road is subject to the National Speed Limit. Within Watten, there is a footway present on the A882 and on the A882 within Wick there are footways on both sides of the carriageway for pedestrians.

3 SITE CONSTRUCTION

3.1 Construction Programme

It is anticipated that the proposed Development would be constructed over a period of approximately 22 months.

It is assumed that construction is likely to begin in 2024. The main construction works will be undertaken during months 4 to 14; turbine delivery, erection and commissioning between months 11 and 16; and solar farm construction and installation activities between months 17 and 20. The final two months of the construction programme would comprise a Wind Turbine Reliability Run and snagging followed by take-over activities.

Activities will include:

- Off-site highway works;
- Site establishment (Construction Compounds);
- Forestry felling and export;
- Construction of access tracks and crane pads;
- Turbine and Solar Foundation Construction;
- Substation civil and electrical works;
- Cable delivery and installation;
- Turbine delivery and erection;
- Solar panel delivery and installation;
- Site Commissioning; and
- Reinstatement/Restoration.

3.2 Construction Staff

The number of people employed during the construction period would vary depending on the stage of construction and the activities ongoing onsite.

It is anticipated that the peak workforce requirement would be 75 permanent construction staff.

3.3 Hours of Working

The construction working hours for the proposed development would be 07:00 to 19:00 Monday to Friday and 07:00 to 16:00 on Saturdays. It should be noted that out of necessity some activity, for example abnormal load deliveries, during large concrete pours and also during the lifting of the turbine rotors, may need to occur outside the specified hours stated, although they would not be undertaken without prior approval from THC.

3.4 Construction Access

It has been proposed that the existing junction for the access track opposite West Lodge would be used for construction, workforce and maintenance traffic.

The Site currently comprises 3.08 km of existing track (2.71 km of which would be upgraded). Approximately 8.93 km of new onsite access tracks along with the upgraded track would be required

to provide access to the wind turbines, control building compound, solar area and construction compound.

The internal access tracks require six regulated several watercourse crossings and at least six minor watercourse crossings.

3.5 Construction Movements

3.5.1 Heavy Goods Vehicles Movements

The maximum level of daily two-way trip generation would likely occur in month 3 of the 22-month programme, with a maximum of 120 HGVs when material would be imported for internal access track construction, the construction compound, turbine foundations and hard standings and materials for the control buildings and substations.

3.5.2 Cars / Light Goods Vehicles Movements

Light vehicle trip generation would be a maximum of 20 two-way movements per day at the peak of construction, which will be distributed between the A836 east and west.

4 MITIGATION MEASURES

4.1 Contractors

Contractors with experience of the nature of the construction works proposed and of this type of development, would be appointed following a tendering process. ScottishPower Renewables would appoint an Environmental Clerk of Works (EnvCoW) who would liaise with the Contractor to ensure that all activities onsite comply with appropriate construction methods, relevant planning conditions and protection of the environment. The EnvCoW would act as the first point of contact for any concerns.

All Contractors would be required to supply detailed method statements which would incorporate all planned mitigation methods. All Sub-Contractors are required to read, understand and adopt all procedures outlined within the final CTMP.

Sub-Contractors who formulate a CTMP for their work activity must issue it to the Principal Contractor for approval and acceptance prior to site issue. Any traffic management procedures required to secure a work area or safeguard Sub-Contractor operatives must be co-ordinated with ScottishPower Renewables (e.g. use of banksmen, operatives carrying out works roadside).

The Principal Contractors Site Management must be informed of any planned site activity and movement of site traffic; the issue of this information must be received within a suitable and agreed timescale to allow co-ordination of other site activities.

4.2 Road Signs

Any signage required on the public highway would be erected and positioned in accordance with the requirements of the Traffic Signs Manual and Safety at Street Works and Road Works – A Code of Practice, and in consultation with THC and Transport Scotland.

Any permanent signs and street furniture which are required to be relocated to allow abnormal loads to pass shall be identified in consultation with THC and through the trial run.

Warning signage on the Site must always be complied with. The two most important signs are “no entry” and “no unauthorised vehicles”. In order to proceed beyond these signs, vehicle drivers must stop and contact the ganger/ foreman in control of the area to be escorted through the local area.

4.3 Abnormal Indivisible Load Management

An Abnormal Loads Assessment would set out the key points and issues associated with the selected route for the abnormal loads, to verify that the route is feasible for the selected turbine delivery, subject to physical and operational mitigation works.

Detailed abnormal load delivery traffic management measures would need to be identified and included in the final CTMP (or provided as stand-alone report) setting out the mitigation required to address the potential issues the Abnormal Loads Assessment might identify.

Prior to the movement of abnormal loads, extensive public awareness is required to allow residents to plan and time their journeys to avoid disruption. The haulage Contractor shall remain responsible for obtaining all necessary permits from the relevant road and bridge authorities along the access route.

The movement of abnormal loads will be timed to avoid periods of heavy traffic flow to minimise disruption to the public. Specific timing restrictions imposed by the police or local authority have not been determined at this stage.

Through urban areas temporary parking restrictions may be necessary to guarantee a clear route for the abnormal loads, and these need to be arranged in advance through the appropriate local authority. The parking restrictions would need to be locally enforced.

Due to the size of vehicles required to transport these loads, escorts would be required for the entire route to control oncoming and conflicting traffic.

4.4 Adverse Weather Conditions

All works would be forward planned wherever practicable considering the forecast weather conditions. At the start of the day, the Site foreman would assess the weather conditions prior to permitting their operatives to access the Site.

Due to the location and topography of the Site the weather can be severe, resulting in an adverse effect on visibility. The weather would be constantly monitored and if necessary, all plant / vehicle movements would be stopped / suspended by the Site foreman if they deem it is unsafe for work to continue.

The Site foreman would assess the track and site conditions at the start of each day to determine if conditions are suitable to allow access to plant or vehicles.

During winter or poor weather, a separate procedure would be introduced to allow the track conditions to be communicated to all parties accessing the Site. An assessment would be carried out every morning by the general foreman or the foreman in control of site operations which would then be communicated to the gatehouse.

Contractors should contact the Principal Contractors general foreman to find out the situation at the Site prior to arrival to the Site, if required.

An example of how the day-to-day track conditions would be advised to all visitors is via a display board situated at the Site compound and the track condition would be rated as either:

- **Condition Red:** The access track is closed to all vehicular traffic;
- **Condition Amber:** The access track is open to 4x4 vehicles only (operating in full 4x4) and is not suitable for delivery vehicles; and
- **Condition Green:** The main Site access track is considered open to all permitted vehicles.

All Contractors would be required to make their own assessment of track conditions during access or egress from the Site and take appropriate action determined during their assessment. Over the course of the day, and in the event of weather conditions deteriorating, the Principal Contractor would notify the nominated personnel from the Contractors onsite to the present condition.

Contractors would be reminded that they have a duty to consider the weather and track conditions throughout the day and take appropriate action to ensure their safety.

4.5 On-Site Management

4.5.1 On-Site Safety

All personnel entering the working area would wear hi-visibility vest or jacket, head protection, safety footwear, eye protection and gloves at all times when out with the vehicle.

Everyone required to work within the Site would be made aware that they have a responsibility for the safety of themselves and others. All site operatives and visitors have a “duty of care” to themselves and others and need to be conscious of the surroundings and ongoing activities locally. In the event of an emergency, right of way to all emergency services would always be given. Emergency services and control of access would be carried out in compliance with the Site emergency procedures.

4.5.2 Vehicle Parking

Vehicle parking areas located at the Site construction compound would have safe and secure barriers to segregate all personnel from site plant and vehicle routes. All signage within designated car parking areas must be followed, with no vehicles parked in a way which restricts either vision or access. No parking whatsoever would be allowed on public roads; all cars that are directed to the Site car park would be required to reverse park to comply with ScottishPower Renewables and the Principal Contractors requirements.

4.5.3 On-Site Tracks

Access tracks would be monitored daily to identify any deterioration of the track condition. Non-emergency remedial works to the track would be carried out at times outside peak times of usage and significant emergency repairs would be undertaken immediately and adjacent track sections would be restricted from use as required to safely accommodate works.

All routes would be monitored for dust and control or suppression methods would be deployed as appropriate using towed dust suppression systems.

4.5.4 Site Traffic

All traffic visiting the Site would be required to report to site security where they would obtain clear instructions, before further movement is acceptable. If applicable an induction would be completed, vehicle permits would be issued, and the Site rules & emergency procedure would be explained.

All traffic would use the signed site passing places and all drivers would accommodate other track users in a courteous manner. Reversing (other than to park) within the compound areas is not permitted.

Full time site traffic (vehicles/plant situated on-site for majority of construction phase) that requires re-fuelling would follow the instructions supplied at their induction and also the guidelines within their method statement for the works.

Heavy site traffic would be equipped with audible reversing warning with additional visual aids e.g. reversing cameras, mirrors utilised on all plant. All safety features must be inspected daily with faults immediately reported to the Foreman Fitter who would assess and repair any damage to the plant. Management would ensure that all loads are covered fully to limit the loss of material in transit.

4.5.5 Vehicle Cleaning

Given the length of the access rack to and from the C1033, it is likely that most loose materials will not be deposited onto the highway. Should there be evidence of this following the commencement of construction, suitable measures would be implemented within the Site to ensure materials are not transferred onto the highway, and road cleaning would take place if required to remove any deposits that are carried from the Site.

4.6 Driving and Speed Restrictions

All vehicles (cars, LGVs, HGVs and AILs) shall always be driven in a safe but defensive driving manner, within posted speed limits. A zero-tolerance policy shall be adopted by all Contractors, such that any infringement results in that person not returning to Site.

All cars and drivers of site operative vehicles used for commuting to and from site must be road worthy and legally compliant. All commercial vehicles and drivers must be road worthy and legally compliant.

5 COMPLAINTS AND ENQUIRIES PROCEDURE

It is important that members of the public or interested parties can make valid complaints or enquiries about the transport elements of the construction works. Such complaints and enquiries can provide a valuable feedback mechanism which helps reduce potential impacts on sensitive features and would also allow the construction techniques to be refined and improved.

It is anticipated that the complaints and enquiries procedure can be made either directly to the Site Contractor or via THC and Transport Scotland as applicable, who in turn would provide feedback to the Site Contractor.

All complaints and enquiries would be logged promptly by the Site Contractor and kept onsite for review by THC upon request.

5.1 Checking and Corrective Action

As outlined above, it is intended for the CTMP to be a 'living document' which is updated periodically as and when required.

The Contractor would be responsible for establishing a programme of monitoring, the results of which shall be fed back for inclusion within the CTMP if necessary.

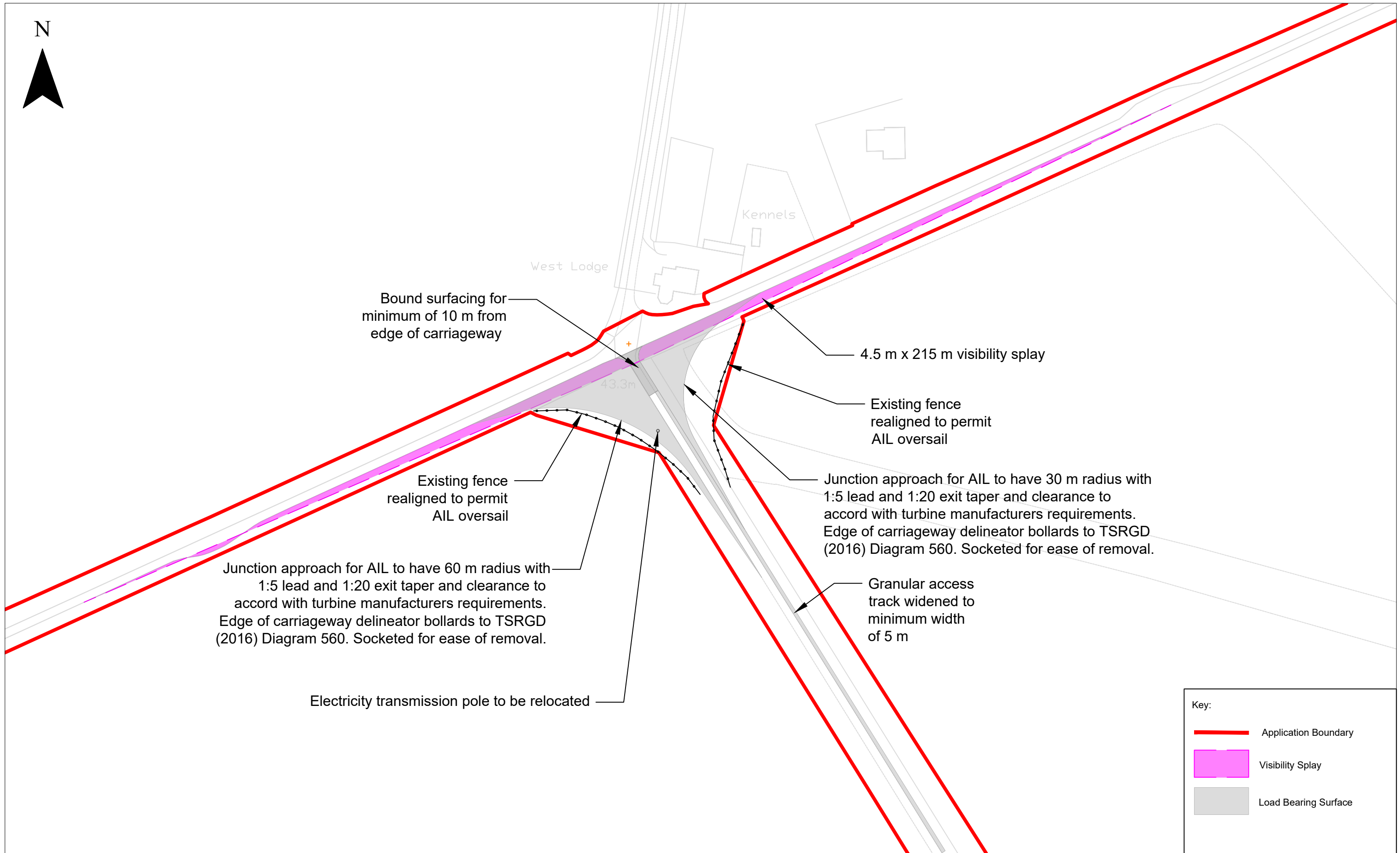
Any checking or corrective action required would also be monitored. This methodology would ensure that the construction activities are being undertaken in accordance with the CTMP and that the Contractors are held to account.

A procedure for addressing non-conformance/compliance and ensuring that corrective actions are undertaken is outlined below:

- **Completion of a Non-Conformance Report** – this would record any traffic related incident and work that has not been carried out in accordance with the CTMP or Method Statement;
- **Completion of a Corrective Action Report** – this would record any identified deficiency as a result of monitoring, inspection, surveillance and valid complaint; and
- **Action** – any necessary actions identified as a result of the above would be allocated to a responsible person, along with a timescale for the action to be undertaken.

Records of the above would be retained by the Contractor throughout the construction process. The records would be maintained either in hard copy or electronically in such a manner that they are readily identifiable, retrievable and protected against damage, deterioration or loss.

APPENDIX 1 INDICATIVE SITE ACCESS LAYOUT



05	12/11/21	JH	Application boundary, north arrow, notes and key
04	28/09/21	JW	Junction Layout and SPA updated
03	23/09/21	JW	Junction Layout and SPA updated
02	25/08/21	JW	Site boundary added
01	19/01/21	MQ	Junction Layout revised
Rev.	Date	By	Comment

1:1,250
Scale @ A3



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Hollandmey Renewable Energy Development
Figure 12.1: Site Access Details

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