North Lowther Energy Initiative

APRIL 2017

APPENDIX 12.2 CONSTRUCTION TRAFFIC MANAGEMENT PLAN

SYSTRA

TECHNICAL APPENDIX 12.2 CONSTRUCTION TRAFFIC MANAGEMENT PLAN

NORTH LOWTHER ENERGY INITIATIVE

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1. INTRODUCTION

1.1 General

1.1.1 SYSTRA Ltd has been commissioned to prepare a Framework Construction Traffic Management Plan (CTMP) in support of the proposed North Lowther Energy Initiative (NLEI) Wind Farm (hereafter referred to as the 'Proposed Development').

1.1.2 The Framework CTMP identifies the high level principles for managing the effects of vehicles associated with the Proposed Development during construction. The Framework CTMP would be updated should the Proposed Development be granted planning consent and when a contractor is appointed.

1.1.3 SYSTRA produced the Abnormal Loads Assessment (ALA) and the Environmental Statement (ES) Access, Traffic and Transport chapter to support the Environmental Impact Assessment (EIA) process for the Proposed Development. During the ALA and ES scoping exercise, Dumfries and Galloway Council (DGC) and South Lanarkshire Council (SLC) identified the requirement for a CTMP.

1.1.4 It is the responsibility of the applicant to implement the CTMP, to monitor its application and to propose and make modifications to the Plan during the planning and construction process, if necessary. Monitoring of the CTMP would be undertaken and any necessary amendments would be made in consultation with DGC as the local highway authority and with Transport Scotland in terms of and potential impacts upon the trunk road network.

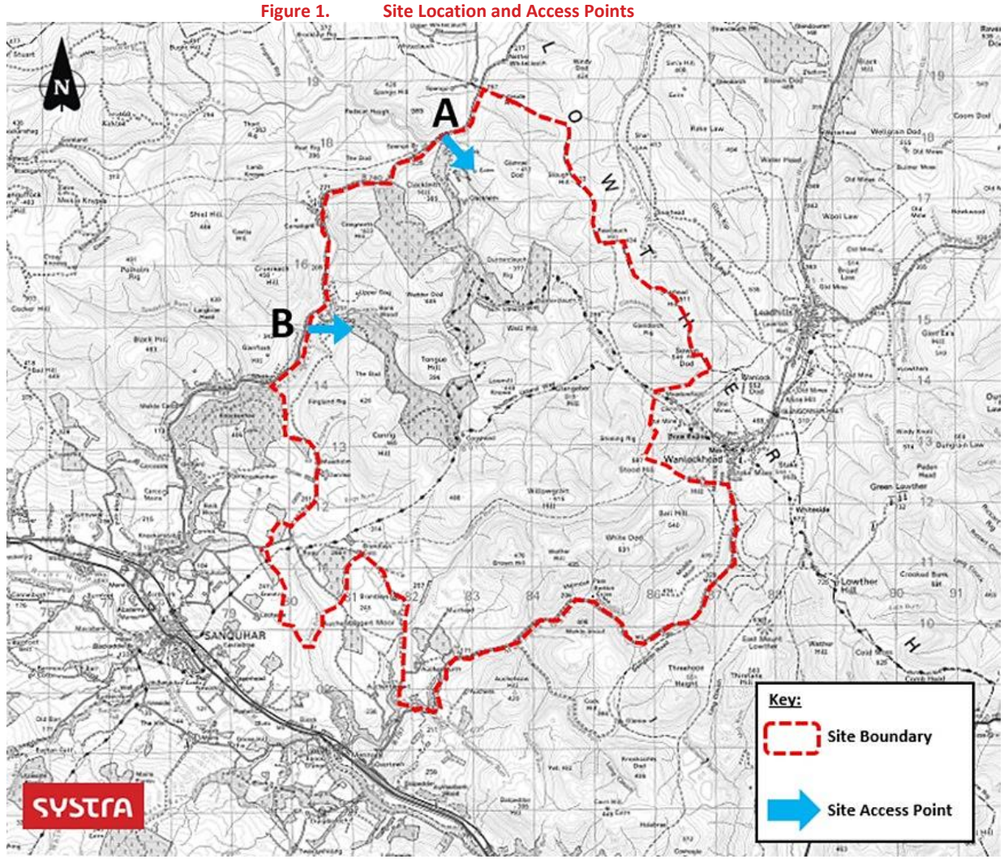
1.1.5 The CTMP is intended to be a working document that evolves during the construction period. The CTMP only applies to the construction stage of the Proposed Development and does not apply to the on-going operation or decommissioning of the Proposed Development.

1.2 Proposed Development

1.2.1 The Proposed development is located approximately 5km south of Crawfordjohn, 2km north-east of Sanquhar and west of Wanlockhead. The site is wholly located within Dumfries and Galloway and is located immediately adjacent to the administrative boundary of South Lanarkshire. Access to the Proposed Development will be taken from the B740 via two accesses, Points A and B detailed below and indicated by Figure 1:

- Access Point A from the B740 – south side of the road approximately 11km to the south-west of the junction with the B7078. General construction traffic and abnormal loads will exit the M74 trunk road (T) at Junction 13 before utilising the B7078 and B740.
- Access Point B from the B740 – east side of the road approximately 6.3km to the north-east of the junction with the A76 near Sanquhar village centre. Construction traffic will also exit the M74 (T) at Junction 13 and utilise the B7078 and B740.

Figure 1. Site Location and Access Points



1.2.2 The Proposed Development will consist of 35 wind turbines with associated infrastructure including the turbine foundations, an on-site substation and control building, a meteorological mast and underground power cables.

1.2.3 Consent for the Proposed Development is being sought for an operational life of 25 years at the end of which the Proposed Development will be decommissioned unless an application is submitted to extend the operational life of the Development.

2. CONSTRUCTION TRAFFIC AND MITIGATION

2.1 Programme

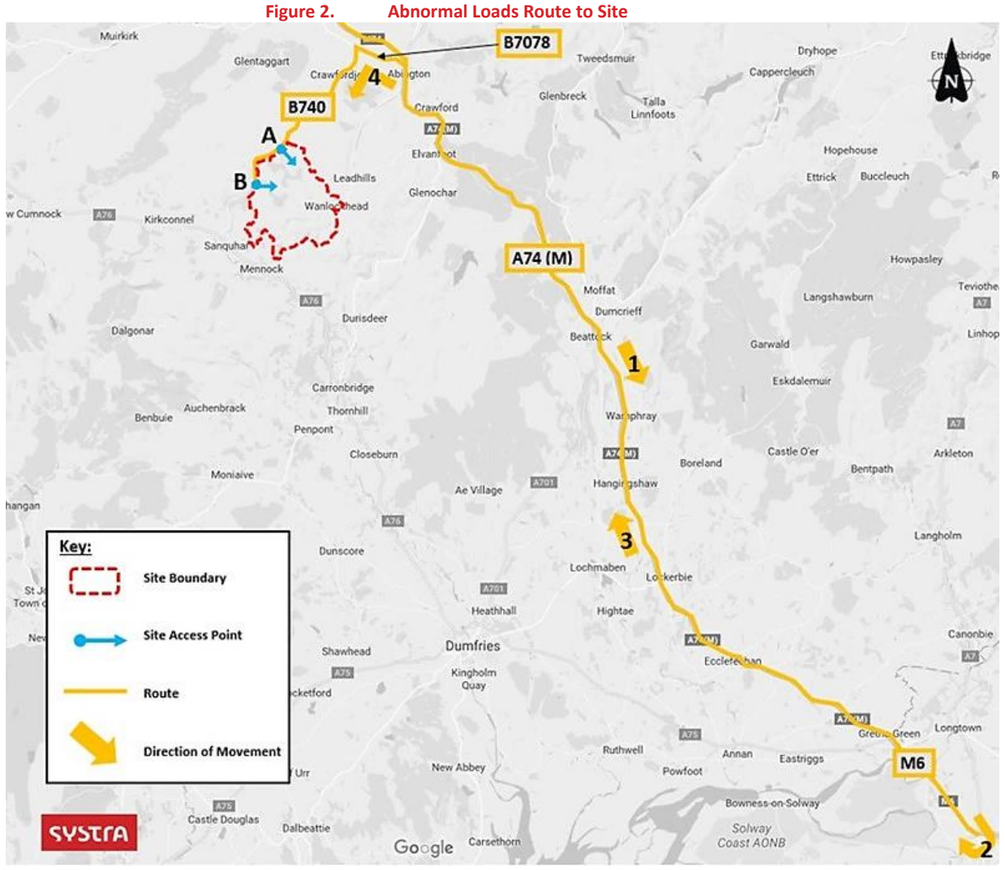
2.1.1 Subject to securing the necessary consents, it is the intention of the applicant to commence construction in 2020 and the construction process will take approximately 24 months.

2.2 Routes to the Site

2.2.1 Wind turbine components for the Proposed Development will be transported from the selected Port of Entry (POE) to the Development site as abnormal indivisible loads via the public road network. Abnormal loads may require a police escort and will likely restrict traffic along the route for a short duration of time.

2.2.2 There are a number of suitable ports in central Scotland including Ayr, Glasgow and Grangemouth. The Abnormal Loads Assessment (ALA) has been prepared on the basis of abnormal load vehicles routing to site from the strategic road network via the M74 trunk road (T), the B7078 and the B740 towards the two site access points, as indicated by Figure 2 below.

Figure 2. Abnormal Loads Route to Site



2.2.3 In addition to abnormal loads, there is also the need to transport general construction materials (concrete, aggregates, pipes, cabling, etc.) to the Proposed Development and remove forestry from the site in standard HGVs. The route for general construction traffic will depend on the source of the materials. The ES Chapter assess the effects of HGVs following the same route as the abnormal loads and a route from the A76 (T) to the south of the Proposed Development.

2.3 Construction Traffic

2.3.1 The construction traffic would comprise of construction workers, HGVs carrying construction materials / plant and abnormal loads carrying the main wind turbine components. There is expected to be a maximum of 60 staff working on site at any one time. Work hours are expected to be between 07:00 to 19:00 on weekdays and 07:00 to 13:00 on Saturdays which means that staff would arrive and depart outside the traditional peak hours associated with the surrounding road network. The majority of these movements are likely to be undertaken by private car or by works mini-bus and outside network peak periods.

2.3.2 Estimates of traffic generation associated with the construction phase of the proposed development have been identified from first principles and have taken on board the following activities:

- delivery and removal of plant / materials in relation to site mobilisation and set up of site compound (including felling, harvesting and extraction of timber);
- delivery of aggregates and geotextile materials to construct site access roads;
- delivery of roadstone wearing course for access roads and hardstanding areas at the site;
- delivery of concrete or raw materials to batch concrete on site;
- delivery of steel reinforcement;
- delivery of base rings for turbines;
- delivery of transformers and switchroom equipment;
- delivery of sand bedding for cabling;
- delivery of cabling for turbines;
- delivery of turbine components (including abnormal loads);
- delivery and removal of cranes for turbine erection;
- miscellaneous deliveries; and
- construction worker travel movements.

2.3.3 HGVs would arrive and depart from the site at regular intervals during site working hours. In order to calculate the worst case scenario, information was gathered regarding the materials required and the size of average loads associated with HGVs. Table 2.1 indicates an estimate of HGV numbers required for each task during construction.

Table 1. Number of HGV Trips Required for Construction Phase

CONSTRUCTION TASK	VEHICLE TYPE	APPROXIMATE NO. OF LOADS
1. Site Establishment	20t HGV	60
2. Forestry felling	20t HGV	600
3. Delivery of Plant & Equipment	20t HGV	90
4. Import aggregate for tracks*	20t HGV	9,000
5. Delivery of Steel (Turbines)	20t HGV	88
6. Delivery of Steel (Substation)	20t HGV	10
7. Delivery of Offsite Concrete (Turbines)	6m3 Concrete Wagon	3,873
8. Delivery of Offsite Concrete (Substation)	6m3 Concrete Wagon	176
9. Delivery of Sand	20t HGV	296
10. Delivery of Cables	Low Loader	56
11. Delivery of Cranes	Abnormal loads	40
12. Delivery of Control Building	20t HGV	10
13. Delivery of Turbines	Abnormal loads	315
14. Delivery of transformer & substation equipment	20t HGV	20
15. Removal of Plant & equipment	20t HGV	90
16. Site Removal	20t HGV	60
17. General site supplies	20t HGV	960
Total (One-way) trips		**15,744**
Total (Two-way) trips		**31,488**

**assumes 40% stone requirements are imported to the site*

2.3.4 The expected number of HGVs trips has been estimated using design information and average load capacities of HGVs. Table 1 indicates that there would be 15,744 inbound trips and a further 15,744 outbound trips. Total two-way trips associated with the construction phase is therefore 31,488 vehicles.

2.3.5 Should the borrow pit be consented and if the quality of the stone is of an appropriate standard, then a high proportion of the overall stone requirement could be won on-site.

2.3.6 In the event that stone is won on-site, the estimated HGV movements in this CTMP will be updated. This is likely to be undertaken at the detailed construction planning stage of the Proposed Development once detailed ground investigation works have been undertaken to confirm stone quality and quantity.

2.3.7 As noted in Table 1, the number of loads associated with importing aggregate for tracks assumes that 40% of the required stone material would be imported to the site. This represents a realistic 'worst-case' scenario as there is the potential for the five borrow pits on-site to yield significantly more aggregate than 60% of what is required in construction, with an estimate that they will yield nearly 90% of the required material.

2.3.8 Table 2 indicates the estimated number of HGVs assigned to each task for each month of the construction stage.

Table 2. Estimated Number of HGV Trips per Month

TASK	MONTH																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Totals
1. Site Establishment	40	20																							**60**
2. Forestry felling	4		74	74	74	74	74	74	74	78															**600**
3. Delivery of Plant & Equipment	45	45																							**90**
4. Import aggregate for tracks*	750	750	750	750	750	750	750	750	750	750	750	750													**9,000**
5. Delivery of Steel (Turbines)									22	22	22	22													**88**
6. Delivery of Steel (Substation)		10																							**10**
7. Delivery of Offsite Concrete (Turbines)									105	105	407	407	407	407	407	407	407	407	407						**3,873**
8. Delivery of Offsite Concrete (Substation)			44	44	44	44																			**176**
9. Delivery of Sand											148	148													**296**
10. Delivery of Cables											28	28													**56**
11. Delivery of Cranes													10	10									10	10	**40**
12. Delivery of Control Building							10																		**10**
13. Delivery of Turbines													35	35	35	35	35	35	35	35	35				**315**
14. Delivery of transformer & substation equipment																10	10								**20**
15. Removal of Plant & equipment																							45	45	**90**
16. Site Removal																							20	40	**60**
17. General site supplies	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	**960**
Total (One-way) trips	**879**	**865**	**908**	**908**	**908**	**908**	**874**	**864**	**991**	**995**	**1,395**	**1,395**	**492**	**492**	**482**	**492**	**492**	**482**	**482**	**75**	**75**	**40**	**115**	**135**	**15,744**
Total (Two-way) trips	**1,758**	**1,730**	**1,816**	**1,816**	**1,816**	**1,816**	**1,748**	**1,728**	**1,982**	**1,990**	**2,790**	**2,790**	**984**	**984**	**964**	**984**	**984**	**964**	**964**	**150**	**150**	**80**	**230**	**270**	**31,488**

**assumes 40% of stone requirements are imported to the site*

2.3.9 The construction programme outlined in Table 2 indicates that HGV trips are relatively well spread out over the duration of the construction period and Months 20 – 24 are relatively light in terms of HGV trips.

2.3.10 The worst-case months with regard to increased traffic are Months 11 and 12 with 2,790 two-way HGV trips respectively. The daily vehicle trip generation for Months 11 and 12 is estimated to be approximately 127 two-way trips (assuming a 5.5 working days per week). This equates to approximately 10 two-way HGV trips per hour (5 inbound and 5 outbound) assuming a 12 hour working day. It is important to note that this represents a minor number of trips over a temporary period.

2.3.11 The ES for the Proposed Development concluded that during the construction period the effects associated with traffic and transport (including HGVs and abnormal loads) would be **Not Significant** in terms of EIA Regulations.

2.3.12 The ES also confirmed that no formal mitigation would be required in relation to potential environmental effects associated with increased traffic. Notwithstanding this, the developer proposed to introduce a number of "best practice" measures to minimise and mitigate potential effects.

2.4 Measures to Minimise and Mitigate Construction Traffic Impacts

2.4.1 There are a number of traffic management measures proposed to help reduce the impact of general construction traffic (HGVs). A number of these measures are also applicable to abnormal load vehicle movements, for example signage. These measures are described below.

Minimise the Volume of Imported and Exported Material

2.4.2 In order to minimise the volume of imported material such as aggregates for on-site track construction and crane hardstanding, the applicant will make use of on-site borrow pits as much as is feasible to obtain stone if the quality is found to be suitable. As mentioned in paragraph 2.3.5, to provide a robust EIA it has been assumed that 40% of the proposed development's stone requirements will be imported to the site.

2.4.3 In addition to importation of material, the applicant is committed to re-using materials on-site such as soil that has been stripped from the site during the construction phase. This material would be stockpiled and the majority used to landscape the site on completion of the construction activities.

2.4.4 With regard to forestry activity, ES **Appendix 4.2: Forestry** covers the effects associated with the Proposed Development, and measures are outlined for the efficient removal and/or re-use of forestry material.

Delivery Control

2.4.5 The appointed contractor will be required to plan and manage deliveries and collections from the site to minimise the impact on the surrounding road network and to minimise the impact on the local community. The contractor shall consider the following measures during the construction period:

- Peak hours for a wind farm construction site are generally outside regular 'office / employment' hours (i.e. 08:00 – 09:00 and 17:00 – 18:00) and where possible deliveries (especially abnormal loads) shall not be within the morning and evening road network peaks;
- The number of delivery trips shall be minimised through a combination of consolidated ordering, rationalising suppliers and consolidated deliveries;
- On-site waste shall be minimised through recycling and re-use to minimise the number of collections from site; and
- During peak construction periods such as the importation of aggregates and concrete pours for turbine bases, deliveries to the site will be staged with drivers given specific time windows for arrival on-site. The release of vehicles from the site will also be controlled to prevent large convoys of vehicles.

Sustainability

2.4.6 The appointed contractor will plan and execute the construction of the proposed development with a demonstrably high regard to sustainability. In particular the following objectives will be set in place:

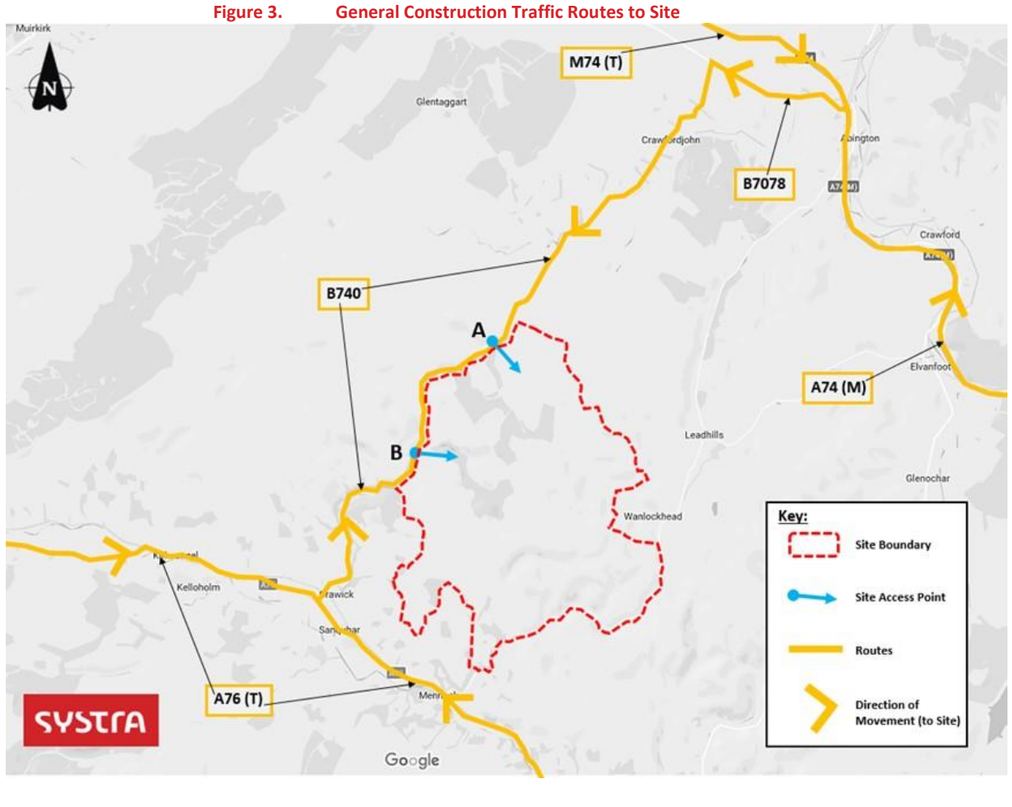
- Minimisation of vehicle movements to / from the site;
- Promotion of shared transport arrangements for site operatives;
- Thorough pre-planning of operations on-site to optimise the redistribution of earthworks materials together with minimisation of haul distances;
- Reduce the amount of aggregates used on-site by means of alternative construction techniques and the use of borrow pits;
- Apply a reduce-reuse-recycle philosophy to all waste processing activities; and
- Conform to construction / building codes of practice in relation to sustainability objectives and procedures.

2.4.7 The appointed contractor will report to and work with the appointed site Liaison Officer. More information on the role and responsibilities of the Liaison Officer is detailed in Section 3.

Designated Construction Route to Site

2.4.8 The designated construction routes to the site are outlined in Section 2.2 and indicated by Figure 3.

Figure 3. General Construction Traffic Routes to Site



2.4.9 Construction deliveries will be restricted to these routes, where practical, so that the impacts of the construction traffic can be managed and monitored while preventing impacts on other routes. A site Liaison Officer will be appointed to the proposed development, he / she will be responsible for ensuring that construction vehicle route timings do not coincide with any planned road network improvements within the vicinity of the proposed development, so as to not further impede local road users.

2.4.10 In order to reduce mud and debris being deposited onto the local road network in the vicinity of the Proposed Development access, a wheel washing facility (or similar) will be installed on-site during the construction period. This will minimise the amount of material and dirt deposited on the road surface and the site Liaison Officer / appointed contractor will ensure that the nearest public road (B740) is kept clean by utilising a mechanical road sweeper where necessary.

Speed Limit

2.4.11 It is proposed to impose a maximum 30 mph speed limit for all construction related traffic along the B740 and private roads / tracks, which would be reinforced through temporary construction traffic speed limit signs.

2.4.12 Local residents should be able to report any instances of speeding to the site Liaison Officer who would take necessary action to prevent a repeat.

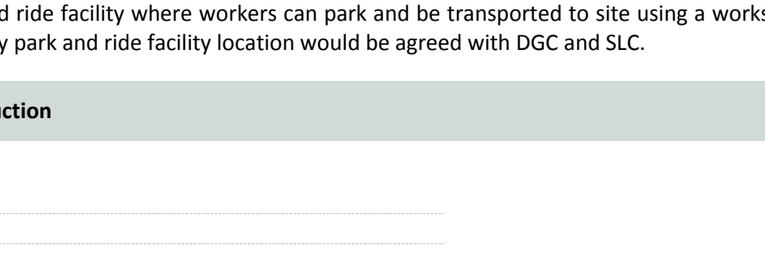
2.4.13 On-site operatives would be briefed on the speed limit through induction sessions and through regular staff briefings. Other parties responsible for site deliveries would also be instructed on the restrictions and made aware of the requirements relating to existing road users.

Signage

2.4.14 Temporary construction site signage would be erected on the local road network in the vicinity of the proposed development site to warn people of construction activities and associated construction vehicles. The purpose of such signage is to provide driver information and to maintain road safety along the construction vehicle route. The exact nature and location of the signage would be agreed with Transport Scotland, DGC and SLC prior to construction activity on site.

2.4.15 Indicative signage for use on these routes is demonstrated by Figure 4 below.

Figure 4. Indicative Warning Signs



Site Operating Hours

2.4.16 The hours of site operation are intended to be 07:00 – 19:00 Monday to Friday and 07:00 to 13:00 on a Saturday. The purpose of the working hour restrictions is to find a balance between progressing the proposed development at an acceptable speed and minimising the impact upon local residents. Site operating hours would be determined by local circumstances and would take cognisance of any local community concerns.

Workforce Travel and Parking Arrangements

2.4.17 Given the location of the Proposed Development site, it is unlikely that any of the on-site workforce will walk or cycle to the site even though it is intended to draw a proportion of the workforce from the local area. It is more likely that the majority of the workforce will travel to the site either by private car or via a contractor's works bus. Given that the workforce is expected to number a maximum of 60 people, the traffic impacts associated with commuting to and from the site are not expected to be significant.

2.4.18 Car parking for the workforce will be provided entirely within the confines of the site boundary and will not be permitted on the adjacent road network so that sight lines are maintained at the site access junctions and to minimise the impact on existing road users. Car sharing will be promoted to construction staff by the contractor during the induction process. Consideration will also be given to the provision of a park and ride facility where workers can park and be transported to site using a works mini-bus. Any temporary park and ride facility location would be agreed with DGC and SLC.

Staff Induction

2.4.19 All site staff will be informed about traffic management arrangements and procedures via site induction literature.

2.5 Movement of Abnormal Loads

2.5.1 The appointed site Liaison Officer would provide DGC, SLC, Police Scotland, Transport Scotland and local residents (located along the B740) with advanced warning of any abnormal load movements.

2.5.2 The Proposed Development is for 35 wind turbines and the preliminary construction programme has estimated that the proposed development would generate approximately 315 abnormal load movements to the site as indicated by Table 2. The 315 abnormal load movements represent one-way trips only given that the vehicles will retract to the size of an HGV for their return journey once the loads have been delivered to the destination.

2.5.3 Confirmation of the exact delivery programme would be provided by the haulier closer to the construction period in consultation with DGC and Transport Scotland. The haulier would disseminate route information and intended programme information via the Liaison Officer.

Haul Route

2.5.4 A separate study has been undertaken to assess the suitability of the abnormal load route for the transportation of abnormal loads. The findings of this study including the Swept Path Analysis (SPA) of the vehicle passing through identified pinch points along with identified mitigation measures are contained within Technical Appendix 12.1: Abnormal Loads Assessment (ALA), also undertaken by SYSTRA, which will be submitted as part of the planning application process for the Proposed Development. The key findings of the ALA are detailed in the following paragraphs.

Mitigating Measures to reduce the impact of Abnormal Load Movements

- All abnormal load movements will be restricted out-with the peak hours when existing traffic flows on the route will be low. Information on the movement of abnormal loads will also be provided to the local press to help inform the public.
- Local residents along the route will be informed when the abnormal loads will be travelling along the route to ensure that interaction between the local community and abnormal load delivery vehicles is minimised. This includes the village of Crawfordjohn and the isolated dwellings along the B740.
- It is noted that the abnormal load deliveries are usually undertaken in convoys. The usual make-up of a convoy is three abnormal load vehicles accompanied by three escort vehicles. The escort vehicles are in place to provide manoeuvring assistance, warning of hazards and to report information on clearances etc. to the drivers of the abnormal load vehicles.
- Advance temporary warning signs will be installed at various points along the abnormal loads route between the M74 (T) and the site access to advise drivers that abnormal loads will be operating on the route with dates and times provided. The purpose of the signs is to provide driver information which will allow people to either avoid the area until the convoy has passed, take an alternative route or to proceed with caution.
- If a road closure is required, arrangements will be put in place to facilitate local access to properties on the closed route and to ensure safe passage of any emergency vehicles which may require access.
- To further improve driver information, Transport Scotland will be approached as operators of Variable Message Signs on the trunk road network to investigate whether existing signs could be used to warn drivers of abnormal loads and to warn them of potential delays.
- The Liaison Officer in consultation with the haulier will be responsible for disseminating abnormal load information to key stakeholders.

Pinch Point Mitigation

2.5.5 In addition to the above measures, the ALA identifies mitigation measures at identified pinch points along the delivery route. These mitigation measures are required in order to ensure the safety and convenience of both residents and users on this corridor can be maintained while providing a route to site for abnormal load vehicles which is fit for purpose.

2.5.6 It is important to note that the majority of mitigation measures are temporary e.g. removal of street furniture. The Liaison Officer will be responsible for overseeing temporary mitigation in consultation with the haulier and key stakeholders.

2.5.7 Some more significant mitigation is required at Crawfordjohn and at Birkcleugh Bridge. At Crawfordjohn, there is a requirement to create a bypass of a tight “S” bend. The bypass involves creating an off-line straight route through a field area adjacent to the bend to accommodate abnormal loads movements. A design has been produced for the works and the required land secured to deliver the mitigation scheme.

2.5.8 The existing bridge at Birkcleugh has been identified by SLC as being potentially unsuitable for abnormal loads. A full assessment will be undertaken post planning consent to determine what mitigation may be required to the existing structure in order to accommodate abnormal load movements.

3. IMPLEMENTATION AND MONITORING OF THE PLAN

3.1 General

3.1.1 The implementation of the CTMP will be the responsibility of the applicant who will also be responsible for monitoring the Plan. Further evolution of this CTMP would likely be required during the detailed project planning stages and during the construction period itself.

3.1.2 The applicant may employ a number of contractors on the site and all will fall under the umbrella of the CTMP and will have an obligation to adhere to the Plan, this obligation will form part of the procurement process and will be written into any contract of employment.

3.2 Responsibilities of The Applicant

3.2.1 The applicant will nominate a person to be responsible for the co-ordination of all elements of traffic and transport during the construction process (Liaison Officer). This person will liaise with the local community so that the community have a direct point of contact within the developer organisation who they may contact for information purposes or to discuss matters pertaining to traffic management or site operation.

3.2.2 The applicant will review and update the number of site personnel, traffic numbers, and the construction programme as the project progresses. Regular updates will be provided to DGC, SLC, Transport Scotland and Police Scotland. Any significant changes will be discussed and agreed with DGC, SLC and Transport Scotland (if appropriate). Regular meetings, where required, will be organised for monitoring purposes.

3.3 Transport Co-ordination

3.3.1 The applicant will be responsible for the co-ordination of all elements of heavy goods and abnormal vehicle transport to and from the construction site. They will be responsible for co-ordination and liaison with contractors, DGC, SLC Transport Scotland, Police Scotland, emergency services and the local community.

3.3.2 The Liaison Officer will inform DGC, SLC and Transport Scotland of any significant matters that may affect traffic movement by means of reports issued at regular intervals or by day-to-day reports of any significant essential changes to transport plans necessitated by circumstances.

3.3.3 Contact details for the Liaison Officer will be made available to all relevant parties prior to commencement of works on site. The details will be provided to the local community via a newsletter, and through the press.

3.4 Monitoring of the CTMP

3.4.1 The CTMP will be monitored by the applicant / the contractor who in turn would report to DGC and SLC. A report will be prepared by the applicant on a monthly basis and issued to DGC and SLC. This report will include comparisons with this document and will identify any changes in projected traffic flows associated with construction vehicles and traffic associated with the employed workforce.

3.4.2 As necessary, meetings will be held with DGC / SLC / Transport Scotland and the applicant to discuss the CTMP and to discuss any issues raised by the local community.

3.4.3 Use of the agreed routes by hauliers will be monitored by spot checks undertaken by the applicant and / or the roads authority. These spot checks will take the form of occasional observations at key locations.

3.4.4 The information collected by these two means will be held by the applicant and would be available to DGC, SLC, Transport Scotland, Police Scotland and the local community on request.

3.5 Local Community Consultation

3.5.1 The key to the success of the CTMP will be how it is promoted to the local community and how it is adapted to take on board any feedback received.

3.5.2 As indicated above, the applicant will provide a Liaison Officer to act as a point of contact with the local community. The Liaison Officer will be responsible for keeping the local community informed of progress on the site and warning them of upcoming activities which may give rise to increased construction vehicle movements.

3.5.3 The Liaison Officer will be able to attend Community Council meetings to provide a report and to be on hand to answer any questions that the local community may have. A website will be set up to provide information to the general public and contact details will be provided for the Liaison Officer (telephone number and email address) so that members of the public have an opportunity to ask questions and provide feedback.

3.5.4 The applicant will also make use of the local press in order to disseminate information regarding traffic management and the movement of abnormal loads.

3.6 Liaison with other Construction Sites

3.6.1 It is recognised that there is a possibility that the construction period associated with the Proposed Development could coincide with the construction of similar proposed developments, for example in South Lanarkshire where abnormal loads would travel through and Dumfries and Galloway general construction traffic will travel through. The Liaison Officer will be responsible for consultation with other local authorities and the Port of Entry, to ascertain if the Proposed Development site may impact other Proposed Development sites and vice versa. The Liaison Officer will identify if there are any opportunities to mitigate traffic impacts through a collaborated approach with others.

3.7 Community Liaison

3.7.1 The applicant will disseminate information regarding the construction work using a variety of methods, including through websites, email, written correspondence, posters and leaflets. An email address for the nominated liaison officer will be provided so that members of the public can ask for information or submit queries.

3.7.2 The applicant is happy to respond to enquiries from members of the public regarding the construction of the proposed development and update residents through traditional methods particularly for those without the internet.

4. SUMMARY AND CONCLUSIONS

4.1.1 SYSTRA has been commissioned to prepare a Construction Traffic Management Plan on behalf of North Lowther Energy Initiative in support of the proposed Norther Lowther Wind Farm to the north of Sanquhar in Dumfries and Galloway. The CTMP identifies the high level principles for managing the effects of vehicles associated with the proposed development during construction. The CTMP will be updated should the Proposed Development be granted planning consent and when a contractor is appointed.

4.1.2 It has been estimated that there will be a total of 31,488 two-way HGV movements (15,744 inbound trips and 15,744 outbound trips) associated with the 24 month construction period. 315 of these two-way movements are associated with abnormal load vehicles. The peak period is anticipated to be Months 11 and 12. The associated peak construction traffic flow during Months 11 and 12 is 127 two-way vehicles per day.

4.1.3 There is expected to be a maximum of 60 staff working on site at any one time. Work hours are expected to be between 07:00 to 19:00 on weekdays and 07:00 to 13:00 on Saturdays which means that staff would arrive and depart outside the traditional peak hours associated with the surrounding road network. The majority of these movements are likely to be undertaken by car or by works mini-bus and outside network peak periods.

4.1.4 Mitigation measures have been identified for both the movement of general construction traffic (HGVs) and also for the movement of abnormal loads. Measures include:

- managing demand;
- delivery control;
- sustainability;
- designated construction vehicle routing;
- construction vehicle speed management;
- signage;
- construction operating days / hours;

- managing workforce travel demand;
- staff site induction;
- temporary removal of street furniture; and
- localised road widening.

4.1.5 The transport arrangements for the delivery of abnormal loads is an established practice and would take place out-with the local road network peaks and wherever possible overnight to minimise the disruption caused to general traffic.

4.1.6 The applicant will nominate a site Liaison Officer who will be responsible for all elements of transport during the construction process. The Liaison Officer will review and update the number of site personnel, traffic numbers, and the construction programme as the project progresses. Any significant changes will be discussed and agreed with Dumfries and Galloway Council, South Lanarkshire Council, Transport Scotland and Police Scotland.

4.1.7 The Liaison Officer will be the key point of contact with the local community and will be responsible for the dissemination of information to the public.

4.1.8 Discussions with contractors at the tender stages will allow the objectives of the CTMP to be considered in contractual agreements and employment contracts.

4.1.9 The applicant will be responsible for the CTMP. A nominated Liaison Officer will be responsible for promoting, monitoring and reviewing the Plan throughout the construction process. The Liaison Officer will consult with key stakeholders and the local community on a regular basis via a variety of communication mediums including the press, internet and monthly construction update reports.

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