# Pell Frischmann

New Deer 2 BESS

Transport Statement & Construction Traffic Management Plan April 2025 10110141

#### New Deer 2 BESS Transport Statement & Construction Traffic Management Plan

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## 1 Introduction

#### 1.1 Purpose of the Report

Pell Frischmann has been instructed by TNEI on behalf of Field New Deer Limited (the Applicant) to produce a combined Transport Statement and Construction Traffic Management Plan (CTMP) to support a planning application for the creation of a Battery Energy Storage System (BESS) and associated development at a site to the south-west of the B9170 and north-west of the existing New Deer Substation, in the Aberdeenshire Council administrative area.

The planning application is for a proposed BESS (the Proposed Development). This covers the construction, operation and maintenance of a BESS of up to 400 MW with associated infrastructure, access and ancillary works (including landscaping and biodiversity enhancement).

This report provides an overview of the Proposed Development in relation to construction traffic and sets out the proposed mitigation measures for use at the site. Once operational, the Proposed Development will generate minimal levels of maintenance traffic and no specific traffic measures are required for the operational phase.

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#### 1.2 Report Structure

Following this introduction, the report is structured as follows:

- Section Two describes the Proposed Development, including access arrangements;
- Section Three details the existing transport conditions in the vicinity of the site;
- Section Four details the types of construction traffic likely to be used on the site, including estimated delivery volumes;
- Section Five outlines the proposed construction traffic management measures to be used on the site; and
- Section Six provides a summary of the report.

## 2 Development Description

#### 2.1 Development Location and Layout

The Proposed Development comprises of a BESS, featuring the following elements:

- Battery storage and their associated electrical connections and medium voltage switchgear;
- Control facilities;
- Access track to the secure compound (accessing from the existing forestry access junction on the C1S to the south of the site) and a separate emergency access track (located to the west); and
- Security and noise attenuation fencing, landscaping and other soft features.

The Proposed Development location is illustrated in Figure 1.



#### Figure 1 Proposed Development Location

Access to the Proposed Development is to be taken from the existing forestry access junction on the C1S. The layout of the Proposed Development is illustrated in Figure 2. The existing forestry access junction will require upgrading to accommodate construction traffic deliveries to the Proposed Development. This is illustrated along with proposed visibility splays in Appendix A.

#### Figure 2 Proposed Development Layout



## 3 Existing Network

#### 3.1 Active Travel Network

A review of Aberdeenshire Council's Core Path maps<sup>1</sup> indicates that there are no Core Paths located on the road frontage of the Proposed Development site. The closest Core Path is located on the B9170 within Cuminestown, approximately 3.5 kilometres (km) north of the development site.

The National Cycle Network (NCN) route map<sup>2</sup> of the United Kingdom indicates that NCN Route 1 passes through Cuminestown, approximately 4km to the north of the Proposed Development. NCN 1 only intersects with the construction traffic route along a section of road, approximately 50 metres (m) in length, in Auchnagatt.

Within the wider area, the Formatine and Buchan Way runs from the outskirts of Aberdeen to both Fraserburgh and Peterhead<sup>3</sup>. The route includes off-road sections between Ellon and Maud via Auchnagatt before it splits to head east and end on the High Street in Peterhead (or north towards Fraserburgh).

#### 3.2 Existing Road Links

The nearest trunk road to the site is the A90, linking Edinburgh to Fraserburgh via Dundee and Aberdeen. The A90 is not continuous with a gap between Dalmeny and Perth, but the M90 connects these locations. The A90 is operated by Transport Scotland on behalf of Scottish Ministers. The single carriageway sections are subject to a 60 miles per hour (mph) speed limit for cars and motorcycles outwith towns and villages on the route and 70mph on dual carriageway sections. Goods vehicles exceeding 7.5 tonnes are subject to a 40mph and 50mph speed limit on single and dual carriageway sections respectively.

Access to the Proposed Development is from the A90 via the A948 and B9170. The A948 connects from the A90 at Ellon to the B9170 and A981 at New Deer. The B9170 would be used for access from New Deer to the junction with the unclassified road signed for Greens before passing south to the junction with the C1S signed for Mains of Greens and then routeing west along this to the site access junction.

The A948 provides connections from Ellon to New Deer and B9170 runs from New Deer to Inverurie as well as New Deer to Turiff. These roads are of a local distributor road standard and maintained by Aberdeenshire Council. All routes noted are considered suitable for Heavy Goods Vehicle (HGV) traffic between the site access junction and the A90 at Ellon via the A948 and B9170.

The A950 and A981 provide connections from the A90 at Peterhead. These roads are of a local distributor road standard and maintained by Aberdeenshire Council. All routes noted are considered suitable for HGV.

The C1S is a minor link operated by Aberdeenshire Council. The section to the west of the proposed access junction is part of the timber extraction network. The road is approximately 3.5m - 4m in width and has a number of informal passing places along its length.

Access from the C1S is taken from an upgrade to the existing junction with the forestry track to the south of the site boundary. The layout of the proposed access junction upgrade is shown in Appendix A.

Figure 3 illustrates the local road network links.

<sup>&</sup>lt;sup>1</sup> https://www.aberdeenshire.gov.uk/paths-and-outdoor-access/core-paths-plan/core-paths-plan-maps/ [Accessed February 2025]

<sup>&</sup>lt;sup>2</sup> https://explore.osmaps.com/?lat=57.540807&lon=-2.306836&zoom=13.2408&overlays=os-ncn-layer&style=Standard&type=2d [Accessed February 2025]

<sup>&</sup>lt;sup>3</sup> https://www.aberdeenshire.gov.uk/paths-and-outdoor-access/long-distance-routes/formartine-and-buchan-

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Figure 3 Study Area Network Road Links



#### 3.3 Road Network Suitability

The Agreed Timber Route Map<sup>4</sup> has been developed by The Timber Transport Forum who are a partnership of the forestry and timber industries, local government, national government agencies, timber hauliers and road and freight associations. One of the key aims of the forum is to minimise the impact of timber transport on the public road network, on local communities, and the environment and a way of achieving this is to categorise the roads leading to forest areas in terms of their capacity to sustain the likely level of timber haulage vehicles i.e., HGVs. The routes are categorised into four groups, namely; 'Agreed Routes', 'Consultation Routes', 'Severely Restricted Routes' and 'Excluded Routes'.

'Agreed Routes' are categorised as routes used for timber haulage without restriction as regulated by the Road Traffic Act 1988. A-roads are classified as 'Agreed Routes' by default unless covered by one of the other road classifications. Those links classed as 'Consultation Routes' are categorised as a route which is key to timber extraction, but which are not up to 'Agreed Route' standard. Consultation with the local authority is required, and it may be necessary to agree limits of timing, allowable tonnage, etc. before the route can be used. B-roads are classified as 'Consultation Routes' by default unless covered by one of the other classifications. 'Severely Restricted Routes' are not normally to be used for timber transport in their present condition. These routes are

<sup>&</sup>lt;sup>4</sup> https://timbertransportforum.org.uk/ [Accessed March 2025]

close to being Excluded Routes. Consultation with the local authority is required prior to use. Finally, 'Excluded Routes' should not be used for timber transport in their present condition. These routes are either formally restricted, or are close to being formally restricted, to protect the network from damaging loads.

The A948, A950, A981, B9170 and C1S (in part) form part of the agreed route network used for the extraction of timber and are therefore can reasonably be regularly used by HGV traffic. As such, they are considered suitable for the movement of construction HGV traffic.

#### 3.4 Road Safety Review

Personal Injury Accident (PIA) data for the five-year period commencing 01 January 2019 through to the 31 December 2023 was obtained from the online resource CrashMap<sup>5</sup> which uses data collected by the police regarding road traffic crashes occurring on British roads, where someone is injured.

Transport Assessment Guidance<sup>6</sup> requires an analysis of the accident data on the road network in the vicinity of any development to be undertaken for at least the most recent three-year period, or preferably a five-year period.

The statistics are categorised into three categories, namely "Slight" for damage only incidents, "Serious" for injury accidents and "Fatal" for accidents that result in a death.

Slightly to the north of the A90 / A948 at-grade roundabout junction at Ellon one "Slight" accident occurred between three cars resulting in five casualties with the involvement of a young driver reported.

A review of the A948 indicates that there have been eleven accidents between its junction with the A90 at Ellon and New Deer within the last five years (2019 – 2023). This included one "Serious" accident at the A90 / A948 at-grade roundabout junction, involving a car with one casualty reported. Within the vicinity of Ellon, one "Serious" accident occurred on the A948 involving two cars and three casualties as well as one "Slight" accident involving three cars and the same number of casualties. Both accidents occurred at the junction of the A948 with Knockothie Crescent, one at the eastern end of the junction and the other at the western side. One "Fatal" accident occurred in summer 2019, involving two cars and four casualties just north of the A948 / Golf Road junction on the outskirts of Ellon.

Continuing on the A948 to Auchnagatt, three further accidents occurred. This included a "Serious" accident, which occurred at the A948 / Braemo junction involving a car and motorcycle with one casualty reported. To the north, one "Serious" and one "Slight" accident each involving one car and a casualty occurred.

Between Auchnagatt and New Deer, three "Serious" and one "Slight" accident occurred. Two of the "Serious" accidents involved one car and the same number of casualties (with one occurring in the winter) while the other involved two cars and three casualties. The "Slight" accident involved a car driven by a Young Driver (aged under 25) with two casualties reported.

To the east of New Deer, one "Serious" and one "Slight" accident occurred on the B9170 prior to the junction signed for Greens on the unclassified road that routes south to join with the B9005 that leads to Fyvie. Both accidents involved one car and the same number of casualties. The "Slight" accident happened in the winter.

HGV traffic was not involved in any accidents on the A948 or B9170 within the immediate vicinity of the site during the five year study period.

Between New Deer and Mintlaw, two "Slight" accidents were recorded, one occurring on the A981 and one on the A950. Both involved "Young Drivers" (aged under 25), colliding with an HGV during winter months.

<sup>&</sup>lt;sup>5</sup> https://www.crashmap.co.uk [Accessed February 2025]

<sup>&</sup>lt;sup>6</sup> https://www.transport.gov.scot/media/4589/planning\_reform\_-\_dpmtag\_-\_development\_management\_\_dpmtag\_ref\_\_17\_\_-\_transport\_assessment\_guidance\_final\_-\_june\_2012.pdf

Based on the information available, it has been established that there are no specific road safety issues within the immediate vicinity of the Proposed Development that currently require to be addressed or will be exacerbated by construction activities.

#### 3.5 Existing Traffic Flows

To review the existing traffic flows on the C1S and A948, Streetwise Services were commissioned to undertake an Automatic Traffic Survey (ATC) at New Deer that spanned February 2025 / March 2025. Data from the Department of Transport (DfT)<sup>7</sup> traffic count database was obtained for the following count site locations:

- A981, north of New Deer: ATC Site 41009;
- A950, north of the junction with the A981: ATC Site 1181;
- A950, south of the junction with the A981: ATC 20990;
- A90, to the east of Peterhead: ATC 80573; and
- A948 at Mill of Elrick: ATC 81404.

Traffic data for 2023 was obtained from all of the DfT sites. This was converted to 2025 traffic flows using Low growth National Road Traffic Forecast (NRTF) estimates. The NRTF low growth factor for 2023 to 2025 is 1.012.

The traffic data allowed the traffic flows to be split into vehicle classes and the data have been summarised into cars / Light Goods Vehicles (LGV) and HGV.

The traffic survey summary is provided in Table 1 below.

Description	Cars & LGV	HGV	Total Traffic
C1S	37	23	60
A948 New Deer	875	277	1152
A981 North of New Deer	1201	92	1293
A950 North of A981	1525	146	1671
A950 South of A981	2034	231	2265
A90 Peterhead	4215	178	4393
A948 at Mill of Elrick	1848	88	1936

#### Table 1: 2025 Daily Traffic Flows

Please note minor variances due to rounding may occur.

Should the Proposed Development be consented, construction works are expected to commence 2028<sup>8</sup>. NRTF Low Growth assumptions have been used to provide a factor to convert the 2025 flows to 2028 flows. The NRTF Low Growth Factor from 2025 to 2028 is 1.015.

The 2028 baseline flows are provided in Table 2.

<sup>&</sup>lt;sup>7</sup> https://roadtraffic.dft.gov.uk/#6/55.254/-11.096/basemap-regions-countpoints

<sup>&</sup>lt;sup>8</sup> https://www.fieldnewdeer.co.uk/faqs/

Description	Cars & LGV	HGV	Total Traffic
C1S	38	23	61
A948 New Deer	888	281	1170
A981 North of New Deer	1219	93	1313
A950 North of A981	1548	148	1696
A950 South of A981	2065	234	2299
A90 Peterhead	4278	181	4459
A948 at Mill of Elrick	1876	89	1965

#### Table 2: 2028 Daily Traffic Flows

Please note minor variances due to rounding may occur.

#### 3.6 Committed Developments

A review of planning applications in the area has been undertaken by TNEI and details shared<sup>9</sup>.

The review has noted the following projects:

- 1. APP/2024/1927 Greens (New Deer 2) substation;
- 2. APP/2023/1454 Green Volt Offshore Wind Farm, onshore grid infrastructure;
- 3. ECU00005165 Beauly to Blackhillock to New Deer to Peterhead 400kV OHL;
- APP/2024/1812 Caledonian Onshore Transmission infrastructure land along Moray / Aberdeenshire coast (Boyndie Bay to New Deer); and
- 5. ECU00000677 OHL between Blackhillock, Peterhead and Kintore substation.

In line with established practice, the following screening factors of applications has been undertaken to determine those that can be included in the assessment from a transport point of view:

- Will the application use the same study area as the Proposed Development?
- Is the application determined, and as such, can be considered as Committed Development?
- If the application results in temporary traffic, will these traffic flows occur at the same time as those for the Proposed Development?
- Does the application provide publicly available traffic data in the relevant traffic classes?

Project 2, the Green Volt Offshore Wind Farm, has been approved and has traffic data within the public domain. The peak traffic flows associated with this development will need to be considered in the assessment and are summarised in Table 3.

Description	Cars & LGV	HGV	Total Traffic
C1S	0	0	0
A948 New Deer	39	293	332
A981 North of New Deer	39	311	350
A950 North of A981	39	311	350
A950 South of A981	39	311	350
A90 Peterhead	21	321	342
A948 at Mill of Elrick	39	293	332

Table 3: Green Volt Offshore Wind Farm Peak Traffic Flows

To provide a robust assessment, it is assumed that the peak traffic associated with the Green Volt development coincides with that of the Proposed development. In reality, this is unlikely as the Green Volt works are

<sup>&</sup>lt;sup>9</sup> https://upa.aberdeenshire.gov.uk/online-applications/search.do?action=simple&searchType=Application [Accessed by TNEI – access timeframe unknown]

https://www.energyconsents.scot/ApplicationSearch.aspx?T=1 [Accessed by TNEI - access timeframe unknown]

expected to commence shortly and may well be complete prior to works commencing on the Proposed Development.

Projects 1 and 4 are in planning while Project 3 is at the EIA scoping stage. As these projects are not yet committed, they are excluded from the assessment. Project 5, Overhead line between Blackhillock, Peterhead and Kintore, is consented and understood to now be complete.

It is understood that there are several developments at pre-planning or screening stage, however their likely construction programmes are not known. Should any other schemes be consented and constructed at the same time as the Proposed Development, the Applicant would welcome the opportunity to engage with other developers in consultation with Aberdeenshire Council to ensure appropriate traffic management measures would be implemented to minimise any cumulative impacts. In the event of a number of sites being constructed at the same time it is suggested this would be mitigated through the use of an overarching Traffic Management and Monitoring Plan (TMMP) for all of the sites.

## 4 Construction Traffic

#### 4.1 Trip Generation

The proposed construction works are estimated to take up to 24 months<sup>10</sup>.

The programme has been divided into its component sections and estimates of the likely traffic generation have been made from the material quantities, staff requirements and component deliveries required. The main areas of construction traffic can be subdivided as follows:

- Import of Plant and Machinery;
- Site Establishment Clearance Loads;
- Import of Bulk Materials;
- Import of Ready-Mix Concrete;
- Import of General Building Supplies;
- Delivery of HV Electrical Components;
- Delivery of batteries;
- Delivery of general site materials and supplies;
- Grid and electrical connection works; and
- Arrival and departure of construction and commissioning staff at the site.

The traffic generation during the construction phase has used first principles to establish the volume and tonnage of construction materials. This has then been converted to two-way vehicle movements to create the construction programme illustrated in Appendix B.

The peak of construction activity occurs in Month 11 of the construction programme.

All construction traffic would access the site via the upgraded existing forestry access junction to the southern site boundary. Access for the operational phase will also be taken from this junction.

#### 4.2 Distribution of Construction Trips

Exact material suppliers will be determined through the Balance of Plant (BoP) contract. The supplies anticipated for use in this study however are based upon the following:

- Aggregate and Ready Mix Concrete: Likely to be supplied from quarries located to the north of the site accessed from the A98, A950, A981, B9170 and C1S;
- HV electrical equipment and batteries: Likely to be supplied from the Central Belt via the A90, A948, B9170 and C1S;
- Transformer Abnormal Indivisible Loads (AIL) to be imported via the route described in Appendix C from the A90 / A948 Roundabout, via the A948, B9170 and C1S;
- General construction and site supplies: Supplied from the east via the A90, A950, A981, B9170 and C1S; and
- Construction Staff: It is assumed that all staff will access the site from the east to provide a robust assessment. 50% will access the site from Peterhead via the A950, A981, B9170 and C1S, whilst the remaining 50% will access from Ellon via the A948, B9170 and C1S.

These general distributions have been applied to the peak of construction activities to estimate the likely peak traffic associated with construction activities. The peak construction traffic flows are summarised in Table 4.

<sup>&</sup>lt;sup>10</sup> https://www.fieldnewdeer.co.uk/faqs/

Description	Cars & LGV	HGV	Total Traffic
C1S	67	51	118
A948 New Deer	67	51	118
A981 North of New Deer	67	51	118
A950 North of A981	0	49	49
A950 South of A981	0	2	2
A90 Peterhead	33	2	35
A948 at Mill of Elrick	33	0	33

#### **Table 4: Peak Daily Construction Traffic Flows**

Please note minor variances due to rounding may occur.

The increase in traffic represents an additional 118 vehicle movements (59 inbound and 59 outbound) per day, of which 51 are classified as HGV (26 inbound and 25 outbound). This represents on average four additional HGV movements in and out per hour during the peak month.

A review of the traffic impact of the construction traffic on the road network has been undertaken and is illustrated in Table 5.

Description	Cars & LGV	HGV	Total Traffic	Cars & LGV % Impact	HGV % Impact	Total Traffic % Impact
C1S	104	74	178	177.07%	220.17%	193.53%
A948 New Deer	994	625	1619	7.17%	8.90%	7.83%
A981 North of New Deer	1325	456	1780	5.29%	12.63%	7.07%
A950 North of A981	1587	508	2095	0.00%	10.69%	2.40%
A950 South of A981	2104	547	2651	0.00%	0.37%	0.08%
A90 Peterhead	4332	504	4836	0.77%	0.40%	0.73%
A948 at Mill of Elrick	1948	382	2330	1.74%	0.00%	1.45%

Table 5: 2028 Base + Committed Development + Construction Traffic Flows / Traffic Impact

Please note minor variances due to rounding may occur.

With the exception of the C1S, the peak construction traffic impact level is significantly below the 10% threshold for undertaking a detailed Transport Assessment. The daily flows are therefore not considered significant in traffic terms for roads within the study area.

The increase in total traffic is significantly less than 30%, the threshold for undertaking an Environmental Impact Assessment (EIA).

The impact of this number of HGV movements on the study area road network can be managed by a CTMP to ensure that any disruption and disturbance can be kept to a minimum.

#### 4.3 Abnormal Load Traffic

The proposed transformers to be used on site are considered AIL due to their weight and the need for a specialist trailer to transport them on the public road network.

Load details for the AILs were obtained from the Applicant. The proposed transformers, based on their transport dimensions, are up to 8m in length, 3.5m in width and 4.2m in height. At up to 150 tonnes, they would be carried on an sixteen axle trailer. An example of the style of trailer is provided in Figure 4.

#### Figure 4 Indicative AIL Trailer



A Route Survey Report (RSR) describing the transport of the load has been prepared and is attached in Appendix C. The transformer loads would be subject to a police escort due to the weight of the proposed loads.

Crane loads will also be required at the site and these are considered to be escorted loads due to their width at 3m. Civilian escorts would be used to assist these loads to access the site.

#### 4.4 Operational Traffic

Traffic associated with the operational phase of the Proposed Development will be minor in nature and restricted to occasional visits for maintenance, servicing and security reviews. It is anticipated that traffic flows associated with this phase of the Proposed Development will be no more than ten LGV movements (five inbound and five outbound) per month.

This level of traffic is not considered to be significant and as such, no further assessment is proposed.

## 5 Construction Traffic Management Proposals

#### 5.1 General Measures

The traffic management proposals in this report will be provided to the Principal Contractor and they will be required to abide by these regulations as part of their commercial contracts with the Applicant. Failure to follow the traffic management measures proposed would be a contractual matter and could result in contractors being dismissed from the site.

Information about the construction of the development would be available on a project website. Facilities for members of the public to ask questions relating to construction traffic associated with the project could also be provided. A telephone number for the Principal Contractor would be published during operational hours to resolve any traffic management problems that occur, and these calls would be logged and reported to the Applicant on a weekly basis to monitor the situation.

All contractors will be monitored through regular spot-checks to ensure they follow the approved access route(s). Access routes identified will be clearly defined in all sub-contracts and signposted.

The site access junction will be kept clear at all times during construction and will be monitored by onsite staff to ensure vehicles do not attempt to use the area for parking.

Use of a visible vehicle identification system for HGV deliveries should be employed to ensure compliance with the agreed route and driver behaviour standards. This will allow the public to identify any rogue vehicles to the site office for easy recognition and review.

The Applicant will also work with local businesses to ensure the construction traffic does not interfere with deliveries or normal business traffic wherever possible.

Wherever reasonably possible, local suppliers such as quarries and concrete works are proposed to help minimise traffic levels of the network.

The following measures would be implemented through this CTMP during the construction phase:

- Contractual requirement in the BoP contract that contractors will only use the agreed access routes;
- Direction signage signposting traffic on the agreed access routes;
- Providing the public with details of how to report use of unapproved routes or driving issues of concern;
- Setting out site staff disciplinary measures for those who ignore the agreed access routes and enforcing these throughout the construction period;
- All site vehicles will feature "white noise" reversing warning devices to reduce noise disruption when on site;
- All materials delivery lorries (dry materials) will be sheeted to reduce dust and stop spillage on public roads;
- Specific training and disciplinary measures will be established to ensure the highest standards are maintained to prevent construction vehicles from carrying mud and debris onto the carriageway;
- Wheel cleaning facilities will be established at the site entrance. A road sweeper would also be provided at site to ensure that the area of the C1S near the site access is kept clean during the development platform works and any other works likely to generate material that could be tracked on to the public road network; and
- Site induction for all staff instructing them on what route to site they can use to enter and exit the site and obtaining their acknowledgement that there is only one approved access route. The induction would include:
  - A tool box talk safety briefing;
  - The need for appropriate care and speed control;

- A briefing on driver speed reduction agreements (to drive slowly through villages and settlements on the access route) and to be aware of pedestrian, cyclist and equestrian traffic in these areas; and
- Identification of the required access route and access junction operation and the controls to ensure no departure from these routes.

#### 5.2 Wear & Tear Agreement

An agreement is suggested to cover the cost of any abnormal wear and tear on the C1S. This would be agreed with the Council subject to the granting of planning approval.

The wear & tear agreement will address concerns about possible damage to the public road, verges and structures. It will be based upon condition surveys of the road to ensure that the condition of the road does not deteriorate as a result of the construction works.

Video footage of the pre-construction phase condition of the agreed area covered by the condition survey would be recorded to provide a baseline of the state of the road prior to any construction work commencing. This High Definition (HD) baseline review would inform any change in the road condition during the construction stage of the Proposed Development as it notes the existing condition of the road surface and features and details current condition.

The condition survey would feature still images for the survey and would measure specific defects to monitor their progression. Locations of points would be accurately logged using a GPS tracker.

To agree the current state of the road, the report would be agreed with the Council prior to construction works commencing.

Any immediate necessary repairs would be coordinated with the Council. Any damage caused by traffic associated with the Proposed Development, during the construction period that would be hazardous to public traffic, would be repaired immediately.

During construction activities, a general road wear and tear review would be undertaken with the Council every three months during construction. Interim reviews will be undertaken by the principal contractor on a regular basis and the progress reports issued to the Applicant.

Any damage to road infrastructure caused directly by construction traffic would be made good, and street furniture that is removed on a temporary basis would be fully reinstated.

There would be a regular road edge review and any debris and mud would be removed from the public carriageway to keep the road clean and safe during the initial months of construction activity, until the construction junction and immediate access track works are complete.

Where defects occur, the principal contactor will ensure that they maintain a stockpile of road repair material on site to undertake repair works quickly and efficiently, when authorised by the Council to undertake interventions.

Upon completion of construction activities, a follow-on condition review will be undertaken around the site access junction and a defects list prepared. Works required to reinstate the road back to its original condition would be undertaken at the Applicant's expense following a review by the Council.

There are cases where defects will need to be undertaken quickly and the contractor will have arrangements in place to respond to serious and significant defects within agreed hours.

### 5.3 C1S Laybys

To assist with HGV movements during the construction phase, it is proposed that post-consent the current passing places on the C1S are reviewed with Aberdeenshire Council road officers (during a site visit) and a selection are then formalised (within the limits of road adoption) to help improve the safety of the road during construction deliveries.

The formalisation process could provide a metalled surface for the passing place and appropriate signage (should this be considered necessary by the Council). They would feature a 6m wide passing area (within the limits of existing road adoption) and would feature 7m tapers.

To enable access for the AIL movements, it is proposed that the C1S is widened to 4m minimum along its length.

The passing place and widening works would be undertaken as a Road Opening Permit, following agreement with the Council.

#### 5.4 Turning Facilities & Banksmen

For safety reasons, both onsite and for other road users, the site has been designed so all vehicles can enter and exit the site in a forward gear at both junctions. No vehicle shall reverse onto unmanaged public roads and shall only enter / exit the site using forward gear only.

The site construction compound will be sized to ensure that staff can park safely in the appropriate areas and that no parking occurs near the site access junction on the C1S.

#### 5.5 AIL Traffic Management Measures

#### **General Measures**

AlL movements must be escorted by the Police. Given the size of the proposed loads, it is expected that at least two private escorts and a minimum of two police escort vehicles are likely to be required (exact requirement will be confirmed with the police). The likely deployment of escorts will be as follows:

- The first police escort vehicle will be the advance escort and will be located sufficiently ahead of the convoy, to advise the convoy in good time of traffic stoppages, constraints and oncoming hazards;
- The second police escort and first civilian escort will provide support to the first escort at junction closures and would be located at the front of the lead vehicle; and
- The second civilian escort will be located behind the last vehicle to protect the rear of the convoy and ensure that following vehicles do not attempt dangerous overtaking manoeuvres.

Before the convoys depart the Port of Entry (PoE) (to be determined post the granting of planning permission) the Lead Driver should check weather and traffic conditions and ensure this information is included within the daily toolbox talks.

Within the route, there are locations where general traffic flows will need to be stopped to allow the safe manoeuvre of the loads. In these circumstances, the advance escorts will ensure that the traffic is stopped before the convoy enters the affected section. The advance escorts will confirm through radio contact that the area is clear and safe for transit. Should general traffic fail to observe the request to stop, the advance escort will advise the convoy to immediately halt and will then proceed to remove the rogue traffic. The convoy must not start without approval from the advance escort.

In areas where the load is likely to, or is close to straddling the centre line, the advance escort should be positioned to give advance warning to the convoy such that action can be taken. In constrained areas and other

locations where verges are potentially soft the drivers must exercise care to ensure the trailer wheels do not leave the road surface as this may result in adverse load stability conditions.

Urban areas along the route pose different challenges for the abnormal loads. Whilst the vehicle speeds will be less than those in the rural sections of the route, there are more potential conflicts with other road users to be aware of. These include:

- Pedestrians and cyclists;
- Local vehicular traffic;
- Parked vehicles;
- Side junctions; and
- Street furniture.

Within urban areas, the convoy escorts will need to be aware of all road and footway users at turn sections within the route. At these locations there is potential for load over-sail and reference to the swept path assessment drawings is considered essential to identify these areas. It is important to note that only the Police have the power to request that vehicles and pedestrians move.

Within urban areas there is a higher chance of parked vehicles along the route and a possibility that parked cars will restrict available road width. Whilst these areas will not impede the loads, they do create a further zone where the load drivers and escorts will need to take care of conflicts that include restricted road widths, car doors opening and pedestrians crossing the road between parked vehicles.

Information relating to AIL movements will be provided directly to residents living in the immediate vicinity of the access route. Information on the movement of the abnormal load convoys would also be provided to local media outlets by the Principal Contractor (or their appointed AIL delivery contractors) to help assist the public. Information would be provided to local newspapers and radio stations.

The project website will also be used to help advise of movements. Information would relate to expected vehicle movements on the route. It is hoped that this level of information will make residents aware of convoy movements and help reduce any conflicts.

#### AIL Convoy Health & Safety Measures

All staff working on the project will be inducted before entering the site. This will be undertaken prior to the commencement of AIL movements.

A daily Tool Box Talk for all convoy staff to be held at the start of each working day and carried out by the appointed Transport Co-ordinator or Appointed Lead Driver. A detailed record of the talk should be kept and filed once the convoy has arrived at the site.

The Tool Box Talks will cover a minimum of the following matters:

- The current version of the CTMP to be carried by all convoy vehicles;
- Identification of any updates since the previous version of the CTMP;
- Requirement to have a CB radio (fixed or portable), with fully charged batteries;
- Anticipated transport restrictions in each section of the route;
- Driver instructions on incident reporting;
- Driver instructions on trailer steering methodology, and availability of assistance;
- Instructions on areas requiring traffic stoppage, and methodology for convoy passing through these areas;
- The welfare arrangements for drivers;
- A summary of the predicted weather, traffic and road conditions; and
- Any questions on the contingency plans.

Each of the convoy vehicles must be suitably equipped with hazard warning devices to warn all other road users. All the tractor, trailer and escort vehicles operating on the project must have the following:

- Tractor units to have beacon bars on the roof and 3M reflective markings on both sides;
- All vehicle warning signage to be in English;
- Trailer units to have amber beacons on the rear with 3M reflective markings on both sides;
- All escort vehicles will have beacon bars on the roof, with 360 degree motion for all round visibility, and 3M reflective markings;
- Fire extinguisher and first aid kit; and
- Certified cargo lashing straps are to be used at all times. Certification must be carried and made available for inspection, kept within the cab.

All hazard warning equipment must be checked and cleaned at the start of each day. Additional cleaning of the warning equipment may be required throughout the day and must be undertaken when required.

All relevant personnel must have the appropriate Personal Protective Equipment (PPE). All PPE clothing must be 'CE' marked to show it meets current standards and should be appropriate for use in trunk road situations (i.e. must be full coats with reflective bands on the arms).

#### Emergency & Contingency Plan

To ensure access for emergency service vehicles, a coordination protocol will be established with the blue light emergency services. As the AIL convoys are escorted by the Police, the Police will be aware of potential access issues for ambulances and fire service vehicles and can take appropriate action on the route to pull to the side of the road or mount a verge to allow emergency vehicles past.

The civilian escort vehicles carry equipment to make running repairs to vehicles in the unlikely event of a breakdown. Further spares and equipment can also be based at the site for faster responses in case of mechanical issues.

The haulier will establish contracts with local suppliers to attend to any punctures and tyre issues, to minimise any stoppage time on the route.

## 6 Summary

This combined Transport Statement & Construction Traffic Management Plan has considered the likely impact of traffic generated by the Proposed Development on the local road network.

A review of the type and volume of vehicles associated with the construction programme has been provided and the peak of construction activities identified. This peak in traffic has been used to review the likely impact that construction activities would have.

Construction of the Proposed Development will generate approximately 118 vehicle movements per day at the peak of construction. It is expected that during the peak month of construction (Month 11), 51 two-way HGV movements per day will occur per day. A further 67 car / LGV trips would be created by construction staff travelling to and from the site.

Traffic management procedures have been proposed within this report which would ensure the safe operation of the approach route to the site during construction. Determination of the final details of these traffic management measures will occur once the contractor has been appointed.

As the Proposed Development will not be manned, operational traffic is expected to be minimal and would be conducted by smaller vehicles. The impact of this on the wider road network will be negligible.

Appendix A Proposed Construction Access Junction

Inbound Articulate HGV	d	Outbound Articulated HGV	
	Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: pfedinburgh@pellfrischmann.com	Project FIELD NEW DEER 2 BESS	Drawn Designed
Client	www.pellfrischmann.com	Drawing Title	Checked Point of Intere
Key	· /////	STIE ACCESS JUNCTION	Drawing No. SK01
Wheel SI	PA Body SPA Load SPA Indicative Overrun Overs	MAX LEGAL ARTICULATED HGV TRACKING	





Appendix B Construction Programme and Delivery Profile

#### **Construction Programme**

Element	Vehicle																							i I	
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
Site Establishment / Reinstatement	HGV	80	40																			1		80	40
General Deliveries	HGV	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
Initial Site Preparation	HGV		1518	1518																					
Access Tracks	HGV				722	722																			
Geotextile	HGV				17	17	17																		
Development Platform	HGV						1080	1080	1080	1080	1080	1080													
Foundation Steel	HGV												57												
Foundation Concrete	HGV												955	955	955										
Cabling	HGV											7													
Cable Sand	HGV														100	100	100								
EV Gear & Switchgear	HGV																	16							
Cranes	HGV											2						2						,	
Buildings	HGV																20	20	20	20				1	
Fencing, Landscaping & Security	HGV												24								8		22	4	
Battery & Inverter Delivery	HGV																			320	320	320		,	
Commissioning	LGV																				88	88	88	88	88
Staff	LGV	376	627	1254	1254	1254	1254	1254	1254	1254	1463	1463	1463	1463	1463	1463	1463	1463	1254	1254	1254	1254	836	418	418
Total		500	2229	2816	2036	2036	2394	2378	2378	2378	2587	2596	2543	2462	2562	1607	1627	1545	1318	1638	1714	1706	990	634	590
Total HGV		124	1602	1562	782	782	1140	1124	1124	1124	1124	1133	1080	999	1099	144	164	82	64	384	372	364	66	128	84
Total LGV		376	627	1254	1254	1254	1254	1254	1254	1254	1463	1463	1463	1463	1463	1463	1463	1463	1254	1254	1342	1342	924	506	506
Total HGV / Day		6	73	71	36	36	52	51	51	51	51	51	49	45	50	7	7	4	3	17	17	17	3	6	4
Total LGV / Day		17	29	57	57	57	57	57	57	57	67	67	67	67	67	67	67	67	57	57	61	61	42	23	23
Total per Day		23	101	128	93	93	109	108	108	108	118	118	116	112	116	73	74	70	60	74	78	78	45	29	27

Please note that rounding errors may occur

Appendix C AIL Route Survey

# Pell Frischmann

New Deer 2 BESS

Abnormal Load Route Survey April 2025 10110141 This report is to be regarded as confidential to our Client and is intended for their use only and may not be assigned except in accordance with the contract. Consequently, and in accordance with current practice, any liability to any third party in respect of the whole or any part of its contents is hereby expressly excluded, except to the extent that the report has been assigned in accordance with the contract. Before the report or any part of it is reproduced or referred to in any document, circular or statement and before its contents or the contents of any part of it are disclosed orally to any third party, our written approval as to the form and context of such a publication or disclosure must be obtained.

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## Pell Frischmann

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## 1 Introduction

Pell Frischmann has been instructed by TNEI on behalf of Field New Deer Limited (the Applicant) to undertake a survey of the delivery route for Abnormal Indivisible Loads (AIL) associated with the creation of a Battery Energy Storage System (BESS) and associated development at a site to the south-west of the B9170 and northwest of the existing New Deer Substation, in the Aberdeenshire Council administrative area.

The Route Survey Report (RSR) has been prepared to help inform the Applicant on the likely issues associated with the development of the proposed development with regards to on-site transport and access for AIL traffic. The report identifies the key issues associated with AIL deliveries from the Port of Peterhead to the proposed Substation Site and notes that remedial works, either in the form of physical works or as traffic management interventions, will be required to accommodate the predicted loads.

The detailed assessment and subsequent designs of any remedial works are beyond the agreed scope of works between PF and the Applicant at this point in time.

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It is the responsibility of the equipment supplier to ensure that the entirety of the proposed access route is suitable and meets with their satisfaction. The equipment supplier will be responsible for ensuring that the finalised proposals meet with the appropriate levels of health and safety consideration for all road users and has been made in accordance with the relevant legislation at the time of delivery.

## 2 Site Description & Locations

#### 2.1 Proposed Development

The Proposed Development site is located to the north-west of the New Deer and Moray East substations, near New Deer, Aberdeenshire. The Proposed Development is illustrated in Figure 1.





Construction access to the Proposed Development has been reviewed and would be from the east, via the C1S public road.

To allow the Proposed Development to connect to the national electrical grid, new transformers will be required. These transformers will be located within the site and due to their size and weight are classified as AIL.

### 2.2 AIL Vehicles

Details of the proposed transformer loads will be confirmed at the detailed design stage of the project, post planning determination. To provide an initial review of access it has been assumed that the transformers will be significantly smaller than those used for the neighbouring Moray East project and that the same access route from the Port of Peterhead will be used through to New Deer.

The candidate transformers have a maximum transport weight of up to 150 tonnes. The loads would be a maximum of 8 metres (m) in length by 3.5m in width by 4.2m in height.

To transport loads such as these a two bolster girder frame trailer is to be used, as per the Moray East deliveries, albeit with four less axles. This has eight axles in the front and rear bolster with the load suspended between. An example trailer is illustrated in Figure 2.

#### Figure 2 Example Transformer Load Transporter



Various road improvements would be required to enable access. These enhancements are noted in the following sections; however no detailed design options have been undertaken as yet. These would generally be progressed once the client has selected their final preferences for equipment.

The access options have only considered access to the Proposed Development boundary. Access within the site has not been considered at this time.

## 3 Access Route Review

#### 3.1 Access Options

Access from the Port of Entry (PoE) of Peterhead has been considered through to the site access junction. The access option is illustrated in Figure 3.

#### Figure 3 Access Option



The proposed route is as follows:

- Exit the port onto Bath Street and turn left;
- Continue west on Charlotte Street and Kirk Street;
- Take the first exit at the roundabout and proceed southbound on the A982 South Street;
- Continue southbound, joining the A90 and proceeding to Ellon;
- Depart the A90 and join the A948 westbound at Ellon;
- Continue on the A948 northbound, passing through Auchnagatt and New Deer;
- Proceed on the B9170 Auchreddie Road West;
- Undertake a shunt manoeuvre to the south of Cuminestown;
- Proceed southbound before turning right onto the C1S; and
- Proceed westbound on the C1S before turning right into a new site access junction.

A review of the access route has been undertaken to review potential areas of interest and constraint.

#### 3.2 Routes Description

The following locations were identified from the site review and are detailed in Table 1. Plans illustrating the location of the constraints and a detailed list of Points of Interest (POI) are provided in Appendix A.

#### **Table 1 Route Constraints**

POI	Key Constraint	Details
1	Bath Street Junction	Loads will exit the port onto Bath Street and will proceed to the west.
		Loads will over-run the footway on either side of Merchant's Quay where a temporary load bearing surface will be required. Underground services should be protected at these locations.
		Parking opposite the junction should be suspended during deliveries. A Temporary Traffic Regulation Order (TTRO) will be required.
2	Kirk Street Junction	Loads will turn left onto Kirk Street.
		Traffic management will be necessary to hold back oncoming traffic at the junction.
3	Kirk Street / South Road Roundabout	Loads will take the first exit at the roundabout, turning onto South Road.
		Loads will require access to both lanes on the South Road exit.
		A pedestrian crossing island south of the junction will need to be removed and a load bearing surface provided. The existing bollards and lighting column will need to be removed. Similar works are required to the south at a further crossing island.
4	A90 Invernettie Roundabout	Loads will proceed south onto the A90 taking the second exit.
		Loads will oversail the central island of the junction where one chevron sign should be removed.
5	A90 / A948 Roundabout	Loads will turn off the A90, using a contraflow transit of the junction
		Two lighting columns on the inside of the junction will need to be removed. A temporary load bearing surface is required on the exit
		be removed.

POI	Key Constraint	Details
6	A948 / A920 Roundabout	Loads will undertake a contraflow transit of the junction,
		One chevron sign will need to be removed to facilitate loads oversailing the central island of the junction.
7	A948 Bend near Hilton Croft	Loads will continue ahead on the A948.
		No physical mitigation works are required at this location. Oncoming traffic should however he held back in advance of the bend by the lead escorts to allow loads access to both lanes.
8	A948 Bridge south of Lammermuir	Loads will continue ahead on the A948.
		No physical mitigation works are required at this location. Oncoming traffic should however he held back in advance of the bend by the lead escorts to allow loads access to both lanes.
9	A948 at West Auquhaldie	Loads will continue ahead on the A948.
		No physical mitigation works are required at this location. Oncoming traffic should however he held back in advance of the bend by the lead escorts to allow loads access to both lanes.
10	A948 at Backhill of Auquhaldie	Loads will continue ahead on the A948.
	a formation and a second	No physical mitigation works are required at this location.
		Convoy management will be required to hold oncoming traffic in advance of the bend.

POI	Key Constraint	Details
11	A948 at Burn of Fortree	Loads will continue ahead on the A948.
		No physical mitigation works are required at this location. The load bed of the trailer however should be elevated to allow loads to oversail the bridge parapets to the west.
12	A948 south of Mill of Elrick	Loads will continue ahead on the A948.
		No physical mitigation works are required at this location. Oncoming traffic should however he held back in advance of the bend by the lead escorts to allow loads access to both lanes.
13	A948 Mill of Elrick	Loads will continue ahead on the A948.
		No physical mitigation works are required at this location. Clearances to the wall and fence on the inside of the bend are however constrained. Convoy management will be required to hold oncoming traffic in advance of the bend.
14	A948 at Auchnagatt	Loads will continue ahead on the A948.
		No physical mitigation works are required at this location. Oncoming traffic should however he held back in advance of the bend by the lead escorts to allow loads access to both lanes.
15	A948 at the Barrack Junction	Loads will continue ahead on the A948.
		No physical mitigation works are required at this location. Oncoming traffic should however he held back in advance of the bend by the lead escorts to allow loads access to both lanes.

POI	Key Constraint	Details
16	A948 Bend	Loads will continue ahead on the A948.
		No physical mitigation works are required at this location.
		Tree canopy trimming may be required to provide a clear height of 5m.
17	A948 South of Nethermuir	Loads will continue ahead on the A948.
		No physical mitigation works are required at this location. Oncoming traffic should however he held back in advance of the bend by the lead escorts to allow loads access to both lanes.
18	A948 North of Nethermuir	Loads will continue ahead on the A948.
		No physical mitigation works are required at this location. Oncoming traffic should however he held back in advance of the bend by the lead escorts to allow loads access to both lanes.
19	A948 North of the Lang Stracht Junction	Loads will continue ahead on the A948.
		No physical mitigation works are required at this location. Oncoming traffic should however he held back in advance of the bend by the lead escorts to allow loads access to both lanes.
20	A948 Southeast of New Deer	Loads will continue ahead on the A948.
		No physical mitigation works are required at this location. A parking suspension in the layby will be required and a Temporary Traffic Regulation Order (TTRO) will be necessary. Oncoming traffic should however he held back in advance of the bend by the lead escorts to allow loads access to both lanes.

POI	Key Constraint	Details
21	B9170 Brucehill Bend	Loads will continue ahead on the B9170.
		No physical mitigation works are required at this location. Oncoming traffic should however he held back in advance of the bend by the lead escorts to allow loads access to both lanes.
22	B9170 Gellybrae Bend	Loads will continue ahead on the B9170.
		No physical mitigation works are required at this location. Oncoming traffic should however he held back in advance of the bend by the lead escorts to allow loads access to both lanes.
23	B9170 Allathan Bends	Loads will continue ahead on the B9170, passing through the sinuous Allathan Bends
		No physical road mitigation works are required at this location. Oncoming traffic should however he held back in advance of the bend by the lead escorts to allow loads access to both lanes. Overhead tree canopy should be trimmed to provide a clear 5m head height.
24	B9170 Dam Brig Bend	Loads will continue ahead on the B9170, passing through
		the left hand bend. A swept path assessment has been undertaken and indicates that vegetation on the inside of the bend should be trimmed. The tree canopy should also be trimmed to allow a 5m clear head height. The clearance to an overhead utility pole is constrained. It is recommended that the swept path is repeated on a topographical base plan once the candidate transformer has been confirmed.
25	B9170 Junction	Loads need to turn left at the junction
		A swept path assessment has been undertaken. To minimise the works required at the junction, a shunt manoeuvre is proposed where the load proceeds on the B9170 and is then pulled in the other direction by a second tractor unit. A minor load bearing surface is required and one road sign should be removed.

POI	Key Constraint	Details
26	Bend near Oldmill of Allathan	Loads will continue southbound.
		Verge trimming works are required on the western verge. Oncoming traffic should however he held at POI 28 by the lead escorts to allow loads access to the entire road.
27	Bend near Mill of Allathan	Loads will continue southbound.
		No physical road mitigation works are required at this location. Oncoming traffic should however he held at POI 28 by the lead escorts to allow loads access to the entire road.
28	C1S Junction	Loads will turn right at the junction onto the C1S.
		A swept path assessment has been undertaken and indicates that a load bearing surface in third party land is required at the junction, requiring the removal of the fencing and the provision of a load bearing surface. The C1S should be widened to a minimum of 4m to allow access for the proposed loads.
29	C1S Bend West of Mains of Green	Loads will proceed ahead on the C1S.
		A swept path assessment has been undertaken and indicates that loads will oversail both verges at this location. A topographical survey of the bend is recommended once the transformer load has been confirmed. The C1S should be widened to a minimum of 4m to allow access for the proposed loads.
30	C1S Bend West of Mains of Green (2)	Loads will proceed ahead on the C1S.
		A swept path assessment has been undertaken and indicates that loads will oversail both verges at this location. A topographical survey of the bend is recommended once the transformer load has been confirmed. The C1S should be widened to a minimum of 4m to allow access for the proposed loads.

POI	Key Constraint	Details				
31	C1S Northburnhill Bend	Loads will proceed ahead on the C1S.				
		A swept path assessment has been undertaken and indicates that an overhead utility pole in the northern verge will need to be relocated.				
		A load bearing surface is required to the north within BESS site land.				
		The C1S should be widened to a minimum of 4m to allow access for the proposed loads.				
32	Proposed Site Access Junction	Loads will turn right into the site access junction.				
		A swept path assessment has been undertaken and indicates that the proposed access junction is sufficiently large to accommodate the proposed loads.				

#### 3.3 Swept Path Assessment Results and Summary

The detailed swept path drawings for the locations assessed are provided in Appendix B from POI 21 to the site access junction and illustrate tracking undertaken for the worst-case loads.

The colours illustrated on the swept paths are:

- Grey / Black OS / Topographical Base Mapping;
- Green Vehicle body outline (body swept path);
- Red Tracked pathway of the wheels (wheel swept path); and
- Purple The over-sail tracked path of the load where it encroaches out with the trailer (load swept path).

Where mitigation works are required, the extents of over-run and over-sail areas are illustrated on the swept path drawings.

Please note that where assessments have been undertaken using Ordnance Survey (OS) or aerial photography base mapping, there can be errors in the data source. The available OS mapping does not identify the road edge through some sections. An indicative road edge has been provided for illustration only and should be confirmed through a test run or the completion of a topographical survey at these locations.

There are sections of this route where there is no available OS data as new road links have yet to be completed. In these areas, alternative data sources have been used. Reassessment of these areas should be undertaken once more accurate data becomes available.

#### 3.4 Land Ownership

The limits of road adoption can vary depending upon the location of the site and the history of the roads agency. The adopted area is generally defined as land contained within a defined boundary where the road agency holds the maintenance rights for the land from the original landowner. In urban areas, this is usually defined as the area from the edge of the footway across the road to the opposing footway back edge.

In rural areas the area of adoption can be open to greater interpretation as defined boundaries may not be readily visible. In these locations, the general rule is that the area of adoption is between established fence / hedge lines or a maximum 2m from the road edge. This can vary between areas and location.

#### 3.5 Weight Review

A revised weight review will be undertaken once the candidate transformer has been confirmed. A full Approval In Principle (AIP) review of all structures of concern will be undertaken with Aberdeenshire Council and any upgrade works will be undertaken prior to loads being delivered to the Proposed Development site.

#### 3.6 Summary Issues

It is strongly recommended that following a review of the RSR, the Applicant should undertake the following prior to the delivery of the first abnormal loads, to ensure load and road user safety:

- Confirm the finalised component dimensions and weights and update the RSR accordingly;
- A revised review of axle loading on structures along the entire access route with the various road agencies is undertaken immediately prior to the loads being transported in case of last minute changes to structures;
- A review of clear heights with utility providers and the transport agencies along the route to ensure that there is sufficient space to allow for loads plus sufficient flashover protection (to electrical installations);
- That any verge vegetation and tree canopies which may foul loads is trimmed prior to loads moving;
- That a review of potential roadworks and or closures is undertaken once the delivery schedule is established in draft form;
- That a test run is completed to confirm the route and review any vertical clearance issues, where practical; and
- That a condition survey is undertaken to ascertain the extents of road defects prior to loads commencing to protect from spurious damage claims.

## 4 Summary

#### 4.1 Summary of Access Review

Pell Frischmann has been commissioned by TNEI on behalf of the Applicant, to prepare a Route Survey Report to examine the issues associated with the transport of transformer components to the proposed development, from the Port of Peterhead.

This report identifies the key points and issues associated with the proposed route and outlines the issues that will need to be considered for successful delivery of the components.

Various road modifications, structural reviews and interventions are required to successfully access the site. If these are undertaken, access to the Proposed Development site is considered feasible.

Appendix A Points of Interest









## Pell Frischmann



Appendix B Swept Path Assessment Drawings



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