

TECHNICAL APPENDIX 3.3: TURNING AREAS SAFETY AUDIT

Kirkton Energy Park
Prepared for: Kirkton Wind Farm Ltd

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STAGE 1-2 ROAD SAFETY AUDIT

Kirkton Wind Farm

SLR Consulting

October 2021

The Highland Council

Stage 1-2 Road Safety Audit

Report control

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- Appendix A – Site Location Plan
- Appendix B – Documents Submitted for Audit
- Appendix C – Problem Location Plan

1 Introduction

- 1.1 This report results from a Stage 1-2 Road Safety Audit (RSA) carried out on 6th October 2021. The Audit was carried out on behalf of Alastair Smith and Jo Read of SLR Consulting.
- 1.2 The Overseeing Organisation for this Stage 1-2 RSA is The Highland Council and authorisation of the Audit Team was provided by Jane Bridge of The Highland Council on 9th September 2021.
- 1.3 An agreed Audit Brief was prepared by Jo Read of SLR on 9th September 2021. This brief was accepted by the Audit Team on 26th September 2021.
- 1.4 This Road Safety Audit team was as follows:
- IAN MEDD, MCIHT, FSoRSA
Audit Team Leader
For Vectos South Ltd
- RICHARD PEARSON BSc (Hons) CMILT MCIHT MSoRSA
Audit Team Member
Director, Drummond Black Consulting Ltd.
Edinburgh
- 1.5 A site visit was undertaken on Wednesday 29th September 2021 between the hours of 13:00hrs and 14:00hrs.
- 1.6 The weather was fine and bright and the road surface dry. At the time of the site visit low levels of traffic were observed. There were no non-motorised user (NMU) movements during this time.
- 1.7 A site location plan can be found at **Appendix A** of this report.
- 1.8 The terms of reference of the Road Safety Audit are as described in the Design Manual for Roads and Bridges (DMRB) Standard, GG119 Road Safety Audit.
- 1.9 The Audit Team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria. However, to clearly explain a safety problem or the recommendation to resolve a problem the Audit Team may, on occasion, have referred to a design standard without touching on technical audit.
- 1.10 The scheme subject to a combined Stage 1 & Stage 2 RSA aims to construct two turning areas located on the A836 associated with the proposed Kirkton wind farm. One turning area is within Melvich, the other is further west towards Strathy. Both turning areas will have laydown areas and space for transferring blades onto a different vehicle (blade lifter) before transport to site. It is understood that all large component carriers will be escorted and entry and exit manoeuvres will be supervised by banksmen. A list of the documents and drawings submitted for this Stage 1-2 Road Safety Audit can be found at **Appendix B**.
- 1.11 A submitted design drawing has been annotated to show the locations of any problems identified during this Stage 1-2 Road Safety Audit. This plan can be found at **Appendix C**.

- 1.12 Whilst recommendations have been made within this report, there may be equally satisfactory alternatives. The Audit Team will be pleased to consider alternatives if required.

Departures from Standards

- 1.13 The Audit Team were not informed of any Departures from Standards (DfS) within the proposed design.

2 Matters arising from this Stage 1-2 RSA.

General Problems.

2.1 Problem.

Location: General.

Summary: Lack of warning signs may lead to excessive traffic speeds on approaches.

The open nature of the A836 and the low traffic flows may result in vehicles travelling at excessive speeds on the approaches to both sites, as shown in the speed data provided. Slow turning heavy vehicles entering or exiting the sites may be unexpected, leading to approaching traffic braking heavily and losing control or colliding with these vehicles. While it is noted that wind farm transporter vehicles will be under escort, it is expected the site will be accessed by vehicles from other staff and operatives.

Recommendation

It is recommended appropriately wording warning signs are provided in advance of both sites to alert drivers to the likelihood of heavy vehicles turning. In addition, New Road Layout signs should be provided for the first three months of operation.

2.2 Problem.

Location: General.

Summary: Unauthorised use of sites may result in collisions with oncoming traffic.

The popularity of the A836 as part of the North Coast 500 route has led to a large number of motorhomes and camper vans seeking places for overnight stops. The scenic location of both sites may be attractive to these drivers, and their unsupervised entry and exit increases the risk of collisions with approaching traffic.

Recommendation

It is recommended that barriers are provided to prevent unauthorised access to the sites when not in use.

Drawing No. H001.0: Proposed turning Area Swept Path Analysis

2.3 Problem.

Location A: Melvich Village site access.

Summary: Restricted visibility from the access may lead to collisions with approaching traffic.

No visibility splays have been provided for this site, and while sight lines are generally good, a tree on the western side of the proposed access may inhibit visibility in this direction, particularly for site staff in normal vehicles leaving the site, resulting in collisions with eastbound traffic.



Recommendation

It is recommended that the visibility splays are cleared of obstructions.

Drawing No. H002 Proposed turning Area Swept Path Analysis

2.4 Problem.

Location B: Strathy site access.

Summary: Existing chamber in access may become a slip hazard or may collapse.

The proposed access point coincides with an existing chamber with a metal cover. This is on a slope and may become slippery with use causing site traffic to lose control. Further, the overrunning of the chamber by heavy traffic may cause it to collapse risking injury to operatives.



Recommendation

It is recommended the chamber and cover are relocated, or reinforced, with a skid resistant cover.

3 Audit Team Statement

3.1 We certify that this Audit has been carried out in accordance with the requirements of GG119.

Road Safety Audit Team Leader

Name: Ian Medd, MCIHT, FSoRSA

Signed: 

Position: Consultant

Organisation: For Vectos South Ltd

Date: 14th October 2021

Road Safety Audit Team Member

Name: Richard Pearson BSc (Hons) CMILT MCIHT MSoRSA

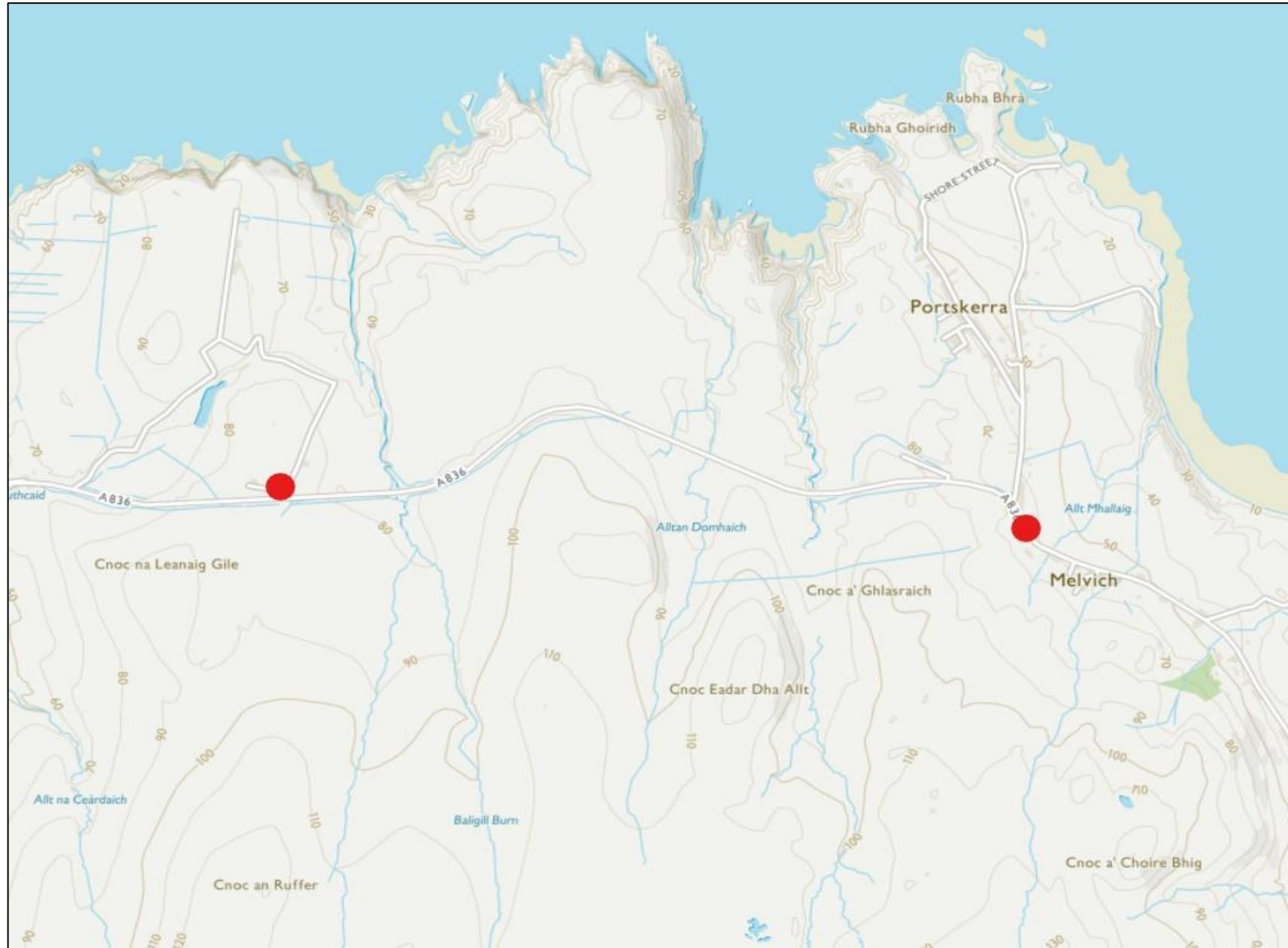
Signed: 

Position: Consultant

Organisation: Drummond Black Consulting Ltd

Date: 14th October 2021

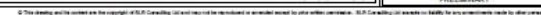
Appendix A

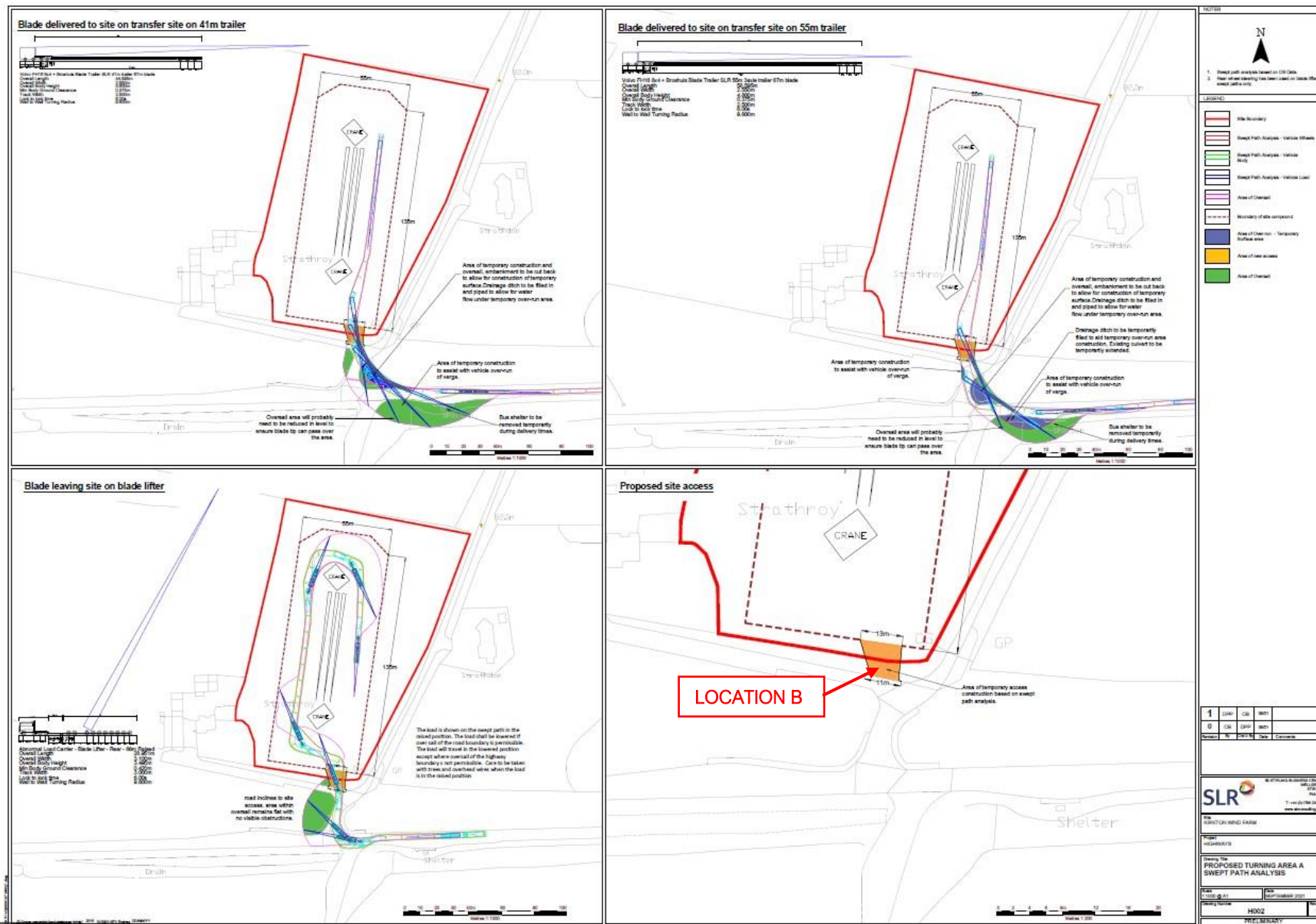


Appendix B

<i>DOCUMENT</i>	<i>DOCUMENT TITLE</i>
Audit Brief	Turning Areas (x2) for Kirkton Wind Farm on the A836
Design Drawing	H001.0 Proposed Turning Area Swept Path Analysis
Design Drawing	H002.1 Proposed Turning Area Swept Path Analysis
Document	Accident and Traffic Data

Appendix C





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