

Pell Frischmann

Deucheran Hill 2 Wind Farm

Abnormal Indivisible Load Route Survey

March 2025

10109978

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.						
Report Ref.		120325 RWE Deucheran Hill 2 N163 RSR.Docx				
File Path		https://pellf.sharepoint.com/sites/EdinburghOfficeTeam/Shared Documents/General/Projects/10109978 RWE Deucheran Hill 2/01 - WIP/Reports/120325 RWE Deucheran Hill 2 N163 RSR.docx				
Rev	Suit	Description	Date	Originator	Checker	Approver
01		Draft	12.03.2025	A Dimitrov	T Lockett	T Lockett
02		Revision 1	13.03.2025	A Dimitrov	T Lockett	T Lockett
Ref. reference. Rev revision. Suit suitability.						

Prepared for

RWE Renewables UK Onshore Wind Limited
Windmill Hill Business Park
Whitehill Way
Swindon
Wiltshire
SN5 6PB

Prepared by

Pell Frischmann Limited
93 George Street
Edinburgh
EH2 3ES



Pell Frischmann

Contents

- 1 Introduction 1
 - 1.1 Purpose of the Report..... 1
- 2 Site Background 2
 - 2.1 Site Location2
 - 2.2 Candidate Turbine2
 - 2.3 Proposed Delivery Equipment3
- 3 Access Route Review 4
 - 3.1 Port of Entry4
 - 3.2 Proposed Access Route4
 - 3.3 Route Constraints5
 - 3.4 Off-road Route Survey Review12
 - 3.5 Swept Path Assessment Results and Summary21
 - 3.7 Weight Review21
 - 3.8 Land Ownership.....22
 - 3.9 Summary Issues22
- 4 Summary..... 23
 - 4.1 Summary of Access Review23
 - 4.2 Further Actions23

Figures

- Figure 2-1: Site Location Plan2
- Figure 2-2: Superwing Carrier Trailer3
- Figure 2-3: Tower Trailer3
- Figure 3-1: Proposed Access Route.....4

Tables

- Table 2-1: Turbine Components Summary2
- Table 3-1: Constraint Points and Details5
- Table 2-2: Constraint Summary (Off-road Track)12
- Table 3-3: ESDAL Contacts.....21

Appendices

- Appendix A Points of Interest
- Appendix B Swept Path Assessments
- Appendix C ESDAL Responses

1 Introduction

1.1 Purpose of the Report

Pell Frischmann (PF) have been commissioned by RWE Renewables UK Onshore Wind Limited (RWE) to undertake a route access review of potential delivery routes for wind turbine Abnormal Indivisible Loads (AIL) associated with the construction and development of Deucheran Hill 2 Wind Farm, located near Tayinloan, Argyll and Bute.

The Route Survey Report (RSR) has been prepared to help inform RWE on the likely issues associated with the development of the site with regards to off-site and onsite spine road transport and access for AIL traffic. This report identifies the key issues associated with AIL deliveries 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.

No liability is accepted for the use of all or part of this report by third parties. This report is © Copyright of PF 2025 and RWE. No section of this report may be reproduced without prior written approval.

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

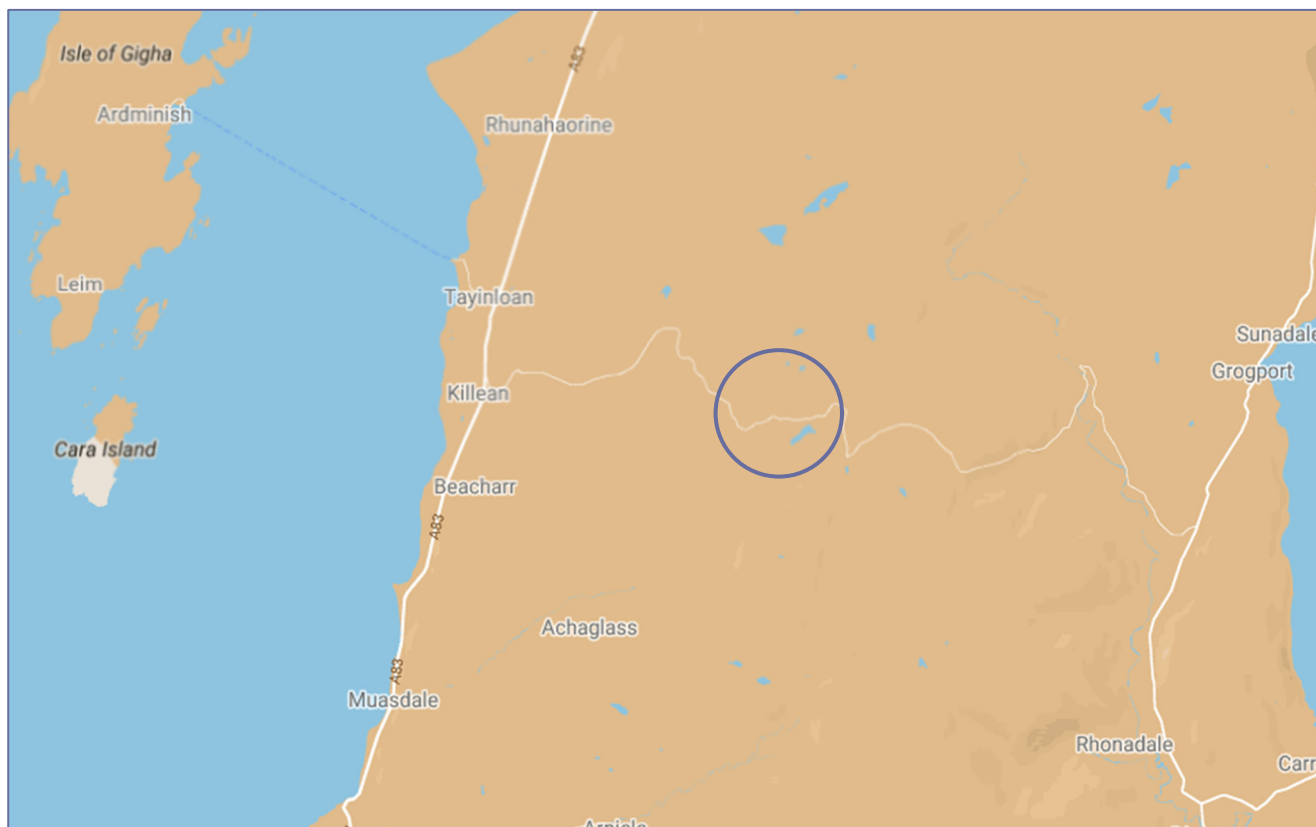
It is the responsibility of the wind turbine supplier to ensure that the entirety of the proposed access route is suitable and meets with their satisfaction. The turbine supplier will be responsible for ensuring that the finalised proposals meet with the appropriate levels of health and safety consideration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

2 Site Background

2.1 Site Location

The development site is located to the east of Tayinloan, Argyll and Bute. Figure 2-1 illustrates the general site location.

Figure 2-1: Site Location Plan



2.2 Candidate Turbine

RWE have indicated that they wish to consider the worst case components from the Vestas V162 / Nordex N163 turbines. The details of the components have been provided by Vestas and Nordex and are detailed in Table 2-1.

Table 2-1: Turbine Components Summary

Component	Length (m)	Width (m)	Height / Min Diameter (m)	Weight (t)
Vestas V162 Blade	79.967	4.460	3.800	34.961
Nordex N163 Blade	81.500	4.395	4.110	28.871
Worst Case Tower	30.000	4.800	4.800	c.83.000

The following assessment has been based on the N163 blade and worst case tower to depict the largest possible kinematic envelopes.

2.3 Proposed Delivery Equipment

To provide a robust assessment scenario based upon the known issues along the access route, it has been assumed that all blades would be carried on a Super Wing Carrier trailer to reduce the need for mitigation in constrained sections of the route.

The base and mid towers would be carried on a 4+7 clamp adaptor style trailer. The hub, nacelle housing, and top towers would be carried on a six-axle step frame trailer.

Figure 2-2: Superwing Carrier Trailer



Figure 2-3: Tower Trailer



3 Access Route Review

3.1 Port of Entry

The nearest Port of Entry for the site is Campbeltown Harbour. This is the only feasible port due to restrictions on the wider A83 at Inveraray, Tarbert, and Arrochar. The port has been previously used by turbine imports in the past, having been used for Beinn an Turic, Allt Dearg, Tangy, A'Chruach, and Carraig Gheal Wind Farms.

Loads can be offloaded by geared vessels, onshore mobile cranes, or using the redundant ferry service RO/RO ramps (subject to suitable vessel / ramp interface). The quay at Campbeltown has been upgraded to accommodate heavier offshore tower sections and the access road to and from the quay is well proven.

3.2 Proposed Access Route

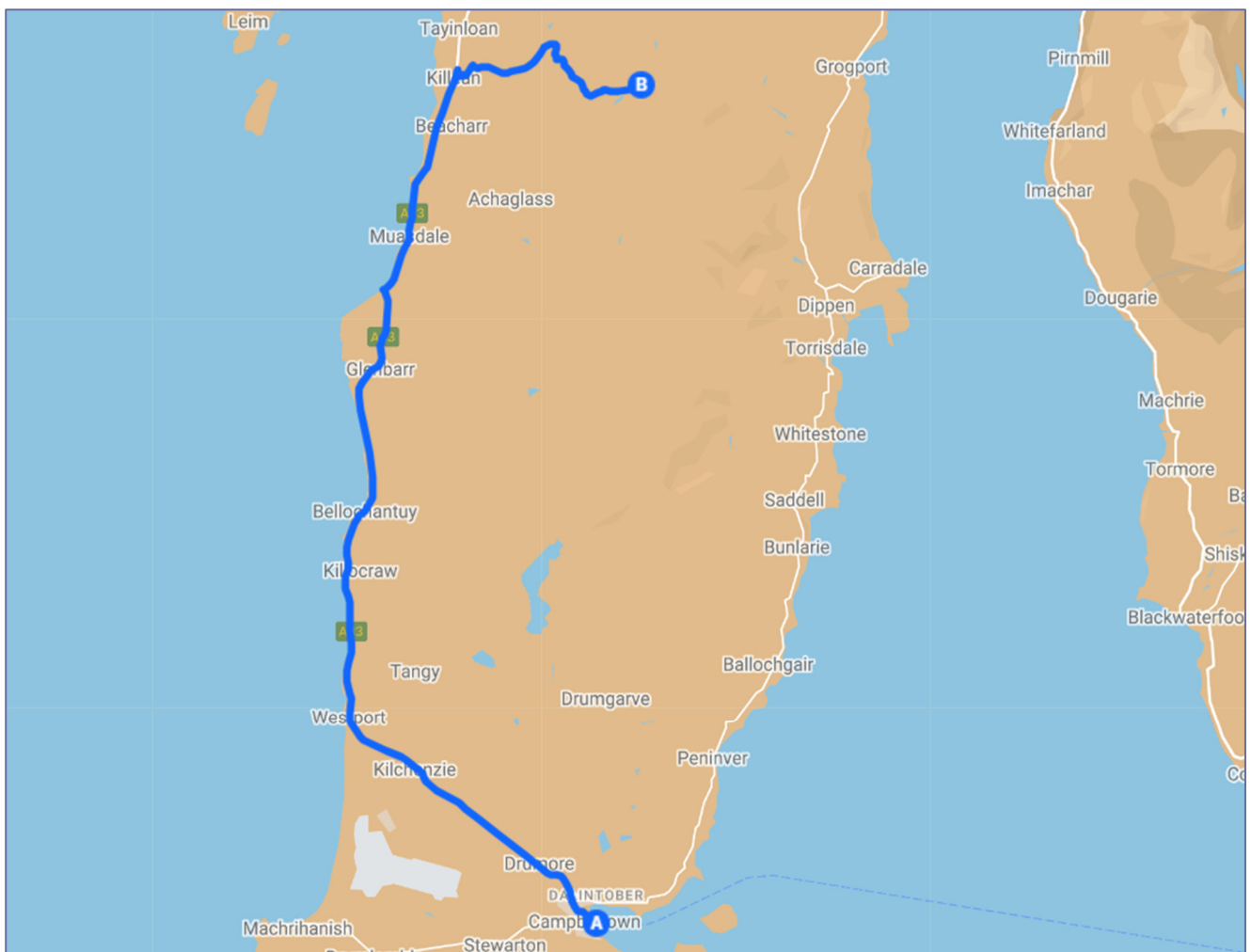
Plans illustrating the locations of the GPS Points of Interest (POI) where further assessment has been carried out are contained within Appendix A.

The proposed access route is detailed below:

- Loads would exit Campbeltown Harbour and join the A83 northbound; and
- To the north of Killeen, loads would depart the A83 turning right onto an existing wind farm access track and follow the road east to the proposed site entrance.

The proposed access route is illustrated in Figure 3-1.

Figure 3-1: Proposed Access Route



3.3 Route Constraints

The constraints noted during the site visit are detailed in the table below. These cover all constraints from the port access gate through to the site access junction. No consideration of the transport issues within the port or development site have been undertaken and this includes the design of the site access junction.

Plans illustrating the location of the constraints are provided in Appendix A.

Table 3-1: Constraint Points and Details

POI	Key Constraint	Details
1	Egress from Campbeltown Port 	Loads will exit Campbeltown Harbour and join Hall Street northbound. Loads will contraflow and utilise the opposing lane of traffic. A swept path assessment has been undertaken and indicates that loads will overrun and oversail the inside of the turn where the existing overrun area should be utilised. One lighting column, one road sign and a guardrail section should be removed. One bike rack in the eastern footway will be oversailed. The existing overrun area on the central reserve should be utilised and extended and one lighting column should be removed. Trees and the vegetation should be cleared. Traffic should be held during the movement. Swept path drawing SK01 is included in Appendix B.
2	Hall Street / Quay Head Roundabout 	Loads will take the third exit at the roundabout to join Kinloch Road northbound, undertaking a contraflow manoeuvre. Temporary parking restrictions are required to allow loads to utilise the entire carriageway through the section. Loads will oversail the central reserve on approach to the roundabout where one lighting column and two trees should be removed. One road sign and a series of bollards will be oversailed. One bench in the northeastern footway should be removed to allow oversail. Swept path drawing SK02 is included in Appendix B.

POI	Key Constraint	Details
3, 4	Aqualibrium Avenue Bends 	Loads will join the A83 via Kinloch Road driving through a left and right bend then head north. <i>This location is considered highly constrained. Minimal clearance to nearby buildings was noted at several points throughout. These clearances must be confirmed to be sufficient during a test run.</i> Through the left bend loads will oversail the eastern footway and verge where one lighting column, one information sign and one decorative light fixture should be removed. Trees should be cleared. Two decorative planters will be oversailed. Third party land is required. A load bearing surface should be laid on the northern footway through the left bend to allow loads to overrun and oversail. One lighting column should be removed. Existing utilities should be protected. Third party land is required. Loads will oversail the southern footway through the left bend. One lighting column and one sign post should be removed from the southern footway through the right bend where loads will oversail a wall and fence into third party land. 500mm clearance was noted to the building to the south. One lighting column and one sign post should be removed from the northern footway through the right bend where loads will oversail into third party land. Load bearing surfaces should be laid in the western footways to allow loads to overrun and oversail. One sign post, one lighting column, one utility marker, one donation bin and a wall should be removed. Existing utilities should be protected. Loads will require access to a car park where parking should be suspended during deliveries. 600mm clearance was noted to the building to the west. There is a level difference into the Coop car park. It is proposed that the tractor unit will enter the car park using the existing entrance and then exit to the south of the existing exit to try and avoid the level difference. Third party land is required. If this area of land is not available then a blade lifting trailer will be required to negotiate this section. Swept path drawing SK03 is included in Appendix B.
5	A83 Mill Knowe 	Loads will continue on the A83 northbound. Loads will oversail the inside verge of the right-hand bend. Temporary parking restrictions are required to allow loads to utilise the entire carriageway through the section.

POI	Key Constraint	Details
6	A83 Milknowe Road 	Loads will continue on the A83 northbound through a left bend. Three lighting columns, three road signs and a decorative structure should be removed from the eastern verges and load bearing surfaces laid to allow loads to overrun and oversail. Trees and vegetation should be cleared. Loads will oversail the western footway. Swept path drawing SK04 is included in Appendix B.
7	A83 Balegreggan 	Loads will continue on the A83 northbound. Loads will oversail the western footway through the bend, though no physical mitigation measures will be required.
8	A83 Lagnagarach 	Loads will continue on the A83 northbound through a left bend, oversailing both sides of the road throughout. <i>Minimal clearances were noted to the assumed adopted boundaries at several points. It is recommended that the swept path assessment is repeated on a topographical survey base to confirm the clearances are sufficient.</i> One lighting column should be removed from the northern verge where vegetation should be trimmed and a 150mm clearance was noted to the northern fence. A 250mm clearance was noted to a northern wall. One lighting column should be removed from the southern verge where a 150mm clearance was noted to a southern wall. The southern kerb should be protected / a load bearing surface laid to accommodate potential overrun, to be confirmed on the topographical survey based assessment. Swept path drawing SK04 is included in Appendix B.

POI	Key Constraint	Details
9	A83 Kilmaho 	Loads will continue on the A83 northbound through two bends. Loads will require access to the full carriageway width, projecting over the road centreline throughout the bends. To ensure the safety of the convoy and other road users, escort vehicles should be deployed ahead to hold traffic at a safe location for the loads to pass. Through the first bend, one road sign should be removed from the southern verge. Vegetation in the eastern verge through the second bend should be trimmed. Swept path drawing SK06 is included in Appendix B.
10, 11	A83 South of Kilchenzie 	Loads will continue on the A83 northbound through a series of bends. The clearances to overhead power lines at this location should be reviewed with the utility provider prior to loads moving to ensure that there is sufficient head height and flashover protection for all temperature ranges. Loads will oversail the eastern verges throughout, where a wall, fence, gate and two sets of chevron signs should be removed, a series of bollards will be oversailed and vegetation should be cleared. Third party land is required. One road sign, ten bollards, a fence, gate and wall should be removed from the western verges to allow oversail, and a load bearing surface should be laid to allow overrun. Third party land is required. Swept path drawing SK07 is included in Appendix B.
12	A83 Drum 	Loads will continue on the A83 northbound. The lead escorts should hold oncoming traffic back from this location as loads will straddle the centre line of the road. Loads will oversail the western verge of the left bend where vegetation should be trimmed.

POI	Key Constraint	Details
13	A83 Low Ballevain 	Loads will continue on the A83 through a right bend heading north. The clearances to overhead power lines at this location should be reviewed with the utility provider prior to loads moving to ensure that there is sufficient head height and flashover protection for all temperature ranges. A load bearing surface should be laid in the southern verge to allow loads to overrun and oversail. One chevron sign, six bollards, a wall, fence and gate should be removed. Vegetation should be cleared. Detailed design is required to confirm whether verge strengthening is required. Third party land is required. Loads will oversail both verges after the bend. Swept path drawing SK08 is included in Appendix B.
14	A83 Rosehill 	Loads will continue on the A83 northbound. The lead escorts should hold oncoming traffic back from this location as loads will straddle the centre line of the road. Loads will oversail the eastern verge of the bend where the vegetation should be trimmed.
15	A83 Northwest of Glencreggan 	Loads will continue on the A83 northbound. The lead escorts should hold oncoming traffic back from this location as loads will straddle the centre line of the road. Loads will oversail the western verge of the bend where the vegetation should be trimmed.

POI	Key Constraint	Details
16	A83 Druim an Rathaid 	Loads will continue on the A83 northbound through a series of bends. A historic topographical survey of this section has been used as a base for the assessment. Through the first bend, loads will overrun and oversail the western verge where a load bearing surface should be laid, a fence should be removed and vegetation should be cleared. Third party land is required. They will oversail the eastern verge. Through the second bend, one set of chevron signs and one road sign should be removed from the western verge where loads will oversail a safety barrier into third party land. The eastern fence and five bollards in the eastern verge through the bend should be removed. Land reprofiling is required to the east to accommodate oversail into third party land. Through the third bend, loads will oversail the northern safety barrier, a series of bollards and suspended walkway. Parking in the northern lay-by should be suspended during deliveries. Trees and vegetation should be trimmed. Third party land is required. The southern fence and four bollards in the southern verge should be removed to allow loads to oversail into third party land to the south. Land reprofiling is required to accommodate the oversail to the south. Vegetation should be cleared. Through the fourth bend, loads will oversail both verges into third party land. The western fence and vegetation in the western verge should be removed. The eastern fence and bollards in the east will be oversailed. Vegetation in the eastern verge should be trimmed. Swept path drawing SK09 is included in Appendix B.
17	A83 North Muasdale 	Loads will continue on the A83 northbound. The vertical profile of the road at this location is pronounced and should be reviewed during the test run stage to ascertain if tar wedges will be required to prevent grounding.
18	A83 Beachmenach 	Loads will continue on the A83 northbound. The vertical profile of the road at this location is pronounced and should be reviewed during the test run stage to ascertain if tar wedges will be required to prevent grounding. It is strongly recommended that a full overhead utility search is carried out along the route prior to deliveries to ensure that height clearances are suitable for normal temperature ranges.

POI	Key Constraint	Details
19	A83 Killean 	Loads will turn right exiting the A83 onto the wind farm access track heading southeast. Loads will overrun and oversail the field to the west of the A83 in order to perform a U-turn manoeuvre into the road on the right. A load bearing surface should be laid. One road sign and a fence section should be removed. Trees and vegetation should be cleared. Third party land is required. When joining the off-road track loads will oversail the southern and northern verges of the junction into third party land. On the northern verge, a fence should be removed and land reprofiling is required to allow the blade tip to oversail. On the southern verge, four road signs and one gate should be removed. Trees and vegetation should be cleared from both verges. The access track should be upgraded to meet turbine manufacturer standards from this point through to the site. The road should be widened to a minimum 4.5m running width with a 5.5m clearance envelope. Swept path drawing SK10 is included in Appendix B.

3.5 Swept Path Assessment Results and Summary

The detailed swept path drawings for the locations assessed are provided in Appendix B for review. The drawings in Appendix B illustrate tracking undertaken for the worst case loads at each location.

The colours illustrated on the swept paths are:

- Grey / Black – OS / Topographical Base Mapping;
- Light Blue – Indicative road edge;
- Green – Vehicle body outline (body swept path);
- Red – Tracked pathway of the wheels (wheel swept path); and
- Magenta – The oversail tracked path of the load where it encroaches outwith the trailer (load swept path).

Where mitigation works are required, the extents of overrun and oversail areas are illustrated on the swept path drawings.

Please note that where assessments have been undertaken using Ordnance Survey (OS) base mapping, there can be errors in this data source.

Where provided by the client, topographical data has been utilised. Please note that PF cannot accept liability for errors on the data source, be that OS base mapping or client supplied data.

Where mitigation works are required, the extents of over-run and oversail areas are illustrated on the swept path drawings. Additional land areas to those indicated in the swept path assessment drawings may be required to facilitate the construction of the proposed physical mitigation measures depending on the site conditions and topography. The extent of any additional areas required to construct mitigation works highlighted within this study and the detailed design of said mitigation works is outwith the scope of this study and should be confirmed on detailed topographical survey data.

3.6 Third Party Land

A review of third party land should be undertaken by the client to ensure that no additional land rights are required to enable deliveries or mitigation works. Pell Frischmann accepts no responsibility for the accuracy of land ownership assumptions, all of which should be confirmed across the entire access route by a qualified land agent.

3.7 Weight Review

A weight review has been undertaken via the ESDAL (Electronic Service Delivery for Abnormal Loads) contacts database using the Highways Agency website www.esdal.com.

All of the relevant ESDAL contacts are noted in Table 3.3, and all have been contacted to ascertain if there are any relevant constraints that should be noted. The feedback from the consultees is provided in Appendix C.

Table 3-3: ESDAL Contacts

Organisation	Email Address
Police Scotland	OSDAbnormalLoadsScotland@scotland.police.uk
Network Rail	abnormalloads enquiries@networkrail.co.uk
Historic Rail Estate	rsgbrb@jacobs.com
Scottish Canals	SCAbnormal.Loads@scottishcanals.co.uk
Transport Scotland	AbnormalLoads@transport.gov.scot
Argyll and Bute Council	abnormalloads@argyll-bute.gov.uk
Bear North West	NWAbnormalload@bearsotland.co.uk

3.8 Land Ownership

The limits of road adoption can vary depending upon the location of the site and the history of the road agencies involved. The adopted area is generally defined as land contained within a defined boundary where the road agency holds the maintenance rights for the land. In urban areas, this 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.

3.9 Summary Issues

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

- A 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; and
- That a condition survey is undertaken to ascertain the extents of road defects prior to loads commencing to protect the developer from spurious damage claims.

4 Summary

4.1 Summary of Access Review

PF has been commissioned by RWE to prepare an RSR to examine the issues associated with the transport of AIL turbine components to Deucheran Hill 2 Wind Farm.

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 components.

The report is presented to RWE for consideration. Various road modifications, structural reviews, and interventions are required to successfully access the site. If these are undertaken, access to the consented wind farm site is considered feasible.

4.2 Further Actions

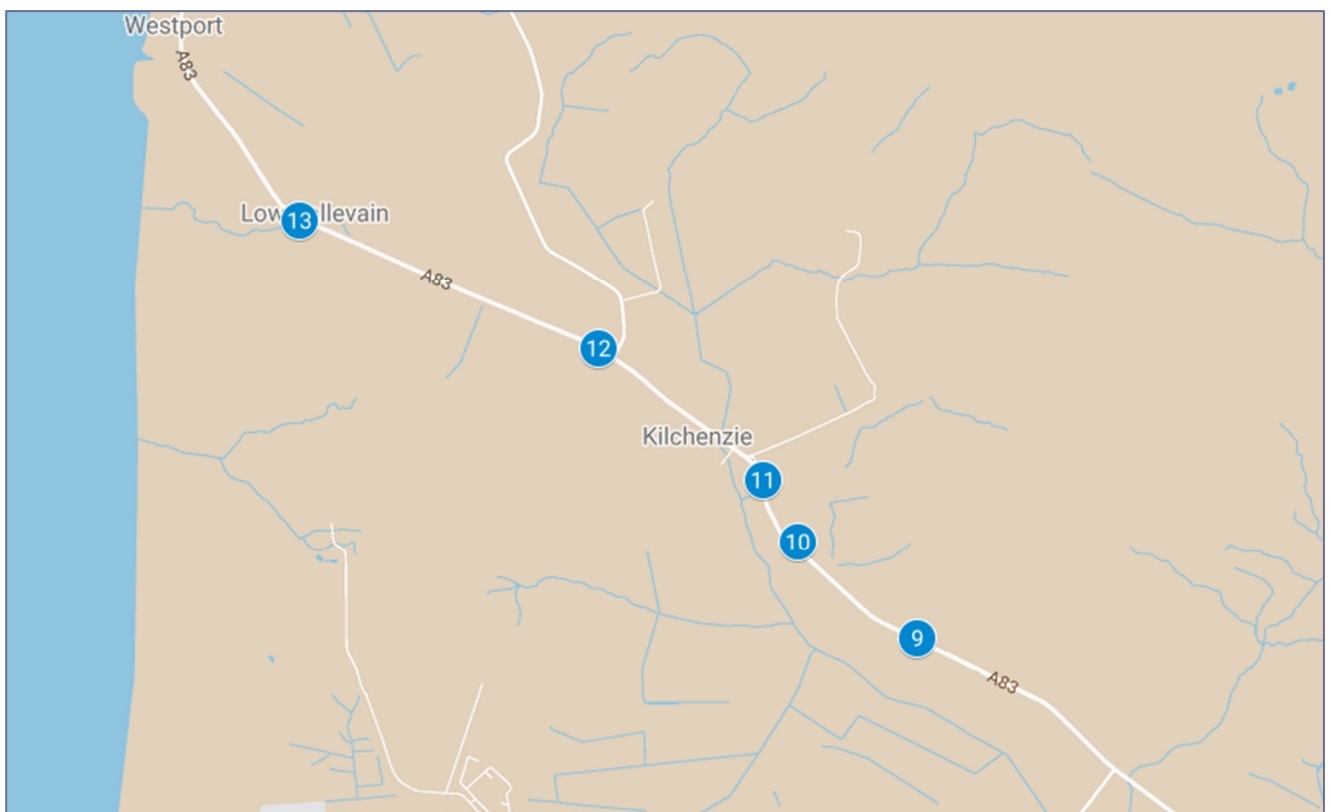
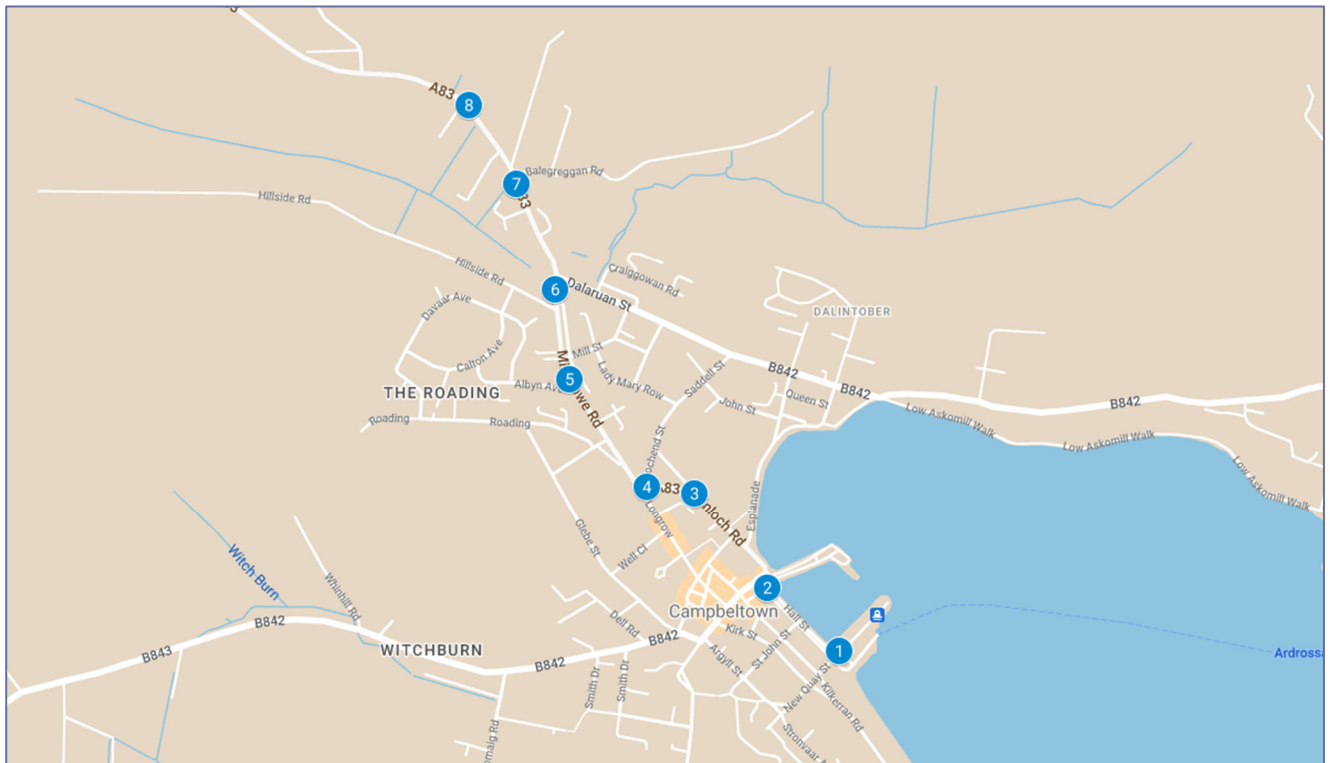
The following actions are recommended to pursue the transport and access issues further:

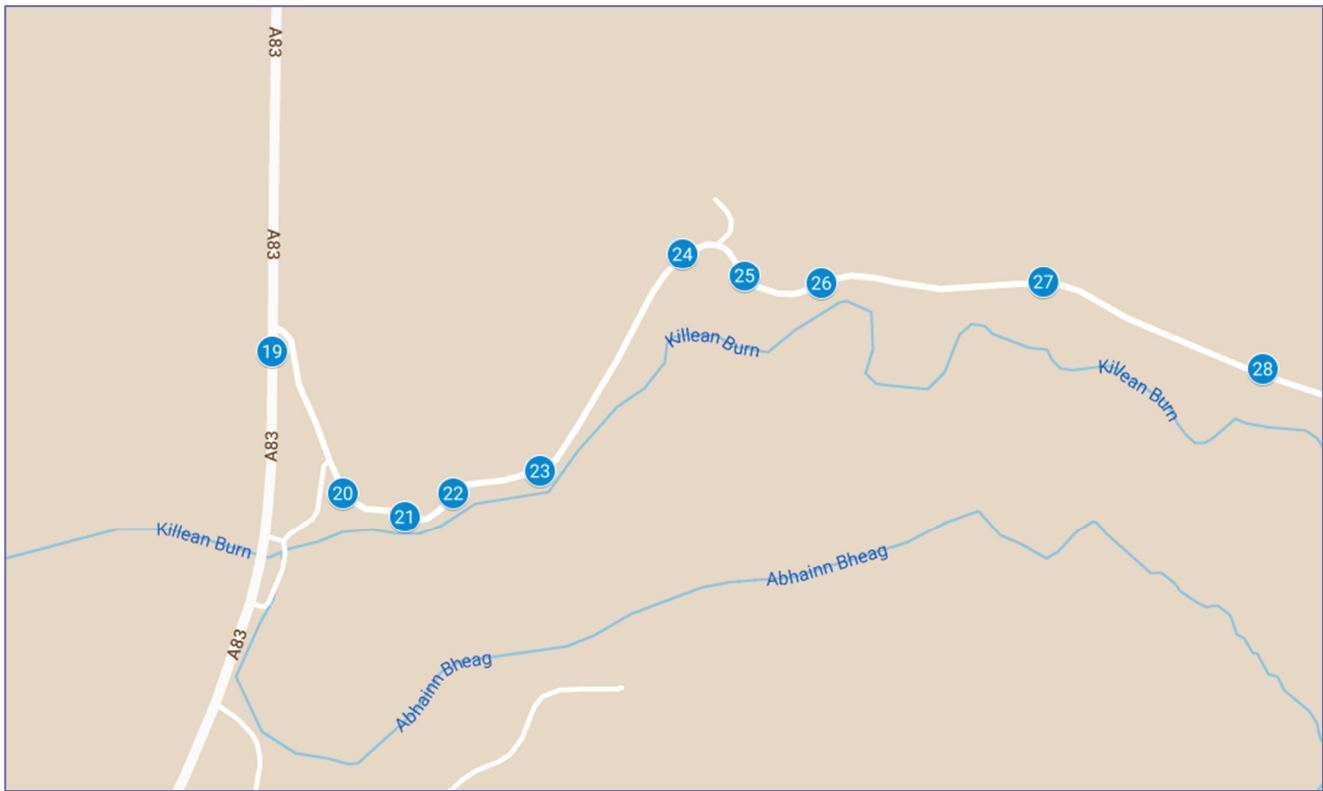
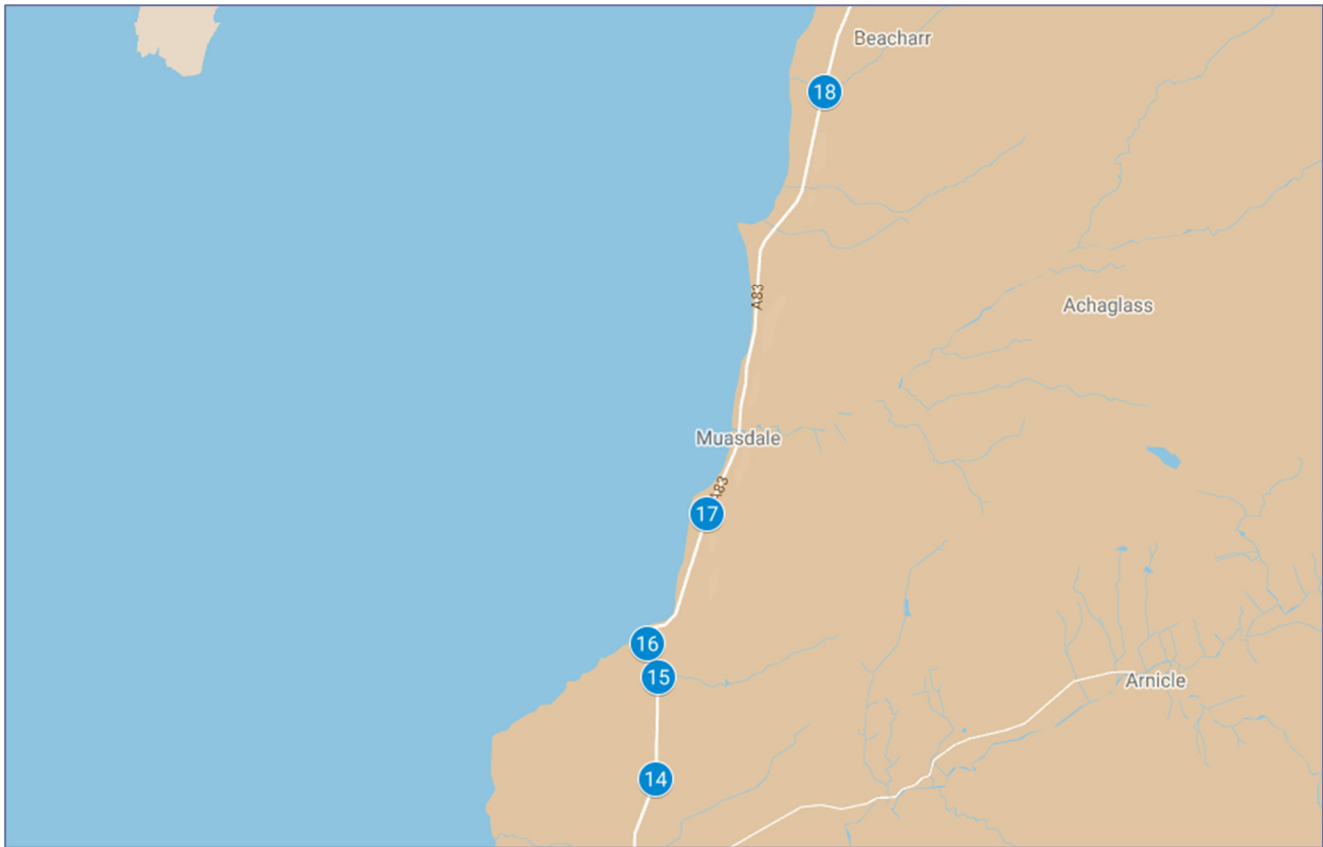
- Prepare detailed mitigation design proposals to help inform the land option / consultee discussions;
- Obtain the necessary land options;
- Undertake discussion with the affected utility providers and roads agencies;
- Obtain the necessary statutory licences to enable the mitigation measures; and
- Develop a detailed operational Transport Management Plan to assist in transporting the proposed loads.

Appendix A Points of Interest

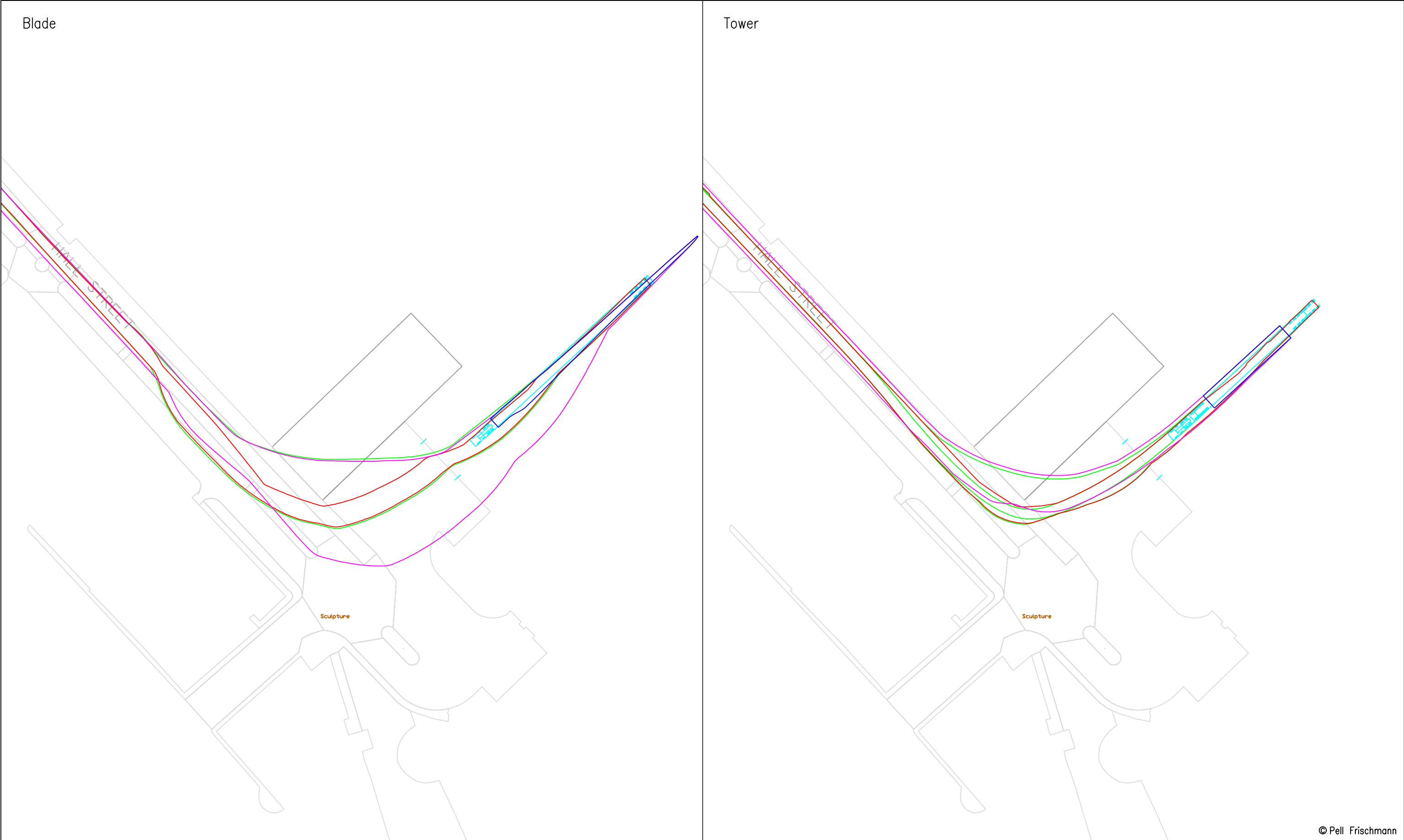
An electronic version of the POI plan can be found here:

https://www.google.com/maps/d/edit?mid=1-rQVkBv4hjRYmMkYRib1c_faAwGR1ss&usp=sharing



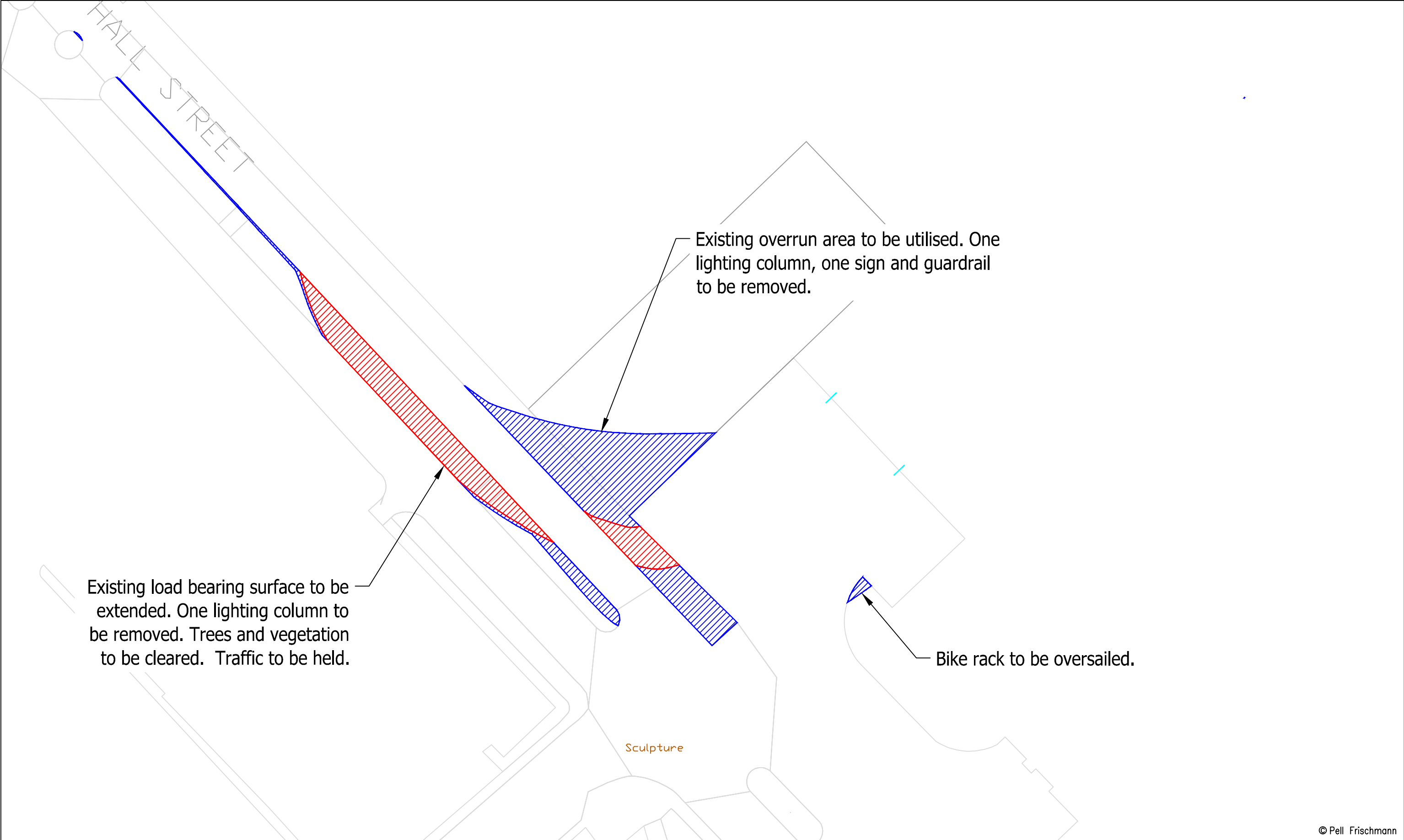


Appendix B Swept Path Assessments



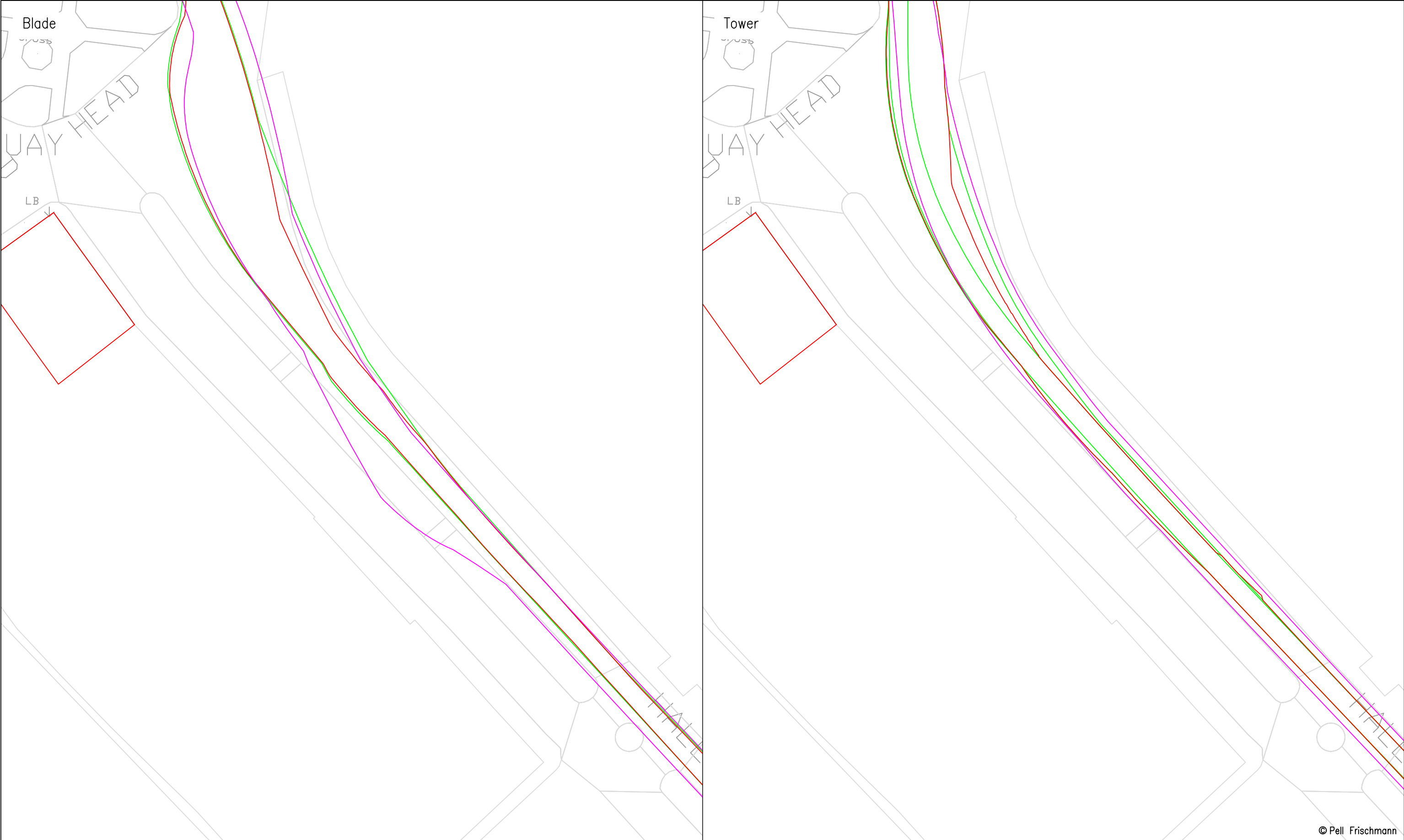
© Pell Frischmann

Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: ptedinburgh@pellfrischmann.com www.pellfrischmann.com	Project Deucheran Hill 2 Wind Farm			Name	Date	Scale 1:1000 @ A3	
			Drawn	AD	13/03/2025	File No 250303 Deucheran Hill 2 SPA N163.dwg	
			Designed	TL	13/03/2025		
			Checked	TL	13/03/2025	Drawing Status Draft	
Client RWE Renewables UK Onshore Wind Ltd	Drawing Title N163 Blade and Tower		Point of Interest		1		
			Drawing No. SK01	Notes: 1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.		Revision 1	
Key Wheel SPA Body SPA Load SPA Indicative Overrun Oversail	SPA Location Egress from Campbeltown Port						

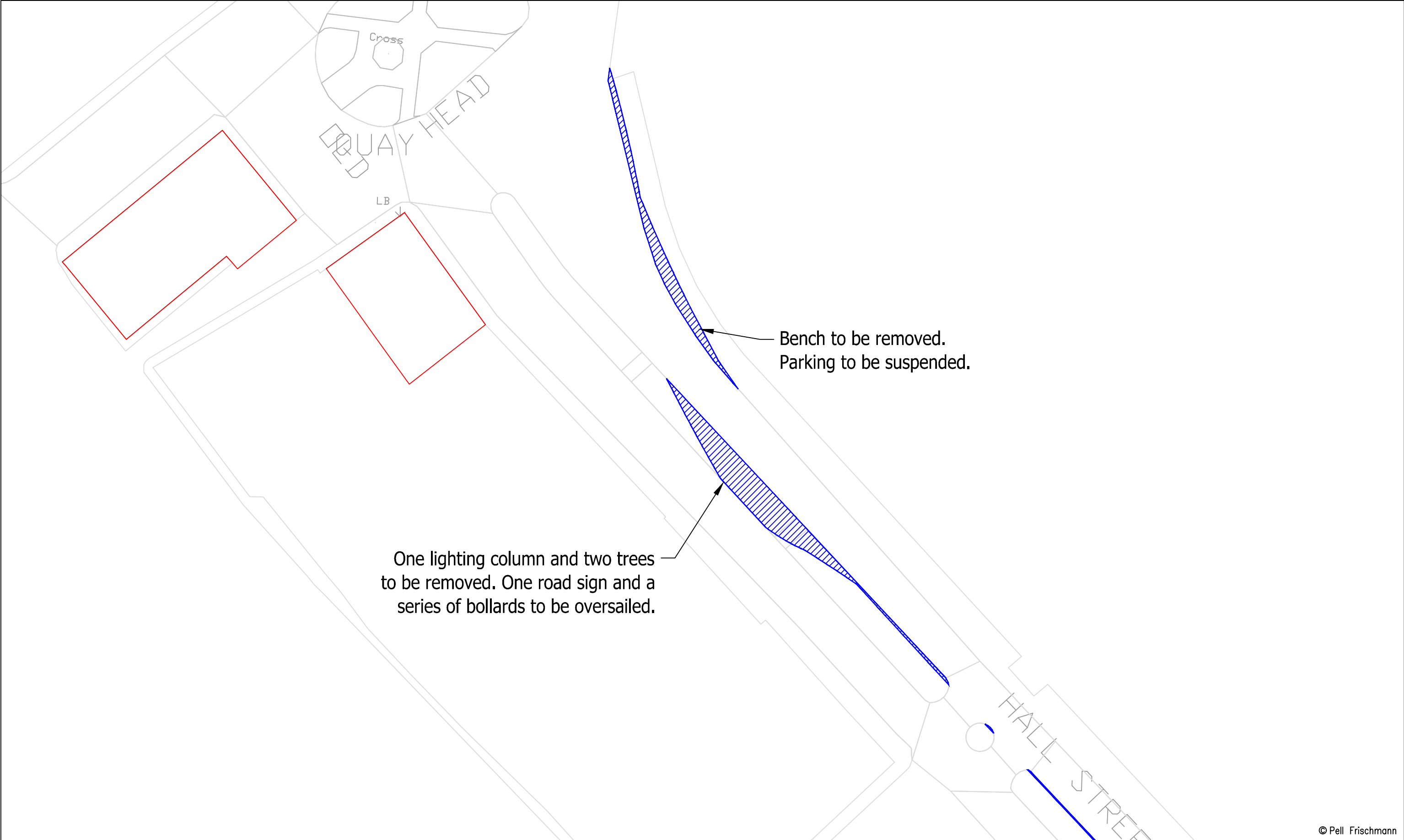


© Pell Frischmann

Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: ptedinburgh@pellfrischmann.com www.pellfrischmann.com	Project Deucheran Hill 2 Wind Farm			Name	Date	Scale 1:500 @ A3	
			Drawn	AD	13/03/2025	File No. 250303 Deucheran Hill 2 SPA N163.dwg	
			Designed	TL	13/03/2025		
			Checked	TL	13/03/2025	Drawing Status Draft	
Client RWE Renewables UK Onshore Wind Ltd	Drawing Title N163 Blade and Tower		Point of Interest		1		
			Drawing No. SK01A	Notes: 1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.		Revision 1	
Key Wheel SPA Body SPA Load SPA Indicative Overrun Oversail	SPA Location Egress from Campbeltown Port						



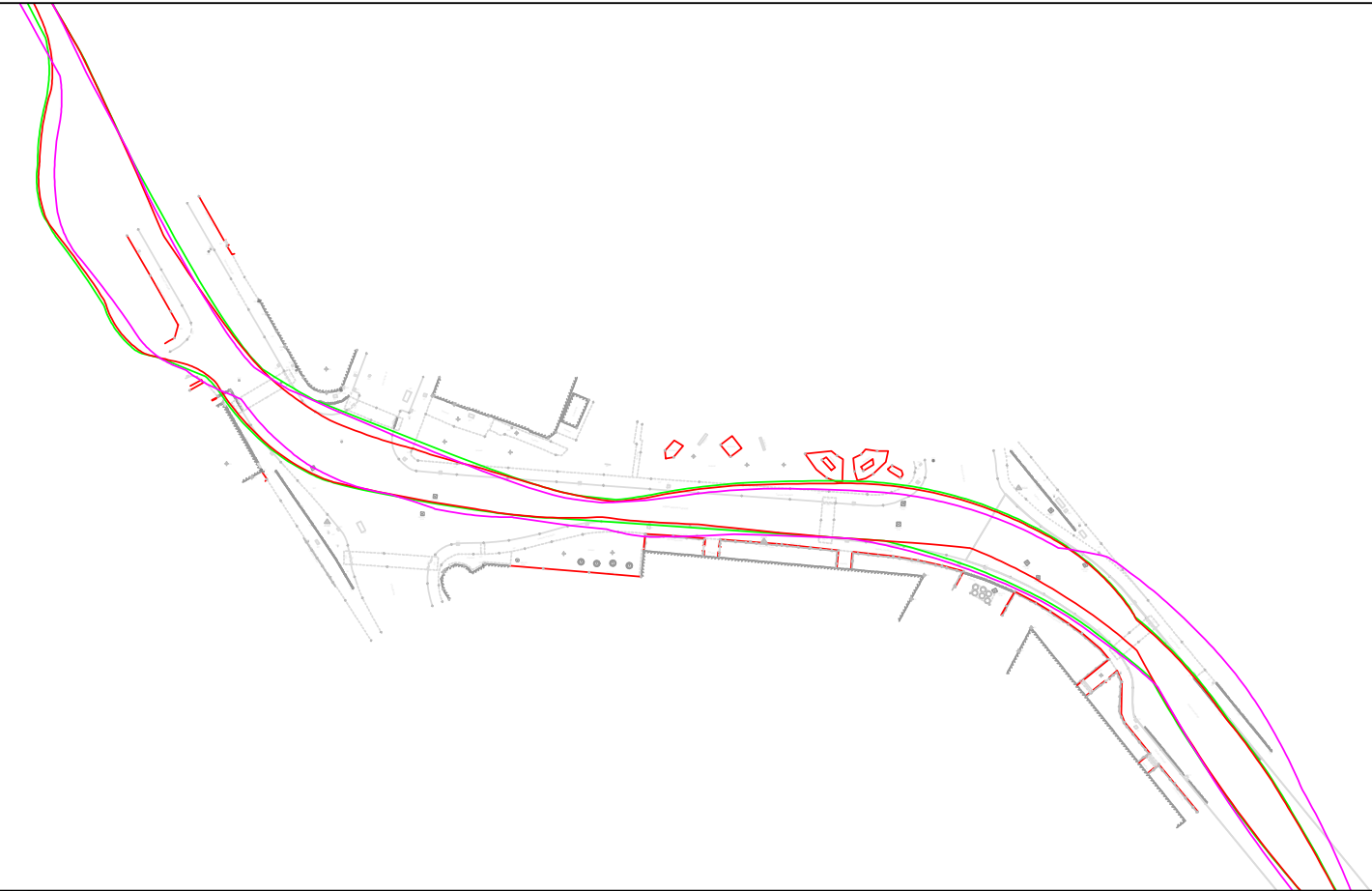
Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: ptedinburgh@pellfrischmann.com www.pellfrischmann.com	Project Deucheran Hill 2 Wind Farm			Name	Date	Scale 1:500 @ A3	
			Drawn	AD	13/03/2025	File No. 250303 Deucheran Hill 2 SPA N163.dwg	
			Designed	TL	13/03/2025		
			Checked	TL	13/03/2025	Drawing Status Draft	
Client RWE Renewables UK Onshore Wind Ltd	Drawing Title N163 Blade and Tower		Point of Interest		2		
	SPA Location Hall Street / Quay Head Roundabout		Drawing No. SK02		Notes: 1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.		Revision 1
Key Wheel SPA Body SPA Load SPA Indicative Overrun Oversail							



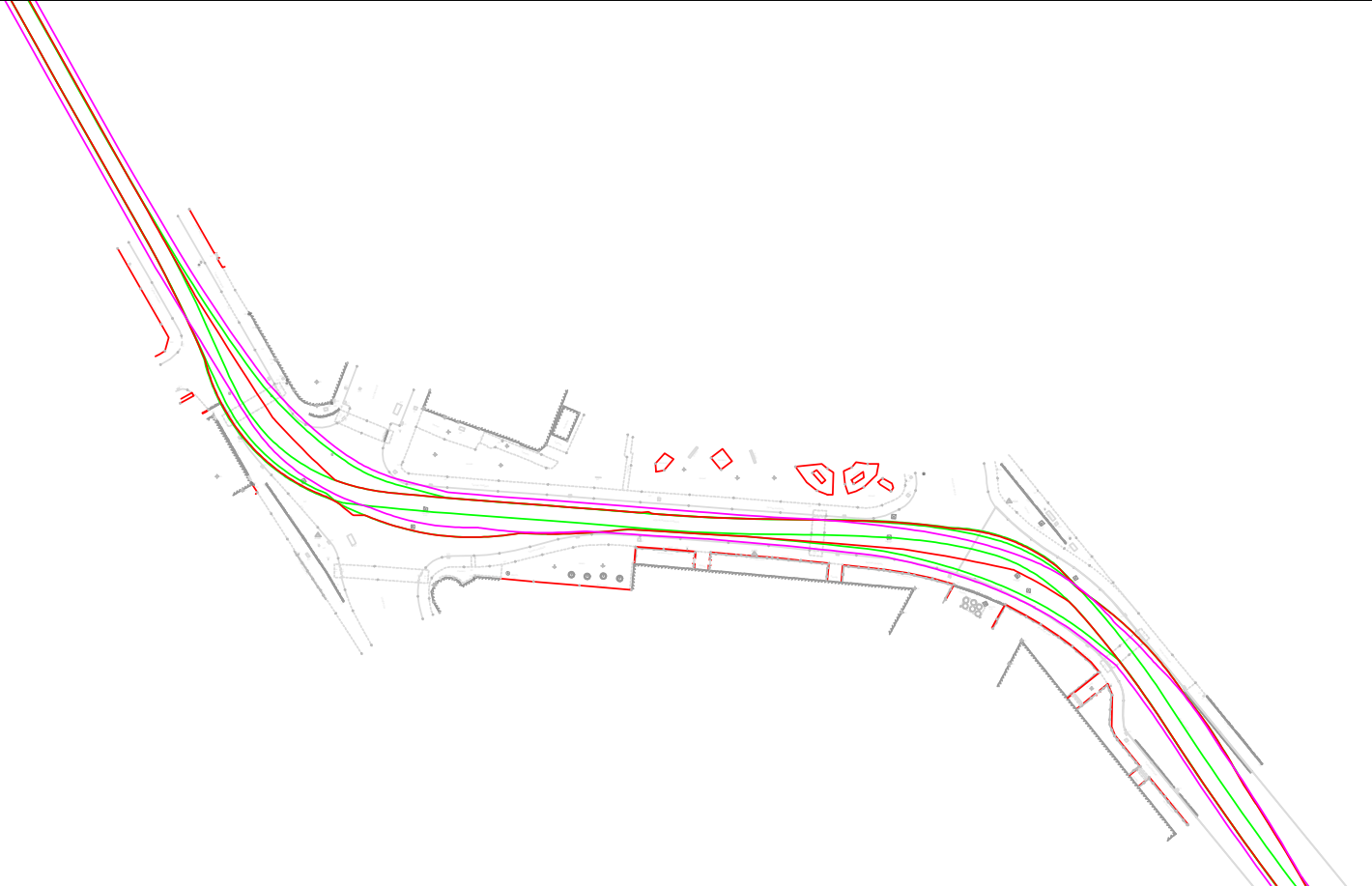
© Pell Frischmann

Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: ptedinburgh@pellfrischmann.com www.pellfrischmann.com		Project		Name		Date	Scale	
				Deucheran Hill 2 Wind Farm		AD	13/03/2025	1:500 @ A3
				Drawing Title		TL	13/03/2025	File No
				N163 Blade and Tower		TL	13/03/2025	250303 Deucheran Hill 2 SPA N163.dwg
Client		RWE Renewables UK Onshore Wind Ltd		SPA Location		Point of Interest		Drawing Status
				Hall Street / Quay Head Roundabout		2		Draft
Key				Drawing No.		Notes:		Revision
Wheel SPA				SK02A		1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.		1
Body SPA								
Load SPA								
Indicative								
Overrun								
Oversail								

Blade

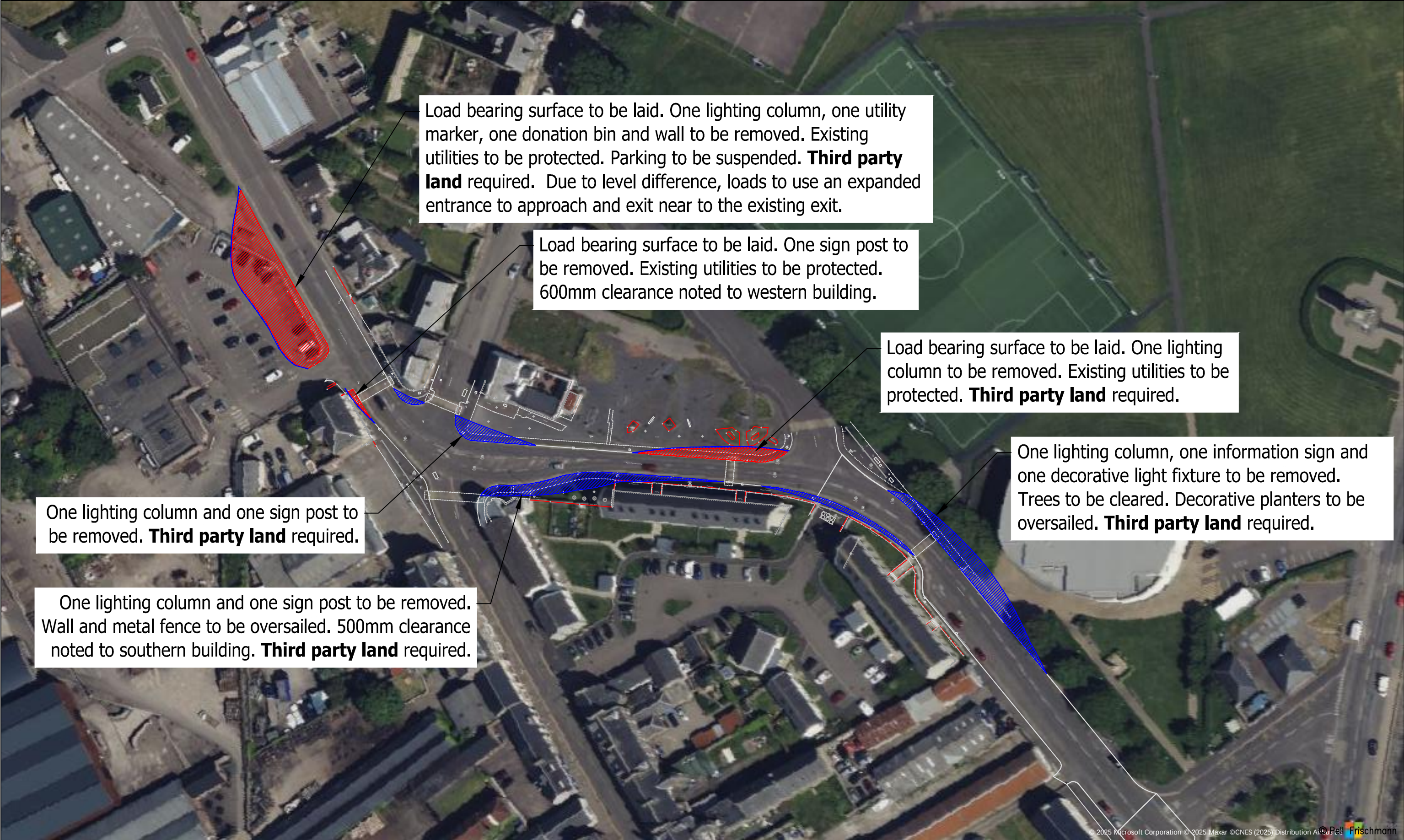


Tower



© Pell Frischmann

Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: p.fedinburgh@pellfrischmann.com www.pellfrischmann.com	Project	Deucheran Hill 2 Wind Farm			Name	Date	Scale		
				Drawn	AD	13/03/2025	Custom @ A3		
				Designed	TL	13/03/2025	File No.	250303 Deucheran Hill 2 SPA N163.dwg	
				Checked	TL	13/03/2025	Drawing Status		
Client	RWE Renewables UK Onshore Wind Ltd	Drawing Title	N163 Blade and Tower	Point of Interest		3, 4		Draft	
				Drawing No.	Notes:			Revision	
Key	Wheel SPA Body SPA Load SPA Indicative Overrun Oversail	SPA Location	Aqualibrium Avenue Bends	SK03		1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.			1



Load bearing surface to be laid. One lighting column, one utility marker, one donation bin and wall to be removed. Existing utilities to be protected. Parking to be suspended. **Third party land** required. Due to level difference, loads to use an expanded entrance to approach and exit near to the existing exit.

Load bearing surface to be laid. One sign post to be removed. Existing utilities to be protected. 600mm clearance noted to western building.

Load bearing surface to be laid. One lighting column to be removed. Existing utilities to be protected. **Third party land** required.

One lighting column, one information sign and one decorative light fixture to be removed. Trees to be cleared. Decorative planters to be oversailed. **Third party land** required.

One lighting column and one sign post to be removed. **Third party land** required.

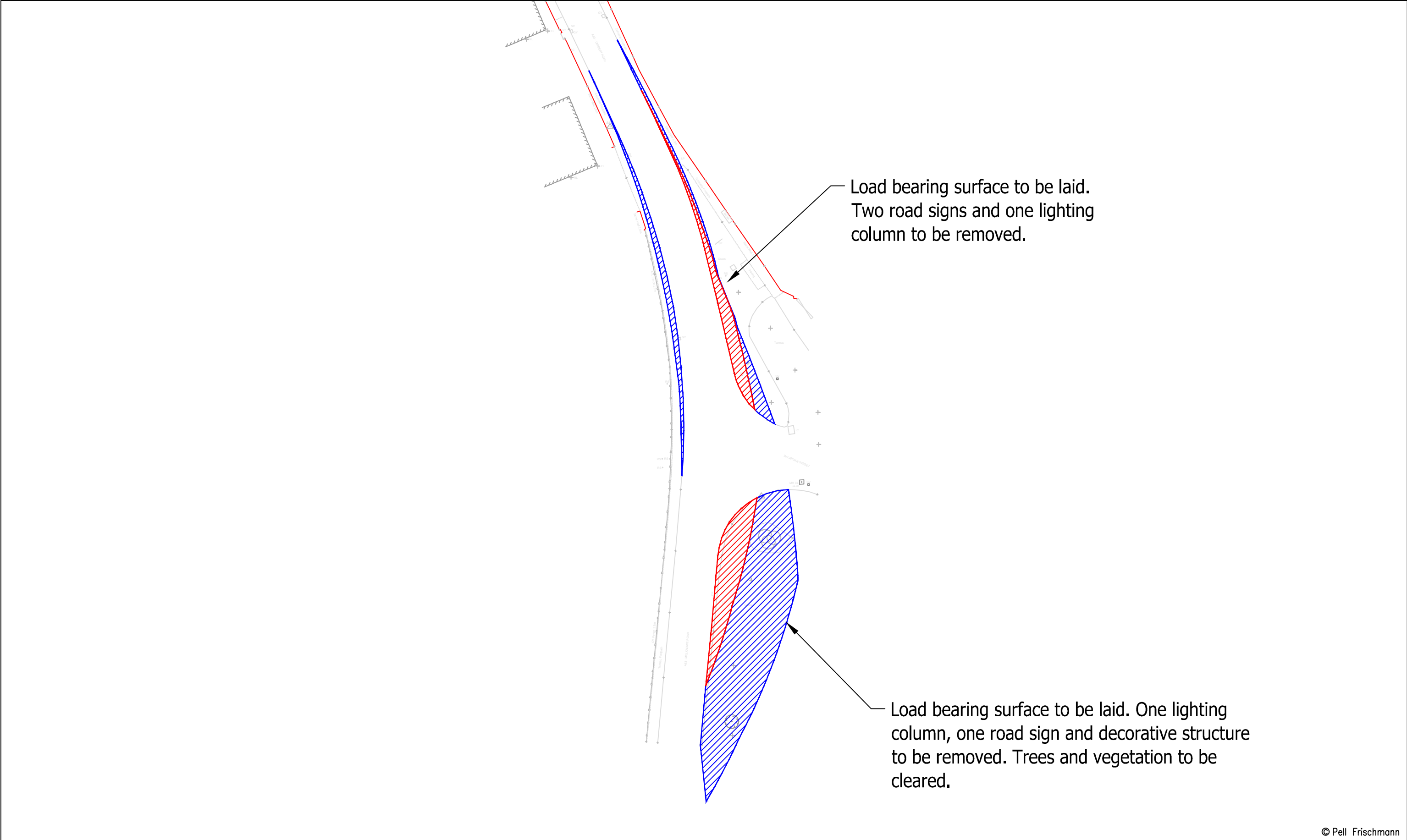
One lighting column and one sign post to be removed. Wall and metal fence to be oversailed. 500mm clearance noted to southern building. **Third party land** required.

Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: ptedinburgh@pellfrischmann.com www.pellfrischmann.com	Project Deucheran Hill 2 Wind Farm			Name	Date	Scale 1:1000 @ A3	
			Drawn	AD	13/03/2025	File No 250303 Deucheran Hill 2 SPA N163.dwg	
			Designed	TL	13/03/2025		
			Checked	TL	13/03/2025	Drawing Status Draft	
Client RWE Renewables UK Onshore Wind Ltd	Drawing Title N163 Blade and Tower		Point of Interest		3, 4		Revision 1
			Drawing No. SK03A	Notes: 1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.			
Key Wheel SPA Body SPA Load SPA Indicative Overrun Oversail	SPA Location Aqualibrium Avenue Bends						



© Pell Frischmann

Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: ptedinburgh@pellfrischmann.com www.pellfrischmann.com		Project Deucheran Hill 2 Wind Farm			Name	Date	Scale	
				Drawn	AD	13/03/2025	1:500 @ A3	
				Designed	TL	13/03/2025	File No	
				Checked	TL	13/03/2025	250303 Deucheran Hill 2 SPA N163.dwg	
Client RWE Renewables UK Onshore Wind Ltd		Drawing Title N163 Blade and Tower		Point of Interest		6	Drawing Status	
				Drawing No.		SK04	Revision	
Key Wheel SPA Body SPA Load SPA Indicative Overrun Oversail		SPA Location A83 Milknowe Road		Notes:				1
				1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.				

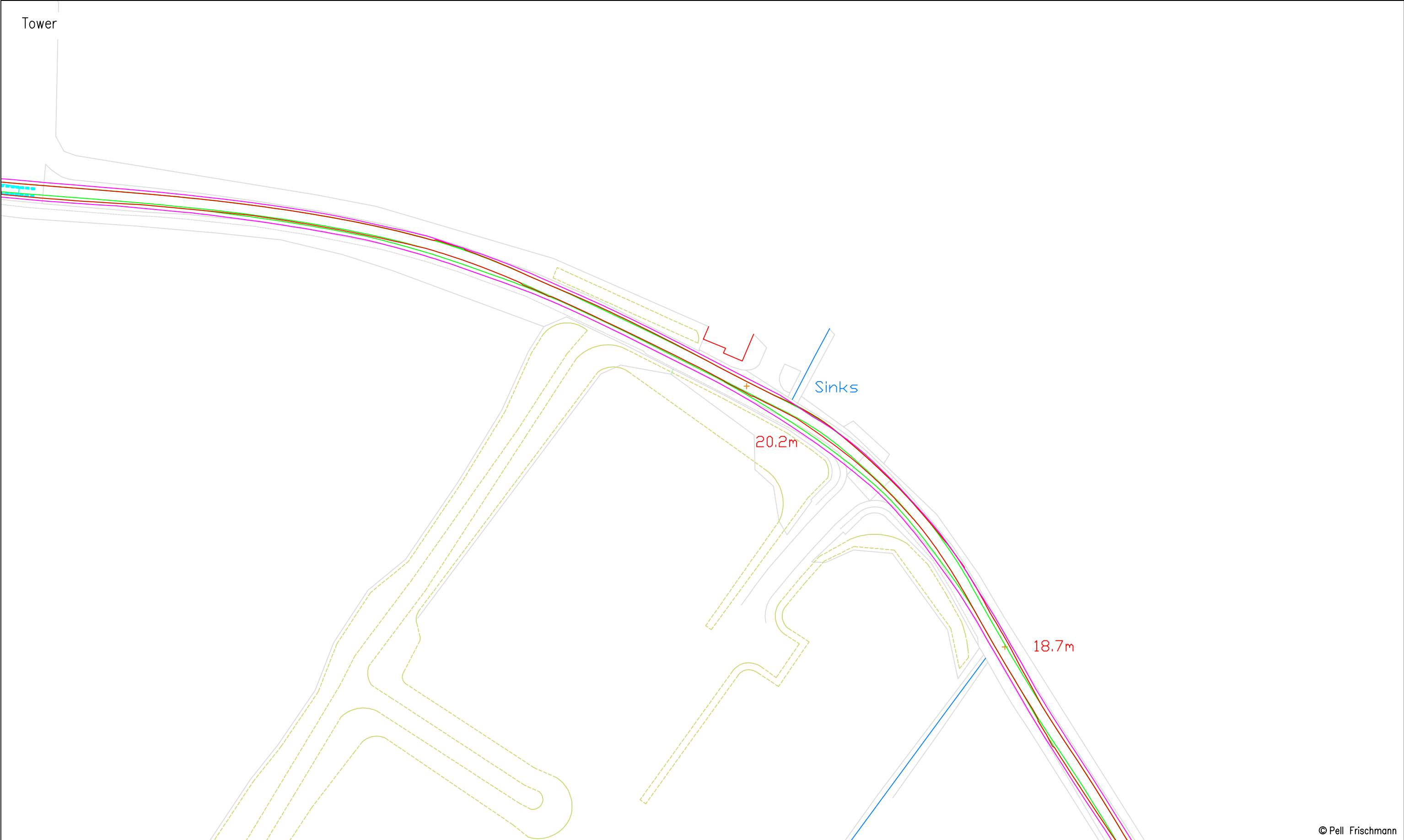


Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: ptedinburgh@pellfrischmann.com www.pellfrischmann.com		Project Deucheran Hill 2 Wind Farm			Name	Date	Scale	
				Drawn	AD	13/03/2025	1:500 @ A3	
				Designed	TL	13/03/2025	File No	
				Checked	TL	13/03/2025	250303 Deucheran Hill 2 SPA N163.dwg	
Client RWE Renewables UK Onshore Wind Ltd		Drawing Title N163 Blade and Tower		Point of Interest		6	Drawing Status	
				Drawing No.		SK04A	Revision	
Key Wheel SPA Body SPA Load SPA Indicative Overrun Oversail		SPA Location A83 Milknowe Road		Notes:				1
				1. All mitigation is subject to confirmation through a test run.				
				2. This is not a construction drawing and is intended for illustration purposes only.				



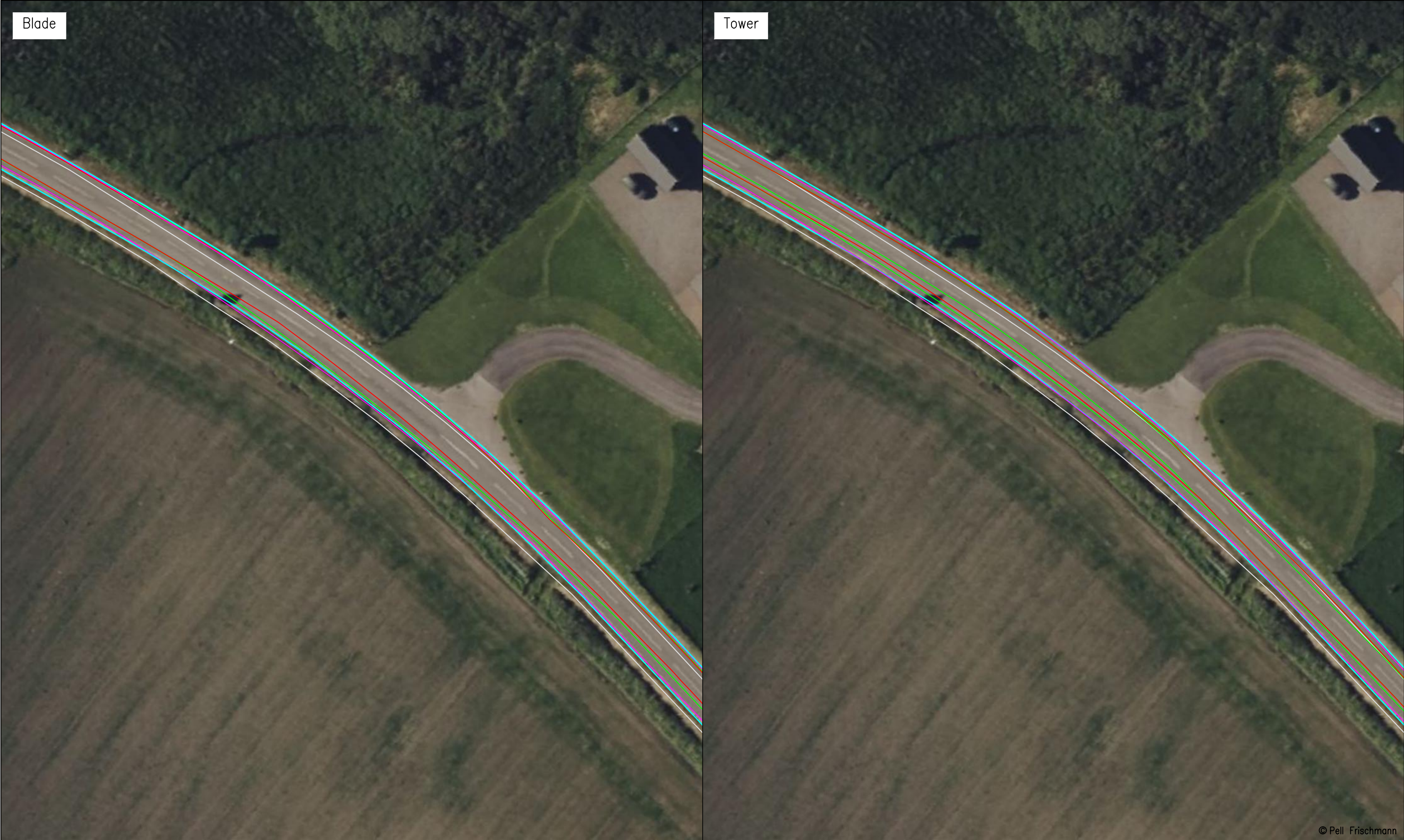
© Pell Frischmann

Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: ptedinburgh@pellfrischmann.com www.pellfrischmann.com	Project Deucheran Hill 2 Wind Farm			Name	Date	Scale 1:1000 @ A3		
			Drawn	AD	13/03/2025	File No 250303 Deucheran Hill 2 SPA N163.dwg		
			Designed	TL	13/03/2025			
			Checked	TL	13/03/2025	Drawing Status Draft		
Client RWE Renewables UK Onshore Wind Ltd	Drawing Title N163 Blade and Tower		Point of Interest		8			
	SPA Location A83 Lagnagarach		Drawing No. SK05		Notes: 1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.		Revision 1	
Key Wheel SPA Body SPA Load SPA Indicative Overrun Oversail								



© Pell Frischmann

Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: ptedinburgh@pellfrischmann.com www.pellfrischmann.com	Project Deucheran Hill 2 Wind Farm			Name	Date	Scale 1:1000 @ A3		
			Drawn	AD	13/03/2025	File No 250303 Deucheran Hill 2 SPA N163.dwg		
			Designed	TL	13/03/2025			
			Checked	TL	13/03/2025	Drawing Status Draft		
Client RWE Renewables UK Onshore Wind Ltd	Drawing Title N163 Blade and Tower		Point of Interest		8			
			Drawing No. SK05A	Notes: 1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.			Revision 1	
Key Wheel SPA Body SPA Load SPA Indicative Overrun Oversail	SPA Location A83 Lagnagarach							



Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: ptedinburgh@pellfrischmann.com www.pellfrischmann.com		Project Deucheran Hill 2 Wind Farm			Name	Date	Scale 1:500 @ A3	
				Drawn	AD	13/03/2025	File No 250303 Deucheran Hill 2 SPA N163.dwg	
				Designed	TL	13/03/2025		
				Checked	TL	13/03/2025	Drawing Status Draft	
Client RWE Renewables UK Onshore Wind Ltd		Drawing Title N163 Blade and Tower		Point of Interest		9		
Key Wheel SPA Body SPA Load SPA Indicative Overrun Oversail				Drawing No. SK06		Notes: 1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.		Revision 1
		SPA Location A83 Kilmaho						



Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: ptedinburgh@pellfrischmann.com www.pellfrischmann.com		Project		Name		Date	Scale	
		Deucheran Hill 2 Wind Farm		Drawn		AD	13/03/2025	
				Designed		TL	13/03/2025	
				Checked		TL	13/03/2025	
Client		RWE Renewables UK Onshore Wind Ltd		Drawing Title		Point of Interest		9
		N163 Blade and Tower		Drawing No.		SK06A		Revision
Key		SPA Location				Notes:		1
Wheel SPA		A83 Kilmaho				1. All mitigation is subject to confirmation through a test run.		
Body SPA						2. This is not a construction drawing and is intended for illustration purposes only.		
Load SPA								
Indicative								
Overrun								
Oversail								



Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: ptedinburgh@pellfrischmann.com www.pellfrischmann.com	Project Deucheran Hill 2 Wind Farm			Name	Date	Scale 1:500 @ A3		
			Drawn	AD	13/03/2025	File No. 250303 Deucheran Hill 2 SPA N163.dwg		
			Designed	TL	13/03/2025			
			Checked	TL	13/03/2025	Drawing Status Draft		
Client RWE Renewables UK Onshore Wind Ltd	Drawing Title N163 Blade and Tower		Point of Interest		9			
	SPA Location A83 Kilmaho		Drawing No. SK06B		Notes: 1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.		Revision 1	
Key Wheel SPA Body SPA Load SPA Indicative Overrun Oversail								



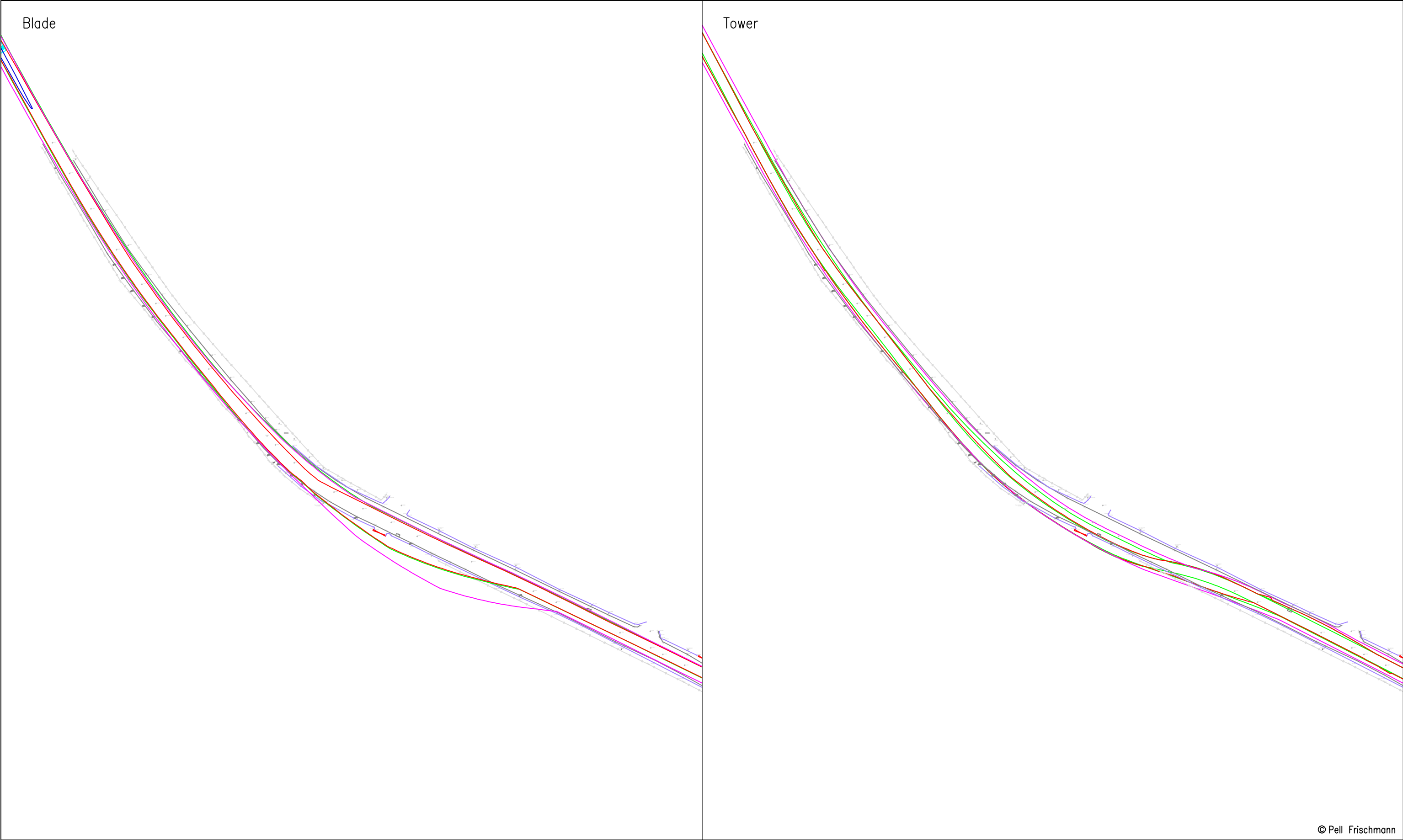
Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: ptedinburgh@pellfrischmann.com www.pellfrischmann.com	Project		Deucheran Hill 2 Wind Farm			Name	Date	Scale		1:500 @ A3	
	Drawing Title		N163 Blade and Tower		Drawn	AD	13/03/2025	File No		250303 Deucheran Hill 2 SPA N163.dwg	
					Designed	TL	13/03/2025	Drawing Status		Draft	
					Checked	TL	13/03/2025				
Client	RWE Renewables UK Onshore Wind Ltd		SPA Location		Point of Interest		9				
Key		Drawing No.			Notes:		Revision				
Wheel SPA Body SPA Load SPA Indicative Overrun Oversail		A83 Kilmaho		SK06C		1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.		1			



Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: pfedinburgh@pellfrischmann.com www.pellfrischmann.com	Project	Deucheran Hill 2 Wind Farm		Name	Date	Scale		1:1500 @ A3			
			Drawn	AD	13/03/2025	File No					
			Designed	TL	13/03/2025	250303 Deucheran Hill 2 SPA N163.dwg					
			Checked	TL	13/03/2025	Drawing Status					
Client	RWE Renewables UK Onshore Wind Ltd	Drawing Title	N163 Blade and Tower	Point of Interest		10, 11		Draft			
				Drawing No.	Notes:				Revision		
Key	Wheel SPA Body SPA Load SPA Indicative Overrun Oversail	SPA Location	A83 South of Kilchenzie	SK07		1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.				1	



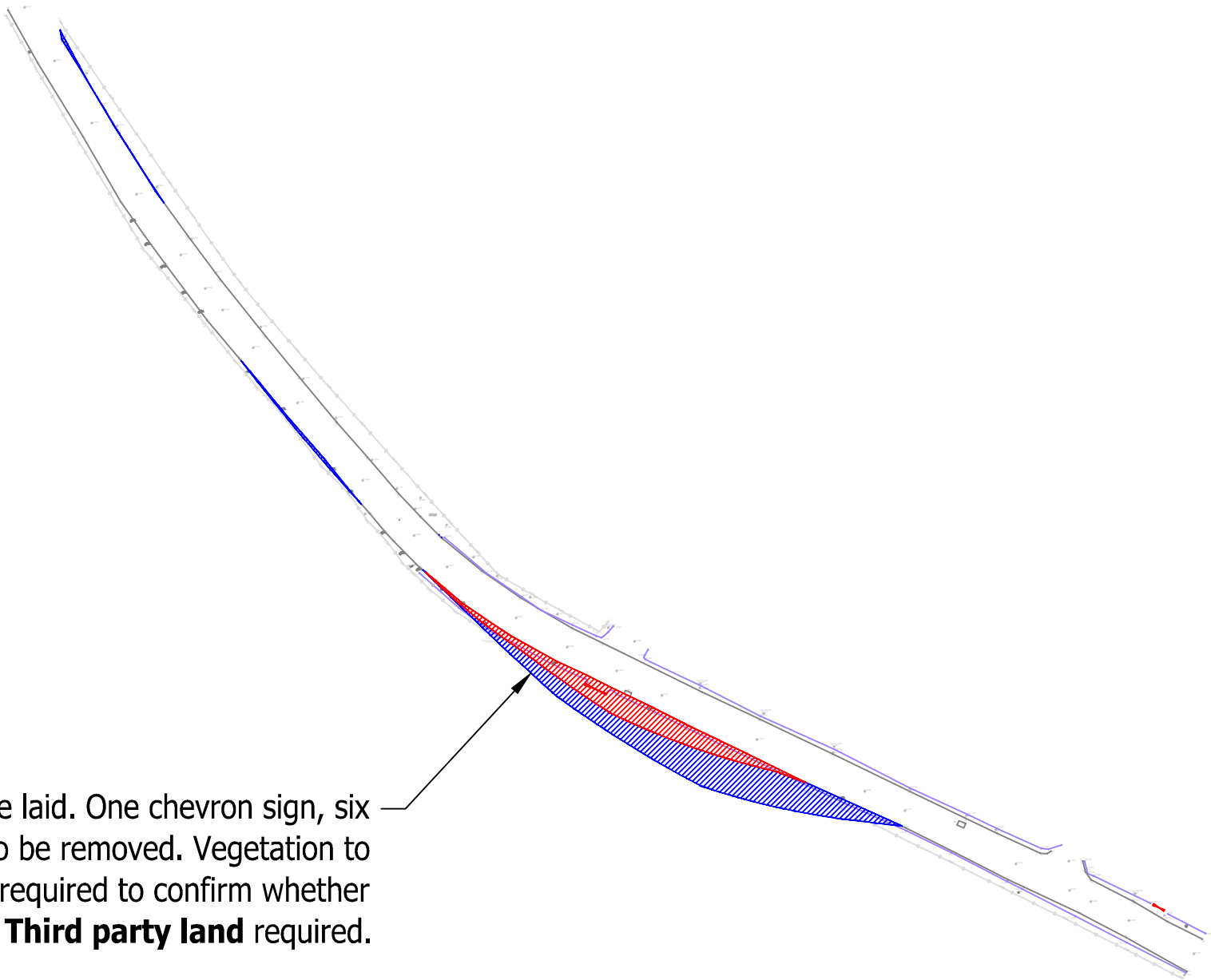
	Name	Date	Scale 1:1500 @ A3
Drawn	AD	13/03/2025	File No. 250303 Deucheran Hill 2 SPA N163.dwg
Designed	TL	13/03/2025	
Checked	TL	13/03/2025	Drawing Status Draft
Point of Interest		10, 11	
Drawing No. SK07A	Notes: 1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.		Revision 1



© Pell Frischmann

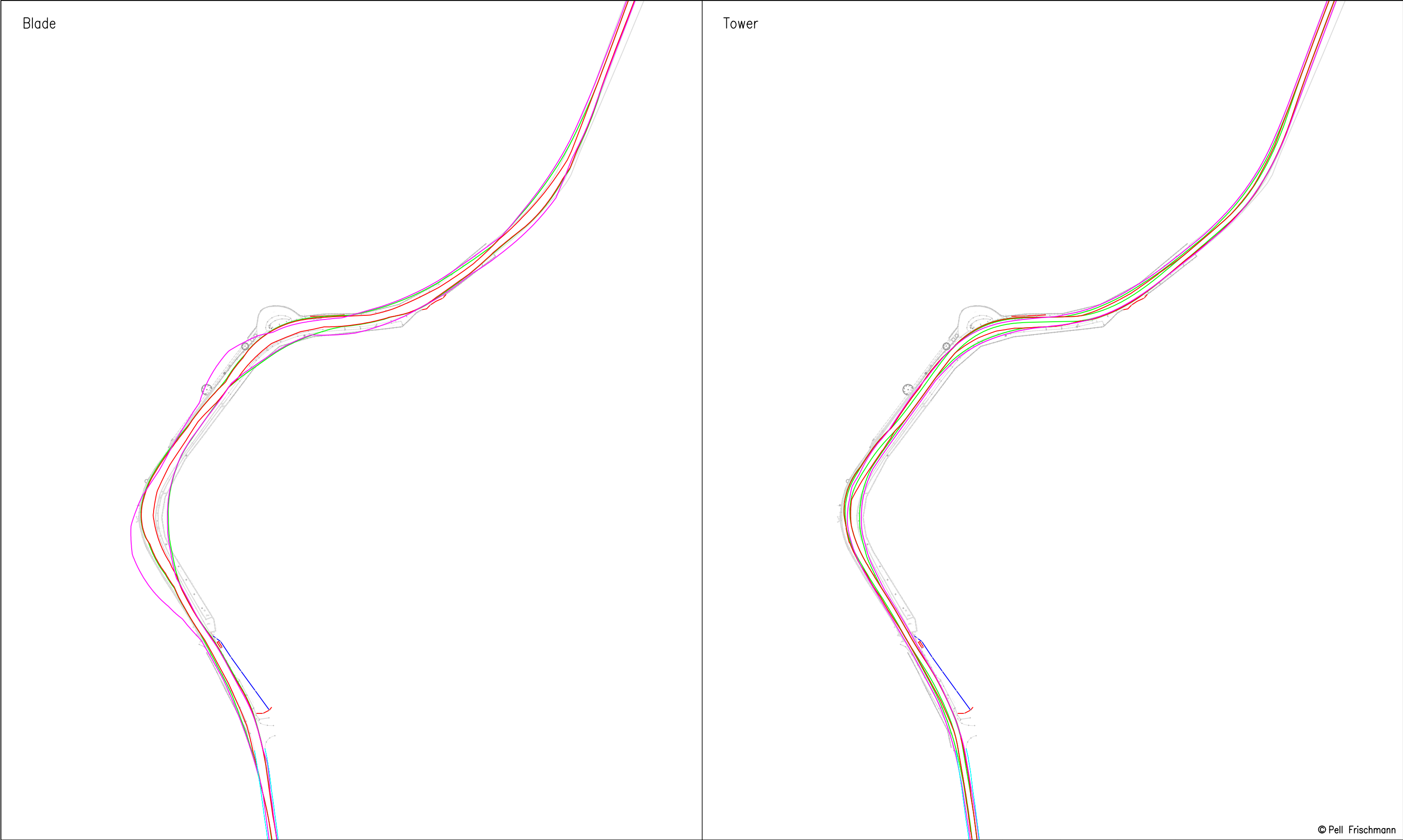
Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: ptedinburgh@pellfrischmann.com www.pellfrischmann.com	Project	Deucheran Hill 2 Wind Farm			Name	Date	Scale		1:1000 @ A3	
				Drawn	AD	13/03/2025	File No 250303 Deucheran Hill 2 SPA N163.dwg			
				Designed	TL	13/03/2025				
				Checked	TL	13/03/2025			Drawing Status	
Client	RWE Renewables UK Onshore Wind Ltd	Drawing Title	N163 Blade and Tower		Point of Interest		13		Revision	
Key	Wheel SPA Body SPA Load SPA Indicative Overrun Oversail	SPA Location	A83 Low Ballevain		Drawing No.	Notes:		Revision		
						1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.				
				SK08			1			

Load bearing surface to be laid. One chevron sign, six bollards, wall, fence and gate to be removed. Vegetation to be cleared. Detailed design required to confirm whether verge strengthening is required. **Third party land** required.



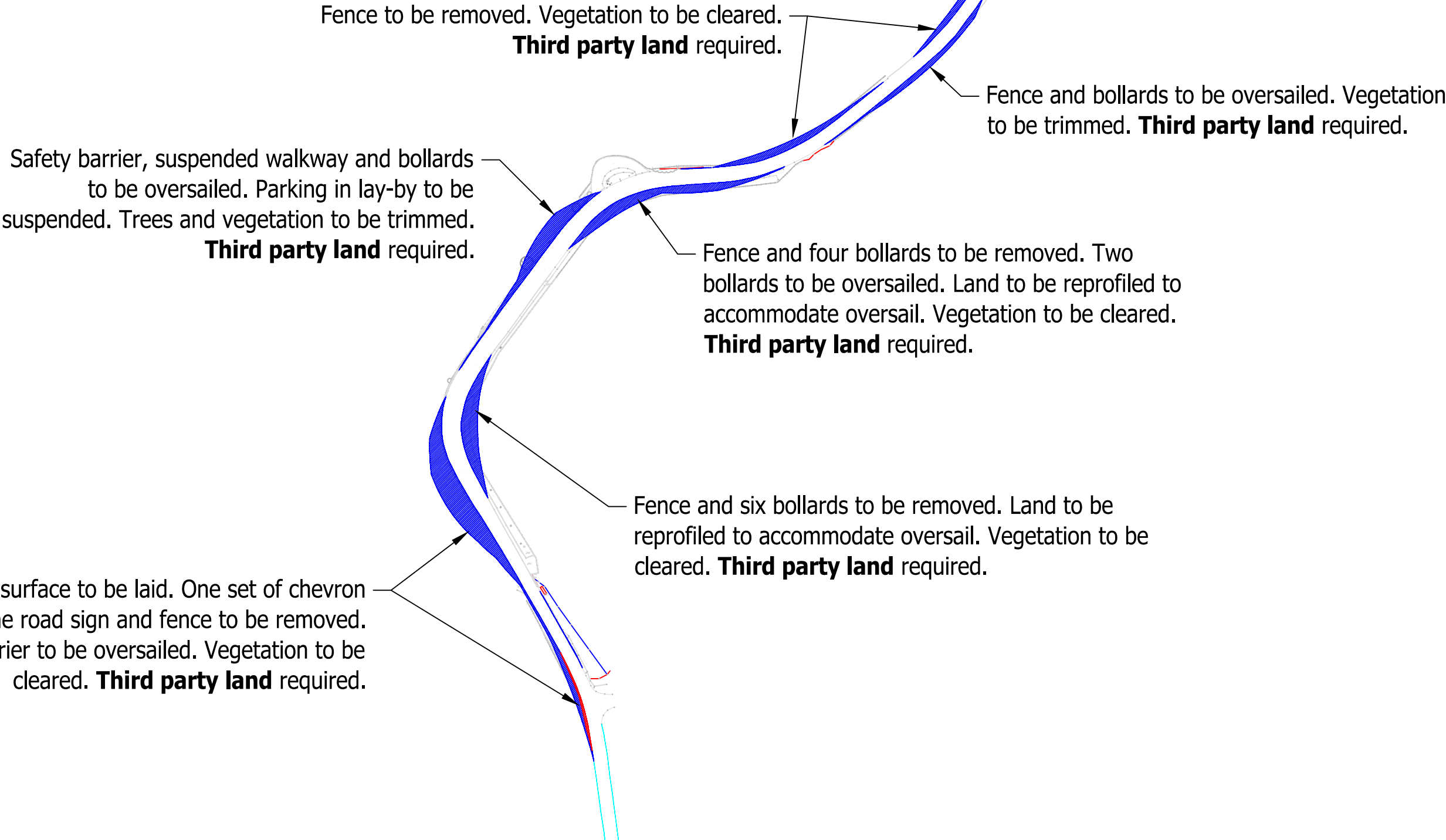
© Pell Frischmann

Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: ptedinburgh@pellfrischmann.com www.pellfrischmann.com	ClientRWE Renewables UK Onshore Wind Ltd	ProjectDeucheran Hill 2 Wind Farm	Drawing TitleN163 Blade and Tower	SPA LocationA83 Low Ballevain		Name	Date	Scale1:1000 @ A3	
					Drawn	AD	13/03/2025	File No250303 Deucheran Hill 2 SPA N163.dwg	
					Designed	TL	13/03/2025	Drawing StatusDraft	
					Checked	TL	13/03/2025	Point of Interest13	
Key Wheel SPA Body SPA Load SPA Indicative Overrun Oversail					Drawing No.	Notes			Revision
					SK08A	1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.			1



© Pell Frischmann

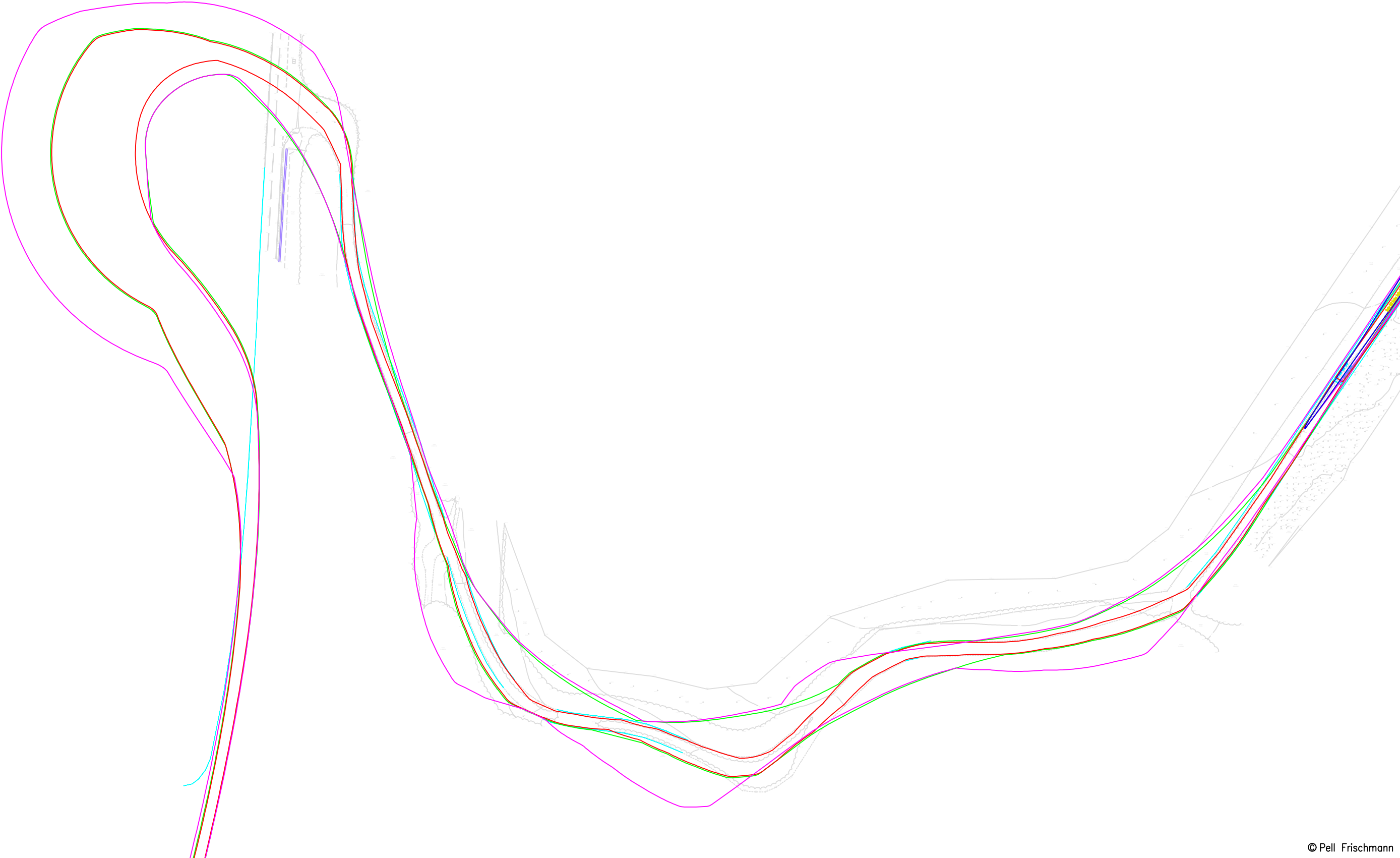
Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: pfedinburgh@pellfrischmann.com www.pellfrischmann.com	Project Deucheran Hill 2 Wind Farm			Name	Date	Scale 1:2000 @ A3	
			Drawn	AD	13/03/2025	File No. 250303 Deucheran Hill 2 SPA N163.dwg	
			Designed	TL	13/03/2025		
			Checked	TL	13/03/2025		
Client RWE Renewables UK Onshore Wind Ltd	Drawing Title N163 Blade and Tower		Point of Interest		16	Drawing Status Draft	
			Drawing No. SK09	Notes: 1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.		Revision 1	
Key Wheel SPA Body SPA Load SPA Indicative Overrun Oversail	SPA Location A83 Druim an Rathaid						



© Pell Frischmann

Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: pfredinburgh@pellfrischmann.com www.pellfrischmann.com	Project	Deucheran Hill 2 Wind Farm		Name	Date	Scale	
			Drawn	AD	13/03/2025	1:2000 @ A3	
			Designed	TL	13/03/2025	File No.	250303 Deucheran Hill 2 SPA N163.dwg
			Checked	TL	13/03/2025	Drawing Status	Draft
Client	RWE Renewables UK Onshore Wind Ltd	Drawing Title	N163 Blade and Tower	Point of Interest		16	
Key Wheel SPA Body SPA Load SPA Indicative Overrun Oversail	SPA Location	A83 Druim an Rathaid		Drawing No.	Notes:		Revision
			SK09A	1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.		1	

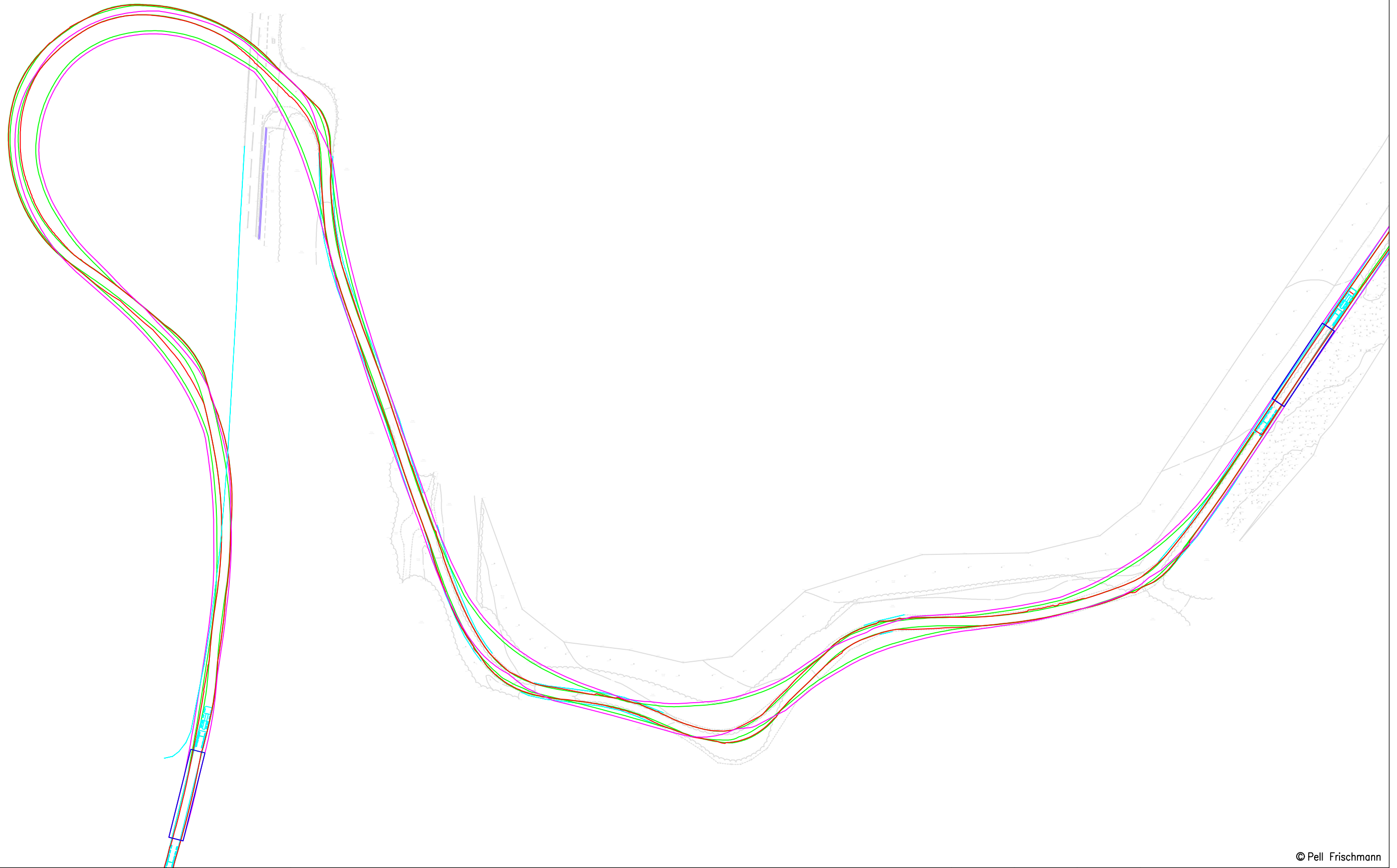
Blade



© Pell Frischmann

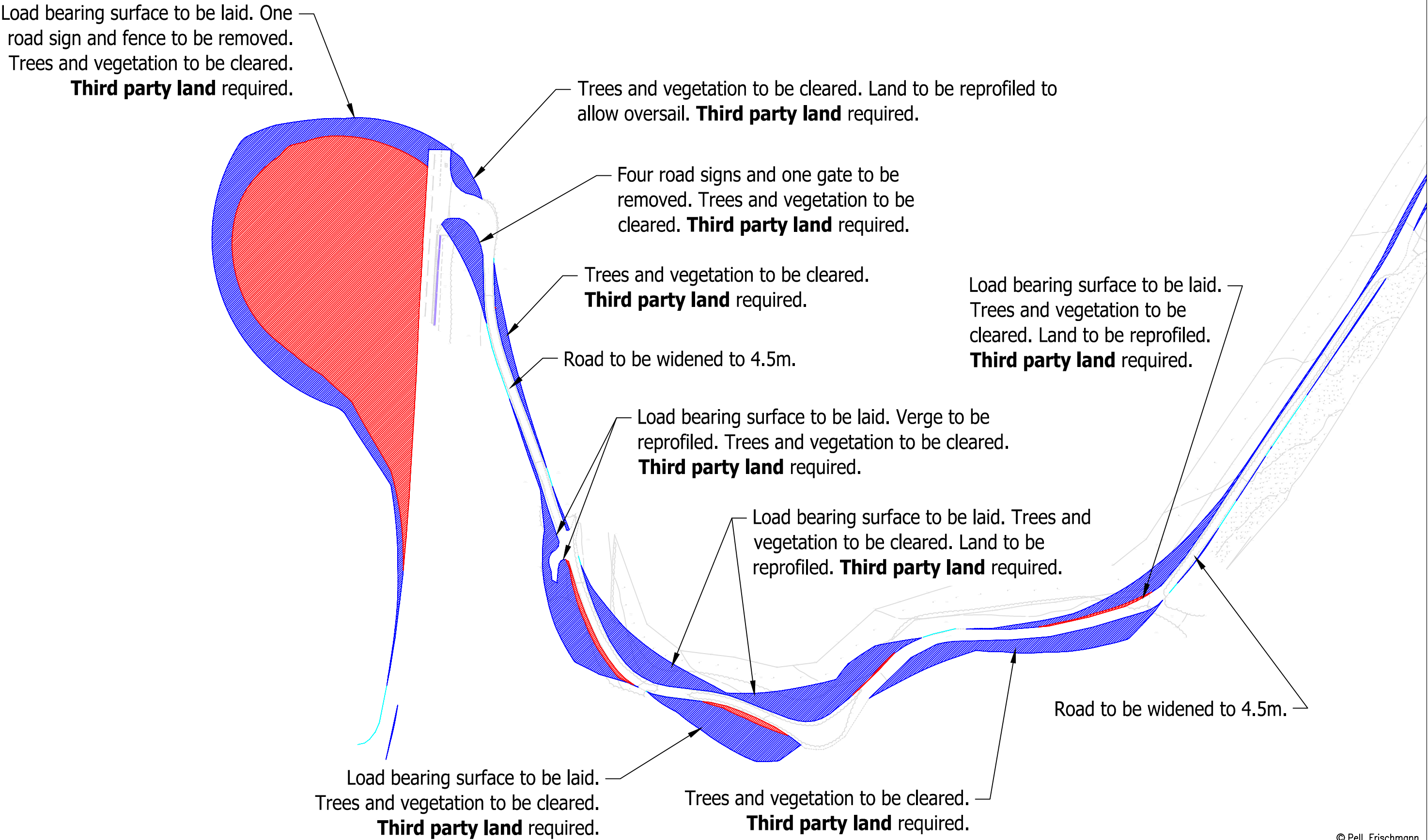
Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: pfedinburgh@pellfrischmann.com www.pellfrischmann.com	Project	Deucheran Hill 2 Wind Farm		Name	Date	Scale		1:1250 @ A3	
			Drawn	AD	13/03/2025	File No. 250303 Deucheran Hill 2 SPA N163.dwg	Drawing Status	Draft	
			Designed	TL	13/03/2025				
			Checked	TL	13/03/2025				
Client	RWE Renewables UK Onshore Wind Ltd	Drawing Title	N163 Blade and Tower	Point of Interest		19-23			
Key Wheel SPA Body SPA Load SPA Indicative Overrun Oversail	SPA Location	A83 Killean	Drawing No.	Notes: 1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.				Revision	
			SK10					0	

Tower



© Pell Frischmann

Pell Frischmann 93 GEORGE STREET, EDINBURGH. EH2 3ES Tel: +44 (0)131 240 1270 Email: p.f@pellfrischmann.com www.pellfrischmann.com	Project			Name	Date	Scale	
		Drawn	AD	13/03/2025	1:1250 @ A3		
		Designed	TL	13/03/2025	File No.	250303 Deucheran Hill 2 SPA N163.dwg	
		Checked	TL	13/03/2025	Drawing Status		
Client	RWE Renewables UK Onshore Wind Ltd	Drawing Title	Point of Interest			Draft	
Key Wheel SPA Body SPA Load SPA Indicative Overrun Oversail	N163 Blade and Tower	Drawing No.		Notes:		Revision	
	SPA Location	SK10A		1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.		0	



© Pell Frischmann

Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: pfredinburgh@pellfrischmann.com www.pellfrischmann.com	Project		Deucheran Hill 2 Wind Farm		Name		Date	13/03/2025	Scale		1:1500 @ A3
	Drawing Title		N163 Blade and Tower		Drawn		AD	13/03/2025	File No.		250303 Deucheran Hill 2 SPA N163.dwg
	SPA Location		A83 Killean		Designed		TL	13/03/2025	Drawing Status		Draft
	Key				Checked		TL	13/03/2025	Point of Interest		19-23
Client		RWE Renewables UK Onshore Wind Ltd		Drawing No.		SK10B		Notes:		Revision	
Wheel SPA		Body SPA		Load SPA		Indicative		Overrun		Oversail	
								1. All mitigation is subject to confirmation through a test run.		1	
								2. This is not a construction drawing and is intended for illustration purposes only.			

Appendix C ESDAL Responses