

John McMyler

*Noted
Spam for 15/2/22*

From: Allen. Brendan (Engineering and Major Projects) <brendan.allen@esb.ie>
Sent: 15 February 2022 16:06
To: John McMyler
Subject: Planning Reference PA0029 FW: Oweninny Wind Farm Phase 2 - Abnormal Load TMP
Attachments: QE-000039-11-R460-004_Abnormal Load TMP.pdf

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John

I am attaching the TMP for Oweninny.

The team has been engaging with Paul and Teresa in relation to the plan, and as you can see below it has been approved by Paul.

I am submitting it through yourself formally for the purposes of the planning compliance file.

Regards,

**Brendan Allen | Planning Team Leader Civil Environmental & Renewable Engineering | Engineering & Major Projects | ESB T: +353 1 703 8195 M: 086 8336990 | www.esb.ie
One Dublin Airport Central, Dublin Airport, Cloghran, Co. Dublin, K67 XF72.**

From: Paul Dolan <pdolan@MayoCoCo.ie>
Sent: Monday 14 February 2022 14:40
To: Hogan. Mairead (Engineering and Major Projects) <mairread.hogan@esb.ie>
Subject: FW: Oweninny Wind Farm Phase 2 - Abnormal Load TMP

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Mairead,

Mayo County Council have no objection to this Traffic Management Plan.

See comments below from Theresa Durkin.

Also, when is it proposed to apply for the abnormal load permits?

Regards,

Paul



Paul Dolan
Head of Roads
Mayo County Council

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From: Theresa Durkin <tdurkin@MayoCoCo.ie>
Sent: 14 February 2022 13:45
To: Paul Dolan <pdolan@MayoCoCo.ie>
Cc: Orla Bourke <obourke@MayoCoCo.ie>; Vincent OBoyle <voboyle@MayoCoCo.ie>; Declan Turnbull <dturnbu@MayoCoCo.ie>
Subject: FW: Oweninny Wind Farm Phase 2 - Abnormal Load TMP

Hi Paul,

I have no objection to proposed TMP.

I have highlighted some comments in red for general attention/consideration.

Regards

Theresa



Mrs. Theresa Durkin
Senior Executive Engineer
Ballina Municipal District

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Ballina Municipal District | Civic Offices | Arran Place | Ballina | Co Mayo.

☎ (096) 76100/76101 📠 (096) 76198 ✉ tdurkin@mayococo.ie 🌐 www.mayococo.ie

Comments

HOLIDAY'S & SPECIAL EVENTS

Local authorities and Garda will communicate details of public holidays, celebrations planned demonstrations, security issues, accidents, road works etc. that will affect transport along the designated route. All findings will be communicated, and the delivery schedule updated to reflect any changes.

Known holidays during delivery Schedule:

St Patricks Day, no deliveries 17th & 18th March.

Easter, no deliveries 15th & 18th April

May Day no delivery 2nd May


June Bank Holiday no delivery 6th June.

August Bank Holiday Min 1st Aug.


Early July Salmon Festival in Ballina – TBC

July / August – Crossmolina Festival - TBC

Newly laid pedestrian crossings - granite sett paviments at this location

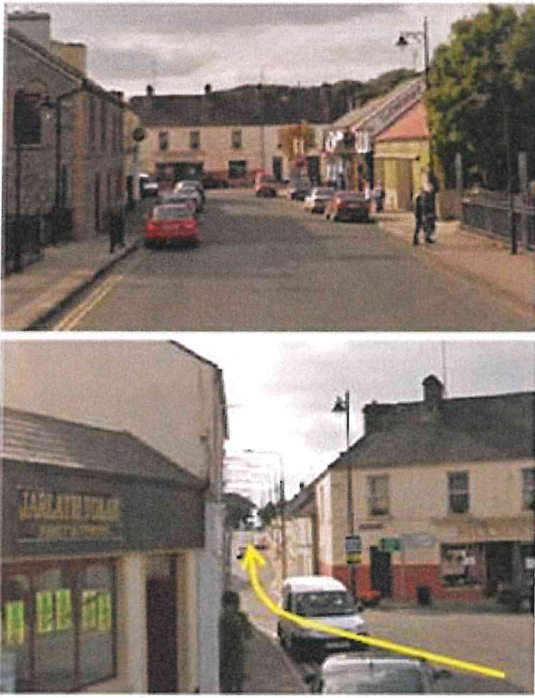
<p>34</p>	<p>Tolan Street / Tone Street</p> 	<p>Loads will continue through the one way system. The system will have to be suspended and traffic held in advance of the section and partially temporarily removed during load movement.</p> <p>It is recommended that early discussions be held with the road authority.</p> <p>Mar-Train have indicated in their test run that they wish the trees to be pruned down to avoid damage to the blades.</p>
<p>Pell Frischmann Page 16</p>		

Newly laid - Raised pedestrian crossing – Macadam- at this general location


<p>36</p>	<p>McDermott Street</p> 	<p>Loads will oversail the traffic calming bollards and associated street furniture.</p> <p>Following the Mar-Train test run the contractor advised that parking should be suspended during load movements.</p>
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Proposed Zebra Crossing and buildout on east side of Jack Garrett Bridge – In discussions with NTA regarding deferral of project

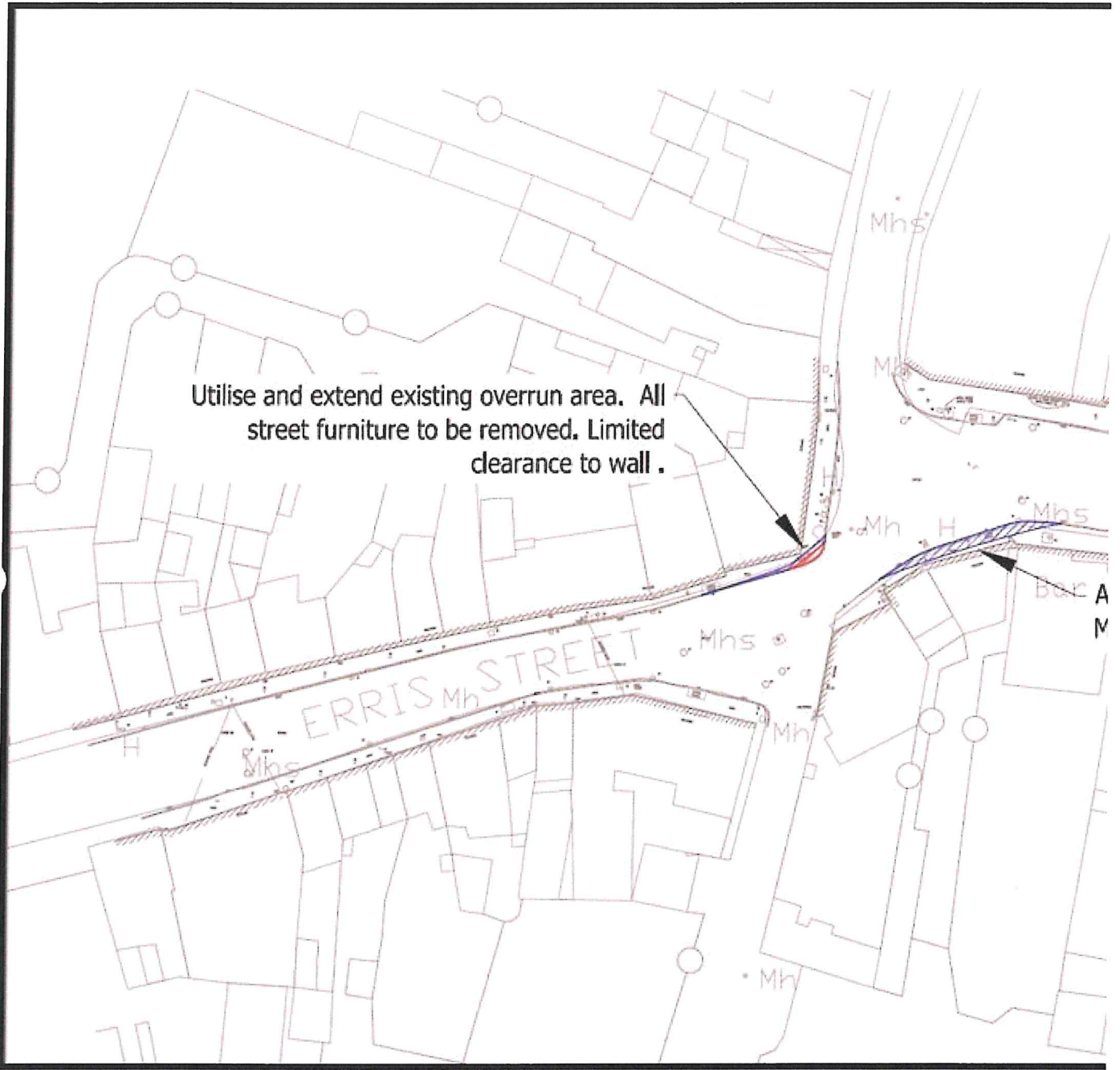
Oweninny II Wind Farm RSR

POI	Key Constraint	Details
39	<p>N59 Crossmolina</p> 	<p>Loads will negotiate the constrained chicane within Crossmolina.</p> <p>Crossmolina is the major constraint on the route and the clearances to the buildings are minimal and must be driven at caution.</p> <p>Loads will oversail the northern footway where all street furniture should be removed. Parking should be suspended during deliveries and pedestrian movements will need to be held.</p> <p>Loads will oversail the southern footway at the apex of the left bend. All street furniture will need to be cleared from the oversail area. There is minimal clearance to the shop front.</p> <p>Loads will overrun and oversail the northern footway through the section. The previous overrun area should be utilised and extended, and street furniture removed.</p>

MCC to investigate on site for file purposes

40	<p>N59 Approaching the Existing Oweninny Wind Farm Site Entrance</p> 	<p>It is evident that the carriageway is deteriorating through this location. It is recommended that vehicles are not allowed to travel close to the road edge and pass through the section slowly.</p>
	<p>Further along the route, extensive resurfacing is evident.</p>	

Blue hatched area on main Street in Crossmolina - (To suspend parking note) – General location of proposed Zebra Crossing & Buildout – see note above at picture 39



From: Paul Dolan <pdolan@MayoCoCo.ie>
Sent: 14 February 2022 12:21
To: Theresa Durkin <tdurkin@MayoCoCo.ie>
Subject: FW: Oweninny Wind Farm Phase 2 - Abnormal Load TMP

Theresa,

Any comments?

Paul



Paul Dolan
Head of Roads
Mayo County Council

MAYO.IE

pdolan@mayococo.ie | +353 (0) 94 90 64289 | 087 2839207
Áras An Chontae | The Mall | Castlebar | County Mayo | F23 WF90
www.mayo.ie | www.mayococo.ie

From: Hogan. Mairead (Engineering and Major Projects) <mairead.hogan@esb.ie>
Sent: 14 February 2022 12:00
To: Paul Dolan <pdolan@MayoCoCo.ie>
Cc: Orla Bourke <obourke@MayoCoCo.ie>; Theresa Durkin <tdurkin@MayoCoCo.ie>; Kenny. Aine (Engineering and Major Projects) <aine.kenny@esbi.ie>
Subject: Oweninny Wind Farm Phase 2 - Abnormal Load TMP

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Paul,

Please find attached the **Oweninny Wind Farm Phase 2 - Abnormal Load TMP**.

Can you please review and confirm that you are satisfied with this TMP?

The intention is to commence abnormal load delivery on the 1st of March 2022.

Regards,

Mairéad

Mairéad Hogan | BA MSc DipEnvEng PMP | Senior Environmental Consultant | Civil Environmental & Renewable Engineering | Engineering and Major Projects | ESB

T: +353 1 703 8031 / +353 86 310 1920 | www.esb.ie

One Dublin Airport Central, Dublin Airport, Cloghran, Co. Dublin. K67 XF72

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víreas agus ní glacann dliteanas ar bith as aon damáiste de dhroim víreas.

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* * * * *

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Energy for
generations

Oweninny Wind Farm Phase 2

Mayo County Council

Transport Management Plan – Abnormal Load Haulage

Document No.: QE-000039-11-R460-004

Date: February 2022

Engineering and Major Projects, One Dublin Airport Central, Dublin Airport, Cloghran, Co. Dublin,
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Transport Management Plan – Abnormal Load Haulage

File Reference:		
Client / Recipient:	ESB GT	
Project Title:	Oweninny Wind Farm Phase 2	
Report Title:	Transport Management Plan – Abnormal Load Haulage	
Report No.:	QE-000039-11-R460-004	
Revision No.:	000	
Prepared by:	Aine Kenny	Date: December 2021
Title:	Senior Environmental Engineer	
Verified by:	Mairéad Hogan	Date: February 2022
Title:	Senior Environmental Consultant	
Approved by:	Jason Gallen	Date: February 2022
Title:	Civil Engineer	

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Template Used: T-020-017-Engineering and Major Projects Report Template

Change History of Report

Date	New Revision	Author	Summary of Change

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1 Introduction

This Transport Management Plan (TMP) has been prepared by Electricity Supply Board (ESB) Engineering & Major Projects (EMP) in support of Oweninny Wind Farm Phase 2 (the Project) in County Mayo. The proposed wind farm is located approximately 20 km west of Crossmolina and 11 km east of Bangor Erris.

The Project is currently being delivered by Oweninny Power Designated Activity Company (OPDAC); a wholly owned joint venture between ESB and Bord na Móna Energy Ltd (BnM).

This TMP has been prepared for Mayo County Council (MCC) in order to satisfy planning commitments, under planning permission reference PA0029, for agreement with MCC prior to implementation and for use by contractors and hauliers during the delivery of abnormal loads for the Project. It has been prepared in relation to the abnormal loads only, primarily relating to the import of wind turbine components to the site. Various portions of the routes detailed in this TMP lie within the administrative areas of MCC, Sligo County Council (SCC), Leitrim County Council (LCC) and Donegal County Council (DCC).

A separate Traffic Management Plan has previously been prepared by the lead civils contractor and project PSCS, Roadbridge, for the civil and electrical works.

1.1 Project Context

The Project is located in north County Mayo, to the north of the N59 National Secondary Road, approximately 1.3 km west of Bellacorick.

The N59 (Ballina to Belmullet) National Secondary Road runs immediately adjacent to the southern site boundary. Bellacorick village is located on the N59 to the east of the site while the L52925 local road (or Shranakilla Road) lies within the overall Oweninny site, in parallel with the Oweninny River. To the east of the site, local road L52926 runs north from the N59 near Ballymonnelly Bridge for a short distance to Tawnaghmore townland where it becomes the Western Way.

1.2 Purpose of TMP

The TMP defines the procedure involved in managing the transportation of abnormal loads, including the delivery of the wind turbine blades, towers and nacelles.

MAR-TRAIN, the project haulier for the transportation of the abnormal loads, have prepared a summary TMP which identifies key procedures and rules for their transport personnel. This document is included in **Appendix A**. Some of its key points are summarised herein.

The purpose of this TMP is to provide context to the MAR-TRAIN summary TMP and to provide an all-encompassing document to MCC regarding traffic management for this stage of the Projects' construction.

2 Existing Road Network

The Project site is located in close proximity to the N59 National Secondary Road, which connects Ballina to Westport, in addition to a number of regional and local roads. The roads surrounding the Project serve a wide variety of transportation including private vehicles, buses, HGV's and motorcycles.

Abnormal loads for the Project are proposed to arrive into Killybegs Harbour, Co. Donegal. From Killybegs the proposed transport to the Project site is as described by Table 2-1.

Figure 1 in Section 4.5 illustrates the proposed transport route.

Table 2-1: Transport Route

Road No. / Name	Road Classification
Shore Road, Killybegs	Local Road
R263	Regional Road
N56	National Secondary Road
N15	National Primary Road
N4	National Primary Road
N59	National Secondary Road
Bunree Road, Ballina	Local Road
R294, Ballina	Regional Road
Tolan Street, Ballina	Local Road
Tone Street, Ballina (contra flow movements)	Local Road
McDermott Street (contra flow), Ballina	Local Road
N59	National Secondary Road

A brief summary of each of the above roads is provided in the following sections.

2.1 National Roads

2.1.1 National Primary Roads

2.1.1.1 N15 National Primary Road

The N15 is a national primary road which connects the terminal destinations of Sligo and Derry. Along the Project haul route it is a two-way road with a single lane in either direction.

Abnormal loads will travel on the N15 for approximately 64 km.

Transport Management Plan – Abnormal Load Haulage

2.1.1.2 N4 National Primary Road

The N4 is a national primary road which connects the terminal destinations of Sligo and Dublin. Along the Project haul route it is a two-way, dual carriageway road with two lanes in either direction.

Abnormal loads will travel on the N4 for approximately 7 km.

2.1.2 National Secondary Roads

2.1.2.1 N56 National Secondary Road

The N56 is a national secondary road which connects the terminal destinations of Donegal and Letterkenny. Along the Project haul route it is a two-way road with a single lane in either direction.

Abnormal loads will travel on the N56 for approximately 25 km.

2.1.2.2 N59 National Secondary Road

The N59 is a national secondary road which connects the terminal destinations of Sligo and Galway. Along the Project haul route it is a two-way road with a single lane in either direction.

Abnormal loads will travel on the N59 for approximately 88 km.

2.2 Regional Roads

2.2.1 R263 Regional Road

The R263 is a two-way road with a single lane in either direction. Along the Project haul route it connects Shore Road, at Killybegs Harbour, to the N56 National Secondary Road.

The road is primarily bordered by residential properties, some commercial / retail properties and the Donegal coast.

Abnormal loads will travel on the R263 for approximately 3 km.

2.2.2 R294 Regional Road

Along the Project haul route the R294 connects Bunree Road to Toland Street, via a bridge over the River Moy, in Ballina and is a two-way road with a single lane in either direction. In Ballina, the road is primarily bordered by residential properties and some commercial / retail properties.

Abnormal loads will travel on the R294 for approximately 0.5 km.

2.3 Local Roads

2.3.1 Shore Road, Killybegs

Shore Road is a two-way road with a single lane in either direction. It connects the R263 Regional Road to the multiple other local roads, in addition to providing access to Killybegs harbour.

Abnormal loads will travel on Shore Road for approximately 0.5 km.

2.3.2 Bunree Road, Ballina

Bunree Road is two-way road with a single lane in either direction. It connects the N59 National Secondary Road to the R294 Regional Road.

The road primarily provides access to residential, commercial and some educational properties and provides on street parking along some sections of its length.

Abnormal loads will travel on Bunree Road for approximately 1 km.

2.3.3 Tolan Street, Ballina

Tolan Street is a two-way street, with a single lane in either direction. It connects the N59 bridge over the River Moy to Tone Street.

The street is located in the town centre of Ballina providing access to commercial / retail properties. Town centre controlled parking is located along the southbound side of the street with parking prohibited (via double yellow lines) on the northbound side of the street.

At the northern end of Tolan Street, northbound traffic is forced to turn left onto O'Rahily Street.

Abnormal loads will travel on Tolan Street for less than 0.5 km.

2.3.4 Tone Street, Ballina

Tone Street is a one-way street, with a single lane in a southbound direction. It connects the N59 National Secondary Road and McDermott Street to Tolan Street.

The street is located in the town centre of Ballina providing access to commercial / retail properties. Both controlled and uncontrolled parking is provided at various locations along the street.

Abnormal loads will travel on Tone Street for less than 0.5 km.

For the purposes of oversized vehicle haulage it is proposed to transport equipment along Tone Street using contra flow operations under Garda escort.

2.3.5 McDermott Street, Ballina

McDermott Street connects the N59 at its western end to both the N59 and Tone Street at its eastern end. From its western junction with the N59 to the approximate intersection of McDermott Street and Fenian Row, McDermott Street is a two-way street, with a single lane in either direction. However, from the approximate intersection with Fenian Row McDermott Street becomes a one-way street in the direction of the town centre.

The street primarily provides access to residential properties and provides some sections of on street parking.

Abnormal loads will travel on McDermott Street for approximately 1.5 km.

Transport Management Plan – Abnormal Load Haulage

For the purposes of oversized vehicle haulage it is proposed to transport equipment along McDermott Street in an east – west direction, using contra flow operations under Garda escort for the one-way section of the street.

2.4 Road Safety

Road safety statistics along the proposed turbine haul route between Killybegs Port and the site has been collated from the Road Safety Authority (RSA) website (www.rsa.ie). It should be noted that the available data covers the time period between 2005 and 2016 (12 years). There were a number of fatal and serious collisions recorded along the route during this time period with the large majority of collisions occurring being minor in nature. The number of serious and fatal collisions that occurred between 2005 and 2016 is presented in Table 2-2 below.

Table 2-2: Serious and Fatal Collision Data (source: RSA)

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
No. of serious collisions	12	8	9	11	6	4	1	5	7	4	9	5
No. of fatal collisions	6	1	4	6	2	2	2	2	2	2	2	0

There were a number of collision clusters noted along the route which mainly occurred in the towns and villages. Clusters have been noted at the following locations:

- N56 at Bruckless, Co. Donegal
- N56 to the east of Dunkineely, Co. Donegal
- N56/N15/R267 junction to the east of Donegal Town
- N15 at Laghey/Rathneeny West
- N15 at Grange, Co. Sligo
- N15 through Sligo Town (primarily minor)
- N4/N59 junction to the north of Ballisadare
- N59 through Ballina, Co. Mayo

There were 5 no. minor collisions recorded along the N59 at Bellacorrick on the approach (from the east) to the Phase 2 site access.

While there are some locations where access is via local and regional roads, the majority of the Project abnormal load deliveries will be via national roads; with higher standards of road infrastructure to meet the needs of the abnormal loads. In addition, the loads will be delivered in convoy with Garda escorts during night-time hours in order to minimise the interaction with the public and other vehicles. Due to the nature of the loads, haulage vehicles will travel at low speeds with any approaching vehicle movements controlled by the accompanying Garda escort to minimise road safety risks.

3 Road & Bridges – Condition

Oweninny Phase 2 follows the completion of Phase 1 of the Project. As agreed in discussion with MCC and Donegal National Roads Office (DNRO) the Phase 1 close out surveys (post construction completion) will be used as the Phase 2 commencement surveys for the abnormal haulage route. These include:

- Pavement surveys
- Bridge surveys

Bridge monitoring will be undertaken along the turbine haul route between Killybegs Port and the site over the duration of deliveries, which are expected to continue for 7 months. The monitoring arrangements have been agreed with the DNRO which involve the monitoring of 7 no. bridges along the haul route on a bi-monthly basis for the duration of delivery.

Following the completion of the abnormal load deliveries, additional post-construction (haulage) surveys will be undertaken further to agreement with the relevant local authorities.

The findings of these surveys will be compared to the pre-construction scenario and used in discussions regarding potential evidence of deterioration, if necessary.

4 Transport Management

4.1 Transport Programme

Abnormal load deliveries are anticipated to commence 1st March 2022. They are anticipated to last approximately 7 months to end September 2022.

A trial run was undertaken along the turbine haulage route on 11th January 2022 where a mock-up of the 57m blades was successfully delivered to the site from Killybegs under full Garda escort

It is anticipated that haulage convoys, consisting of the abnormal load vehicle, escorts and Garda, will operate five nights per week from Monday to Friday, with a single convoy per night. However, in order to meet Project programme requirements additional convoys and / or nights may be required. This will be arranged in consultation with the relevant local authorities and the appropriate Garda escorts.

4.2 Working Hours

Other than in exceptional circumstances where factors out of the control of ESB (i.e. inclement weather / traffic disruptions) occur, haulage from Killybegs Port is anticipated to commence at approximately 10 pm and to have arrived at the site by 6:30 am.

4.3 Key Personnel

The MAR-TRAIN TMP, included in **Appendix A**, identifies the key personnel, and contact details for same, for this stage of the Project.

4.4 Site Access

Site access at the wind farm will be via the Phase 2 access to the west of the old Bellacorrick Power Station site and facilitates access by the oversize vehicles including the provision of a layby for vehicle storage prior to daylight hours on site. Movements in darkness before normal working hours are not permitted within the site.

4.5 Haul Route

Table 2-1 identifies the haul route identified for the Project, which was successfully used during Phase 1 of the wind farm. Figure 4-1 illustrates the route.

Abnormal load permits will be sought from the relevant authorities prior to the commencement of haulage. This TMP will be updated to include these permits in **Appendix B** once available.

4.5.1 Temporary Access Arrangements

A temporary supplementary haul route (the Western Way Bridge Bypass) has been constructed at the N59/R312 junction to facilitate abnormal load deliveries to

Transport Management Plan – Abnormal Load Haulage

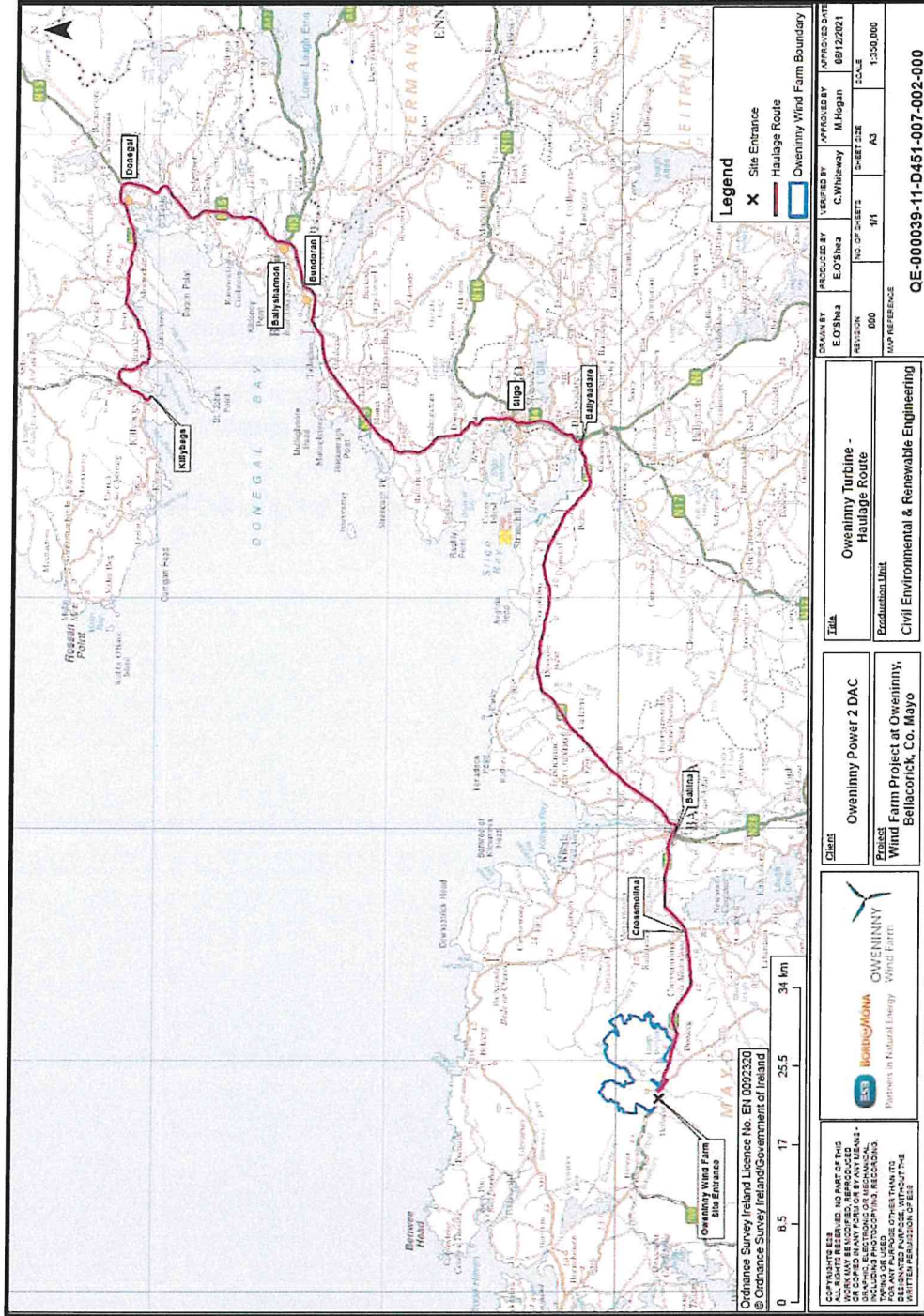
the nearby Oweninny Wind Farm Phase 2 development. The alteration to the original planning grant PA0029 was granted by An Bord Pleanála subject to conditions set out in ref. ABP-309043-20.

The existing horizontal alignment of the N59 at this location includes a sharp bend such that abnormal load deliveries to the wind farm development would not be able to navigate the bend. Without the construction of the temporary haul road abnormal load vehicles would be required to perform a three-point turn at the existing entrance to the Oweninny Phase 1 Wind Farm, and then reverse along a section of the N59 as far as its junction with the R312, continue reversing onto the R312 before then continuing west on the N59. Due to the size of the deliveries, and the number of abnormal load deliveries anticipated for the development, these manoeuvres are considered to be unsafe. The temporary haul route has therefore been constructed to the north of the N59/R312 Junction, by-passing the sharp bend on the N59 and crosses an existing stream at this location. It is anticipated that these temporary access arrangements will be in place for the duration of delivery of abnormal loads i.e. approx.7 months. The haul route will be removed following completion of turbine delivery and site reinstated.

A layout drawing of the Western Way Bypass is shown in Figure 4-2 below.

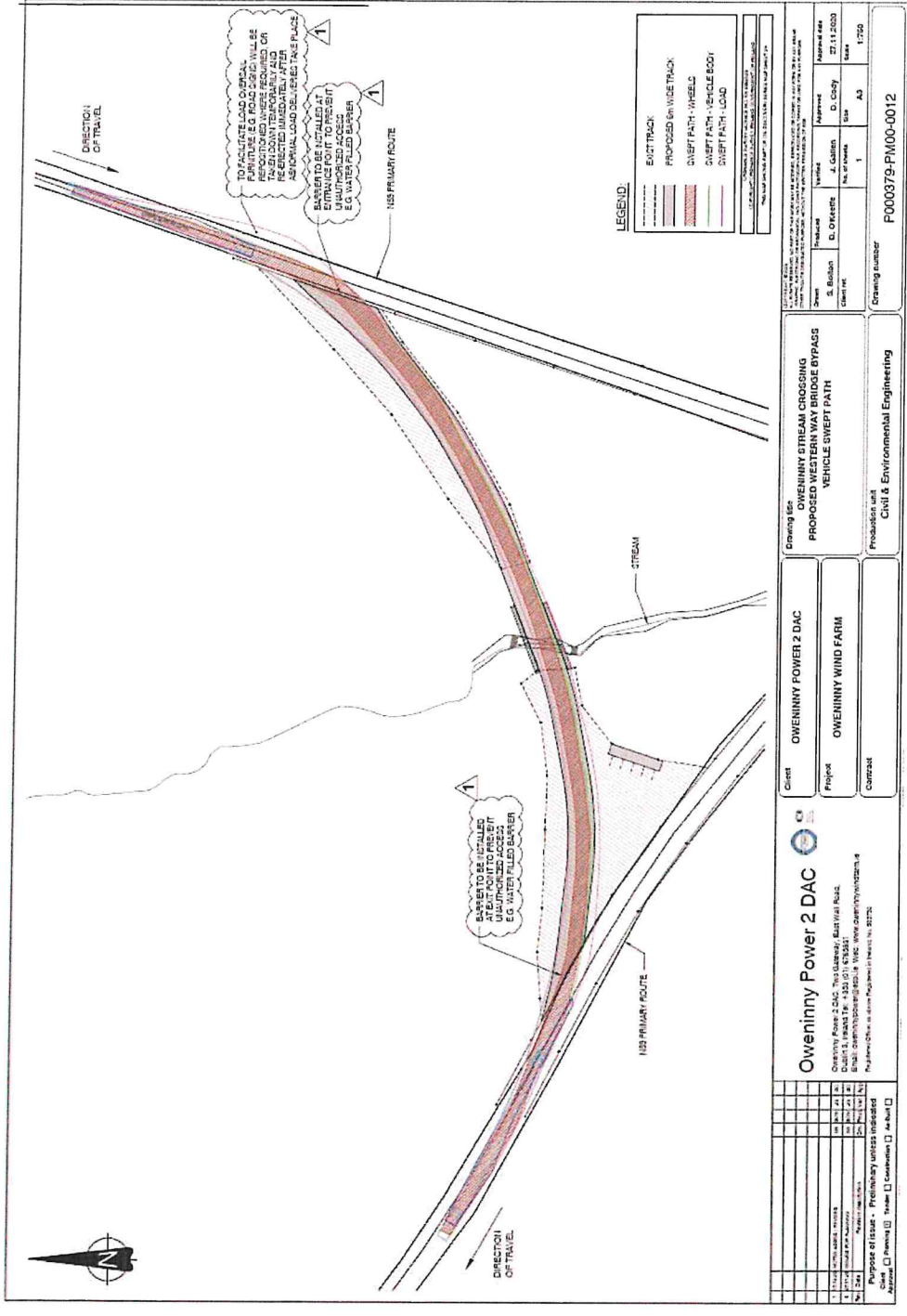
Transport Management Plan – Abnormal Load Haulage

Figure 4-1: Haul Route



Transport Management Plan – Abnormal Load Haulage

Figure 4-2: Temporary Supplementary Haul Route (Western Way Bypass)



5 Transport Management Mitigation Measures

5.1 Prohibited Activities

The following list identifies prohibited activities which must be adhered to by Project personnel including sub-contractors and external suppliers involved in the transportation of abnormal loads.

1. Once on site all personnel must adhere to the requirements of the project PSCS, Roadbridge, and their site specific TMP.
2. All access / egress to the site will be via the existing Phase 2 entrance on the N59, as identified by Figure 4-1. No access is permitted at any other location.
3. Movements of abnormal vehicles are not permitted within the hours of darkness while on site. Oversize vehicles are required to pull off the public road, into the site entrance, and then remain in a designated layby location until the hours of daylight.
4. No work outside of the permitted working hours without previous written agreement from MCC and ESB.
5. No change in specified haul routes without the prior written approval of MCC, LCC, SCC, DCC and ESB.
6. Within the site the maximum speed limit of 20 km/h must be adhered to.
7. The use of mobile phones while driving is strictly prohibited.
8. In addition to the above the MAR-TRAIN TMP in **Appendix A** identifies a number of other procedures which will be adhered to during the delivery of oversize loads for the Project.

5.2 Mitigation Measures

The following mitigation measures are required throughout the delivery of the oversize loads for the Project:

1. The relevant local authority is to be advised, in advance, of any proposed changes to haul routes or working hours.
2. Deliveries are proposed 5 nights per week, from Monday to Friday, in order to minimise interaction with the public and other vehicles. Should the construction programme require any temporary changes to this it will be notified, in advance, to the relevant Local Authority and agreed with the Garda escorts.
3. All staff will abide to legal speed limits. This requirement will be emphasised to all staff and contractors during induction training.
4. The contractor is required to ensure that the proposed temporary changes to site furniture are corrected following the movements of oversize loads through an area (e.g. removal of signage / street furniture) in order to minimise disruption to the public.

Transport Management Plan – Abnormal Load Haulage

5. In order to minimise disruption to deliveries continuing liaison with the relevant Local Authorities will be undertaken, for the duration of the transport programme, in order to ensure that unknown works along the haul route do not present difficulties during transport.

5.3 TMP Review

This TMP will be reviewed and updated at the following stages:

- Following any adjustments to the overall transport period.
- Following any incidents / accidents involving project personnel or the public.

Appendix A – MAR-TRAIN TMP




Mar-Train Heavy Haulage Ltd

Transport Management Plan

Oweninny Wind Farm Phase II
1st March 2022



Client:	Nordex		
Contract:	Oweninny Wind Farm NIE-OWEN-01		
Title:	Transport Management Plan: TMP 5076		
Document No:	V2	Rev Date: 7 th Feb 2022	
	Name	Date	
Prepared By:	Andrew McCullough	15 th Dec 2021	
Reviewed By:	Tim Martin		

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Site Details	
Site I.D. NIE-OWEN-01	Site Name: Oweninny Wind Farm
Site Address: Bellacorrick, Co. Mayo	
Date work to be undertaken: 1 st March to September 2022	Anticipated duration of work: 30 weeks
Contact Details	
Nordex contact details: Ian Dineen +44 (0) 7780 527 395 Ben Dowsett +44 (0)161 438 1296	HSQE contact details: Ross Fleming 00 353 87 204 3120
ESB Site contact details: Aine Kenny 00353 86 075 3277	Nordex site contact details: Yole Adepoju +44 (0) 77 85 658572
<p>MAR-TRAIN EMERGENCY / OUT OF HOURS CONTACT</p> <p>Contact names and numbers to cover all emergency callouts outside of normal working hours in conjunction with this work.</p> <p>Tim Martin – Managing Director +44 (0) 7801 131723 Sam McKee – Transport Manager +44 (0) 7841 101541 Michael Campbell – Fleet Engineer +44 (0) 7549 178826 Health & Safety Andrew McCullough +44 (0) 7549 179 127</p> <p>In the event of breakdown assistance or recovery one of the above should be contacted. They will then contact a local firm to assist.</p> <p>For vehicle recovery: Sean McCarthy 00353 872 5125130</p> <p>Volvo 24hr Breakdown Assistance: 0800 929292</p> <p>Merc 24hr Breakdown Assistance: 0800800644</p> <p>Scania 24hr Breakdown Assistance: 0800 800660</p> <p>DAF 24hr Breakdown Assistance: 0800919395</p> <p>Nearest Hospital: Mayo University Hospital / Westport Road, Curragh, Castlebar, Co Mayo F23 H529 tel +353 949021733</p> <p>Ballina Garda Station: Lord Edward Street, Carrowcushlaun West, Ballina.</p>	

CLIENTS RESPONSIBILITIES & GENERAL CONDITIONS

- Provide comprehensive and accurate details of weight & dimension of the items scheduled to be delivered.
- Provide safe access/egress and traffic management on site for the delivery vehicle, support vehicles and personnel.
- Co-ordinate the site activities of other contractors to facilitate unimpeded access to the working location during the deliveries.
- Ensure the access ground to and from the working location is a suitable level to within the delivery and support vehicle tolerances and capable of withstanding the imposed axle loadings.
- Provide a site-specific safety induction for all Mar-Train employees involved in the operation. This induction is to include emergency warning and evacuation procedures.
- Provide suitable welfare facilities.

MAR-TRAIN RESPONSIBILITIES & GENERAL CONDITIONS

- Complete and return the special loads application for the deliveries of the wind turbine components for Donegal, Leitrim, Mayo & Sligo County Councils.
- Consideration about the departure time, highway, residential areas and local traffic on route to the wind farm.
- The designated route from the port of Killybegs to Oweninny Wind Farm hazards identified.
- Check route restrictions; height, length, width, bridges, road conditions and allowable loads. All road authorities will be contacted prior to the deliveries taken place.
- Delivery movement times as confirmed by local authorities, road department specified on abnormal load permits and Garda operations.
- Special events, Mar Train liaise with local authorities to ensure planning excludes dates that transport is not possible.
- Weather conditions will be monitored and communication with Garda and site to ensure that transport can be completed safely to site.
- Distance to be travelled – driver hours/hours of darkness/day light hours to ensure driver meet the required breaks and a safe location on route is agreed for taking breaks. Also, the convoy will be off the public road by the times specified on abnormal load permits and by Garda.
- Vehicles required for safe trial run to take place.
- Management of incidents and contingency planning
- Escort requirements
- Communications
- Detailed risk assessments covering all hazard
- Site requirements
- Documentation to be available in his/her vehicle:
 - Site induction
 - Mar Train drivers' instruction (incl. emergency procedures & checklists)
 - Relevant Risk Assessment & method statements signed by the individual driver
 - Driver's licence, permits, insurance papers

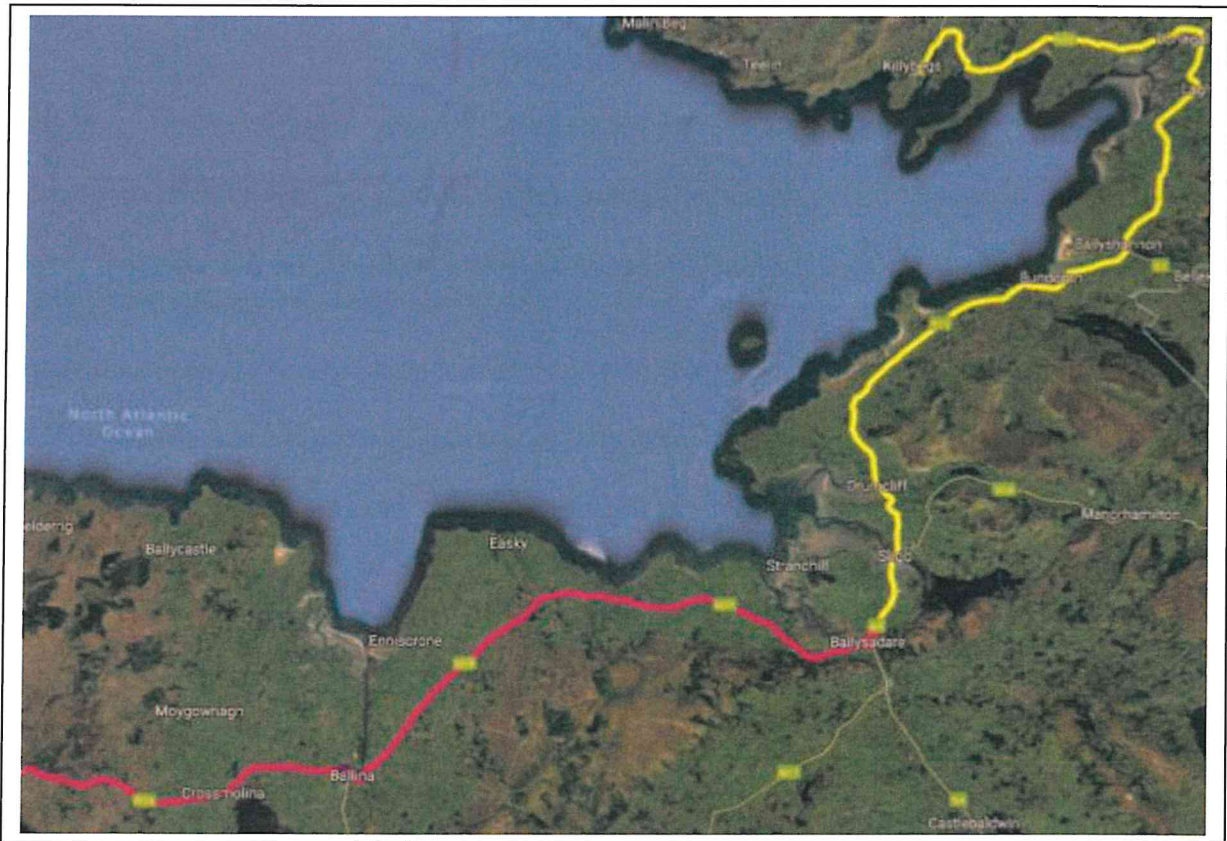
ABNORMAL LOAD PERMITS

Abnormal load permits will be requested from each county council for all components & configurations for the duration of the delivery programme. Once received copy permits will be available.

Donegal, Sligo, Mayo & Leitrim County Councils will issue abnormal load permits.

ROUTE FROM KILLYBEGS PORT TO SITE:

Killybegs Harbour, Shore Rd, R263 right on N56, to N56/N15 Roundabout. N15 to Sligo, continue N4 North of Ballidrihid continue N59, Bunree Rd Ballina, right on R294, contraflow one way system Tone Street, McDermott Street to Gurteen Roundabout. Re-join N59 to Crossmolina, N59 to Oweninny Wind Farm.



Major transports will be supported by Mar Train and Garda escort vehicles. Along the route and in the towns & villages lead escort vehicles will provide advance warning to oncoming vehicles.

Transport will drive contraflow several roundabouts, junctions, and one-way streets, all under the governance and protection of Garda escorts.

Parking restrictions are required in Ballysadare, Ballina & Crossmolina for access.

POI 25 – N59/T290 Ballysadare right turn.



POI 31 & 32 Bunree road Ballina, street furniture to be removed & reinstated.



Ballina transport contraflow Tolan Street / Tone Street / McDermott Street to Gurteens Roundabout.



Crossmolina POI 39, minimal access through the town, caution required.



TRANSPORT FROM PORT OF KILLYBEGS TO SITE.

- Mar-Train team to read through the method statement and risk assessment to ensure that they are fully aware of their roles and duties.

RA 3099 – Risk assessment.

MS 2021 – Nacelle, Hub & Drive Train.

MS 2022 – Blades

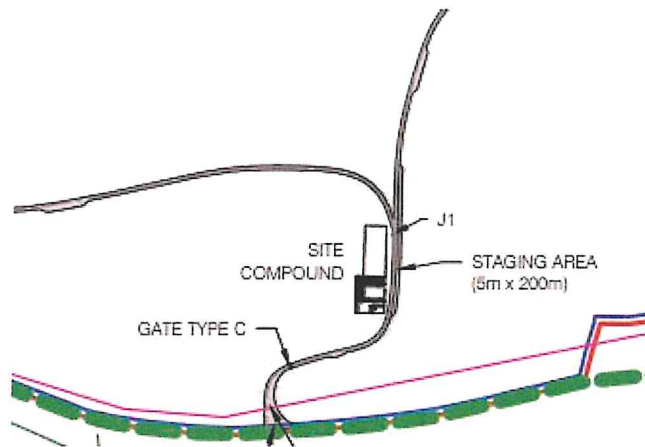
MS 2023 – Base & MID 1 tower on Clamp trailer

MS 2024 – MID towers on trailers.

MS 2025 – Top Tower

MS 2026 – Standard loads.

- Once read, each team member will sign the register to acknowledge method statement and risk assessment read and understood.
- Mar-Train driver will check the vehicle and trailer prior to departing Mar-Train yard and or Killybegs Port and complete an inspection sheet ensuring that there are no defects with the vehicle.
- Transport window planned departure from Killybegs **22.00hrs to 06.30am** arrival at Oweninny Wind Farm.
- When the driver is at port, the trailer / Clamp will be made ready to load the required components as per relevant Method statement and Work instruction (if required) once loaded the component is secured.
- When all secured and safe to progress, Mar-Train supervisor must ensure that all Staff are happy to proceed. Toolbox talk will be completed prior to all transports.
- Driver radios checked to ensure communication is clear.
- The loaded vehicles to proceed from Killybegs on to the public highway along the designated route as detailed point 6.
- On arrival at site Mar-Train team sign in at security.
- Mar-Train staff will be inducted by NORDEX & PSCS Roadbridge for Oweninny Wind Farm prior to delivery programme commencing, any exceptions will be managed and communicated to site managers to ensure training is available on arrival.
- All components will be delivered in the early hours prior to site opening target delivery time 06.30.
- At site entrance there is suitable room for the convoy and escort vehicles to park up. Components will be transported from the laydown area to destination hardstand in daylight.



- Convoy must be off the public road by 06.30, consideration must be given for time required to travel from site access to hardstand delivery point. Convoy on main haul road will close site access & egress to all other traffic.

Communications

Radios will be supplied by Mar-Train and issued out to the truck / trailer operatives and escort vehicles. The frequency of the radios must be checked prior to departure from the docks. Radio batteries to be fully charged prior to issue. Spare batteries and a spare radio must be readily available in the event of failure.

Drivers must not use mobile phones whilst driving vehicles or plant.

Garda escorts will use own radio communications, lead vehicles will maintain contact with the control vehicle at the rear of the convoy.

ROUTE PINCH POINTS:

Please refer to Route Survey Report outlines all pinch points identified

Further to a successful trial run by Mar Train this document will be updated to reflect any changes.

DRIVER'S HOURS AND REST BREAKS:

We will adhere to the Driver's Hours Regulation (EC) No: 561/2006

S.I. No. 36/2012 – European Communities (Road Transport) (Organisation of Working Time of Persons Performing Mobile Road Transport Activities) Regulations 2012 – Rules on Drivers hours and tachographs – UK and Europe, any vehicle carrying an abnormal load under Special Types regulations is permitted to exceed the rules to ensure the safety of persons, vehicle, or load. – see below:

Unforeseen Events:

Provided that road safety is not jeopardized, and to enable a driver to reach a **suitable stopping place**, a departure from the EU rules may be permitted to the extent necessary to ensure the safety of persons, the vehicle, or its load. Drivers must note all the reasons for doing so on the back of their tachograph record sheets (if using an analogue tachograph) or on a printout or temporary sheet (if using a digital tachograph) at the latest on reaching the suitable stopping place (see relevant sections covering manual entries). Repeated and regular occurrences, however, might indicate to enforcement officers that employers were not in fact scheduling work to enable compliance with the applicable rules.

A judgment by the European Court of Justice dated 9 November 1995 provides a useful guide to how this provision should be interpreted. It can apply only in cases where it unexpectedly becomes impossible to comply with the rules on drivers' hours during a journey. In other words, planned breaches of the rules are not allowed. This means that when an unforeseen event occurs, it would be for the driver to decide whether it was necessary to depart from the rules. In doing so, a driver would have to consider the need to ensure road safety in the process (e.g., when driving a vehicle carrying an abnormal load under the **Special Types** regulations) and any instruction that may be given by an enforcement officer (e.g., when under Garda escort).

Some examples of such events are delays caused by severe weather, road traffic accidents, mechanical breakdowns, interruptions of ferry services and any event that causes or is likely to cause danger to the life or health of people or animals. Note that this concession only allows for drivers to reach a suitable stopping place, not necessarily to complete their planned journey. Drivers and operators would be expected to reschedule any disrupted work to remain in compliance with the EU rules

Convoy Sequence

Towers / Blades / Hub Nacelle (under Garda escort)

- Prior to the vehicle setting off, drivers must carry out daily check sheet to ensure that all lights are working, and that the vehicle is fit for the road.
- Drivers, steersmen, and escort drivers to discuss route and any issues these have. (Toolbox talk)
- At the agreed time GARDA will arrive and included in Toolbox talk. Confirm Garda communications in place agreed and understood with Mar Train team.
- Convoy to leave port **22.00hrs**.
- Convoy proceeds to Ballyshannon (eta 01.00hrs) on N15 under Garda escort from Donegal Garda where they will stop for 1 hour's rest on the hard shoulder between Ballyshannon & Bundoran, Garda have agreed a suitable stretch of road and will provide traffic management for the safety of Mar Train convoy and other road users.
- Donegal Garda escort remain with the convoy to provide traffic management. Mayo Garda handover.
- Convoy departs for site at 02.00hrs – on site arrival anticipated for 06.00hrs

(All details for convoy and timings will be confirmed following the trial runs)

Convoy Sequence (3 loaded vehicles per convoy)

GARDA escort the convoy and provide traffic management.

- 1st Garda Escort vehicle
- 2nd Garda Escort vehicle

- 1st Loaded vehicle (heaviest)
Mar Train escort / steersman
- 2nd Loaded vehicle
- 3rd Loaded vehicle
- Mar Train escort / steersman

2nd Mar Train Escort vehicle

GARDA control vehicle at the rear of the convoy.

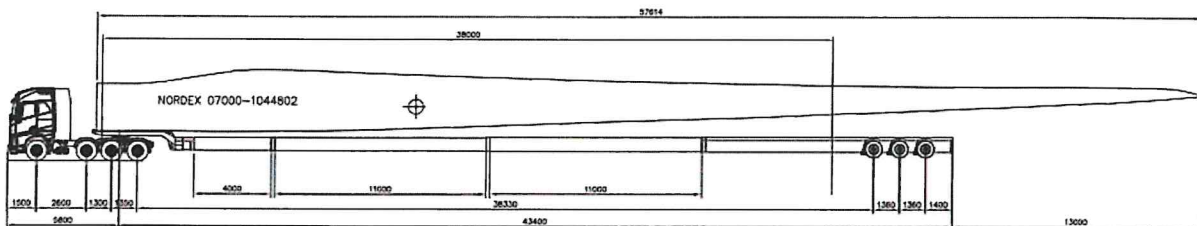
Further to a successful trial run and abnormal load permits received, GARDA will assess regarding any loads or convoys under self-escort by Mar Train. Propose the Drive Train will be under self-escort.

All consideration to public safety will have been given and if deemed safe to do so the Mar Train team can self-escort on the pre-determined route as per the abnormal load permit.

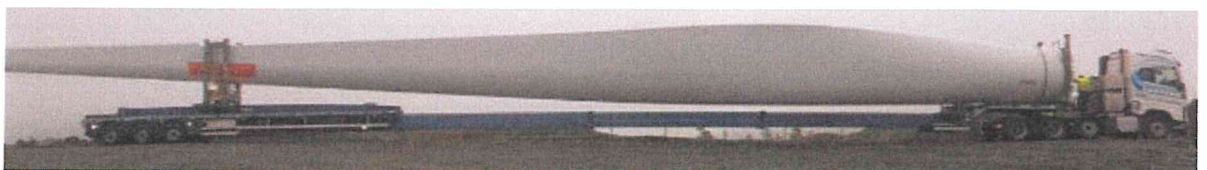
Further to a successful execution of the delivery planning, Garda may see it possible to increase the convoy size to 4 x components.

Example Transport Equipment:

Blade



57.8m blade, transport nose to tip 63m. Tip of the blade will overhang the SWC trailer by 13m



Tower in Clamp System Trailer:



Tower on trailer:



Nacelle / Hub / Drive Train.





TRAFFIC MANAGEMENT PLAN FOR PUBLIC HIGHWAY

Roles and responsibilities –

Mar Train escort vehicle

The role of the Mar Train escort vehicle will be to ensure that persons do not overtake the convoy placing other road users at risk.

Steersman

The role of the steersman is to ensure that the trailer is guided around tight junctions, roundabouts, bridges, and other identified hazards as listed in the road survey report. On all acute manual steering from behind the trailer on foot.

Soft steering (minor adjustments to maintain the centre of the road) from the escort vehicle behind.

The steersman is a competent and experienced person.

Mar Train Supervisor.

Team Supervisor TBA will act as primary contact for NORDEX on site. The supervisor will participate in daily site coordination meetings.

Supervisor is responsible for all Mar Train personnel on site, ensure compliance with PPE and all site rules.

Daily toolbox talks and all safety documentation to be held with team supervisor in NORDEX meeting room.

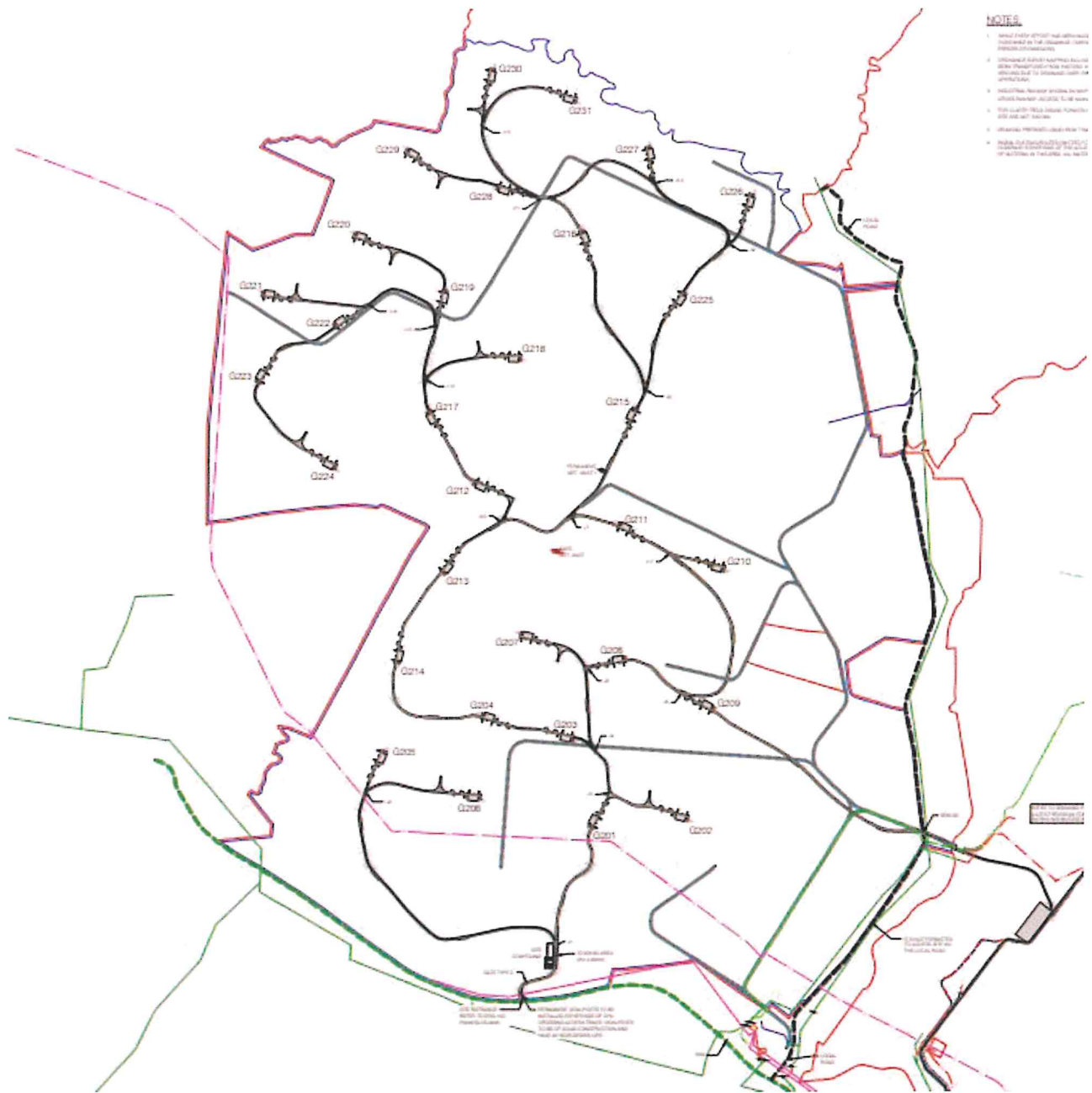
Loaded Vehicle Driver

The loaded vehicle driver will ensure all vehicle checks are carried out in accordance with company procedures. Vehicles must be driven legally, and all speed limits are to be adhered to. No persons to use mobile phones whilst driving or carrying out other tasks on the vehicle.

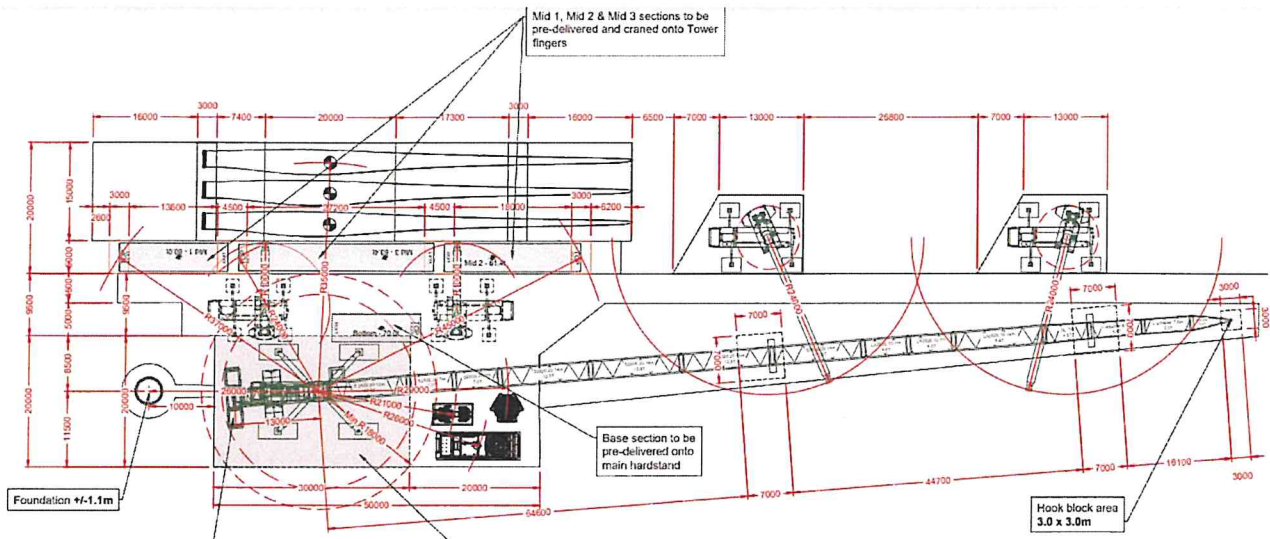
GARDA

The role of the Garda is to ensure safe passage of convoys and that the route is safe for all road users and pedestrians.

SITE:



Hard Stand Layout:



Pre-delivery schedule.

Blades first to hardstand, blade fingers.
Nacelle, Hub, Drive Train & Base tower.
Mid1, Mid2 & Mid3 to tower fingers.

Access for through road access between Mid2 tower & Base tower 6.5m!

TRAFFIC MANAGEMENT PLAN FOR SITE

Site Entrance

- Convoy will turn right from the N59 to site. Garda escort will provide traffic management to allow for each load in the convoy to make the right turn safely on to site and off the public roads.
- Access road from the site entrance to be entirely cleared of ALL parked vehicles, debris etc. Parking area when entering site for drivers to sign in or for induction first time at site.
- Deliveries will arrive to site in the early hours of the morning prior to site opening.
- Abnormal loads do not move on site roads in the dark. On arrival the convoy will park up and hold until daylight before proceeding to hard stand.
- The delivery vehicles must not stray off site road or use verges of any road.
- NORDEX must ensure that the road surfaces are safe, workable, and capable of withstanding axle loadings as detailed in the specification. (12,000ks per axle)
- Drivers must keep to the centre line of all site roads. However, if not possible, permission must be obtained from the site manager to authorise movement. When a steersman is required for manual steering, the steersman will follow guidelines in **WI 3010**.

- Soft steering or minor adjustments may be executed from the escort vehicle, all acute manual steering must be on foot. **If using manual steering drivers must not exceed 15kmph**
- All contractors working on site must be informed of the delivery transport to ensure that the site roads are kept clear. All oncoming vehicles **MUST** park in passing bays or reverse to allow access of the transport vehicle. The delivery vehicle must **NOT** manoeuvre off the centre of the site road to allow other traffic to pass. Component delivery in transit block the roads for access / egress to other traffic. Loaded vehicles must not deviate to make room for site traffic.
- If a vehicle leaves the site road it must stop immediately and report the incident to the site manager so an assessment of the situation can be carried out before any further action is taken to recover the vehicle.
- Vehicle must stay on site roads, bound, or unbound. Site road edges must be clearly marked.
- Where vehicles must reverse then a competent banksman will assist.
- Speed limit through the estate is 20kmph. This may be reduced to 10kmph in key areas.
- NORDEX site management to manage traffic from site when Mar-Train convoy on approach. Mar Train convoy to inform NORDEX site contact prior to arrival.
- If poor weather conditions effecting visibility or high winds, off-loading suspended on site, potential for Mar-Train to park on the hardstand. An inspection of the ground conditions required and to be agreed with NORDEX contacts before parking up.
- If required a towing aid/traction assist vehicle (TAV) on site/access roads for the deliveries. This will be used for each component delivery as required.

Trailer Steersmen

The Trailer Steersmen must wear suitable boots to reduce risk of injury from twisting their ankle should they stumble on uneven ground. The Steersman must wear a high visibility vest or coat. The driver must only take instructions from the steersman.

Loaded Dims:

As per example transport drawings, and abnormal load permits. Once submitted to county councils this document will be updated and load dimensions available for review.

Securing Equipment / Accessories

All accessories will be inspected by competent persons prior to use.

Only certified chains or slings will be used.

Copy certificates will be available for review.

EFFECT / IMPACT ON OTHER ROAD USERS

There are several areas that will impact other road users during the delivery of the components from harbour / storage area to site.

On route street furniture to be removed (see Route Survey) for transport to pass safely, and reinstate after each convoy, some street furniture may be replaced with temporary signage.

In the towns of Ballysdare, Ballina & Crossmolina parking restrictions will be in place and a vehicle recovery service on hand to remove any vehicles within the restricted areas.

Deliveries are scheduled to coincide with the restriction ref - section 11

TRAFFIC CONDITIONS

Prior to the convoy departing from Killybegs, checks must be carried out on the public highway to ensure that the route is clear and there are no additional hazards not previously highlighted in the Traffic Management Plan.

The Garda escort team will communicate any issues known that will impact the safe transit of the convoy.

Concerns due to severe weather will be communicated with site management to ensure conditions at site are suitable for safe delivery of components.

HOLIDAY'S & SPECIAL EVENTS

Local authorities and Garda will communicate details of public holidays, celebrations planned demonstrations, security issues, accidents, road works etc. that will affect transport along the designated route. All findings will be communicated, and the delivery schedule updated to reflect any changes.

Known holidays during delivery Schedule:

St Patricks Day, no deliveries 17th & 18th March.

Easter, no deliveries 15th & 18th April

May Day no delivery 2nd May

June Bank Holiday no delivery 6th June.

August Bank Holiday Min 1st Aug.

WEATHER CONDITIONS

Public highway

All loads to be transported during off peak times the load must not be moved on the public highway where visibility is impaired by mist or fog as this will prevent other road users from having clear vision of the load.

Site

The delivery must only take place where there is clear visibility of the site road. Where there is heavy rain on the site, conditions must be assessed by Mar-Train and PSCS to establish if the site roads are safe and suitable to allow passage of the transport.

If the site road is slippery, mud, wet, snow or ice the delivery vehicle must not be taken up steep gradients as there is a risk of the vehicle losing traction and slipping down/off the site.

When the convoy is already on site and weather prevents reaching the destination safely, a holding area must be agreed with site management and communicated to all on site. This may be a passing area, site compound, another hardstand.

If conditions are not suitable on site and communicated prior to departure from port it will be on agreement of the site management team and Mar Train that convoy movements will be cancelled, and components held at port until further notice.

VEHICLES REQUIREMENTS / MAINTANENCE FOR SAFE TRANSPORTATION

All Mar-Train vehicles have a regular service and are maintained to a high standard due to the type of work they are used for. Service documentation is available on request. All windows and mirrors must be clean to allow for clear vision at all times. An inspection sheet must be completed each week

Emergency equipment kept in the vehicle to include first aid kit and fire extinguisher.

Escort Vehicles will carry traffic cones, emergency triangles & beacons.

The GARDA escorting deliveries will also have a provision of lights & cones in case of an emergency.

Driving hours are to be in line with the Road Hauliers Association; max daily working hours break times etc.

Daily driving max 9 hours, this can be extended to 10 hours twice a week. Weekly driving is max 56 hour.

Drivers stay in their cabs over night or in a hotel where available.

Drivers will have access to welfare facilities on site.

All drivers' cabs are equipped with night heaters, fridges entertainment systems.

Driver to carry out daily checks on the vehicle prior to moving this includes, lights, tyres, load secure and there is sufficient fuel to carry out the following movement. If the fuel level is deemed too low, then the truck will be refuelled prior to movement.

MANAGEMENT OF INCIDENTS AND CONTINGENCY PLANNING

Emergency Procedures.

Fire

If a fire occurs on the vehicle, it should be tackled using the on-board fire extinguishers only if the personnel is safe to do so. For serious fires the fire brigade should be called immediately, and all personnel should be moved a safe distance away from the fire. Fire procedures for other site fires should be followed as instructed in the PSCS and NORDEX site induction.

First Aid

First aid boxes will be kept in all Mar-Train vehicles. The NORDEX first aider will be identified at the site induction and first aid will be carried out by the site first aiders. All Mar-Train staff are trained in emergency first aid.

Accident / near misses

All accidents and near misses will be reported to the Mar-Train office and NORDEX site manager and entered the accident book. Mar-Train accidents are to be reported in accordance with MART 03 Accident Reporting and Investigation Procedure.

Spills

Spills should be dealt with as soon as possible. The spill should be contained using spill kits that are kept on the vehicle. Any spills must be reported to Mar-Train Supervisor and the employee accident & incident report form must be completed and issued to Head Office as soon as practicable. The NORDEX site manager _____ should be contacted immediately to allow for the correct disposal of used spill kits.

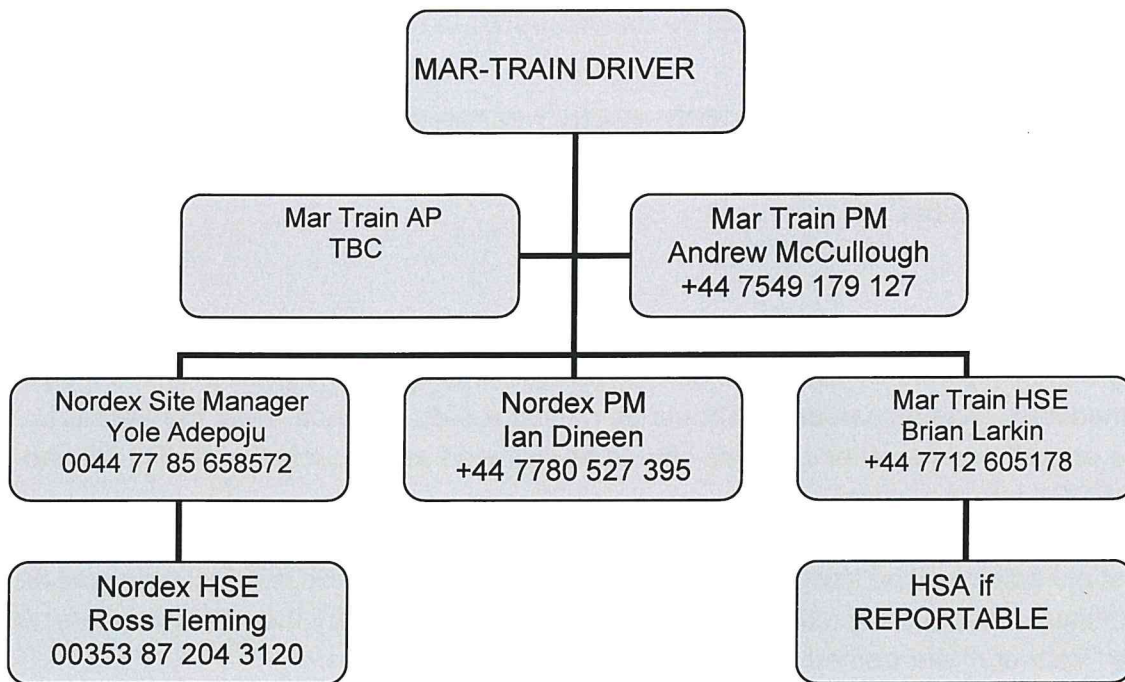
Engine / clutch failure.

In the event of an engine failure, the truck is moved to a safe location on site if it is safe to do so. An 8-metre sling will be used (SWL 57 tonne) to tow the vehicle to a safe location. Mar-Train to call out the vehicle recovery as detailed in the Recovery call out section. See Mar-Train Recovery contact numbers above in section 1.

Brake / clutch failure

The wheels of the load vehicle to have suitable timbers placed in front or behind the tires to prevent it from moving. Mar-Train to call out the vehicle recovery as detailed in the Recovery call out section.

INCIDENT CHAIN OF COMMAND – ALL INCIDENTS REPORTABLE WITHIN 30 MINS



INCIDENT/ACCIDENT – Driver’s instructions:

- Stop Immediately
- Stay Calm
- Assess the situation
- Call emergency service if required.
- Contact the Mar Train AP/ Supervisor.
- AP to inform NORDEX Site Manager & Mar-Train H&S Advisor immediately.
- Cordon off area (with cones) to make safe
- Wait on instructions from MD Tim Martin +44 7801 131723

Local Hospitals.

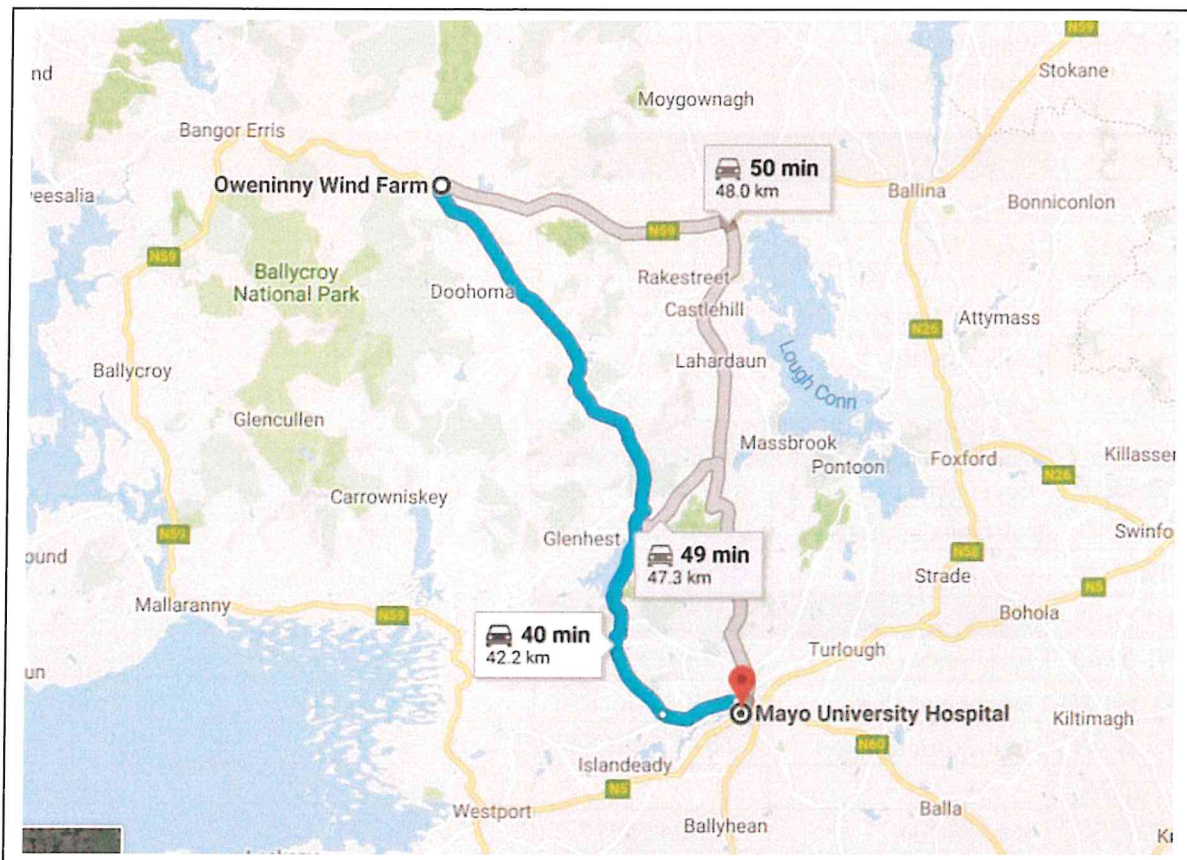
Mayo University Hospital

Westport Road

Curragh, Castlebar

Co. Mayo VM2W+RP

+353 94 902 1733



CONTACT NUMBERS – MAR- TRAIN HEAVY HAULAGE LTD

Registrations	Driver names	Own Mobile Numbers
T15 MHH	Phillip McCullough	07888 726 415
T16 MHH	Paul Bird	07786 625 076
T18 MHH	Ian McCarthy	07902 488 394
T22 MHH	Gareth Massey	077 42776863
T23MHH	Jim Moore	07595 754199
T27 MHH	John Bernard	0746 5869568
T44 MHH	Paul Martin	0779 1345648
T55 MHH	Marty McClean	07850691618
X11 MHH	Brian Lynam	07885 979 325
T500 MHH	Wayne Lough	07510 090 703
BT15 LDV	Madalin-Adrian Bocan	40733788708
Irish lorries		
141 L 1674	Kris Rea	0771 5535470
152 C 999	James Dunn	07917 730680
161 C 14 111	Francis Ewart	0739 2082649
171 L 4272	Philip James	07450 826 119
171G3110	Micky Hogg	07533 754445
Mechanics		
MA16 OBE	David Gillespie	077 64177454
MJ16 PPK	Michael Campbell	07549 178 826
WV 12 PHA	Chris Carnduff	0776 3276472
Escort Vans		
151 C 9742	Willy Welsh	07754 399612
171 C 10620	Stephen Mather	0772 8330 750
YG16 BYN	Jonny Crookshanks	07841 1010547
XV 72229		
ZH56209	Billy Mellor	74624212177
ZH56211	Tim Shillington	07460 882 275
ZH56207	David Sutherland	07468 563 956
XV72230	David Bradford	07769 359 439
	Lee Matthews	07516 713290

RECOVERY PLAN

CLIENT: NORDEX	CONTRACT: Oweninny Wind Farm deliveries
DATE: 15/12/2021	LOCATION: Killybegs – Oweninny Ireland

IN THE EVENT OF A ROAD TRAFFIC ACCIDENT:

- Stop immediately.
- Stay Calm, no matter who was at fault – do not become aggressive.
- Assess the situation and phone the head office – if necessary, call an ambulance.
- Keep your vehicle as near to the point of impact as possible.
- Give on demand, your name, company name, address, and insurance details.
- You may be requested to make a statement to the Garda – you are not obliged to do so and should take advice before making any statement.
- If it is necessary and if it is safe to do so, take measurements and sketch the scene before moving your vehicle.
- Do not drive your vehicle unless you are sure it is safe to do so.
- Do not admit liability.
- Complete an insurance accident form including a full and detailed account of the accident and return to the health and safety co-ordinator – Andrew McCullough.

IN THE EVENT OF A BREAKDOWN OR TRANSIT INCIDENT:

- Stop immediately and park your vehicle safely if possible.
- Use hazard lights and red triangles to warn other road users.
- Assess the situation and report the incident to the head office – if necessary, first call an ambulance in the event of injured personnel.
- Depending on the nature of the breakdown/incident, you will be instructed by a member of the transport staff on how to proceed.
- Do not drive your vehicle unless you are sure it is safe to do so.
- In the event of a transit incident, make a full and detailed account of the incident and return to the health and safety co-ordinator – Andrew McCullough.

EMERGENCY CONTACT NUMBERS:

Head office: +44(0)28 92 639499
Mechanic- Michael Campbell: +44(0)7549 178826
Recovery vehicle – Sean McCarthy – 00353 87 251 6330
Volvo 24hr Breakdown Assistance: 0800 929292
Scania 24hr Breakdown Assistance: 0800 800660
Merc 24hr Breakdown Assistance: 0800 800644
DAF 24hr Breakdown Assistance: 0800 919395

Bridgestone Tyres: 00353 (1) 902 0111
Membership 1856, PIN 8241
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Appendix A Route Survey Report

Pell Frischmann

Oweninny II Wind Farm

Route Survey Report



July 2021
103946

Revision Record

Document2

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1 Introduction

1.1 Purpose of the Report

Pell Frischmann (PF) has been commissioned by Nordex to undertake a desktop route survey review of the Abnormal Indivisible Load (AIL) delivery route for wind turbine loads associated with the construction and development of phase 2 of the Oweninny Wind Farm, located to the east of Bellacorick, County Mayo.

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

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

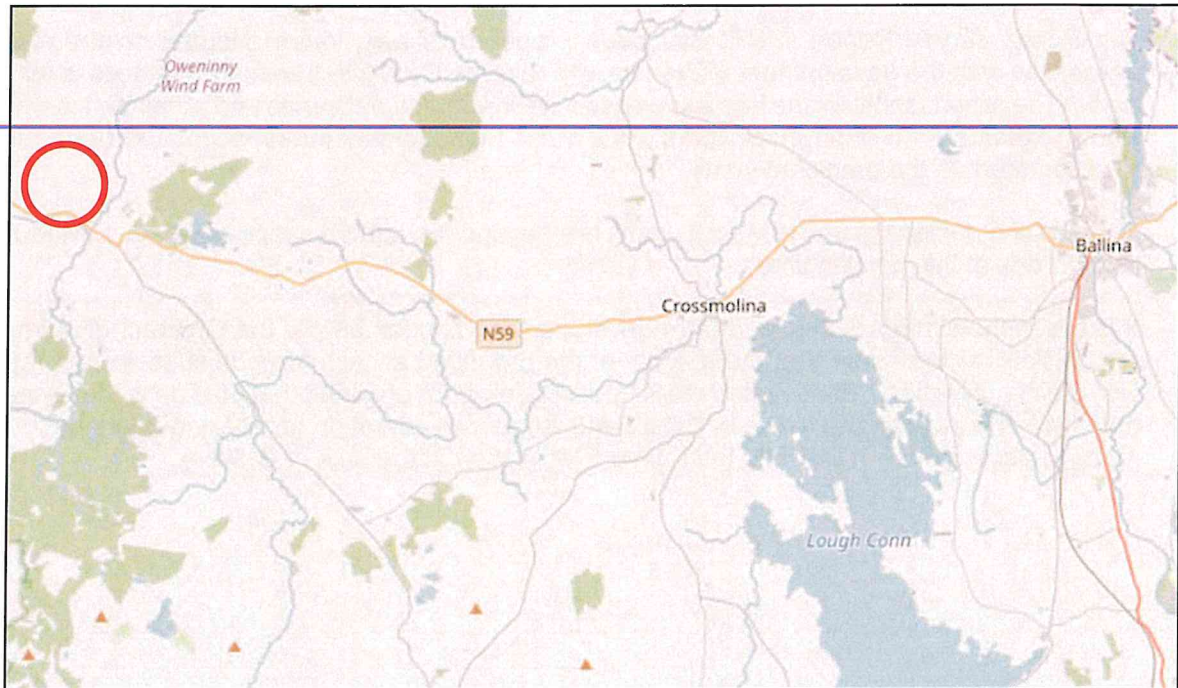
It is the responsibility of the wind farm developer and Nordex as per the Contract divisions of responsibilities to ensure that the entirety of the proposed access route is suitable and meets with their satisfaction. The developer will be responsible for ensuring that the finalised proposals meet with the appropriate levels of health and safety consideration for all road users has been made in accordance, in line 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 Bellacorick, County Mayo. Figure 1 illustrates the general site location.

Figure 1: Site Location Plan



2.2 Candidate Turbines

Nordex have indicated that they wish the assessment to be based the 'worst case' components from either the N117/3000 or N117/3600 on the TS120 tower. Tower and blade dimensions have been supplied by Nordex and are indicated below in Table 1.

Table 1: Turbine Dimensions

Section	Length (m)	Width (m)	Height (m)	Weight (t)
Blade	57.614	3.221	3.295	13.140
Nacelle Housing	12.810	4.300	4.000	59.860
Drive Train	12.810	4.300	4.000	64.370
Top Tower	34.210	4.020	3.260	52.800
Mid 3 Tower	29.940	4.260	4.020	66.400
Mid 2 Tower	21.040	4.260	4.260	66.400
Mid 1 Tower	18.120	4.270	4.260	67.100
Base Tower	13.530	4.300	4.270	73.800

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 Superwing trailer to reduce the need for mitigation in constrained sections of the route. A 12m overhang has been assumed.

Mar-Train Heavy Haulage have confirmed that the base towers would be carried using a 4+7 clamp adaptor style trailer. The mid towers will be carried on 7 axle step frame trailers and loads such as the hub, nacelle housing and top towers would be carried on 5 axle step frame trailer.

Due to the additional height clearance requirements for the carriage of the mid and top towers on the step trailers, the developers should ensure that a 5.5m height clearance envelope is available along the route.

Figure 2: Superwing Carrier Trailer



Figure 3: Tower Clamp Trailer



Figure 4: Tower Step Trailer



The swept path assessments have been based upon the blade and mid-section tower 3 carried on the 7 axle step trailer to represent the worst case assessment loads. The base in clamps and the top tower on a 5 axle step trailer have also been assessed at the four most constrained locations for completeness. These sections provide the most onerous case for assessment of the route.

3 Access Route Review

3.1 Access Route

All results described below are based upon a desk top assessment of the access route as agreed with Nordex and due to travel restrictions associated with the Covid 19 outbreak. Previous experience of the route and information provided by ESB has been utilised as part of the assessment.

PF have utilised drawings provided by ESB for the original Oweninny deliveries to minimise the requirement for new works. A full site visit will be required to confirm that previous works have been retained and are available for use by future deliveries.

Killybegs harbour has been used extensively for the delivery of wind turbine components including for the original Oweninny Wind Farm deliveries. It has excellent network access onto the N56.

Loads can be offloaded by geared vessels or onshore mobile cranes.

The proposed access route to the site access junction is as follows:

- Loads would exit Killybegs Harbour via the main gate onto the Shore Road which becomes the R263 Donegal Road;
- Loads would turn right onto the N56 continuing east to the N56 / N15 Roundabout at Donegal Town where they would continue south on the N15;
- Loads will continue south and west on the N15 to Sligo where they will continue onto the N4;
- Loads will depart the N4 north of Balladrihid and continue onto the N59;
- Loads would continue west on the N59 to the outskirts of Ballina;
- Loads would turn left from the N59 onto the Bunree Road;
- Loads would turn right from Bunree Road onto the R294;
- Loads would continue west contraflowing the one way system on Tone Street;
- Loads would continue west onto McDermott Street to Gurteen Roundabout where they would join the N59 again; and
- Loads will continue west through Crossmolina to the proposed wind farm site entrance.

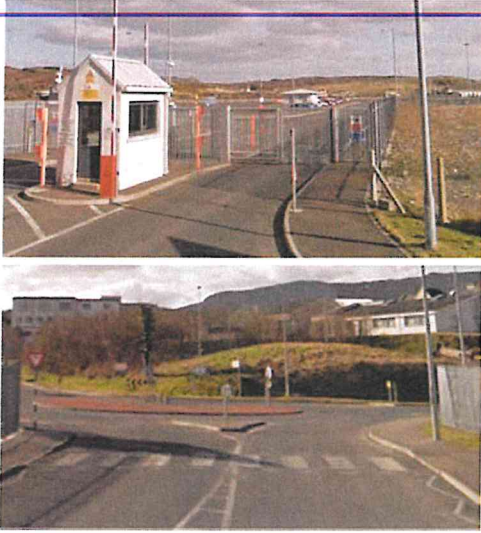
The proposed access route is illustrated in Figure 5.






3.2 Route Constraints




The constraints noted in the review are detailed in Table 2. These cover all constraints from the port access gates through to the site access junction.






Plans illustrating the location of the constraints and a detailed list of POI are provided in Appendix A.





Table 2: Constraint Points and Details





POI	Key Constraint	Details
1, 2	<p>Killybegs Port and Fire Station Road</p> 	<p>Loads will exit Killybegs Harbour.</p> <p>Blade loads will utilise the existing main port exit gate when leaving the quay. Tower loads will if possible, divert through the storage area to the south in order to bypass the gatehouse and remove the requirement for mitigation. This manoeuvre should be confirmed during the final test run.</p> <p>Loads will oversail the splitter island on entry to the Fire Station Roundabout where two road signs should be removed. Loads will oversail the eastern edge of the roundabout island where one road sign should be removed. Loads will oversail the eastern footway and verge on the inside of the right movement where one road sign should be removed.</p> <p>All signs should be made suitable to allow for the removal prior to load movements and reinstatement after the convoys have passed.</p>


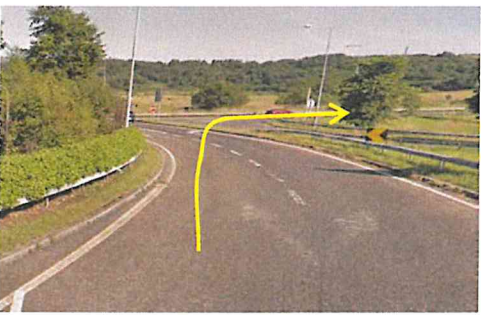


POI	Key Constraint	Details
3	<p>N59 Bends South East of Bruckless</p> 	<p>Loads will continue south on the N59.</p> <p>It is recommended that the vertical clearance is reviewed during the test run and that loads transit the section under caution.</p> <p>Loads will oversail both verges through the initial left and right bends.</p> <p>Loads will oversail both verges through the following right bend. The haulier should note that clearances to the utility pole in the eastern verge are constrained.</p>
	 	<p>Clearances to bollards and vegetation are constrained. If these are removed / trimmed, then access would be improved.</p>
4	<p>N56 Left Bend Leitir</p> 	<p>Loads will travel south and east through the left bend.</p> <p>Loads will oversail verges on both the inside and outside of the left bend however no physical mitigation is required.</p>
5	<p>N56 West of Dunkineely</p> 	<p>Care should be taken due to parked vehicles through the village.</p> <p>Escorts should provide advanced warning to oncoming vehicles.</p>

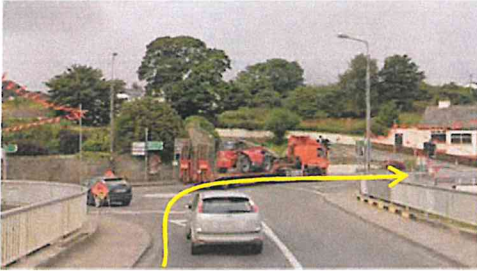


POI	Key Constraint	Details
6	<p>N56 Donegal</p> 	<p>Clearances to the street furniture at gateway feature is constrained for wider loads.</p> <p>Loads to wrong side the island to allow greater clearance to street furniture. Escorts to holding oncoming traffic in advance of the island.</p>
7	<p>N56 / R925 Roundabout</p> 	<p>Loads will continue north east through the roundabout.</p> <p>No mitigation measures are required to negotiate the roundabout.</p>
8	<p>N56 / N15 Roundabout</p> 	<p>Loads will continue south through the roundabout onto the N15.</p> <p>Loads will oversail the northern verge of the roundabout where the blade tip will oversail the safety barrier and traffic sign. The vegetation should be trimmed.</p> <p>Loads will oversail the north and eastern edges of the roundabout island where the traffic signs should be removed.</p> <p>The blade tip will oversail the eastern approach road splitter island. The traffic signs will be oversailed.</p>





POI	Key Constraint	Details
9	<p>N15 / R267 Roundabout</p> 	<p>Loads will continue south west through the roundabout.</p> <p>Loads will oversail the south eastern verge on approach to the roundabout where one traffic sign should be removed.</p> <p>Loads will utilise an area of existing load bearing surface on the central island where traffic signs and vegetation should be removed.</p>
		<p>Loads will utilise an existing overrun area on the south eastern verge on exit from the roundabout.</p>
10	<p>A83 Low Ballevain</p> 	<p>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.</p>
11	<p>N15 / R231 Roundabout</p> 	<p>Loads will turn left through the roundabout and continue south on the N15.</p> <p>Loads will oversail the northern verge on approach to the roundabout. Loads will oversail the inside verge through the left movement and one traffic sign should be removed. Clearances over the safety barrier are limited and care should be taken.</p>
12	<p>N15 / R267 Roundabout 1</p> 	<p>Loads will continue west through the roundabout.</p> <p>Loads will oversail the southern verge on approach and overrun the southern edge of the roundabout island where an existing overrun area will be utilised and extended as required.</p>




POI	Key Constraint	Details
13	<p>N15 / R267 Roundabout 2</p> 	<p>Loads will turn left through the roundabout and continue west on the N15.</p> <p>Loads will oversail the southern verge through the junction, however there is no requirement for physical mitigation measures.</p>
14	<p>N15 Clifony</p> 	<p>Care should be taken when transiting past the traffic islands within the town due to reduced clearances.</p>
15	<p>N15 Ballincastle</p> 	<p>It is strongly recommended that a full overhead utility search is carried out along the route to ensure that height clearances are suitable for normal temperature ranges.</p>
16	<p>N15 East of Grange</p> 	<p>Care should be taken when transiting past the traffic islands within the town due to reduced clearances.</p>



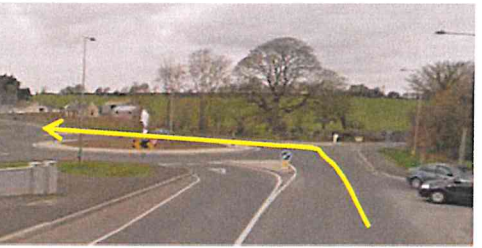

POI	Key Constraint	Details
17	<p>N15 Grange</p> 	<p>Care should be taken when transiting past the traffic islands within the town due to reduced clearances.</p>
18	<p>N15 Cullagh Beg</p> 	<p>Care should be taken when transiting past the traffic islands within the town due to reduced clearances.</p>
19	<p>N15 South of Drumcliff</p> 	<p>Care should be taken when transiting past the traffic islands within the town due to reduced clearances.</p>
20	<p>N15 Tullyhill</p> 	<p>Care should be taken when transiting past the traffic islands within the town due to reduced clearances.</p>

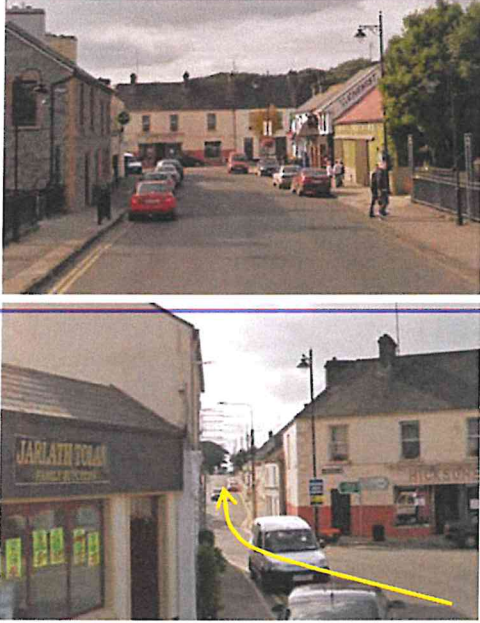


POI	Key Constraint	Details
21	<p>N4 / An Cuarbhothar Roundabout</p> 	<p>Loads will continue south through the roundabout.</p> <p>Loads will oversail the eastern verge on approach and the eastern edge of the roundabout island through the junction. No physical mitigation is required.</p> <p>Swept path assessment SK11 is included in Appendix B.</p>
22	<p>N4 / N59 Junction</p> 	<p>Loads will depart the N4 using the offslip and turn right onto the N59 travelling south.</p> <p>Loads will oversail the northern verge on approach to the junction.</p> <p>Loads will cross the central reserve on approach to the junction utilising the existing overrun area. This will need to be extended with a load bearing surface and two traffic signs should be removed.</p> <p>Loads will oversail the western verge on exiting the junction. Trailer suspension should be raised to allow loads to oversail the safety barrier.</p>
23	<p>N59 Knockmuldoney</p> 	<p>Loads will occupy the entire carriageway through the bend. Traffic should be held in advance of the section. Vegetation should be trimmed back on both sides of the road.</p>
24	<p>N59 Right Bend, Ballysadare</p> 	<p>Loads will continue through the right bend on the N59.</p> <p>Loads will oversail both footways through the right bend. Mar-Train test run indicates that no further works are required to negotiate the section.</p> <p>Parking in this section must be banned during deliveries as per the arrangements for the original Oweninny deliveries.</p>



POI	Key Constraint	Details
25	<p>N59 / R290 Ballysadare Right Bend</p> 	<p>Loads will continue through a constrained right bend following the bridge.</p> <p>On approach to the bend, the blade tip will oversail the eastern bridge parapet and pedestrian guardrail into third party land.</p> <p>Loads will overrun and oversail the inside of the bend where one traffic sign should be removed. A load bearing surface should be laid. Trailer suspension settings should be raised to allow oversail of the pedestrian guardrail.</p>
		<p>Loads will utilise the original overrun area to the south of the road where all street furniture should be removed.</p> <p>Third party land rights will be required at this location. The proposed works can generally be accommodated within the previous Oweninny delivery boundaries. A shape file containing the overrun and oversail areas is provided to allow the developer to review their areas against those required for Nordex deliveries.</p> <p>An additional swept path assessment has been provided showing the blade tip overhang at the rear of the vehicle set to 6m as requested by Nordex. This can be found in Appendix C.</p>
26	<p>N59 Lugawarry</p> 	<p>Loads will occupy the entire carriageway width through this section. Traffic should be held in advance of the bend section and clearances should be confirmed during the test run.</p>
27	<p>N59 West of Beltra</p> 	<p>Loads will occupy the entire carriageway width through this section. Traffic should be held in advance of the bend section and clearances should be confirmed during the test run.</p> <p>Throughout the route, the tree canopy needs to be trimmed to provide a clear 5m head height and the side vegetation cut back to improve forward visibility.</p>

POI	Key Constraint	Details
28	<p>N59 Dromore West</p> 	<p>Loads to take care through the location due to reduced clearances passing the street furniture.</p>
29	<p>N59 Dromore West</p> 	<p>Loads to take care through the location due to reduced clearances passing the street furniture.</p>
30	<p>N59 West of Culleens</p> 	<p>The vertical profile of the road at this location is pronounced and loads should pass with care.</p>
31	<p>N59 / Bunree Bridge Junction</p> 	<p>Loads will turn left from the N59 onto Bunree Road.</p> <p>The blade tip will oversail the bridge parapet into third party land to the north.</p> <p>Loads will oversail the bridge into third party land on the inside of the left turn where a section of guardrail should be removed. Cantilever traffic signals should be moved to allow oversail. A pedestrian call post should be removed.</p> <p>The proposed works can generally be accommodated within the previous Oweninny delivery boundaries with the exception of the utility pole. A shape file containing the overrun and oversail areas is provided to allow the developer to review their areas against those required for Nordex deliveries.</p>

POI	Key Constraint	Details
32	<p>Bunree Road / R294 Junction</p> 	<p>Loads will turn right from Bunree Road onto the R294.</p> <p>On approach to the junction, loads will oversail the eastern footway into third party land where two bollards, one road sign and one lighting column should be removed.</p> <p>Loads will utilise and extend the existing overrun and oversail area on the inside of the right bend where a load bearing surface should be laid. All street furniture should be removed. Third party land required.</p>
		<p>Loads will utilise and extend the existing overrun area in the footway to the south of the R294 and all street furniture should be removed.</p> <p>The proposed works can generally be accommodated within the previous Oweninny delivery boundaries. A shape file containing the overrun and oversail areas is provided to allow the developer to review their areas against those required for Nordex deliveries.</p>
33	<p>N59 Tone Street</p> 	<p>Loads will continue straight ahead onto Tone Street and travel against the one way system.</p> <p>A robust parking restriction must be put in place throughout Tone Street during deliveries to allow loads to pass unhindered through the one way system.</p>
34	<p>Tolan Street / Tone Street</p> 	<p>Loads will continue through the one way system. The system will have to be suspended with traffic held in advance of the section and parking temporarily removed during load movements.</p> <p>It is recommended that early discussions are held with the road authority.</p> <p>Mar-Train have indicated in their test run report that they wish the trees to be pruned down to avoid damage to the blades.</p>

POI	Key Constraint	Details
35	<p>McDermott Street Double Bend</p> 	<p>Loads will continue northwest on McDermott Street against the one way system flow.</p> <p>No mitigation will be required subject to parking being restricted during deliveries through this location.</p> <p>Escorts to hold oncoming vehicles in advance of the bend as loads will occupy the entire carriageway.</p>
36	<p>McDermott Street</p> 	<p>Loads will oversail the traffic calming build outs and associated street furniture.</p> <p>Following the Mar-Train test run they have advised that parking should be suspended during load movements.</p>
37	<p>L1109 / N59 Gurteens Roundabout</p> 	<p>Loads will oversail the north eastern verge on entry to the roundabout where vegetation should be trimmed.</p> <p>Loads will oversail the northern edge of the roundabout island where two chevron signs should be removed.</p>
38	<p>N59 Crossmolina</p> 	<p>Loads will continue west on the N59 entering the town of Crossmolina.</p> <p>Two traffic bollards and one traffic sign could be removed from the traffic island and that the town entry sign on the left could be rotate 90 degrees to provide additional clearance. These works are optional.</p> <p>It is strongly recommended that a full overhead utility search is carried out along the route to ensure that height clearances are suitable for normal temperature ranges.</p>

POI	Key Constraint	Details
39	<p>N59 Crossmolina</p> 	<p>Loads will negotiate the constrained chicane within Crossmolina.</p> <p>Crossmolina is the major constraint on the route and the clearances to the buildings are minimal and must be driven at caution.</p> <p>Loads will oversail the northern footway where all street furniture should be removed. Parking should be suspended during deliveries and pedestrian movements will need to be held.</p> <p>Loads will oversail the southern footway at the apex of the left bend. All street furniture will need to be cleared from the oversail area. There is minimal clearance to the shop front.</p> <p>Loads will overrun and oversail the northern footway through the section. The previous overrun area should be utilised and extended, and street furniture removed.</p>
40	<p>N59 Approaching the Existing Oweninny Wind Farm Site Entrance</p> 	<p>It is evident that the carriageway is deteriorating through this location. It is recommended that vehicles are not allowed to travel close to the road edge and pass through the section slowly.</p> <p>Further along the route, extensive resurfacing is evident.</p>
41	<p>N59 / R312 Junction</p> 	<p>Loads will need to continue on the N59, proceeding westbound at this junction.</p> <p>The junction is highly constrained and as such it proposed that blade loads turn right into the Oweninny Phase 1 site access and then reverse down to the junction, running onto the R312 arm of the junction. Loads will then proceed ahead onto the N59 in a forward gear.</p> <p>Over-run plating will be required and the requirements for this have been confirmed in the Mar-Train Test Run of this manoeuvre (see Test Run Report of 17th May 2019). The results of this have been accepted by Nordex.</p>

POI	Key Constraint	Details
42	<p>N59 Bellacorrick Musical Bridge and Bends</p> 	<p>Loads will continue westbound. Caution is required when passing over the bridge at Ballacorrick.</p> <p>To the west of the bridge, loads will straddle the road centre line. The lead escorts should hold oncoming traffic at the site entrance junction (POI 43)</p>
43	<p>N59 Site Access Junction</p> 	<p>Loads will turn right into the new site entrance.</p> <p>The site entrance will need to be designed to accommodate the proposed components. The upgrades will be required to meet the local road authority standards and Nordex guidelines.</p>

3.3 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 caseloads at each location.

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 (OSI) base mapping.

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 OSI base mapping or client supplied data. Confirmation should be sought that all works associated with the original Oweninny deliveries are still available for use and that street furniture has been cleared.

3.4 Weight Review

As per our agreed scope a weight review has not been undertaken. We would strongly advise that a weight review is completed at a later stage to ensure that there are no further constraints on the proposed route.

3.5 Summary Issues

We understand from Nordex that a trial run to simulate the length of a blade trailer was successfully completed. Prior to deliveries, it is suggested that the following actions are undertaken:

- 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; 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 Nordex to prepare a desktop Route Survey Report to examine the issues associated with the transport of ALL turbine components to the development site.

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

The access review has been based upon a worst case of a Nordex N117 turbine sections and has been undertaken on the basis of a superwing carrier trailer and towers carried on 5 and 7 axle step trailers.

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

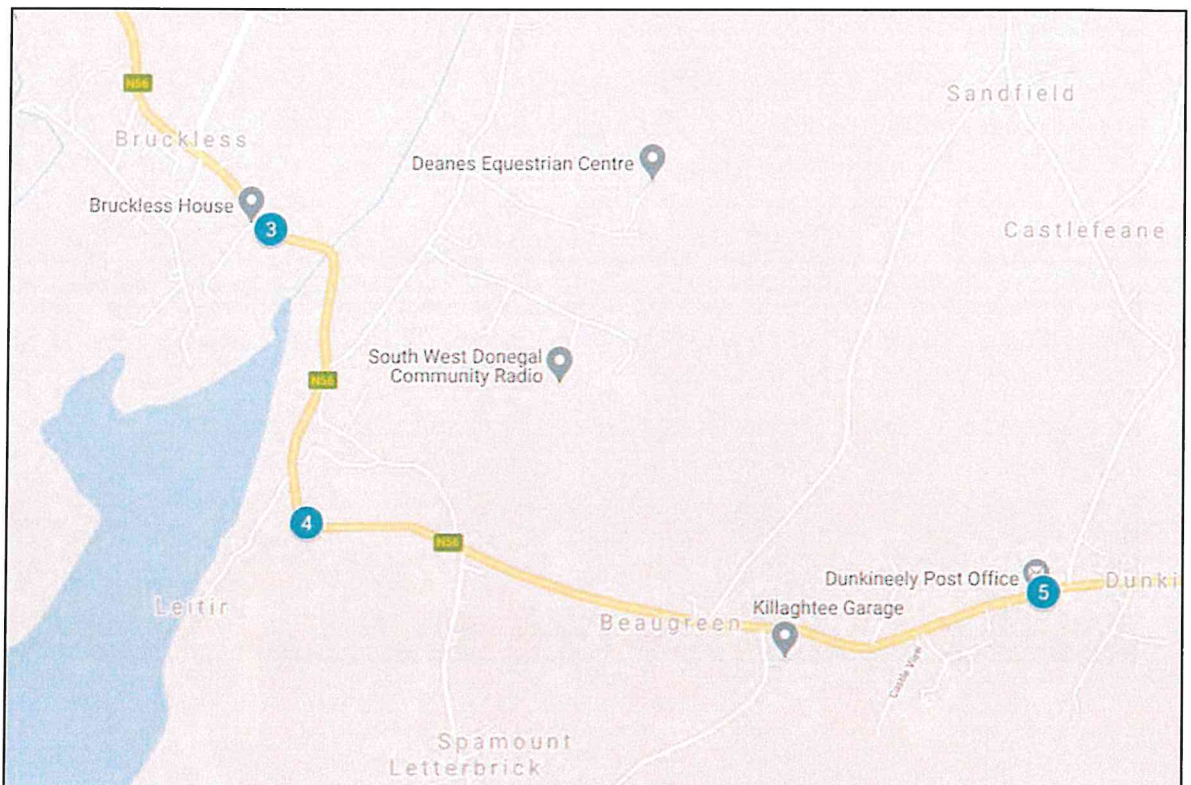
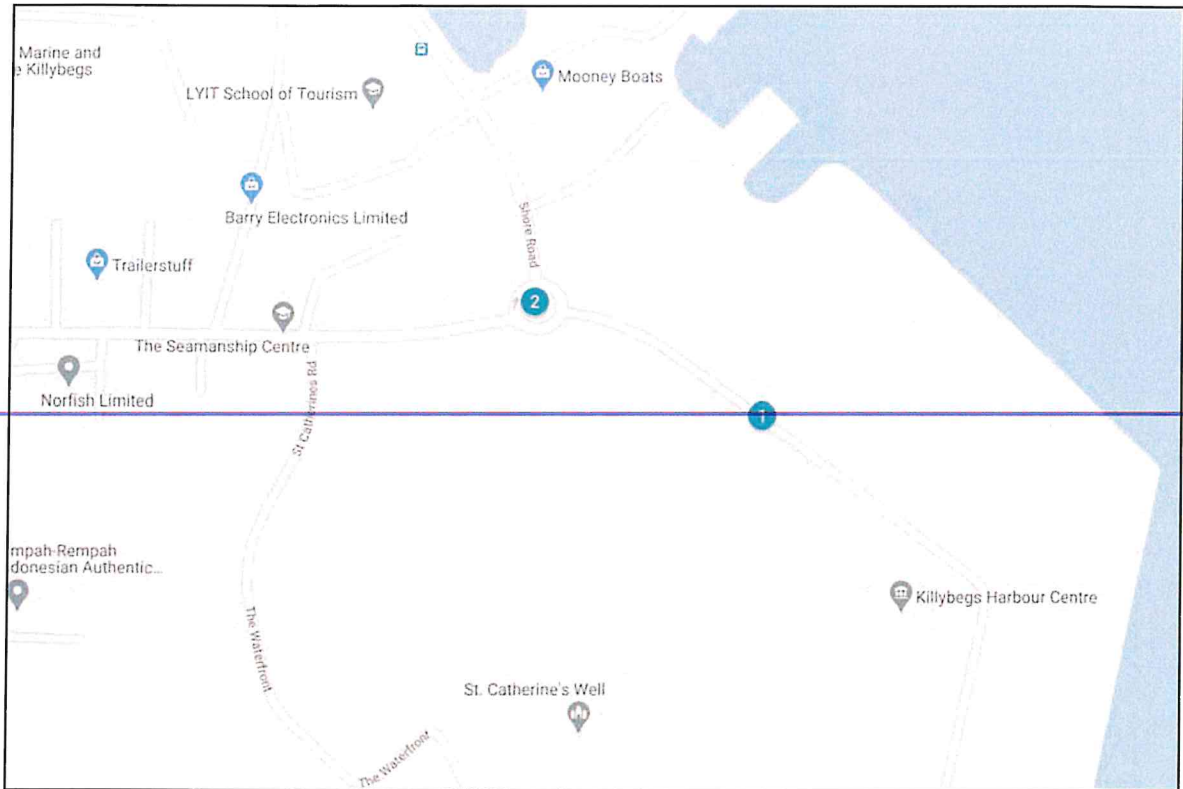
4.2 Further Actions

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

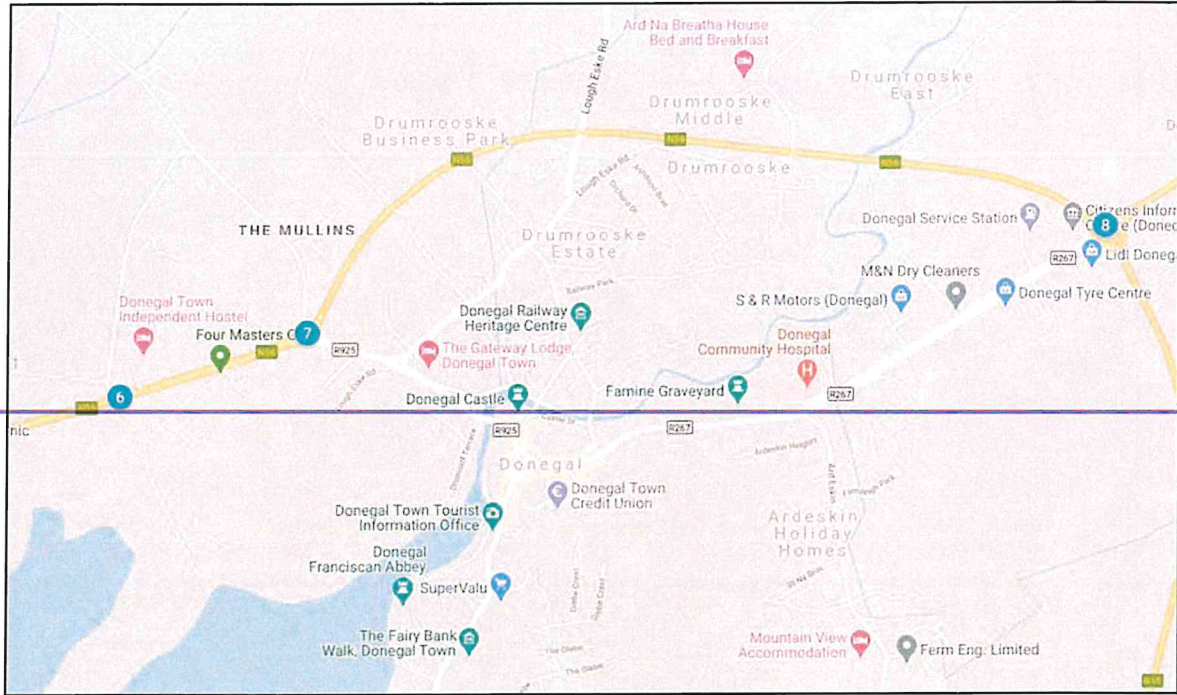
- Obtain the necessary land rights;
- Prepare detailed mitigation design proposals to help inform consultee / licence discussions;
- Undertake discussions with the affected utility providers and roads agencies;
- Obtain the necessary statutory licences to enable the mitigation measures; and
- Develop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

Appendix A Points of Interest Locations

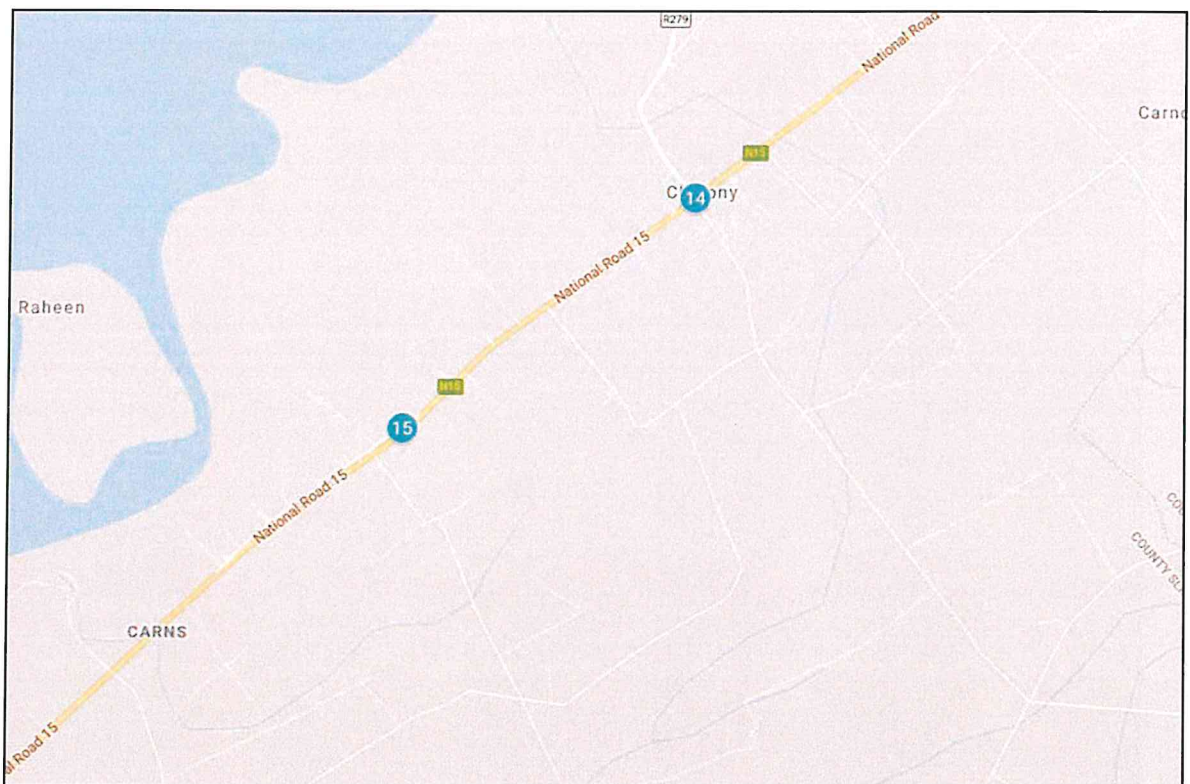
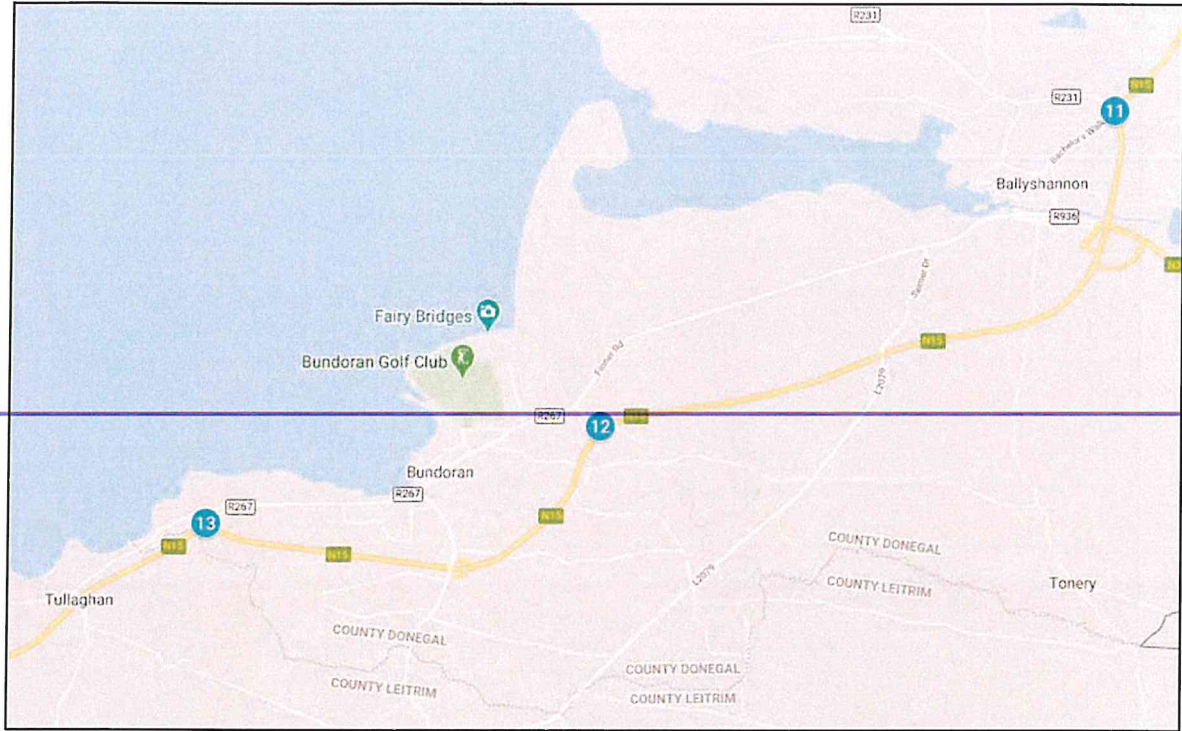
Oweninny II Wind Farm RSR

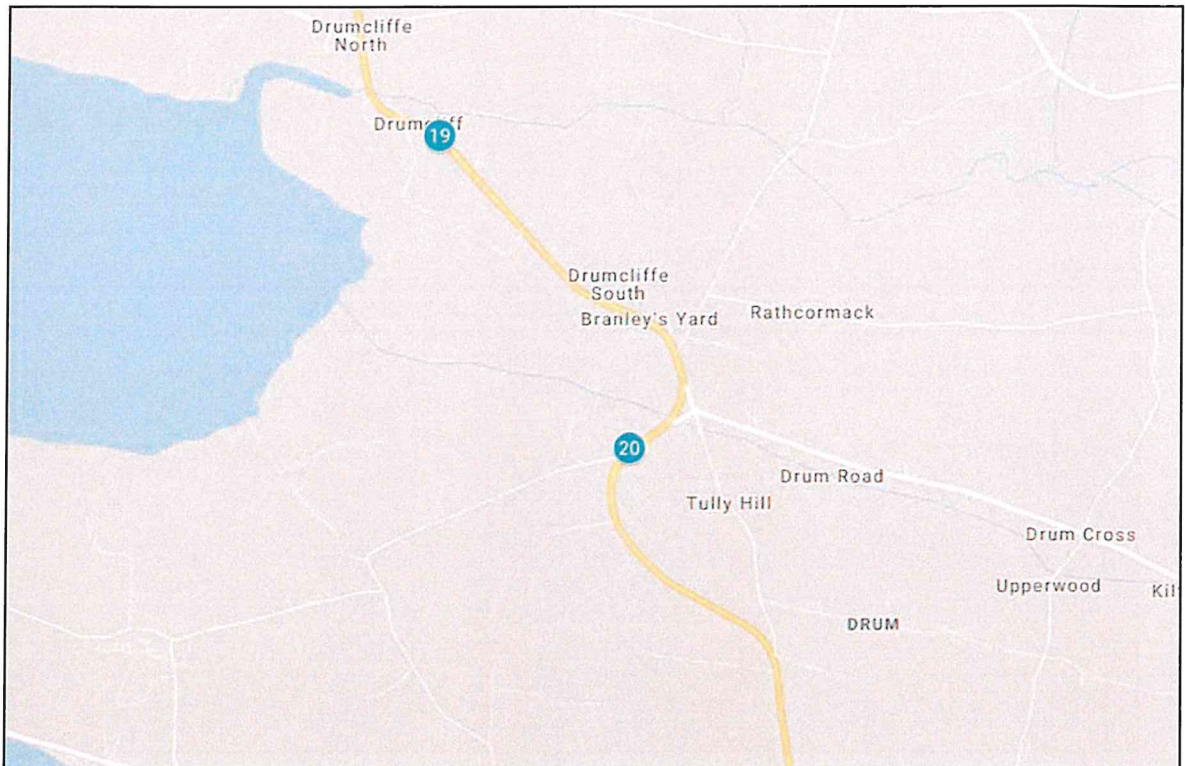
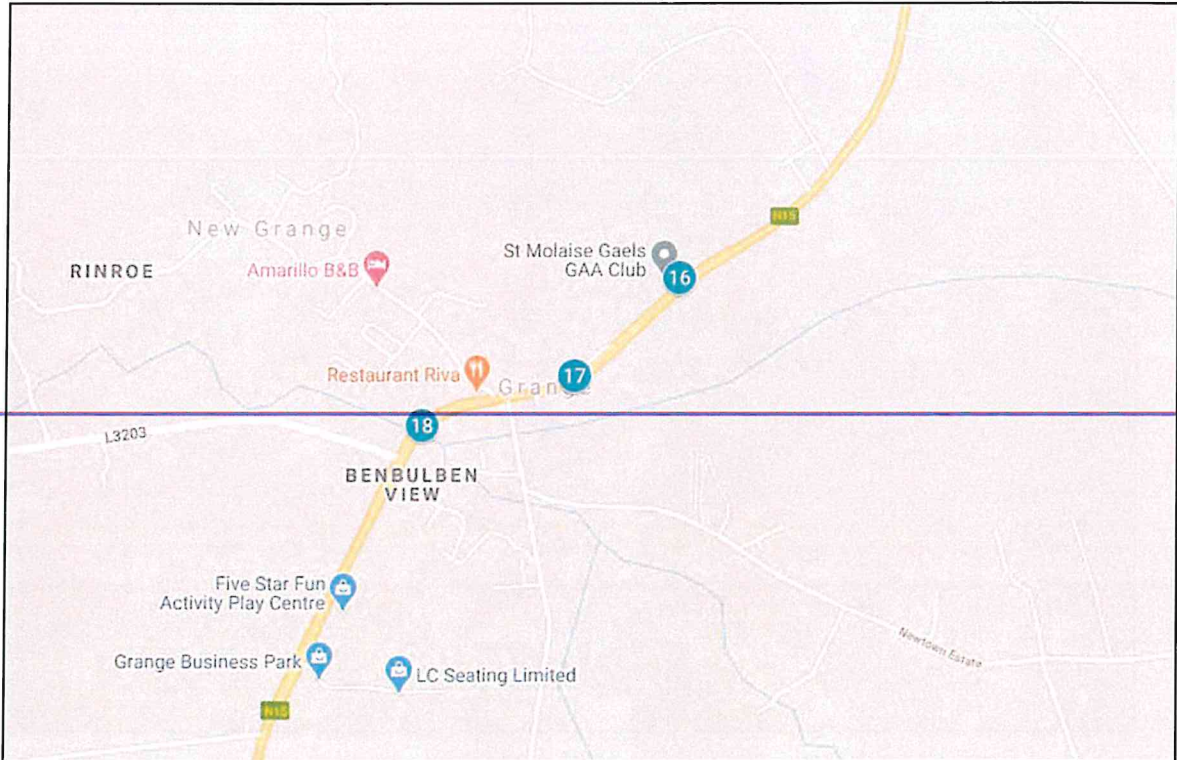


Oweninny II Wind Farm RSR

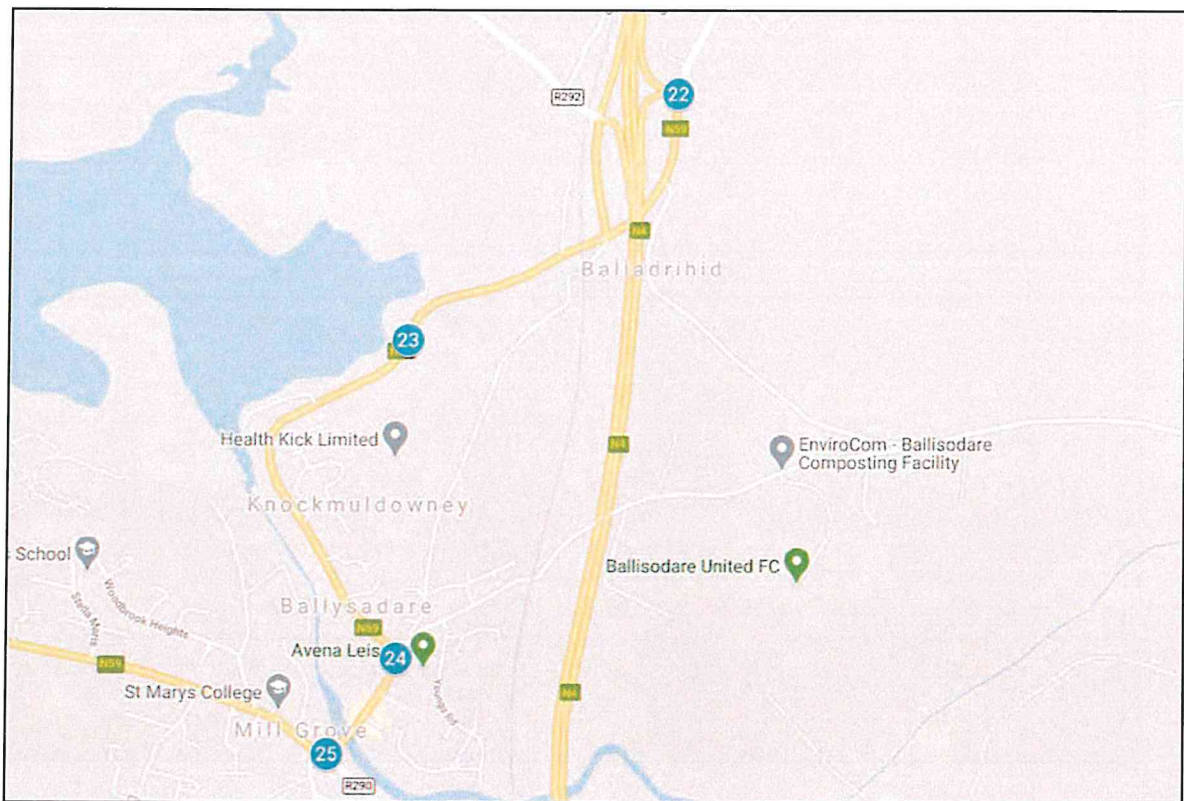
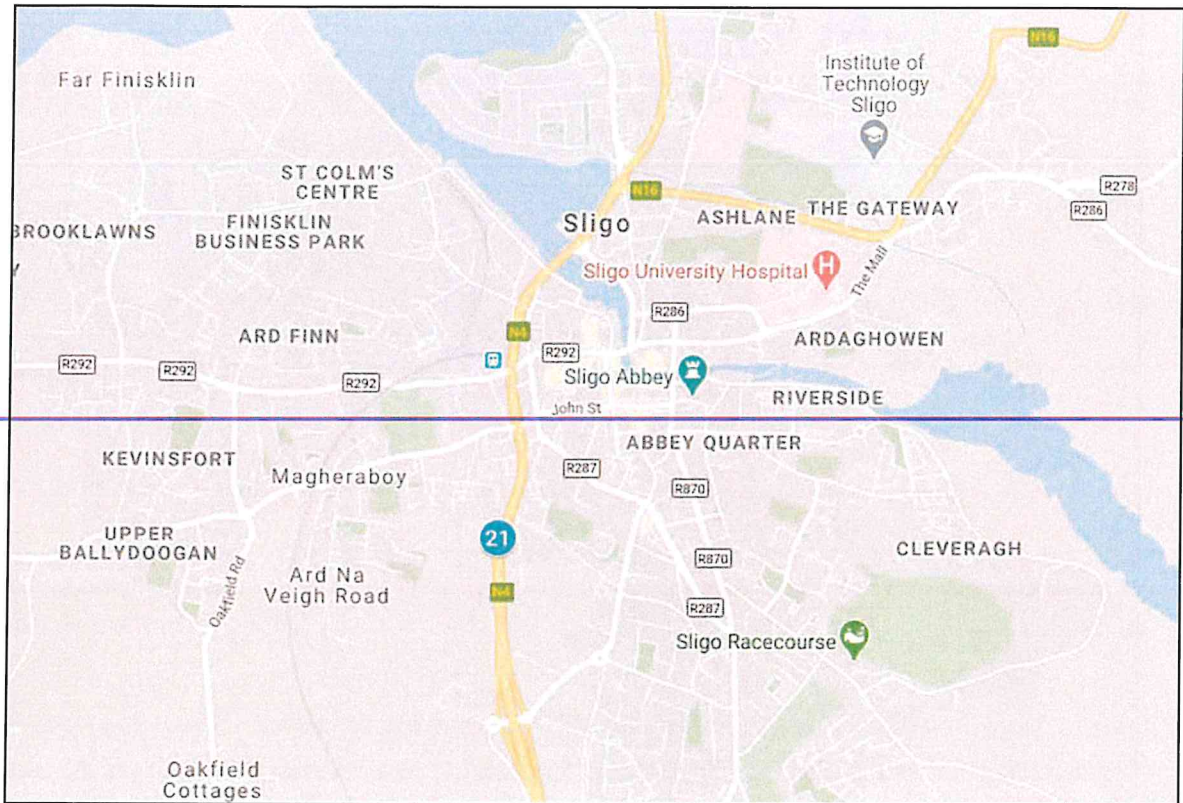


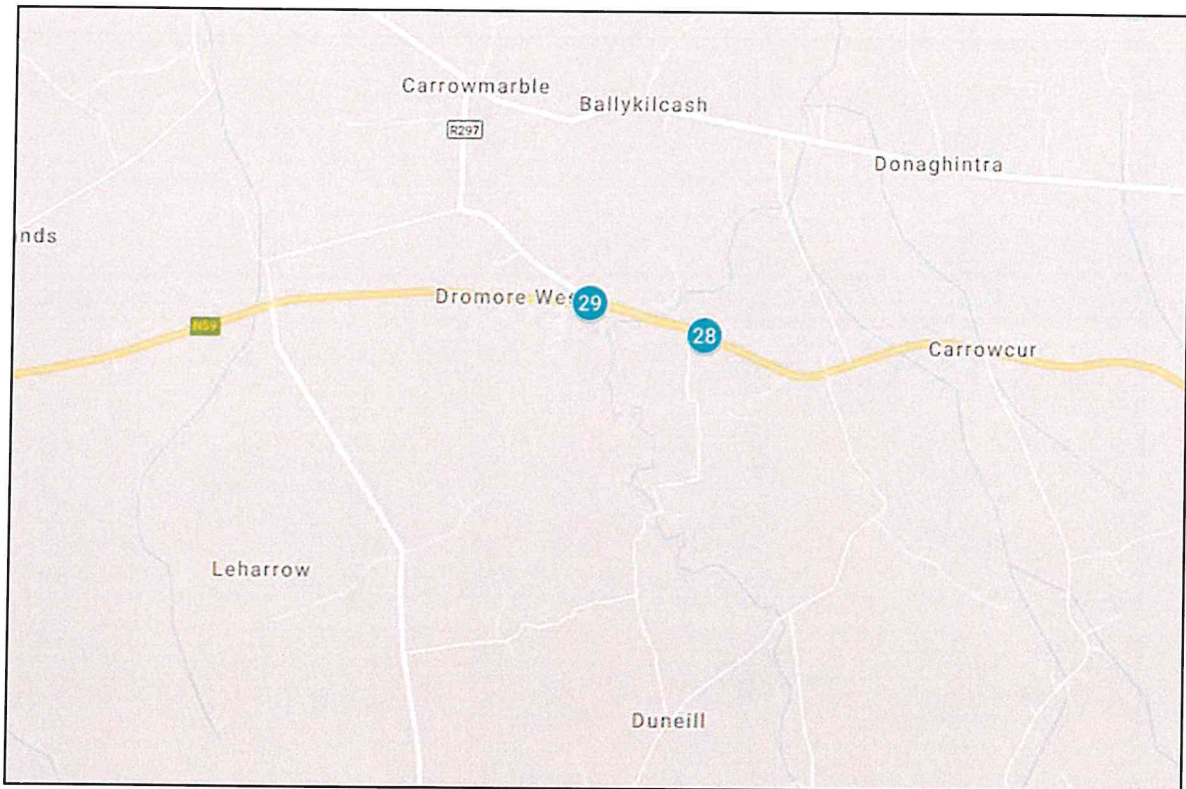
Oweninny II Wind Farm RSR



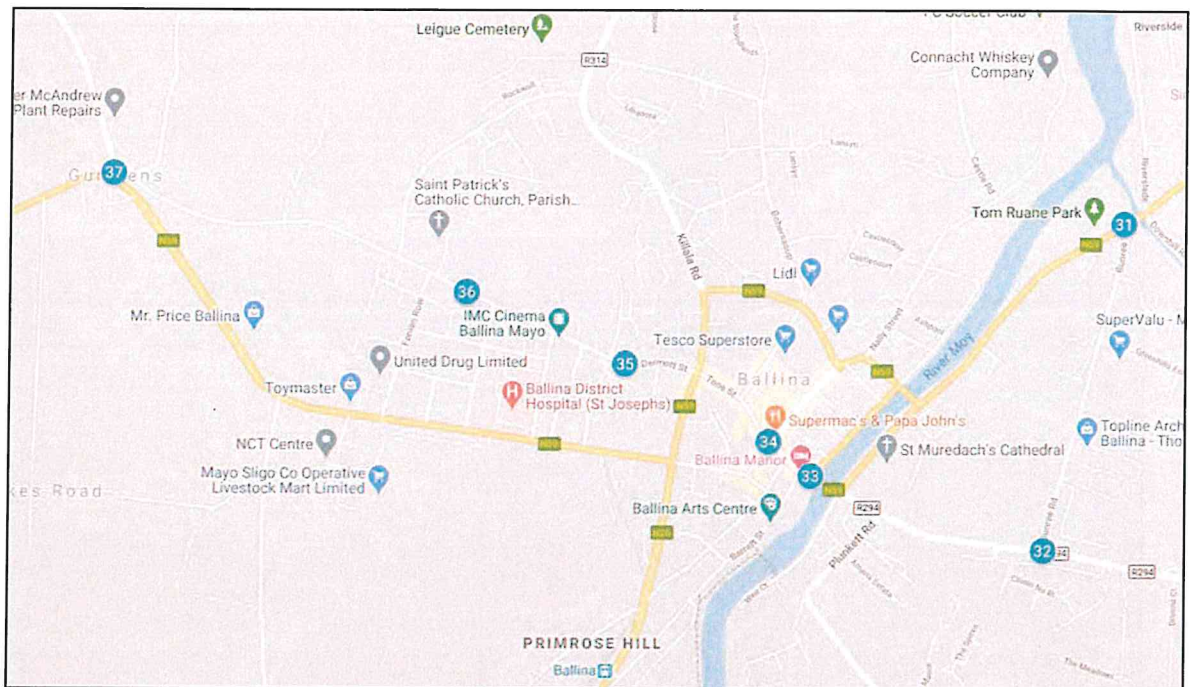
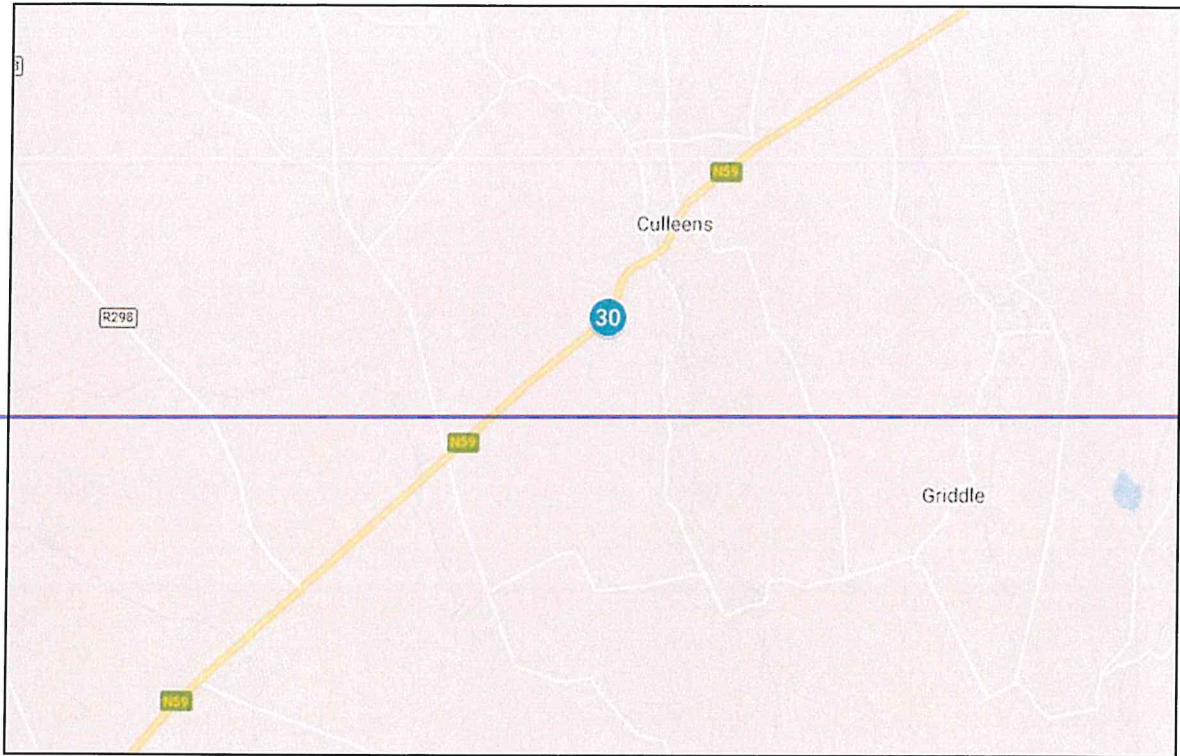


Oweninny II Wind Farm RSR

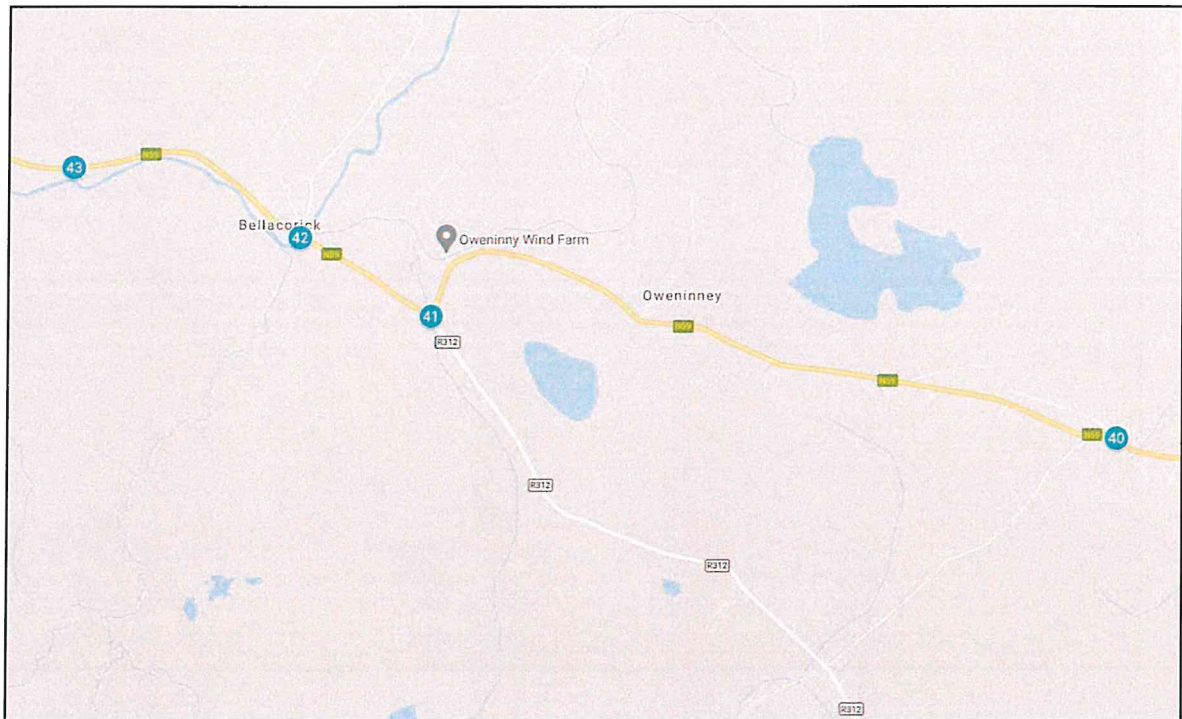
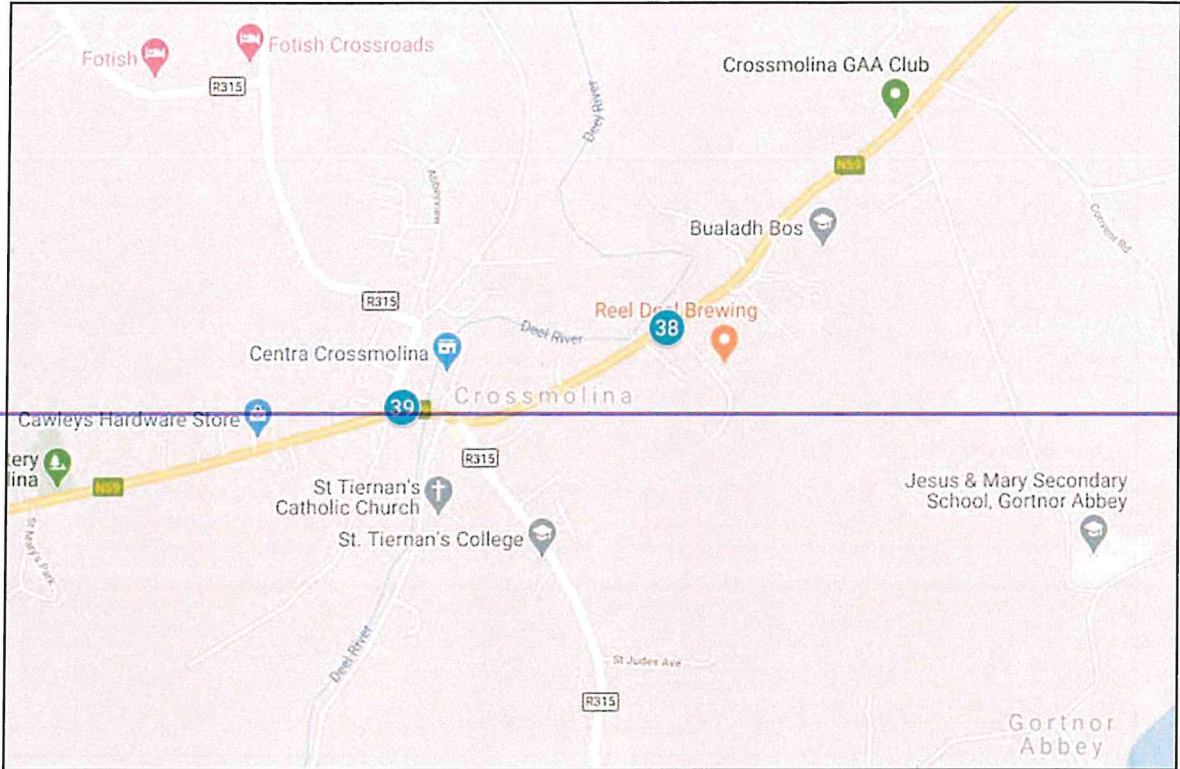




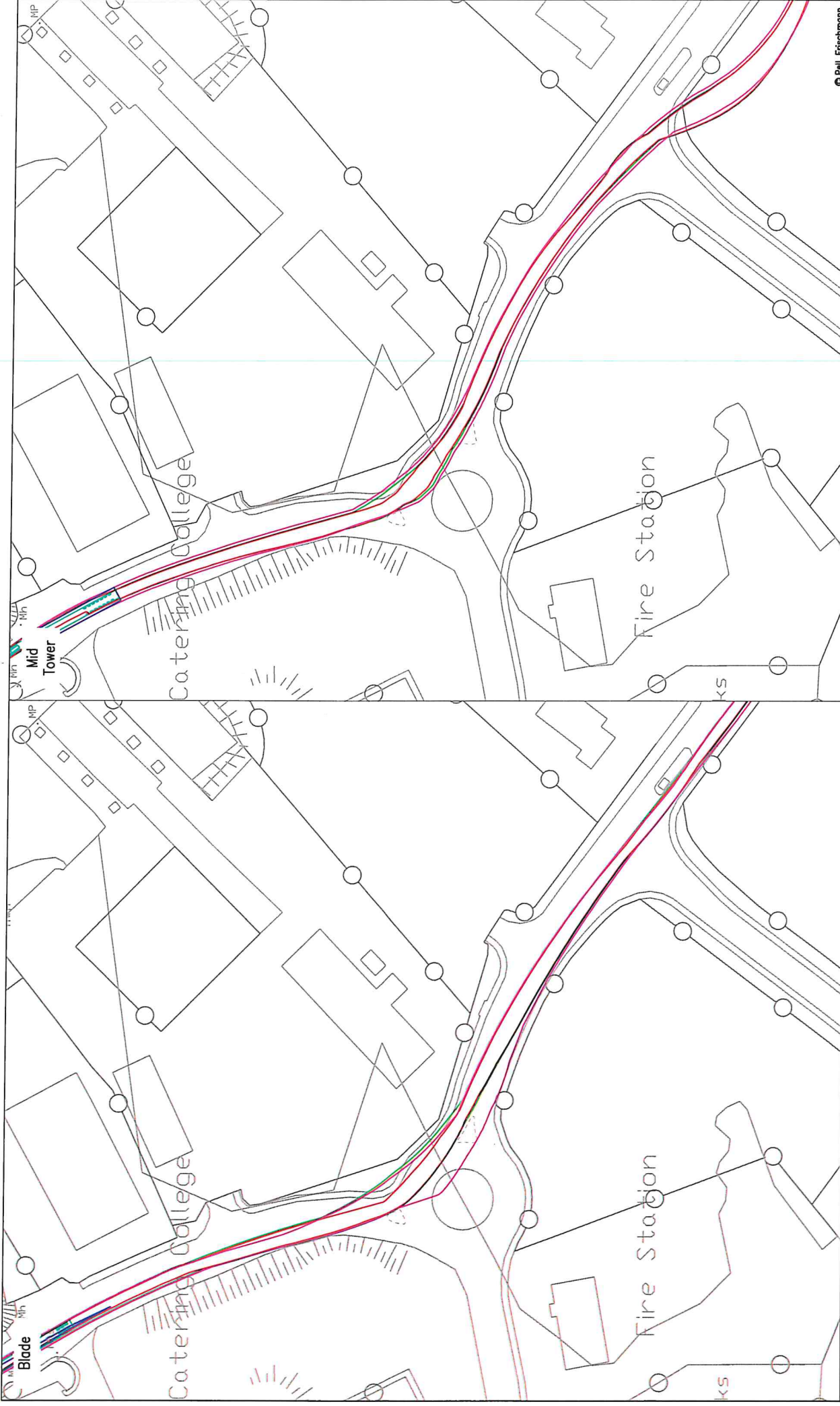
Oweninny II Wind Farm RSR



Oweninny II Wind Farm RSR

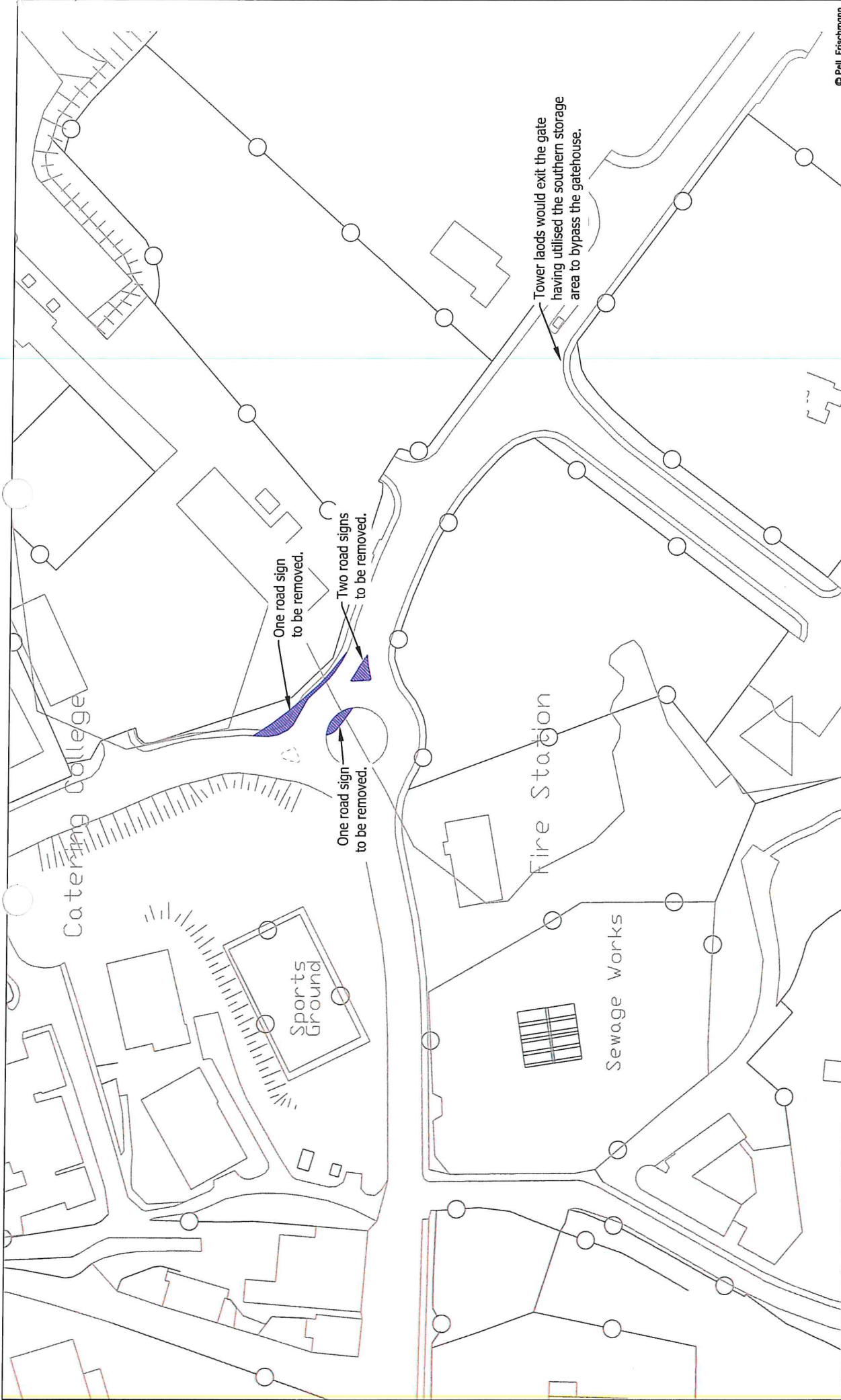


Appendix B Swept Path Assessment

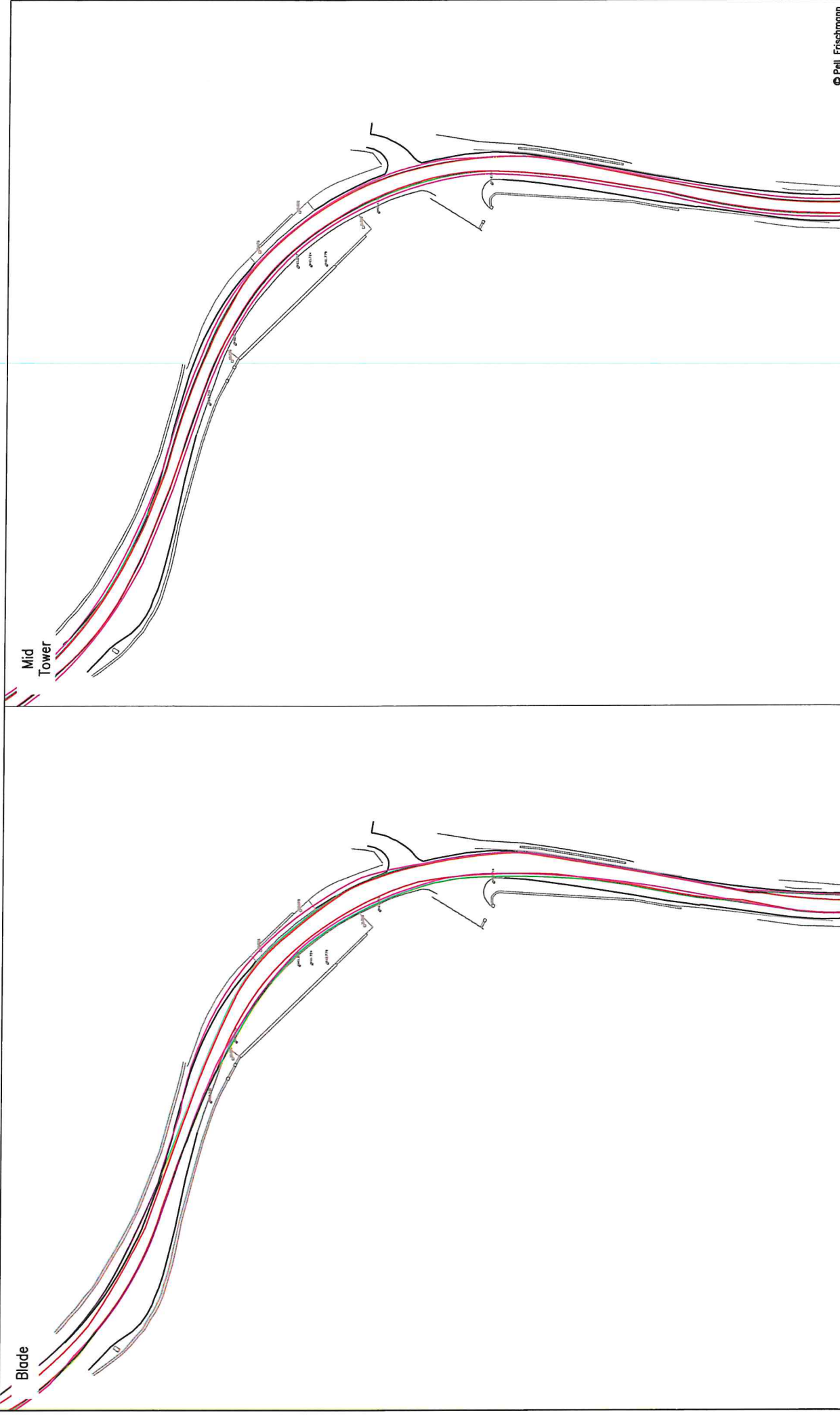


Pell Frischmann <small>93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: pellfrischmann@pellfrischmann.com www.pellfrischmann.com</small>		Project Oweninny Wind Farm		Scale 1:1000 @ A3	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Date 11/08/2021	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-soil		Drawing No. SK01		Name TL TL GB	
Point of Interest 1, 2		Drawn TL		Designed TL	
Revision 1 <small>1. All modifications subject to confirmation through a lead out. 2. This is not a construction drawing and is intended for submission purposes only.</small>		Checked GB		File No. 090821 Oweninny 2 Tracking.dwg	
Drawing Status Draft		Point of Interest 1, 2		Drawing Status Draft	

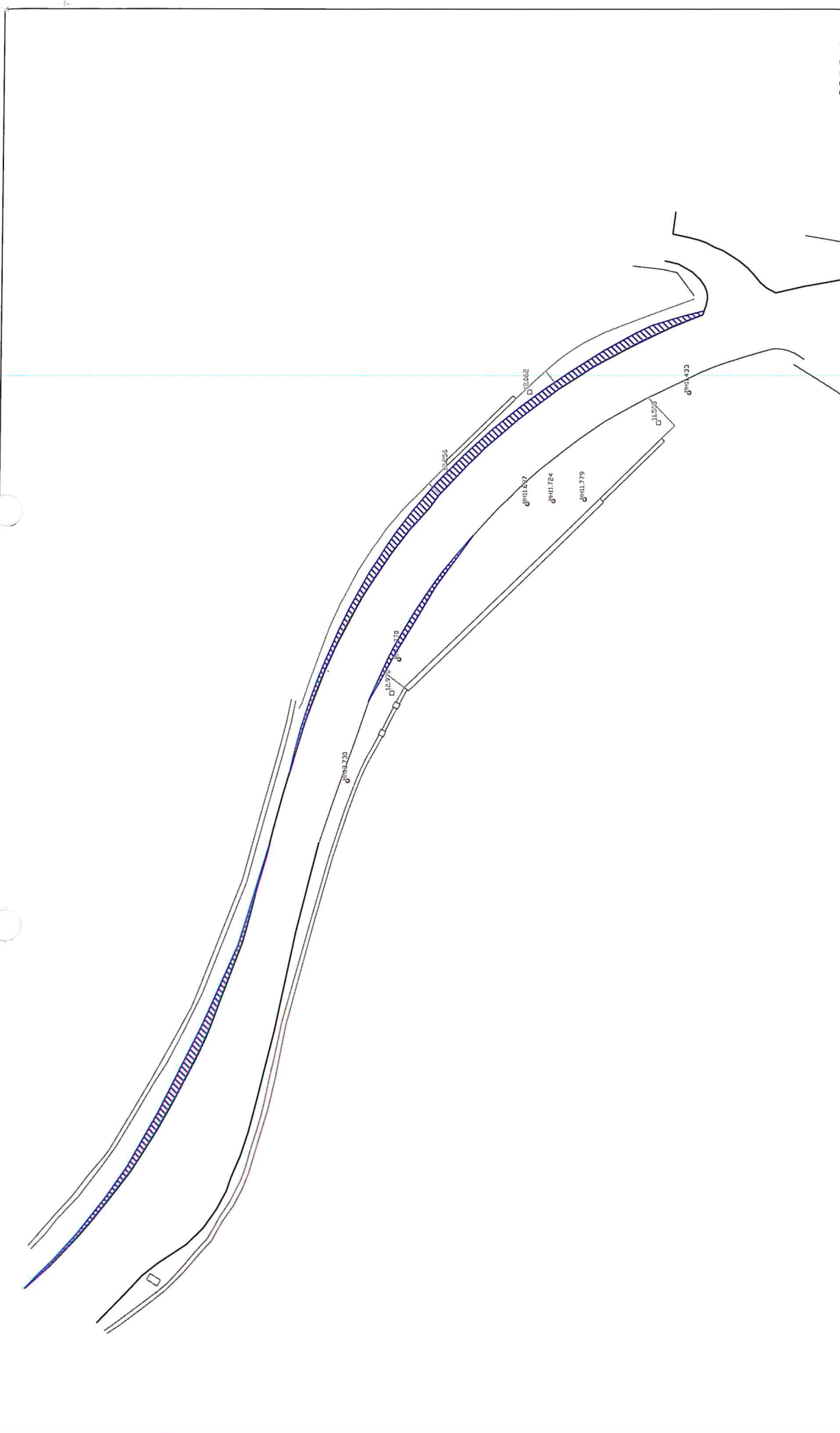
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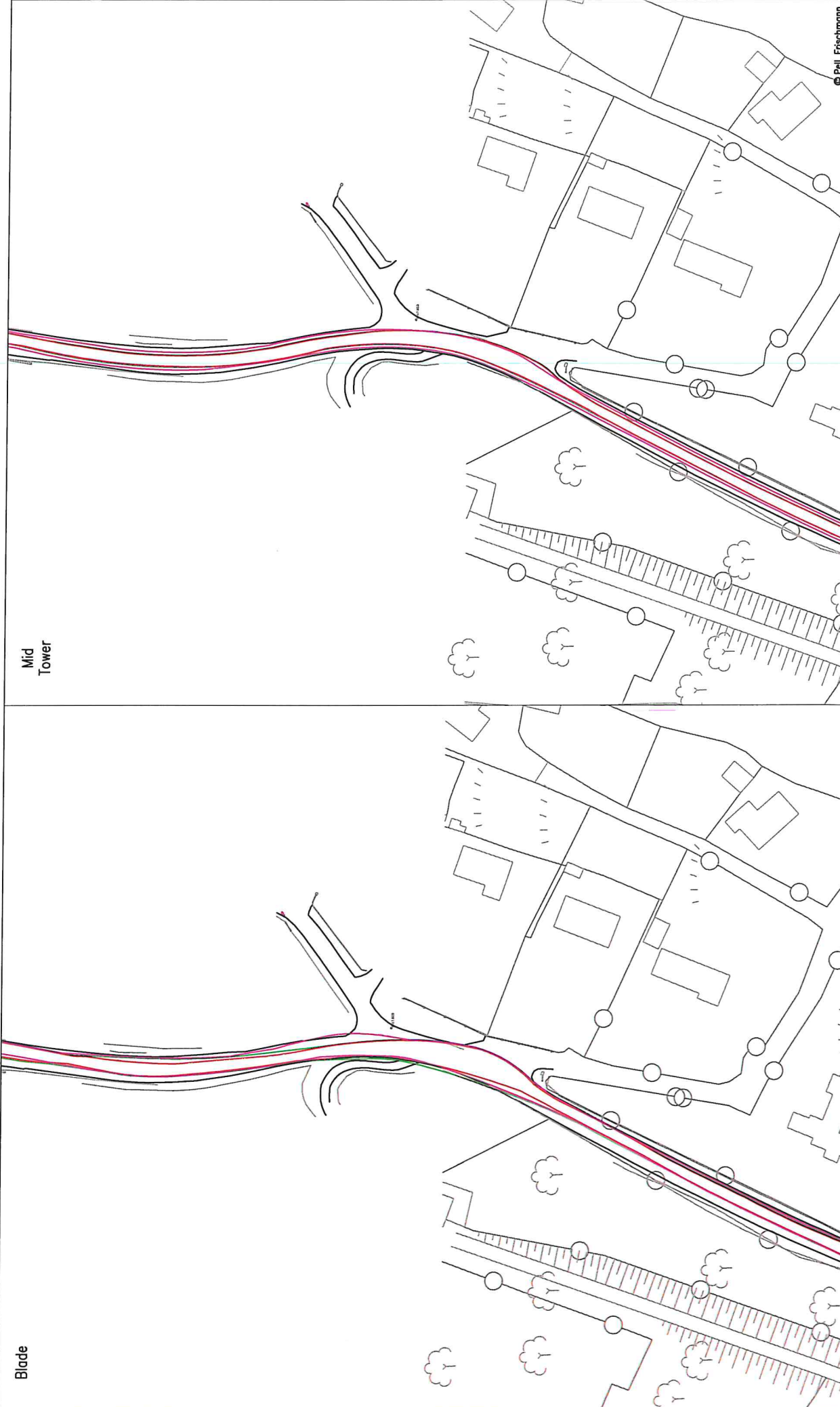
Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH3 3ES Tel: +44 (0)131 240 1270 Email: pell@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Scale 1:1000 @ A3		© Pell Frischmann	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Name TL 11/08/2021 TL 11/08/2021 GB 11/08/2021		Date 11/08/2021 11/08/2021 11/08/2021	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sill		SPA Location Killybegs Fire Station Roundabout		Drawn TL 11/08/2021		File No. 090821 Oweninny 2 Tracking.dwg	
Revision 1. All mitigation is subject to confirmation through a lead run. 2. This is not a construction drawing and is intended for illustration purposes only.		Drawing No. SK01A		Checked GB 11/08/2021		Drawing Status Draft	
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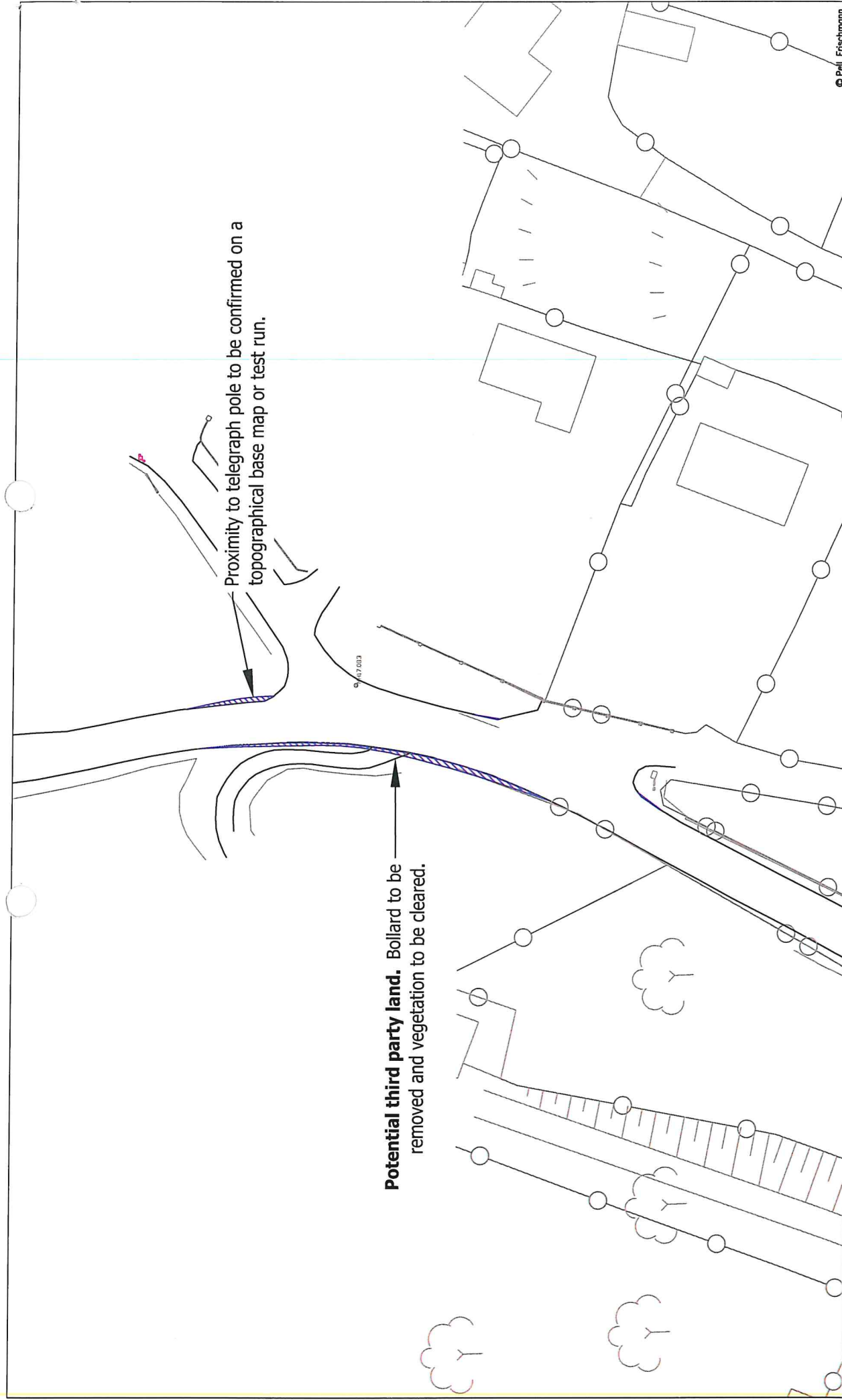
Pell Frischmann 73 GEORGE STREET, EDINBURGH, E12 3ES Tel: +44 (0)131 240 1770 Email: pfrischmann@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		© Pell Frischmann Scale: 1:1000 A3	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Date 11/08/2021	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-soil		SPA Location Bends South East of Bruckless		Name TL TL GB	
Point of Interest Drawing No. SK02		Drawing Status Draft		Date 11/08/2021	
Revision 1		Notes: 1. All modifications are subject to confirmation through a lead user. 2. This is not a construction drawing and is intended for illustration purposes only.		File No. 090821 Oweninny 2 Tractling.dwg	



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Client Nordex		Drawing Title Nordex N117 and Mid Tower		Date 11/08/2021		Name TL	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sail		SPA Location N56 Bends South East of Bruckless		Designed TL		Date 11/08/2021	
Revision 1		Drawing No. SK02A		Checked GB		Date 11/08/2021	
Point of Interest 3		Drawing Status Draft		File No. 090821 Oweninny 2 Tracking.dwg		Revision 1	
<small>Notes: 1. All mitigation is subject to confirmation through a final cut. 2. This is not a construction drawing and is intended for illustration purposes only.</small>							



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Client Nordex		Drawing Title Nordex N117 and Mid Tower		Drawn TL 11/08/2021	Designed TL 11/08/2021	File No. 090821 Oweninny 2 Tracking.dwg	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-soil		SPA Location Bends North of Leitir		Checked GB 11/08/2021	Point of Interest 3	Drawing Status Draft	Revision 1
Drawing No. SK03		Note: 1. All modifications are subject to confirmation through a lead user. 2. This is not a construction drawing and is intended for illustration purposes only.					



Proximity to telegraph pole to be confirmed on a topographical base map or test run.

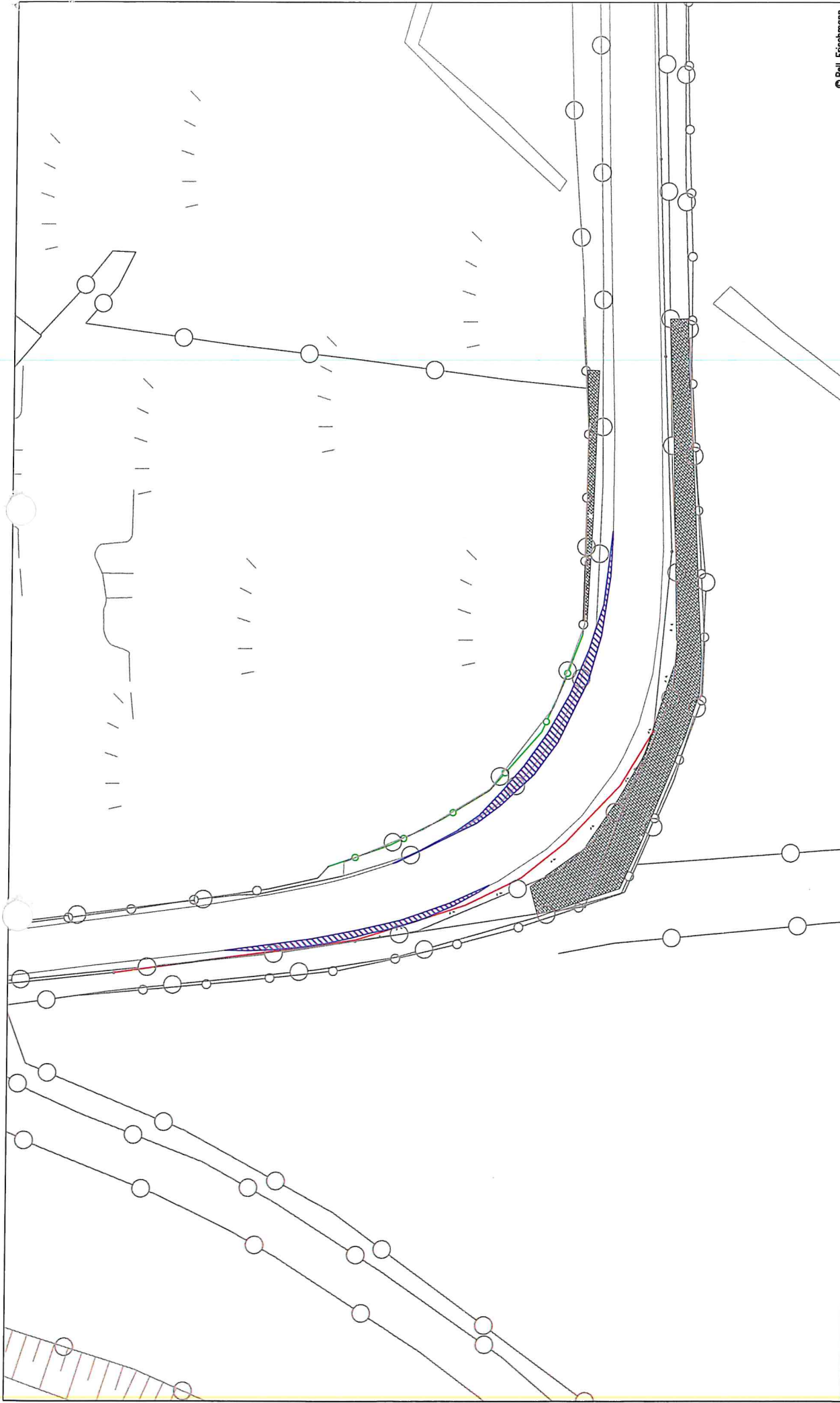
Potential third party land. Bollard to be removed and vegetation to be cleared.

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Client Nordex	Drawing Title Nordex N117 and Mid Tower	Drawing No. SK03A	Point of Interest 3	Name TL TL GB
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sail	Scale 1:500 @ A3	Date 11/08/2021 11/08/2021 11/08/2021	Date 11/08/2021 11/08/2021 11/08/2021	Name TL TL GB
Revision 1	File No. 090821 Oweninny 2 Tracking.dwg	Drawing Status Draft	Scale 1:500 @ A3	Name TL TL GB
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.				

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Client Nordex		Drawing Title Nordex N117 and Mid Tower		Drawn TL	Designed TL	File No. 090821 Oweninny 2 Tracking.dwg	
Key Wheel SPA Body SPA Load SPA Indicative 		SPA Location Left Bend Leitir		Checked GB	Point of Interest 4	Drawing Status Draft	
		Over-run 		Over-sail 		Drawing No. SK04	Revision 1
<small>All activities are subject to confirmation through a field visit. This is not a construction drawing and is intended for illustration purposes only.</small>							



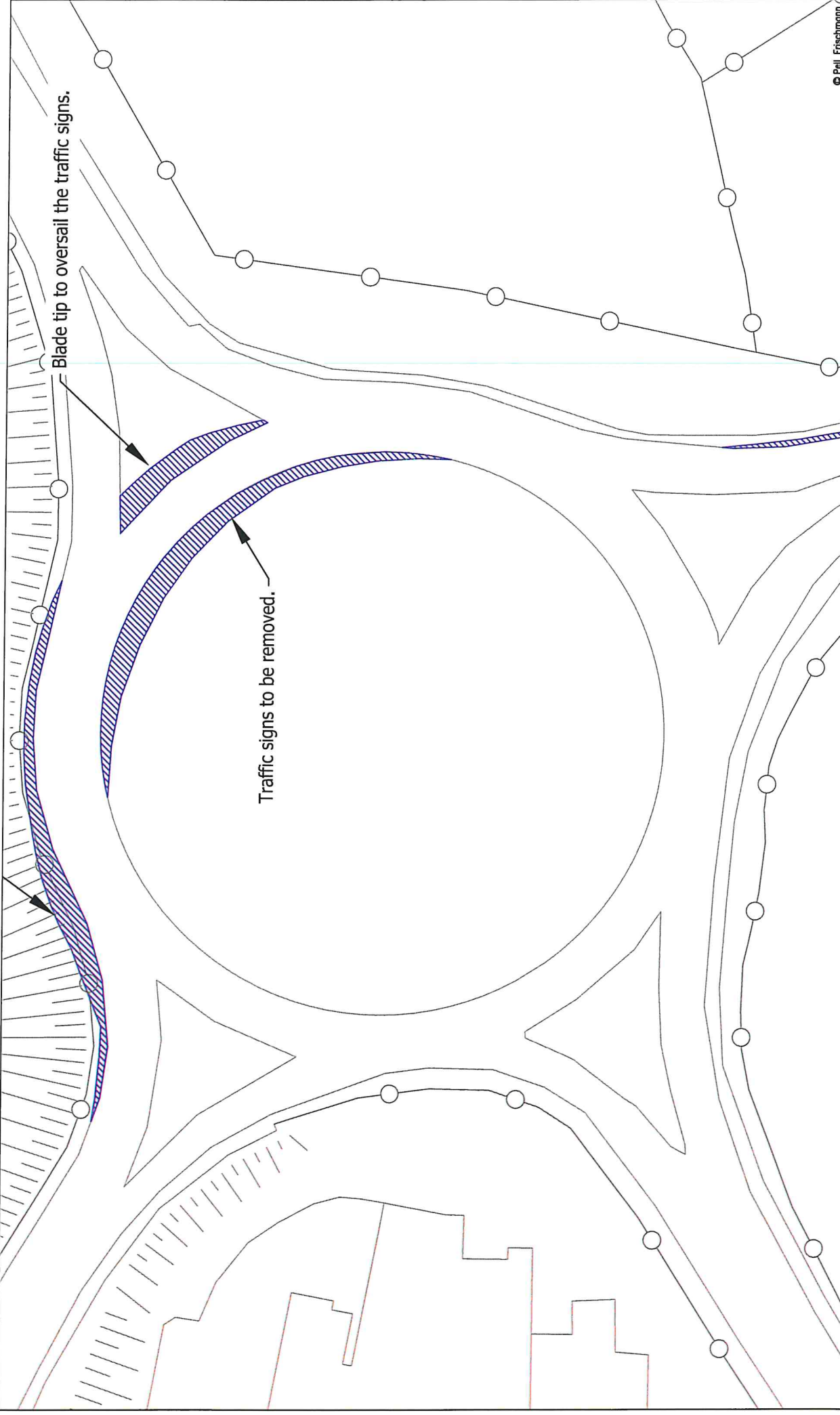
Pell Frischmann 93 GEORGE STREET, EDINBURGH, E16 3ES TEL: +44 (0)131 240 1270 Email: pell@burghearpellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Scale 1:500 @ A3		© Pell Frischmann	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Name TL		Date 11/08/2021	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sail		SPA Location N56 Left Bend Leitir		Drawn TL		Date 11/08/2021	
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				Checked GB		Date 11/08/2021	
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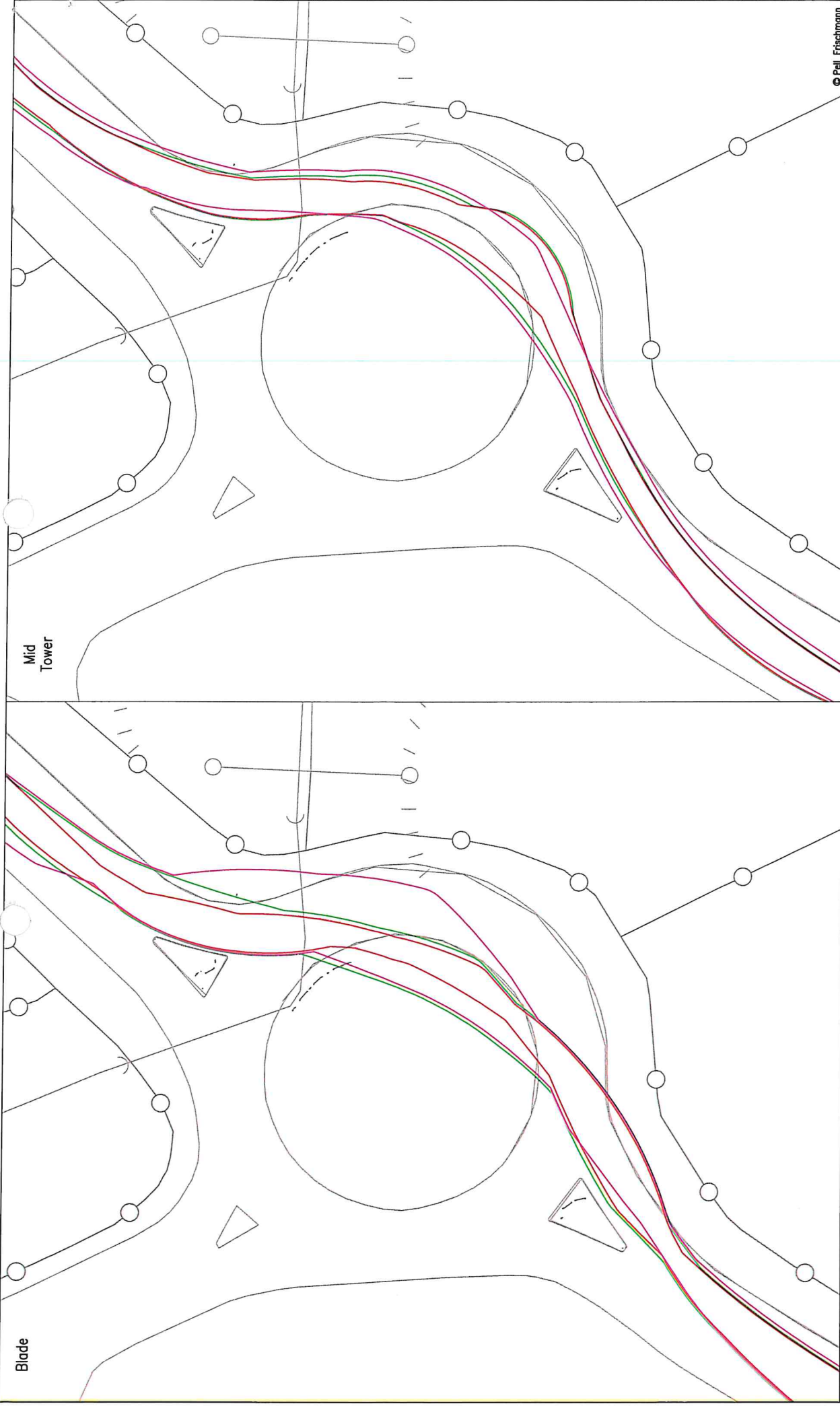
Pell Frischmann 79 GEORGE STREET, EDINBURGH, EC1 3EL Tel: +44 (0) 131 240 1270 Email: pfr@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm NO MITIGATION REQUIRED		Client Nordex	
Scale 1:1000 @ A3		Date 11/08/2021		Name TL	
Drawn TL		Designed TL		File No. 090821 Oweninny 2 Tracking.dwg	
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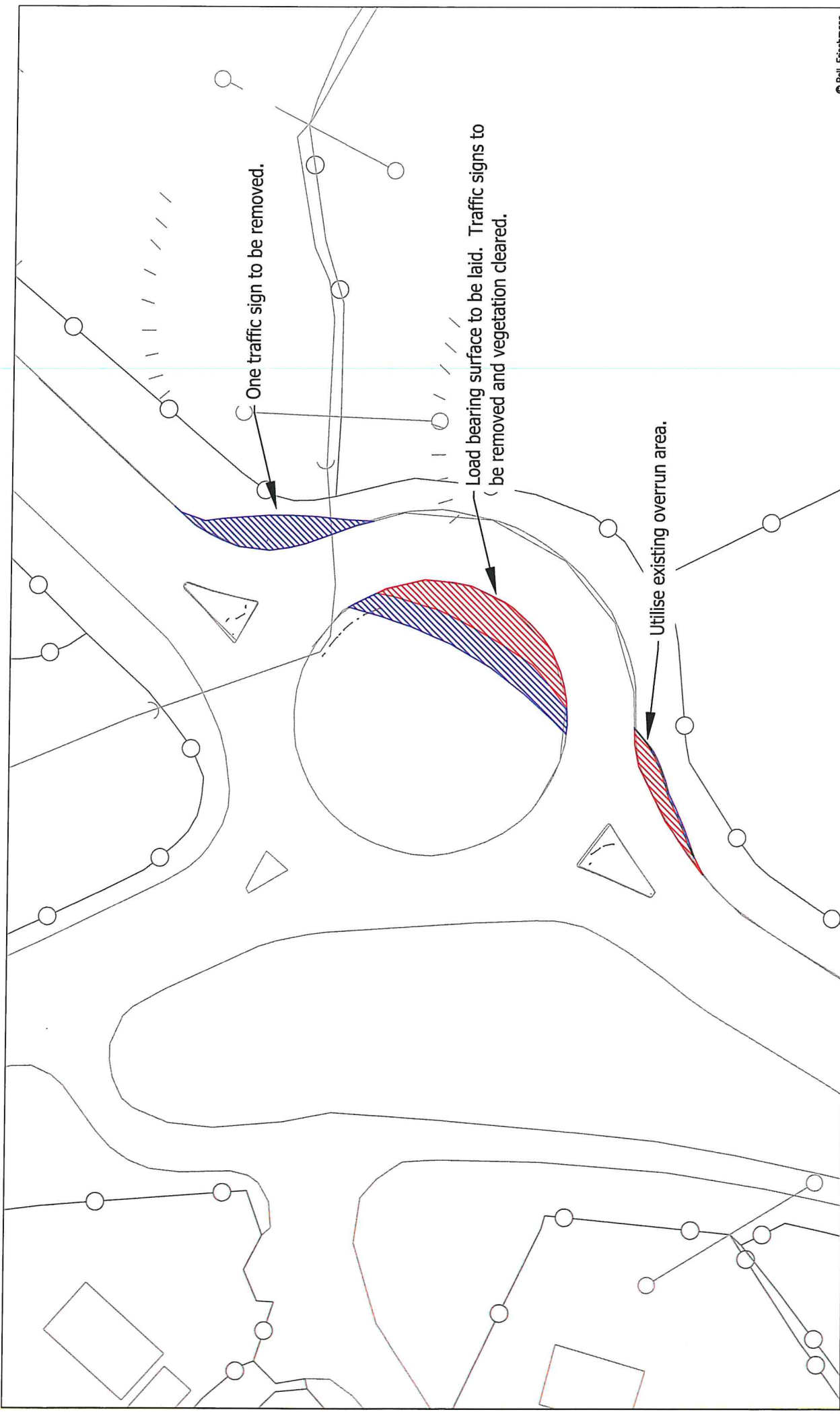
Pell Frischmann 93 GEORGE STREET, EDINBURGH, DG3 3ES Tel: +44 (0)131 240 1270 Email: p.frischmann@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm Nordex N117 and Mid Tower		Name TL 11/08/2021	Date 11/08/2021	Scale 1:1000 @ A3
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Drawn TL 11/08/2021	Designed TL 11/08/2021	File No. 090821 Oweninny 2 Tracking.dwg
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sill		SPA Location N56 / N15 Roundabout		Checked GB 11/08/2021	Drawing Status Draft	Revision 1
Drawing No. SK06		Point of Interest 8		Notes: 1. All modifications subject to confirmation through a test cut. 2. This is not a construction drawing and is intended for illustration purposes only.		



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Client Nordex		Drawing Title Nordex N117 and Mid Tower		Name TL		Date 11/08/2021	
Key Wheel SPA Body SPA Load SPA Indicative		SPA Location .b / N15 Roundabout		Drawn TL		11/08/2021	
Over-run Over-soil		Drawing No. SK06A		Designed TL		11/08/2021	
— — — — —		Point of Interest 8		Checked GB		11/08/2021	
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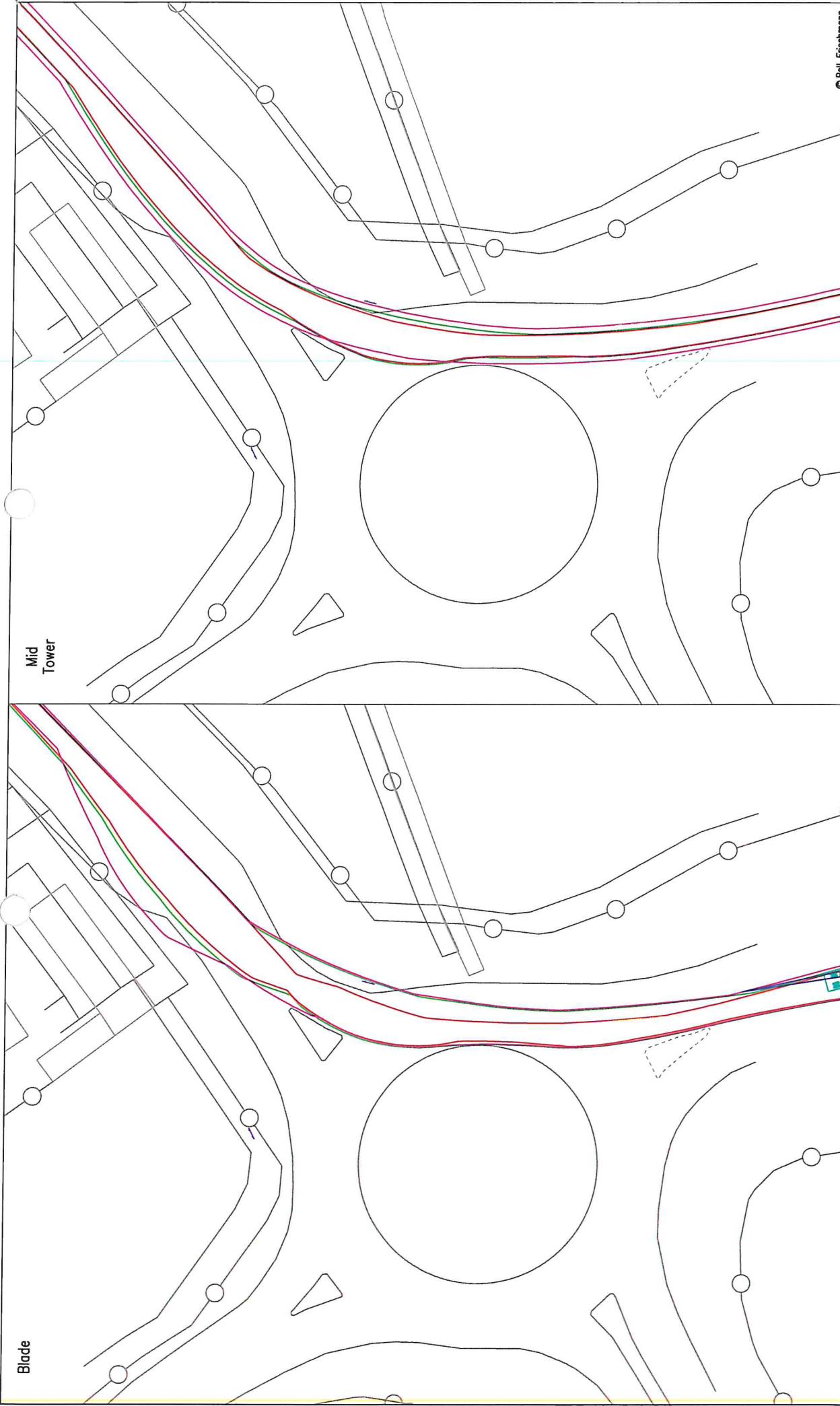
Pell Frischmann 93 GEORGE STREET, EDINBURGH, E10 3ES Tel: +44 (0)131 240 1270 Email: ped@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Name TL		Date 11/08/2021		Scale 1:500 @ A3		© Pell Frischmann	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Drawn TL		Designed TL		File No. 090821 Oweninny 2 Tracking.dwg		Drawing Status Draft	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-soil		SPA Location N15 / R267 Roundabout		Checked GB		Date 11/08/2021		Point of Interest 9		Revision 1	
Drawing No. SK07		Notes: 1. All modifications subject to confirmation through a test cut. 2. This is not a construction drawing and is intended for illustration purposes only.		Point of Interest 9		Drawing Status Draft		Revision 1			



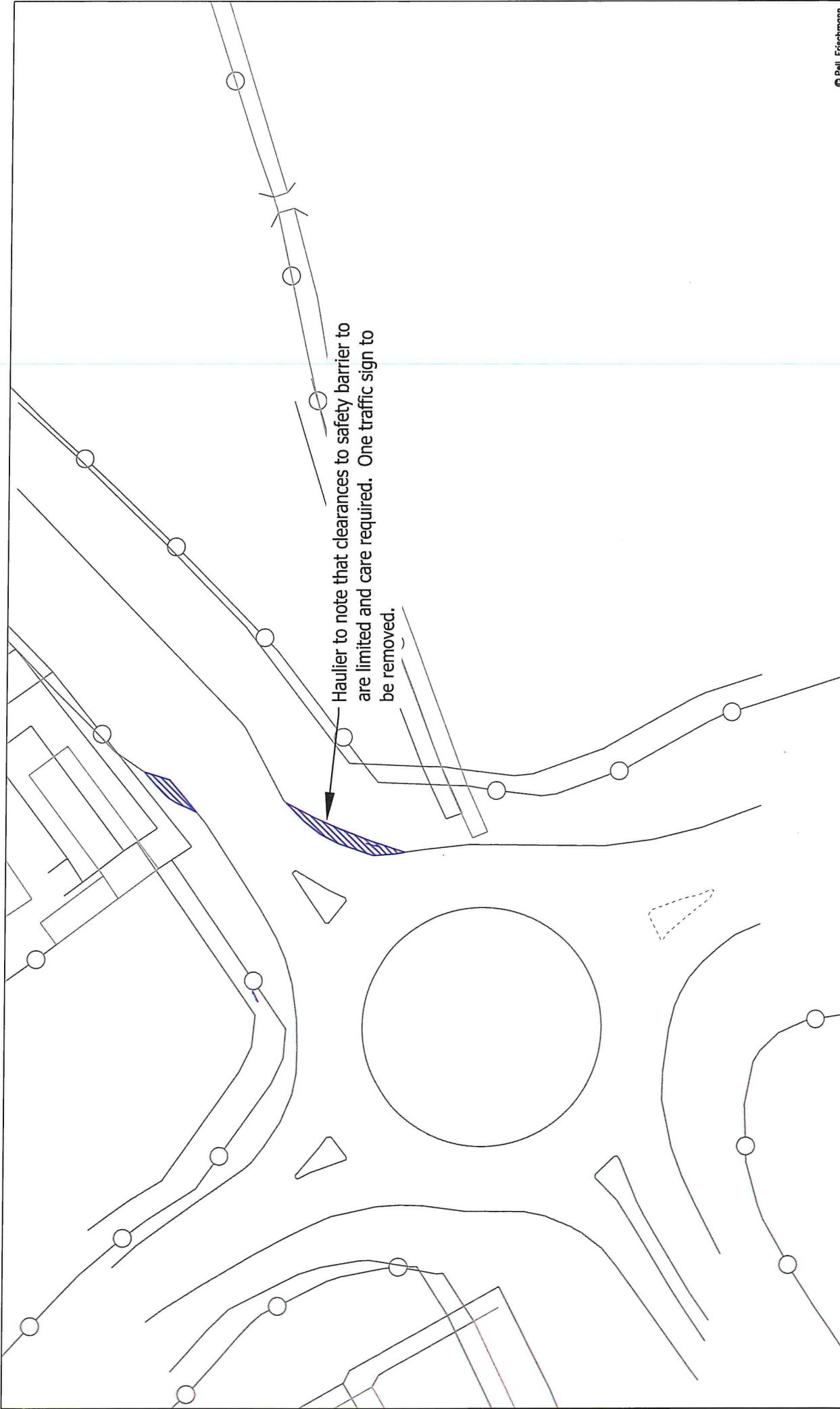
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Project	Oweninny Wind Farm		
Drawing Title	Nordex N117 and Mid Tower		
SPA Location	0.15 / R267 Roundabout		
Key	<ul style="list-style-type: none"> Wheel SPA Body SPA Load SPA Indicative Over-run Over-soil 	<ul style="list-style-type: none"> Nordex 	<ul style="list-style-type: none"> Scale 1:500 @ A3
Drawn	TL	Date	11/08/2021
Designed	TL	Date	11/08/2021
Checked	GB	Date	11/08/2021
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Drawing No.	SK07A		
Drawing Status	Draft		
Revision	1		

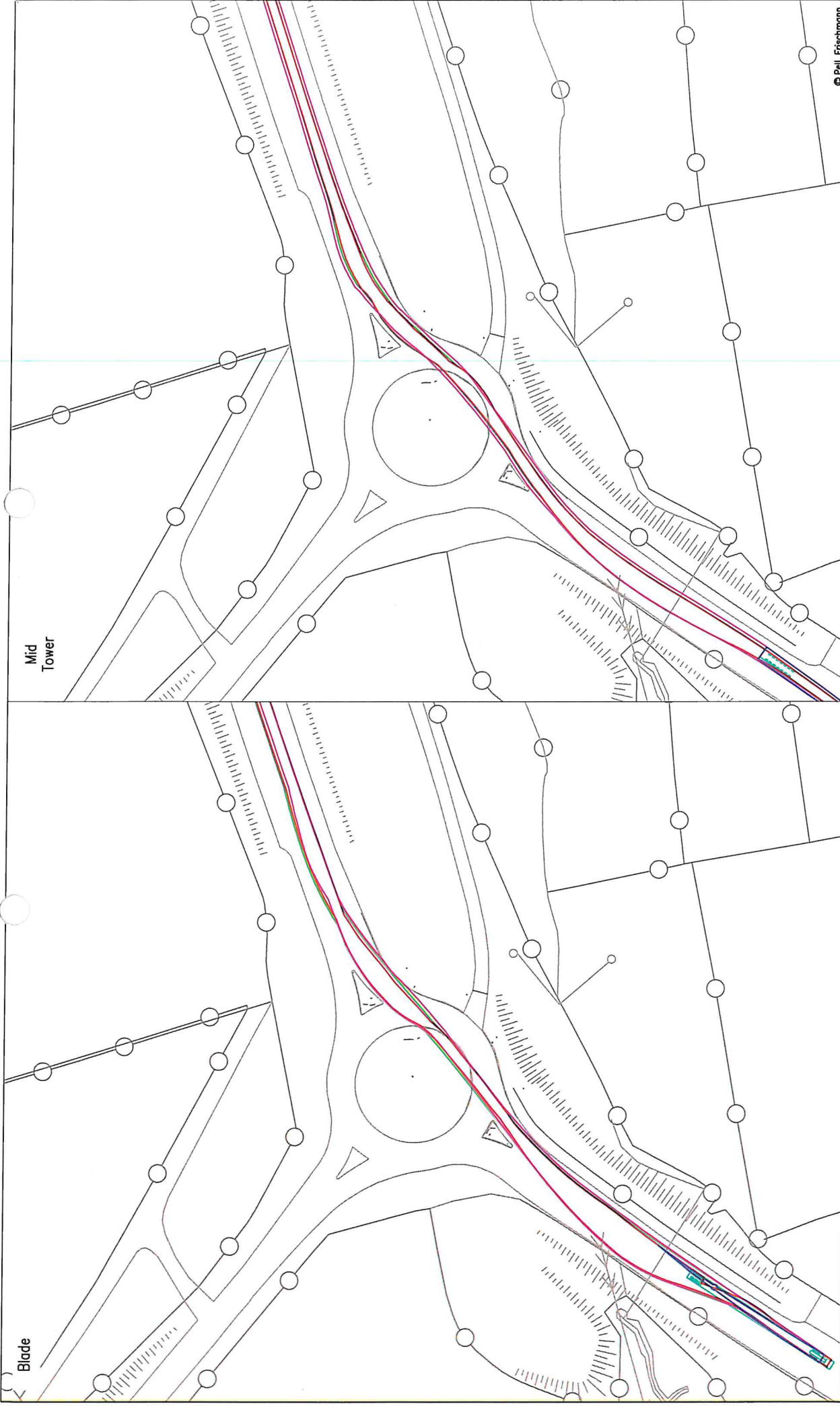
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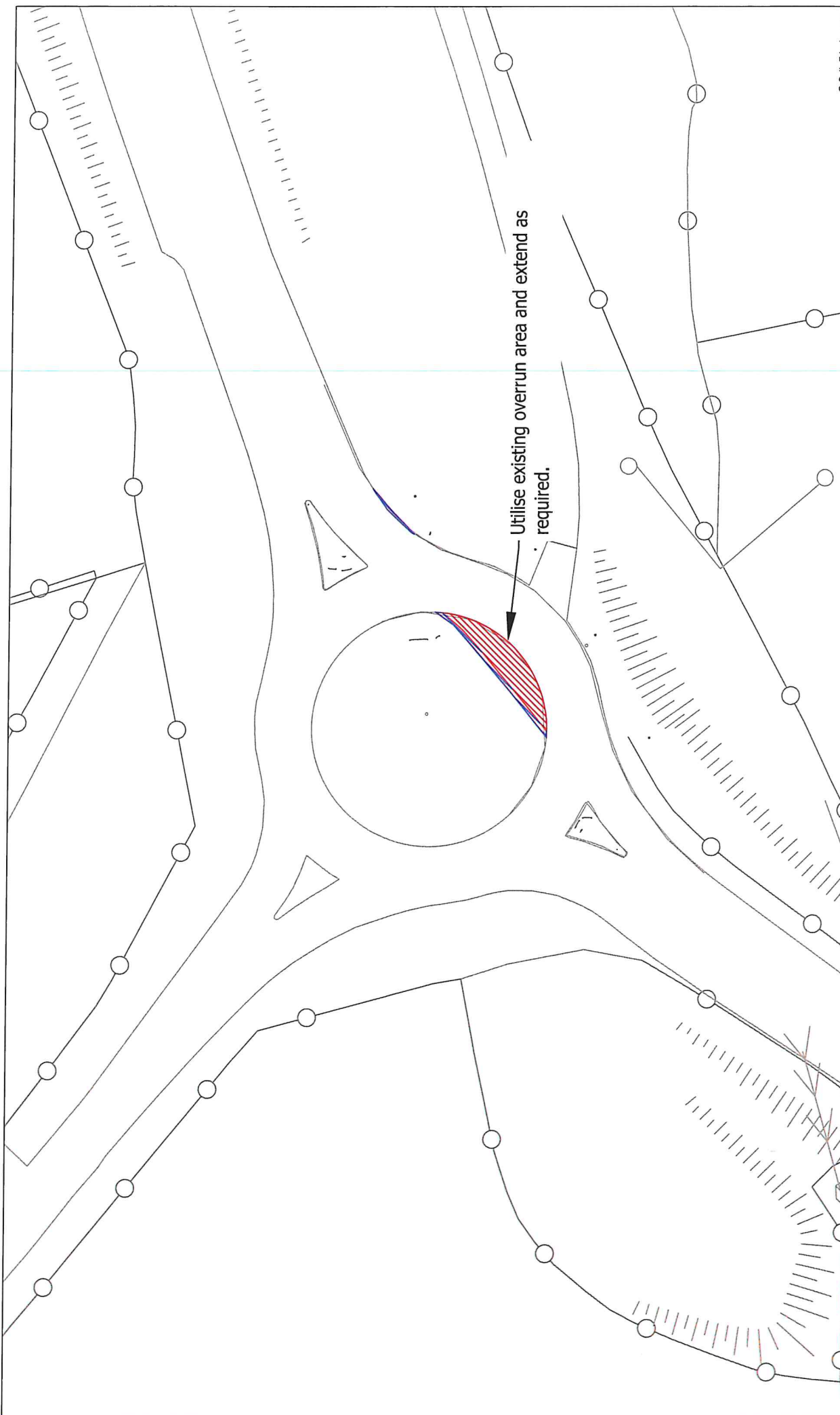
Pell Frischmann 93 GEORGE STREET, LONDON, EC2A 4JF Tel: +44 (0)131 240 1370 Email: pfrischmann@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Scale 1:500 @ A3		Date 11/08/2021		Name TL		Scale 1:500 @ A3		Revision 1	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Drawn TL		Designed TL		Checked GB		File No. 090821 Oweninny 2 Tracking.dwg		Drawing Status Draft	
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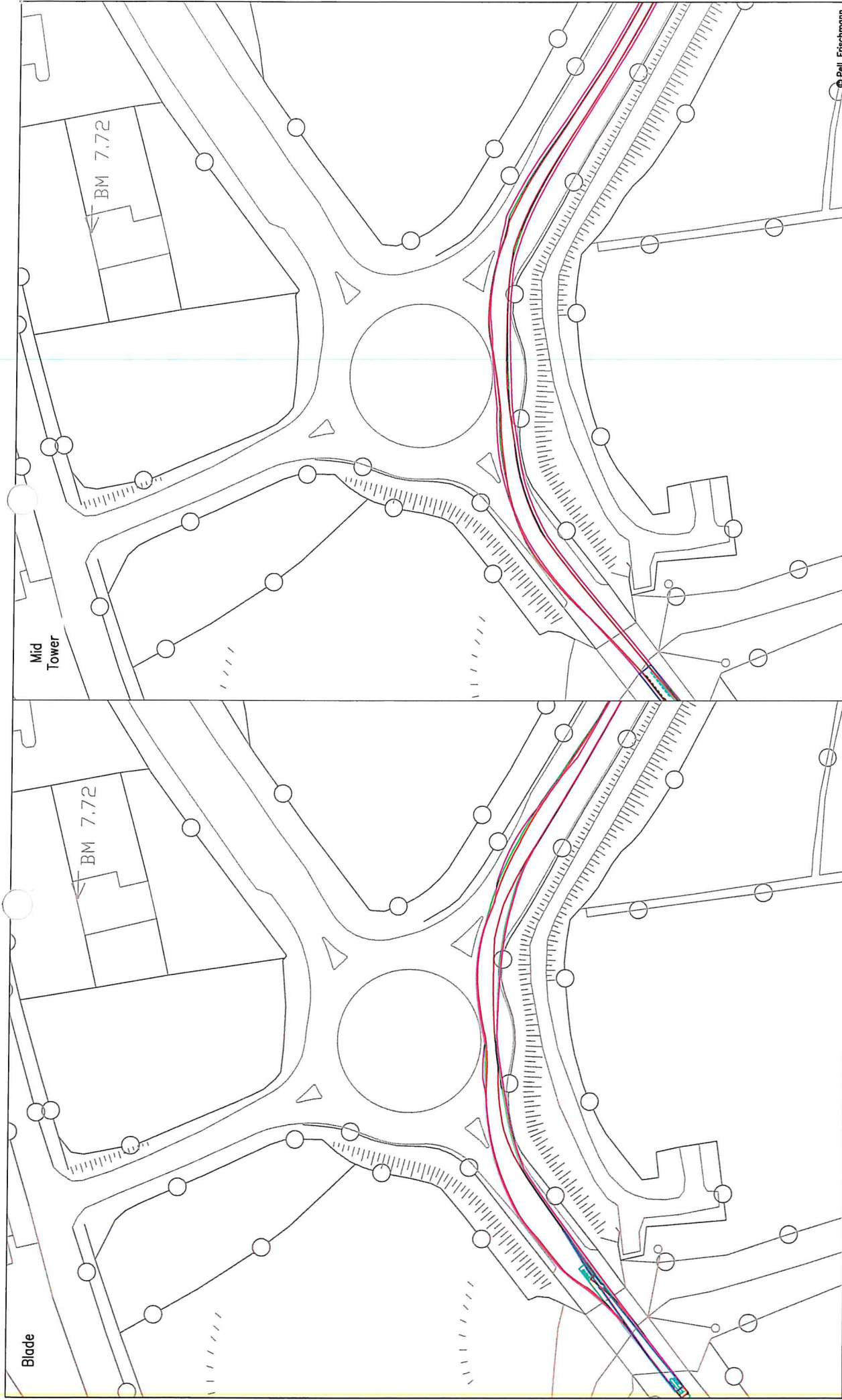
Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1770 Email: pedinburgh@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Scale 1:500 @ A3		© Pell Frischmann	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Name TL 11/08/2021		Date 11/08/2021	
Key Wheel SPA Body SPA Load SPA Indicative		SPA Location 3 / R231 Roundabout		Drawn TL 11/08/2021		File No. 090821 Oweninny 2 Tracking.dwg	
Over-run Over-sill		Drawing No. SK08A		Checked GB 11/08/2021		Drawing Status Draft	
Point of Interest 11		Revision 1		Notes: 1. All modifications are subject to confirmation through a lead user. 2. This is not a construction drawing and is intended for illustration purposes only.			



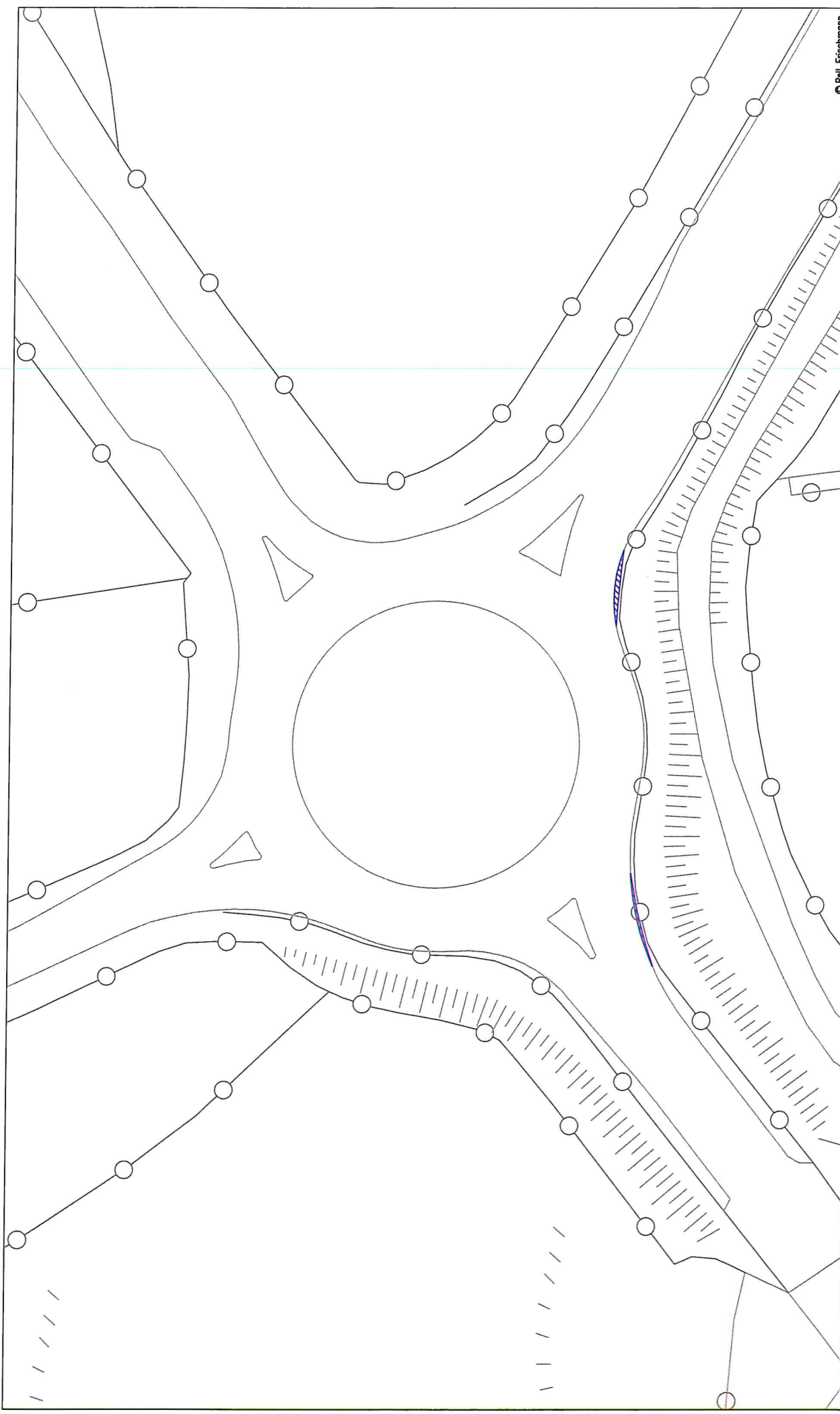
Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: pfrischmann@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Scale 1:1000 @ A3		Date 11/08/2021		Name TL		File No. 090821 Oweninny 2 Tracking.dwg	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Point of Interest 12		Checked GB		Designated TL		Drawing Status Draft	
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Client Nordex		Drawing Title Nordex N117 and Mid Tower		Name TL 11/08/2021	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sail		Drawing No. SK09A		Date 11/08/2021	
Revision 1		SPA Location 3 / R267 Roundabout 1		File No. 090821 Oweninny 2 Tracking.dwg	
Point of Interest 12		Drawing Status Draft		Checked GB 11/08/2021	
Notes: 1. All obligations are subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.					



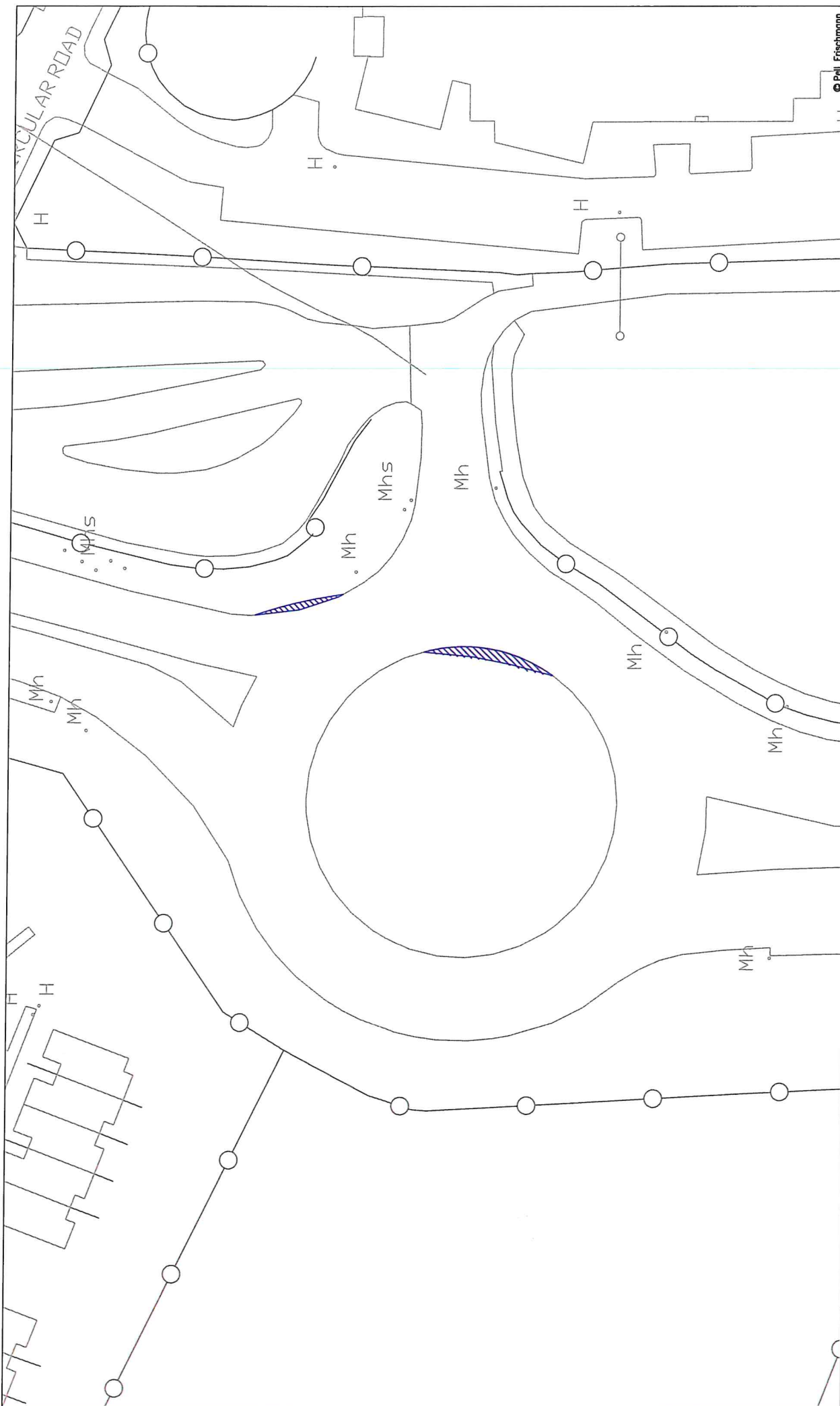
Pell Frischmann <small>93 GEORGE STREET, EDINBURGH, E10 3ES Tel: +44 (0)131 240 1270 Email: pell@pfrischmann.com www.pellfrischmann.com</small>		Project Oweninny Wind Farm		Scale 1:1000 @ A3	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Date 11/08/2021	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sail		Drawing No. SK10		File No. 090821 Oweninny 2 Tracking.dwg	
Point of Interest 13		Drawing Status Draft		Revision 1	
<small>Notes: 1. All mitigation is subject to confirmation through a full cut. 2. This is not a construction drawing and is intended for illustration purposes only.</small>					



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Client Nordex		Drawing Title Nordex N117 and Mid Tower		Date: 11/08/2021 Name: TL	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-soil		Drawing No. SK10A		Date: 11/08/2021 Name: TL	
Revision 1		Point of Interest 13		Date: 11/08/2021 Name: GB	
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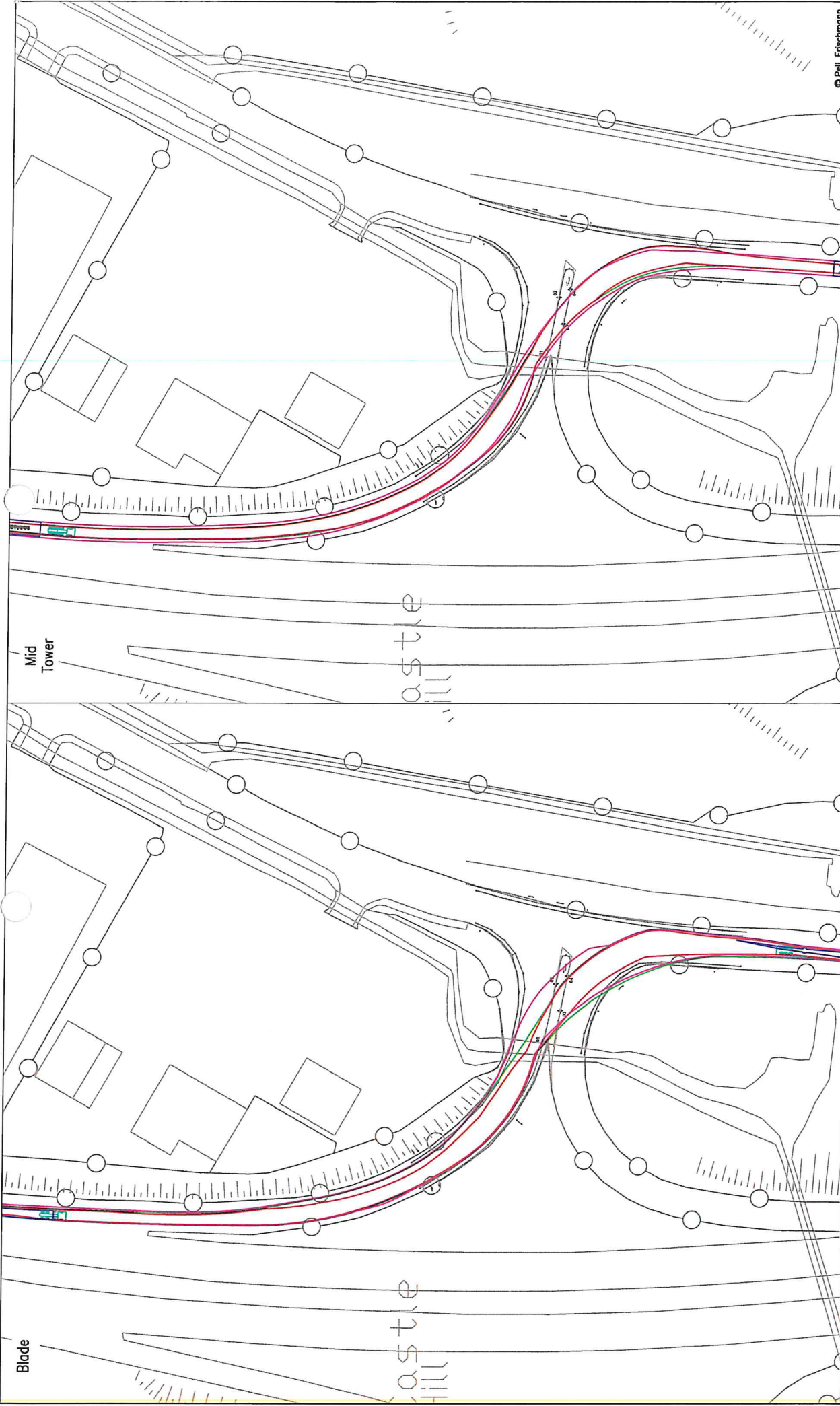


Pell Frischmann 93 GEORGE STREET, EDINBURGH, E10 3ES Tel: +44 (0)131 240 1270 Email: pell.frischmann@pellfrischmann.com www.pellfrischmann.com	Project Oweninny Wind Farm		Name TL	Date 11/08/2021	Scale 1:1000 @ A3
	Drawing Title Nordex N117 and Mid Tower		Drawn TL	Designed TL	File No. 090821 Oweninny 2 Tracing.dwg
	SPA Location N4 / An Cuarbhothar Roundabout		Checked GB	Point of Interest 21	Drawing Status Draft
	Client Nordex		Drawing No. SK11	Notes: 1. All modifications are subject to confirmation through a test cut. 2. This is not a construction drawing and is intended for illustration purposes only.	
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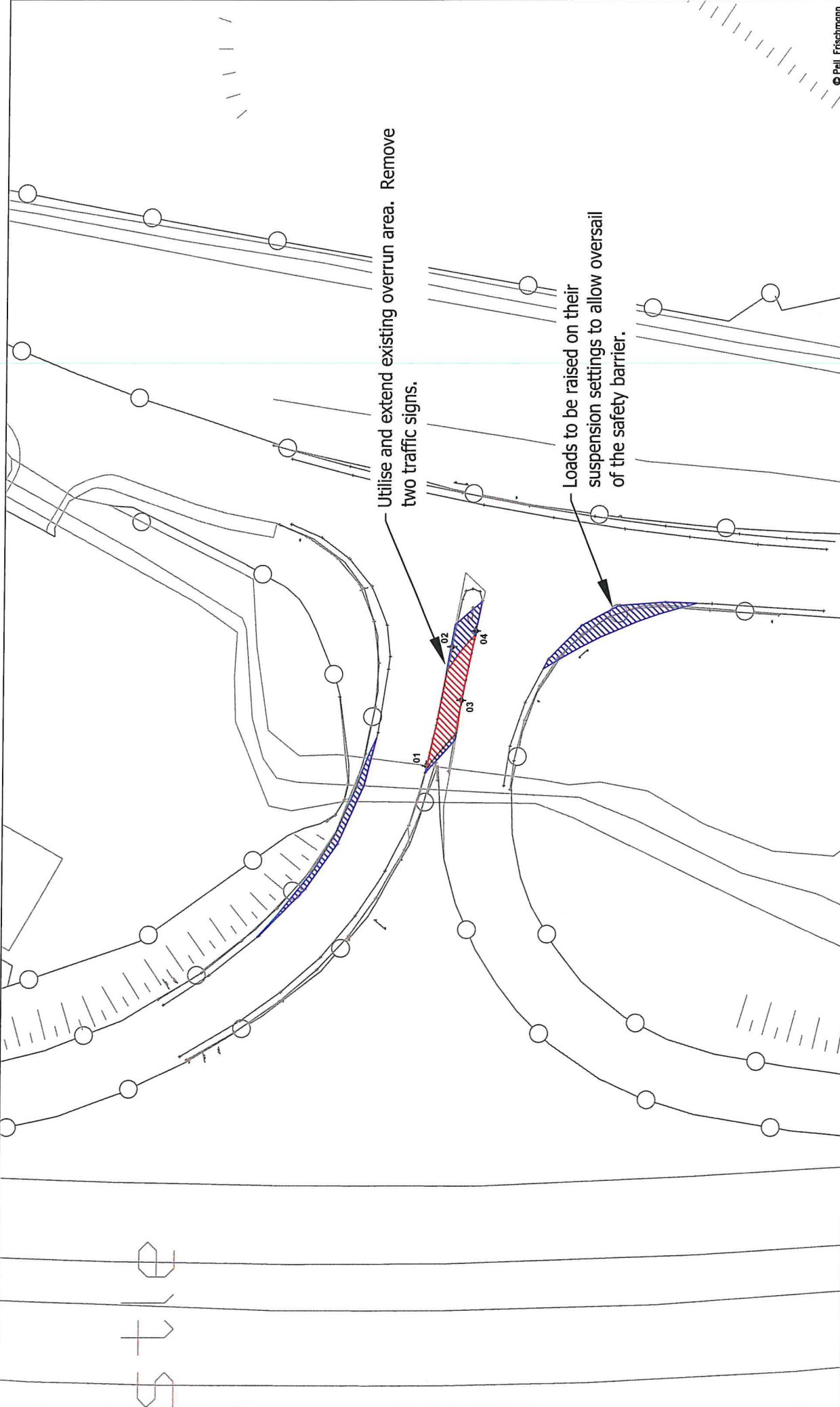


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	Drawing Title Nordex N117 and Mid Tower		Drawn TL	Designed TL	File No. 090821 Oweninny 2 Tracing.dwg	
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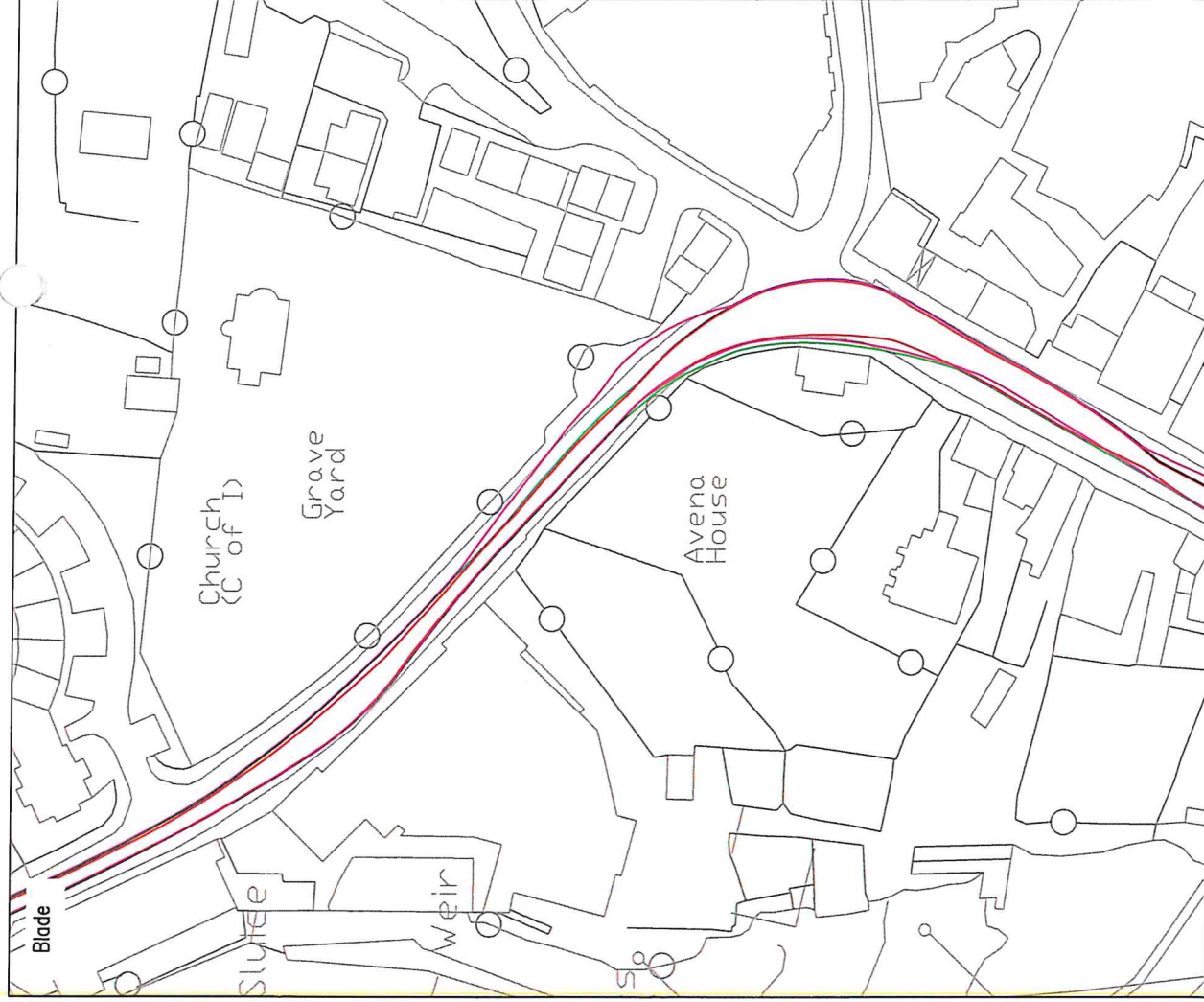
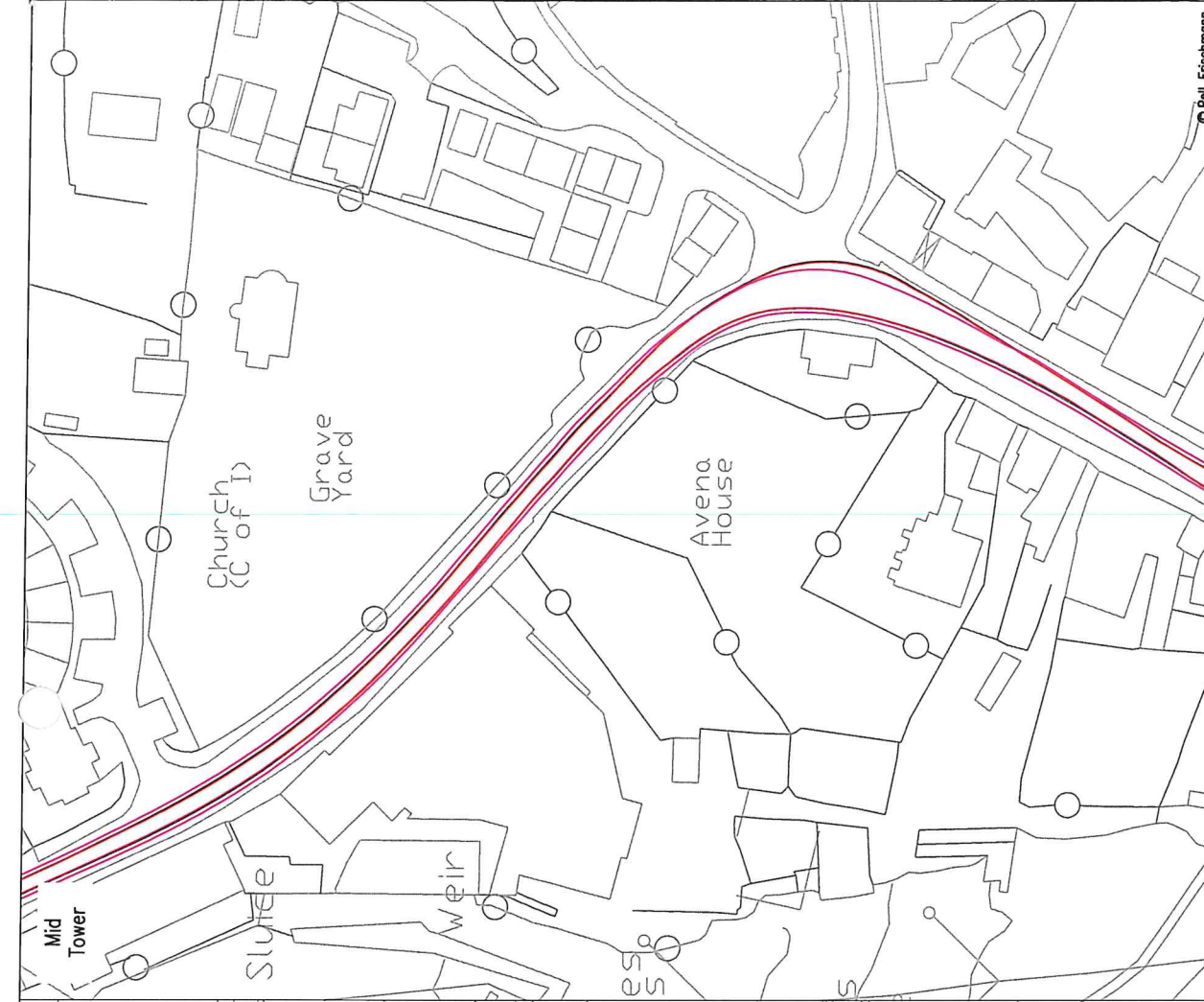


Pell Frischmann 93 GEORGE STREET, LONDON, E1R 3ES Tel: +44 (0)131 240 1270 Email: pell@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm Nordex N117 and Mid Tower N4 / N59 Junction		Name TL TL GB	Date 11/08/2021 11/08/2021 11/08/2021	Scale 1:1000 @ A3	© Pell Frischmann
Client Nordex		Drawing Title Nordex N117 and Mid Tower SPA Location N4 / N59 Junction		Drawn TL	Designed TL	Checked GB	File No. 090821 Oweninny 2 Tracking.dwg Drawing Status Draft
Key Wheel SPA Body SPA Load SPA Indicative		Point of Interest Drawing No. SK12		Revision 1		Note: 1. All mitigation is subject to confirmation through a final run. 2. This is not a construction drawing and is intended for illustration purposes only.	



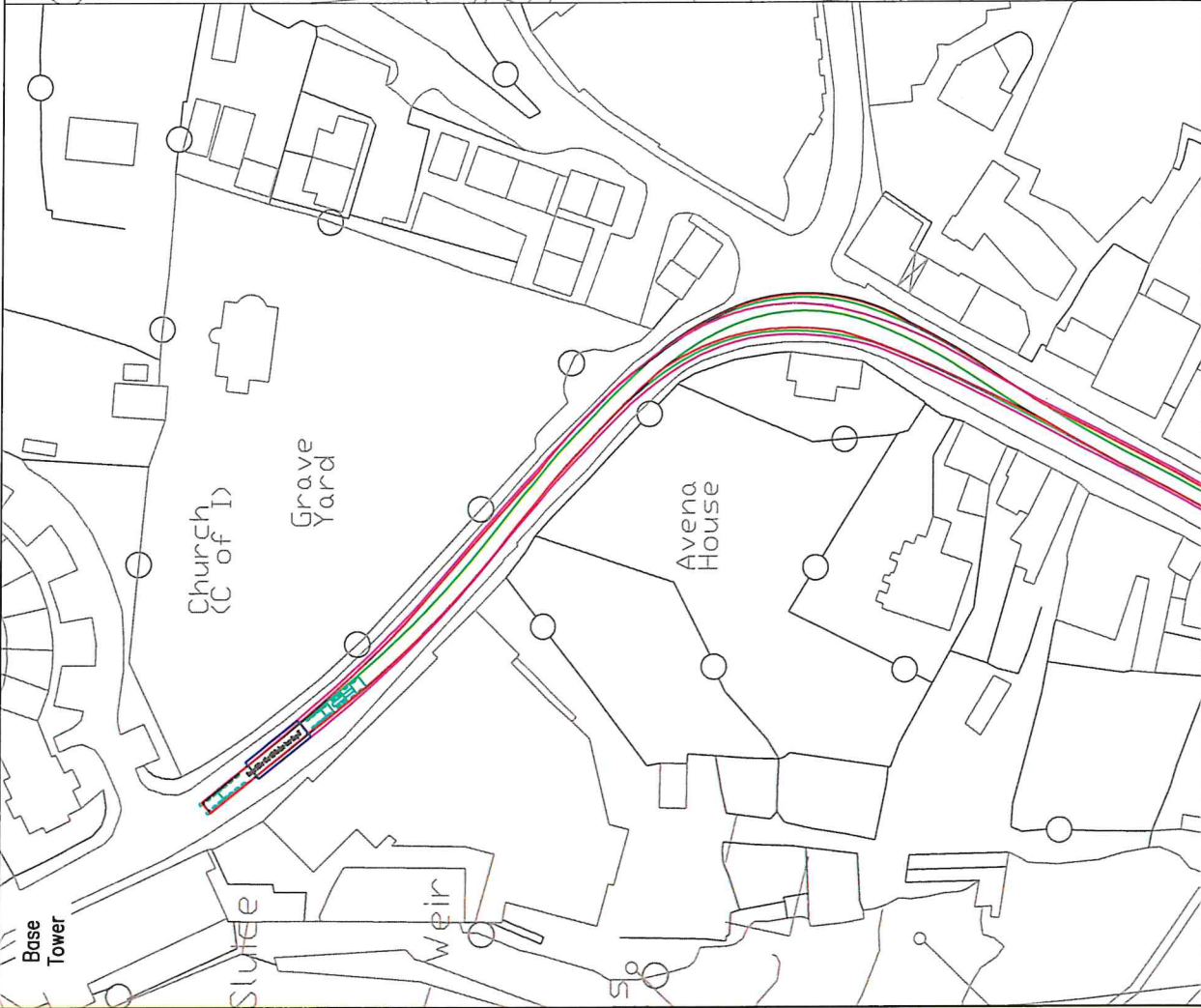
Pell Frischmann 73 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: pell@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm Nordex N117 and Mid Tower SPA Location / N59 Junction	
Client Nordex		Drawing Title Nordex N117 and Mid Tower SPA Location / N59 Junction	
Key Wheel SPA Body SPA Load SPA Indicative	Over-run Over-soil	Name TL TL GB	Date 11/08/2021 11/08/2021 11/08/2021
Scale 1:500 @ A3		File No. 090821 Oweninny 2 Tracking.dwg	
Point of Interest Drawing No. SK12A		Drawing Status Draft	
Note: 1. All modifications are subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.			Revision 1

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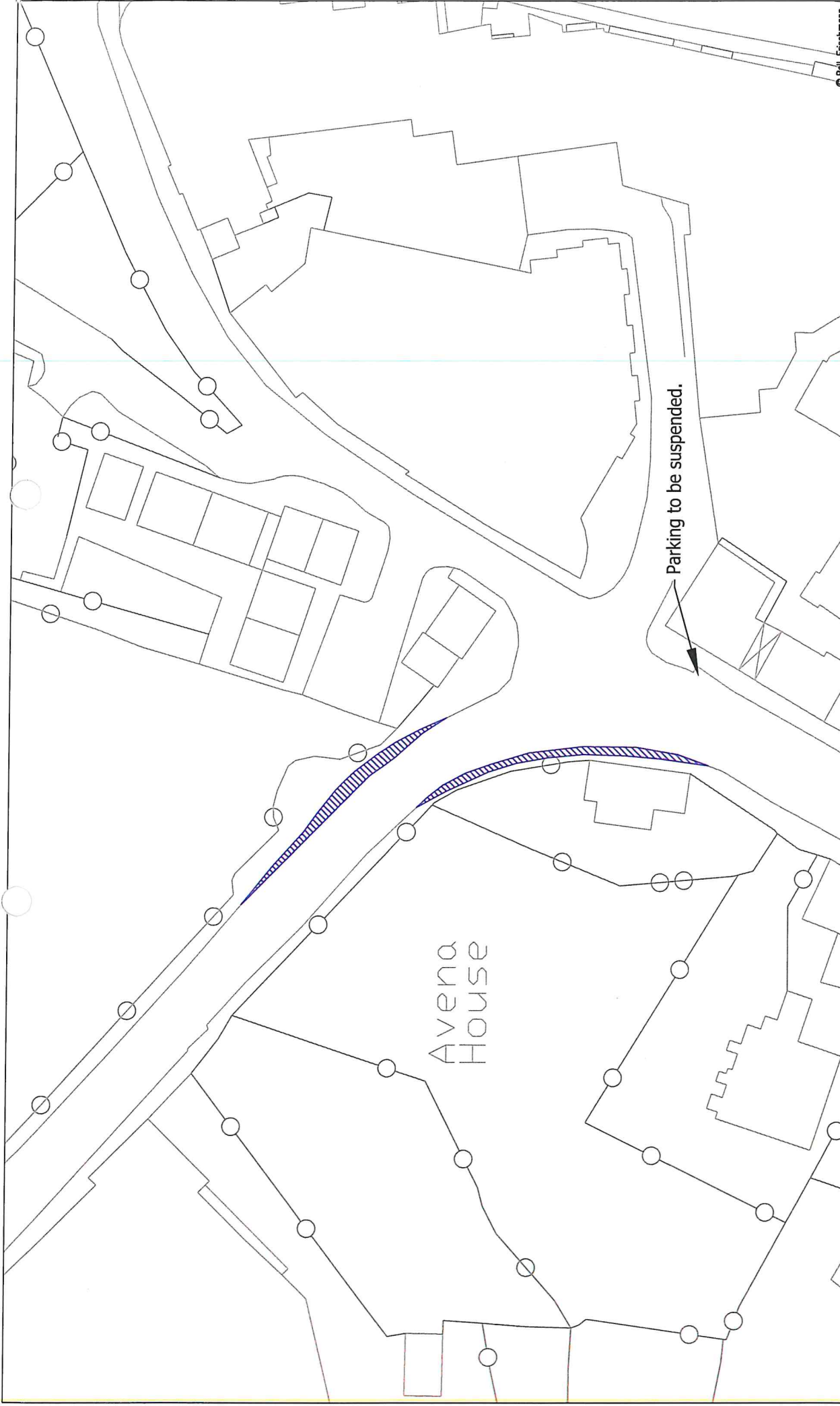


Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH3 3ES Tel: +44 (0)131 240 1270 Email: pellfrischmann@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Name: TL Date: 11/08/2021 Scale: 1:1000 @ A3
Client Nordex		Drawing Title: Nordex N117 and Mid Tower		Drawn: TL Date: 11/08/2021 File No: 090821 Oweninny 2 Tracking.dwg
Key Wheel SPA Body SPA Lead SPA Indicative Over-run Over-soil		SPA Location: N59 Right Bend, Ballysadare		Checked: GB Date: 11/08/2021 Drawing Status: Draft
Drawing No: SK13		Point of Interest: 24		Revision: 1

Notes:
 1. All regulations is subject to confirmation through a full set.
 2. This is not a construction drawing and is intended for illustration purposes only.

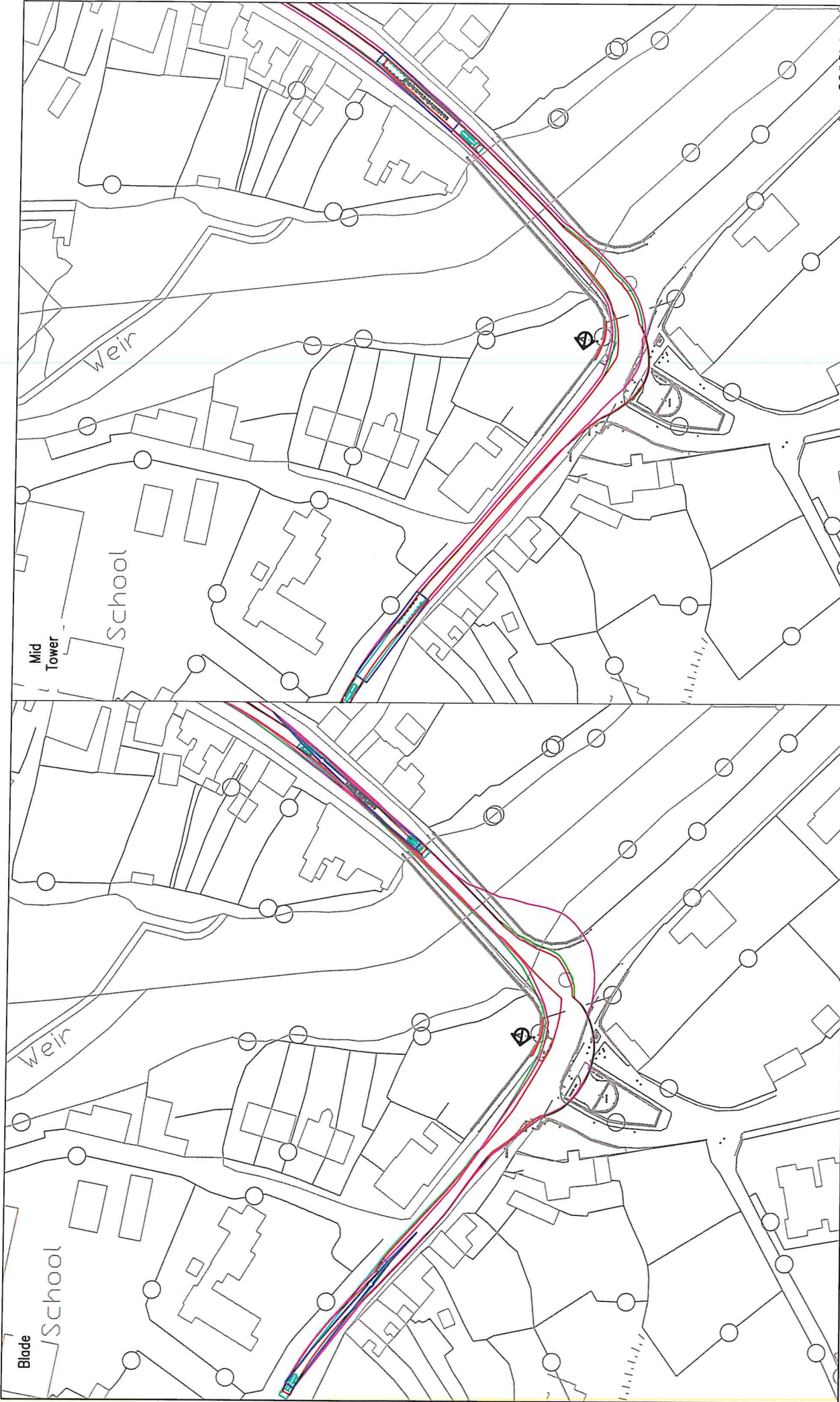


Pell Frischmann <small>93 GEORGE STREET, DUBLIN 1, D03 3E5 Tel: +353 (0)11 460 3700 Email: pell@pellfrischmann.com www.pellfrischmann.com</small>		Project Oweninny Wind Farm		Scale 1:1000 @ A3	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Date 11/08/2021	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sail		SPA Location <input type="checkbox"/> Right Bend, Ballysadare		Name TL	
Drawing No. SK13A		Point of Interest 24		Date 11/08/2021	
Notes: 1. All buildings to be subject to confirmation through a bat jet. 2. This is not a construction drawing and is intended for illustration purposes only.		Drawing Status Draft		File No. 090821 Oweninny 2 Tracking.dwg	
Revision 1		Revision 1		Checked GB	
Drawn TL		Designed TL		Checked GB	



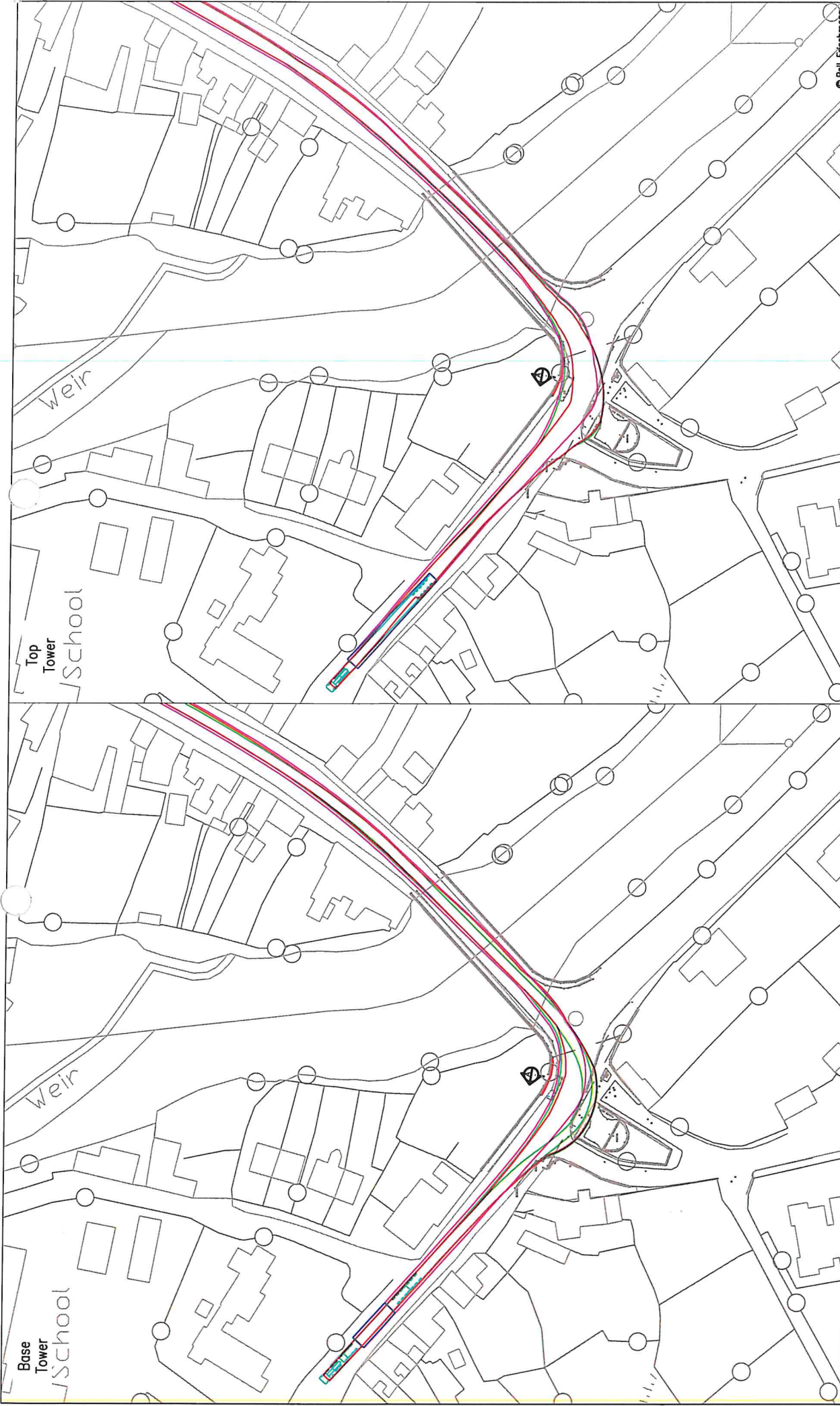
Pell Frischmann 93 GEORGE STREET, EDINBURGH, E16 3ES Tel: +44 (0)131 240 1270 Email: pell@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm Nordex N117 and Mid Tower N59 Right Bend, Ballysadare		Name: TL Date: 11/08/2021 Scale: 1:500 @ A3
Client Nordex		Drawn: TL Designed: TL Checked: GB Point of Interest: 24	File No: 090821_Oweninny 2_Tracking.dwg Drawing Status: Draft	Revision: 1
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sail		Drawing No: SK13B Notes: 1. All modifications subject to confirmation through a leaf cut. 2. This is not a construction drawing and is intended for illustration purposes only.		

© Pell Frischmann

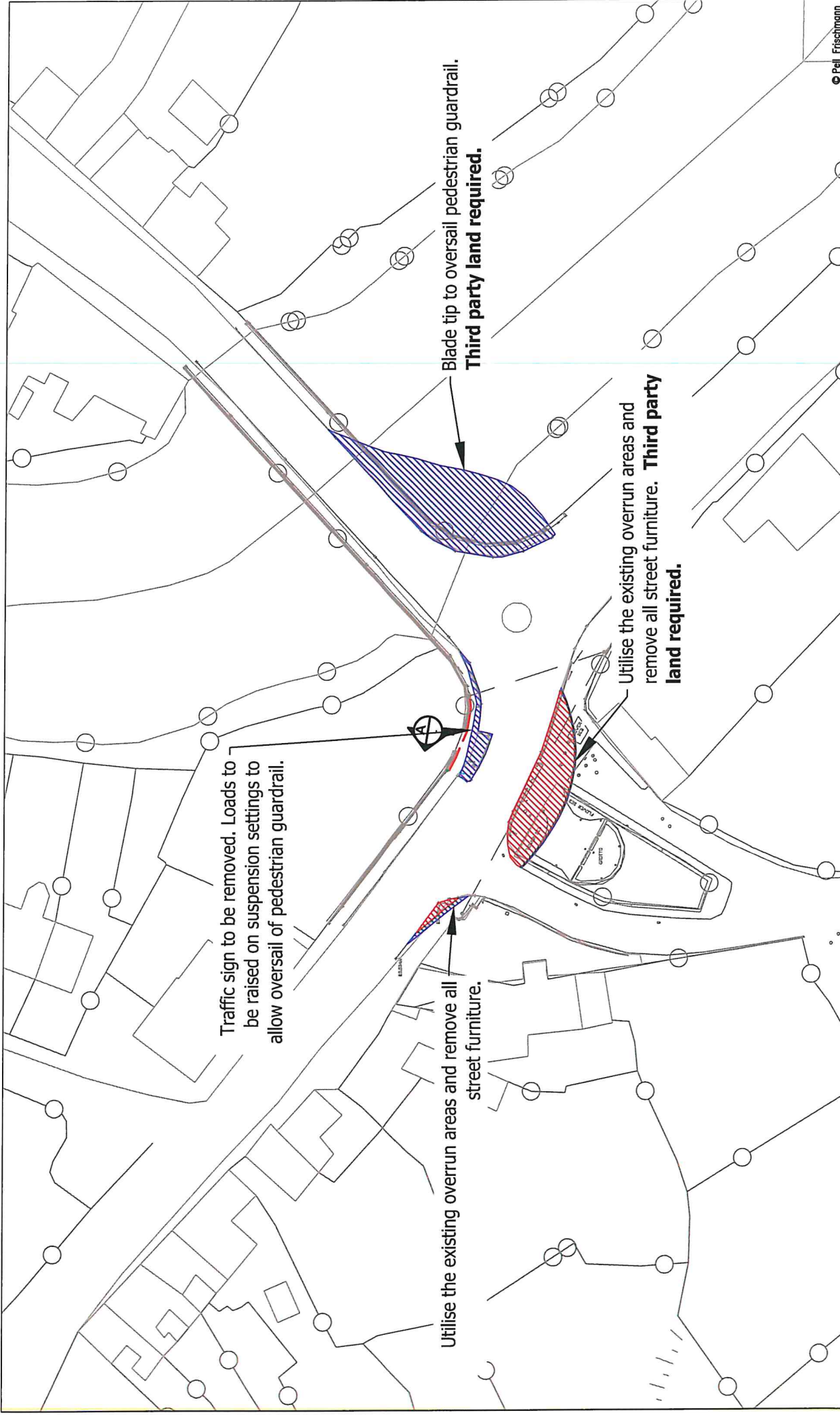


Pell Frischmann 73 GEORGE STREET, EDINBURGH, EC2 3ES Tel: +44 (0) 131 240 1370 Email: info@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm Nordex N117 and Mid Tower SPA Location: / R290 Ballysadare Right Bend		Client Nordex	
Key Wheel SPA Body SPA Load SPA Indicative	——— ——— ——— ———	Over-run Over-soil	[Red Hatched Box] Over-run [Blue Hatched Box] Over-soil	Drawn TL 11/08/2021	Name TL 11/08/2021
Designed TL 11/08/2021	Checked GB 11/08/2021	Point of Interest 25	Drawing No. SK14	Date 11/08/2021	Scale 1:1000 @ A3
Drawing Status Draft	Revision 1	<small>Notes: 1. This site plan is subject to confirmation through a final cut. 2. This is not a construction drawing and is intended for illustration purposes only.</small>			

© Pell Frischmann



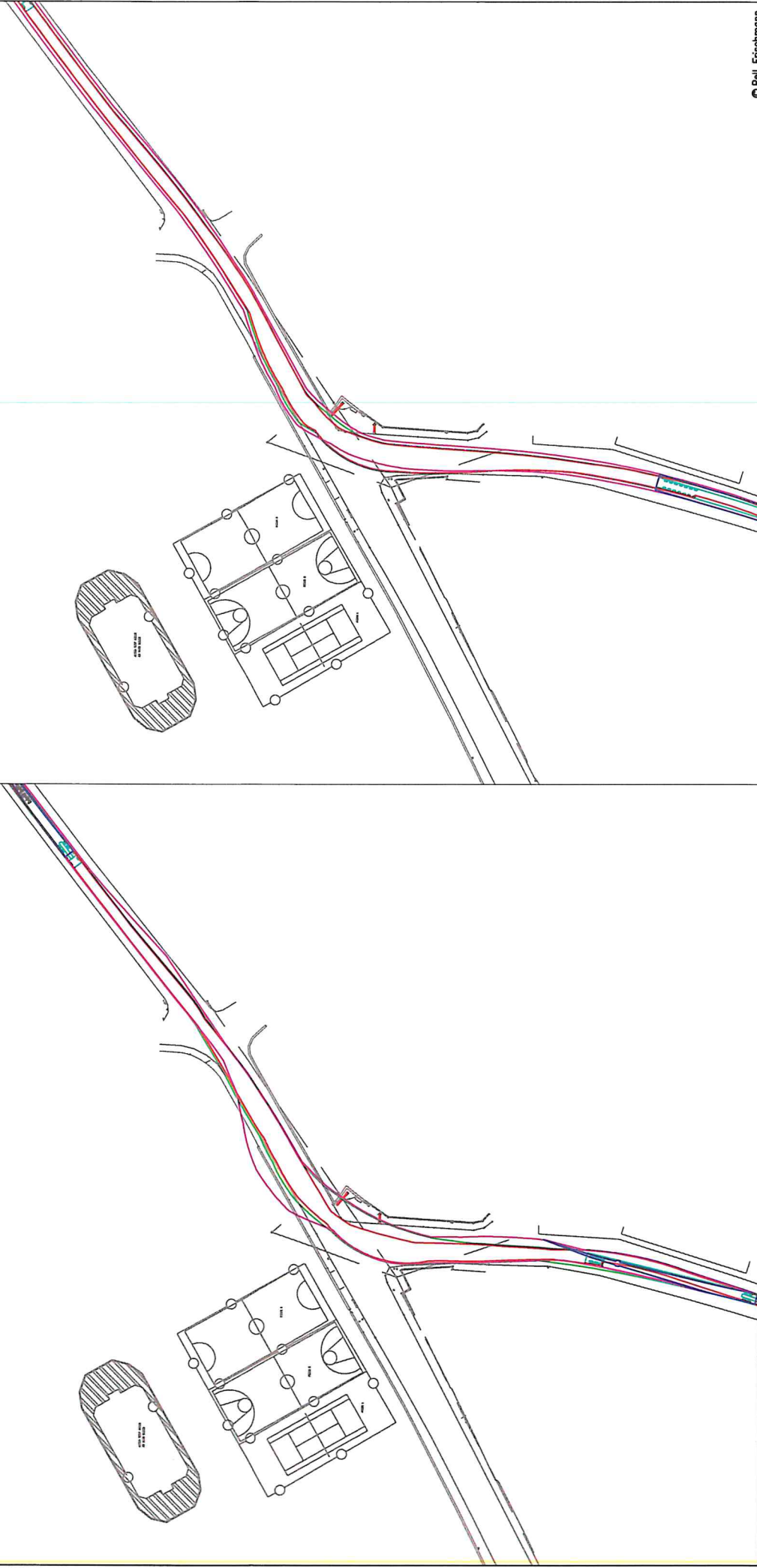
Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1370 Email: p.frischmann@pellfrischmann.com www.pellfrischmann.com		Oweninny Wind Farm		Scale Custom @ A3	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Name TL 11/08/2021 TL 11/08/2021 GB 11/08/2021	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sill		SPA Location N59 / R290 Ballysadare Right Bend		Date 11/08/2021 11/08/2021 25	
Project Oweninny Wind Farm		Drawing No. SK14A		File No. 090821 Oweninny 2 Tracking.dwg	
Revision 1		Drawing Status Draft		Notes 1. All revisions are subject to confirmation through a full set. 2. This is not a construction drawing and is intended for illustration purposes only.	



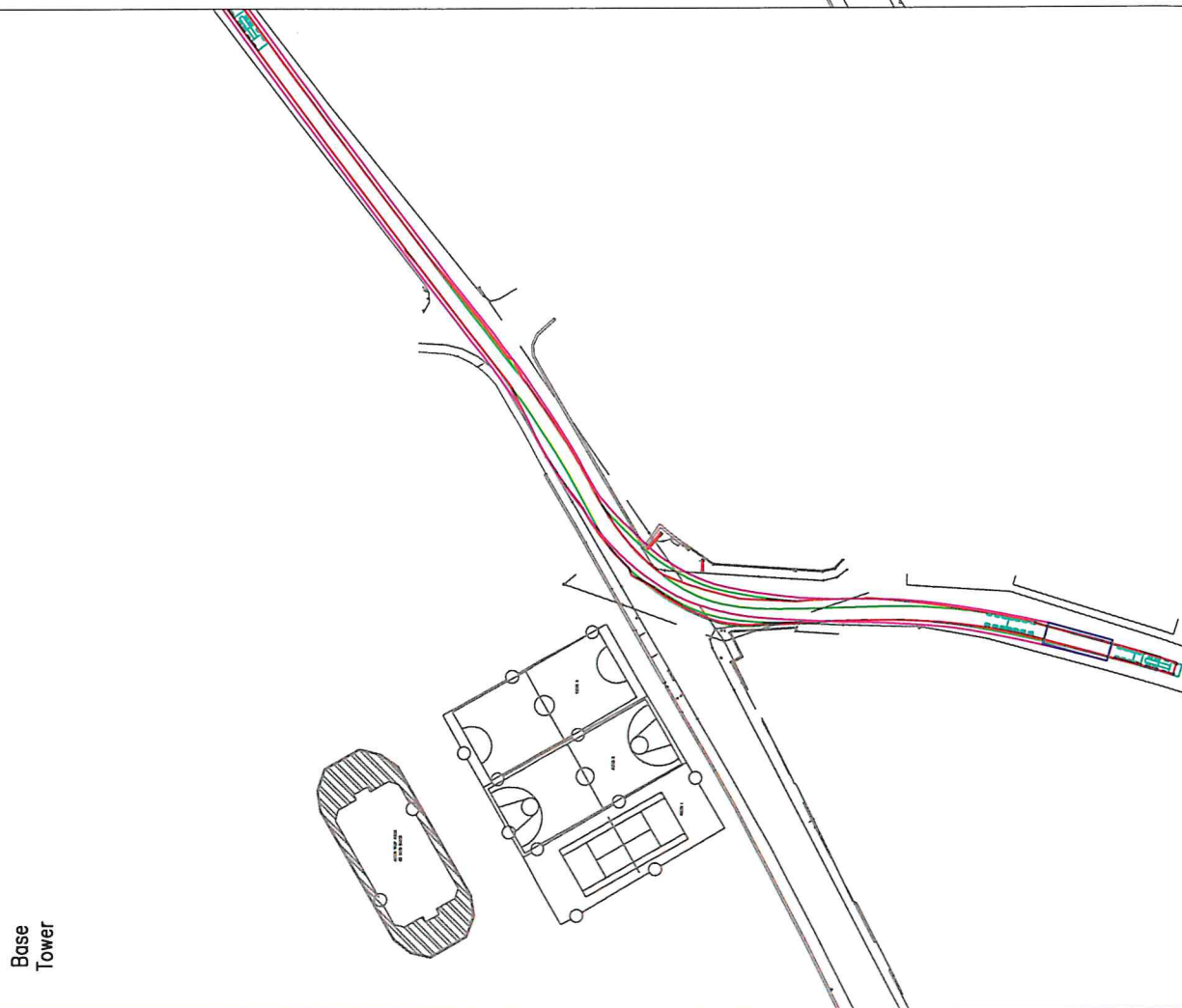
Pell Frischmann 93 GEORGE STREET EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: pfr@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Name TL	Date 11/08/2021	Scale 1:500 @ A3	© Pell Frischmann
		Drawing Title Nordex N117 and Mid Tower		Drawn TL	Designed TL	File No. 090821 Oweninny 2 Tracking.dwg	
		SPA Location / R290 Ballysadare Right Bend		Checked GB	11/08/2021	Drawing Status Draft	
Client Nordex				Point of Interest 25			
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-soil				Drawing No. SK14B			Revision 1
				<small>Notes:</small> 1. All mitigation is subject to confirmation through a land use. 2. This is not a construction drawing and is intended for illustration purposes only.			

Blade

Mid Tower

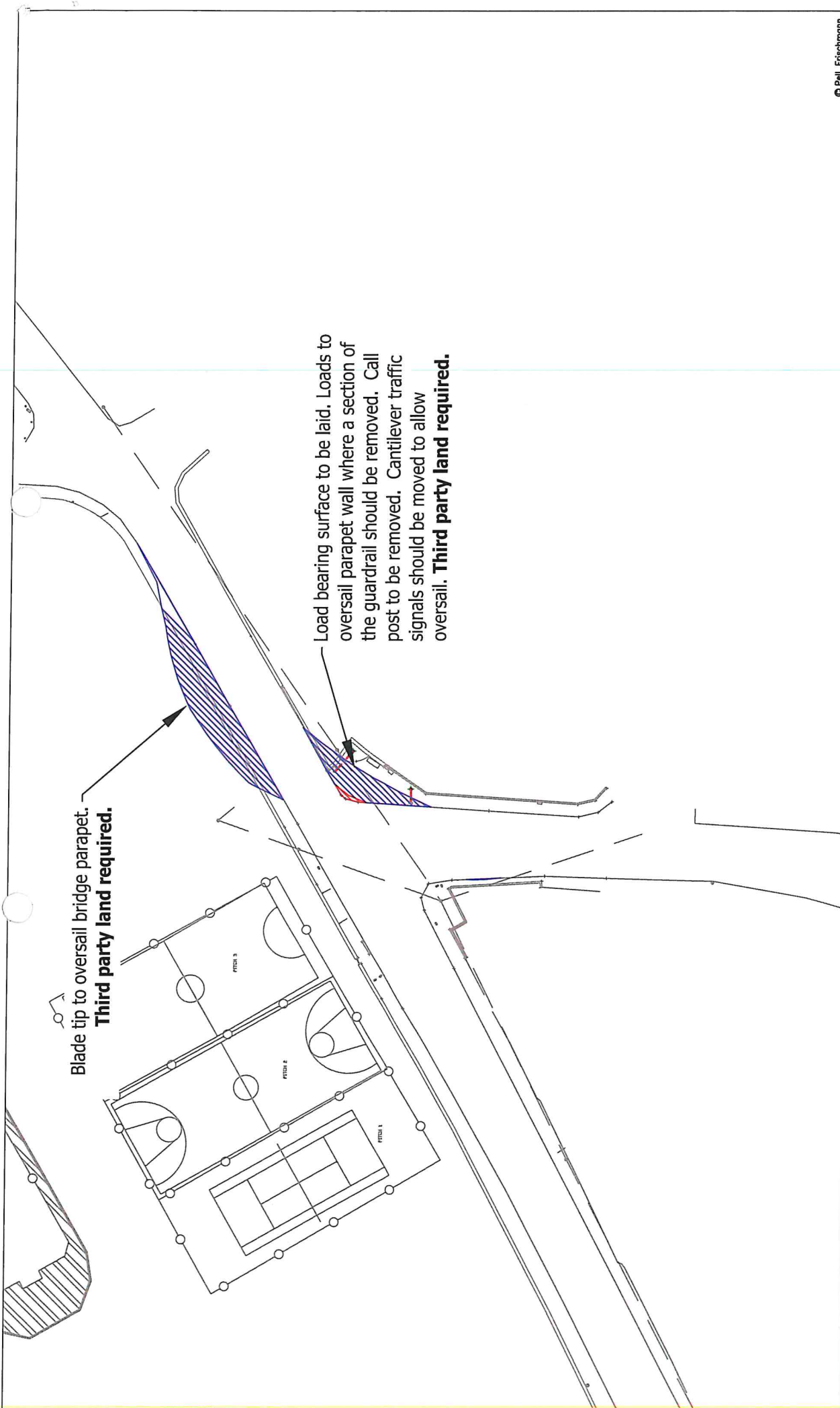


Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: pfrischmann@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Scale 1:1000 @ A3	© Pell Frischmann
Client Nordex	Drawing Title Nordex N117 and Mid Tower	Name TL	Date 11/08/2021	File No. 090821 Oweninny 2 Tracking.dwg	Drawing Status Draft
Key Wheel SPA Body SPA Load SPA Indicative	SPA Location N59 / Bunree Bridge Junction	Drawn TL	Designed TL	Checked GB	Point of Interest 31
Over-run Over-sail	Drawing No. SK15	Notes: 1. All obligations are subject to confirmation through a bill of materials. 2. This is not a construction drawing and is intended for illustration purposes only.			
					Revision 1



Pell Frischmann 79 GEORGE STREET, EDINBURGH, EH3 5JG Tel: +44 (0)131 240 1370 Email: pfrischmann@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Scale 1:1000 A3		Date 11/08/2021		Name TL		File No. 090821 Oweninny 2 Tracking.dwg	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Checked GB		Designed TL		Point of Interest 31		Drawing Status Draft	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-still		SPA Location / Bunree Bridge Junction		Drawing No. SK15A		Revision 1		<small> 1. All applications are subject to confirmation through a lead out. 2. This is not a construction drawing and is intended for illustration purposes only. </small>			

© Pell Frischmann

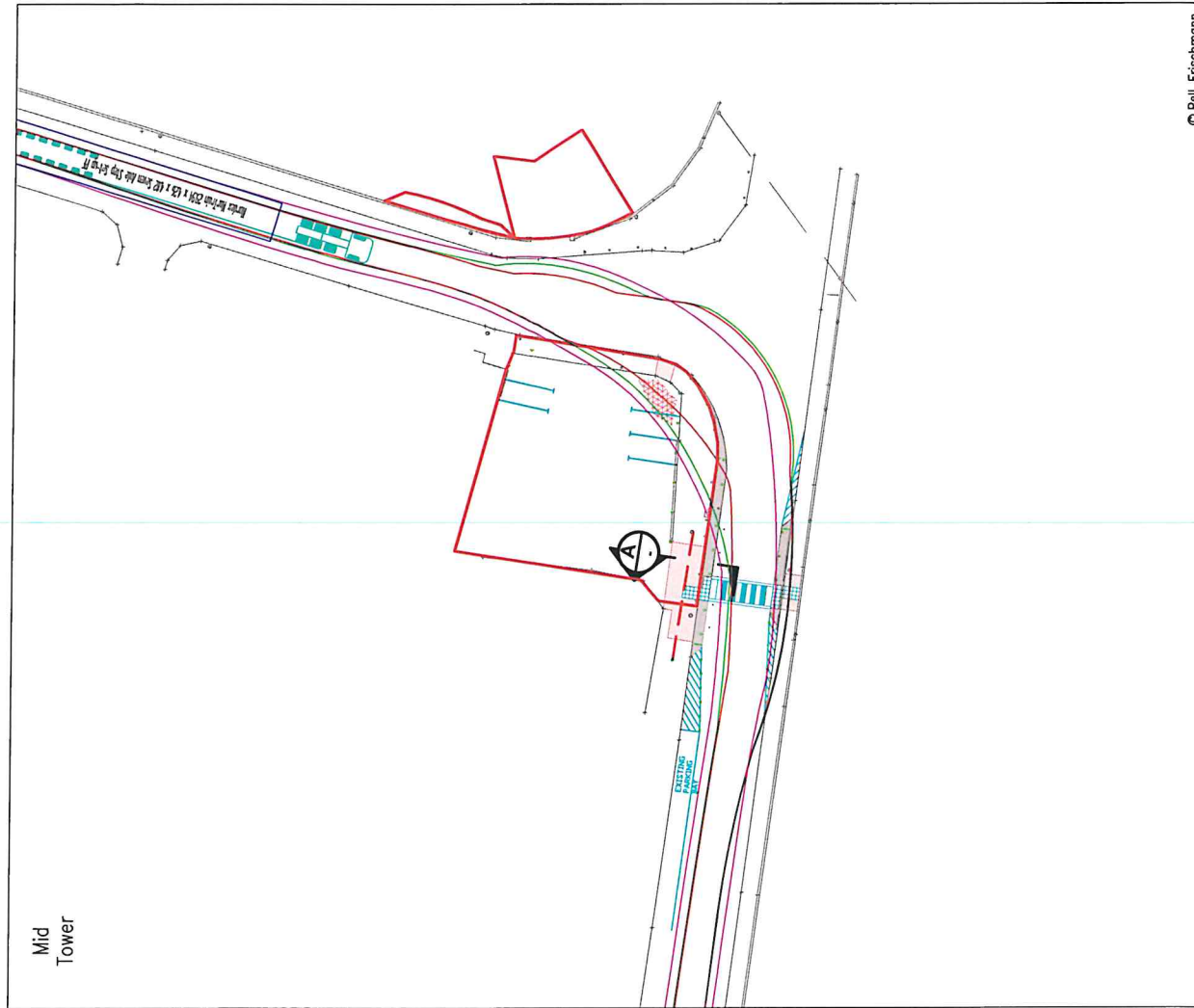
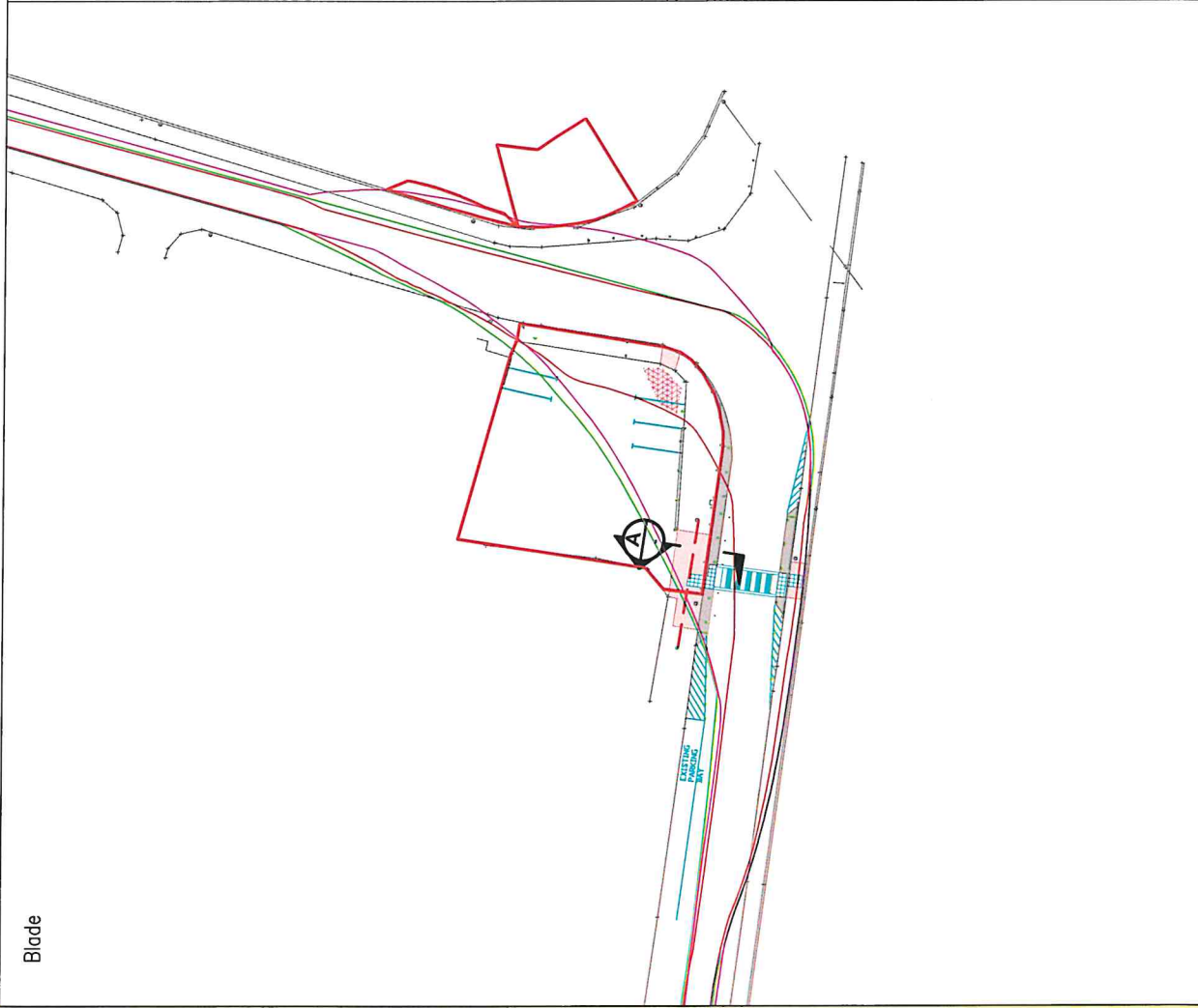


Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 242 1270 Email: pefr@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Name TL	Date 11/08/2021	Scale 1:500 @ A3	© Pell Frischmann
				Drawn TL	11/08/2021	File No. 090821 Oweninny 2 Tracking.dwg	
				Designed TL	11/08/2021	Drawing Status Draft	
				Checked GB	11/08/2021	Point of Interest 31	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Drawing No. SK15B		Revision 1	
Key Wheel SPA Body SPA Load SPA Indicative 		SPA Location N59 / Bunree Bridge Junction		Over-run 		Over-sail 	

Notes:
 1. All obligations are subject to confirmation through a final run.
 2. This is not a construction drawing and is intended for consultation purposes only.

Blade

Mid Tower



Pell Frischmann
 93 GEORGE STREET, EDINBURGH, E12 3ES
 Tel: +44 (0)131 240 1270
 Email: p.frischmann@pellfrischmann.com
 www.pellfrischmann.com

Project
 Oweninny Wind Farm

© Pell Frischmann

Scale
 1:500 @ A3

Date
 11/06/2021

Name
 TL

Drawn
 TL

Designed
 TL

Checked
 GB

Point of Interest
 Drawing No.
 SK16

Point of Interest
 32

Drawing Status
 Draft

File No.
 090821 Oweninny 2 Tracking.dwg

Revision
 1

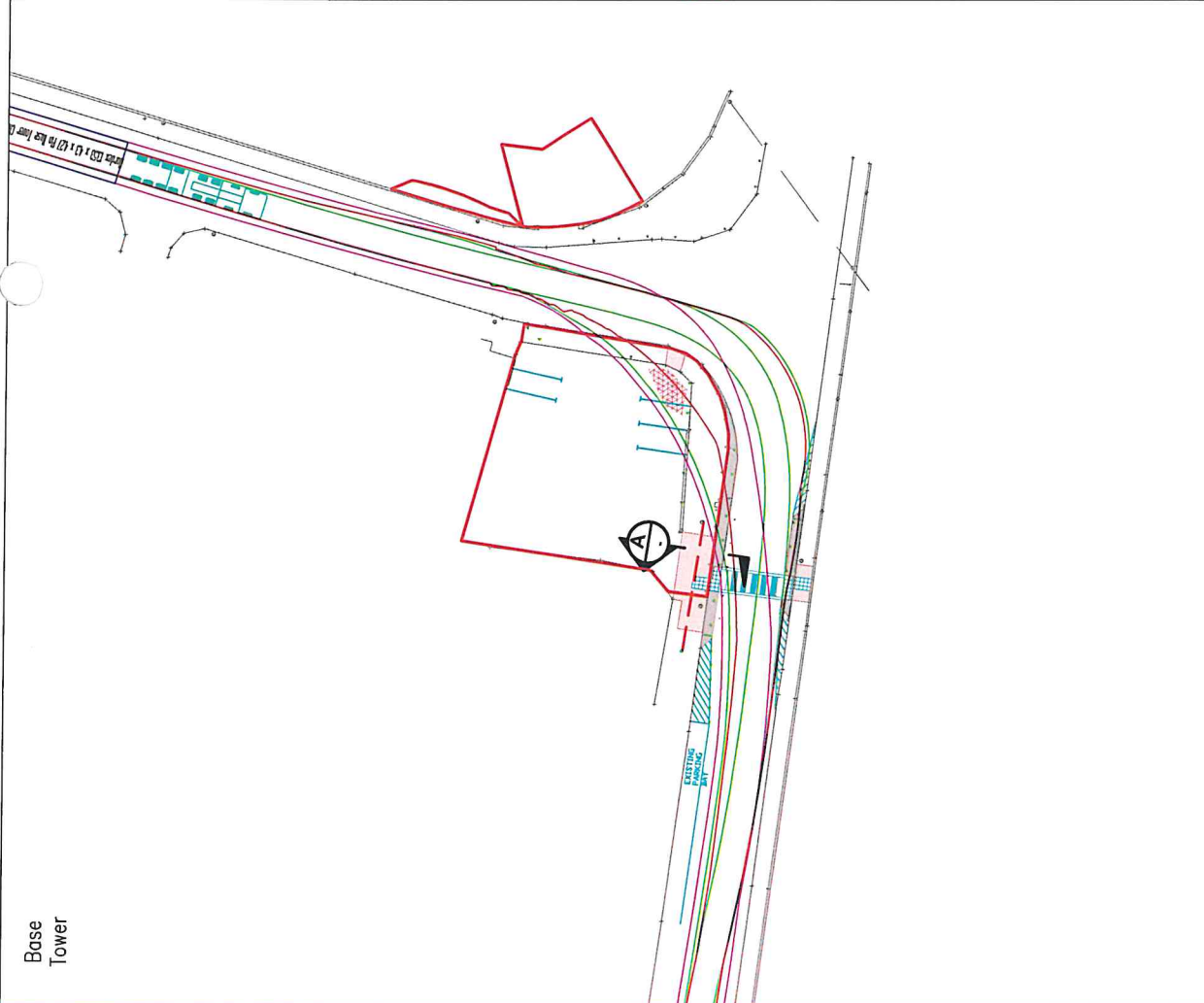
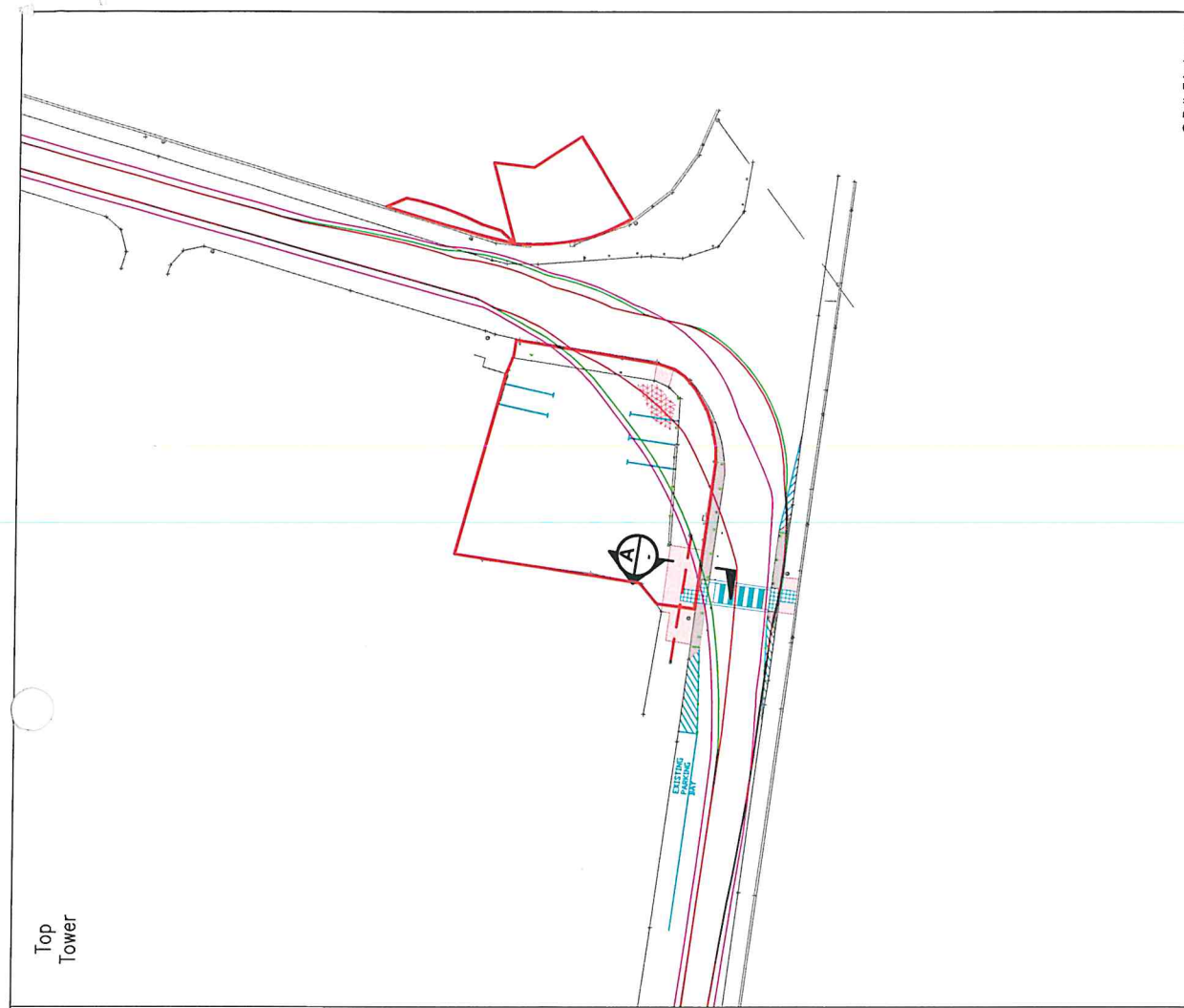
Client
 Nordex

Drawing Title
 Nordex N117 and Mid Tower

SPA Location
 See Rd / R294 Junction

Note:
 1. All information 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
	Over-run
	Over-sail

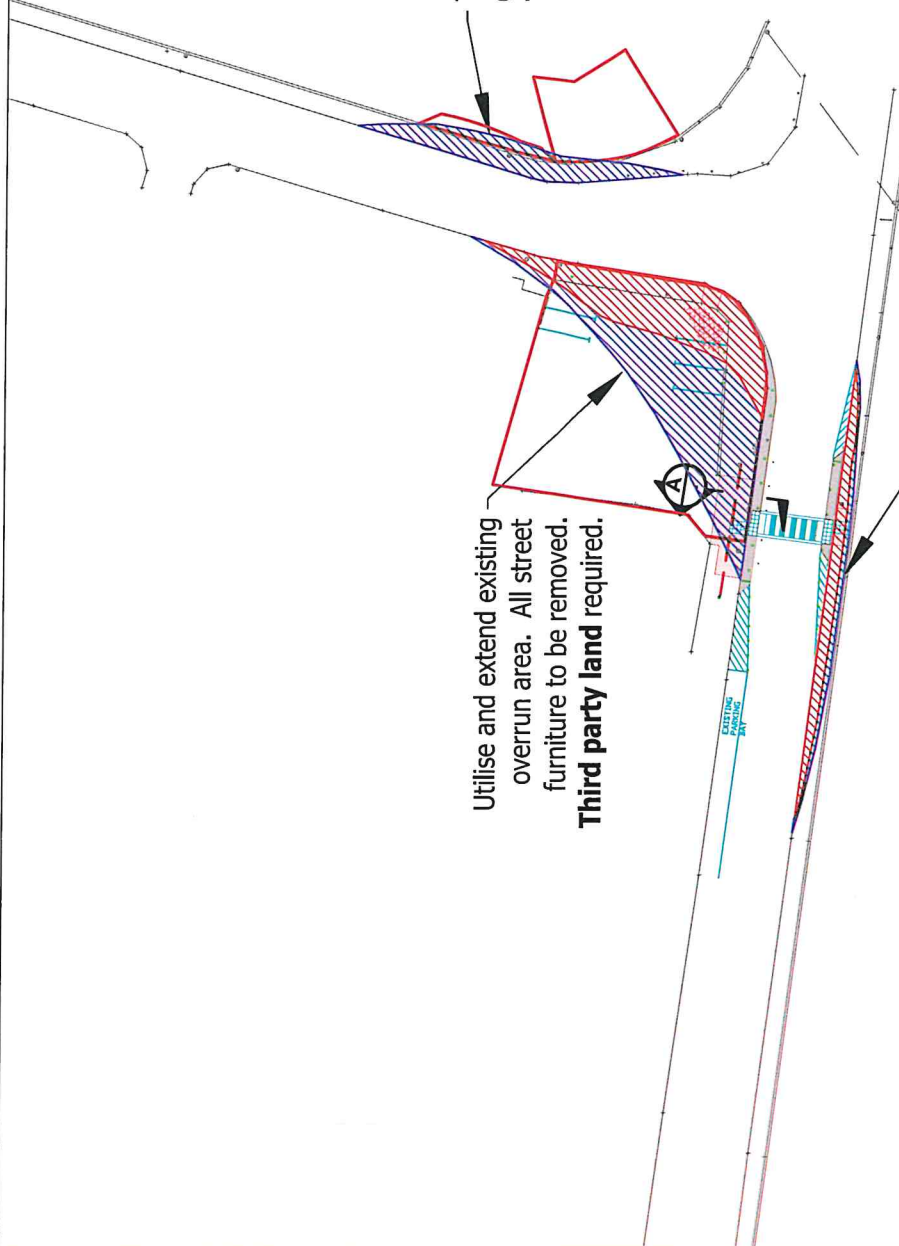


Pell Frischmann 93 GEORGE STREET, EDINBURGH, E10 3J5 Tel: +44 (0)131 240 1270 Email: pell@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		© Pell Frischmann Scale 1:500 @ A3	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Name TL 11/08/2021	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sail		SPA Location Bunree Rd / R294 Junction		Date TL 11/08/2021	
Drawing No. SK16A		Point of Interest 32		File No. 090821 Oweninny 2 Tracking.dwg	
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.		Drawing Status Draft		Revision 1	

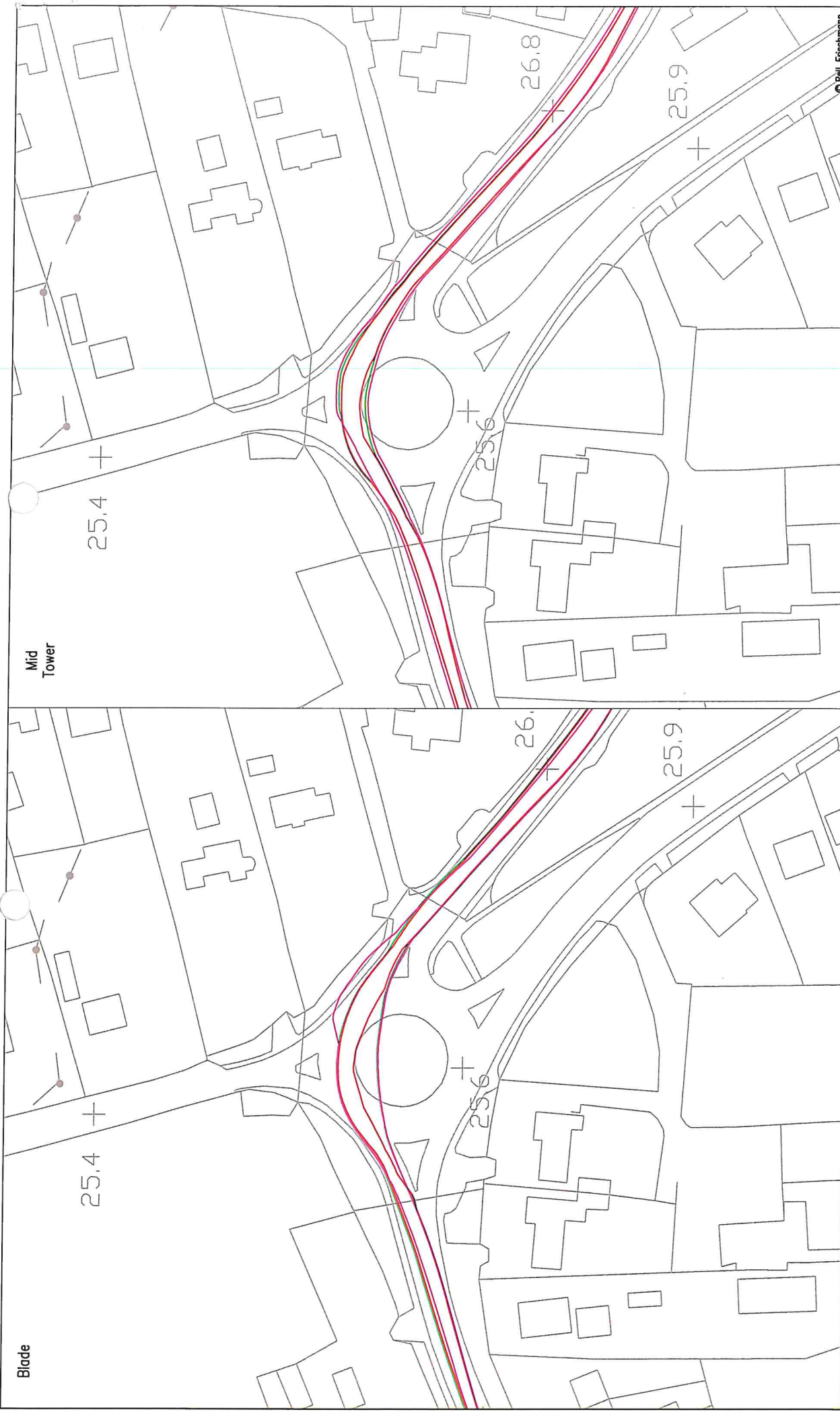
Utilise and extend existing overrun area. All street furniture to be removed.
Third party land required.

Two bollards, one road sign and one lighting column to be removed.
Third party land required.

Utilise and extend existing overrun area.
 All street furniture to be removed.

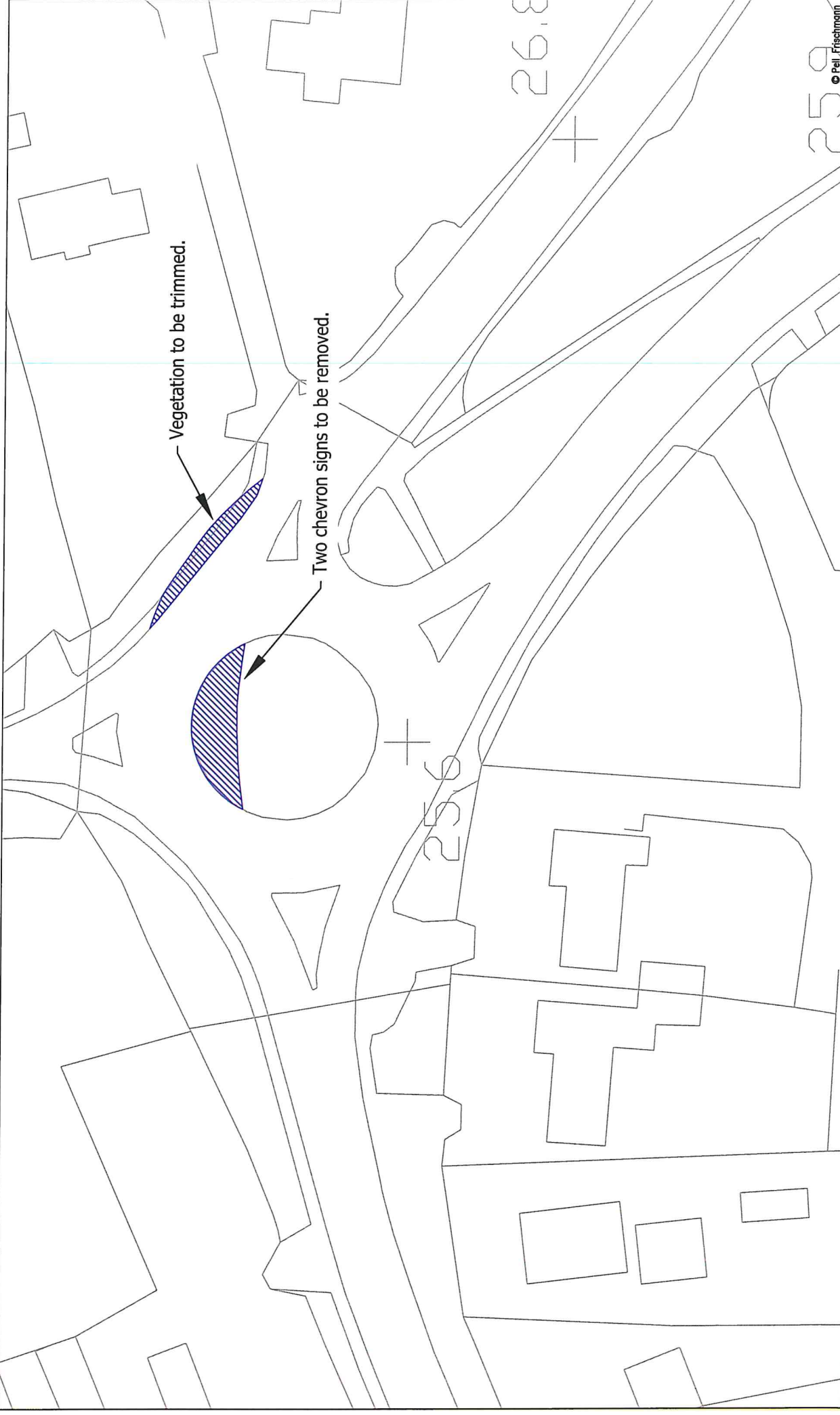


Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: pfr@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Scale 1:500 @ A3		© Pell Frischmann	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Name TL		Date 11/06/2021	
Key Wheel SPA Body SPA Load SPA Indicative		SPA Location ee Rd / R294 Junction		Drawn TL		File No. 090821 Oweninny 2 Tracking.dwg	
Over-sill		Over-run		Checked GB		Drawing Status Draft	
Over-soil		Point of Interest Drawing No. SK16B		Point of Interest 32		Revision 1	
Note: 1. All information is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.							

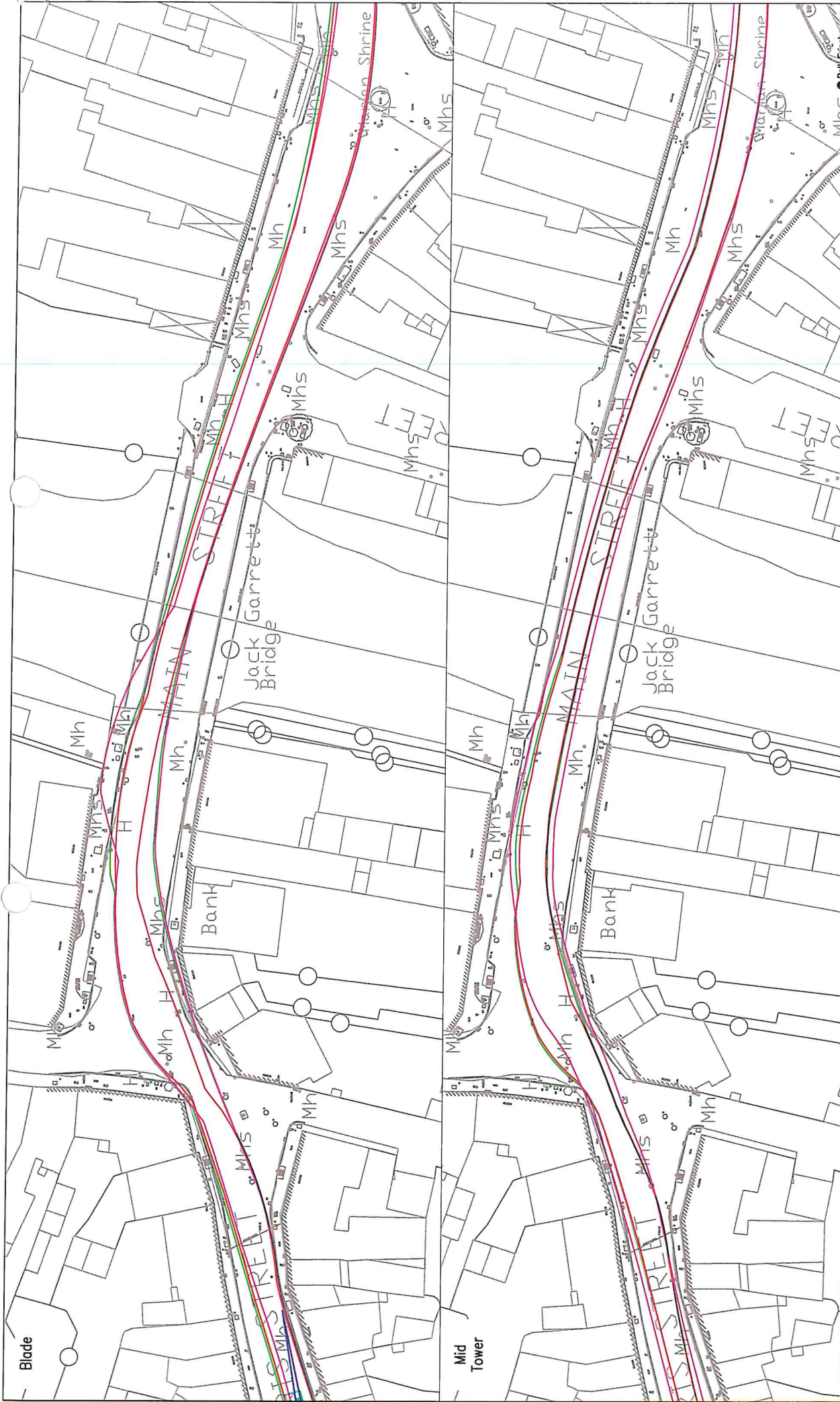


Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH3 3ES Tel: +44 (0)131 240 1270 Email: pefr@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm Nordex N117 and Mid Tower		Name JL 11/08/2021	Date 11/08/2021	Scale 1:1000 @ A3	© Pell Frischmann
		Client Nordex		Drawn JL 11/08/2021	Designed JL 11/08/2021	File No. 090821 Oweninny 2 Tracking.dwg	
		Drawing Title Nordex N117 and Mid Tower		Checked GB 11/08/2021	Point of Interest 37	Drawing Status Draft	
		SPA Location L1109 / N59 Gurteens Roundabout		Drawing No. SK17	Revision 1		

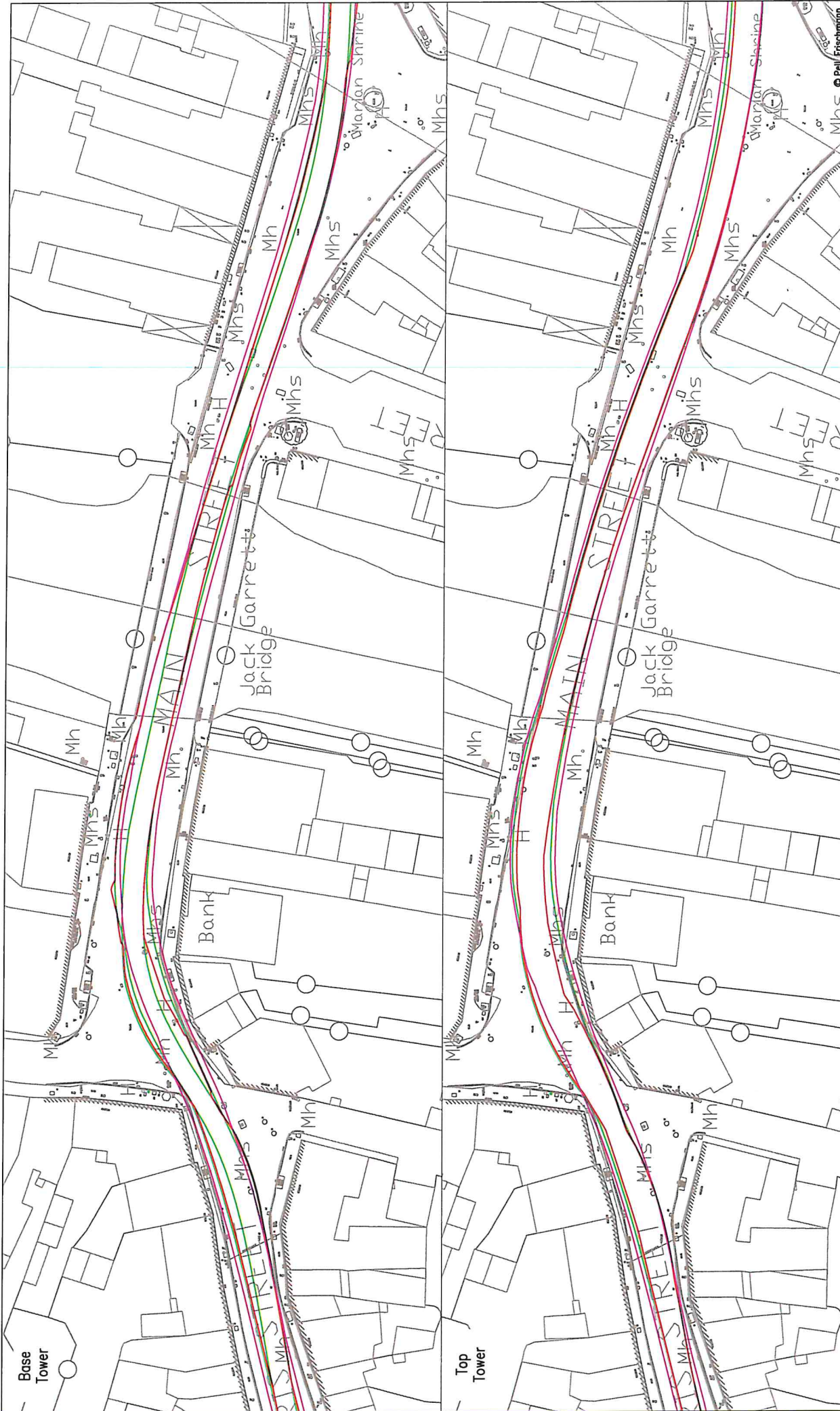
Notes:
 1. All obligations are subject to confirmation through a final contract.
 2. This is not a construction drawing and is intended for illustration purposes only.



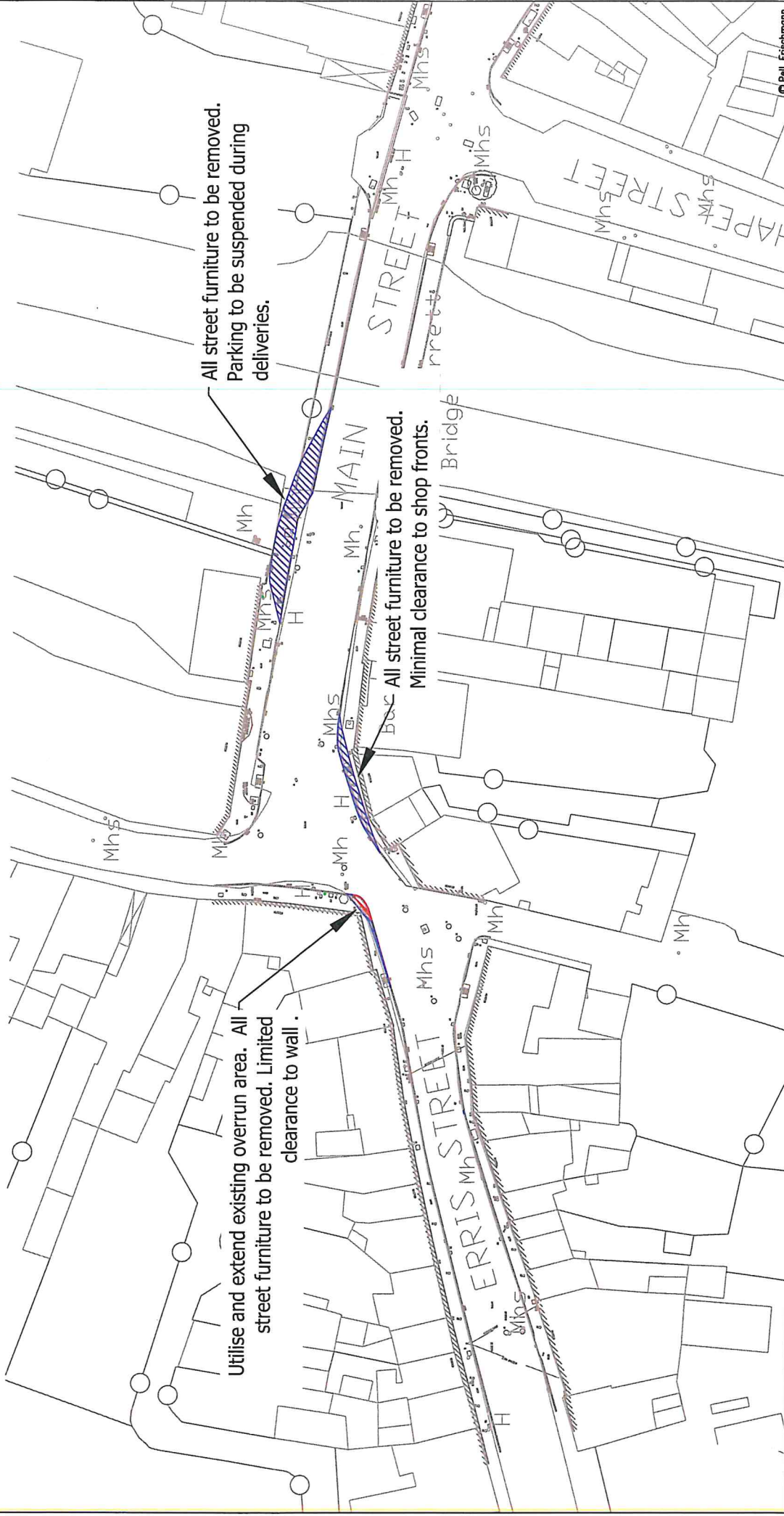
Pell Frischmann 93 GEORGE STREET, EDINBURGH, E12 3ES Tel: +44 (0)131 240 1270 Email: pe@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Name TL Date 11/06/2021	Scale 1:500 @ A3
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Drawn TL Date 11/06/2021	File No. 090821 Oweninny 2 Tracking.dwg
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sail		SPA Location 9 / N59 Curteens Roundabout		Designed TL Date 11/06/2021	Drawing Status Draft
Point of Interest Drawing No. SK17A		Point of Interest 37		Checked GB Date 11/06/2021	Revision 1
<small>Notes: 1. All mitigation is subject to confirmation through a land use. 2. This is not a construction drawing and is intended for illustration purposes only.</small>					



Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: p.frischmann@pellfrischmann.com www.pellfrischmann.com	Project Oweniny Wind Farm		Name TL	Date 11/08/2021	Scale 1:500 @ A3
	Drawn TL	Designed TL	File No. 090821 Oweniny 2 Tracking.dwg	Checked GB	Date 11/08/2021
	Point of Interest 39	Drawing Status Draft	Drawing No. SK18	Revision 1	Notes 1. All activities subject to confirmation through a full ILM. 2. This is not a construction drawing and is intended for illustration purposes only.
	Drawing Title Nordex N117 and Mid Tower	SPA Location N59, Crossmolina	Client Nordex	Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sail	

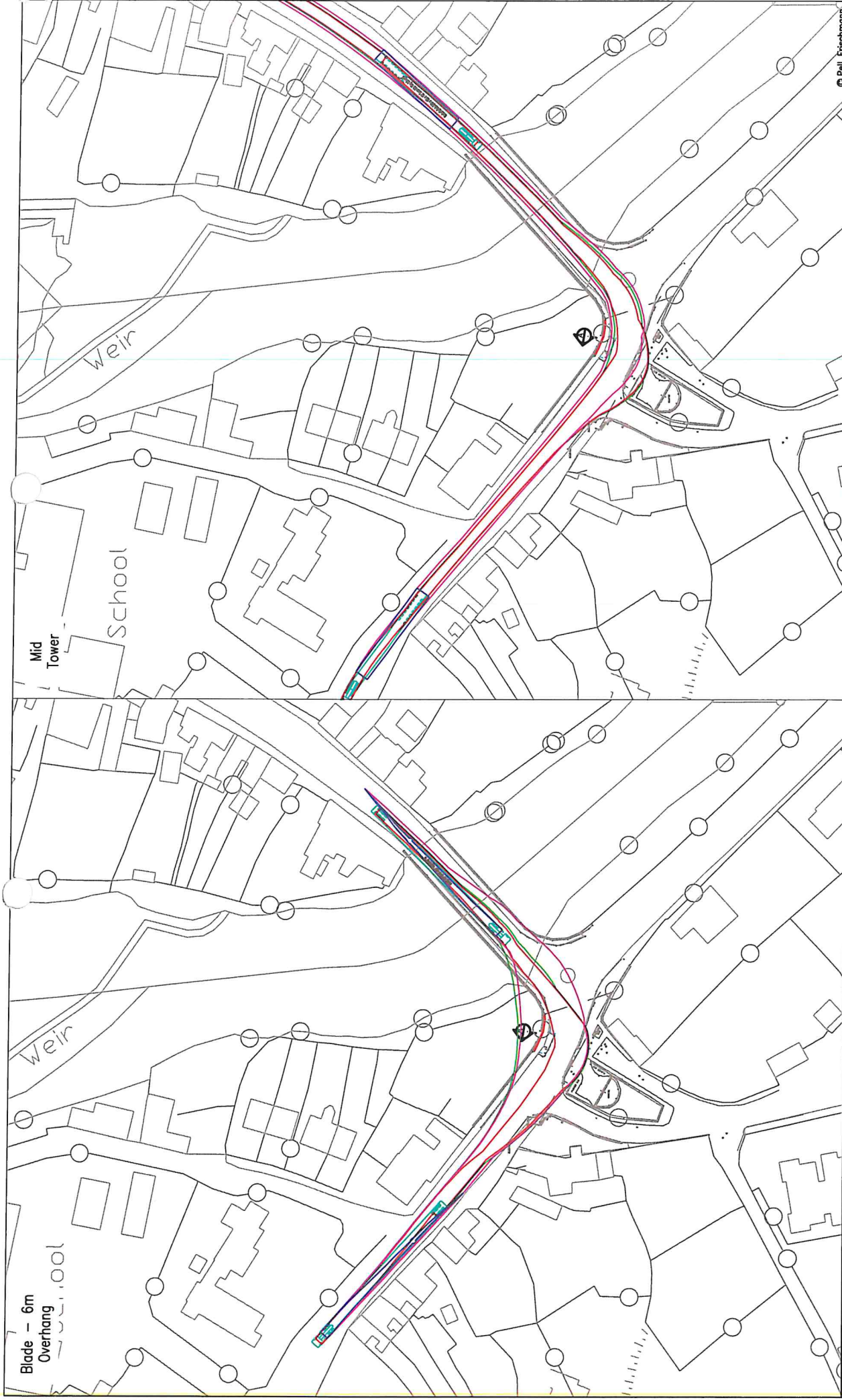


Pell Frischmann <small>19 GEORGE STREET, EDINBURGH, E12 3ES Tel: +44 (0)131 240 1270 Email: pell@pfrischmann.com www.pellfrischmann.com</small>		Project Owendinny Wind Farm		Name TL	Date 11/06/2021	Scale 1:500 @ A3
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Drawn TL	Designed TL	File No. 090821 Owendinny 2 Tracking.dwg
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-soil		SPA Location Crossmolina		Checked GB	Point of Interest 39	Drawing Status Draft
Drawing No. SK18A		Revision 1		<small>Notes: 1. All obligations are subject to confirmation through a lead LSA. 2. This is not a construction drawing and is intended for illustration purposes only.</small>		

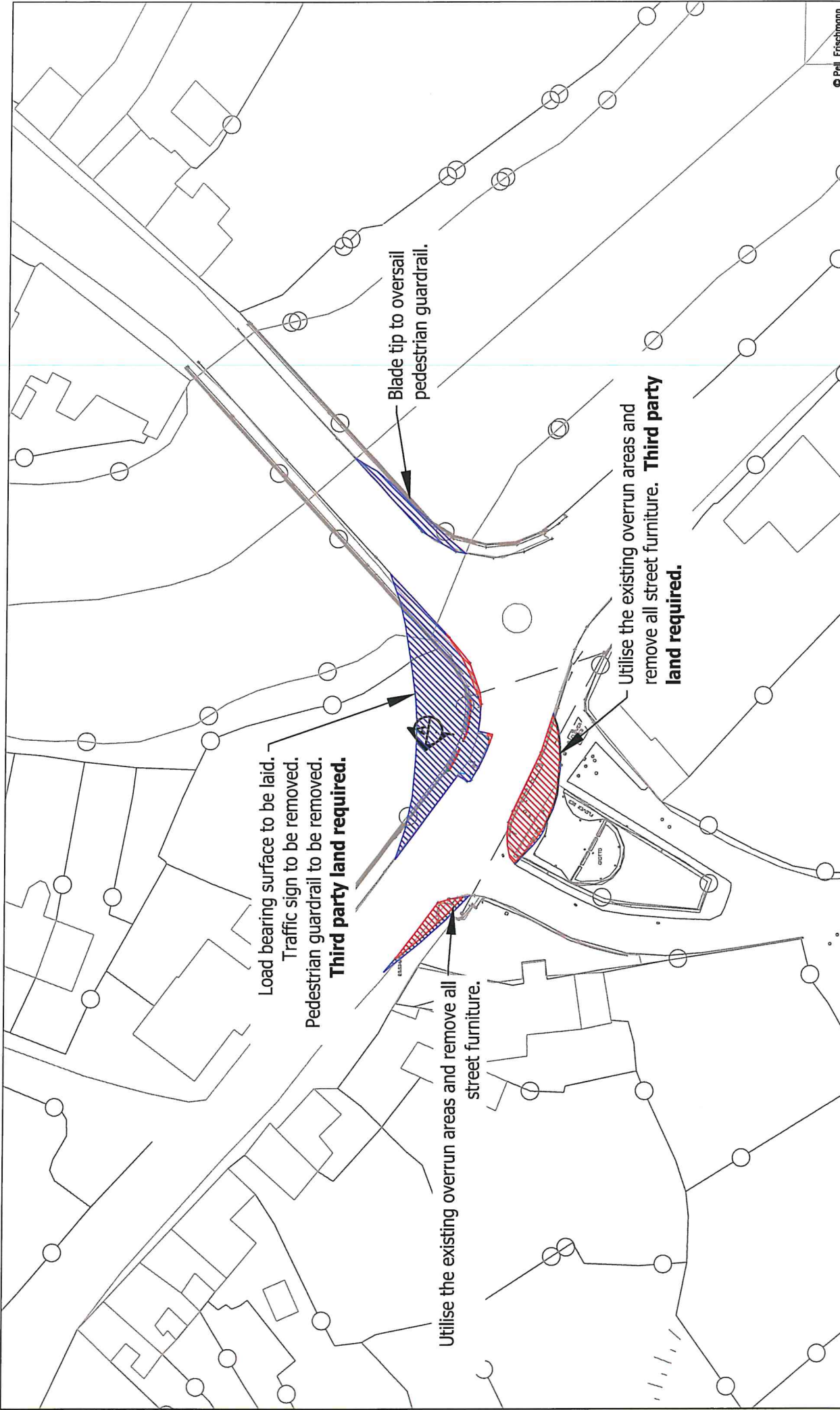


Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: pell@pellfrischmann.com www.pellfrischmann.com		Project Owendinny Wind Farm		Name: TL Date: 11/08/2021 Scale: 1:500 @ A3
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Drawn: TL Date: 11/08/2021 File No: 090821 Owendinny 2 Tracking.dwg
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sail		SPA Location N59, Crossmolina		Designed: TL Date: 11/08/2021 Checked: GB Date: 11/08/2021
Revision 1		Drawing Status Draft		Point of Interest: 39 Drawing No: SK18B Notes: 1. All obligations are subject to confirmation through a lead run. 2. This is not a construction drawing and is intended for illustration purposes only.

Appendix C - Ballysadare 6m Blade Tracking



Pell Frischmann 13 GEORGE STREET, DUBLIN 1, D02 YK11 Tel: +353 (0)1 248 1270 Email: pfrischmann@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm Nordex N117 and Mid Tower		Scale 1:1000 @ A3	© Pell Frischmann
Client Nordex	Drawing Title SPA Location N59 / R290 Ballysadare Right Bend	Drawn TL	Name TL	Date 11/08/2021	File No. 090821 Oweninny 2 Tracking.dwg
Key Wheel SPA (red line) Body SPA (green line) Load SPA (blue line) Indicative (cyan line)	Over-sail (blue hatched) Over-run (red hatched)	Designed TL	Checked GB	Date 11/08/2021	Drawing Status Draft
Revision 1	Drawing No. APP C	Point of Interest 25	Revision 1	Notes 1. All revisions are subject to confirmation through a lead run. 2. This is not a construction drawing and is intended for illustration purposes only.	Revision 1



Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1770 Email: pfrischmann@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Name TL	Date 11/08/2021	Scale 1:500 @ A3	Client Nordex
Drawn TL	Designed TL	Checked GB	File No. 090821 Oweninny 2 Tracking.dwg	Point of Interest 25	Drawing No. APP CA	Drawing Status Draft	Revision 1
Drawing Title Nordex N117 and Mid Tower		SPA Location R290 Ballysodare Right Bend		Notes: 1. All obligations are subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.			

Appendix B – Abnormal Load Permits

John McMyler

From: Allen, Brendan (Engineering and Major Projects) <brendan.allen@esb.ie>
Sent: 11 June 2021 16:43
To: John McMyler
Cc: Planning
Subject: Planning Compliance PA0029 Oweninny Windfarm COndition 11
Attachments: RE: Oweninny Wind Farm - Phase 2

External Email: Do not click links or open attachments unless you recognise the sender and are sure that the content is safe.

John

I am following up in relation to Condition 11.

In our submission **Discharge of Planning Permission Conditions Phase 2** dated December 2020 we stated the following:

2.11 Condition 11 - Aeronautical Requirements

2.11.1 Details of Condition

Aeronautical requirements shall be agreed in writing with the planning authority prior to commencement of development. Subsequently, the developer shall inform the planning authority and the Irish Aviation Authority of the co-ordinates of the 'as constructed' positions of the turbines and the highest point of the turbines to the top of the blade spin.

Reason: In the interest of air traffic safety.

2.11.2 Response

OP2DAC submitted details of the proposed wind farm to the Irish Aviation Authority (IAA) on 20th of October 2020. Refer to **Appendix D Copy of Correspondence to IAA**. The purpose of that submission was to enable the IAA to confirm their aeronautical requirements. We are currently awaiting a response from the IAA. Once a response is received, this will be submitted to MCC for agreement in writing. OP2DAC will send co-ordinates of 'as constructed' turbine positions once constructed to the IAA and to MCC.

2.11.3 Requirement from MCC at this Time

We do not require any specific actions from MCC at this time. However once a response is received from the IAA, this will be submitted to MCC for agreement in writing.

We have now received a response from the IAA and as per 2.11.3 we are submitting this to MCC for your agreement in writing. The IAA response confirms acceptability of the proposed aeronautical requirements subject to some amendments.

Attached to this email is the response as received from the IAA.

I would be obliged if this email could be acknowledged and acceptability of the proposals be confirmed in writing or email by MCC.

Regards,

Brendan Allen | Planning Team Leader | Engineering & Major Projects | ESB
T: +353 1 703 8195 M: 086 8336990 | www.esb.ie
One Dublin Airport Central, Dublin Airport, Cloghran, Co. Dublin, K67 XF72.

An timpeallacht? - Smaoinigh air sula bpriontáileann tú an r-phost seo.
Please consider the Environment before printing this email.

* * * * *

Tá an t-eolas sa ríomhphost seo agus in aon chomhad a ghabhann leis rúnda agus ceaptha le haghaidh úsáide an té nó an aonáin ar seoladh chuige iad agus na húsáide sin amháin.

Is tuairimí nó dearcthaí an údair amháin aon tuairimí nó dearcthaí ann, agus ní gá gurb ionann iad agus tuairimí nó dearcthaí ESB.

Má bhfuair tú an ríomhphost seo trí earráid, ar mhiste leat é sin a chur in iúl don seoltóir.

Scanann ESB ríomhphoist agus ceangaltáin le haghaidh víreas, ach ní ráthaíonn sé go bhfuil ceachtar díobh saor ó víreas agus ní glacann dliteanas ar bith as aon damáiste de dhroim víreas.

<https://www.esb.ie/contact>

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<https://www.esb.ie/contact>

* * * * *

John McMyler

From: John McMyler
Sent: 12 February 2021 17:23
To: Brendan Allen
Cc: John McMyler
Subject: Fw:

Brendan

I refer to your submission of the 8/12/20.

I wish to confirm that your submissions for the following conditions are acceptable to Mayo County Council,

Conditions: 1,5,6,7,8,9,10,12,13,15,16 and 20.

In relation to conditions 18 and 19, I wish to confirm that the proposed bond wording and values are acceptable to Mayo County Council.

Regards

John McMyler
Senior Planner

Email Disclaimer Text

John McMyler

From: John McMyler
Sent: 12 February 2021 17:23
To: Brendan Allen
Cc: John McMyler
Subject: Fw:

Brendan

I refer to your submission of the 8/12/20.

I wish to confirm that your submissions for the following conditions are acceptable to Mayo County Council,

Conditions: 1,5,6,7,8,9,10,12,13,15,16 and 20.

In relation to conditions 18 and 19, I wish to confirm that the proposed bond wording and values are acceptable to Mayo County Council.

Regards

John McMyler
Senior Planner

Email Disclaimer Text

John McMyler

From: Brendan Allen <brendan.allen@esb.ie>
Sent: 09 February 2021 15:12
To: John McMyler
Subject: RE: PA0029 Oweninny Planning Compliance Submission
Attachments: Response to MCC Query 09022021 Rev 1.pdf; ATT00001.txt; ATT00002.htm

John

Apologies for that.

Please find attached the letter issued as Rev 1 with the fourth box in the flowchart changed to the CLO.

Regards,

Brendan Allen | Planning Team Leader | Engineering & Major Projects | ESB
T: +353 1 703 8195 M: 086 8336990 | www.esb.ie
One Dublin Airport Central, Dublin Airport, Cloghran, Co. Dublin, K67 XF72.

From: John McMyler <jmcmlyer@MayoCoCo.ie>
Sent: Tuesday 9 February 2021 12:30
To: Allen, Brendan (Engineering and Major Projects) <brendan.allen@esb.ie>
Subject: Re: PA0029 Oweninny Planning Compliance Submission

Brendan

Thanks for that.

Should the fourth box in the flowchart refer to the CLO rather than the CEM?

John

From: Brendan Allen
Sent: Tuesday 9 February 2021 11:24
To: John McMyler
Cc: Planning
Subject: RE: PA0029 Oweninny Planning Compliance Submission

John

As per your email below please find attached a response to your query, hopefully this closes out the query.

Regards,

Brendan Allen | Planning Team Leader | Engineering & Major Projects | ESB
T: +353 1 703 8195 M: 086 8336990 | www.esb.ie
One Dublin Airport Central, Dublin Airport, Cloghran, Co. Dublin, K67 XF72.

From: John McMyler
Sent: Thursday 4 February 2021 17:57
To: Allen, Brendan (Engineering and Major Projects)
Subject:

Brendan

Good evening,

I'm just waiting to hear from a couple of sections and then we should be ready to go.

Just one thing, can you detail to me the complaints procedure should ourselves/member of the public have an issue.

From a reading of the submission it appears that any issue stops at the Community Liaison(3.6)

It also states, that all community liaisons are managed by the client's engineer.

What does that mean?

Also, non-conformance (4.0) refers to the role of the Environmental Manager.

Is it possible to get a straight flow chart of how a community complaint, for example, would be dealt with?

What happens if the Community Liaison cannot sort it? Or if his answer is unsatisfactory.

How does it get escalated up?

Regards

John

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John McMyler

Noted
JW/5/2/21

From: Gerry Walsh
Sent: 05 February 2021 12:56
To: John McMyler
Subject: FW: Oweninny Phase 2 Archaeology Conditions
Attachments: QE-000039-11-D460-004-001-000.pdf; Condition 12.pdf; ATT00001.txt; ATT00002.htm

Hi John,

Please find email below from Mr. Brendan Allen, Planning Team Leader, Engineering & Major Projects, ESB. I have also spoken with Mr. Martin Byrne, Consultant Archaeologist, Byrne Mullin & Associates. I am fully satisfied with the 1.1.2 and 1.2.2 responses given below by Mr. Allen with regard to Condition no.'s 12 and 13 pertaining to the Oweninny wind farm development. I am also satisfied that the required archaeological licence to undertake the work has been issued to Mr. Byrne and that the required reports will be submitted to all the relevant authorities when the archaeological work is completed.

Regards,

Gerry Walsh

Senior Archaeologist

Forward Planning

Mayo Co. Co.

From: Brendan Allen <brendan.allen@esb.ie>
Sent: 10 November 2020 11:53
To: Gerry Walsh <gwalsh@MayoCoCo.ie>; 'Martin Byrne' <byrnemullins@eircom.net>
Subject: Oweninny Phase 2 Archaeology Conditions

Gerry

As discussed see below the text that we are proposing to include in the planning compliance discharge report to MCC which I hope to issue to John next week.

Feel free to chat to Martin directly about it as we want to be happy that it meets your requirements before we formally issue to MCC.

1.1 Condition 12 - Archaeology and Related Matters

1.1.1 Details of Condition

The developer shall facilitate the protection of archaeological materials or features which may exist within the site. In this regard, the developer shall:

- (a) notify the planning authority in writing at least four weeks prior to the commencement of any site operation (including hydrological and geotechnical investigations) relating to the proposed development,*
- (b) employ a suitably-qualified archaeologist who shall monitor all site investigations and other excavation works,*
- (c) submit to and agree in writing with the planning authority revised proposals for the design of the works, which shall ensure that the development will not cause avoidable disturbance to archaeological material and will limit any unavoidable disturbance, and*
- (d) provide arrangements, acceptable to the planning authority, for the recording and for the removal of any archaeological material which the authority considers appropriate to remove.*

Reason: In order to conserve archaeological heritage.

1.1.2 Response

12(a) - OP2DAC notified MCC in writing on 5th November 2020 of plans to commence the development of Phase 2, as works are due to commence in December 2020. Refer to **Appendix E** for email detailing **Notification of Commencement of Works**.

12(b) - Byrne Mullin & Associates Archaeological Consultants has been appointed as the Project Archaeologist.

12 (c) and (d) - It is the OP2DAC's intention to comply with these conditions under the direction of the nominated Project Archaeologist.

1.1.3 Requirement from MCC at this Time

We are seeking agreement in writing of the proposed approach with Mayo County Council.

1.2 Condition 13 - Archaeological Buffer Zones

1.2.1 Details of Condition

Prior to the commencement of construction works, a temporary buffer area of 50 metres shall be established and fenced around archaeological features Ch-4 and Ch-3. No development works of any kind shall take place within the buffer areas.

Reason: In order to conserve the archaeological heritage of the site and to secure the preservation of any remains which may exist within the site.

1.2.2 Response

Refer to **Appendix F** for **Archaeological Feature Buffer Area** map showing a suitably fenced area as required by this condition for CH-3.

In terms of SITE CH-4, it is not possible to establish a 50m buffer area around this possible monument, as its exact location is unknown. In the event that subsurface evidence of the feature is uncovered during the course of the works, then surfaces of such will be cleaned by hand and limited hand excavation/investigation will be undertaken to determine the nature and extent of the feature within the confines of the associated construction works corridor/area; works in the immediate area will cease pending consultation with the National Monuments Service and the Mayo County Archaeologist. Such approach was included in an Outline Cultural Heritage Mitigation Strategy (9th June 2017) prepared by Martin Byrne, Byrne Mullins & Associates at the at the request of Mr. Gerry Walsh, Senior Archaeologist, MCC, following consultation discussions on 9th June 2017 and subsequently submitted to MCC. A survey was completed in September 2020 to confirm this.

Refer to **Appendix F** which includes a Compliance Strategy for Condition 13.

1.2.3 Requirement from MCC at this Time

We are seeking agreement in writing that the temporary buffer area around archaeological feature Ch-3 is to MCC satisfaction, as per Condition 13 and **our compliance strategy for Ch-4**.

Regards,

Brendan Allen | Planning Team Leader | Engineering & Major Projects | ESB
T: +353 1 703 8195 M: 086 8336990 | www.esb.ie
One Dublin Airport Central, Dublin Airport, Cloghran, Co. Dublin, K67 XF72.

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John McMyler

*Noted
Spam for 15/2/22*

From: Allen. Brendan (Engineering and Major Projects) <brendan.allen@esb.ie>
Sent: 15 February 2022 16:06
To: John McMyler
Subject: Planning Reference PA0029 FW: Oweninny Wind Farm Phase 2 - Abnormal Load TMP
Attachments: QE-000039-11-R460-004_Abnormal Load TMP.pdf

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John

I am attaching the TMP for Oweninny.

The team has been engaging with Paul and Teresa in relation to the plan, and as you can see below it has been approved by Paul.

I am submitting it through yourself formally for the purposes of the planning compliance file.

Regards,

**Brendan Allen | Planning Team Leader Civil Environmental & Renewable Engineering | Engineering & Major Projects | ESB T: +353 1 703 8195 M: 086 8336990 | www.esb.ie
One Dublin Airport Central, Dublin Airport, Cloghran, Co. Dublin, K67 XF72.**

From: Paul Dolan <pdolan@MayoCoCo.ie>
Sent: Monday 14 February 2022 14:40
To: Hogan. Mairead (Engineering and Major Projects) <mairread.hogan@esb.ie>
Subject: FW: Oweninny Wind Farm Phase 2 - Abnormal Load TMP

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Mairead,

Mayo County Council have no objection to this Traffic Management Plan.

See comments below from Theresa Durkin.

Also, when is it proposed to apply for the abnormal load permits?

Regards,

Paul



Paul Dolan
Head of Roads
Mayo County Council

MAYO.IE

From: Theresa Durkin <tdurkin@MayoCoCo.ie>
Sent: 14 February 2022 13:45
To: Paul Dolan <pdolan@MayoCoCo.ie>
Cc: Orla Bourke <obourke@MayoCoCo.ie>; Vincent OBoyle <voboyle@MayoCoCo.ie>; Declan Turnbull <dturnbu@MayoCoCo.ie>
Subject: FW: Oweninny Wind Farm Phase 2 - Abnormal Load TMP

Hi Paul,

I have no objection to proposed TMP.

I have highlighted some comments in red for general attention/consideration.

Regards

Theresa



Mrs. Theresa Durkin
Senior Executive Engineer
Ballina Municipal District

MAYO.IE

Ballina Municipal District | Civic Offices | Arran Place | Ballina | Co Mayo.

☎ (096) 76100/76101 📠 (096) 76198 ✉ tdurkin@mayococo.ie 🌐 www.mayococo.ie

Comments

HOLIDAY'S & SPECIAL EVENTS

Local authorities and Garda will communicate details of public holidays, celebrations planned demonstrations, security issues, accidents, road works etc. that will affect transport along the designated route. All findings will be communicated, and the delivery schedule updated to reflect any changes.

Known holidays during delivery Schedule:

St Patricks Day, no deliveries 17th & 18th March.

Easter, no deliveries 15th & 18th April

May Day no delivery 2nd May


June Bank Holiday no delivery 6th June.

August Bank Holiday Min 1st Aug.


Early July Salmon Festival in Ballina – TBC

July / August – Crossmolina Festival - TBC

Newly laid pedestrian crossings - granite sett paviments at this location

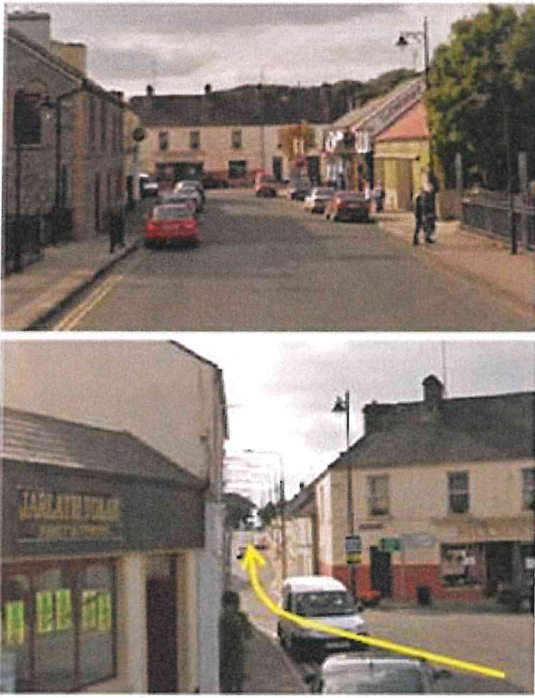
<p>34</p>	<p>Tolan Street / Tone Street</p> 	<p>Loads will continue through the one way system. The system will have to be suspended, traffic held in advance of the section and pedestrians temporarily removed during load movements.</p> <p>It is recommended that early discussions be held with the road authority.</p> <p>Mar-Train have indicated in their test run that they wish the trees to be pruned down to avoid damage to the blades.</p>
<p>Pell Frischmann Page 16</p>		

Newly laid - Raised pedestrian crossing – Macadam- at this general location


<p>36</p>	<p>McDermott Street</p> 	<p>Loads will oversail the traffic calming bollards and associated street furniture.</p> <p>Following the Mar-Train test run the contractor advised that parking should be suspended during load movements.</p>
-----------	--	---

Proposed Zebra Crossing and buildout on east side of Jack Garrett Bridge – In discussions with NTA regarding deferral of project

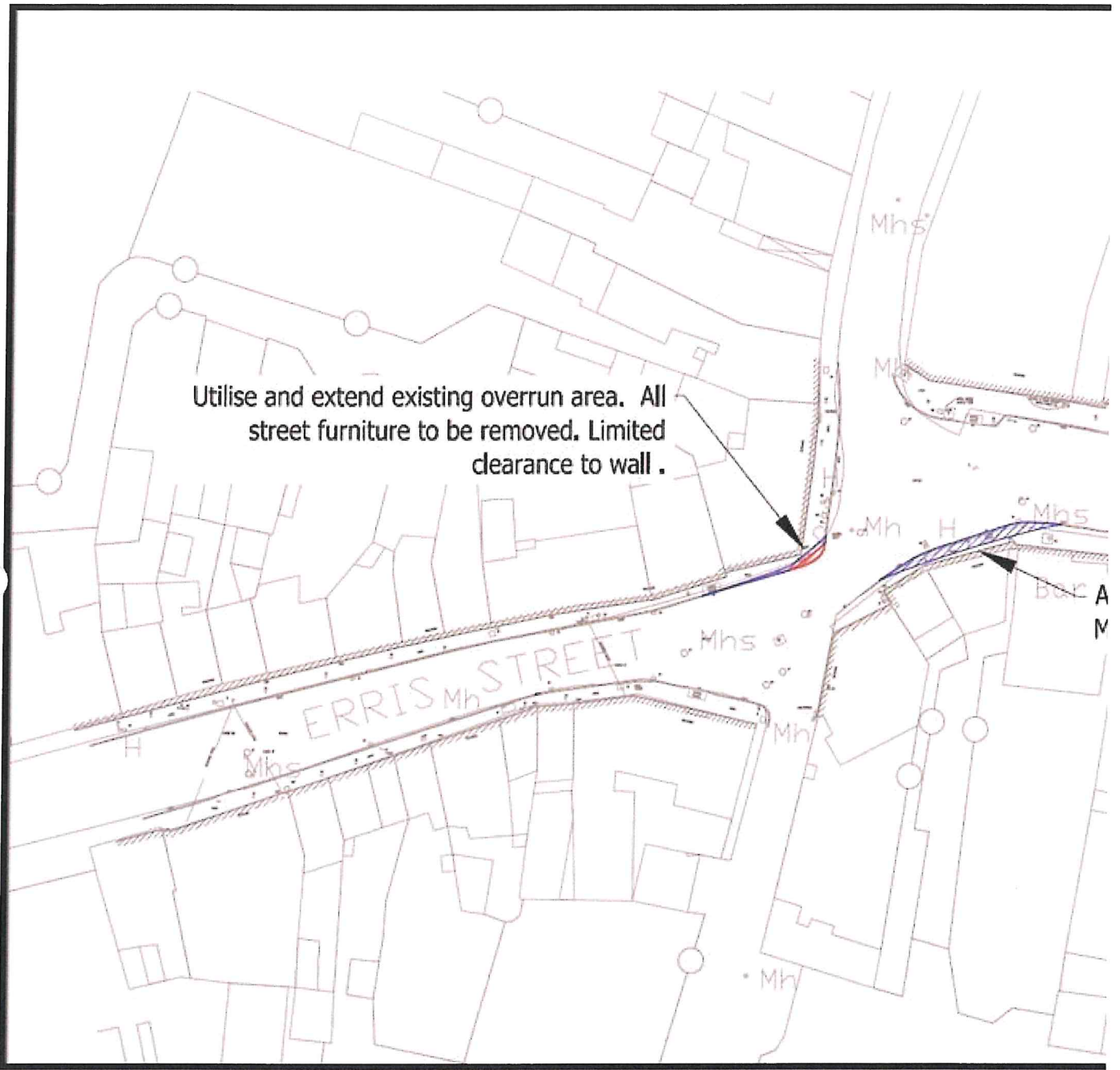
Oweninny II Wind Farm RSR

POI	Key Constraint	Details
39	<p>N59 Crossmolina</p> 	<p>Loads will negotiate the constrained chicane within Crossmolina.</p> <p>Crossmolina is the major constraint on the route and the clearances to the buildings are minimal and must be driven at caution.</p> <p>Loads will oversail the northern footway where all street furniture should be removed. Parking should be suspended during deliveries and pedestrian movements will need to be held.</p> <p>Loads will oversail the southern footway at the apex of the left bend. All street furniture will need to be cleared from the oversail area. There is minimal clearance to the shop front.</p> <p>Loads will overrun and oversail the northern footway through the section. The previous overrun area should be utilised and extended, and street furniture removed.</p>

MCC to investigate on site for file purposes

40	<p>N59 Approaching the Existing Oweninny Wind Farm Site Entrance</p> 	<p>It is evident that the carriageway is deteriorating through this location. It is recommended that vehicles are not allowed to travel close to the road edge and pass through the section slowly.</p> <p>Further along the route, extensive resurfacing is evident.</p>
----	---	---

Blue hatched area on main Street in Crossmolina - (To suspend parking note) – General location of proposed Zebra Crossing & Buildout – see note above at picture 39



From: Paul Dolan <pdolan@MayoCoCo.ie>
Sent: 14 February 2022 12:21
To: Theresa Durkin <tdurkin@MayoCoCo.ie>
Subject: FW: Oweninny Wind Farm Phase 2 - Abnormal Load TMP

Theresa,

Any comments?

Paul



Paul Dolan
Head of Roads
Mayo County Council

MAYO.IE

pdolan@mayococo.ie | +353 (0) 94 90 64289 | 087 2839207
Áras An Chontae | The Mall | Castlebar | County Mayo | F23 WF90
www.mayo.ie | www.mayococo.ie

From: Hogan. Mairead (Engineering and Major Projects) <mairead.hogan@esb.ie>
Sent: 14 February 2022 12:00
To: Paul Dolan <pdolan@MayoCoCo.ie>
Cc: Orla Bourke <obourke@MayoCoCo.ie>; Theresa Durkin <tdurkin@MayoCoCo.ie>; Kenny. Aine (Engineering and Major Projects) <aine.kenny@esbi.ie>
Subject: Oweninny Wind Farm Phase 2 - Abnormal Load TMP

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Paul,

Please find attached the **Oweninny Wind Farm Phase 2 - Abnormal Load TMP**.

Can you please review and confirm that you are satisfied with this TMP?

The intention is to commence abnormal load delivery on the 1st of March 2022.

Regards,

Mairéad

Mairéad Hogan | BA MSc DipEnvEng PMP | Senior Environmental Consultant | Civil Environmental & Renewable Engineering | Engineering and Major Projects | ESB

T: +353 1 703 8031 / +353 86 310 1920 | www.esb.ie

One Dublin Airport Central, Dublin Airport, Cloghran, Co. Dublin. K67 XF72

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Is tuairimí nó dearcthaí an údair amháin aon tuairimí nó dearcthaí ann, agus ní gá gurb ionann iad agus tuairimí nó dearcthaí ESB.

Má bhfuair tú an ríomhphost seo trí earráid, ar mhiste leat é sin a chur in iúl don seoltóir.

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víreas agus ní glacann dliteanas ar bith as aon damáiste de dhroim víreas.

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Is tuairimí nó dearchtaí an údair amháin aon tuairimí nó dearchtaí ann, agus ní gá gurb ionann iad agus tuairimí nó dearchtaí ESB.

Má bhfuair tú an ríomhphost seo trí earráid, ar mhiste leat é sin a chur in iúl don seoltóir.

Scanann ESB ríomhphoist agus ceangaltáin le haghaidh víreas, ach ní ráthaíonn sé go bhfuil ceachtar díobh saor ó víreas agus ní glacann dliteanas ar bith as aon damáiste de dhroim víreas.

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Energy for
generations

Oweninny Wind Farm Phase 2

Mayo County Council

Transport Management Plan – Abnormal Load Haulage

Document No.: QE-000039-11-R460-004

Date: February 2022

Engineering and Major Projects, One Dublin Airport Central, Dublin Airport, Cloghran, Co. Dublin,
K67 XF72, Ireland.

Phone +353 (0)1 703 8000

www.esb.ie

Transport Management Plan – Abnormal Load Haulage

File Reference:		
Client / Recipient:	ESB GT	
Project Title:	Oweninny Wind Farm Phase 2	
Report Title:	Transport Management Plan – Abnormal Load Haulage	
Report No.:	QE-000039-11-R460-004	
Revision No.:	000	
Prepared by:	Aine Kenny	Date: December 2021
Title:	Senior Environmental Engineer	
Verified by:	Mairéad Hogan	Date: February 2022
Title:	Senior Environmental Consultant	
Approved by:	Jason Gallen	Date: February 2022
Title:	Civil Engineer	

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Template Used: T-020-017-Engineering and Major Projects Report Template

Change History of Report

Date	New Revision	Author	Summary of Change

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1 Introduction

This Transport Management Plan (TMP) has been prepared by Electricity Supply Board (ESB) Engineering & Major Projects (EMP) in support of Oweninny Wind Farm Phase 2 (the Project) in County Mayo. The proposed wind farm is located approximately 20 km west of Crossmolina and 11 km east of Bangor Erris.

The Project is currently being delivered by Oweninny Power Designated Activity Company (OPDAC); a wholly owned joint venture between ESB and Bord na Móna Energy Ltd (BnM).

This TMP has been prepared for Mayo County Council (MCC) in order to satisfy planning commitments, under planning permission reference PA0029, for agreement with MCC prior to implementation and for use by contractors and hauliers during the delivery of abnormal loads for the Project. It has been prepared in relation to the abnormal loads only, primarily relating to the import of wind turbine components to the site. Various portions of the routes detailed in this TMP lie within the administrative areas of MCC, Sligo County Council (SCC), Leitrim County Council (LCC) and Donegal County Council (DCC).

A separate Traffic Management Plan has previously been prepared by the lead civils contractor and project PSCS, Roadbridge, for the civil and electrical works.

1.1 Project Context

The Project is located in north County Mayo, to the north of the N59 National Secondary Road, approximately 1.3 km west of Bellacorick.

The N59 (Ballina to Belmullet) National Secondary Road runs immediately adjacent to the southern site boundary. Bellacorick village is located on the N59 to the east of the site while the L52925 local road (or Shranakilla Road) lies within the overall Oweninny site, in parallel with the Oweninny River. To the east of the site, local road L52926 runs north from the N59 near Ballymonnelly Bridge for a short distance to Tawnaghmore townland where it becomes the Western Way.

1.2 Purpose of TMP

The TMP defines the procedure involved in managing the transportation of abnormal loads, including the delivery of the wind turbine blades, towers and nacelles.

MAR-TRAIN, the project haulier for the transportation of the abnormal loads, have prepared a summary TMP which identifies key procedures and rules for their transport personnel. This document is included in **Appendix A**. Some of its key points are summarised herein.

The purpose of this TMP is to provide context to the MAR-TRAIN summary TMP and to provide an all-encompassing document to MCC regarding traffic management for this stage of the Projects' construction.

2 Existing Road Network

The Project site is located in close proximity to the N59 National Secondary Road, which connects Ballina to Westport, in addition to a number of regional and local roads. The roads surrounding the Project serve a wide variety of transportation including private vehicles, buses, HGV's and motorcycles.

Abnormal loads for the Project are proposed to arrive into Killybegs Harbour, Co. Donegal. From Killybegs the proposed transport to the Project site is as described by Table 2-1.

Figure 1 in Section 4.5 illustrates the proposed transport route.

Table 2-1: Transport Route

Road No. / Name	Road Classification
Shore Road, Killybegs	Local Road
R263	Regional Road
N56	National Secondary Road
N15	National Primary Road
N4	National Primary Road
N59	National Secondary Road
Bunree Road, Ballina	Local Road
R294, Ballina	Regional Road
Tolan Street, Ballina	Local Road
Tone Street, Ballina (contra flow movements)	Local Road
McDermott Street (contra flow), Ballina	Local Road
N59	National Secondary Road

A brief summary of each of the above roads is provided in the following sections.

2.1 National Roads

2.1.1 National Primary Roads

2.1.1.1 N15 National Primary Road

The N15 is a national primary road which connects the terminal destinations of Sligo and Derry. Along the Project haul route it is a two-way road with a single lane in either direction.

Abnormal loads will travel on the N15 for approximately 64 km.

Transport Management Plan – Abnormal Load Haulage

2.1.1.2 N4 National Primary Road

The N4 is a national primary road which connects the terminal destinations of Sligo and Dublin. Along the Project haul route it is a two-way, dual carriageway road with two lanes in either direction.

Abnormal loads will travel on the N4 for approximately 7 km.

2.1.2 National Secondary Roads

2.1.2.1 N56 National Secondary Road

The N56 is a national secondary road which connects the terminal destinations of Donegal and Letterkenny. Along the Project haul route it is a two-way road with a single lane in either direction.

Abnormal loads will travel on the N56 for approximately 25 km.

2.1.2.2 N59 National Secondary Road

The N59 is a national secondary road which connects the terminal destinations of Sligo and Galway. Along the Project haul route it is a two-way road with a single lane in either direction.

Abnormal loads will travel on the N59 for approximately 88 km.

2.2 Regional Roads

2.2.1 R263 Regional Road

The R263 is a two-way road with a single lane in either direction. Along the Project haul route it connects Shore Road, at Killybegs Harbour, to the N56 National Secondary Road.

The road is primarily bordered by residential properties, some commercial / retail properties and the Donegal coast.

Abnormal loads will travel on the R263 for approximately 3 km.

2.2.2 R294 Regional Road

Along the Project haul route the R294 connects Bunree Road to Toland Street, via a bridge over the River Moy, in Ballina and is a two-way road with a single lane in either direction. In Ballina, the road is primarily bordered by residential properties and some commercial / retail properties.

Abnormal loads will travel on the R294 for approximately 0.5 km.

2.3 Local Roads

2.3.1 Shore Road, Killybegs

Shore Road is a two-way road with a single lane in either direction. It connects the R263 Regional Road to the multiple other local roads, in addition to providing access to Killybegs harbour.

Abnormal loads will travel on Shore Road for approximately 0.5 km.

2.3.2 Bunree Road, Ballina

Bunree Road is two-way road with a single lane in either direction. It connects the N59 National Secondary Road to the R294 Regional Road.

The road primarily provides access to residential, commercial and some educational properties and provides on street parking along some sections of its length.

Abnormal loads will travel on Bunree Road for approximately 1 km.

2.3.3 Tolan Street, Ballina

Tolan Street is a two-way street, with a single lane in either direction. It connects the N59 bridge over the River Moy to Tone Street.

The street is located in the town centre of Ballina providing access to commercial / retail properties. Town centre controlled parking is located along the southbound side of the street with parking prohibited (via double yellow lines) on the northbound side of the street.

At the northern end of Tolan Street, northbound traffic is forced to turn left onto O'Rahily Street.

Abnormal loads will travel on Tolan Street for less than 0.5 km.

2.3.4 Tone Street, Ballina

Tone Street is a one-way street, with a single lane in a southbound direction. It connects the N59 National Secondary Road and McDermott Street to Tolan Street.

The street is located in the town centre of Ballina providing access to commercial / retail properties. Both controlled and uncontrolled parking is provided at various locations along the street.

Abnormal loads will travel on Tone Street for less than 0.5 km.

For the purposes of oversized vehicle haulage it is proposed to transport equipment along Tone Street using contra flow operations under Garda escort.

2.3.5 McDermott Street, Ballina

McDermott Street connects the N59 at its western end to both the N59 and Tone Street at its eastern end. From its western junction with the N59 to the approximate intersection of McDermott Street and Fenian Row, McDermott Street is a two-way street, with a single lane in either direction. However, from the approximate intersection with Fenian Row McDermott Street becomes a one-way street in the direction of the town centre.

The street primarily provides access to residential properties and provides some sections of on street parking.

Abnormal loads will travel on McDermott Street for approximately 1.5 km.

Transport Management Plan – Abnormal Load Haulage

For the purposes of oversized vehicle haulage it is proposed to transport equipment along McDermott Street in an east – west direction, using contra flow operations under Garda escort for the one-way section of the street.

2.4 Road Safety

Road safety statistics along the proposed turbine haul route between Killybegs Port and the site has been collated from the Road Safety Authority (RSA) website (www.rsa.ie). It should be noted that the available data covers the time period between 2005 and 2016 (12 years). There were a number of fatal and serious collisions recorded along the route during this time period with the large majority of collisions occurring being minor in nature. The number of serious and fatal collisions that occurred between 2005 and 2016 is presented in Table 2-2 below.

Table 2-2: Serious and Fatal Collision Data (source: RSA)

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
No. of serious collisions	12	8	9	11	6	4	1	5	7	4	9	5
No. of fatal collisions	6	1	4	6	2	2	2	2	2	2	2	0

There were a number of collision clusters noted along the route which mainly occurred in the towns and villages. Clusters have been noted at the following locations:

- N56 at Bruckless, Co. Donegal
- N56 to the east of Dunkineely, Co. Donegal
- N56/N15/R267 junction to the east of Donegal Town
- N15 at Laghey/Rathneeny West
- N15 at Grange, Co. Sligo
- N15 through Sligo Town (primarily minor)
- N4/N59 junction to the north of Ballisadare
- N59 through Ballina, Co. Mayo

There were 5 no. minor collisions recorded along the N59 at Bellacorrick on the approach (from the east) to the Phase 2 site access.

While there are some locations where access is via local and regional roads, the majority of the Project abnormal load deliveries will be via national roads; with higher standards of road infrastructure to meet the needs of the abnormal loads. In addition, the loads will be delivered in convoy with Garda escorts during night-time hours in order to minimise the interaction with the public and other vehicles. Due to the nature of the loads, haulage vehicles will travel at low speeds with any approaching vehicle movements controlled by the accompanying Garda escort to minimise road safety risks.

3 Road & Bridges – Condition

Oweninny Phase 2 follows the completion of Phase 1 of the Project. As agreed in discussion with MCC and Donegal National Roads Office (DNRO) the Phase 1 close out surveys (post construction completion) will be used as the Phase 2 commencement surveys for the abnormal haulage route. These include:

- Pavement surveys
- Bridge surveys

Bridge monitoring will be undertaken along the turbine haul route between Killybegs Port and the site over the duration of deliveries, which are expected to continue for 7 months. The monitoring arrangements have been agreed with the DNRO which involve the monitoring of 7 no. bridges along the haul route on a bi-monthly basis for the duration of delivery.

Following the completion of the abnormal load deliveries, additional post-construction (haulage) surveys will be undertaken further to agreement with the relevant local authorities.

The findings of these surveys will be compared to the pre-construction scenario and used in discussions regarding potential evidence of deterioration, if necessary.

4 Transport Management

4.1 Transport Programme

Abnormal load deliveries are anticipated to commence 1st March 2022. They are anticipated to last approximately 7 months to end September 2022.

A trial run was undertaken along the turbine haulage route on 11th January 2022 where a mock-up of the 57m blades was successfully delivered to the site from Killybegs under full Garda escort

It is anticipated that haulage convoys, consisting of the abnormal load vehicle, escorts and Garda, will operate five nights per week from Monday to Friday, with a single convoy per night. However, in order to meet Project programme requirements additional convoys and / or nights may be required. This will be arranged in consultation with the relevant local authorities and the appropriate Garda escorts.

4.2 Working Hours

Other than in exceptional circumstances where factors out of the control of ESB (i.e. inclement weather / traffic disruptions) occur, haulage from Killybegs Port is anticipated to commence at approximately 10 pm and to have arrived at the site by 6:30 am.

4.3 Key Personnel

The MAR-TRAIN TMP, included in **Appendix A**, identifies the key personnel, and contact details for same, for this stage of the Project.

4.4 Site Access

Site access at the wind farm will be via the Phase 2 access to the west of the old Bellacorrick Power Station site and facilitates access by the oversize vehicles including the provision of a layby for vehicle storage prior to daylight hours on site. Movements in darkness before normal working hours are not permitted within the site.

4.5 Haul Route

Table 2-1 identifies the haul route identified for the Project, which was successfully used during Phase 1 of the wind farm. Figure 4-1 illustrates the route.

Abnormal load permits will be sought from the relevant authorities prior to the commencement of haulage. This TMP will be updated to include these permits in **Appendix B** once available.

4.5.1 Temporary Access Arrangements

A temporary supplementary haul route (the Western Way Bridge Bypass) has been constructed at the N59/R312 junction to facilitate abnormal load deliveries to

Transport Management Plan – Abnormal Load Haulage

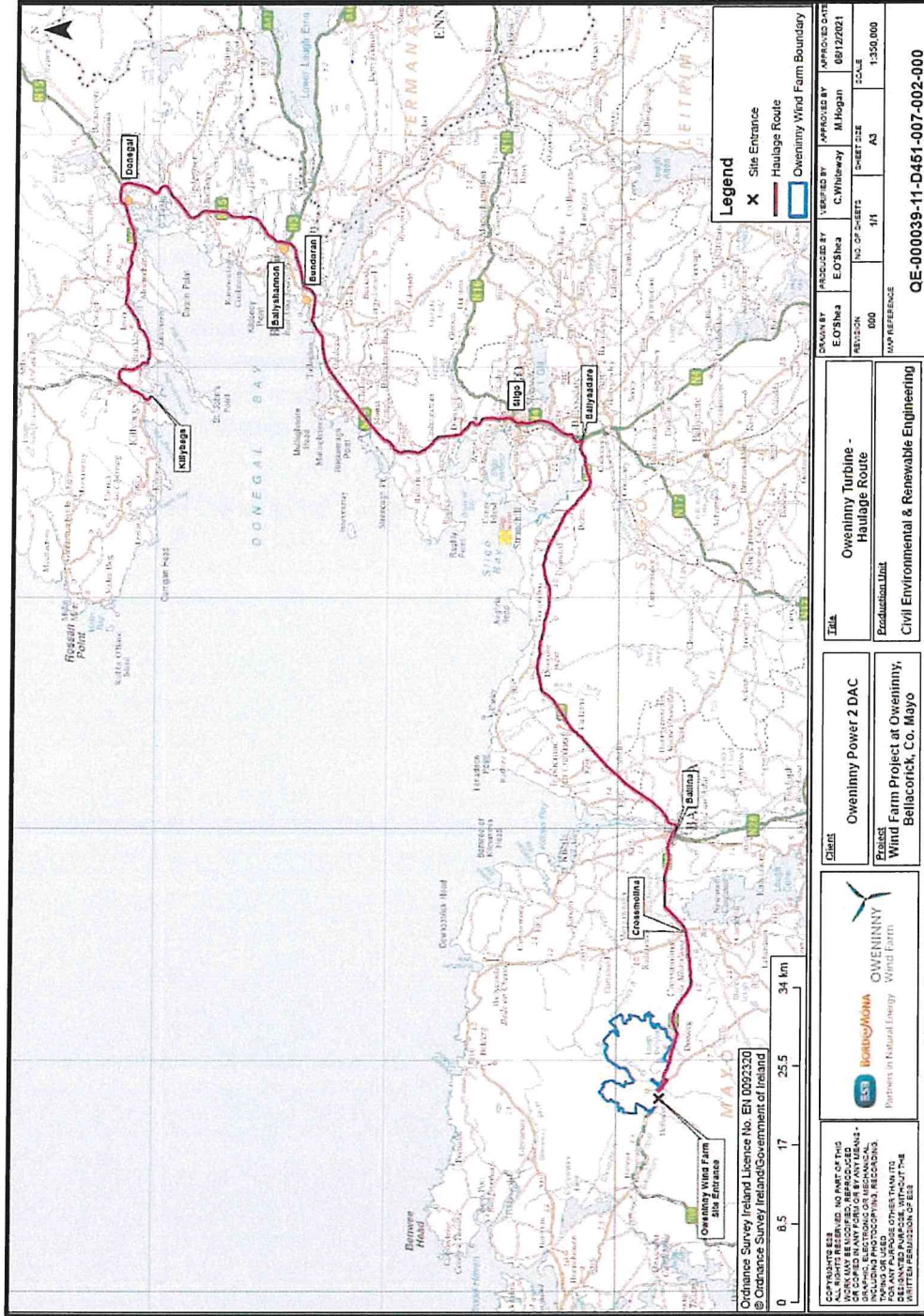
the nearby Oweninny Wind Farm Phase 2 development. The alteration to the original planning grant PA0029 was granted by An Bord Pleanála subject to conditions set out in ref. ABP-309043-20.

The existing horizontal alignment of the N59 at this location includes a sharp bend such that abnormal load deliveries to the wind farm development would not be able to navigate the bend. Without the construction of the temporary haul road abnormal load vehicles would be required to perform a three-point turn at the existing entrance to the Oweninny Phase 1 Wind Farm, and then reverse along a section of the N59 as far as its junction with the R312, continue reversing onto the R312 before then continuing west on the N59. Due to the size of the deliveries, and the number of abnormal load deliveries anticipated for the development, these manoeuvres are considered to be unsafe. The temporary haul route has therefore been constructed to the north of the N59/R312 Junction, by-passing the sharp bend on the N59 and crosses an existing stream at this location. It is anticipated that these temporary access arrangements will be in place for the duration of delivery of abnormal loads i.e. approx.7 months. The haul route will be removed following completion of turbine delivery and site reinstated.

A layout drawing of the Western Way Bypass is shown in Figure 4-2 below.

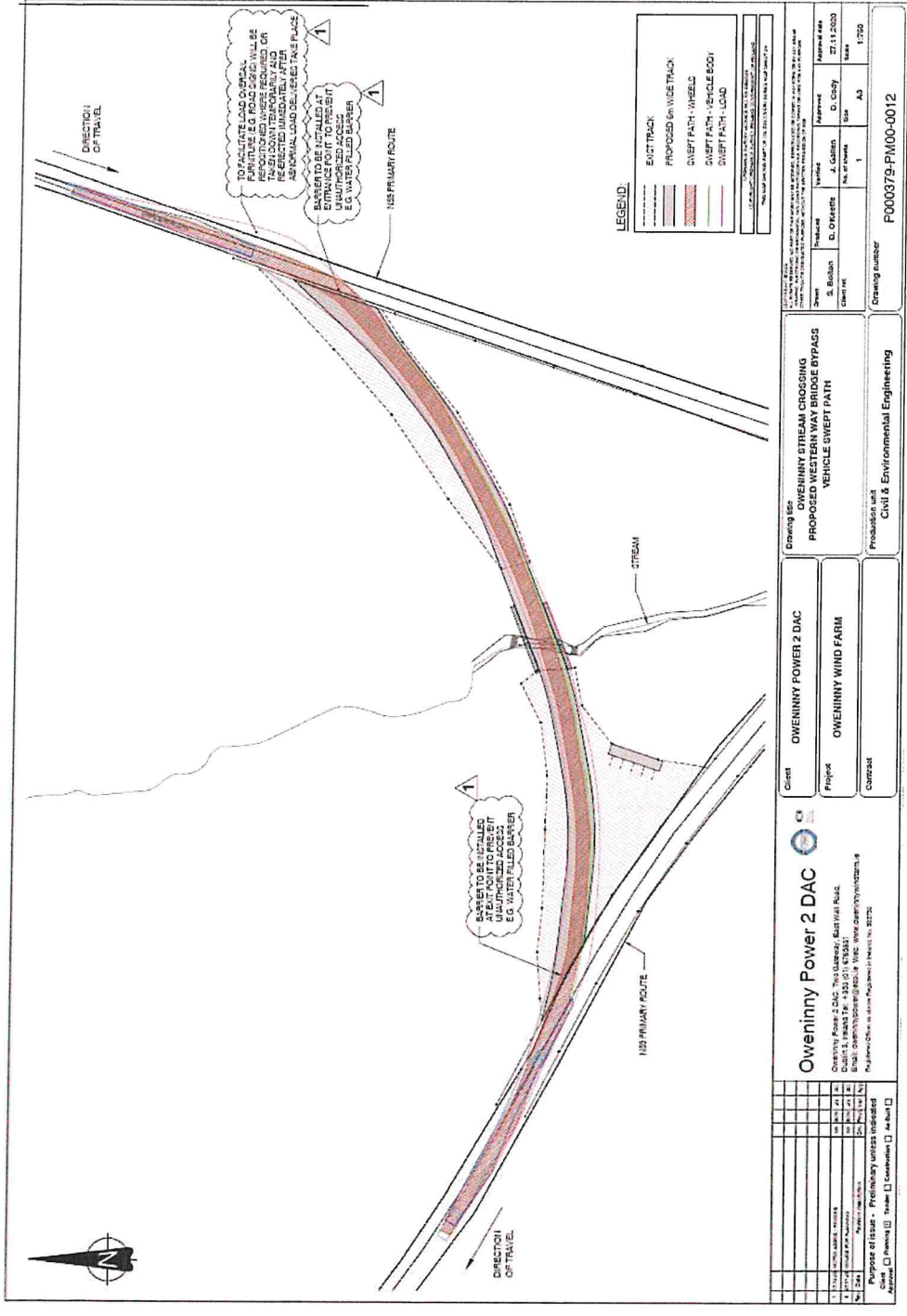
Transport Management Plan – Abnormal Load Haulage

Figure 4-1: Haul Route



Transport Management Plan – Abnormal Load Haulage

Figure 4-2: Temporary Supplementary Haul Route (Western Way Bypass)



5 Transport Management Mitigation Measures

5.1 Prohibited Activities

The following list identifies prohibited activities which must be adhered to by Project personnel including sub-contractors and external suppliers involved in the transportation of abnormal loads.

1. Once on site all personnel must adhere to the requirements of the project PSCS, Roadbridge, and their site specific TMP.
2. All access / egress to the site will be via the existing Phase 2 entrance on the N59, as identified by Figure 4-1. No access is permitted at any other location.
3. Movements of abnormal vehicles are not permitted within the hours of darkness while on site. Oversize vehicles are required to pull off the public road, into the site entrance, and then remain in a designated layby location until the hours of daylight.
4. No work outside of the permitted working hours without previous written agreement from MCC and ESB.
5. No change in specified haul routes without the prior written approval of MCC, LCC, SCC, DCC and ESB.
6. Within the site the maximum speed limit of 20 km/h must be adhered to.
7. The use of mobile phones while driving is strictly prohibited.
8. In addition to the above the MAR-TRAIN TMP in **Appendix A** identifies a number of other procedures which will be adhered to during the delivery of oversize loads for the Project.

5.2 Mitigation Measures

The following mitigation measures are required throughout the delivery of the oversize loads for the Project:

1. The relevant local authority is to be advised, in advance, of any proposed changes to haul routes or working hours.
2. Deliveries are proposed 5 nights per week, from Monday to Friday, in order to minimise interaction with the public and other vehicles. Should the construction programme require any temporary changes to this it will be notified, in advance, to the relevant Local Authority and agreed with the Garda escorts.
3. All staff will abide to legal speed limits. This requirement will be emphasised to all staff and contractors during induction training.
4. The contractor is required to ensure that the proposed temporary changes to site furniture are corrected following the movements of oversize loads through an area (e.g. removal of signage / street furniture) in order to minimise disruption to the public.

Transport Management Plan – Abnormal Load Haulage

5. In order to minimise disruption to deliveries continuing liaison with the relevant Local Authorities will be undertaken, for the duration of the transport programme, in order to ensure that unknown works along the haul route do not present difficulties during transport.

5.3 TMP Review

This TMP will be reviewed and updated at the following stages:

- Following any adjustments to the overall transport period.
- Following any incidents / accidents involving project personnel or the public.

Appendix A – MAR-TRAIN TMP




Mar-Train Heavy Haulage Ltd

Transport Management Plan

Oweninny Wind Farm Phase II
1st March 2022



Client:	Nordex		
Contract:	Oweninny Wind Farm NIE-OWEN-01		
Title:	Transport Management Plan: TMP 5076		
Document No:	V2	Rev Date: 7 th Feb 2022	
	Name	Date	
Prepared By:	Andrew McCullough	15 th Dec 2021	
Reviewed By:	Tim Martin		

	Contents	Page No
	SITE CONTACT DETAILS	
	CLIENTS RESPONSIBILITIES & GENERAL CONDITIONS	
	MAR-TRAIN RESPONSIBILITIES & GENERAL CONDITIONS	
	LOADED VEHICLE PERMITS	
	ROUTE DETAILS FROM PORT TO SITE	
	DELIVERIES FROM PORT TO SITE	
	COMMUNICATIONS	
	ROUTE PINCH POINTS	
	DRIVERS HOURS AND REST BREAKS	
	CONVOY SEQUENCE	
	TRAFFIC MANAGEMENT PLAN FOR PUBLIC HIGHWAY	
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	EFFECT / IMPACT ON OTHER ROAD USERS	
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	VEHICLES REQUIREMENTS / MAINTANENCE FOR SAFE TRANSPORTATION	
	MANAGEMENT OF INCIDENTS AND CONTINGENCY PLANNING	
	ROUTE TO HOSPITAL	
	MAR-TRAIN CONTACT NUMBERS	
	RECOVERY PLAN	

Site Details	
Site I.D. NIE-OWEN-01	Site Name: Oweninny Wind Farm
Site Address: Bellacorrick, Co. Mayo	
Date work to be undertaken: 1 st March to September 2022	Anticipated duration of work: 30 weeks
Contact Details	
Nordex contact details: Ian Dineen +44 (0) 7780 527 395 Ben Dowsett +44 (0)161 438 1296	HSQE contact details: Ross Fleming 00 353 87 204 3120
ESB Site contact details: Aine Kenny 00353 86 075 3277	Nordex site contact details: Yole Adepoju +44 (0) 77 85 658572
<p>MAR-TRAIN EMERGENCY / OUT OF HOURS CONTACT</p> <p>Contact names and numbers to cover all emergency callouts outside of normal working hours in conjunction with this work.</p> <p>Tim Martin – Managing Director +44 (0) 7801 131723 Sam McKee – Transport Manager +44 (0) 7841 101541 Michael Campbell – Fleet Engineer +44 (0) 7549 178826 Health & Safety Andrew McCullough +44 (0) 7549 179 127</p> <p>In the event of breakdown assistance or recovery one of the above should be contacted. They will then contact a local firm to assist.</p> <p>For vehicle recovery: Sean McCarthy 00353 872 5125130</p> <p>Volvo 24hr Breakdown Assistance: 0800 929292</p> <p>Merc 24hr Breakdown Assistance: 0800800644</p> <p>Scania 24hr Breakdown Assistance: 0800 800660</p> <p>DAF 24hr Breakdown Assistance: 0800919395</p> <p>Nearest Hospital: Mayo University Hospital / Westport Road, Curragh, Castlebar, Co Mayo F23 H529 tel +353 949021733</p> <p>Ballina Garda Station: Lord Edward Street, Carrowcushlaun West, Ballina.</p>	

CLIENTS RESPONSIBILITIES & GENERAL CONDITIONS

- Provide comprehensive and accurate details of weight & dimension of the items scheduled to be delivered.
- Provide safe access/egress and traffic management on site for the delivery vehicle, support vehicles and personnel.
- Co-ordinate the site activities of other contractors to facilitate unimpeded access to the working location during the deliveries.
- Ensure the access ground to and from the working location is a suitable level to within the delivery and support vehicle tolerances and capable of withstanding the imposed axle loadings.
- Provide a site-specific safety induction for all Mar-Train employees involved in the operation. This induction is to include emergency warning and evacuation procedures.
- Provide suitable welfare facilities.

MAR-TRAIN RESPONSIBILITIES & GENERAL CONDITIONS

- Complete and return the special loads application for the deliveries of the wind turbine components for Donegal, Leitrim, Mayo & Sligo County Councils.
- Consideration about the departure time, highway, residential areas and local traffic on route to the wind farm.
- The designated route from the port of Killybegs to Oweninny Wind Farm hazards identified.
- Check route restrictions; height, length, width, bridges, road conditions and allowable loads. All road authorities will be contacted prior to the deliveries taken place.
- Delivery movement times as confirmed by local authorities, road department specified on abnormal load permits and Garda operations.
- Special events, Mar Train liaise with local authorities to ensure planning excludes dates that transport is not possible.
- Weather conditions will be monitored and communication with Garda and site to ensure that transport can be completed safely to site.
- Distance to be travelled – driver hours/hours of darkness/day light hours to ensure driver meet the required breaks and a safe location on route is agreed for taking breaks. Also, the convoy will be off the public road by the times specified on abnormal load permits and by Garda.
- Vehicles required for safe trial run to take place.
- Management of incidents and contingency planning
- Escort requirements
- Communications
- Detailed risk assessments covering all hazard
- Site requirements
- Documentation to be available in his/her vehicle:
 - Site induction
 - Mar Train drivers' instruction (incl. emergency procedures & checklists)
 - Relevant Risk Assessment & method statements signed by the individual driver
 - Driver's licence, permits, insurance papers

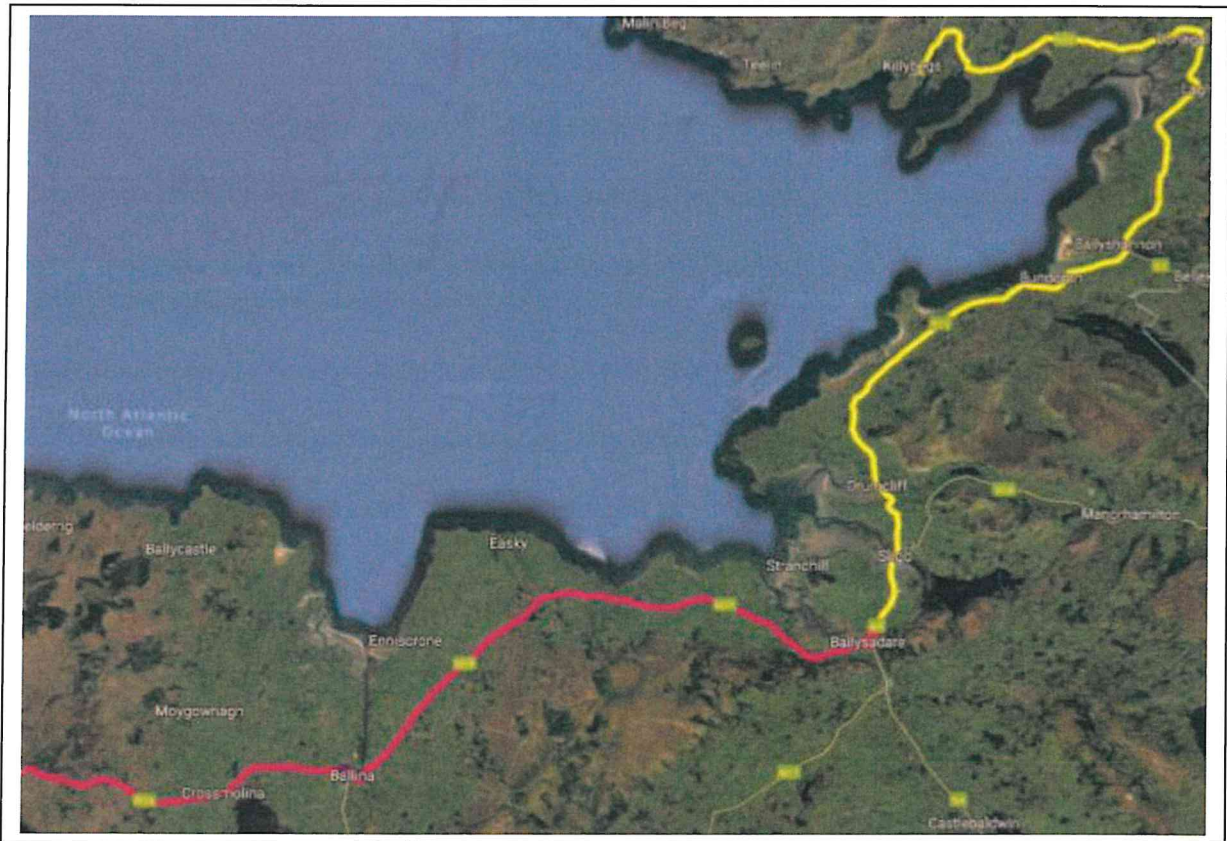
ABNORMAL LOAD PERMITS

Abnormal load permits will be requested from each county council for all components & configurations for the duration of the delivery programme. Once received copy permits will be available.

Donegal, Sligo, Mayo & Leitrim County Councils will issue abnormal load permits.

ROUTE FROM KILLYBEGS PORT TO SITE:

Killybegs Harbour, Shore Rd, R263 right on N56, to N56/N15 Roundabout. N15 to Sligo, continue N4 North of Ballidrihid continue N59, Bunree Rd Ballina, right on R294, contraflow one way system Tone Street, McDermott Street to Gurteen Roundabout. Re-join N59 to Crossmolina, N59 to Oweninny Wind Farm.



Major transports will be supported by Mar Train and Garda escort vehicles. Along the route and in the towns & villages lead escort vehicles will provide advance warning to oncoming vehicles.

Transport will drive contraflow several roundabouts, junctions, and one-way streets, all under the governance and protection of Garda escorts.

Parking restrictions are required in Ballysadare, Ballina & Crossmolina for access.

POI 25 – N59/T290 Ballysadare right turn.



POI 31 & 32 Bunree road Ballina, street furniture to be removed & reinstated.



Ballina transport contraflow Tolan Street / Tone Street / McDermott Street to Gurteens Roundabout.



Crossmolina POI 39, minimal access through the town, caution required.



TRANSPORT FROM PORT OF KILLYBEGS TO SITE.

- Mar-Train team to read through the method statement and risk assessment to ensure that they are fully aware of their roles and duties.

RA 3099 – Risk assessment.

MS 2021 – Nacelle, Hub & Drive Train.

MS 2022 – Blades

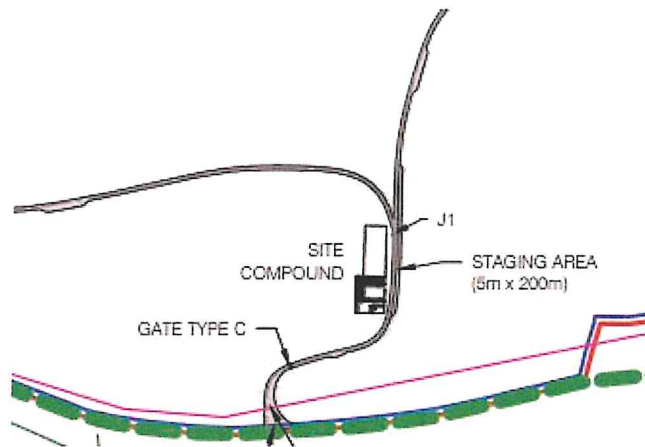
MS 2023 – Base & MID 1 tower on Clamp trailer

MS 2024 – MID towers on trailers.

MS 2025 – Top Tower

MS 2026 – Standard loads.

- Once read, each team member will sign the register to acknowledge method statement and risk assessment read and understood.
- Mar-Train driver will check the vehicle and trailer prior to departing Mar-Train yard and or Killybegs Port and complete an inspection sheet ensuring that there are no defects with the vehicle.
- Transport window planned departure from Killybegs **22.00hrs to 06.30am** arrival at Oweninny Wind Farm.
- When the driver is at port, the trailer / Clamp will be made ready to load the required components as per relevant Method statement and Work instruction (if required) once loaded the component is secured.
- When all secured and safe to progress, Mar-Train supervisor must ensure that all Staff are happy to proceed. Toolbox talk will be completed prior to all transports.
- Driver radios checked to ensure communication is clear.
- The loaded vehicles to proceed from Killybegs on to the public highway along the designated route as detailed point 6.
- On arrival at site Mar-Train team sign in at security.
- Mar-Train staff will be inducted by NORDEX & PSCS Roadbridge for Oweninny Wind Farm prior to delivery programme commencing, any exceptions will be managed and communicated to site managers to ensure training is available on arrival.
- All components will be delivered in the early hours prior to site opening target delivery time 06.30.
- At site entrance there is suitable room for the convoy and escort vehicles to park up. Components will be transported from the laydown area to destination hardstand in daylight.



- Convoy must be off the public road by 06.30, consideration must be given for time required to travel from site access to hardstand delivery point. Convoy on main haul road will close site access & egress to all other traffic.

Communications

Radios will be supplied by Mar-Train and issued out to the truck / trailer operatives and escort vehicles. The frequency of the radios must be checked prior to departure from the docks. Radio batteries to be fully charged prior to issue. Spare batteries and a spare radio must be readily available in the event of failure.

Drivers must not use mobile phones whilst driving vehicles or plant.

Garda escorts will use own radio communications, lead vehicles will maintain contact with the control vehicle at the rear of the convoy.

ROUTE PINCH POINTS:

Please refer to Route Survey Report outlines all pinch points identified

Further to a successful trial run by Mar Train this document will be updated to reflect any changes.

DRIVER'S HOURS AND REST BREAKS:

We will adhere to the Driver's Hours Regulation (EC) No: 561/2006

S.I. No. 36/2012 – European Communities (Road Transport) (Organisation of Working Time of Persons Performing Mobile Road Transport Activities) Regulations 2012 – Rules on Drivers hours and tachographs – UK and Europe, any vehicle carrying an abnormal load under Special Types regulations is permitted to exceed the rules to ensure the safety of persons, vehicle, or load. – see below:

Unforeseen Events:

Provided that road safety is not jeopardized, and to enable a driver to reach a **suitable stopping place**, a departure from the EU rules may be permitted to the extent necessary to ensure the safety of persons, the vehicle, or its load. Drivers must note all the reasons for doing so on the back of their tachograph record sheets (if using an analogue tachograph) or on a printout or temporary sheet (if using a digital tachograph) at the latest on reaching the suitable stopping place (see relevant sections covering manual entries). Repeated and regular occurrences, however, might indicate to enforcement officers that employers were not in fact scheduling work to enable compliance with the applicable rules.

A judgment by the European Court of Justice dated 9 November 1995 provides a useful guide to how this provision should be interpreted. It can apply only in cases where it unexpectedly becomes impossible to comply with the rules on drivers' hours during a journey. In other words, planned breaches of the rules are not allowed. This means that when an unforeseen event occurs, it would be for the driver to decide whether it was necessary to depart from the rules. In doing so, a driver would have to consider the need to ensure road safety in the process (e.g., when driving a vehicle carrying an abnormal load under the **Special Types** regulations) and any instruction that may be given by an enforcement officer (e.g., when under Garda escort).

Some examples of such events are delays caused by severe weather, road traffic accidents, mechanical breakdowns, interruptions of ferry services and any event that causes or is likely to cause danger to the life or health of people or animals. Note that this concession only allows for drivers to reach a suitable stopping place, not necessarily to complete their planned journey. Drivers and operators would be expected to reschedule any disrupted work to remain in compliance with the EU rules

Convoy Sequence

Towers / Blades / Hub Nacelle (under Garda escort)

- Prior to the vehicle setting off, drivers must carry out daily check sheet to ensure that all lights are working, and that the vehicle is fit for the road.
- Drivers, steersmen, and escort drivers to discuss route and any issues these have. (Toolbox talk)
- At the agreed time GARDA will arrive and included in Toolbox talk. Confirm Garda communications in place agreed and understood with Mar Train team.
- Convoy to leave port **22.00hrs**.
- Convoy proceeds to Ballyshannon (eta 01.00hrs) on N15 under Garda escort from Donegal Garda where they will stop for 1 hour's rest on the hard shoulder between Ballyshannon & Bundoran, Garda have agreed a suitable stretch of road and will provide traffic management for the safety of Mar Train convoy and other road users.
- Donegal Garda escort remain with the convoy to provide traffic management. Mayo Garda handover.
- Convoy departs for site at 02.00hrs – on site arrival anticipated for 06.00hrs

(All details for convoy and timings will be confirmed following the trial runs)

Convoy Sequence (3 loaded vehicles per convoy)

GARDA escort the convoy and provide traffic management.

- 1st Garda Escort vehicle
- 2nd Garda Escort vehicle

- 1st Loaded vehicle (heaviest)
Mar Train escort / steersman
- 2nd Loaded vehicle
- 3rd Loaded vehicle
- Mar Train escort / steersman

2nd Mar Train Escort vehicle

GARDA control vehicle at the rear of the convoy.

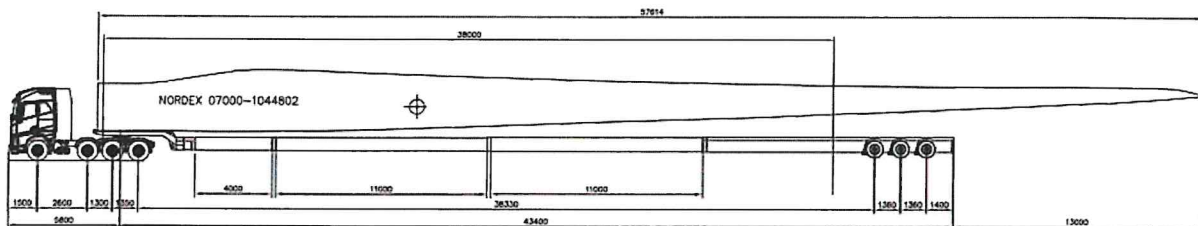
Further to a successful trial run and abnormal load permits received, GARDA will assess regarding any loads or convoys under self-escort by Mar Train. Propose the Drive Train will be under self-escort.

All consideration to public safety will have been given and if deemed safe to do so the Mar Train team can self-escort on the pre-determined route as per the abnormal load permit.

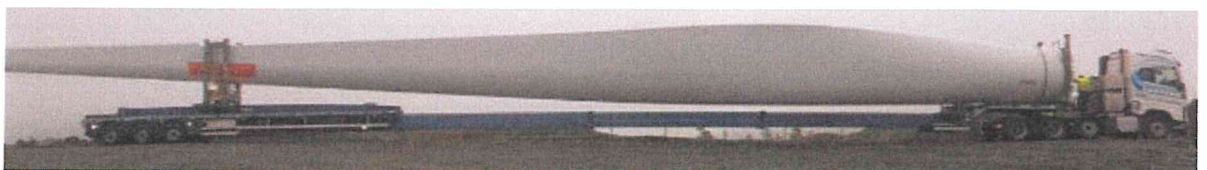
Further to a successful execution of the delivery planning, Garda may see it possible to increase the convoy size to 4 x components.

Example Transport Equipment:

Blade



57.8m blade, transport nose to tip 63m. Tip of the blade will overhang the SWC trailer by 13m



Tower in Clamp System Trailer:



Tower on trailer:



Nacelle / Hub / Drive Train.





TRAFFIC MANAGEMENT PLAN FOR PUBLIC HIGHWAY

Roles and responsibilities –

Mar Train escort vehicle

The role of the Mar Train escort vehicle will be to ensure that persons do not overtake the convoy placing other road users at risk.

Steersman

The role of the steersman is to ensure that the trailer is guided around tight junctions, roundabouts, bridges, and other identified hazards as listed in the road survey report. On all acute manual steering from behind the trailer on foot.

Soft steering (minor adjustments to maintain the centre of the road) from the escort vehicle behind.

The steersman is a competent and experienced person.

Mar Train Supervisor.

Team Supervisor TBA will act as primary contact for NORDEX on site. The supervisor will participate in daily site coordination meetings.

Supervisor is responsible for all Mar Train personnel on site, ensure compliance with PPE and all site rules.

Daily toolbox talks and all safety documentation to be held with team supervisor in NORDEX meeting room.

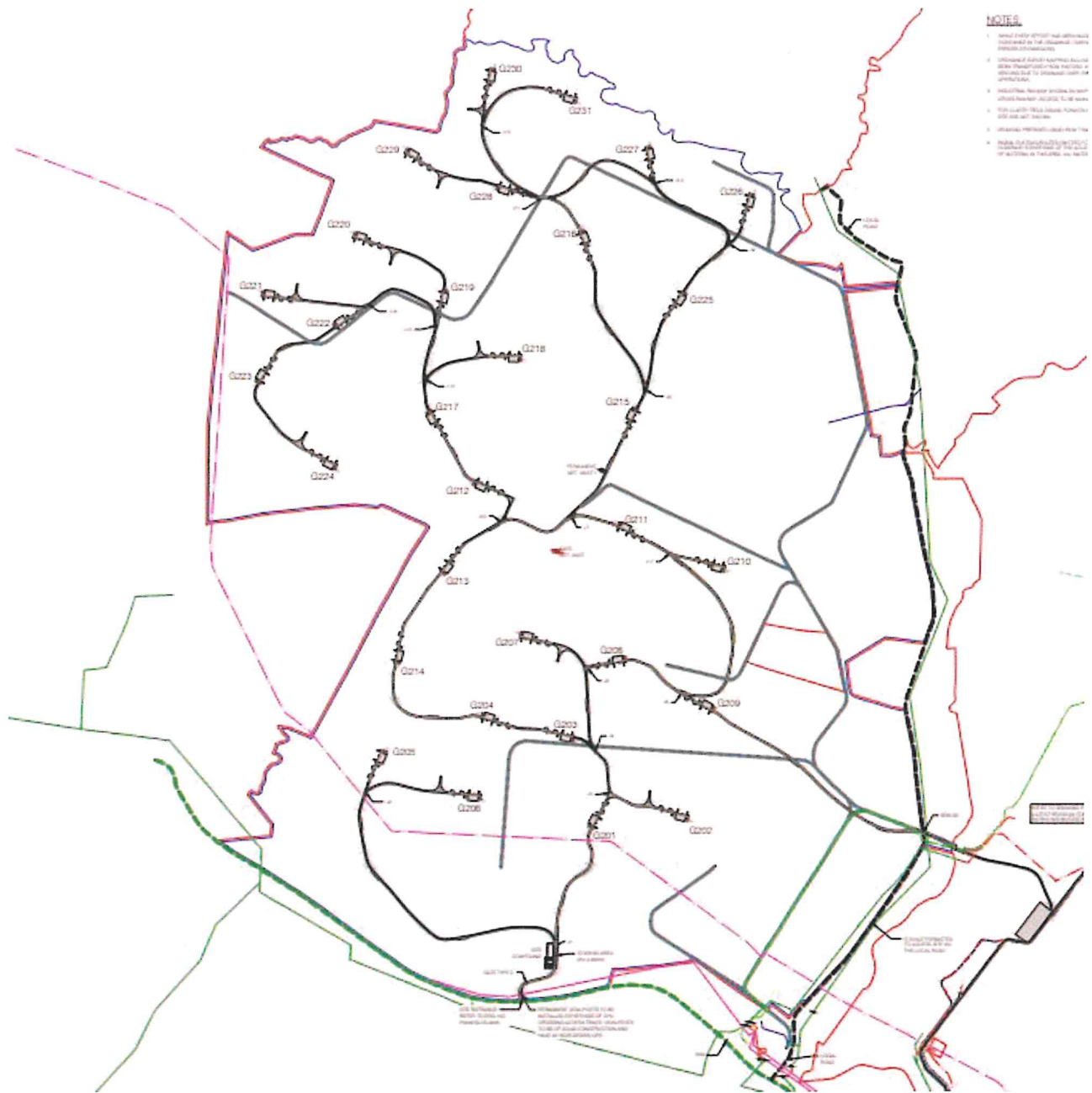
Loaded Vehicle Driver

The loaded vehicle driver will ensure all vehicle checks are carried out in accordance with company procedures. Vehicles must be driven legally, and all speed limits are to be adhered to. No persons to use mobile phones whilst driving or carrying out other tasks on the vehicle.

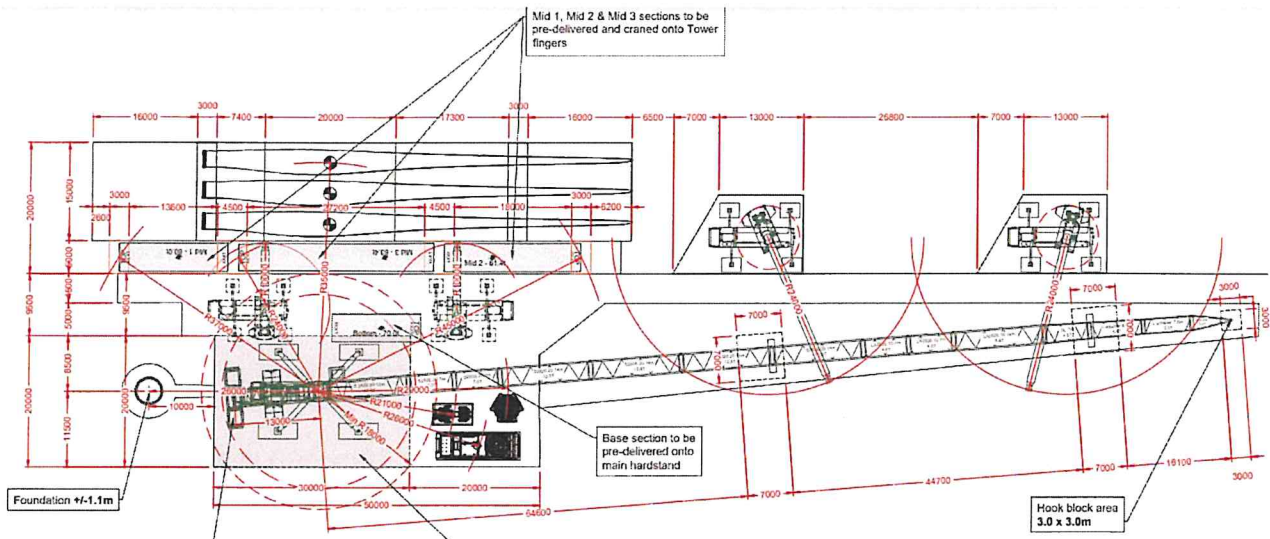
GARDA

The role of the Garda is to ensure safe passage of convoys and that the route is safe for all road users and pedestrians.

SITE:



Hard Stand Layout:



Pre-delivery schedule.

Blades first to hardstand, blade fingers.
Nacelle, Hub, Drive Train & Base tower.
Mid1, Mid2 & Mid3 to tower fingers.

Access for through road access between Mid2 tower & Base tower 6.5m!

TRAFFIC MANAGEMENT PLAN FOR SITE

Site Entrance

- Convoy will turn right from the N59 to site. Garda escort will provide traffic management to allow for each load in the convoy to make the right turn safely on to site and off the public roads.
- Access road from the site entrance to be entirely cleared of ALL parked vehicles, debris etc. Parking area when entering site for drivers to sign in or for induction first time at site.
- Deliveries will arrive to site in the early hours of the morning prior to site opening.
- Abnormal loads do not move on site roads in the dark. On arrival the convoy will park up and hold until daylight before proceeding to hard stand.
- The delivery vehicles must not stray off site road or use verges of any road.
- NORDEX must ensure that the road surfaces are safe, workable, and capable of withstanding axle loadings as detailed in the specification. (12,000ks per axle)
- Drivers must keep to the centre line of all site roads. However, if not possible, permission must be obtained from the site manager to authorise movement. When a steersman is required for manual steering, the steersman will follow guidelines in **WI 3010**.

- Soft steering or minor adjustments may be executed from the escort vehicle, all acute manual steering must be on foot. **If using manual steering drivers must not exceed 15kmph**
- All contractors working on site must be informed of the delivery transport to ensure that the site roads are kept clear. All oncoming vehicles **MUST** park in passing bays or reverse to allow access of the transport vehicle. The delivery vehicle must **NOT** manoeuvre off the centre of the site road to allow other traffic to pass. Component delivery in transit block the roads for access / egress to other traffic. Loaded vehicles must not deviate to make room for site traffic.
- If a vehicle leaves the site road it must stop immediately and report the incident to the site manager so an assessment of the situation can be carried out before any further action is taken to recover the vehicle.
- Vehicle must stay on site roads, bound, or unbound. Site road edges must be clearly marked.
- Where vehicles must reverse then a competent banksman will assist.
- Speed limit through the estate is 20kmph. This may be reduced to 10kmph in key areas.
- NORDEX site management to manage traffic from site when Mar-Train convoy on approach. Mar Train convoy to inform NORDEX site contact prior to arrival.
- If poor weather conditions effecting visibility or high winds, off-loading suspended on site, potential for Mar-Train to park on the hardstand. An inspection of the ground conditions required and to be agreed with NORDEX contacts before parking up.
- If required a towing aid/traction assist vehicle (TAV) on site/access roads for the deliveries. This will be used for each component delivery as required.

Trailer Steersmen

The Trailer Steersmen must wear suitable boots to reduce risk of injury from twisting their ankle should they stumble on uneven ground. The Steersman must wear a high visibility vest or coat. The driver must only take instructions from the steersman.

Loaded Dims:

As per example transport drawings, and abnormal load permits. Once submitted to county councils this document will be updated and load dimensions available for review.

Securing Equipment / Accessories

All accessories will be inspected by competent persons prior to use.

Only certified chains or slings will be used.

Copy certificates will be available for review.

EFFECT / IMPACT ON OTHER ROAD USERS

There are several areas that will impact other road users during the delivery of the components from harbour / storage area to site.

On route street furniture to be removed (see Route Survey) for transport to pass safely, and reinstate after each convoy, some street furniture may be replaced with temporary signage.

In the towns of Ballysdare, Ballina & Crossmolina parking restrictions will be in place and a vehicle recovery service on hand to remove any vehicles within the restricted areas.

Deliveries are scheduled to coincide with the restriction ref - section 11

TRAFFIC CONDITIONS

Prior to the convoy departing from Killybegs, checks must be carried out on the public highway to ensure that the route is clear and there are no additional hazards not previously highlighted in the Traffic Management Plan.

The Garda escort team will communicate any issues known that will impact the safe transit of the convoy.

Concerns due to severe weather will be communicated with site management to ensure conditions at site are suitable for safe delivery of components.

HOLIDAY'S & SPECIAL EVENTS

Local authorities and Garda will communicate details of public holidays, celebrations planned demonstrations, security issues, accidents, road works etc. that will affect transport along the designated route. All findings will be communicated, and the delivery schedule updated to reflect any changes.

Known holidays during delivery Schedule:

St Patricks Day, no deliveries 17th & 18th March.

Easter, no deliveries 15th & 18th April

May Day no delivery 2nd May

June Bank Holiday no delivery 6th June.

August Bank Holiday Min 1st Aug.

WEATHER CONDITIONS

Public highway

All loads to be transported during off peak times the load must not be moved on the public highway where visibility is impaired by mist or fog as this will prevent other road users from having clear vision of the load.

Site

The delivery must only take place where there is clear visibility of the site road. Where there is heavy rain on the site, conditions must be assessed by Mar-Train and PSCS to establish if the site roads are safe and suitable to allow passage of the transport.

If the site road is slippery, mud, wet, snow or ice the delivery vehicle must not be taken up steep gradients as there is a risk of the vehicle losing traction and slipping down/off the site.

When the convoy is already on site and weather prevents reaching the destination safely, a holding area must be agreed with site management and communicated to all on site. This may be a passing area, site compound, another hardstand.

If conditions are not suitable on site and communicated prior to departure from port it will be on agreement of the site management team and Mar Train that convoy movements will be cancelled, and components held at port until further notice.

VEHICLES REQUIREMENTS / MAINTANENCE FOR SAFE TRANSPORTATION

All Mar-Train vehicles have a regular service and are maintained to a high standard due to the type of work they are used for. Service documentation is available on request. All windows and mirrors must be clean to allow for clear vision at all times. An inspection sheet must be completed each week

Emergency equipment kept in the vehicle to include first aid kit and fire extinguisher.

Escort Vehicles will carry traffic cones, emergency triangles & beacons.

The GARDA escorting deliveries will also have a provision of lights & cones in case of an emergency.

Driving hours are to be in line with the Road Hauliers Association; max daily working hours break times etc.

Daily driving max 9 hours, this can be extended to 10 hours twice a week. Weekly driving is max 56 hour.

Drivers stay in their cabs over night or in a hotel where available.

Drivers will have access to welfare facilities on site.

All drivers' cabs are equipped with night heaters, fridges entertainment systems.

Driver to carry out daily checks on the vehicle prior to moving this includes, lights, tyres, load secure and there is sufficient fuel to carry out the following movement. If the fuel level is deemed too low, then the truck will be refuelled prior to movement.

MANAGEMENT OF INCIDENTS AND CONTINGENCY PLANNING

Emergency Procedures.

Fire

If a fire occurs on the vehicle, it should be tackled using the on-board fire extinguishers only if the personnel is safe to do so. For serious fires the fire brigade should be called immediately, and all personnel should be moved a safe distance away from the fire. Fire procedures for other site fires should be followed as instructed in the PSCS and NORDEX site induction.

First Aid

First aid boxes will be kept in all Mar-Train vehicles. The NORDEX first aider will be identified at the site induction and first aid will be carried out by the site first aiders. All Mar-Train staff are trained in emergency first aid.

Accident / near misses

All accidents and near misses will be reported to the Mar-Train office and NORDEX site manager and entered the accident book. Mar-Train accidents are to be reported in accordance with MART 03 Accident Reporting and Investigation Procedure.

Spills

Spills should be dealt with as soon as possible. The spill should be contained using spill kits that are kept on the vehicle. Any spills must be reported to Mar-Train Supervisor and the employee accident & incident report form must be completed and issued to Head Office as soon as practicable. The NORDEX site manager _____ should be contacted immediately to allow for the correct disposal of used spill kits.

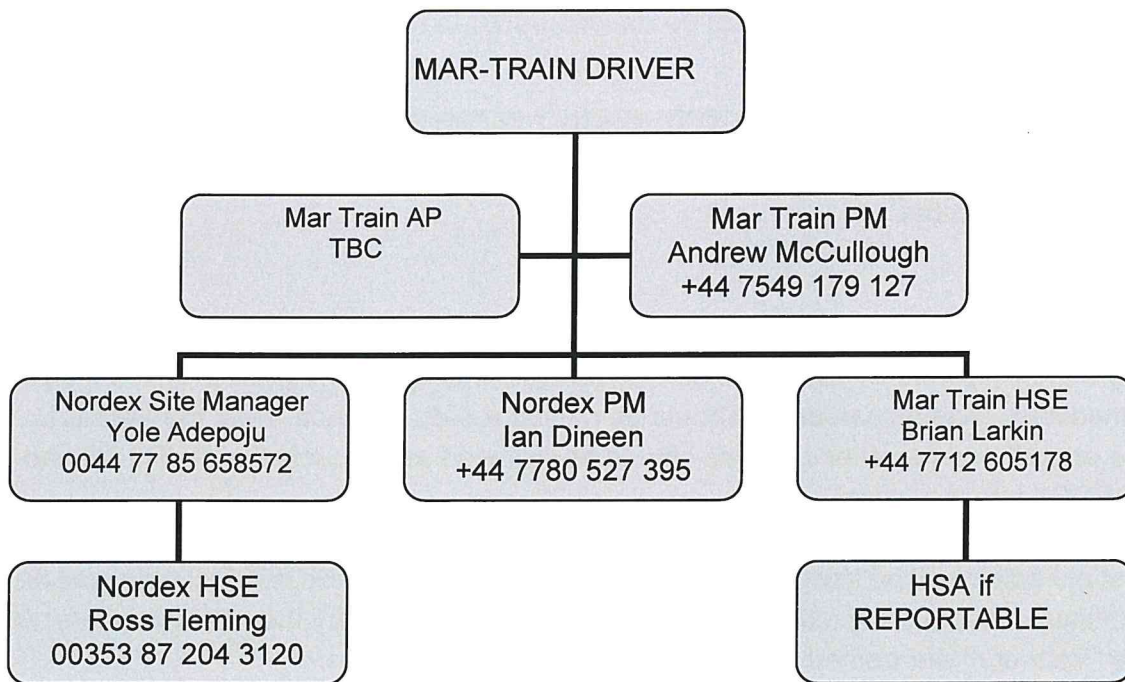
Engine / clutch failure.

In the event of an engine failure, the truck is moved to a safe location on site if it is safe to do so. An 8-metre sling will be used (SWL 57 tonne) to tow the vehicle to a safe location. Mar-train to call out the vehicle recovery as detailed in the Recovery call out section. See Mar-Train Recovery contact numbers above in section 1.

Brake / clutch failure

The wheels of the load vehicle to have suitable timbers placed in front or behind the tires to prevent it from moving. Mar-Train to call out the vehicle recovery as detailed in the Recovery call out section.

INCIDENT CHAIN OF COMMAND – ALL INCIDENTS REPORTABLE WITHIN 30 MINS



INCIDENT/ACCIDENT – Driver’s instructions:

- Stop Immediately
- Stay Calm
- Assess the situation
- Call emergency service if required.
- Contact the Mar Train AP/ Supervisor.
- AP to inform NORDEX Site Manager & Mar-Train H&S Advisor immediately.
- Cordon off area (with cones) to make safe
- Wait on instructions from MD Tim Martin +44 7801 131723

Local Hospitals.

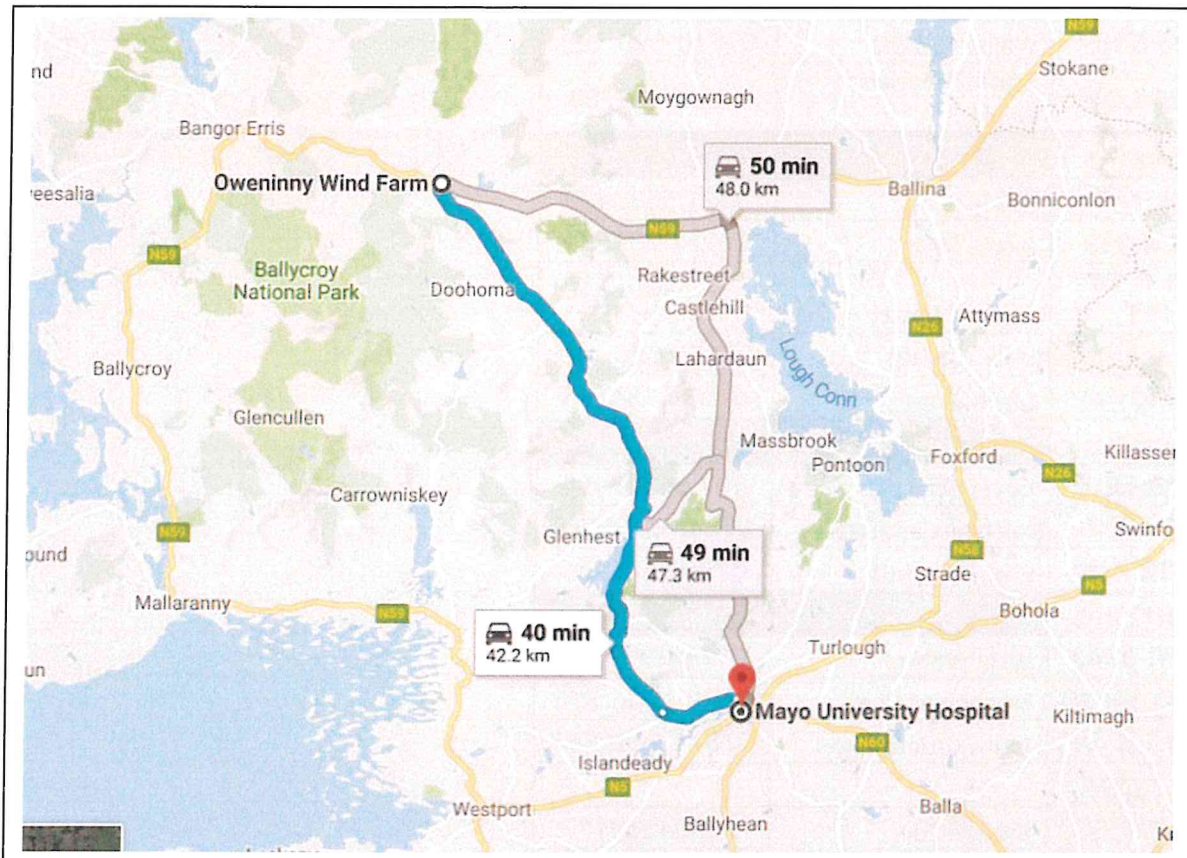
Mayo University Hospital

Westport Road

Curragh, Castlebar

Co. Mayo VM2W+RP

+353 94 902 1733



CONTACT NUMBERS – MAR- TRAIN HEAVY HAULAGE LTD

Registrations	Driver names	Own Mobile Numbers
T15 MHH	Phillip McCullough	07888 726 415
T16 MHH	Paul Bird	07786 625 076
T18 MHH	Ian McCarthy	07902 488 394
T22 MHH	Gareth Massey	077 42776863
T23MHH	Jim Moore	07595 754199
T27 MHH	John Bernard	0746 5869568
T44 MHH	Paul Martin	0779 1345648
T55 MHH	Marty McClean	07850691618
X11 MHH	Brian Lynam	07885 979 325
T500 MHH	Wayne Lough	07510 090 703
BT15 LDV	Madalin-Adrian Bocan	40733788708
Irish lorries		
141 L 1674	Kris Rea	0771 5535470
152 C 999	James Dunn	07917 730680
161 C 14 111	Francis Ewart	0739 2082649
171 L 4272	Philip James	07450 826 119
171G3110	Micky Hogg	07533 754445
Mechanics		
MA16 OBE	David Gillespie	077 64177454
MJ16 PPK	Michael Campbell	07549 178 826
WV 12 PHA	Chris Carnduff	0776 3276472
Escort Vans		
151 C 9742	Willy Welsh	07754 399612
171 C 10620	Stephen Mather	0772 8330 750
YG16 BYN	Jonny Crookshanks	07841 1010547
XV 72229		
ZH56209	Billy Mellor	74624212177
ZH56211	Tim Shillington	07460 882 275
ZH56207	David Sutherland	07468 563 956
XV72230	David Bradford	07769 359 439
	Lee Matthews	07516 713290

RECOVERY PLAN

CLIENT: NORDEX	CONTRACT: Oweninny Wind Farm deliveries
DATE: 15/12/2021	LOCATION: Killybegs – Oweninny Ireland

IN THE EVENT OF A ROAD TRAFFIC ACCIDENT:

- Stop immediately.
- Stay Calm, no matter who was at fault – do not become aggressive.
- Assess the situation and phone the head office – if necessary, call an ambulance.
- Keep your vehicle as near to the point of impact as possible.
- Give on demand, your name, company name, address, and insurance details.
- You may be requested to make a statement to the Garda – you are not obliged to do so and should take advice before making any statement.
- If it is necessary and if it is safe to do so, take measurements and sketch the scene before moving your vehicle.
- Do not drive your vehicle unless you are sure it is safe to do so.
- Do not admit liability.
- Complete an insurance accident form including a full and detailed account of the accident and return to the health and safety co-ordinator – Andrew McCullough.

IN THE EVENT OF A BREAKDOWN OR TRANSIT INCIDENT:

- Stop immediately and park your vehicle safely if possible.
- Use hazard lights and red triangles to warn other road users.
- Assess the situation and report the incident to the head office – if necessary, first call an ambulance in the event of injured personnel.
- Depending on the nature of the breakdown/incident, you will be instructed by a member of the transport staff on how to proceed.
- Do not drive your vehicle unless you are sure it is safe to do so.
- In the event of a transit incident, make a full and detailed account of the incident and return to the health and safety co-ordinator – Andrew McCullough.

EMERGENCY CONTACT NUMBERS:

Head office: +44(0)28 92 639499
Mechanic- Michael Campbell: +44(0)7549 178826
Recovery vehicle – Sean McCarthy – 00353 87 251 6330
Volvo 24hr Breakdown Assistance: 0800 929292
Scania 24hr Breakdown Assistance: 0800 800660
Merc 24hr Breakdown Assistance: 0800 800644
DAF 24hr Breakdown Assistance: 0800 919395

Bridgestone Tyres: 00353 (1) 902 0111
Membership 1856, PIN 8241
Carryduff Tyres 24hrs Breakdown Assistance: 0800 0133456
- Membership Number: 1552
- Card Number: B1552/05012

Appendix A Route Survey Report

Pell Frischmann

Oweninny II Wind Farm

Route Survey Report



July 2021
103946

Revision Record

Document2

Rev	Description	Date	Originator	Checker	Approver
A	Draft	03/04/2020	T Lockett	G Buchan	G Buchan
B	Final	12/05/2021	T Lockett	G Buchan	G Buchan
C	Revision 1	28/06/2021	T Lockett	G Buchan	G Buchan
D	Revision 2	27/07/2021	T Lockett	G Buchan	G Buchan
E	Revision 3	28/07/2021	J Stirrat	G Buchan	G Buchan
F	Revision 4	29/07/2021	J Stirrat	G Buchan	G Buchan
G	Revision 4 Update	11/08/2021	T Lockett	G Buchan	G Buchan
H	Revision 5	12/08/2021	T Lockett	G Buchan	G Buchan

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Pell Frischmann

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Appendices

- Appendix A - Points of Interest Locations**
- Appendix B - Swept Path Assessment**
- Appendix C - Ballysadare 6m Blade Tracking**

1 Introduction

1.1 Purpose of the Report

Pell Frischmann (PF) has been commissioned by Nordex to undertake a desktop route survey review of the Abnormal Indivisible Load (AIL) delivery route for wind turbine loads associated with the construction and development of phase 2 of the Oweninny Wind Farm, located to the east of Bellacorick, County Mayo.

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

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

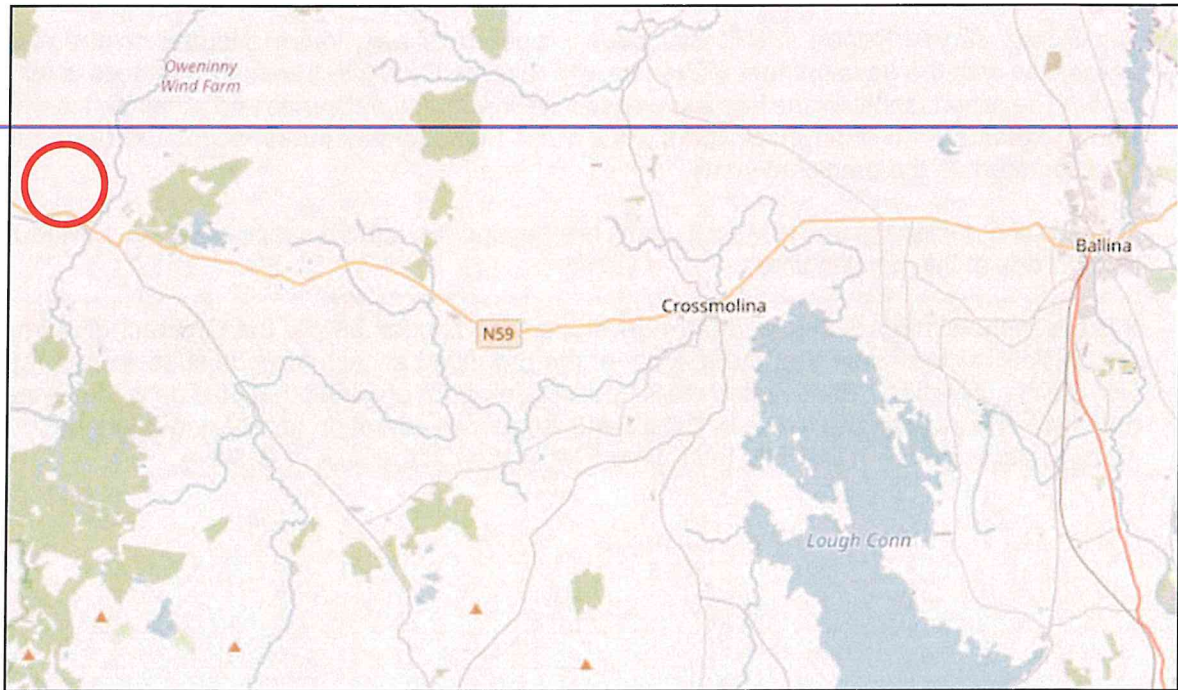
It is the responsibility of the wind farm developer and Nordex as per the Contract divisions of responsibilities to ensure that the entirety of the proposed access route is suitable and meets with their satisfaction. The developer will be responsible for ensuring that the finalised proposals meet with the appropriate levels of health and safety consideration for all road users has been made in accordance, in line 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 Bellacorick, County Mayo. Figure 1 illustrates the general site location.

Figure 1: Site Location Plan



2.2 Candidate Turbines

Nordex have indicated that they wish the assessment to be based the 'worst case' components from either the N117/3000 or N117/3600 on the TS120 tower. Tower and blade dimensions have been supplied by Nordex and are indicated below in Table 1.

Table 1: Turbine Dimensions

Section	Length (m)	Width (m)	Height (m)	Weight (t)
Blade	57.614	3.221	3.295	13.140
Nacelle Housing	12.810	4.300	4.000	59.860
Drive Train	12.810	4.300	4.000	64.370
Top Tower	34.210	4.020	3.260	52.800
Mid 3 Tower	29.940	4.260	4.020	66.400
Mid 2 Tower	21.040	4.260	4.260	66.400
Mid 1 Tower	18.120	4.270	4.260	67.100
Base Tower	13.530	4.300	4.270	73.800

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 Superwing trailer to reduce the need for mitigation in constrained sections of the route. A 12m overhang has been assumed.

Mar-Train Heavy Haulage have confirmed that the base towers would be carried using a 4+7 clamp adaptor style trailer. The mid towers will be carried on 7 axle step frame trailers and loads such as the hub, nacelle housing and top towers would be carried on 5 axle step frame trailer.

Due to the additional height clearance requirements for the carriage of the mid and top towers on the step trailers, the developers should ensure that a 5.5m height clearance envelope is available along the route.

Figure 2: Superwing Carrier Trailer



Figure 3: Tower Clamp Trailer



Figure 4: Tower Step Trailer



The swept path assessments have been based upon the blade and mid-section tower 3 carried on the 7 axle step trailer to represent the worst case assessment loads. The base in clamps and the top tower on a 5 axle step trailer have also been assessed at the four most constrained locations for completeness. These sections provide the most onerous case for assessment of the route.

3 Access Route Review

3.1 Access Route

All results described below are based upon a desk top assessment of the access route as agreed with Nordex and due to travel restrictions associated with the Covid 19 outbreak. Previous experience of the route and information provided by ESB has been utilised as part of the assessment.

PF have utilised drawings provided by ESB for the original Oweninny deliveries to minimise the requirement for new works. A full site visit will be required to confirm that previous works have been retained and are available for use by future deliveries.

Killybegs harbour has been used extensively for the delivery of wind turbine components including for the original Oweninny Wind Farm deliveries. It has excellent network access onto the N56.

Loads can be offloaded by geared vessels or onshore mobile cranes.

The proposed access route to the site access junction is as follows:

- Loads would exit Killybegs Harbour via the main gate onto the Shore Road which becomes the R263 Donegal Road;
- Loads would turn right onto the N56 continuing east to the N56 / N15 Roundabout at Donegal Town where they would continue south on the N15;
- Loads will continue south and west on the N15 to Sligo where they will continue onto the N4;
- Loads will depart the N4 north of Balladrihid and continue onto the N59;
- Loads would continue west on the N59 to the outskirts of Ballina;
- Loads would turn left from the N59 onto the Bunree Road;
- Loads would turn right from Bunree Road onto the R294;
- Loads would continue west contraflowing the one way system on Tone Street;
- Loads would continue west onto McDermott Street to Gurteen Roundabout where they would join the N59 again; and
- Loads will continue west through Crossmolina to the proposed wind farm site entrance.

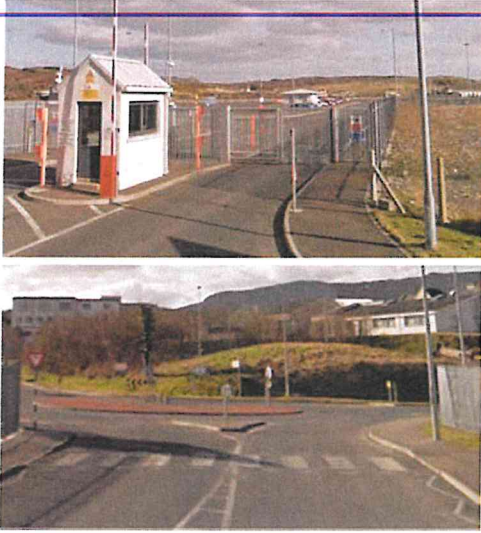
The proposed access route is illustrated in Figure 5.






3.2 Route Constraints




The constraints noted in the review are detailed in Table 2. These cover all constraints from the port access gates through to the site access junction.






Plans illustrating the location of the constraints and a detailed list of POI are provided in Appendix A.





Table 2: Constraint Points and Details





POI	Key Constraint	Details
1, 2	<p>Killybegs Port and Fire Station Road</p> 	<p>Loads will exit Killybegs Harbour.</p> <p>Blade loads will utilise the existing main port exit gate when leaving the quay. Tower loads will if possible, divert through the storage area to the south in order to bypass the gatehouse and remove the requirement for mitigation. This manoeuvre should be confirmed during the final test run.</p> <p>Loads will oversail the splitter island on entry to the Fire Station Roundabout where two road signs should be removed. Loads will oversail the eastern edge of the roundabout island where one road sign should be removed. Loads will oversail the eastern footway and verge on the inside of the right movement where one road sign should be removed.</p> <p>All signs should be made suitable to allow for the removal prior to load movements and reinstatement after the convoys have passed.</p>


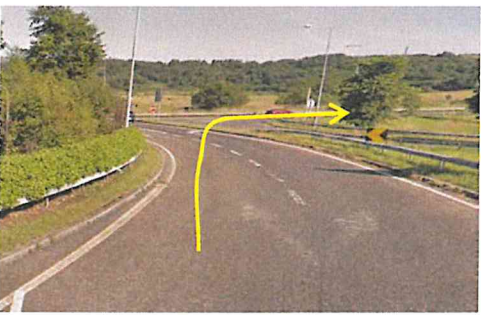


POI	Key Constraint	Details
3	<p>N59 Bends South East of Bruckless</p> 	<p>Loads will continue south on the N59.</p> <p>It is recommended that the vertical clearance is reviewed during the test run and that loads transit the section under caution.</p> <p>Loads will oversail both verges through the initial left and right bends.</p> <p>Loads will oversail both verges through the following right bend. The haulier should note that clearances to the utility pole in the eastern verge are constrained.</p>
	 	<p>Clearances to bollards and vegetation are constrained. If these are removed / trimmed, then access would be improved.</p>
4	<p>N56 Left Bend Leitir</p> 	<p>Loads will travel south and east through the left bend.</p> <p>Loads will oversail verges on both the inside and outside of the left bend however no physical mitigation is required.</p>
5	<p>N56 West of Dunkineely</p> 	<p>Care should be taken due to parked vehicles through the village.</p> <p>Escorts should provide advanced warning to oncoming vehicles.</p>

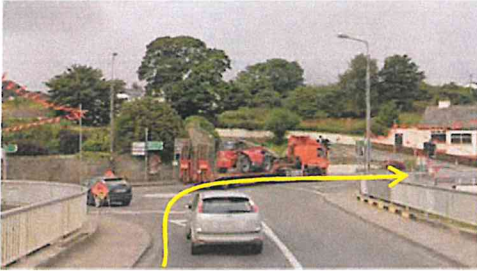


POI	Key Constraint	Details
6	<p>N56 Donegal</p> 	<p>Clearances to the street furniture at gateway feature is constrained for wider loads.</p> <p>Loads to wrong side the island to allow greater clearance to street furniture. Escorts to holding oncoming traffic in advance of the island.</p>
7	<p>N56 / R925 Roundabout</p> 	<p>Loads will continue north east through the roundabout.</p> <p>No mitigation measures are required to negotiate the roundabout.</p>
8	<p>N56 / N15 Roundabout</p> 	<p>Loads will continue south through the roundabout onto the N15.</p> <p>Loads will oversail the northern verge of the roundabout where the blade tip will oversail the safety barrier and traffic sign. The vegetation should be trimmed.</p> <p>Loads will oversail the north and eastern edges of the roundabout island where the traffic signs should be removed.</p> <p>The blade tip will oversail the eastern approach road splitter island. The traffic signs will be oversailed.</p>





POI	Key Constraint	Details
9	<p>N15 / R267 Roundabout</p> 	<p>Loads will continue south west through the roundabout.</p> <p>Loads will oversail the south eastern verge on approach to the roundabout where one traffic sign should be removed.</p> <p>Loads will utilise an area of existing load bearing surface on the central island where traffic signs and vegetation should be removed.</p>
		<p>Loads will utilise an existing overrun area on the south eastern verge on exit from the roundabout.</p>
10	<p>A83 Low Ballevain</p> 	<p>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.</p>
11	<p>N15 / R231 Roundabout</p> 	<p>Loads will turn left through the roundabout and continue south on the N15.</p> <p>Loads will oversail the northern verge on approach to the roundabout. Loads will oversail the inside verge through the left movement and one traffic sign should be removed. Clearances over the safety barrier are limited and care should be taken.</p>
12	<p>N15 / R267 Roundabout 1</p> 	<p>Loads will continue west through the roundabout.</p> <p>Loads will oversail the southern verge on approach and overrun the southern edge of the roundabout island where an existing overrun area will be utilised and extended as required.</p>




POI	Key Constraint	Details
13	<p>N15 / R267 Roundabout 2</p> 	<p>Loads will turn left through the roundabout and continue west on the N15.</p> <p>Loads will oversail the southern verge through the junction, however there is no requirement for physical mitigation measures.</p>
14	<p>N15 Cliffony</p> 	<p>Care should be taken when transiting past the traffic islands within the town due to reduced clearances.</p>
15	<p>N15 Ballincastle</p> 	<p>It is strongly recommended that a full overhead utility search is carried out along the route to ensure that height clearances are suitable for normal temperature ranges.</p>
16	<p>N15 East of Grange</p> 	<p>Care should be taken when transiting past the traffic islands within the town due to reduced clearances.</p>



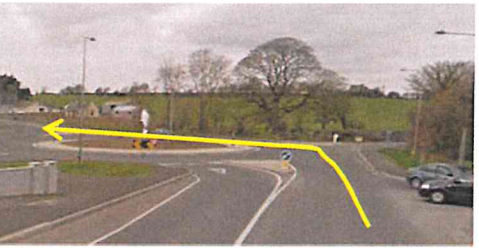

POI	Key Constraint	Details
17	<p>N15 Grange</p> 	<p>Care should be taken when transiting past the traffic islands within the town due to reduced clearances.</p>
18	<p>N15 Cullagh Beg</p> 	<p>Care should be taken when transiting past the traffic islands within the town due to reduced clearances.</p>
19	<p>N15 South of Drumcliff</p> 	<p>Care should be taken when transiting past the traffic islands within the town due to reduced clearances.</p>
20	<p>N15 Tullyhill</p> 	<p>Care should be taken when transiting past the traffic islands within the town due to reduced clearances.</p>

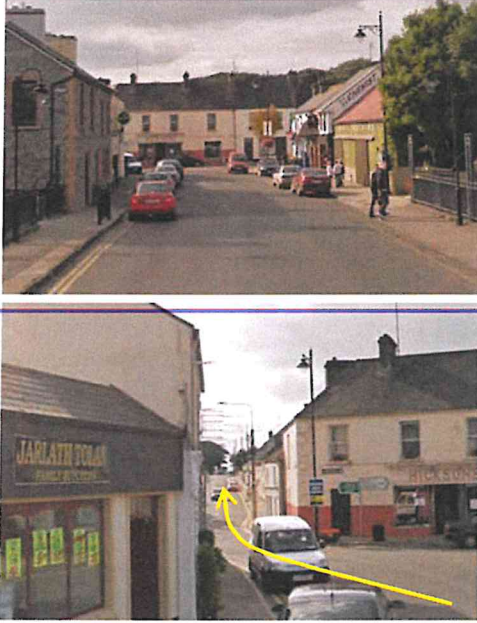


POI	Key Constraint	Details
21	<p>N4 / An Cuarbhothar Roundabout</p> 	<p>Loads will continue south through the roundabout.</p> <p>Loads will oversail the eastern verge on approach and the eastern edge of the roundabout island through the junction. No physical mitigation is required.</p> <p>Swept path assessment SK11 is included in Appendix B.</p>
22	<p>N4 / N59 Junction</p> 	<p>Loads will depart the N4 using the offslip and turn right onto the N59 travelling south.</p> <p>Loads will oversail the northern verge on approach to the junction.</p> <p>Loads will cross the central reserve on approach to the junction utilising the existing overrun area. This will need to be extended with a load bearing surface and two traffic signs should be removed.</p> <p>Loads will oversail the western verge on exiting the junction. Trailer suspension should be raised to allow loads to oversail the safety barrier.</p>
23	<p>N59 Knockmuldoney</p> 	<p>Loads will occupy the entire carriageway through the bend. Traffic should be held in advance of the section. Vegetation should be trimmed back on both sides of the road.</p>
24	<p>N59 Right Bend, Ballysadare</p> 	<p>Loads will continue through the right bend on the N59.</p> <p>Loads will oversail both footways through the right bend. Mar-Train test run indicates that no further works are required to negotiate the section.</p> <p>Parking in this section must be banned during deliveries as per the arrangements for the original Oweninny deliveries.</p>



POI	Key Constraint	Details
25	<p>N59 / R290 Ballysadare Right Bend</p> 	<p>Loads will continue through a constrained right bend following the bridge.</p> <p>On approach to the bend, the blade tip will oversail the eastern bridge parapet and pedestrian guardrail into third party land.</p> <p>Loads will overrun and oversail the inside of the bend where one traffic sign should be removed. A load bearing surface should be laid. Trailer suspension settings should be raised to allow oversail of the pedestrian guardrail.</p>
		<p>Loads will utilise the original overrun area to the south of the road where all street furniture should be removed.</p> <p>Third party land rights will be required at this location. The proposed works can generally be accommodated within the previous Oweninny delivery boundaries. A shape file containing the overrun and oversail areas is provided to allow the developer to review their areas against those required for Nordex deliveries.</p> <p>An additional swept path assessment has been provided showing the blade tip overhang at the rear of the vehicle set to 6m as requested by Nordex. This can be found in Appendix C.</p>
26	<p>N59 Lugawarry</p> 	<p>Loads will occupy the entire carriageway width through this section. Traffic should be held in advance of the bend section and clearances should be confirmed during the test run.</p>
27	<p>N59 West of Beltra</p> 	<p>Loads will occupy the entire carriageway width through this section. Traffic should be held in advance of the bend section and clearances should be confirmed during the test run.</p> <p>Throughout the route, the tree canopy needs to be trimmed to provide a clear 5m head height and the side vegetation cut back to improve forward visibility.</p>

POI	Key Constraint	Details
28	<p>N59 Dromore West</p> 	<p>Loads to take care through the location due to reduced clearances passing the street furniture.</p>
29	<p>N59 Dromore West</p> 	<p>Loads to take care through the location due to reduced clearances passing the street furniture.</p>
30	<p>N59 West of Culleens</p> 	<p>The vertical profile of the road at this location is pronounced and loads should pass with care.</p>
31	<p>N59 / Bunree Bridge Junction</p> 	<p>Loads will turn left from the N59 onto Bunree Road.</p> <p>The blade tip will oversail the bridge parapet into third party land to the north.</p> <p>Loads will oversail the bridge into third party land on the inside of the left turn where a section of guardrail should be removed. Cantilever traffic signals should be moved to allow oversail. A pedestrian call post should be removed.</p> <p>The proposed works can generally be accommodated within the previous Oweninny delivery boundaries with the exception of the utility pole. A shape file containing the overrun and oversail areas is provided to allow the developer to review their areas against those required for Nordex deliveries.</p>

POI	Key Constraint	Details
32	<p>Bunree Road / R294 Junction</p> 	<p>Loads will turn right from Bunree Road onto the R294.</p> <p>On approach to the junction, loads will oversail the eastern footway into third party land where two bollards, one road sign and one lighting column should be removed.</p> <p>Loads will utilise and extend the existing overrun and oversail area on the inside of the right bend where a load bearing surface should be laid. All street furniture should be removed. Third party land required.</p>
		<p>Loads will utilise and extend the existing overrun area in the footway to the south of the R294 and all street furniture should be removed.</p> <p>The proposed works can generally be accommodated within the previous Oweninny delivery boundaries. A shape file containing the overrun and oversail areas is provided to allow the developer to review their areas against those required for Nordex deliveries.</p>
33	<p>N59 Tone Street</p> 	<p>Loads will continue straight ahead onto Tone Street and travel against the one way system.</p> <p>A robust parking restriction must be put in place throughout Tone Street during deliveries to allow loads to pass unhindered through the one way system.</p>
34	<p>Tolan Street / Tone Street</p> 	<p>Loads will continue through the one way system. The system will have to be suspended with traffic held in advance of the section and parking temporarily removed during load movements.</p> <p>It is recommended that early discussions are held with the road authority.</p> <p>Mar-Train have indicated in their test run report that they wish the trees to be pruned down to avoid damage to the blades.</p>

POI	Key Constraint	Details
35	<p>McDermott Street Double Bend</p> 	<p>Loads will continue northwest on McDermott Street against the one way system flow.</p> <p>No mitigation will be required subject to parking being restricted during deliveries through this location.</p> <p>Escorts to hold oncoming vehicles in advance of the bend as loads will occupy the entire carriageway.</p>
36	<p>McDermott Street</p> 	<p>Loads will oversail the traffic calming build outs and associated street furniture.</p> <p>Following the Mar-Train test run they have advised that parking should be suspended during load movements.</p>
37	<p>L1109 / N59 Gurteens Roundabout</p> 	<p>Loads will oversail the north eastern verge on entry to the roundabout where vegetation should be trimmed.</p> <p>Loads will oversail the northern edge of the roundabout island where two chevron signs should be removed.</p>
38	<p>N59 Crossmolina</p> 	<p>Loads will continue west on the N59 entering the town of Crossmolina.</p> <p>Two traffic bollards and one traffic sign could be removed from the traffic island and that the town entry sign on the left could be rotate 90 degrees to provide additional clearance. These works are optional.</p> <p>It is strongly recommended that a full overhead utility search is carried out along the route to ensure that height clearances are suitable for normal temperature ranges.</p>

POI	Key Constraint	Details
39	<p>N59 Crossmolina</p> 	<p>Loads will negotiate the constrained chicane within Crossmolina.</p> <p>Crossmolina is the major constraint on the route and the clearances to the buildings are minimal and must be driven at caution.</p> <p>Loads will oversail the northern footway where all street furniture should be removed. Parking should be suspended during deliveries and pedestrian movements will need to be held.</p> <p>Loads will oversail the southern footway at the apex of the left bend. All street furniture will need to be cleared from the oversail area. There is minimal clearance to the shop front.</p> <p>Loads will overrun and oversail the northern footway through the section. The previous overrun area should be utilised and extended, and street furniture removed.</p>
40	<p>N59 Approaching the Existing Oweninny Wind Farm Site Entrance</p> 	<p>It is evident that the carriageway is deteriorating through this location. It is recommended that vehicles are not allowed to travel close to the road edge and pass through the section slowly.</p> <p>Further along the route, extensive resurfacing is evident.</p>
41	<p>N59 / R312 Junction</p> 	<p>Loads will need to continue on the N59, proceeding westbound at this junction.</p> <p>The junction is highly constrained and as such it proposed that blade loads turn right into the Oweninny Phase 1 site access and then reverse down to the junction, running onto the R312 arm of the junction. Loads will then proceed ahead onto the N59 in a forward gear.</p> <p>Over-run plating will be required and the requirements for this have been confirmed in the Mar-Train Test Run of this manoeuvre (see Test Run Report of 17th May 2019). The results of this have been accepted by Nordex.</p>

POI	Key Constraint	Details
42	<p>N59 Bellacorrick Musical Bridge and Bends</p> 	<p>Loads will continue westbound. Caution is required when passing over the bridge at Ballacorrick.</p> <p>To the west of the bridge, loads will straddle the road centre line. The lead escorts should hold oncoming traffic at the site entrance junction (POI 43)</p>
43	<p>N59 Site Access Junction</p> 	<p>Loads will turn right into the new site entrance.</p> <p>The site entrance will need to be designed to accommodate the proposed components. The upgrades will be required to meet the local road authority standards and Nordex guidelines.</p>

3.3 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 caseloads at each location.

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 (OSI) base mapping.

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 OSI base mapping or client supplied data. Confirmation should be sought that all works associated with the original Oweninny deliveries are still available for use and that street furniture has been cleared.

3.4 Weight Review

As per our agreed scope a weight review has not been undertaken. We would strongly advise that a weight review is completed at a later stage to ensure that there are no further constraints on the proposed route.

3.5 Summary Issues

We understand from Nordex that a trial run to simulate the length of a blade trailer was successfully completed. Prior to deliveries, it is suggested that the following actions are undertaken:

- 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; 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 Nordex to prepare a desktop Route Survey Report to examine the issues associated with the transport of ALL turbine components to the development site.

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

The access review has been based upon a worst case of a Nordex N117 turbine sections and has been undertaken on the basis of a superwing carrier trailer and towers carried on 5 and 7 axle step trailers.

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

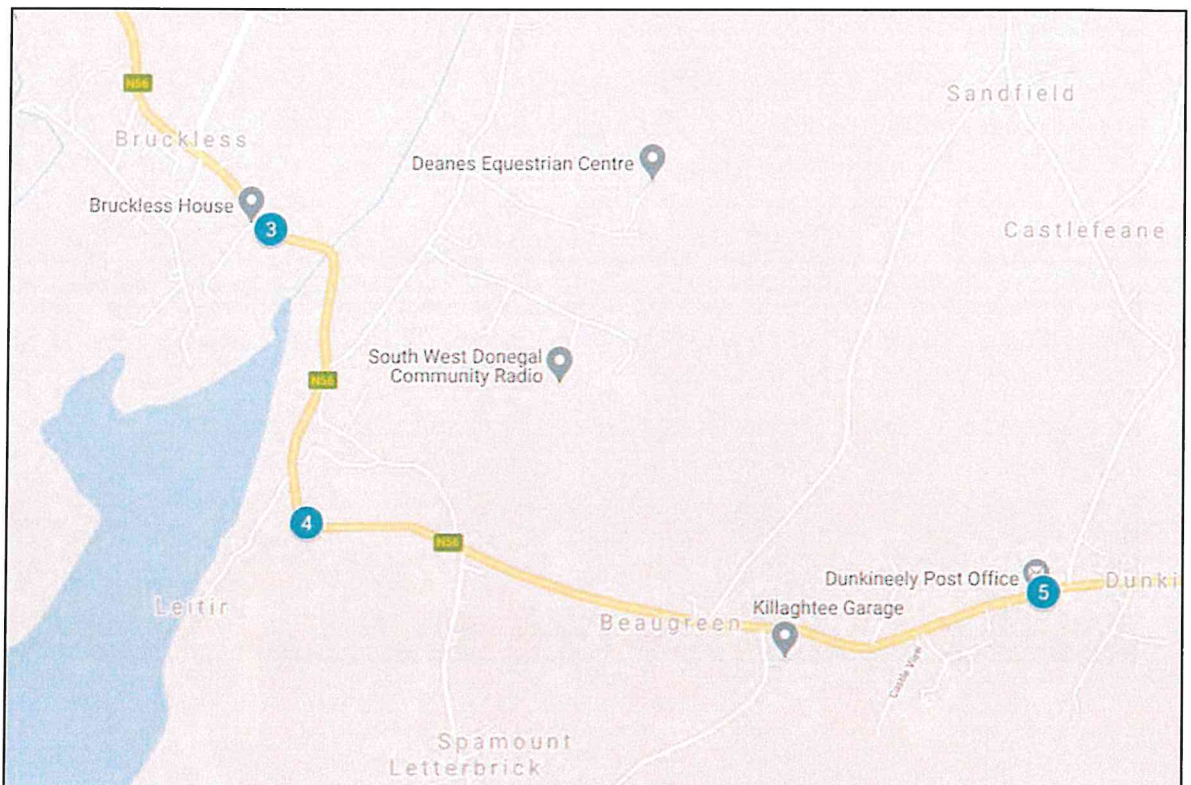
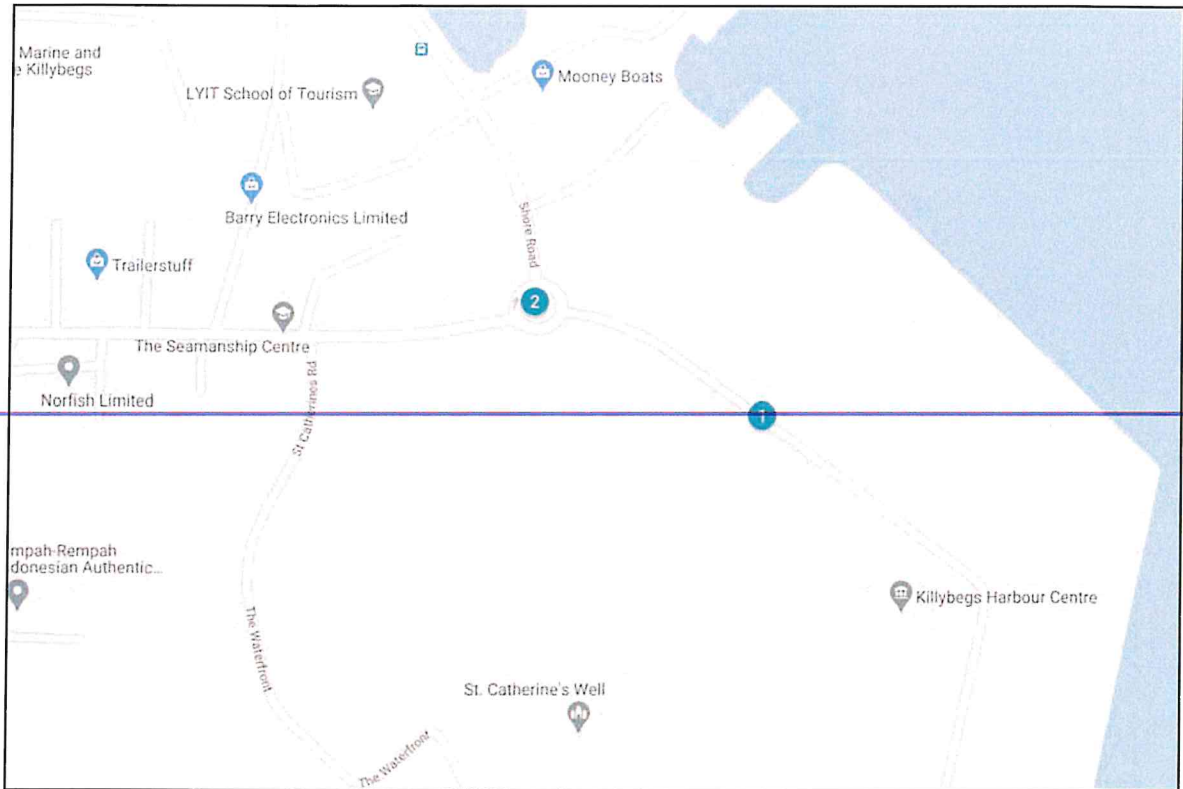
4.2 Further Actions

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

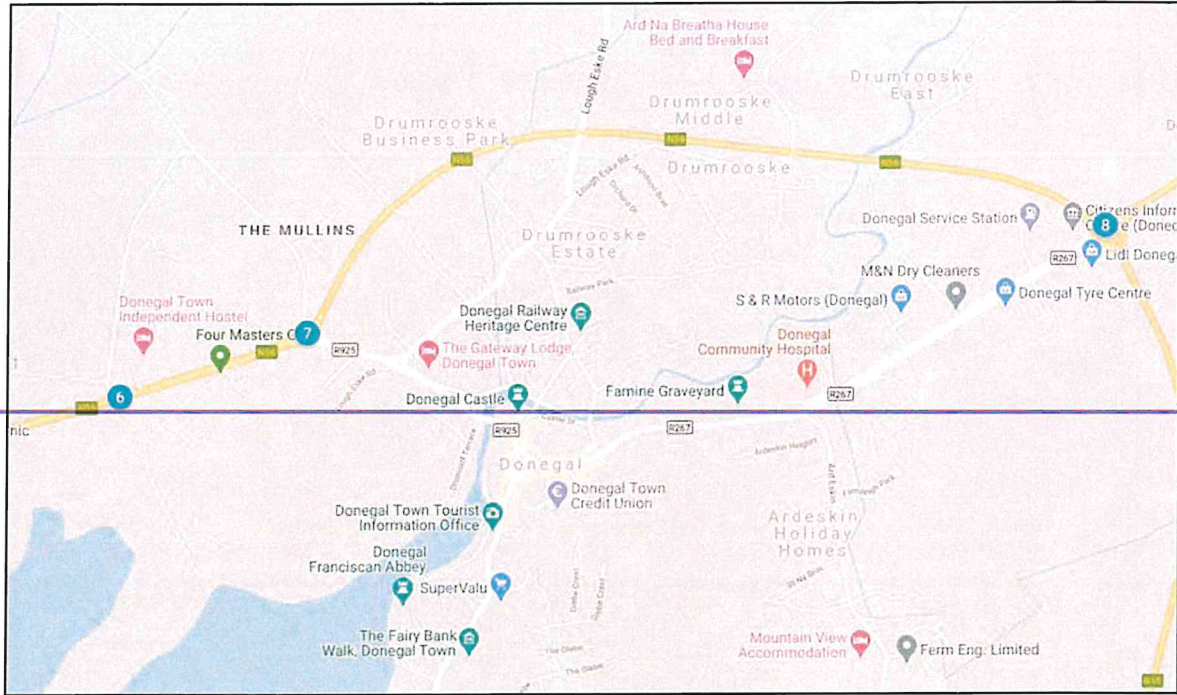
- Obtain the necessary land rights;
- Prepare detailed mitigation design proposals to help inform consultee / licence discussions;
- Undertake discussions with the affected utility providers and roads agencies;
- Obtain the necessary statutory licences to enable the mitigation measures; and
- Develop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

Appendix A Points of Interest Locations

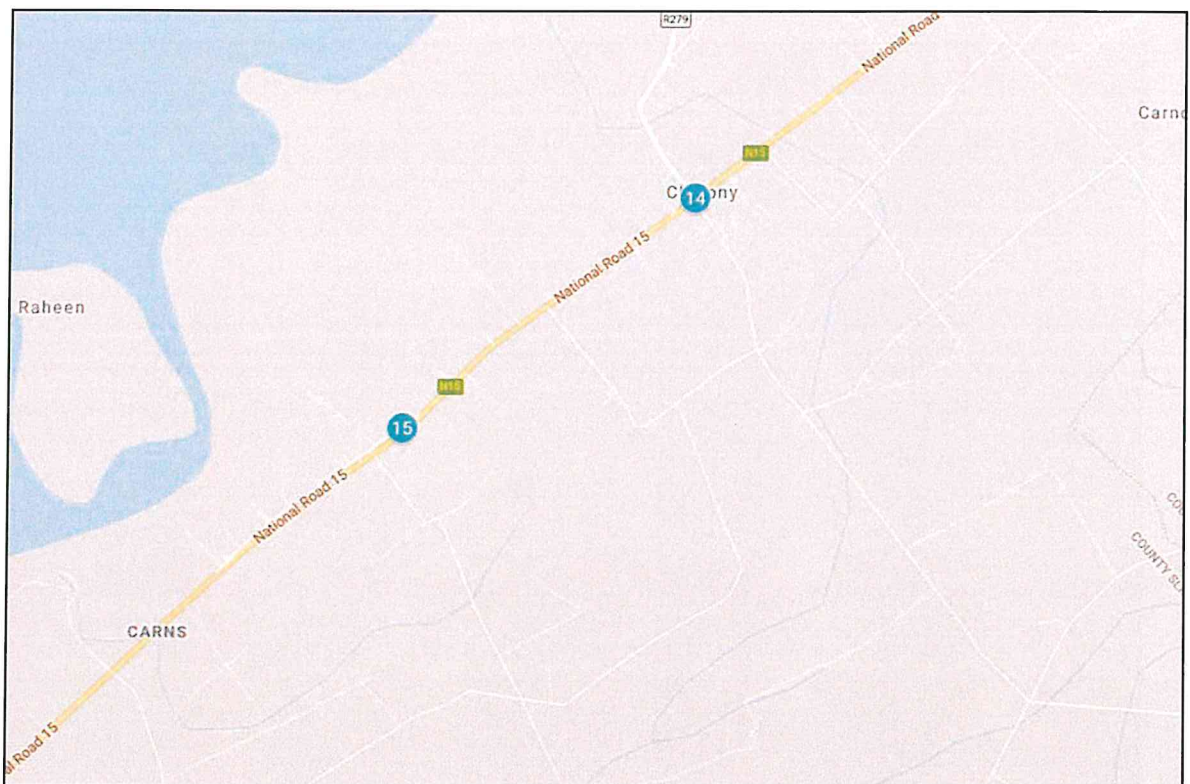
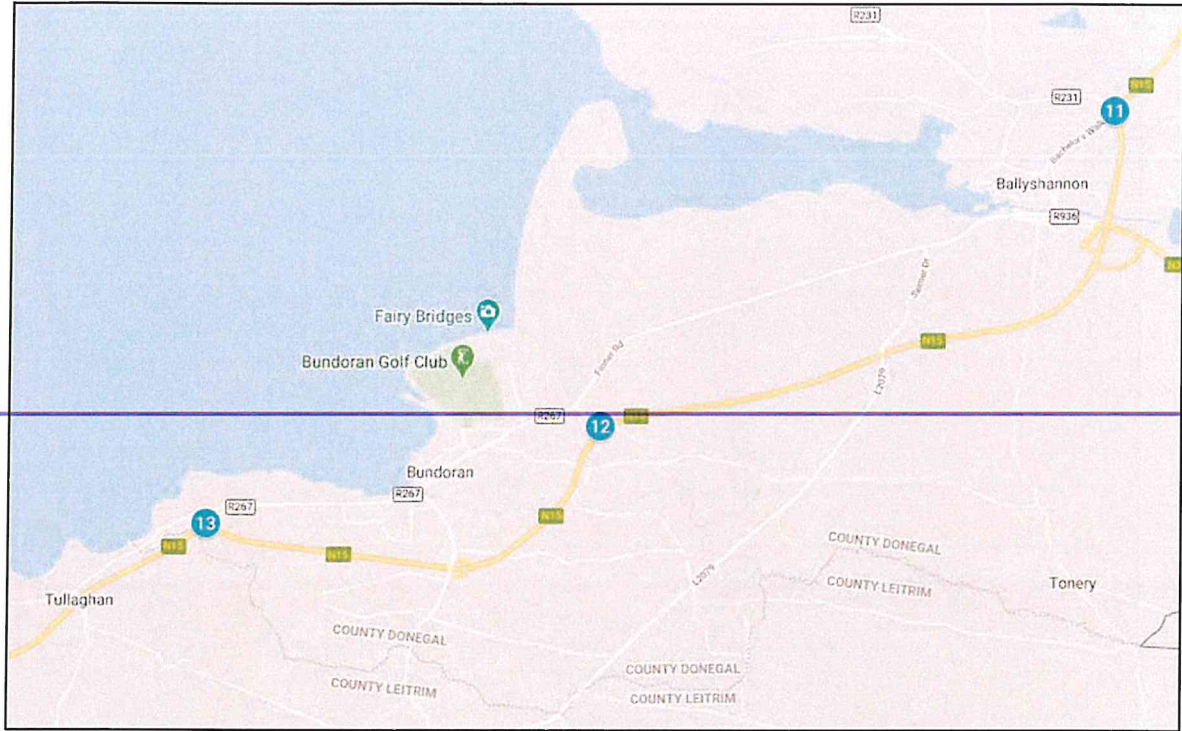
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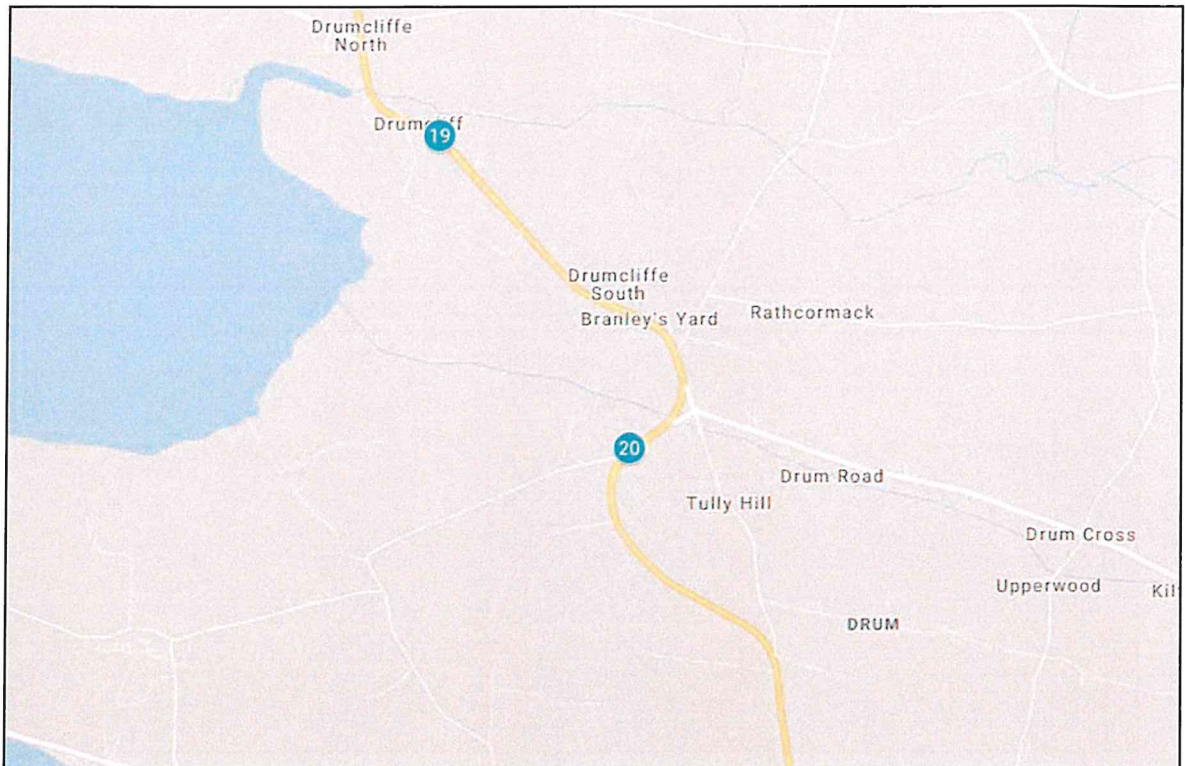
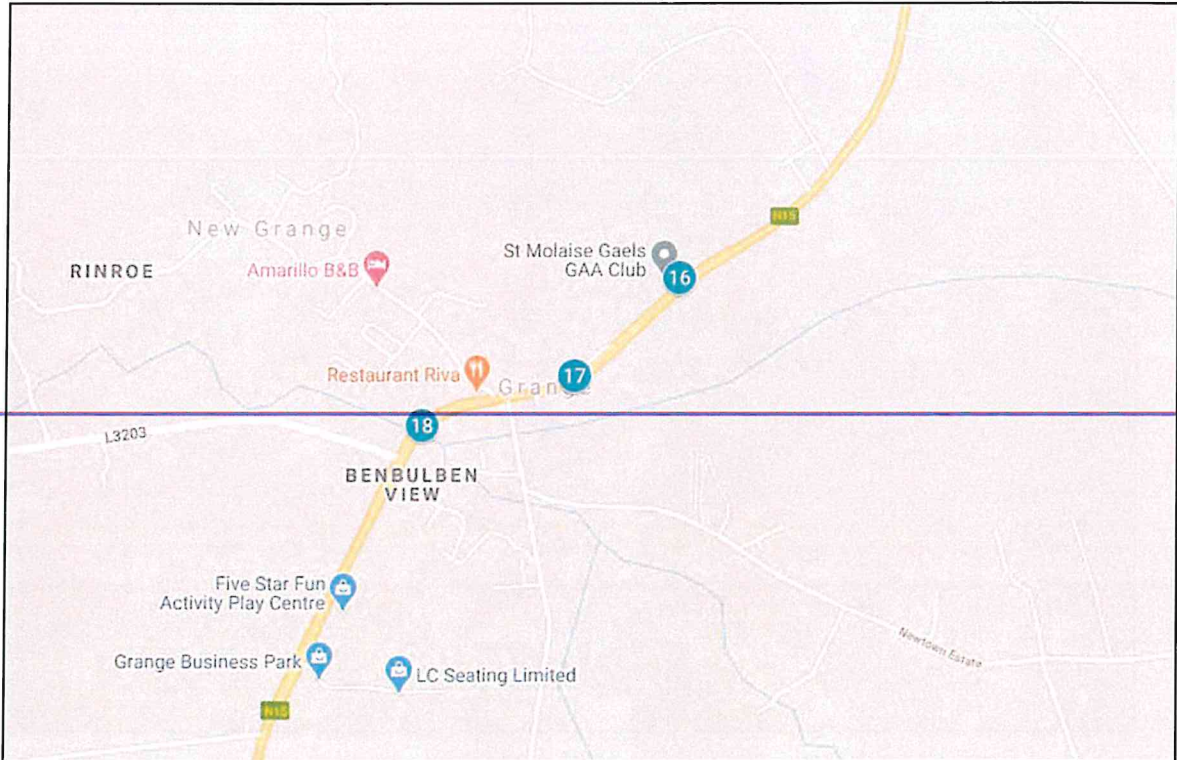


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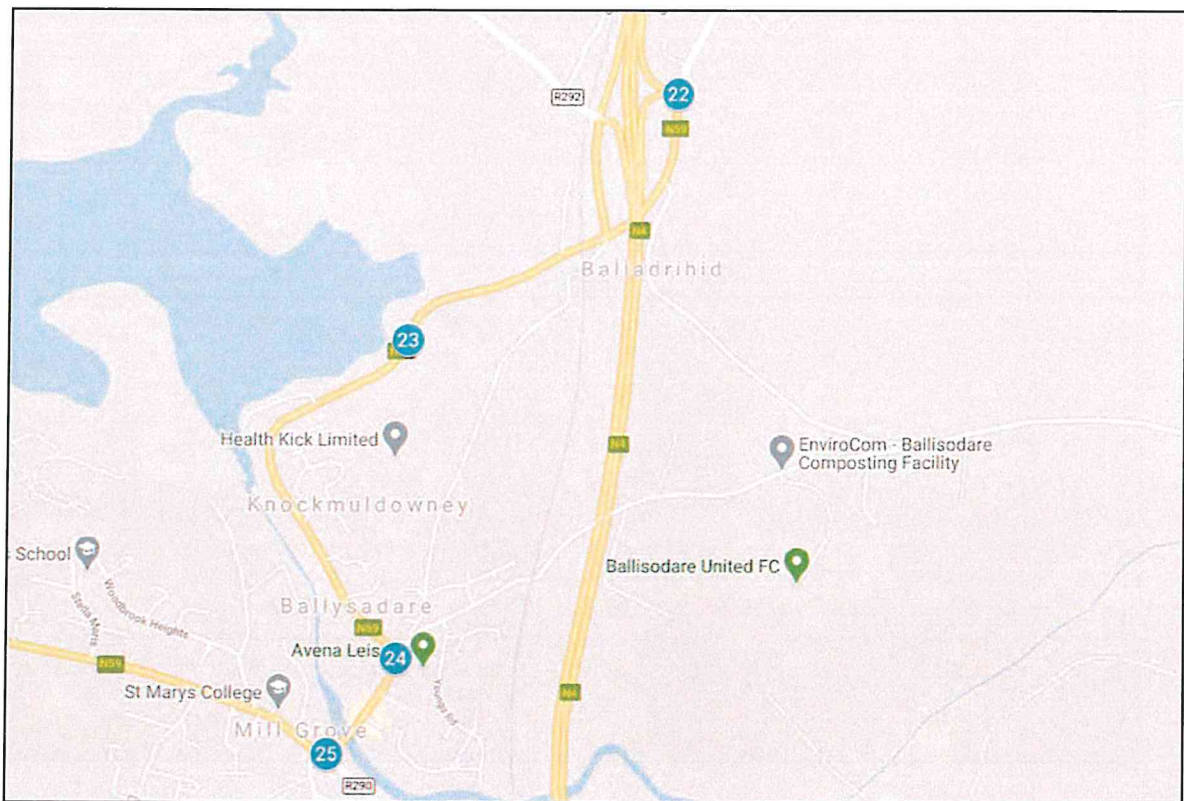
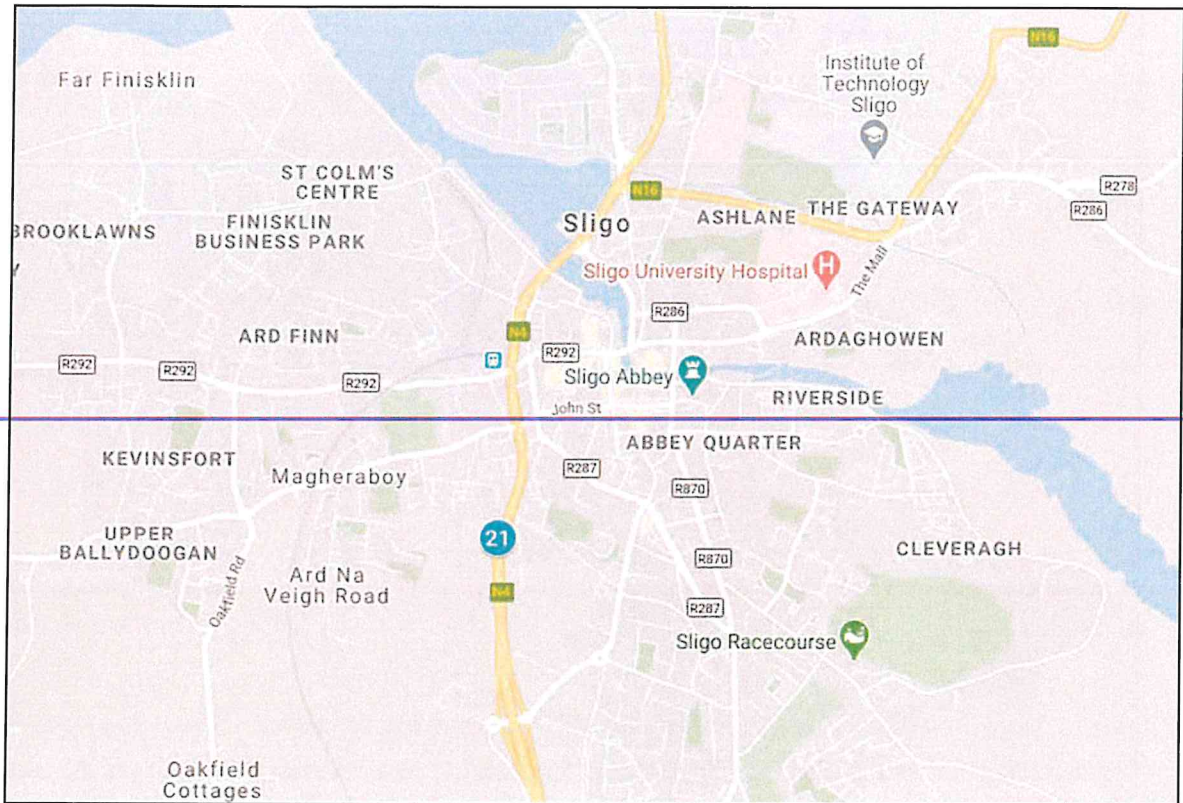


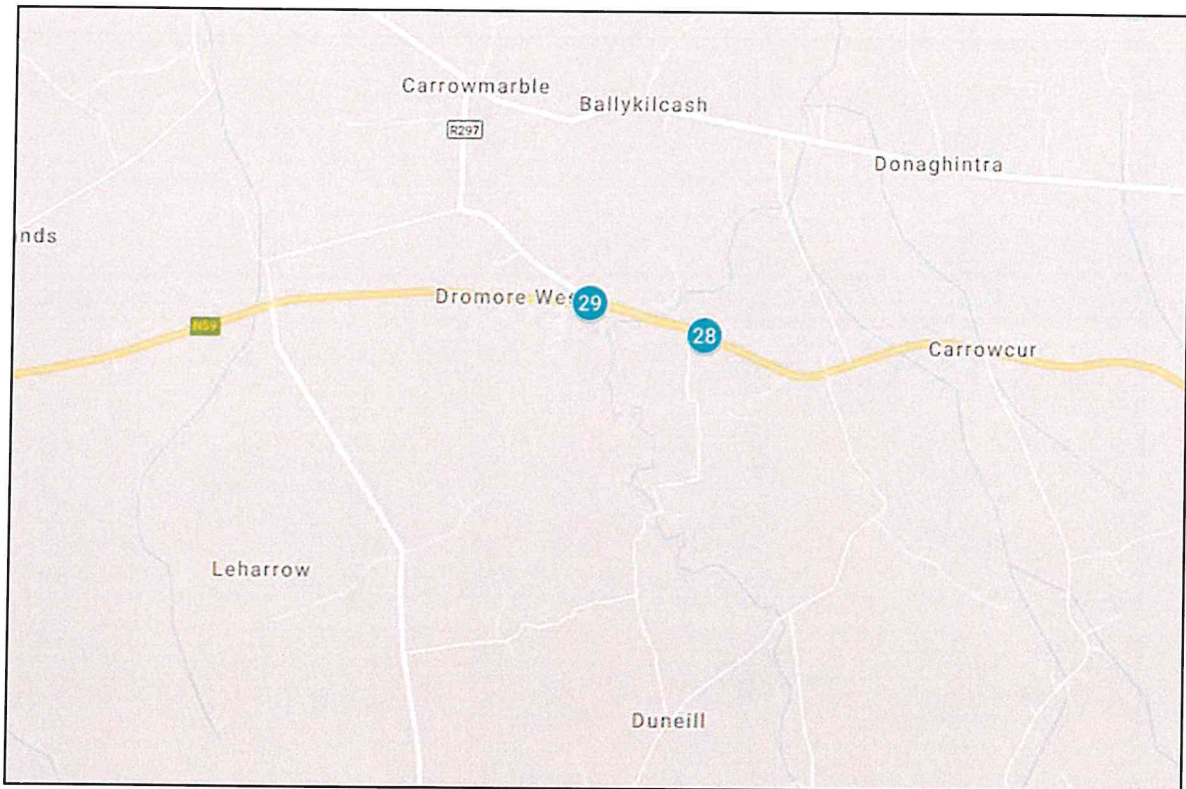
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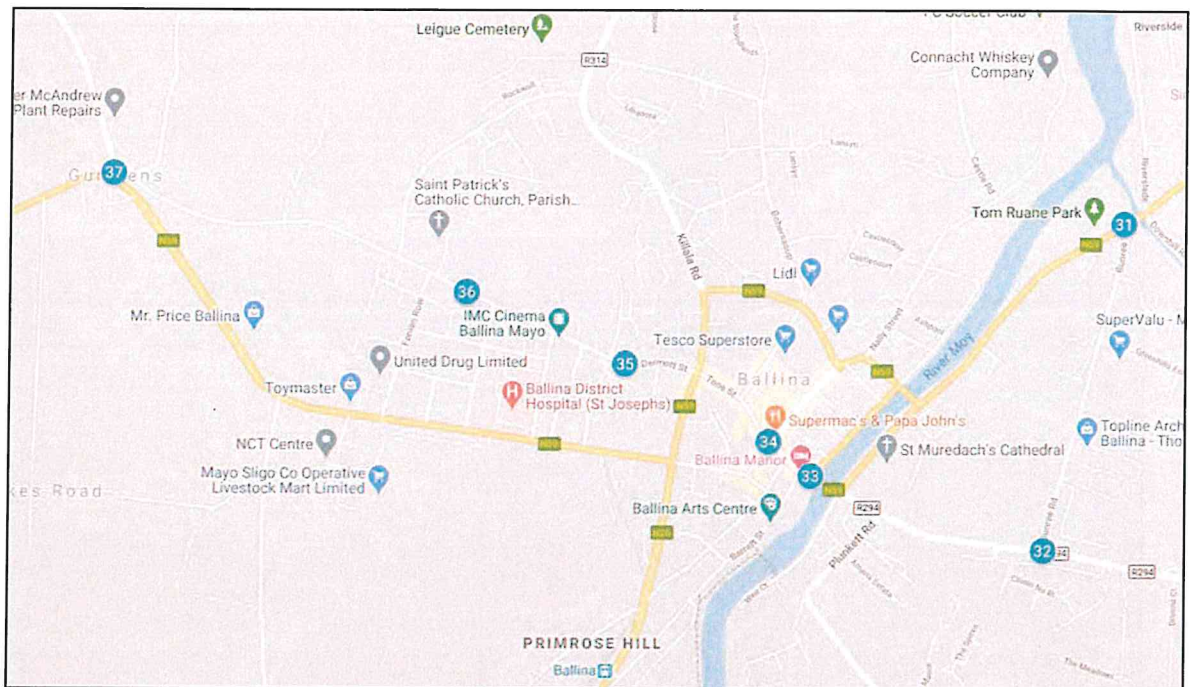
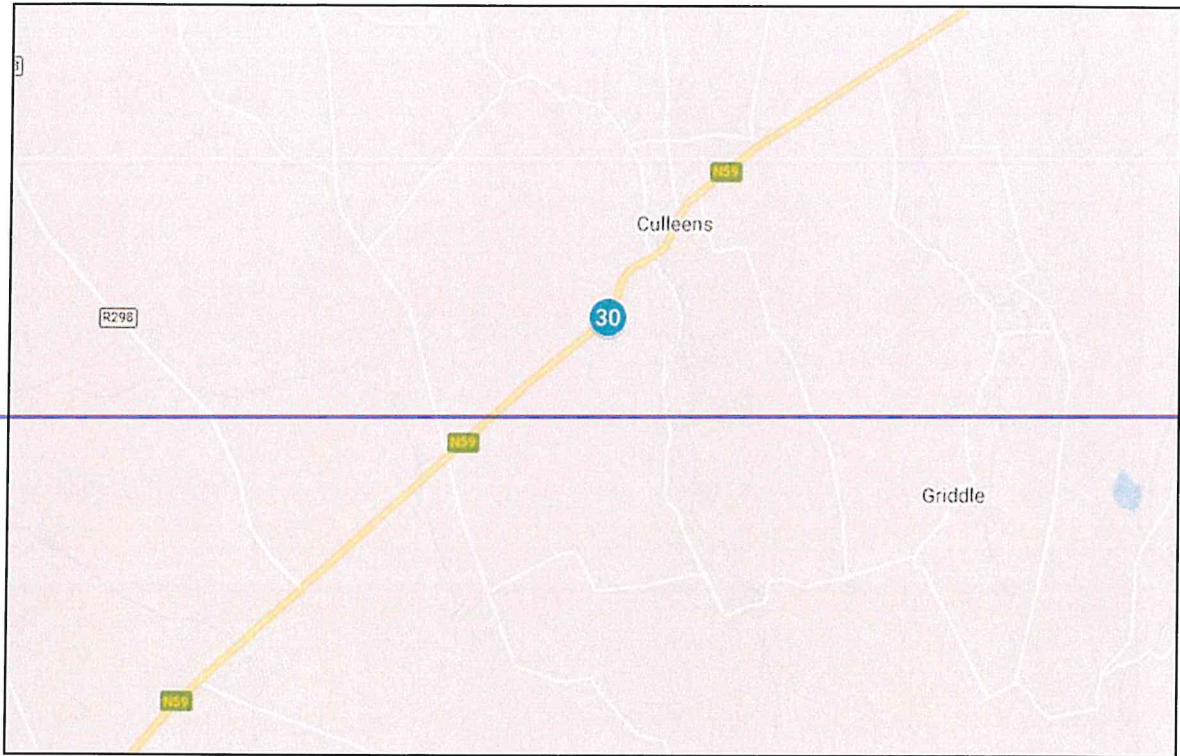


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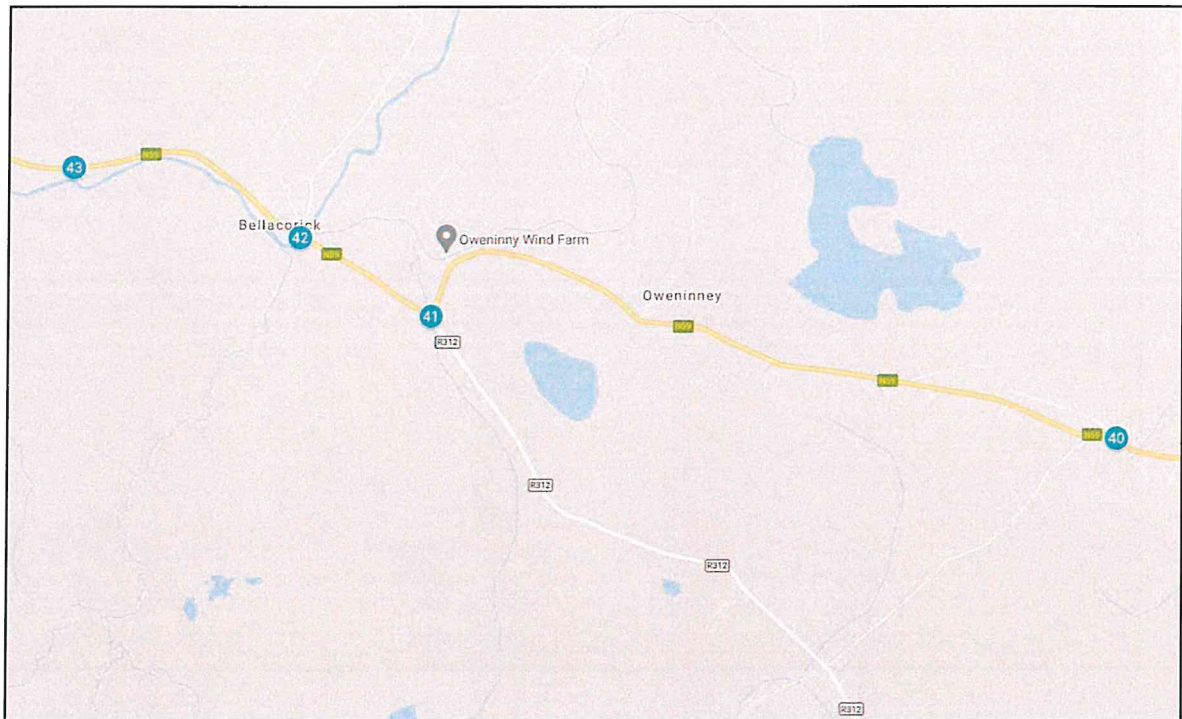
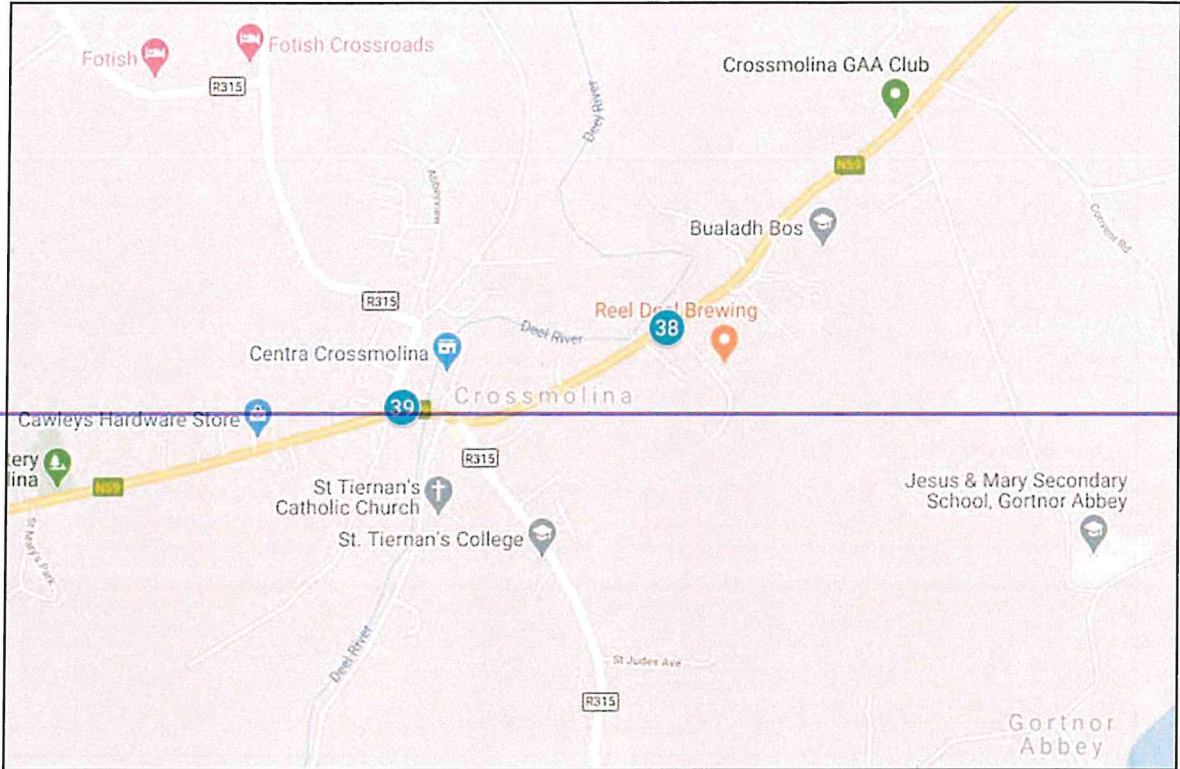




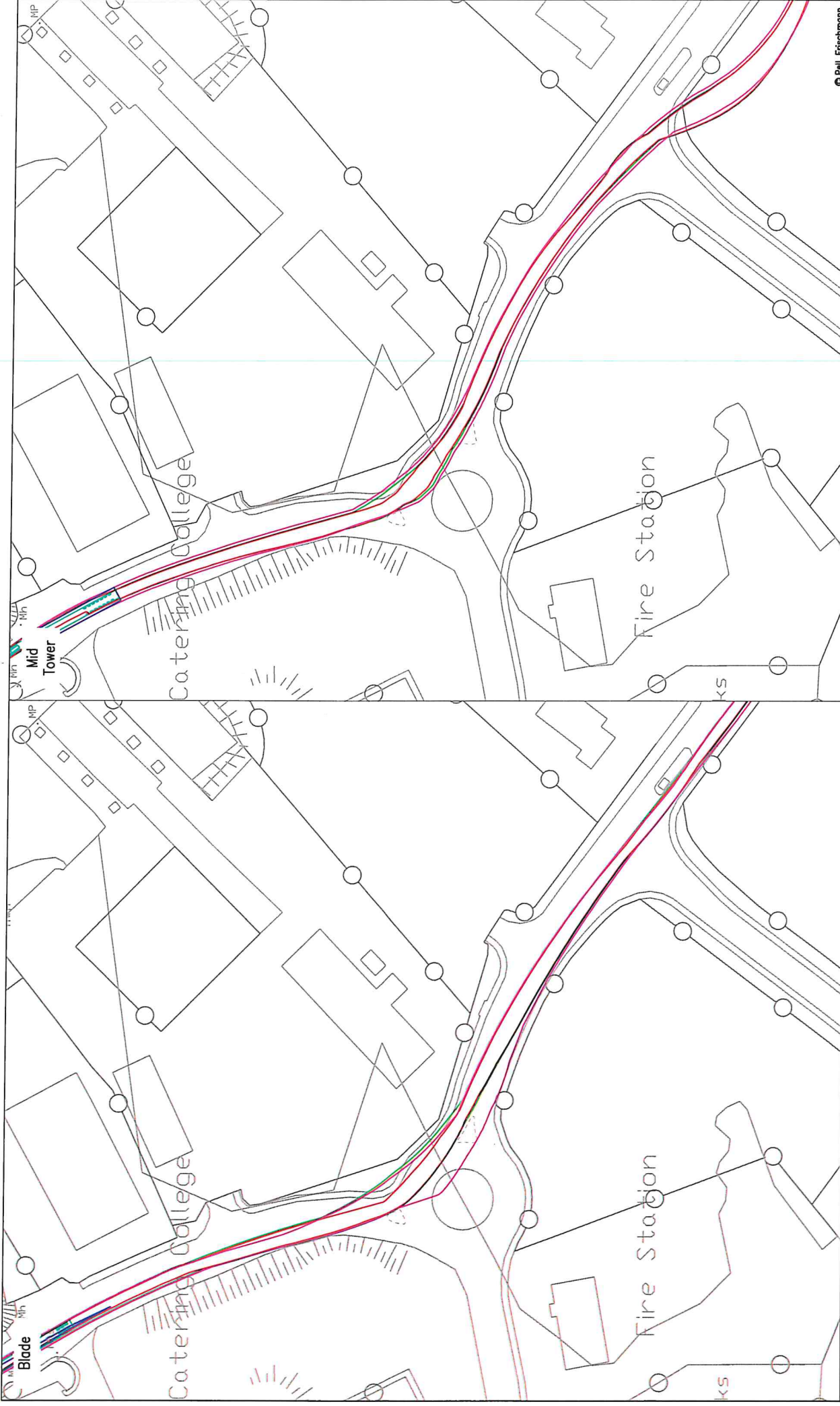
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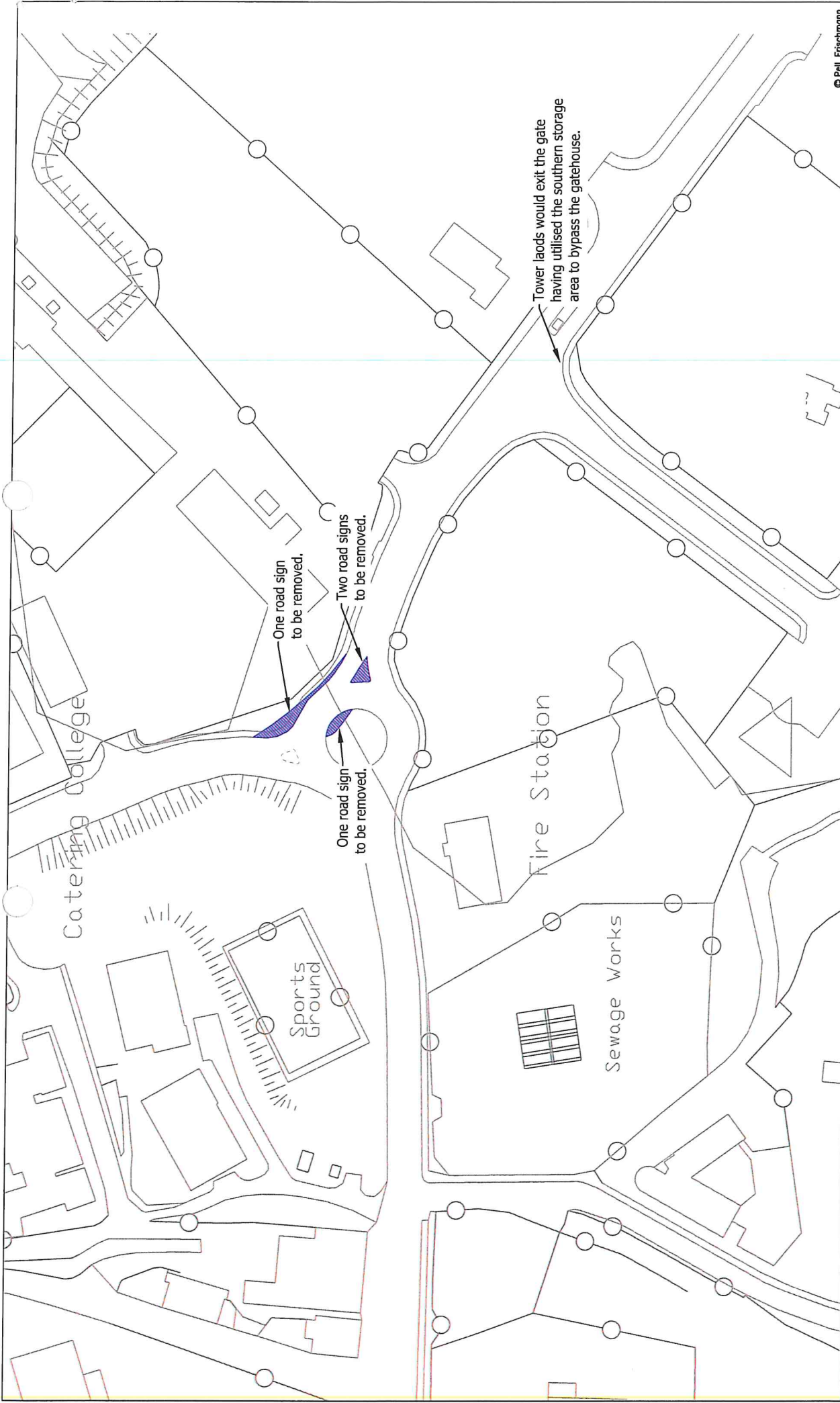
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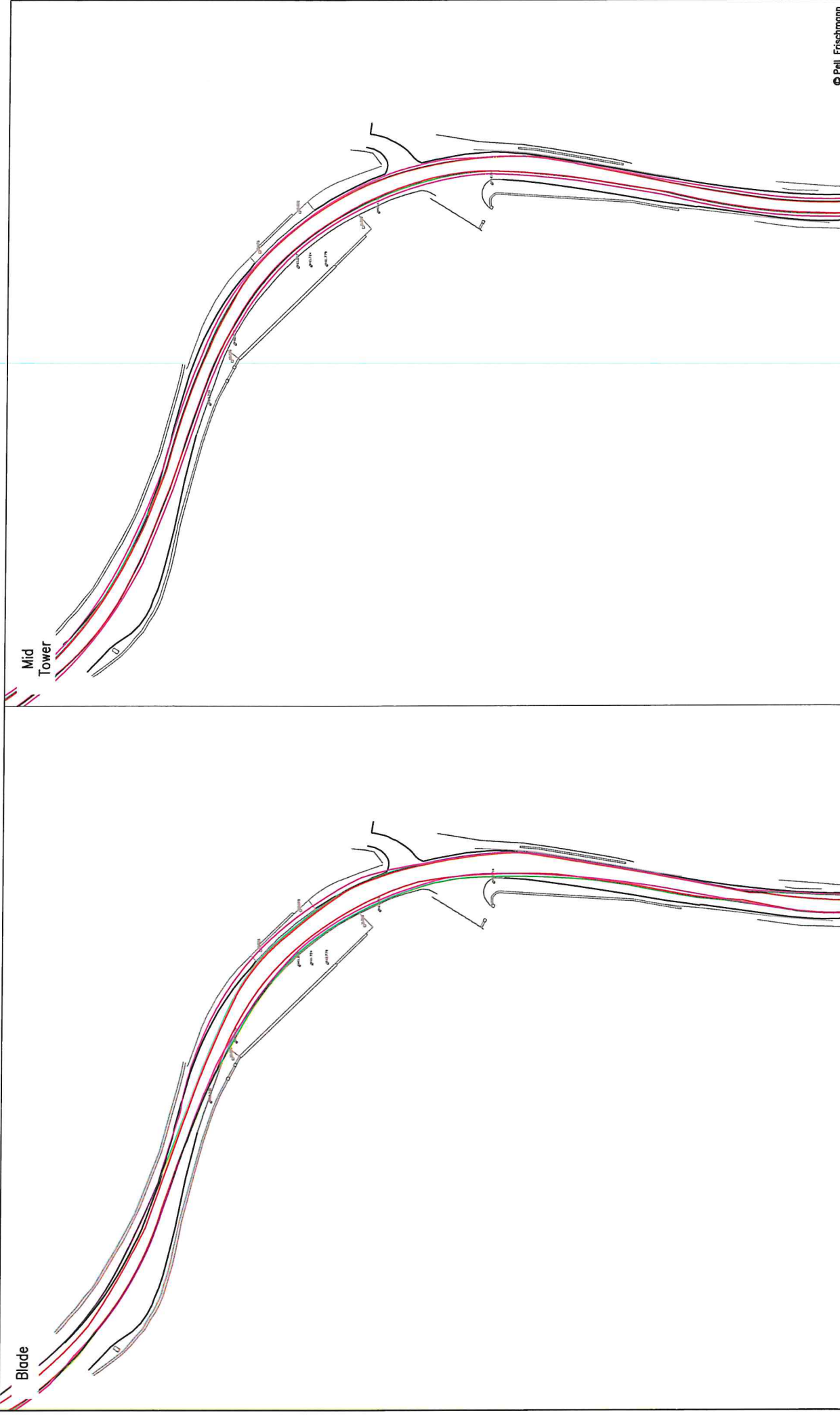
Appendix B Swept Path Assessment



Pell Frischmann <small>93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: pfrischmann@pellfrischmann.com www.pellfrischmann.com</small>		Project Oweninny Wind Farm		Scale 1:1000 @ A3		© Pell Frischmann	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Name TL 11/08/2021		Date 11/08/2021	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-soil		SPA Location Jags Fire Station Roundabout		Drawn TL 11/08/2021		File No. 090821 Oweninny 2 Tracking.dwg	
Drawing No. SK01		Point of Interest 1, 2		Checked GB 11/08/2021		Drawing Status Draft	
Revision 1		Notes: 1. All modifications subject to confirmation through a leaf out. 2. This is not a construction drawing and is intended for submission purposes only.		Revision 1			



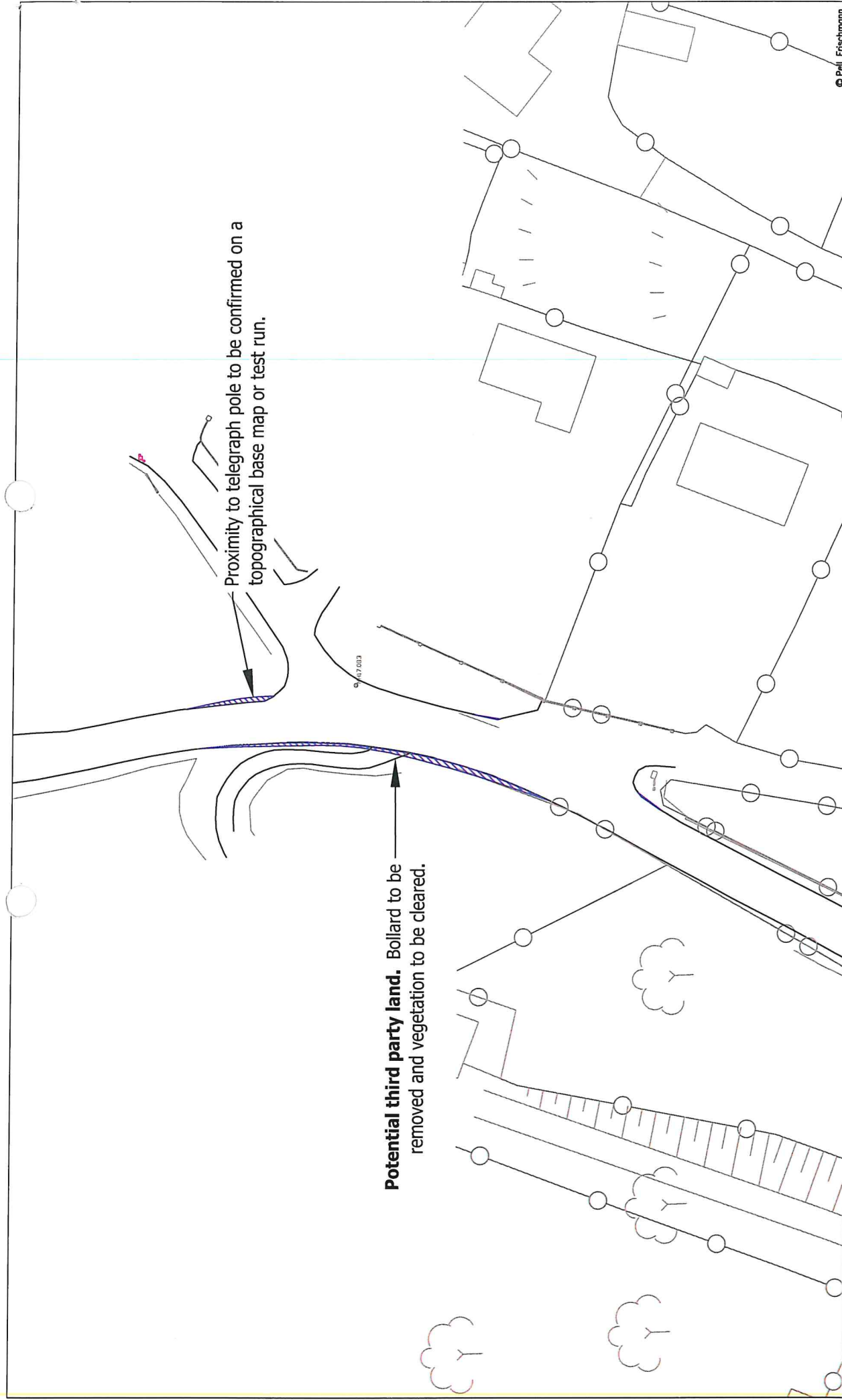
Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH3 3ES Tel: +44 (0)131 240 1270 Email: pell@pfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Name TL 11/08/2021 TL 11/08/2021 GB 11/08/2021	Date 11/08/2021 11/08/2021 11/08/2021	Scale 1:1000 @ A3	© Pell Frischmann
Client Nordex		Drawing Title Nordex N117 and Mid Tower Killybegs Fire Station Roundabout		Point of Interest 1, 2		Drawing Status Draft	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sill		SPA Location Killybegs Fire Station Roundabout		Drawing No. SK01A		Revision 1	
<small>Note:</small> 1. All mitigation is subject to confirmation through a lead run. 2. This is not a construction drawing and is intended for illustration purposes only.							



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Client Nordex		Drawing Title Nordex N117 and Mid Tower		Scale 1:1000 A3	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-soil		Drawing No. SK02		File No. 090821 Oweninny 2 Tractling.dwg	
Project Nordex N117 and Mid Tower		Drawing Status Draft		Revision 1	
Client Nordex		Point of Interest 3		Notes: 1. All modifications are subject to confirmation through a lead user. 2. This is not a construction drawing and is intended for illustration purposes only.	
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Drawing Title Nordex N117 and Mid Tower		Designed TL		Date 11/08/2021	
SPA Location Bends South East of Bruckless		Checked GB		Date 11/08/2021	



Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: pedinburgh@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Name TL 11/08/2021	Date 11/08/2021	Scale 1:1000 @ A3	© Pell Frischmann
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Drawn TL 11/08/2021	Designed TL 11/08/2021	File No. 090821 Oweninny 2 Tracking.dwg	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-soil		SPA Location Bends North of Leitir		Checked GB 11/08/2021	Drawing Status Draft	Point of Interest 3	
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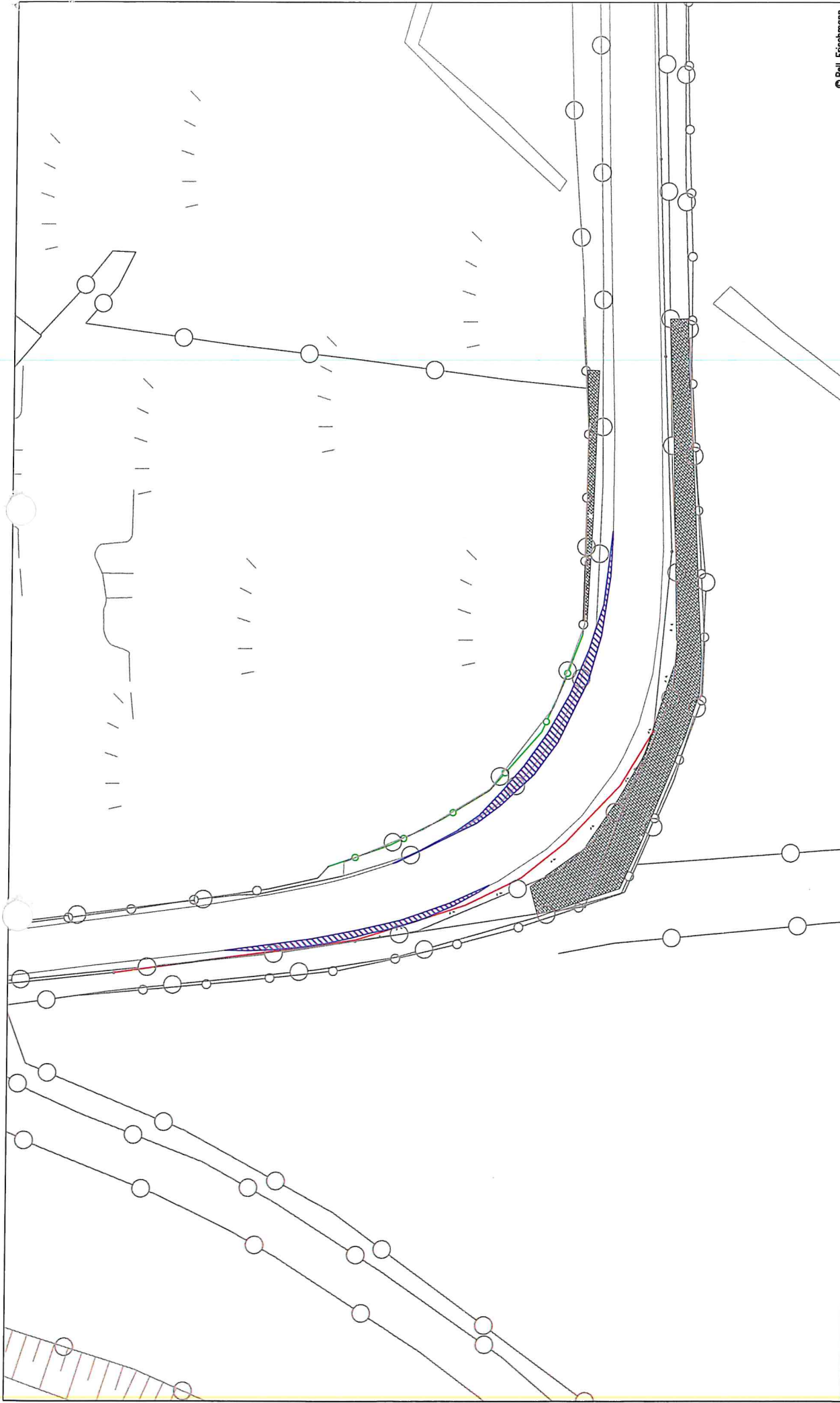


Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: pell@pellfrischmann.com www.pellfrischmann.com		Oweninny Wind Farm Nordex N117 and Mid Tower N56 Bends North of Leitir		Project Scale 1:500 @ A3	© Pell Frischmann
Client Nordex	Drawing Title Nordex N117 and Mid Tower	Name TL TL GB	Date 11/08/2021 11/08/2021 11/08/2021	Scale 1:500 @ A3	File No. 090821 Oweninny 2 Tracking.dwg
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Note: 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.					



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Client Nordex		Drawing Title Nordex N117 and Mid Tower		Designed TL Date 11/08/2021	File No. 090821 Oweninny 2 Tracking.dwg
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Note:
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 2. This is not a construction drawing and is intended for illustration purposes only.



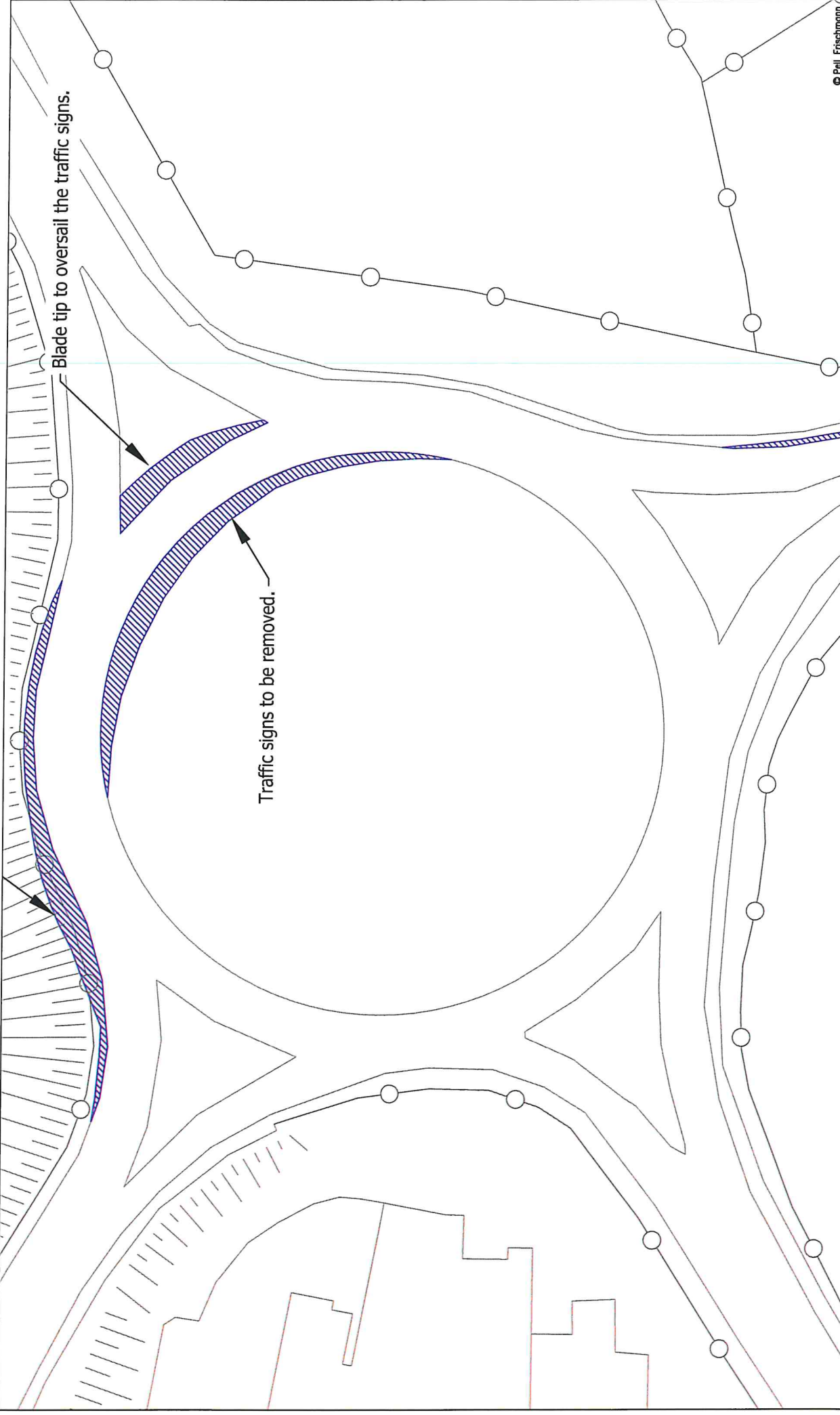
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Client Nordex		Drawing Title Nordex N117 and Mid Tower		Date 11/08/2021		File No. 090821 Oweninny 2 Tracking.dwg	
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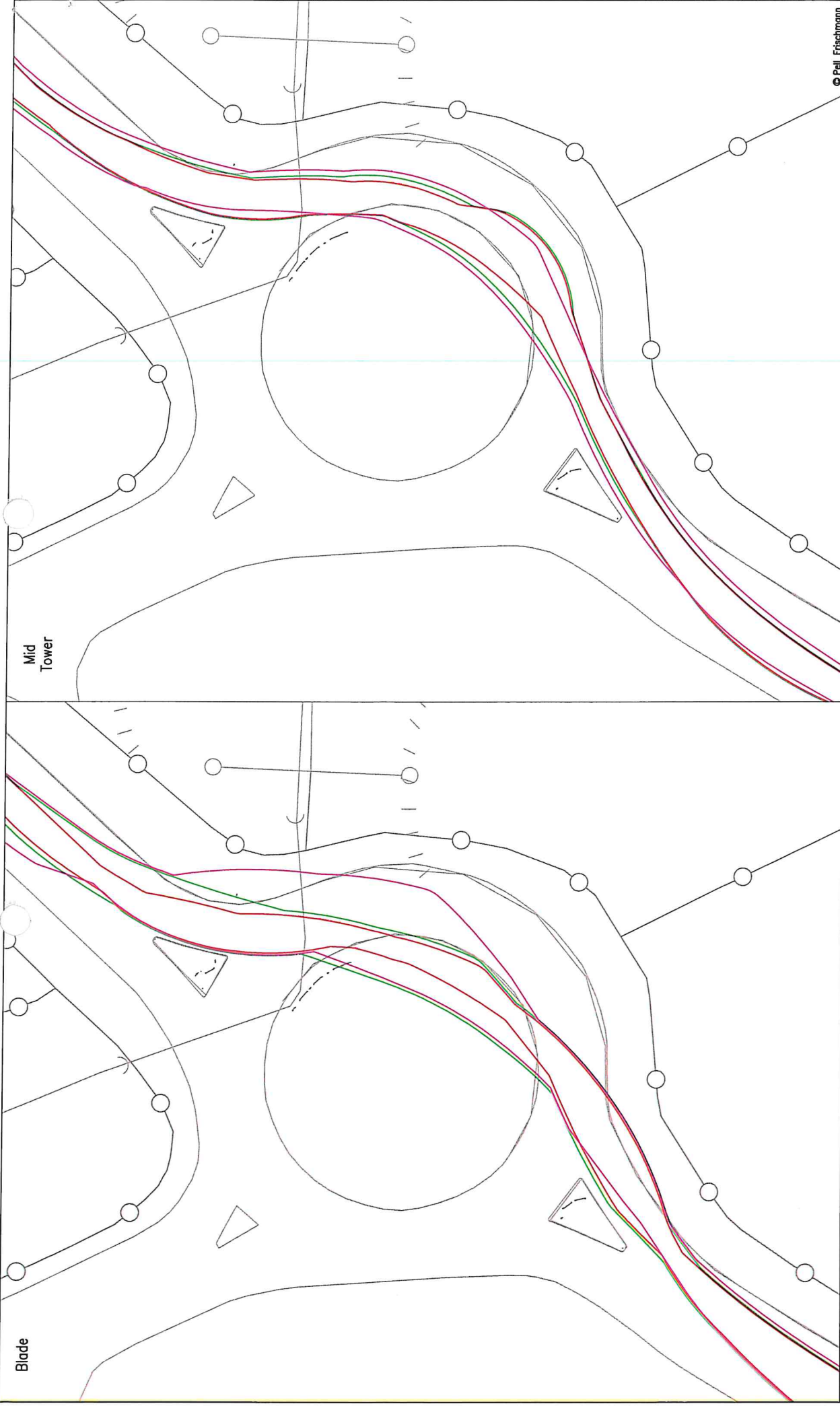
Pell Frischmann 79 GEORGE STREET, EDINBURGH, EC1 3EL Tel: +44 (0) 131 240 1270 Email: pfr@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm NO MITIGATION REQUIRED		Client Nordex	
Drawn TL	Name TL	Date 11/08/2021	Scale 1:1000 @ A3	© Pell Frischmann	
Designed TL	Name TL	Date 11/08/2021	File No. 090821 Oweninny 2 Tracking.dwg	Revision 1	
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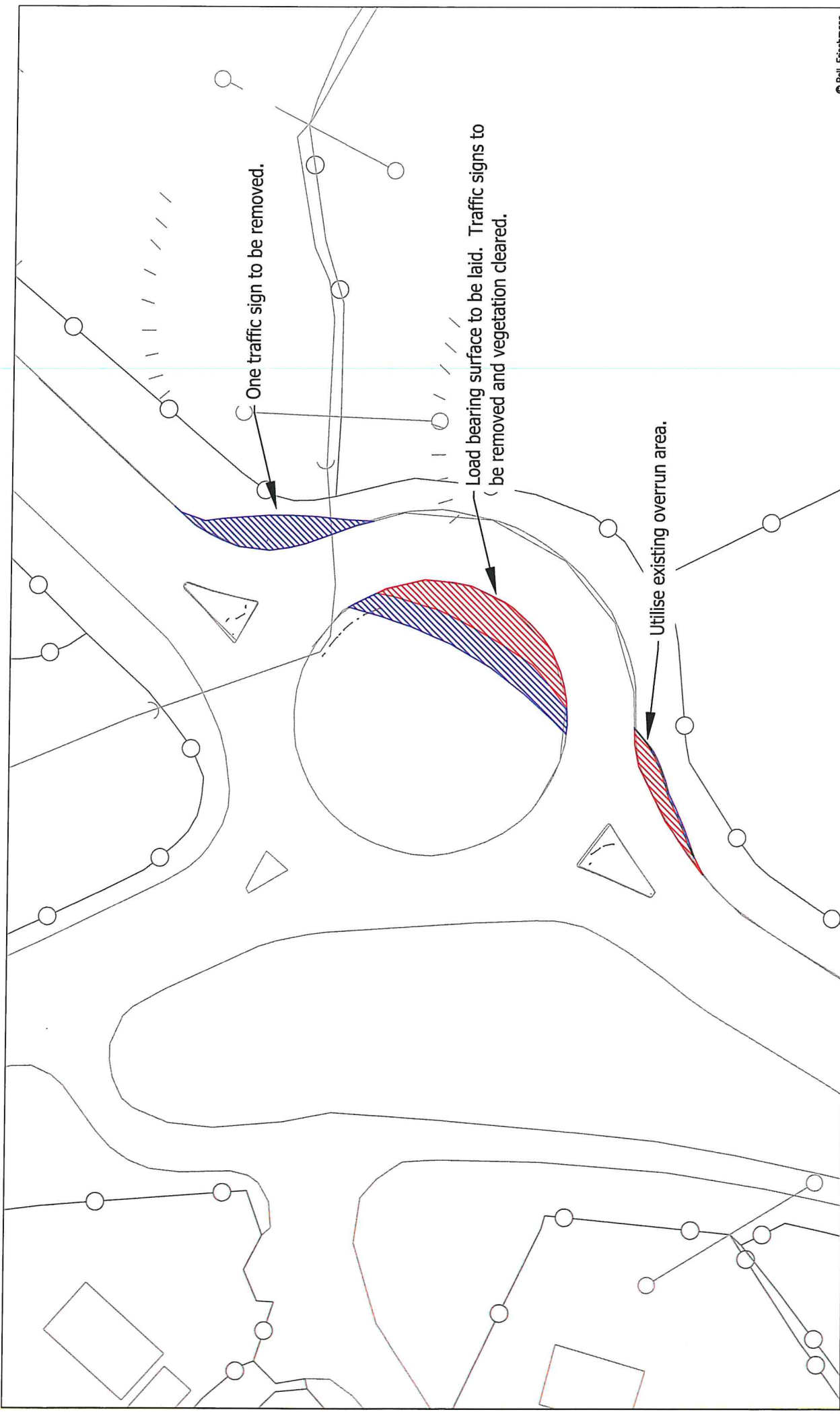
Pell Frischmann 93 GEORGE STREET, EDINBURGH, DG3 3ES Tel: +44 (0)131 240 1270 Email: pell@pfrischmann.com www.pfrischmann.com		Project Oweninny Wind Farm		Name TL 11/08/2021 TL 11/08/2021 GB 11/08/2021	Date 11/08/2021 11/08/2021 11/08/2021	Scale 1:1000 @ A3	File No. 090821 Oweninny 2 Tracking.dwg
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Notes: 1. All modifications subject to confirmation through a test cut. 2. This is not a construction drawing and is intended for illustration purposes only.							



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Client Nordex		Drawing Title Nordex N117 and Mid Tower		Name TL		Date 11/08/2021	
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Over-run Over-soil		Drawing No. SK06A		Designed TL		11/08/2021	
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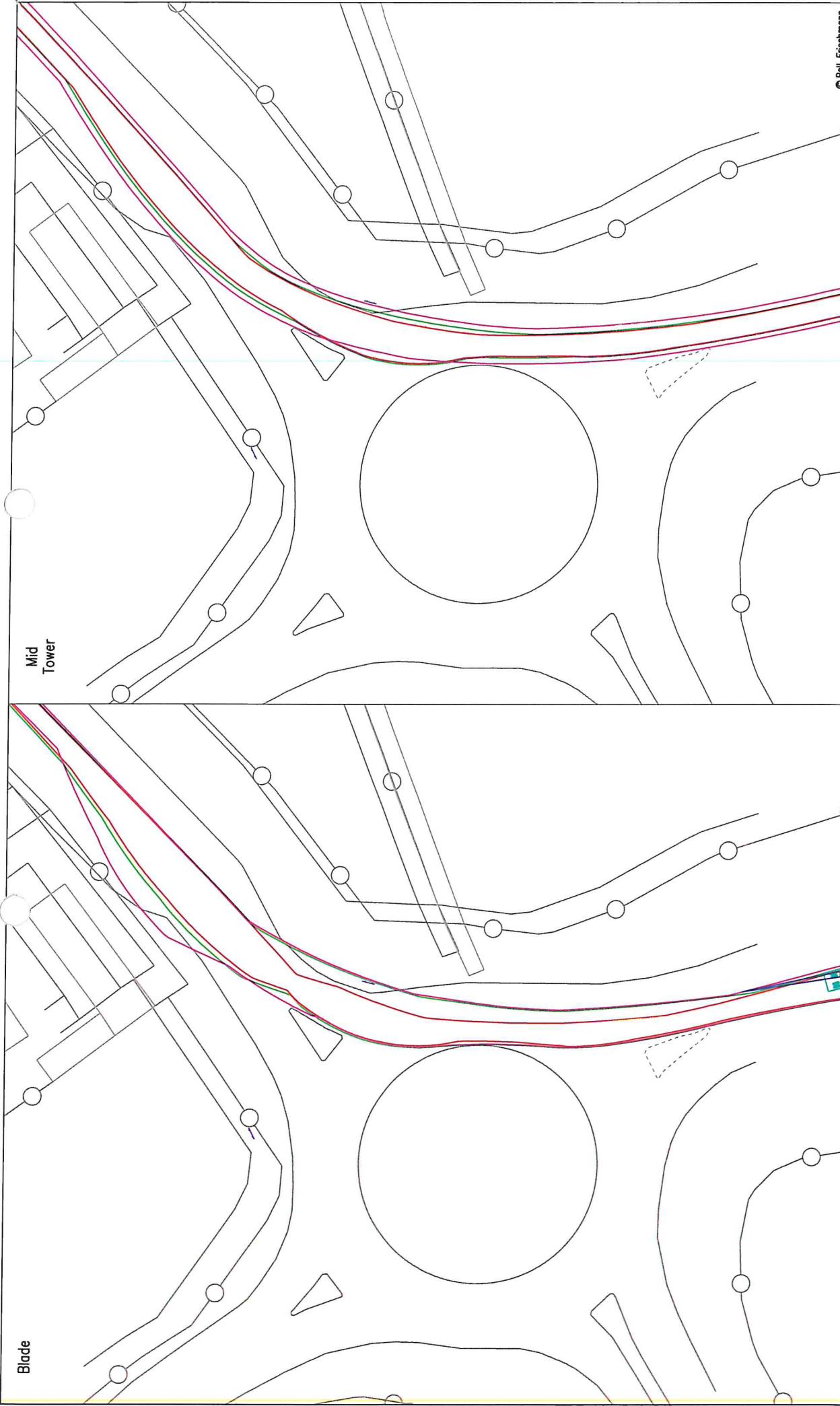
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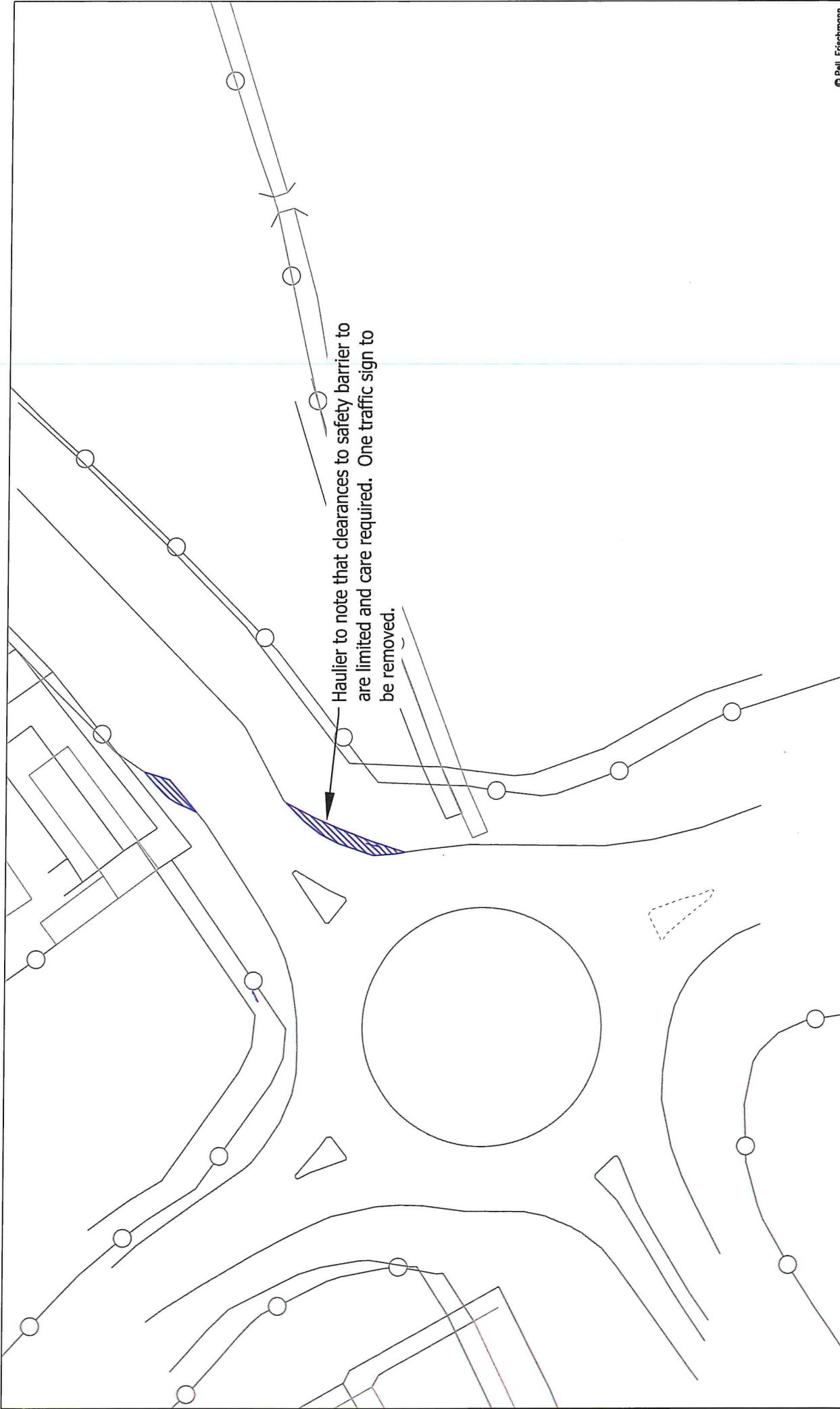
© Peil Frischmann

Client	Peil Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: peil@peilfrischmann.com www.peilfrischmann.com		
Project	Oweninny Wind Farm		
Drawing Title	Nordex N117 and Mid Tower		
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Revision	1		

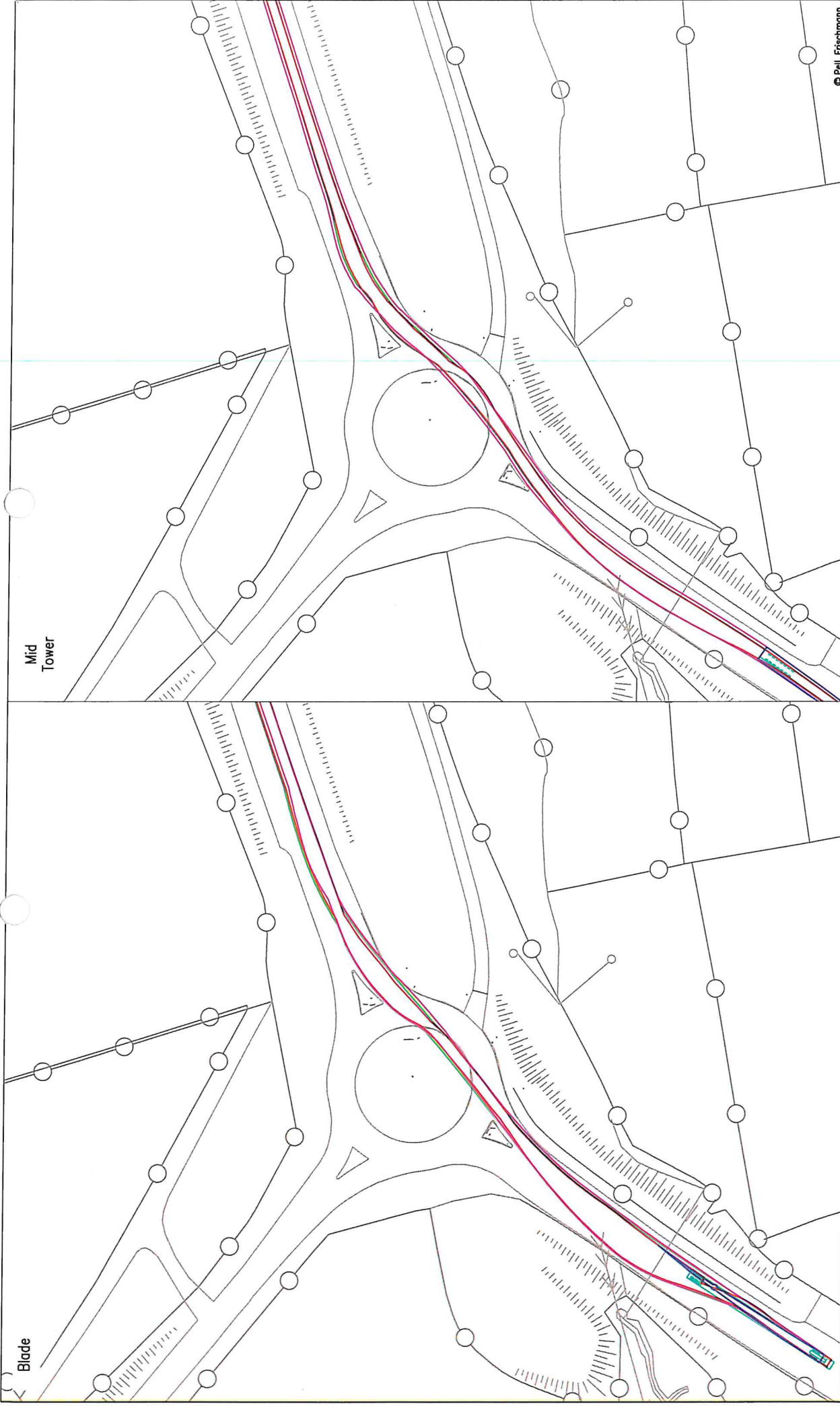
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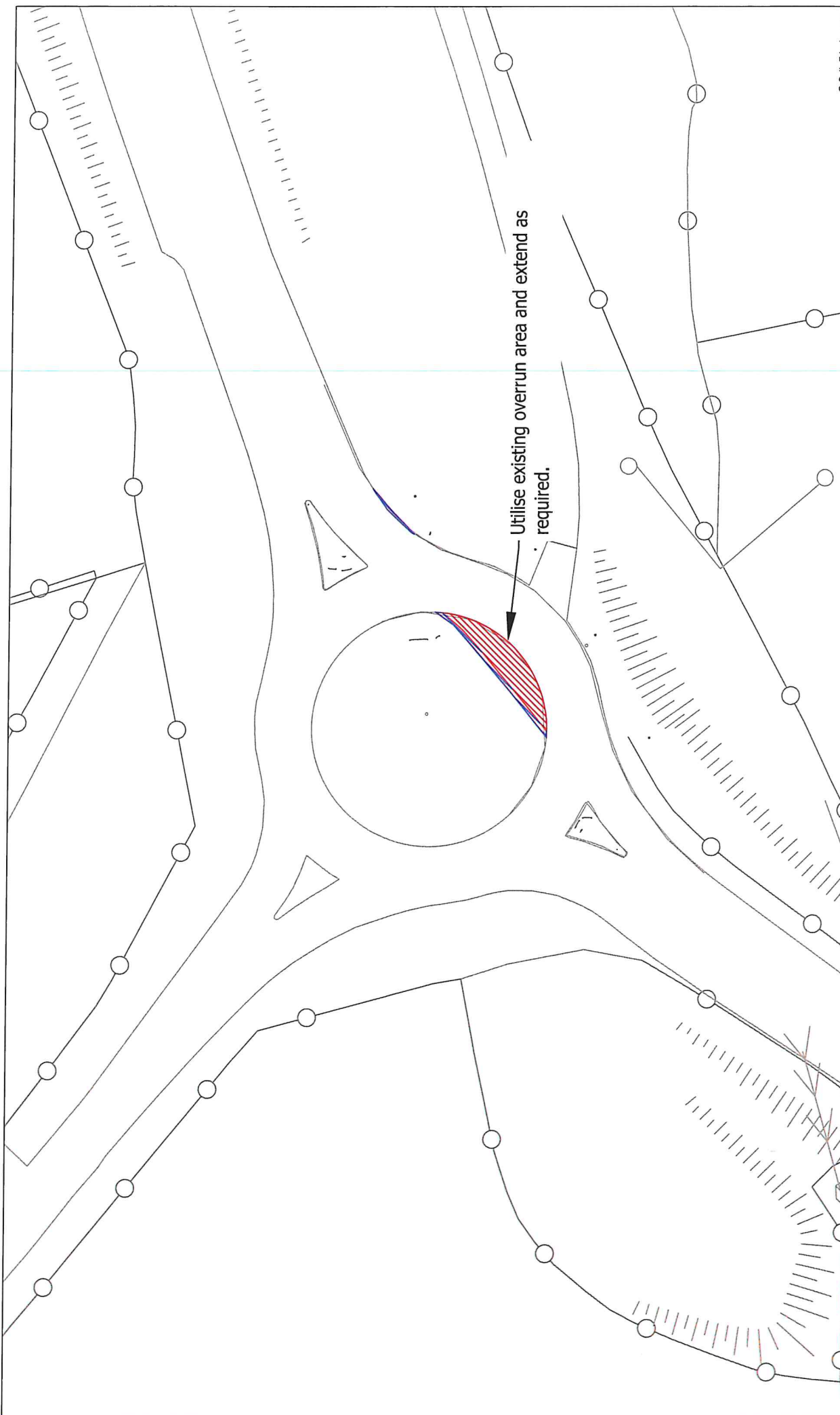
Pell Frischmann 93 GEORGE STREET, LONDON, EC2A 4JF Tel: +44 (0)131 240 1370 Email: p.frischmann@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Scale 1:500 @ A3		Date 11/08/2021		Name TL		Scale 1:500 @ A3	
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Notes: 1. All indications are subject to confirmation through a field visit. 2. This is not a construction drawing and is intended for illustration purposes only.											



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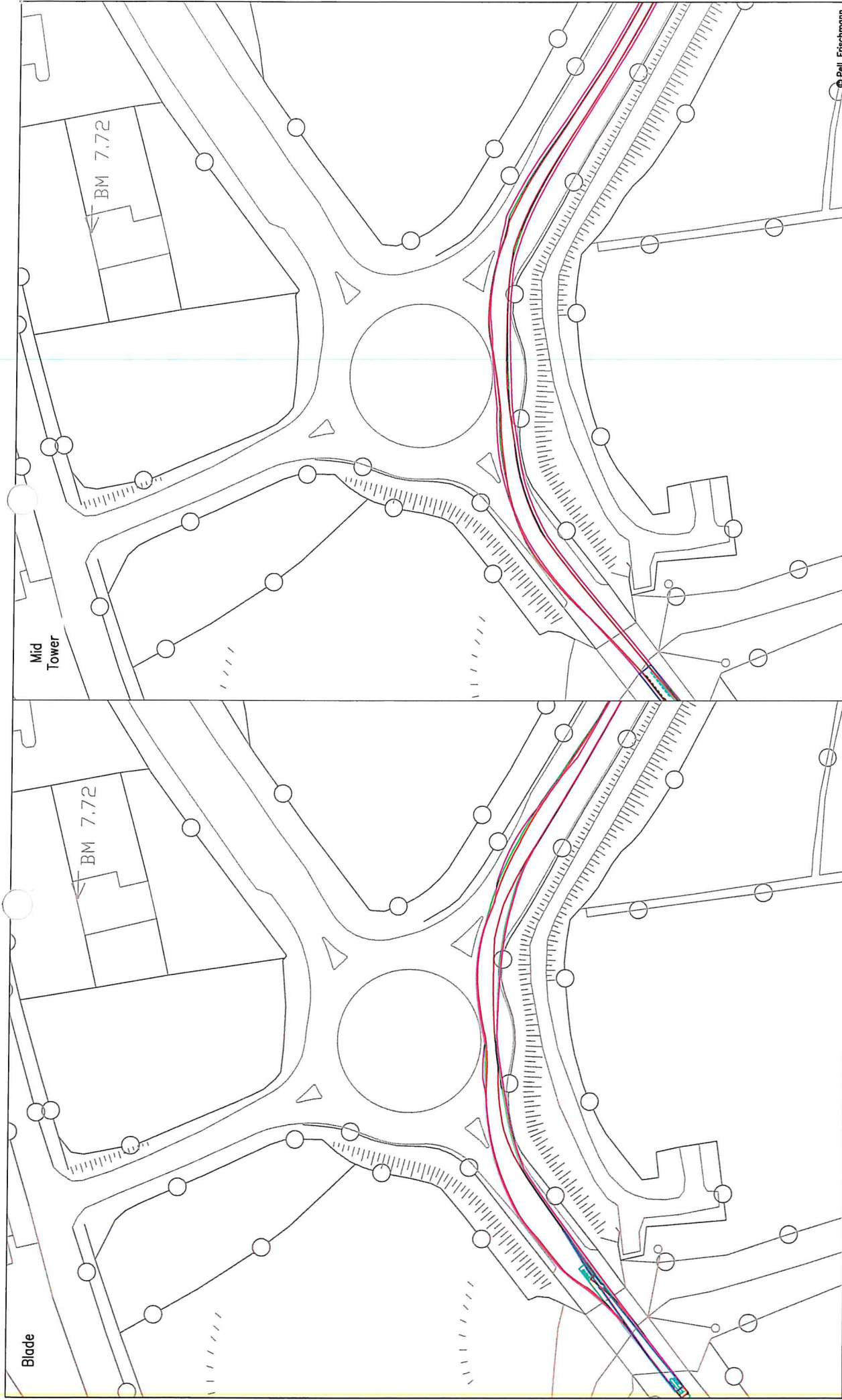


Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: pell@frischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Scale 1:1000 @ A3		© Pell Frischmann	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Name TL		Date 11/08/2021	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-soil		SPA Location N15 / R267 Roundabout 1		Drawn TL		Date 11/08/2021	
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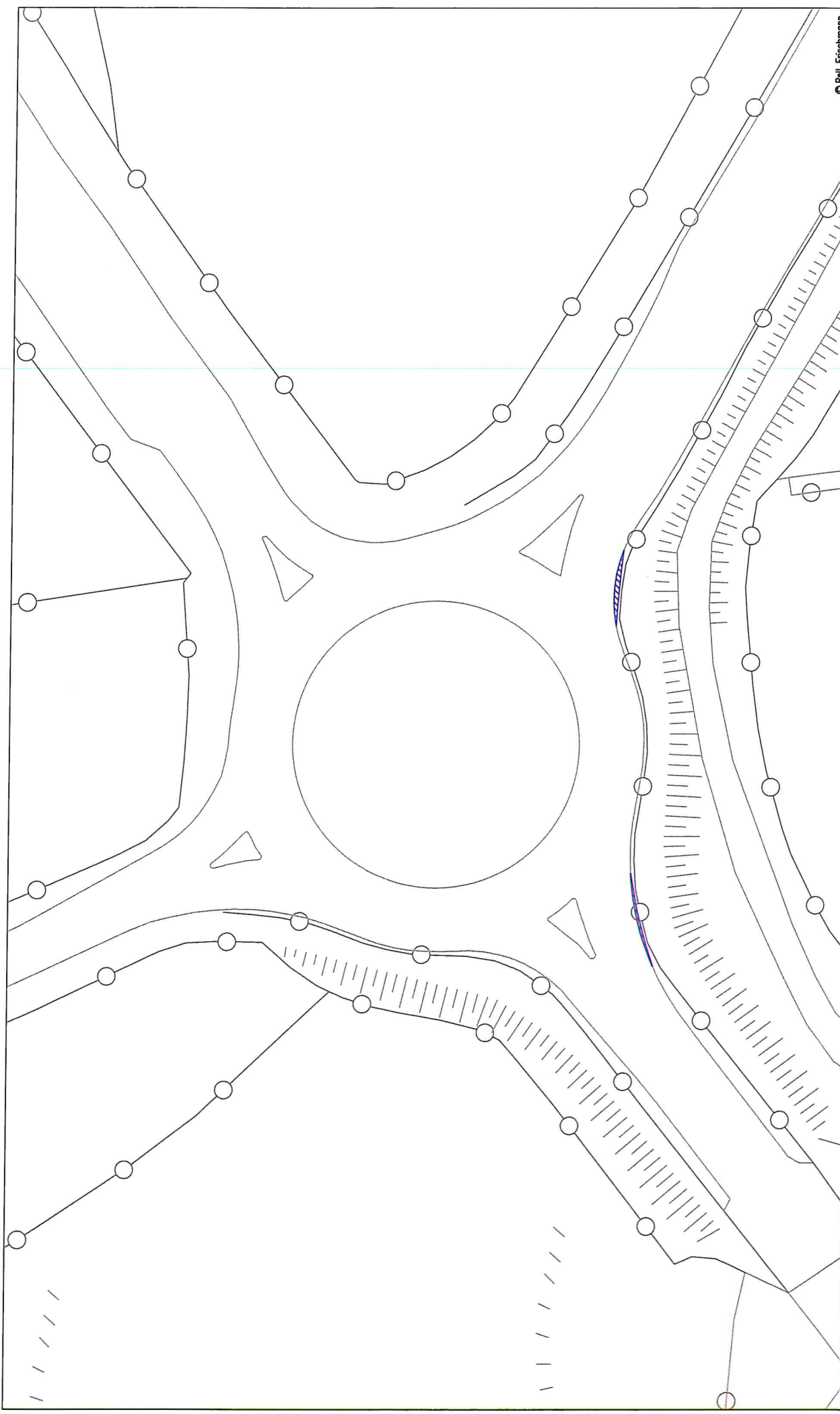


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Pell Frischmann 93 GEORGE STREET, EDINBURGH, E10 3ES Tel: +44 (0)131 240 1270 Email: pell@pellfrischmann.com www.pellfrischmann.com		Project Owendinny Wind Farm		Scale 1:1000 @ A3	
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Point of Interest 13		Drawing Status Draft		Revision 1	
<small>Notes: 1. All mitigation is subject to confirmation through a bid out. 2. This is not a construction drawing and is intended for illustration purposes only.</small>					

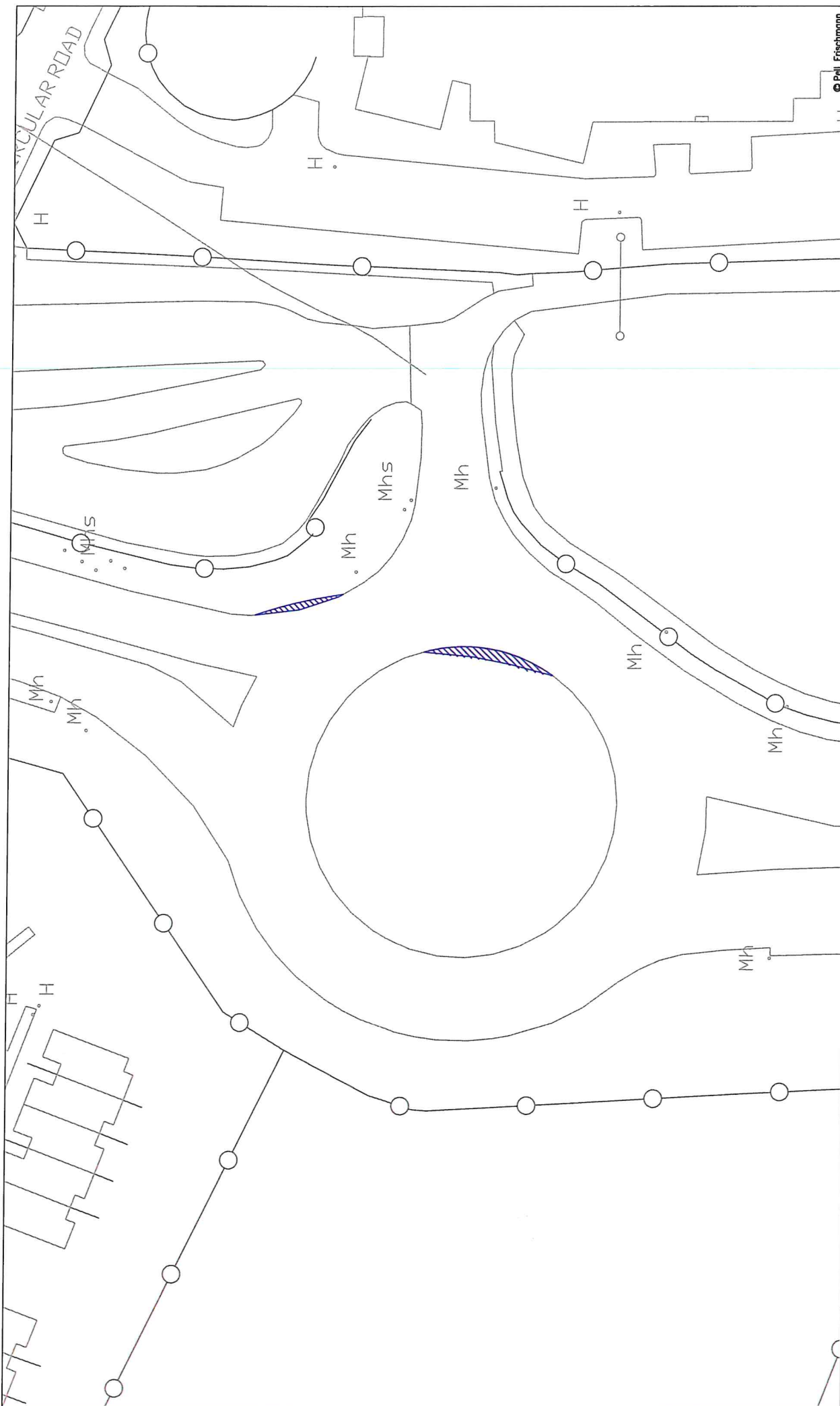


Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: p.frischmann@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		© Pell Frischmann Scale: 1:500 @ A3	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		File No. 090821 Oweninny 2 Tracking.dwg	
Key Wheel SPA Body SPA Load SPA Indicative 		SPA Location / R267 Roundabout 2		Revision 1	
Drawn TL Date 11/08/2021		Checked GB Date 11/08/2021		Drawing Status Draft	
Point of Interest 13		Drawing No. SK10A		Notes: 1. All obligations are subject to confirmation through a lead run. 2. This is not a construction drawing and is intended for illustration purposes only.	



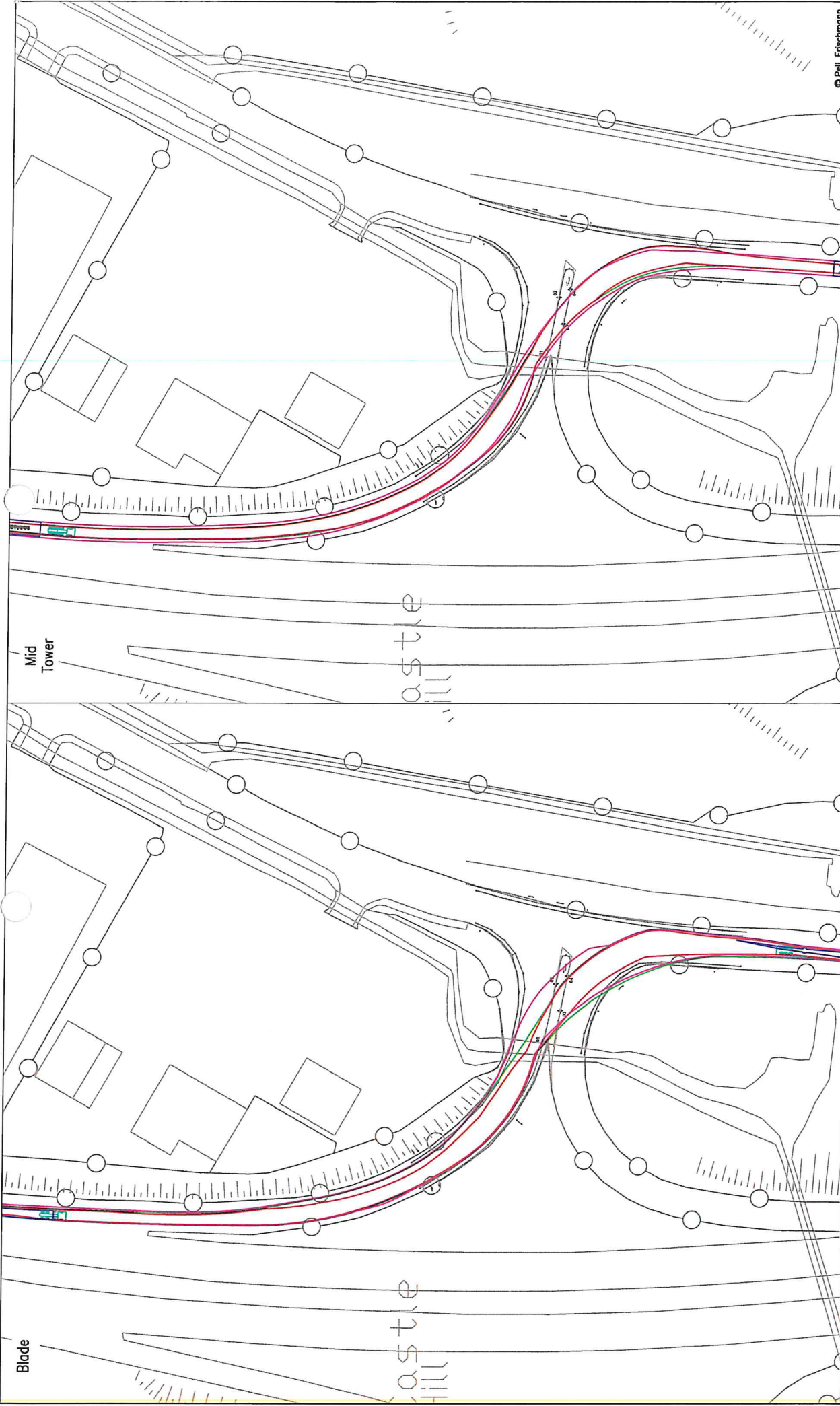
Pell Frischmann 93 GEORGE STREET, EDINBURGH, E10 3ES Tel: +44 (0)131 240 1270 Email: pell.frischmann@pellfrischmann.com www.pellfrischmann.com	Project Oweninny Wind Farm		Name TL	Date 11/08/2021	Scale 1:1000 @ A3
	Drawing Title Nordex N117 and Mid Tower	Drawn TL	Designed TL	Checked GB	Date 11/08/2021
	SPA Location N4 / An Cuarbhothar Roundabout	Point of Interest SK11	Drawing Status Draft	File No. 090821 Oweninny 2 Traceling.dwg	Revision 1
	Client Nordex	Notes: 1. All modifications are subject to confirmation through a test cut. 2. This is not a construction drawing and is intended for illustration purposes only.	Drawing No. SK11	Drawing Status Draft	Revision 1

Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-soil
--



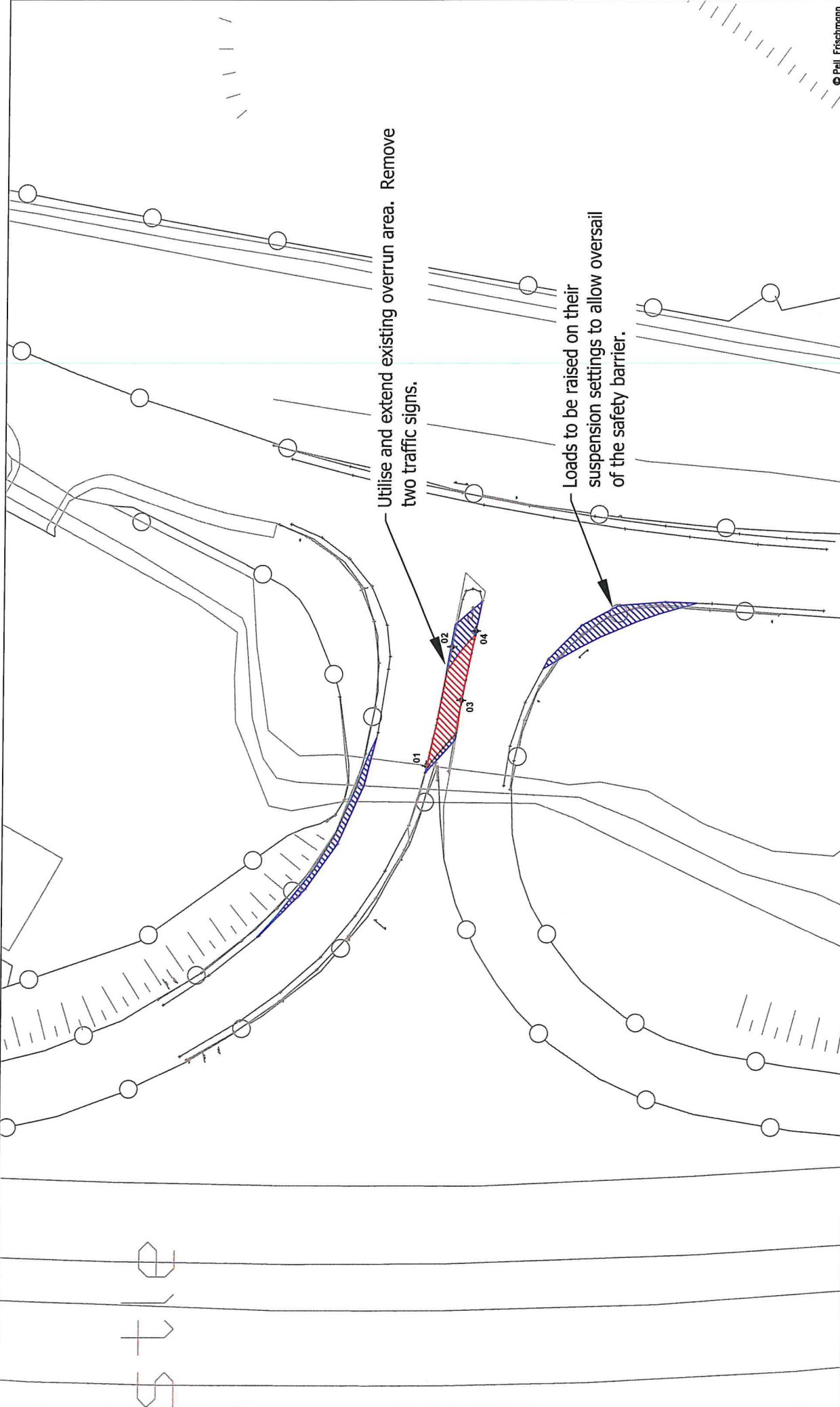
Pell Frischmann 93 GEORGE STREET, EDINBURGH, EC1G 3ES Tel: +44 (0)131 240 1270 Email: pefr@pellfrischmann.com www.pellfrischmann.com	Project Oweninny Wind Farm		Name TL	Date 11/08/2021	Scale 1:500 @ A3	© Pell Frischmann
	Drawing Title Nordex N117 and Mid Tower		Drawn TL	Designed TL	File No. 090821 Oweninny 2 Tracing.dwg	
	SPA Location <input type="radio"/> / An Cuarbhothar Roundabout		Checked GB	Point of Interest 21	Drawing Status Draft	
	Client Nordex		Drawing No. SK11A	Revision 1		

Note:
 1. All modifications are 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, LONDON, E1R 3ES Tel: +44 (0)131 240 1270 Email: pell@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm Nordex N117 and Mid Tower N4 / N59 Junction	
Client Nordex		Drawing Title SPA Location	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sail		Point of Interest Drawing No. SK12 Revision 1	
Name TL TL GB	Date 11/08/2021 11/08/2021 11/08/2021	Scale 1:1000 @ A3	Drawing Status Draft
File No. 090821 Oweninny 2 Tracking.dwg		Revision 1	

Notes:
 1. All mitigation is subject to confirmation through a final run.
 2. This is not a construction drawing and is intended for illustration purposes only.



Pell Frischmann
 73 GEORGE STREET, EDINBURGH, EH2 3ES
 Tel: +44 (0)131 240 1270
 Email: pell@pellfrischmann.com
 www.pellfrischmann.com

Client: Nordex

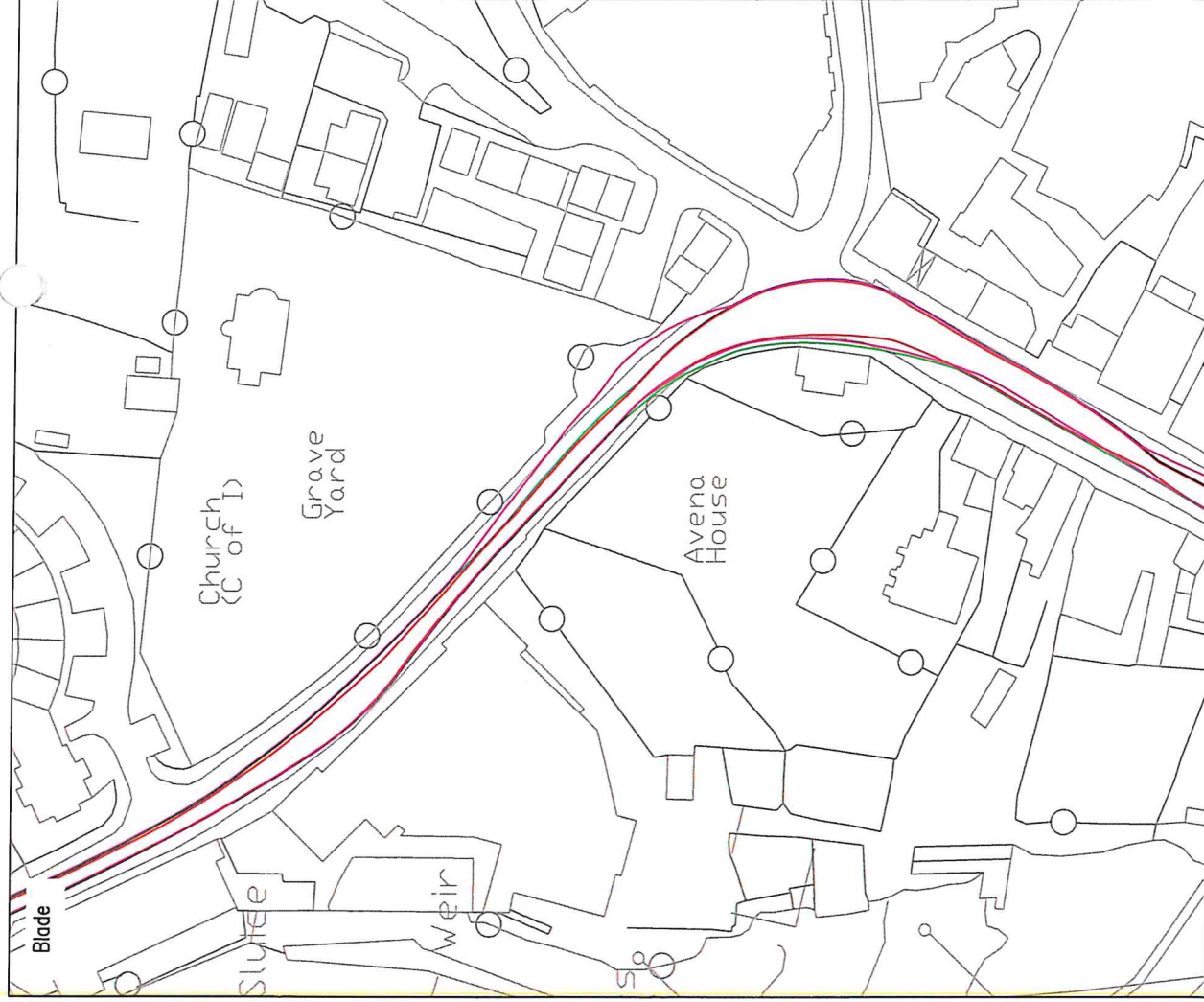
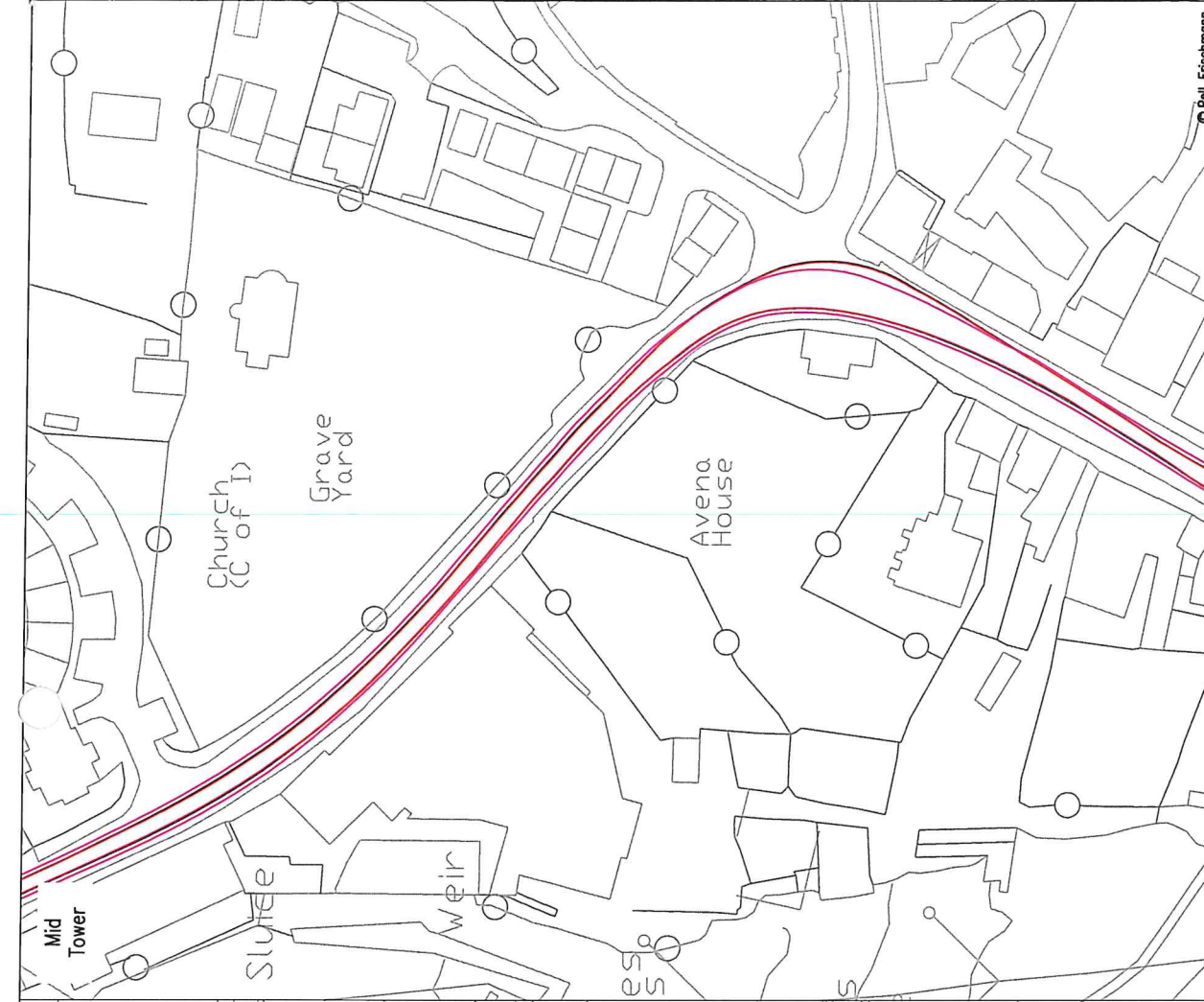
Project: Oweninny Wind Farm

Drawing Title: Nordex N117 and Mid Tower

SPA Location: / N59 Junction

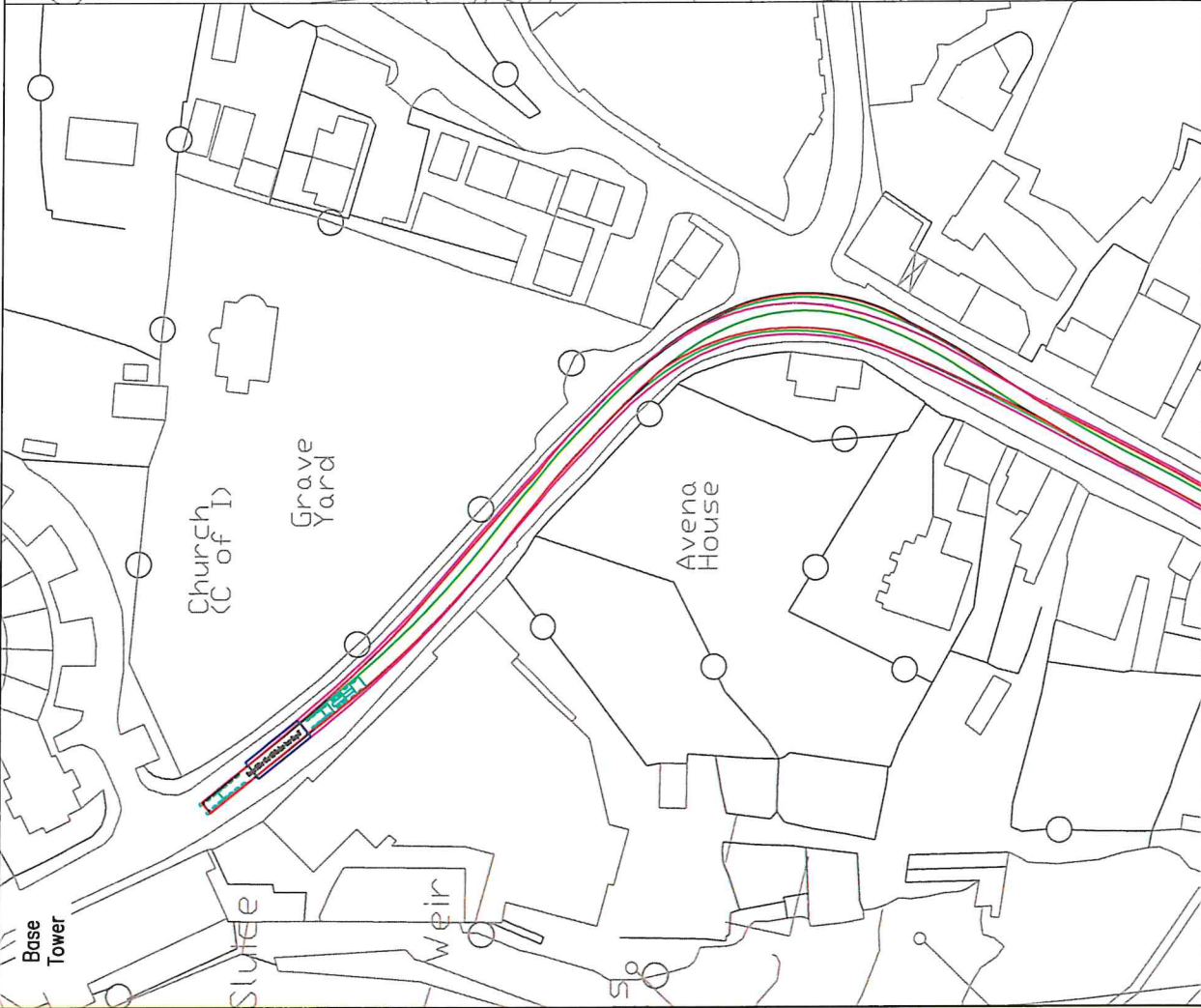
Revision: 1

All modifications are subject to confirmation through a test run.
 2. This is not a construction drawing and is intended for illustration purposes only.



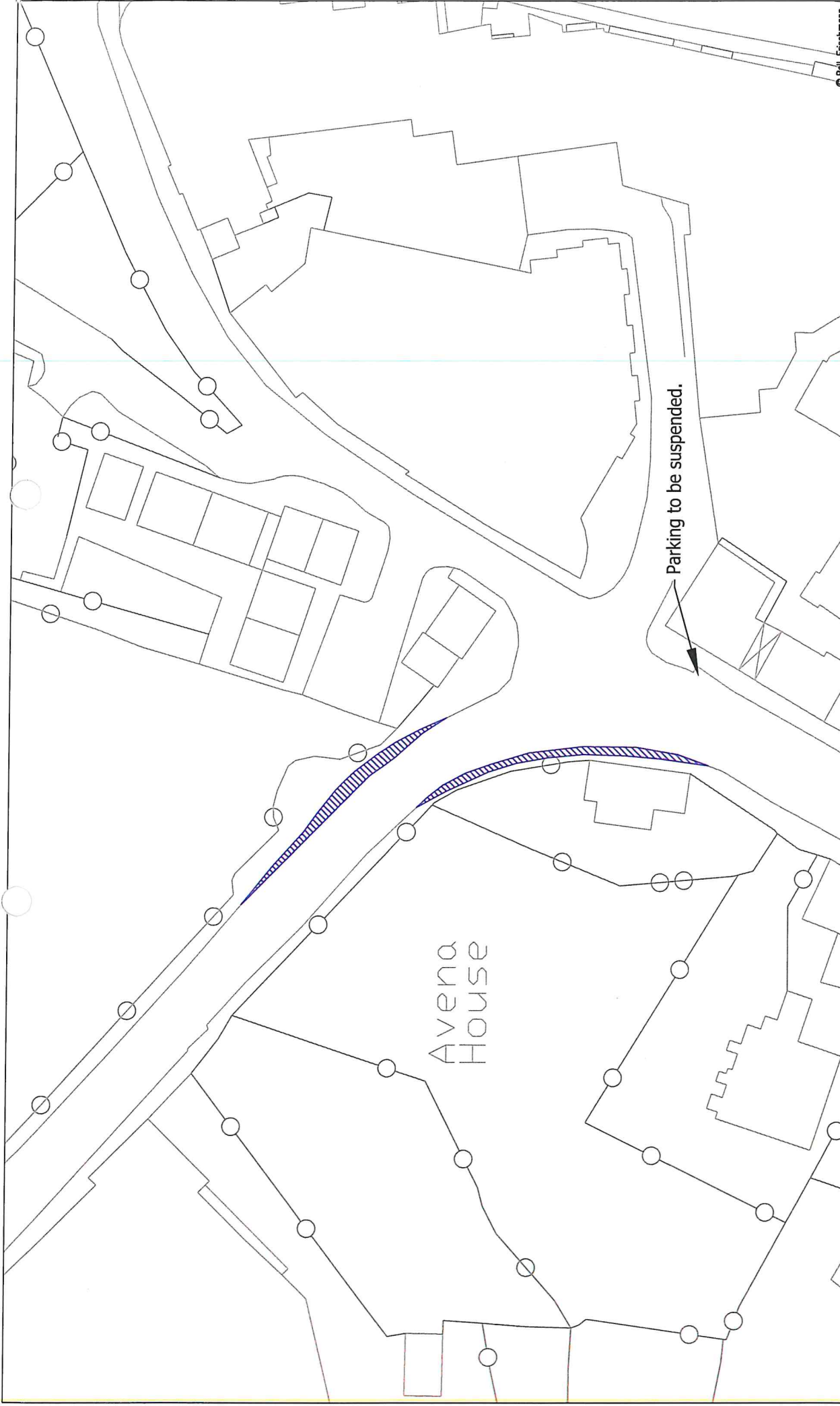
Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH3 3ES Tel: +44 (0)131 240 1270 Email: pellfrischmann@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Name: TL Date: 11/08/2021 Scale: 1:1000 @ A3
Client Nordex		Drawing Title: Nordex N117 and Mid Tower		Drawn: TL Date: 11/08/2021 File No: 090821 Oweninny 2 Tracking.dwg
Key Wheel SPA Body SPA Lead SPA Indicative Over-run Over-soil		SPA Location: N59 Right Bend, Ballysadare		Checked: GB Date: 11/08/2021 Drawing Status: Draft
Drawing No: SK13		Point of Interest: 24		Revision: 1

Notes:
 1. All regulations is subject to confirmation through a full set.
 2. This is not a construction drawing and is intended for illustration purposes only.



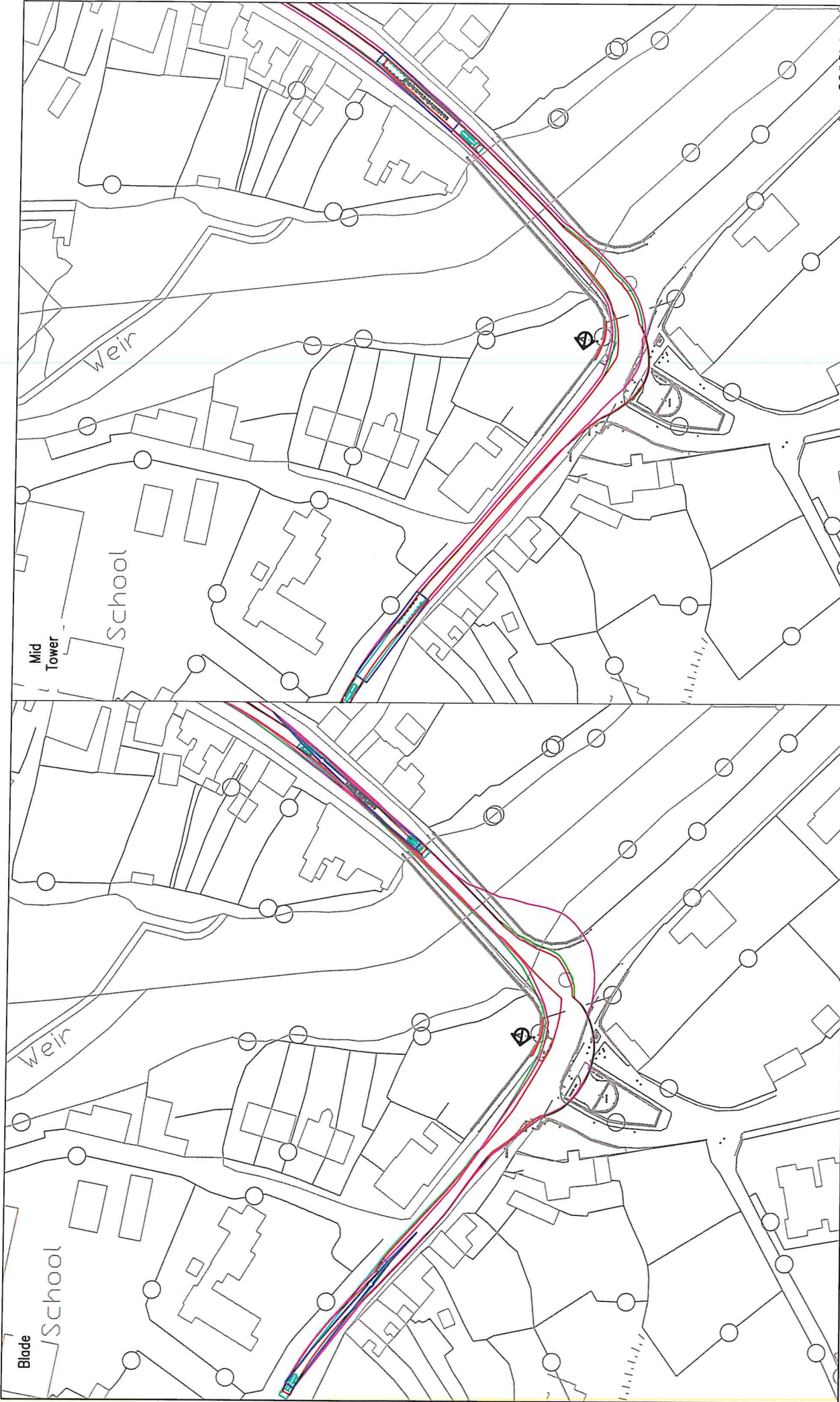
Pell Frischmann <small>93 GEORGE STREET, DUBLIN 1, D03 3E5 Tel: +353 (0)1 454 3700 Email: pell@pellfrischmann.com www.pellfrischmann.com</small>		Project Oweninny Wind Farm		Scale 1:1000 @ A3	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Date 11/08/2021	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sail		SPA Location <input type="radio"/> Right Bend, Ballysadare		Name TL	
Project Nordex N117 and Mid Tower		Drawing No. SK13A		Drawn TL	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Designed TL	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sail		SPA Location <input type="radio"/> Right Bend, Ballysadare		Checked GB	
Project Oweninny Wind Farm		Drawing Title Nordex N117 and Mid Tower		Point of Interest 24	
Client Nordex		Drawing No. SK13A		File No. 090821_Oweninny 2_Tracking.dwg	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sail		SPA Location <input type="radio"/> Right Bend, Ballysadare		Drawing Status Draft	
Project Nordex N117 and Mid Tower		Drawing Title Nordex N117 and Mid Tower		Revision 1	





Notes:
 1. All buildings to be demolished through a full cut.
 2. This is not a construction drawing and is intended for illustration purposes only.



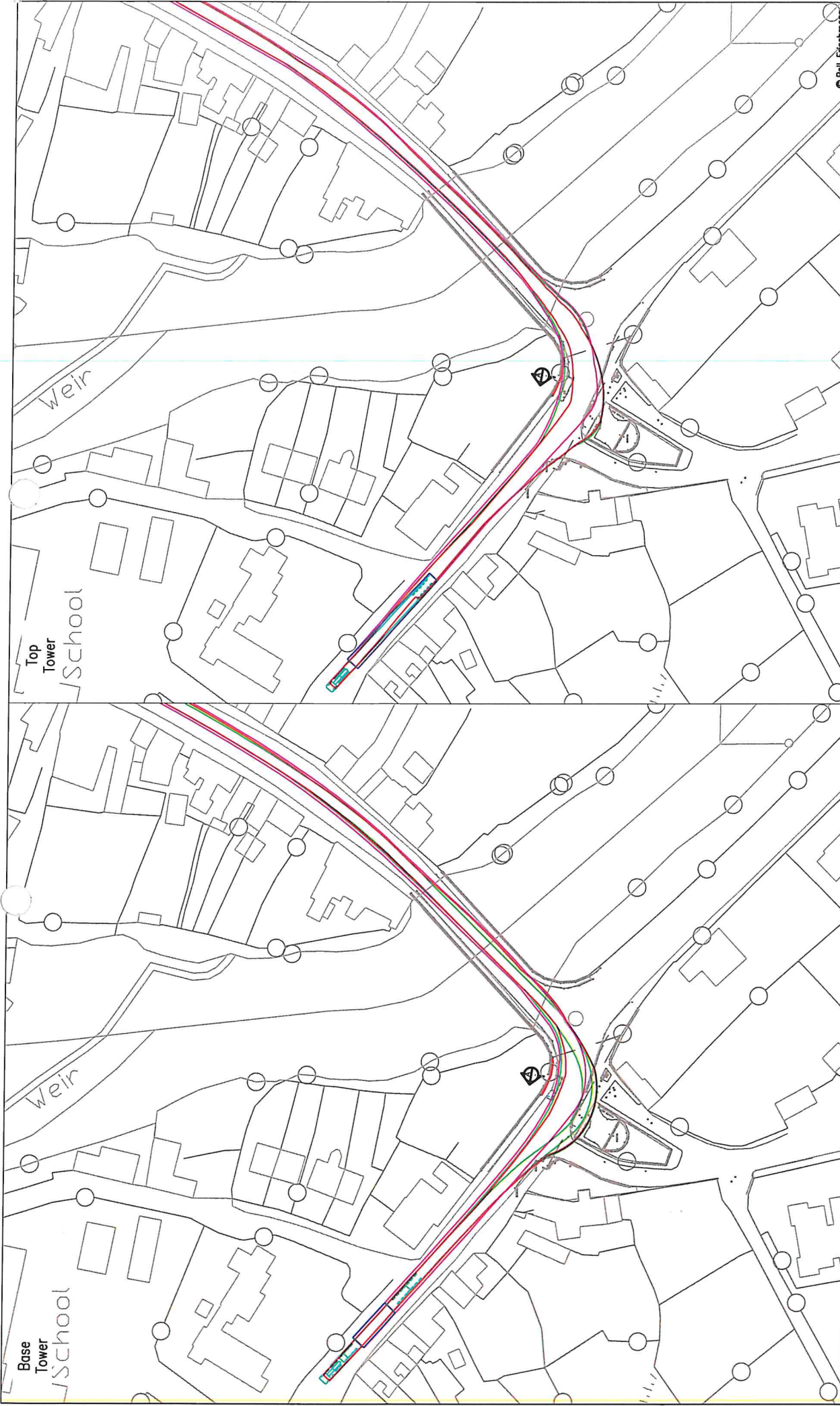
Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: pell@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm Nordex N117 and Mid Tower N59 Right Bend, Ballysadare		Name: TL Date: 11/08/2021 Scale: 1:500 @ A3
Drawn: TL Designed: TL Checked: GB	Date: 11/08/2021 File No: 090821 Oweninny 2 Tracking.dwg	Name: TL Date: 11/08/2021 Scale: 1:500 @ A3	Drawing Status: Draft Revision: 1	Drawing No: SK13B Notes: 1. All modifications subject to confirmation through a leaf cut. 2. This is not a construction drawing and is intended for illustration purposes only.
Client Nordex	Drawing Title Nordex N117 and Mid Tower	SPA Location N59 Right Bend, Ballysadare	Point of Interest 24	Revision 1
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sail	(Color-coded lines for SPA types)	(Color-coded lines for SPA types)	(Color-coded lines for SPA types)	(Color-coded lines for SPA types)

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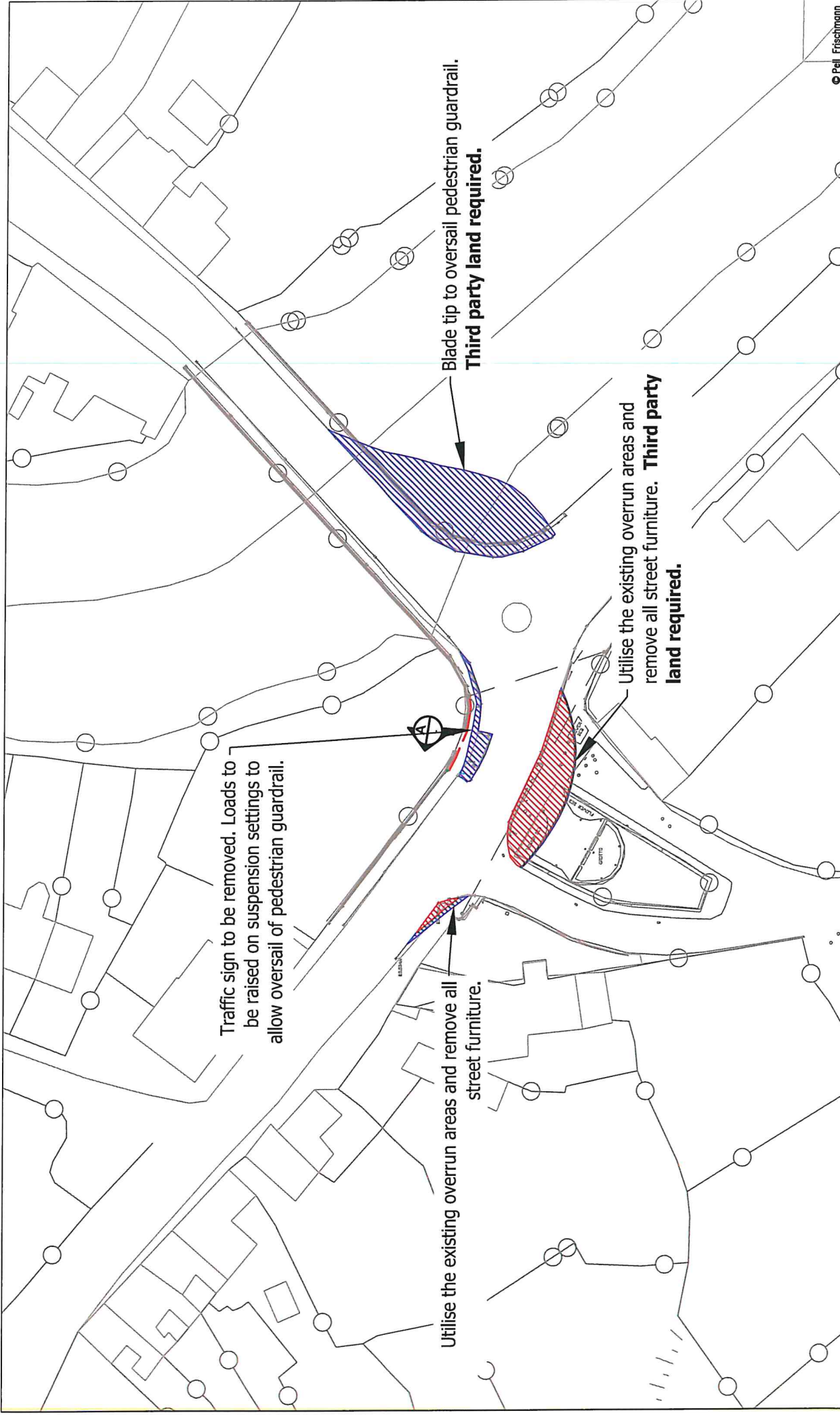


Pell Frischmann 73 GEORGE STREET, EDINBURGH, EC2 3ES Tel: +44 (0) 131 240 1370 Email: info@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm Nordex N117 and Mid Tower SPA Location: / R290 Ballysadare Right Bend		Name TL Date 11/08/2021 Scale 1:1000 @ A3
Client Nordex		Drawn TL Date 11/08/2021 File No. 090821 Oweninny 2 Tracking.dwg	Checked GB Date 11/08/2021 Drawing Status Draft	
Key Wheel SPA Body SPA Load SPA Indicative    		Drawing No. SK14 Point of Interest 25 Notes: 1. This drawing is subject to confirmation through a final cut. 2. This is not a construction drawing and is intended for illustration purposes only.		
		Revision 1		

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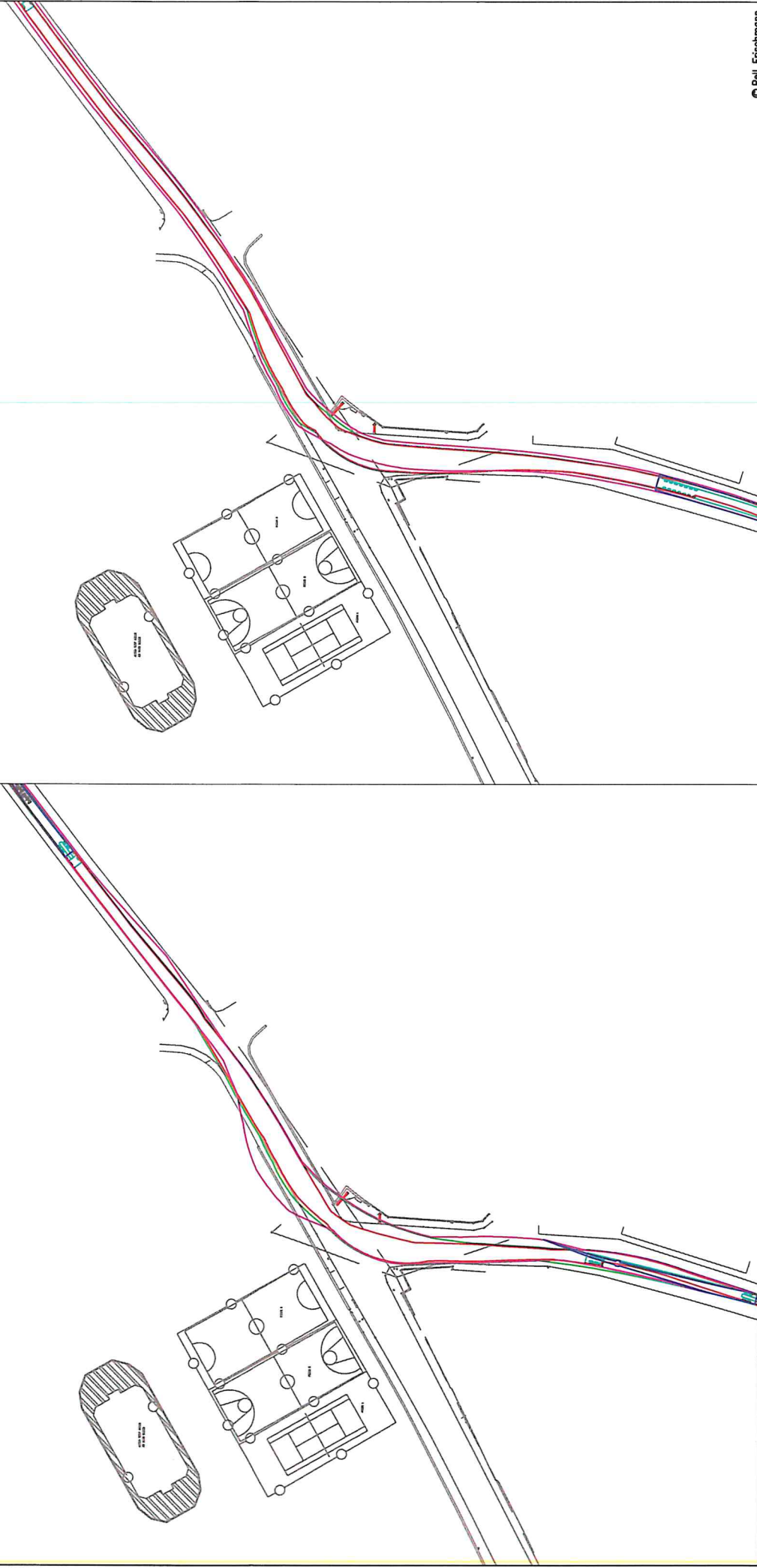
Pell Frischmann 93 GEORGE STREET, EDINBURGH, ED6 3ES Tel: +44 (0)131 240 1370 Email: p.frischmann@pellfrischmann.com www.pellfrischmann.com		Oweninny Wind Farm Nordex N117 and Mid Tower N59 / R290 Ballysadare Right Bend		Scale Custom @ A3
Client Pell Frischmann	Drawing Title Nordex N117 and Mid Tower	Name TL	Date 11/08/2021	File No. 090821 Oweninny 2 Tracking.dwg
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-soil	Drawing No. SK14A	Drawn TL	Designed TL	Checked GB
Point of Interest 25	Drawing Status Draft	Notes 1. All indications are subject to confirmation through a full site visit. 2. This is not a construction drawing and is intended for illustration purposes only.		
Revision 1				



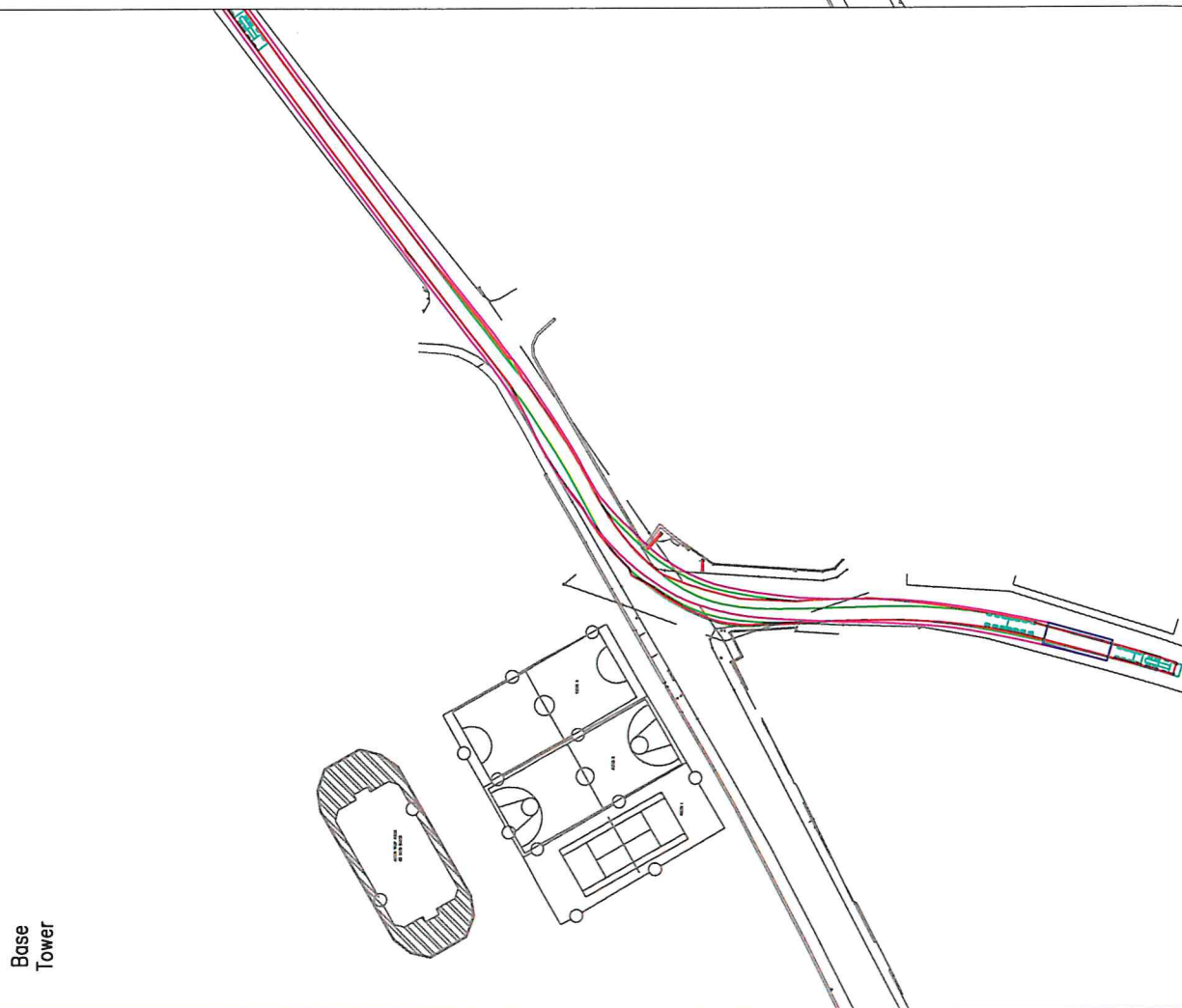
Pell Frischmann 93 GEORGE STREET EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: patrick@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Name TL	Date 11/08/2021	Scale 1:500 @ A3	© Pell Frischmann	
		Drawing Title Nordex N117 and Mid Tower		Drawn TL	Designed TL	File No. 090821 Oweninny 2 Tracking.dwg		
		SPA Location / R290 Ballysadare Right Bend		Checked GB	11/08/2021	Drawing Status Draft		
Client Nordex		Point of Interest 25		Drawing No. SK14B		Revision 1		
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-soil		Notes: 1. All mitigation is subject to confirmation through a land use. 2. This is not a construction drawing and is intended for illustration purposes only.						

Blade

Mid Tower

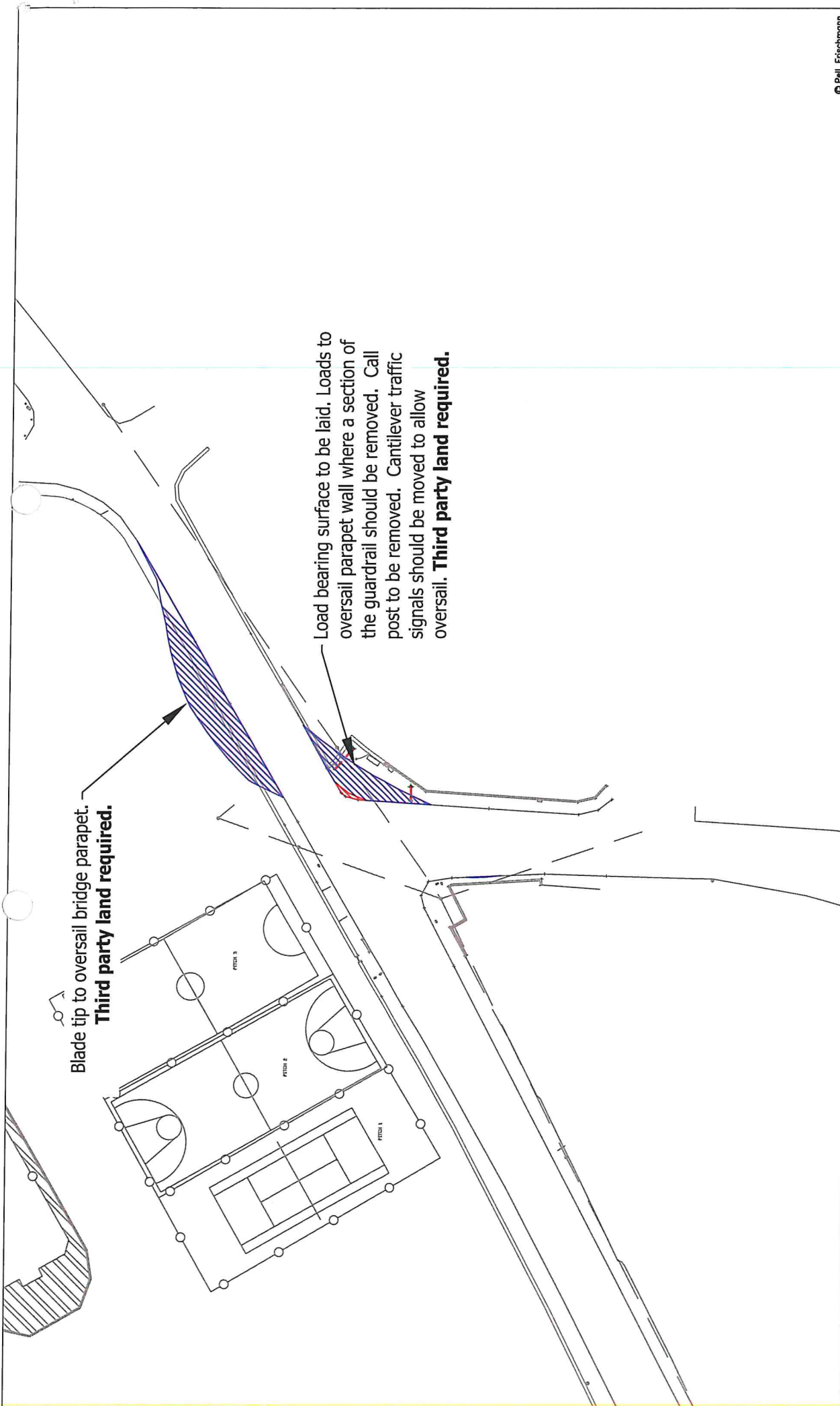


Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: ped@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Name TL	Date 11/08/2021	Scale 1:1000 @ A3	© Pell Frischmann
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Designed TL	11/08/2021	File No. 090821 Oweninny 2 Tracking.dwg	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sail		SPA Location N59 / Bunree Bridge Junction		Checked GB	11/08/2021	Drawing Status Draft	
				Point of Interest 31			
				Drawing No. SK15			Revision 1
				Notes: 1. All revisions are subject to confirmation through e mail use. 2. This is not a construction drawing and is intended for illustration purposes only.			



Pell Frischmann 79 GEORGE STREET, EDINBURGH, EH3 5JG Tel: +44 (0)131 240 1370 Email: pell@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Scale 1:1000 A3		Date 11/08/2021		Name TL		File No. 090821 Oweninny 2 Tracking.dwg	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Checked GB		Designed TL		Point of Interest 31		Drawing Status Draft	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-still		SPA Location / Bunree Bridge Junction		Drawing No. SK15A		Revision 1		<small> 1. All applications are subject to confirmation through a lead out. 2. This is not a construction drawing and is intended for illustration purposes only. </small>			

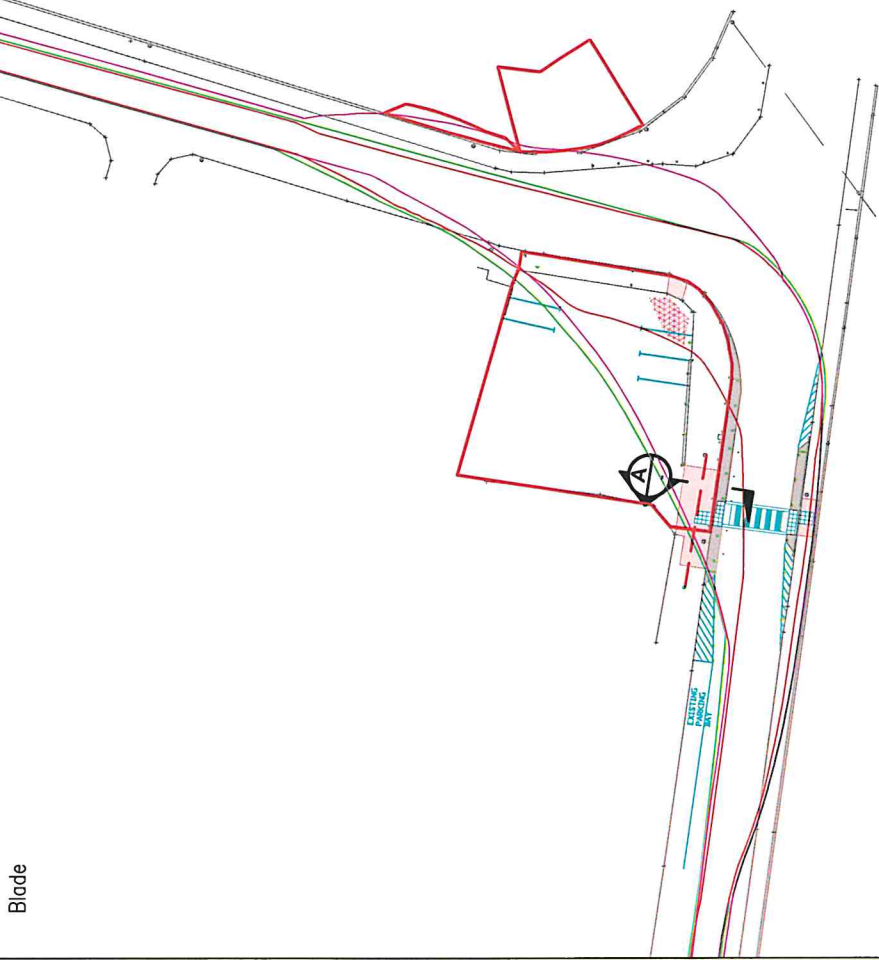
© Pell Frischmann



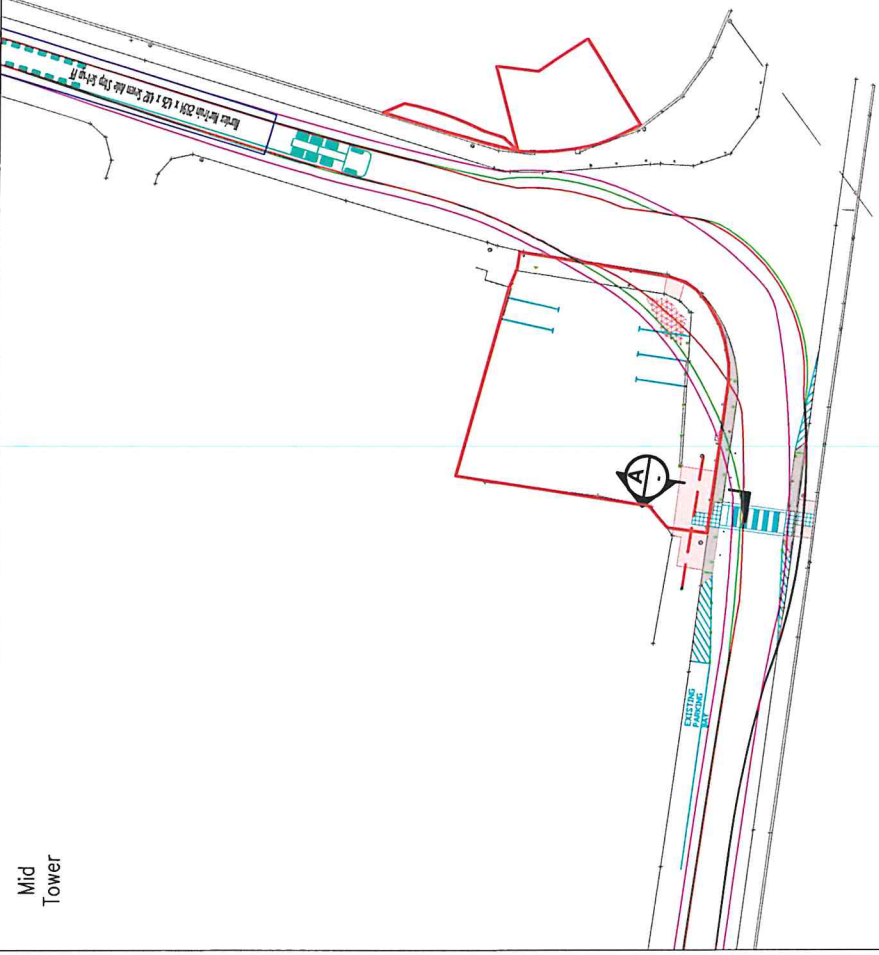
Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 242 1270 Email: pefr@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Name TL	Date 11/08/2021	Scale 1:500 @ A3	© Pell Frischmann
				Drawn TL	11/08/2021	File No. 090821 Oweninny 2 Tracking.dwg	
				Designed TL	11/08/2021	Drawing Status Draft	
				Checked GB	11/08/2021	Point of Interest 31	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Drawing No. SK15B		Revision 1	
Key Wheel SPA Body SPA Load SPA Indicative 		SPA Location N59 / Bunree Bridge Junction		Over-run 		Over-sail 	

Notes:
 1. All obligations are subject to confirmation through a full run.
 2. This is not a construction drawing and is intended for consultation purposes only.

Blade



Mid Tower



Pell Frischmann
 93 GEORGE STREET, EDINBURGH, E12 3ES
 Tel: +44 (0)131 240 1270
 Email: p.frischmann@pellfrischmann.com
 www.pellfrischmann.com

Project
 Oweninny Wind Farm

Scale
 1:500 @ A3

Drawn	TL	Date	11/06/2021
Designed	TL	Date	11/06/2021
Checked	GB	Date	11/06/2021

File No. 090821 Oweninny 2 Tracking.dwg
Drawing Status Draft

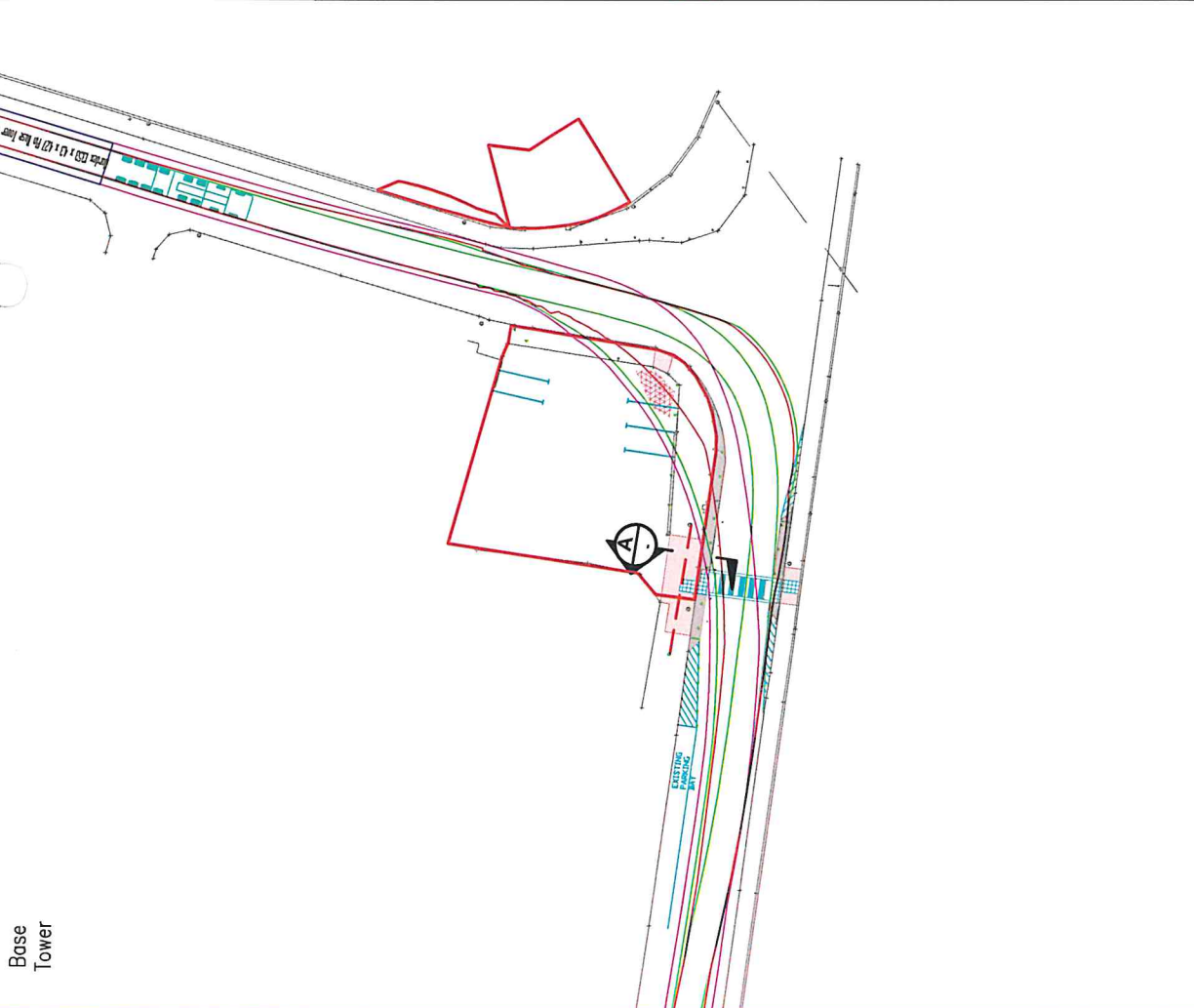
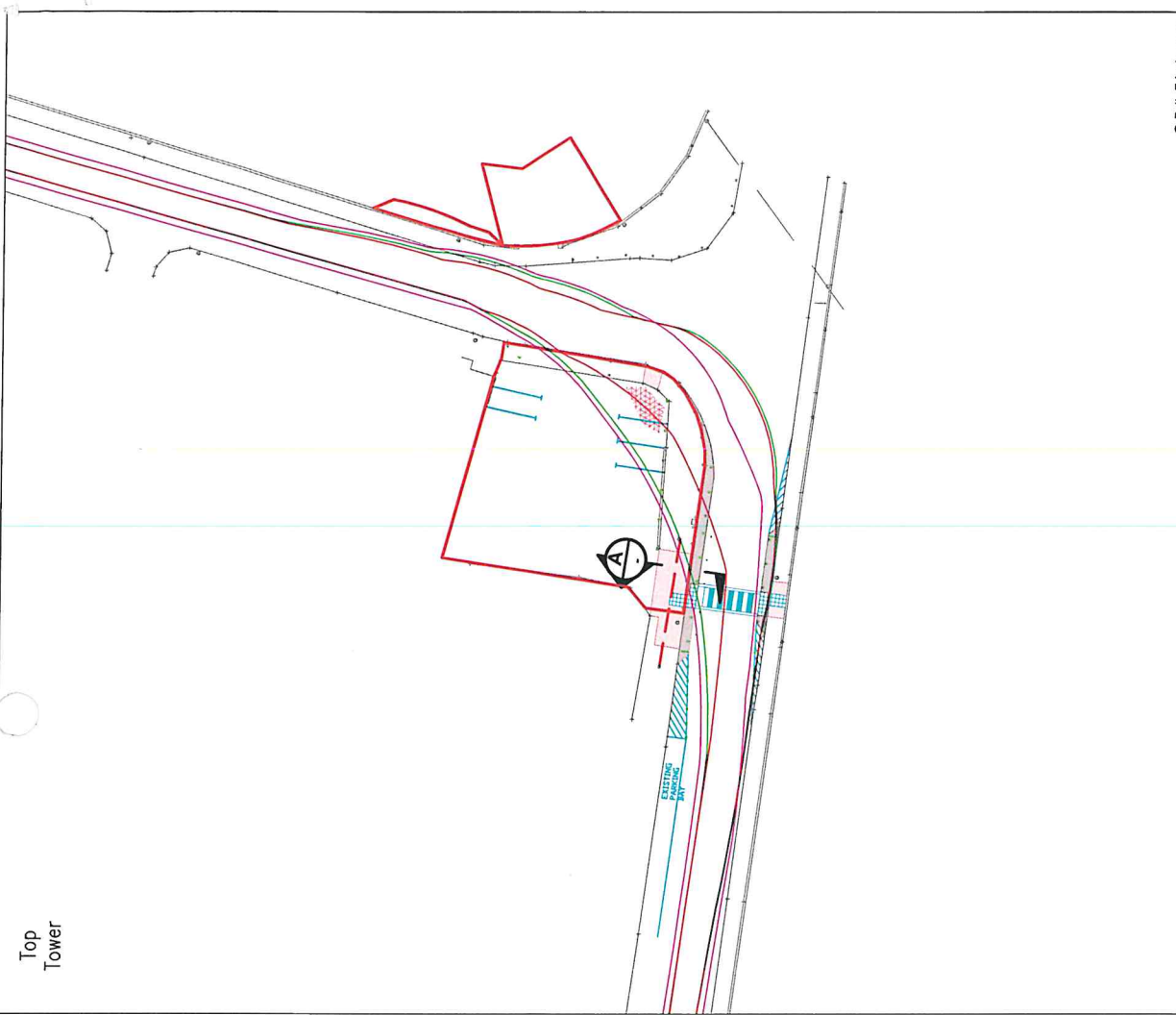
Point of Interest
 Drawing No. SK16
 Revision 1

Client Nordex
Drawing Title Nordex N117 and Mid Tower
SPA Location See Rd / R294 Junction

Key	Wheel SPA	Body SPA	Load SPA	Indicative	Over-run	Over-sail

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.

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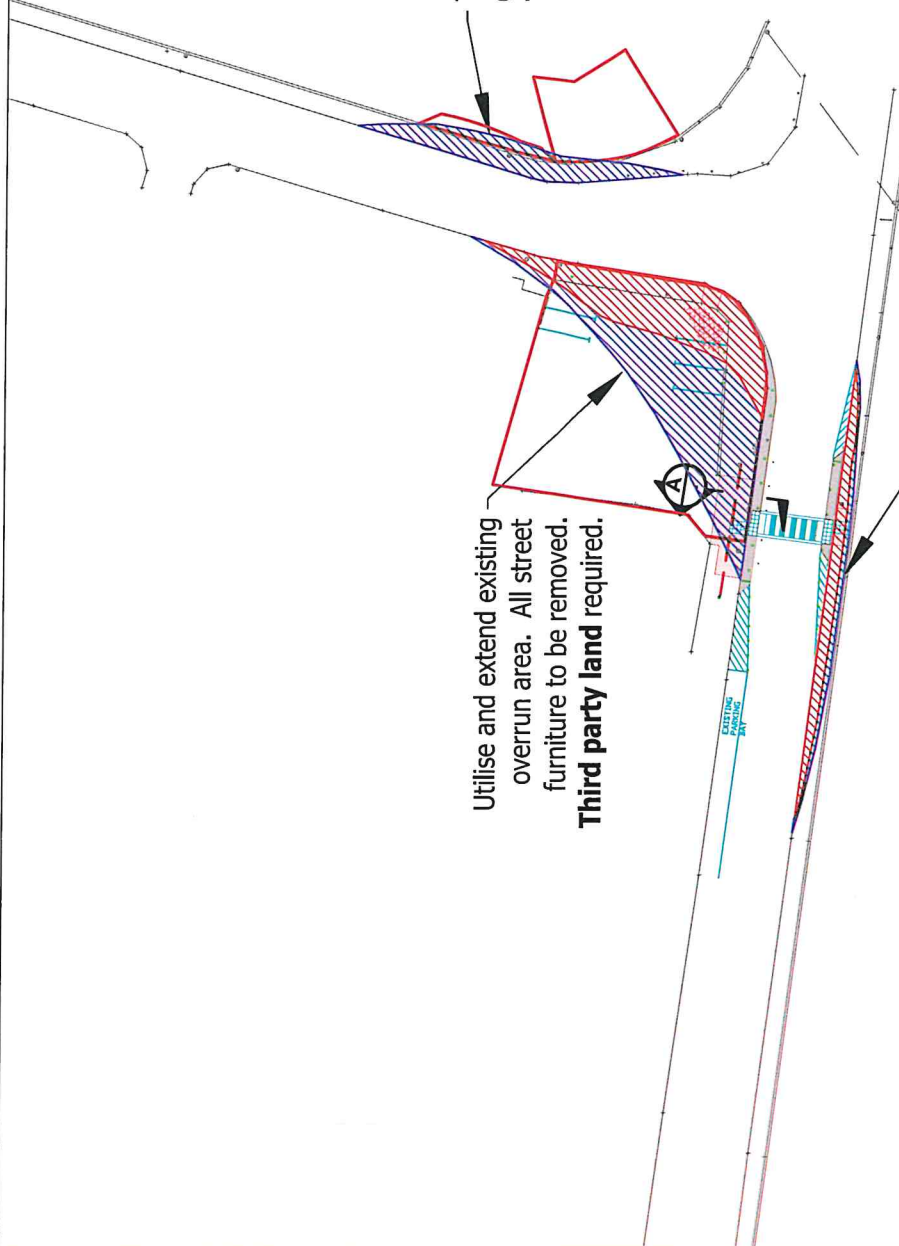


Pell Frischmann 93 GEORGE STREET, EDINBURGH, E10 3J5 Tel: +44 (0)131 240 1370 Email: pell@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm Nordex N117 and Mid Tower Bunree Rd / R294 Junction		© Pell Frischmann
Client Nordex		Drawing Title SPA Location	Name TL TL GB	Date 11/08/2021 11/08/2021 11/08/2021
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-soil		Drawing No. SK16A	Scale 1:500 @ A3	File No. 090821 Oweninny 2 Tracking.dwg
Revision 1		Drawing Status Draft	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.	

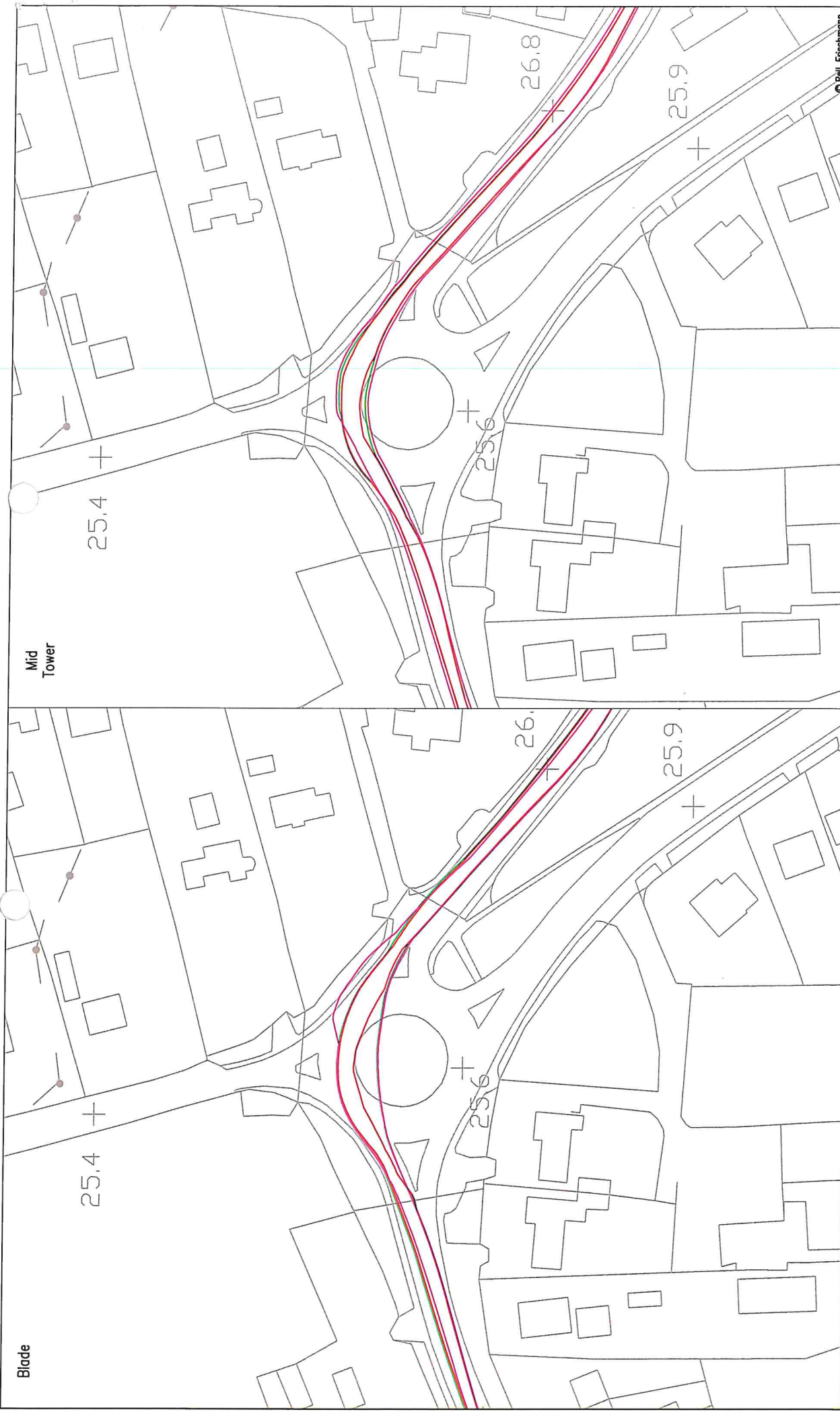
Utilise and extend existing overrun area. All street furniture to be removed.
Third party land required.

Two bollards, one road sign and one lighting column to be removed.
Third party land required.

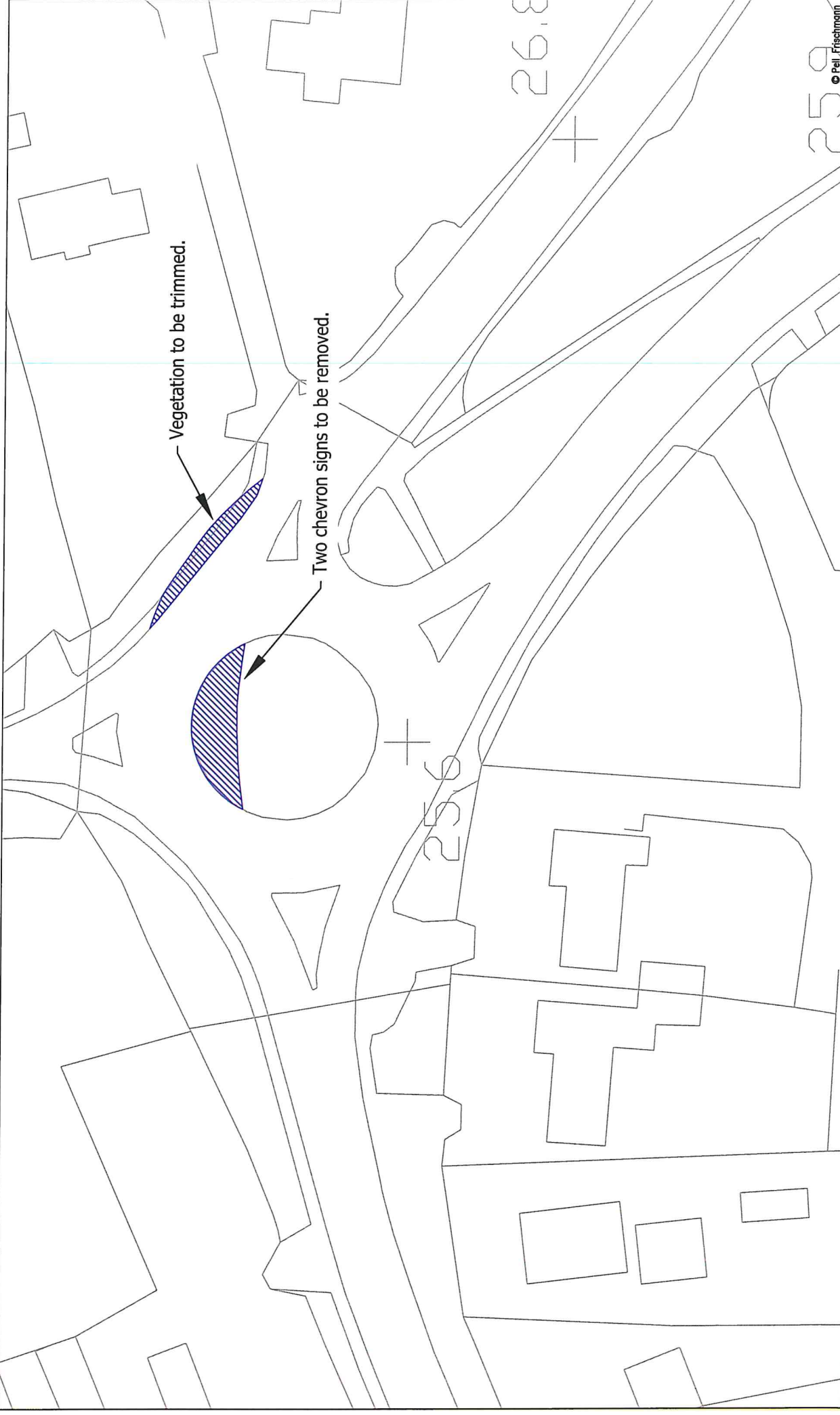
Utilise and extend existing overrun area.
 All street furniture to be removed.



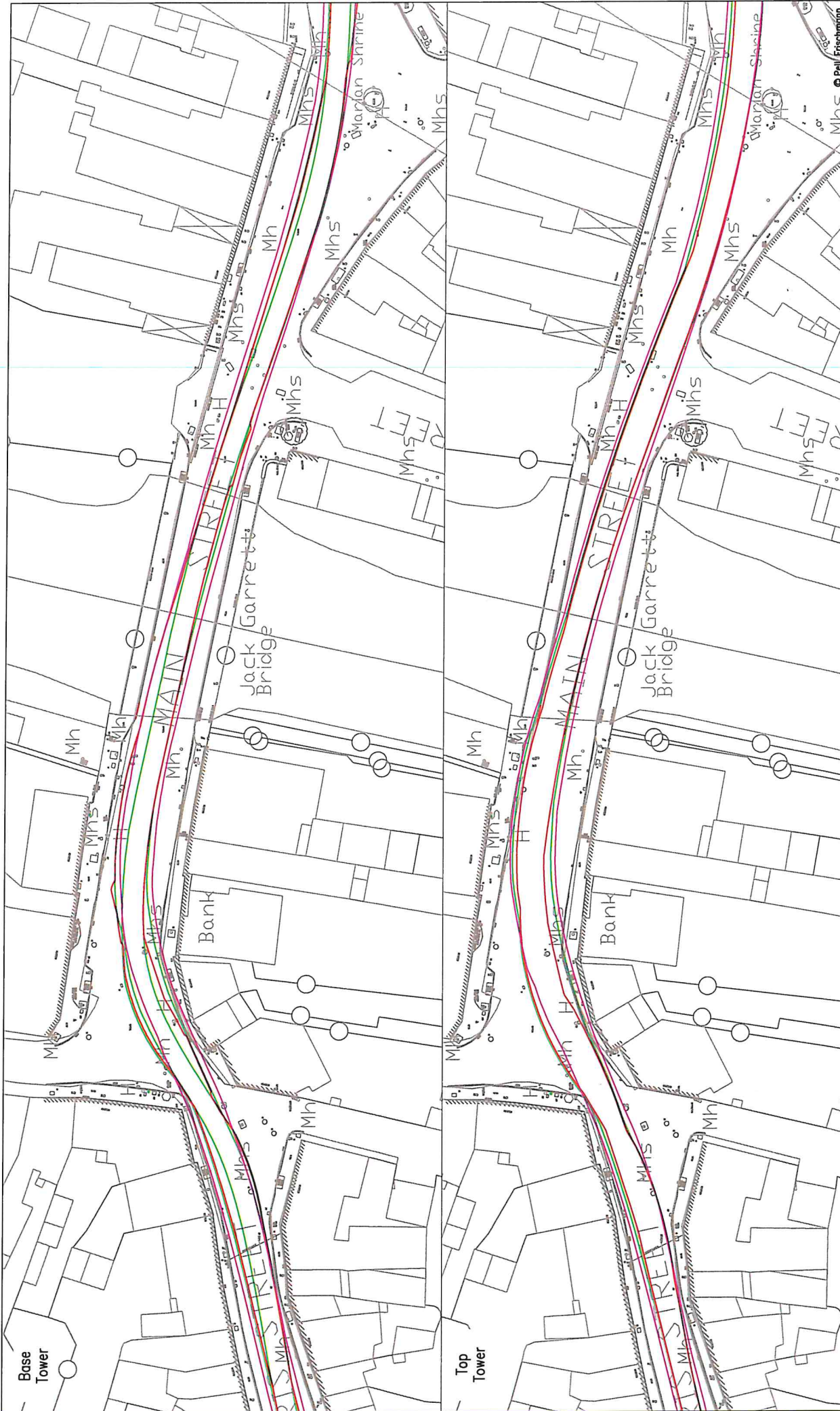
Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: pfr@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Scale 1:500 @ A3		© Pell Frischmann	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Date 11/06/2021		Name TL	
Key Wheel SPA Body SPA Load SPA Indicative		SPA Location ee Rd / R294 Junction		Drawn TL		Date 11/06/2021	
Over-sill		Over-run		Designed TL		File No. 090821 Oweninny 2 Tracking.dwg	
Over-soil		Over-run		Checked GB		Drawing Status Draft	
Drawing No. SK168		Point of Interest 32		Drawing No. SK168		Revision 1	
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.							



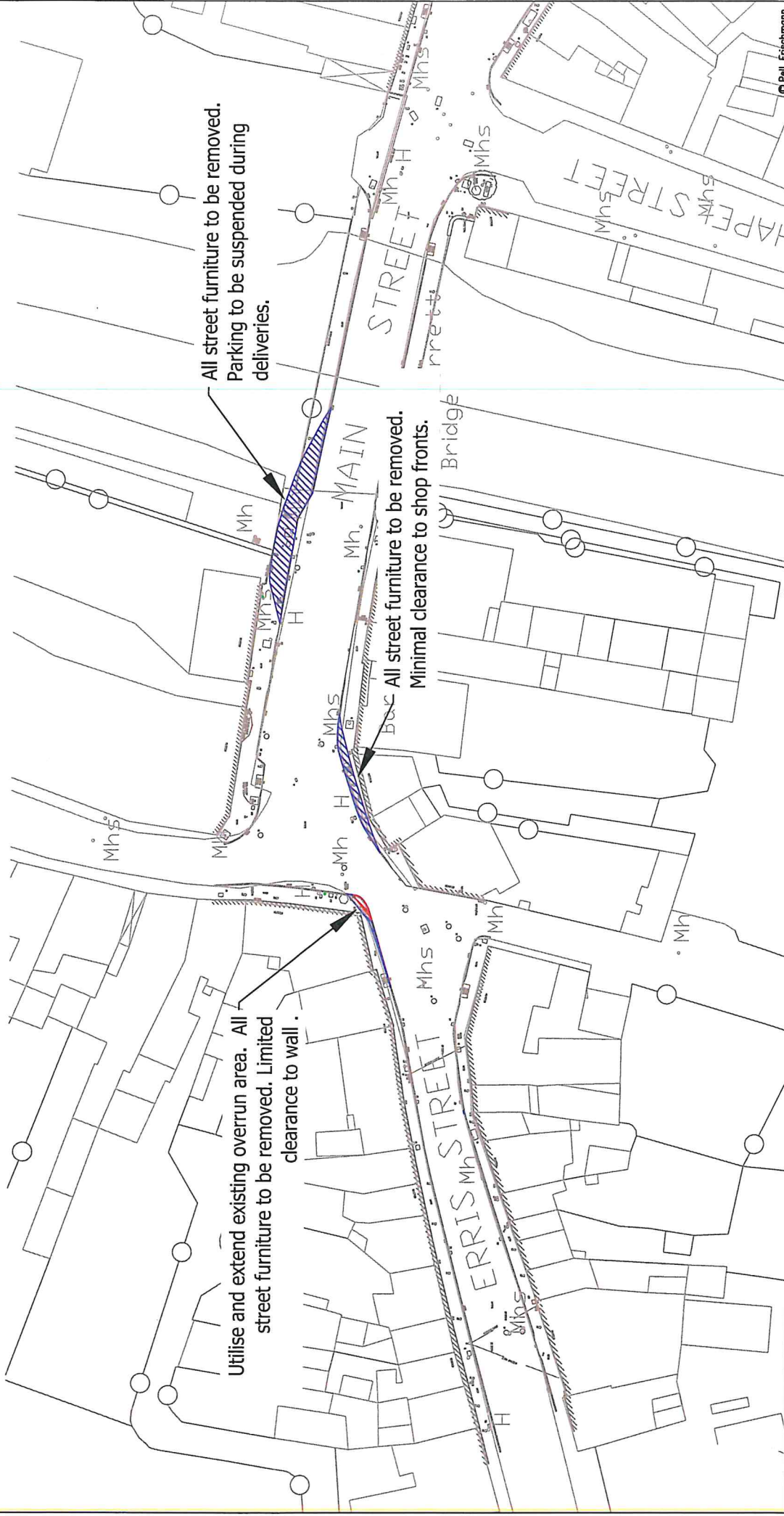
Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH3 3ES Tel: +44 (0)131 240 1370 Email: pefr@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Name JL		Date 11/08/2021		Scale 1:1000 @ A3	
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Drawn JL		Designed JL		File No. 090821 Oweninny 2 Tracking.dwg	
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-soil		SPA Location L1109 / N59 Gurteens Roundabout		Checked GB		Point of Interest 37		Drawing Status Draft	
Drawing No. SK17		Revision 1		Notes: 1. All obligations are subject to confirmation through a final SPA. 2. This is not a construction drawing and is intended for illustration purposes only.		Author Pell Frischmann			



Pell Frischmann 93 GEORGE STREET, EDINBURGH, E12 3ES Tel: +44 (0)131 240 1270 Email: p.frischmann@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Name TL	Date 11/06/2021	Scale 1:500 @ A3
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Drawn TL	Designed TL	File No. 090821 Oweninny 2 Tracking.dwg
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-sail		SPA Location 9 / N59 Curteens Roundabout		Checked GB	Point of Interest 37	Drawing Status Draft
Drawing No. SK17A		Revision 1		<small>Notes:</small> 1. All mitigation is subject to confirmation through a land use. 2. This is not a construction drawing and is intended for illustration purposes only.		

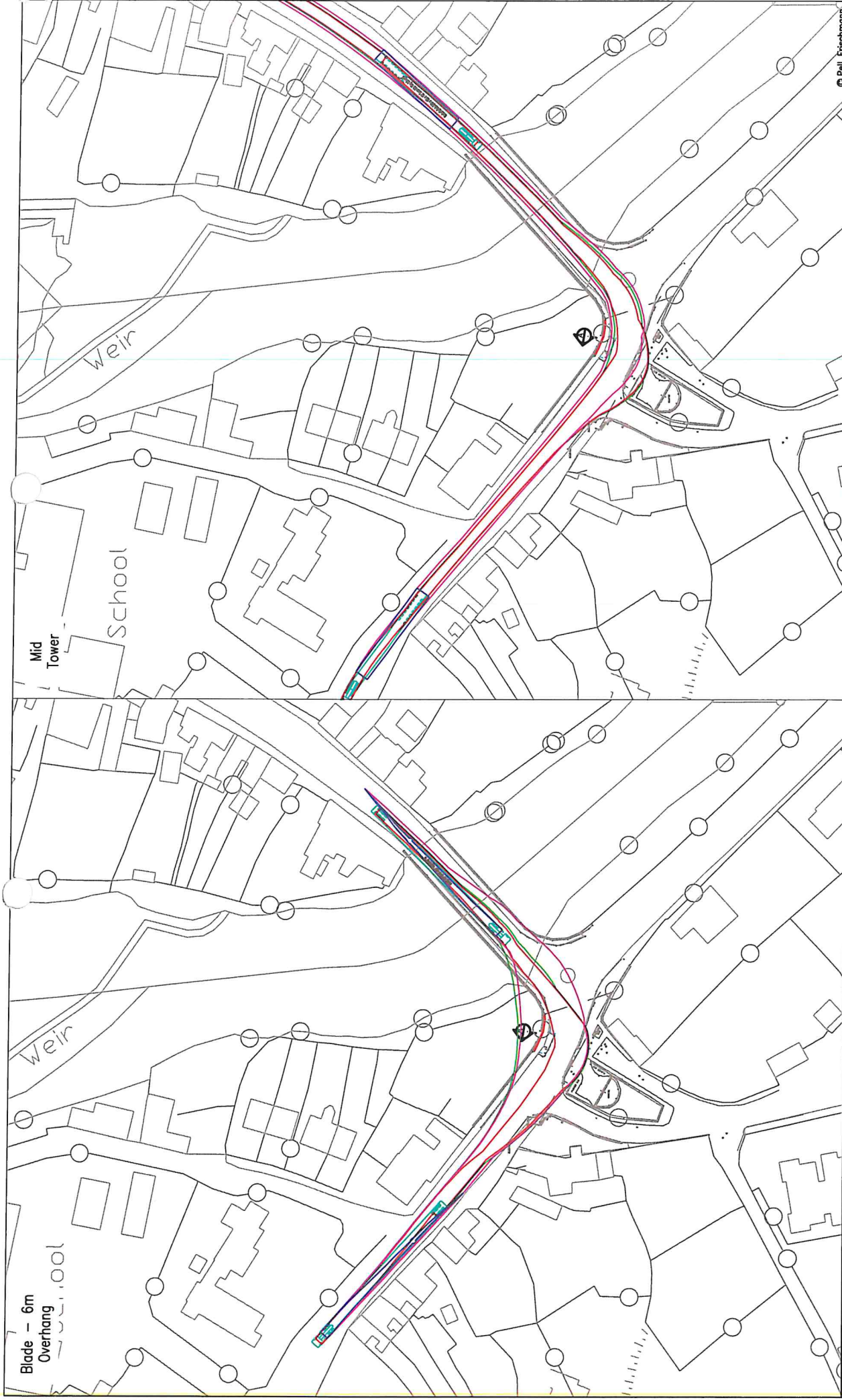


Pell Frischmann <small>19 GEORGE STREET, EDINBURGH, E12 3ES Tel: +44 (0)131 240 1270 Email: pell@pfrischmann.com www.pellfrischmann.com</small>		Project Owerinny Wind Farm		Name TL	Date 11/06/2021	Scale 1:500 @ A3
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Drawn TL	Designed TL	File No. 090821 Owerinny 2 Tracking.dwg
Key Wheel SPA Body SPA Load SPA Indicative Over-soil Over-run		SPA Location <input type="checkbox"/> Crossmolina		Checked GB	Point of Interest 39	Drawing Status Draft
Drawing No. SK18A		Drawing No. SK18A		Notes 1. All obligations are subject to confirmation through a lead LSA. 2. This is not a construction drawing and is intended for illustration purposes only.		Revision 1

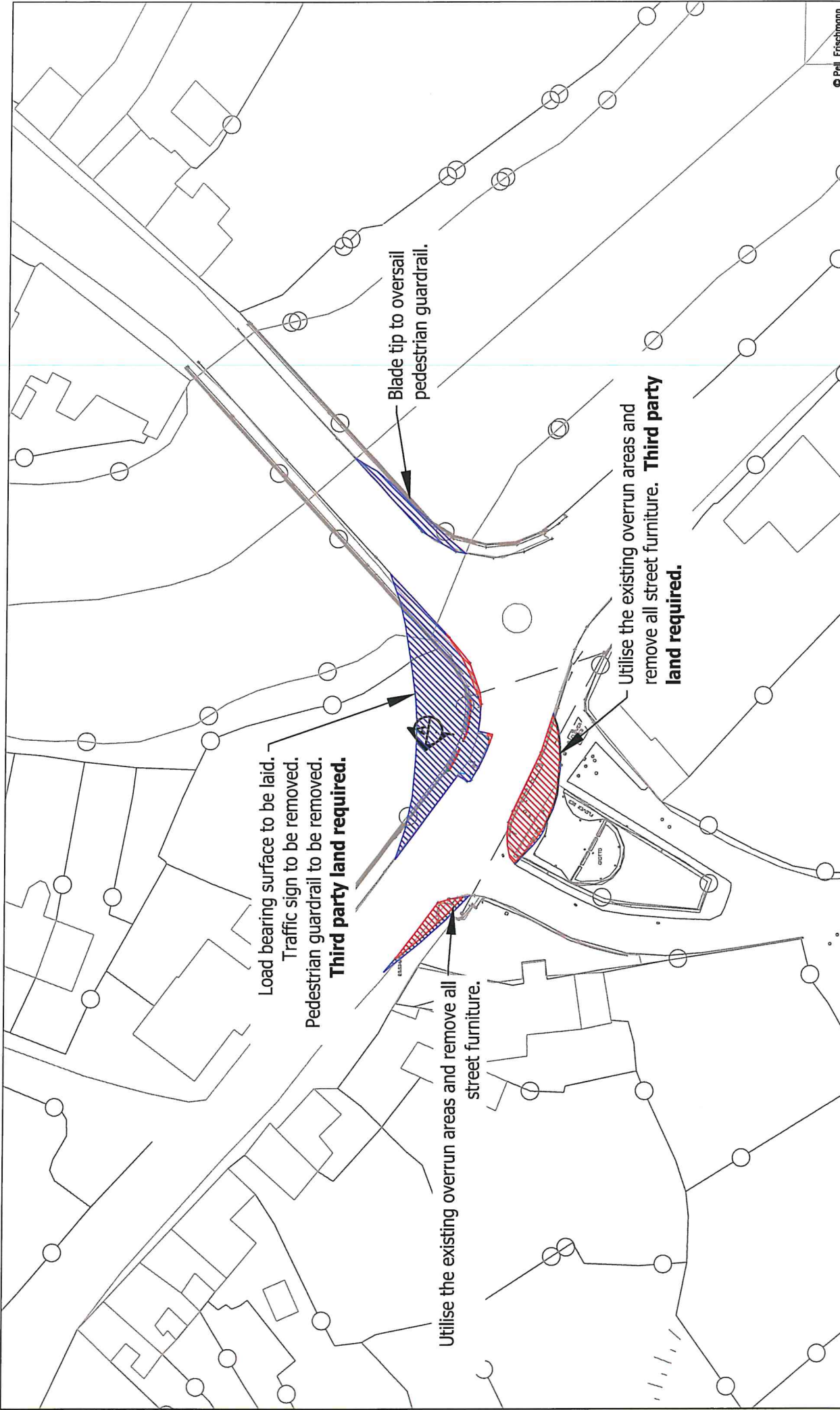


Pell Frischmann 93 GEORGE STREET, EDINBURGH, EH2 3ES Tel: +44 (0)131 240 1270 Email: pell@frischmann.com www.pellfrischmann.com		Project Owenniny Wind Farm		Name: TL Date: 11/08/2021 Scale: 1:500 @ A3
Client Nordex		Drawing Title Nordex N117 and Mid Tower		Drawn: TL Date: 11/08/2021
Key Wheel SPA Body SPA Load SPA Indicative		SPA Location N59, Crossmolina		Designed: TL Date: 11/08/2021
Over-run Over-sail		Drawing Status Draft		Checked: GB Date: 11/08/2021
Revision 1		Point of Interest 39		Drawing No. SK18B
<small>Notes:</small> 1. All obligations are subject to confirmation through a full run. 2. This is not a construction drawing and is intended for illustration purposes only.				

Appendix C - Ballysadare 6m Blade Tracking



Pell Frischmann 13 GEORGE STREET, DUBLIN 1, D02 YK11 Tel: +353 (0)1 248 1270 Email: pfrischmann@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm Nordex N117 and Mid Tower		Scale 1:1000 @ A3	© Pell Frischmann
Client Nordex	Drawing Title SPA Location N59 / R290 Ballysadare Right Bend	Drawn TL	Name TL	Date 11/08/2021	File No. 090821 Oweninny 2 Tracking.dwg
Key Wheel SPA (red line) Body SPA (green line) Load SPA (blue line) Indicative (cyan line)	Over-sail (blue hatched) Over-run (red hatched)	Designed TL	Checked GB	Date 11/08/2021	Drawing Status Draft
Revision 1	Drawing No. APP C	Point of Interest 25	Revision 1	Note: 1. All revisions are subject to confirmation through a lead 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 1770 Email: pfrischmann@pellfrischmann.com www.pellfrischmann.com		Project Oweninny Wind Farm		Name TL	Date 11/08/2021	Scale 1:500 @ A3	© Pell Frischmann	
		Drawing Title Nordex N117 and Mid Tower		Drawn TL	Designed TL	File No. 090821 Oweninny 2 Tracking.dwg		
		SPA Location R290 Ballysodare Right Bend		Checked GB	11/08/2021	Drawing Status Draft		
Client Nordex		Point of Interest 25		Drawing No. APP CA		Revision 1		
Key Wheel SPA Body SPA Load SPA Indicative Over-run Over-soil		Note: 1. All obligations are subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only.						

Appendix B – Abnormal Load Permits

John McMyler

From: Allen, Brendan (Engineering and Major Projects) <brendan.allen@esb.ie>
Sent: 11 June 2021 16:43
To: John McMyler
Cc: Planning
Subject: Planning Compliance PA0029 Oweninny Windfarm COndition 11
Attachments: RE: Oweninny Wind Farm - Phase 2

External Email: Do not click links or open attachments unless you recognise the sender and are sure that the content is safe.

John

I am following up in relation to Condition 11.

In our submission **Discharge of Planning Permission Conditions Phase 2** dated December 2020 we stated the following:

2.11 Condition 11 - Aeronautical Requirements

2.11.1 Details of Condition

Aeronautical requirements shall be agreed in writing with the planning authority prior to commencement of development. Subsequently, the developer shall inform the planning authority and the Irish Aviation Authority of the co-ordinates of the 'as constructed' positions of the turbines and the highest point of the turbines to the top of the blade spin.

Reason: In the interest of air traffic safety.

2.11.2 Response

OP2DAC submitted details of the proposed wind farm to the Irish Aviation Authority (IAA) on 20th of October 2020. Refer to **Appendix D Copy of Correspondence to IAA**. The purpose of that submission was to enable the IAA to confirm their aeronautical requirements. We are currently awaiting a response from the IAA. Once a response is received, this will be submitted to MCC for agreement in writing. OP2DAC will send co-ordinates of 'as constructed' turbine positions once constructed to the IAA and to MCC.

2.11.3 Requirement from MCC at this Time

We do not require any specific actions from MCC at this time. However once a response is received from the IAA, this will be submitted to MCC for agreement in writing.

We have now received a response from the IAA and as per 2.11.3 we are submitting this to MCC for your agreement in writing. The IAA response confirms acceptability of the proposed aeronautical requirements subject to some amendments.

Attached to this email is the response as received from the IAA.

I would be obliged if this email could be acknowledged and acceptability of the proposals be confirmed in writing or email by MCC.

Regards,

Brendan Allen | Planning Team Leader | Engineering & Major Projects | ESB
T: +353 1 703 8195 M: 086 8336990 | www.esb.ie
One Dublin Airport Central, Dublin Airport, Cloghran, Co. Dublin, K67 XF72.

An timpeallacht? - Smaoinigh air sula bpriontáileann tú an r-phost seo.
Please consider the Environment before printing this email.

* * * * *

Tá an t-eolas sa ríomhphost seo agus in aon chomhad a ghabhann leis rúnda agus ceaptha le haghaidh úsáide an té nó an aonáin ar seoladh chuige iad agus na húsáide sin amháin.

Is tuairimí nó dearcthaí an údair amháin aon tuairimí nó dearcthaí ann, agus ní gá gurb ionann iad agus tuairimí nó dearcthaí ESB.

Má bhfuair tú an ríomhphost seo trí earráid, ar mhiste leat é sin a chur in iúl don seoltóir.

Scanann ESB ríomhphoist agus ceangaltáin le haghaidh víreas, ach ní ráthaíonn sé go bhfuil ceachtar díobh saor ó víreas agus ní glacann dliteanas ar bith as aon damáiste de dhroim víreas.

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* * * * *

John McMyler

From: John McMyler
Sent: 12 February 2021 17:23
To: Brendan Allen
Cc: John McMyler
Subject: Fw:

Brendan

I refer to your submission of the 8/12/20.

I wish to confirm that your submissions for the following conditions are acceptable to Mayo County Council,

Conditions: 1,5,6,7,8,9,10,12,13,15,16 and 20.

In relation to conditions 18 and 19, I wish to confirm that the proposed bond wording and values are acceptable to Mayo County Council.

Regards

John McMyler
Senior Planner

Email Disclaimer Text

John McMyler

From: John McMyler
Sent: 12 February 2021 17:23
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Regards

John McMyler
Senior Planner

Email Disclaimer Text

John McMyler

From: Brendan Allen <brendan.allen@esb.ie>
Sent: 09 February 2021 15:12
To: John McMyler
Subject: RE: PA0029 Oweninny Planning Compliance Submission
Attachments: Response to MCC Query 09022021 Rev 1.pdf; ATT00001.txt; ATT00002.htm

John

Apologies for that.

Please find attached the letter issued as Rev 1 with the fourth box in the flowchart changed to the CLO.

Regards,

Brendan Allen | Planning Team Leader | Engineering & Major Projects | ESB
T: +353 1 703 8195 M: 086 8336990 | www.esb.ie
One Dublin Airport Central, Dublin Airport, Cloghran, Co. Dublin, K67 XF72.

From: John McMyler <jmcmyley@MayoCoCo.ie>
Sent: Tuesday 9 February 2021 12:30
To: Allen, Brendan (Engineering and Major Projects) <brendan.allen@esb.ie>
Subject: Re: PA0029 Oweninny Planning Compliance Submission

Brendan

Thanks for that.

Should the fourth box in the flowchart refer to the CLO rather than the CEM?

John

From: Brendan Allen
Sent: Tuesday 9 February 2021 11:24
To: John McMyler
Cc: Planning
Subject: RE: PA0029 Oweninny Planning Compliance Submission

John

As per your email below please find attached a response to your query, hopefully this closes out the query.

Regards,

Brendan Allen | Planning Team Leader | Engineering & Major Projects | ESB
T: +353 1 703 8195 M: 086 8336990 | www.esb.ie
One Dublin Airport Central, Dublin Airport, Cloghran, Co. Dublin, K67 XF72.

From: John McMyler
Sent: Thursday 4 February 2021 17:57
To: Allen, Brendan (Engineering and Major Projects)
Subject:

Brendan

Good evening,

I'm just waiting to hear from a couple of sections and then we should be ready to go.

Just one thing, can you detail to me the complaints procedure should ourselves/member of the public have an issue.

From a reading of the submission it appears that any issue stops at the Community Liaison(3.6)

It also states, that all community liaisons are managed by the client's engineer.

What does that mean?

Also, non-conformance (4.0) refers to the role of the Environmental Manager.

Is it possible to get a straight flow chart of how a community complaint, for example, would be dealt with?

What happens if the Community Liaison cannot sort it? Or if his answer is unsatisfactory.

How does it get escalated up?

Regards

John

[Email Disclaimer Text](#)

John McMyler

Noted
Gerry
5/2/21

From: Gerry Walsh
Sent: 05 February 2021 12:56
To: John McMyler
Subject: FW: Oweninny Phase 2 Archaeology Conditions
Attachments: QE-000039-11-D460-004-001-000.pdf; Condition 12.pdf; ATT00001.txt; ATT00002.htm

Hi John,

Please find email below from Mr. Brendan Allen, Planning Team Leader, Engineering & Major Projects, ESB. I have also spoken with Mr. Martin Byrne, Consultant Archaeologist, Byrne Mullin & Associates. I am fully satisfied with the 1.1.2 and 1.2.2 responses given below by Mr. Allen with regard to Condition no.'s 12 and 13 pertaining to the Oweninny wind farm development. I am also satisfied that the required archaeological licence to undertake the work has been issued to Mr. Byrne and that the required reports will be submitted to all the relevant authorities when the archaeological work is completed.

Regards,

Gerry Walsh

Senior Archaeologist

Forward Planning

Mayo Co. Co.

From: Brendan Allen <brendan.allen@esb.ie>
Sent: 10 November 2020 11:53
To: Gerry Walsh <gwalsh@MayoCoCo.ie>; 'Martin Byrne' <byrnemullins@eircom.net>
Subject: Oweninny Phase 2 Archaeology Conditions

Gerry

As discussed see below the text that we are proposing to include in the planning compliance discharge report to MCC which I hope to issue to John next week.

Feel free to chat to Martin directly about it as we want to be happy that it meets your requirements before we formally issue to MCC.

1.1 Condition 12 - Archaeology and Related Matters

1.1.1 Details of Condition

The developer shall facilitate the protection of archaeological materials or features which may exist within the site. In this regard, the developer shall:

- (a) notify the planning authority in writing at least four weeks prior to the commencement of any site operation (including hydrological and geotechnical investigations) relating to the proposed development,*
- (b) employ a suitably-qualified archaeologist who shall monitor all site investigations and other excavation works,*
- (c) submit to and agree in writing with the planning authority revised proposals for the design of the works, which shall ensure that the development will not cause avoidable disturbance to archaeological material and will limit any unavoidable disturbance, and*
- (d) provide arrangements, acceptable to the planning authority, for the recording and for the removal of any archaeological material which the authority considers appropriate to remove.*

Reason: In order to conserve archaeological heritage.

1.1.2 Response

12(a) - OP2DAC notified MCC in writing on 5th November 2020 of plans to commence the development of Phase 2, as works are due to commence in December 2020. Refer to **Appendix E** for email detailing **Notification of Commencement of Works**.

12(b) - Byrne Mullin & Associates Archaeological Consultants has been appointed as the Project Archaeologist.

12 (c) and (d) - It is the OP2DAC's intention to comply with these conditions under the direction of the nominated Project Archaeologist.

1.1.3 Requirement from MCC at this Time

We are seeking agreement in writing of the proposed approach with Mayo County Council.

1.2 Condition 13 - Archaeological Buffer Zones

1.2.1 Details of Condition

Prior to the commencement of construction works, a temporary buffer area of 50 metres shall be established and fenced around archaeological features Ch-4 and Ch-3. No development works of any kind shall take place within the buffer areas.

Reason: In order to conserve the archaeological heritage of the site and to secure the preservation of any remains which may exist within the site.

1.2.2 Response

Refer to **Appendix F** for **Archaeological Feature Buffer Area** map showing a suitably fenced area as required by this condition for CH-3.

In terms of SITE CH-4, it is not possible to establish a 50m buffer area around this possible monument, as its exact location is unknown. In the event that subsurface evidence of the feature is uncovered during the course of the works, then surfaces of such will be cleaned by hand and limited hand excavation/investigation will be undertaken to determine the nature and extent of the feature within the confines of the associated construction works corridor/area; works in the immediate area will cease pending consultation with the National Monuments Service and the Mayo County Archaeologist. Such approach was included in an Outline Cultural Heritage Mitigation Strategy (9th June 2017) prepared by Martin Byrne, Byrne Mullins & Associates at the at the request of Mr. Gerry Walsh, Senior Archaeologist, MCC, following consultation discussions on 9th June 2017 and subsequently submitted to MCC. A survey was completed in September 2020 to confirm this.

Refer to **Appendix F** which includes a Compliance Strategy for Condition 13.

1.2.3 Requirement from MCC at this Time

We are seeking agreement in writing that the temporary buffer area around archaeological feature Ch-3 is to MCC satisfaction, as per Condition 13 and **our compliance strategy for Ch-4**.

Regards,

Brendan Allen | Planning Team Leader | Engineering & Major Projects | ESB
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