Technical Appendix

Drummarnock Wind Farm

Technical Appendix 9-1: Abnormal Loads Assessment

Drummarnock Wind Farm Limited

July 2024

Drummarnock Windfarm

27/06/2024

Reference number 110488

TECHNICL APPENDIX 9.1
ABNORMAL LOADS ASSESSMENT

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1. INTRODUCTION

1.1.1 SYSTRA has been commissioned by Atmos on behalf of Drummarnock Windfarm Limited to undertake an Abnormal Loads Assessment (ALA) for the proposed Drummarnock Wind Farm development which is located approximately 10km southwest of Stirling, in the Fintry, Gargunnock and Touch Hills. The site falls within the Stirling Council administrative area.

1.1.2 The development is for four turbines which will be manufactured off-site and transported to the site for assembly via the port of entry at Grangemouth. The longest component parts of the turbine are the blades, which will be approximately 80m long and would be the "worst case" in terms of the length and width combination to be moved.

1.1.3 The route from the port of Grangemouth to the M9 motorway has been proven many times before through other assessments and is a regular route for abnormal loads so the points of interest on that part of the route are not assessed in this report. The 12 points of interest identified are from the M9 motorway at Grangemouth to the Site with two options assessed for Site access. The points of interest are bends, junctions etc that will need to be negotiated in order to facilitate the safe and efficient movement of the abnormal load vehicles. Swept paths have been undertaken by Pell Frischmann Consultants based on the movement of 80m blades (associated with the Nordex N163 candidate turbine) to assess whether the route is feasible and to assess the level of mitigation that may be required on the route. The swept paths also help to identify whether there are any potential requirements for third party land.

1.2 Description of Route to Site

1.2.1 As is standard practice with wind turbine developments, the turbine components will be delivered to the chosen Port of Entry (PoE) and then transported to site via the public road network. The abnormal load vehicles are likely to require a police escort for the duration of the route.

1.2.2 For the purposes of this assessment, it has been assumed that the PoE for the wind turbine components will be the port of Grangemouth, located to the south east of the site. The port has significant experience in handling turbine components and has good access to the strategic road network.

1.2.3 It is anticipated that the route to the site from the PoE will generally be of a suitable standard to accommodate the abnormal loads associated with the proposed Development. The following route has been identified as potentially feasible:

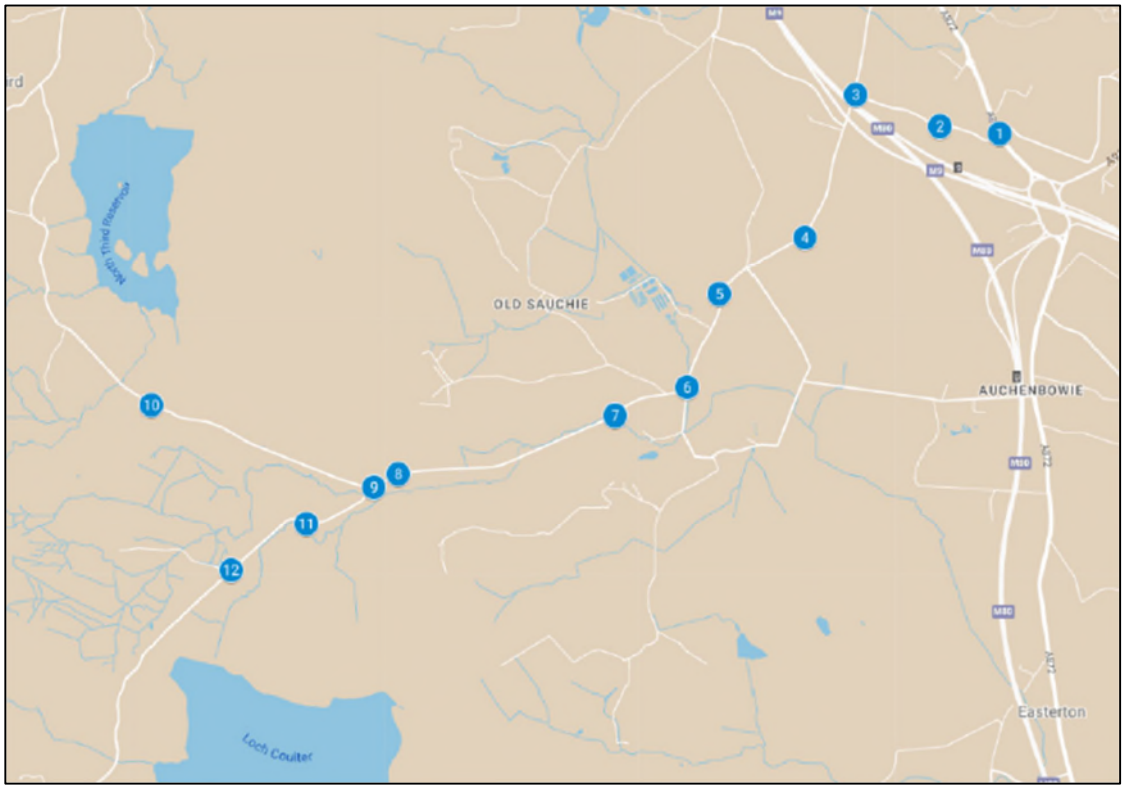
- From Grangemouth, the abnormal loads will head north on the M9 motorway towards Stirling;
- At M9 junction 9 (Pirnhall), the vehicles will leve the motorway and join the A872 heading north;
- Approximately 315m north of the junction, the vehicles will turn left onto Pirnhall Road and will head west for approximately 850m to the junction with New Line Road. At the junction, the vehicles will turn left onto New Line Road and proceed southwest towards the site
- The vehicles will continue on New Line Road for approximately 3.7km before there are to options considered to access the Site. Option 1 involves turning right onto an Unclassied Road whilst Option 2 involves travelling further in a southwest direction to then turn right into the Site.

1.2.4 The route from Pirnhall interchange along with the two route options into the site are indicated by **Figure 1** below.

Figure 1. Access Route Options

1.2.5 **Figure 2** notes the points of interest which have been identified along the route requiring swept path analysis.

Figure 2. Points of Interest on Route



1.3 Turbine Transport Requirements

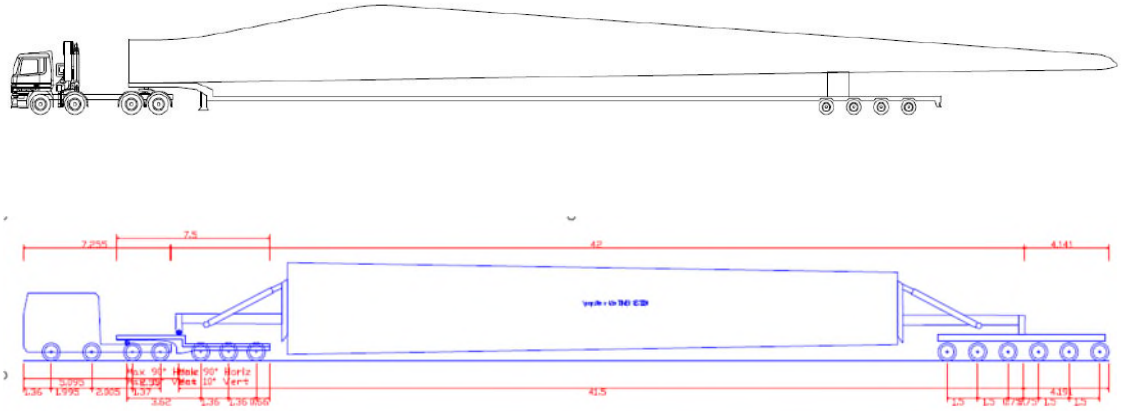
1.3.1 For the purposes of this assessment, the worst-case "design" component has been assessed which is an 80m long turbine blade along with a worst-case tower component.

1.3.2 At this stage in the design process, the haulier of the wind turbine components is not yet known nor the exact specifics of the vehicles that they will use. However, from experience of previous developments and from the details of the components to be moved, it is possible to estimate (with some degree of accuracy) the specifics of the design vehicles that will be used to allow a route assessment to be undertaken.

1.3.3 Pell Frischmann Consultants have used the computer package AutoTrack to produce a swept path analysis for the identified points of interest on the delivery route.

1.3.4 A schematic of the load configurations used indicated in **Figure 3** below.

Figure 3. Blade Transport Configuration



1.3.5 It is noted that the trailer units associated with the design vehicles for the transportation of the blades is extendible so on delivery of the abnormal load, the trailer can be reduced in length. The tower transport vehicle will also be greatly reduced in length for its return journey. In these circumstances, the Autotracking and route assessment has only been undertaken for the route to the site and not the route away from site.

1.4 Swept Paths

1.4.1 The swept paths for the 9 identified points of interest are contained within **Appendix A** while a summary of the impacts and mitigation requirements at each point of interest are contained within **Section 2** of this report.

2. SUMMARY AND CONCLUSIONS

2.1 Summary

2.1.1 This report has identified a preferred abnormal loads route to site**.** A number of the points of interest have been identified on the preferred route which have been assessed in terms of looking at the swept paths of the abnormal load vehicles travelling through the points of interest.

2.1.2 The swept path plans are contained within the Appendix to this report. The plans indicate areas of overrun and over-sail as well as highlighting potential clashes with street furniture and potential infringements into third party land. **Table 1** below summarises the main issues that have been highlighted from the swept path exercise undertaken.

Table 1. Summary of required Mitigation Measures

POINT OF INTEREST	STREET FURNITURE REMOVAL	TEMPORARY PAVING	THIRD PARTY LAND
PP1 – A872 / Pirnhall Road Junction (Drawing SK01A)	2no. lighting columns 2no. telegraph poles Road signs 1no. Junction box Section of fence Trees and vegetation	Temporary paving required on inside of turn to create overrun area.	Third party land required in field to west of A872 to construct overrun area.
PP2 – Pirnhall Road Bend west of A872 (Drawing SK02A)	Vegetation to be cleared in verge areas. Verge area to be re-profiled. Wall to be lowered.	Overrun area in north verge required	Third-party land agreement required to facilitate mitiation
PP3 – Pirnhall Road / New Line Road Junction (Drawing SK04A)	Section of safety fence Trees / vegetation 2 no. road signs	Overrun are on north side of Pirnhall Road and on inside of turn onto New Line Road. Topo survey required to confirm earthworks.	Third party land required north and south of Pirnhall Road to accommodate overrun and over-sail.
PP4 – New Line Road Cauldbarns (Drawing SK05A)	1no. utility pole Wall / fence to be removed	Large overrun area to be constructed on outside of bend.	Third party land required to south of bend to accommodate over-sail and overrun.

POINT OF INTEREST	STREET FURNITURE REMOVAL	TEMPORARY PAVING	THIRD PARTY LAND
PP5 – New Line Road West of Cauldbarns – Left Hand Bend (Drawing SK06A)	Wall / fence and hedge to be removed 1no. road sign	Large overrun area to allow vehicle to cut across inside of left-hand bend. Topo will be required to establish extent of earthworks.	Third party land required at two locations to accommodate over-sail and over-run
PP6 – New Line Road Minholm Junction – Right Hand Turn (Drawing SK07B)	1no. bollard 2no. utility poles 3no. traffic signs Wall and fence	Large overrun area required to southwest of junction.	Third-party land agreements required at two locations to accommodate the over-run and over-sail of the blade transporter.
PP7 – Long Left / Right "S" Bend (Drawing SK07A and SK07C)	Potnetil impact on fenceline	Overrun area required in north verge area nd land requires to be re-profiled on south side of road to allow over-sail.	Land checks rquired.
PP8 – New Line Road Canglour Glen Junction Route Option 1 – Right Turn (Drawing SK08B)	1no. traffic sign 1no. utility pole	3 no. overrun areas to be constructed north and south of New Line Road.	Third-party land agreements required at 3 locations to accommodate the over-run and over-sail of the blade transporter.
PP9 - New Line Road Canglour Glen Junction Route Option 2 – Left Turn (Drawing SK10 and SK10A)	Trees and Vegetation 1no. Traffic Sign	3 no. overrun areas to be constructed north and south of New Line Road.	Third-party land agreements required at 3 locations to accommodate the over-run and over-sail of the blade transporter.
PP10 – Route 1 Indicative Site Access Junction (Drawing SK09 and SK09A)	Section of wall and fence	Large overrun area required on inside of turn	None anticipated.
PP11 – Route 2 Right / Left "S" Bend (Drawings SK11A and 11B)	Trees and Vegetation	Land to be reprofiled north and south of the bend.	Third party land required north and south of bend.

POINT OF INTEREST	STREET FURNITURE REMOVAL	TEMPORARY PAVING	THIRD PARTY LAND
PP12 – Route 2 Site Access Junction (Drawings SK12 and SK12A)	Section of wall and fence	Large overrun area required on northwest side of road on inside of turn. Re-profiling works will be required to remove current level difference.	Third Party land rquired on inside of turn.

2.2 Conclusion

2.2.1 It is considered that a technically feasible routes to site exists for the transportation of abnormal loads. In light of the assessment undertaken, the following recommendations are made:

Recommendations

- If the necessary mitigation measures are made, then the route can be navigated by vehicles carrying wind turbine components to the proposed site;
- Police escort or Pilot car will be required to accompany abnormal loads in order to assist with traffic control and the control of oncoming traffic;
- It is recommended to have adequate warning signs implemented to warn other road users at critical points along the route;
- All hedges, shrubs, bushes, trees and overhanging branches along the nominated routes must be trimmed from within carriageway verges;
- Specific street furniture has been nominated in this report for removal to facilitate over-sailed and 'swept' areas;
- Full carriageway widths must be available along the entirety of the route. Measures to remove parked vehicles must therefore be in place;
- Measures to assist the vehicle negotiating the kerbed changes in level at footways, roundabouts, pedestrian refuges etc. will be required; and
- Steel road plates may be required at locations where the vehicle overruns utility boxes or footways.

APPENDIX A – SWEPT PATH PLANS

Blade

Tower

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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: A872 / Pirnhall Road Junction

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		1

Scale: 1:1000 @ A3

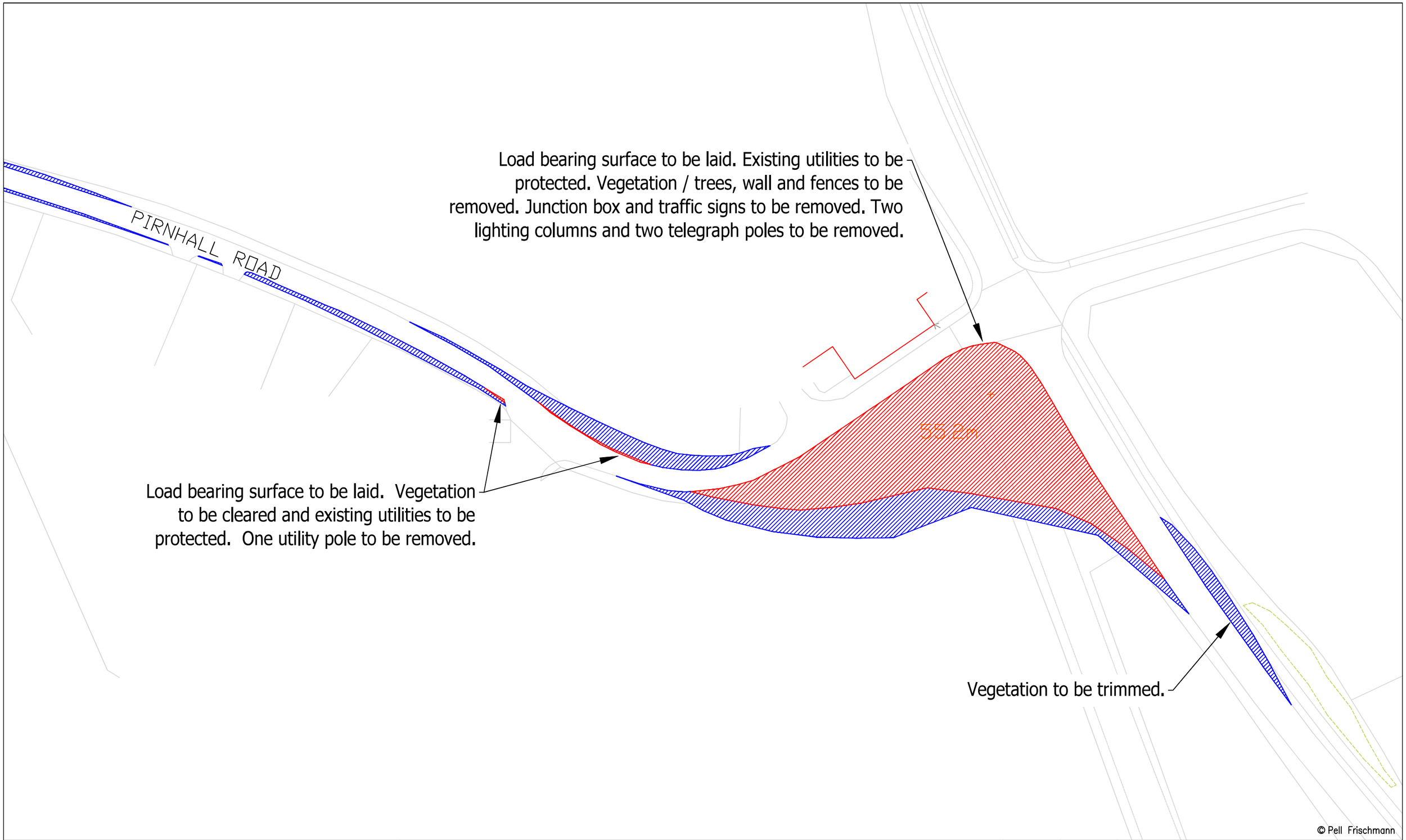
File No: 240528 Drummarnock SPA Revision.dwg

Drawing Status: Draft

Drawing No.: SK01

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. Indicative road edge should be confirmed on a topographical survey base.

Revision: 0



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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: A872 / Pirnhall Road Junction

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		1

Scale: 1:750 @ A3

File No: 240528 Drummarnock SPA Revision.dwg

Drawing Status: Draft

Drawing No.: SK01A

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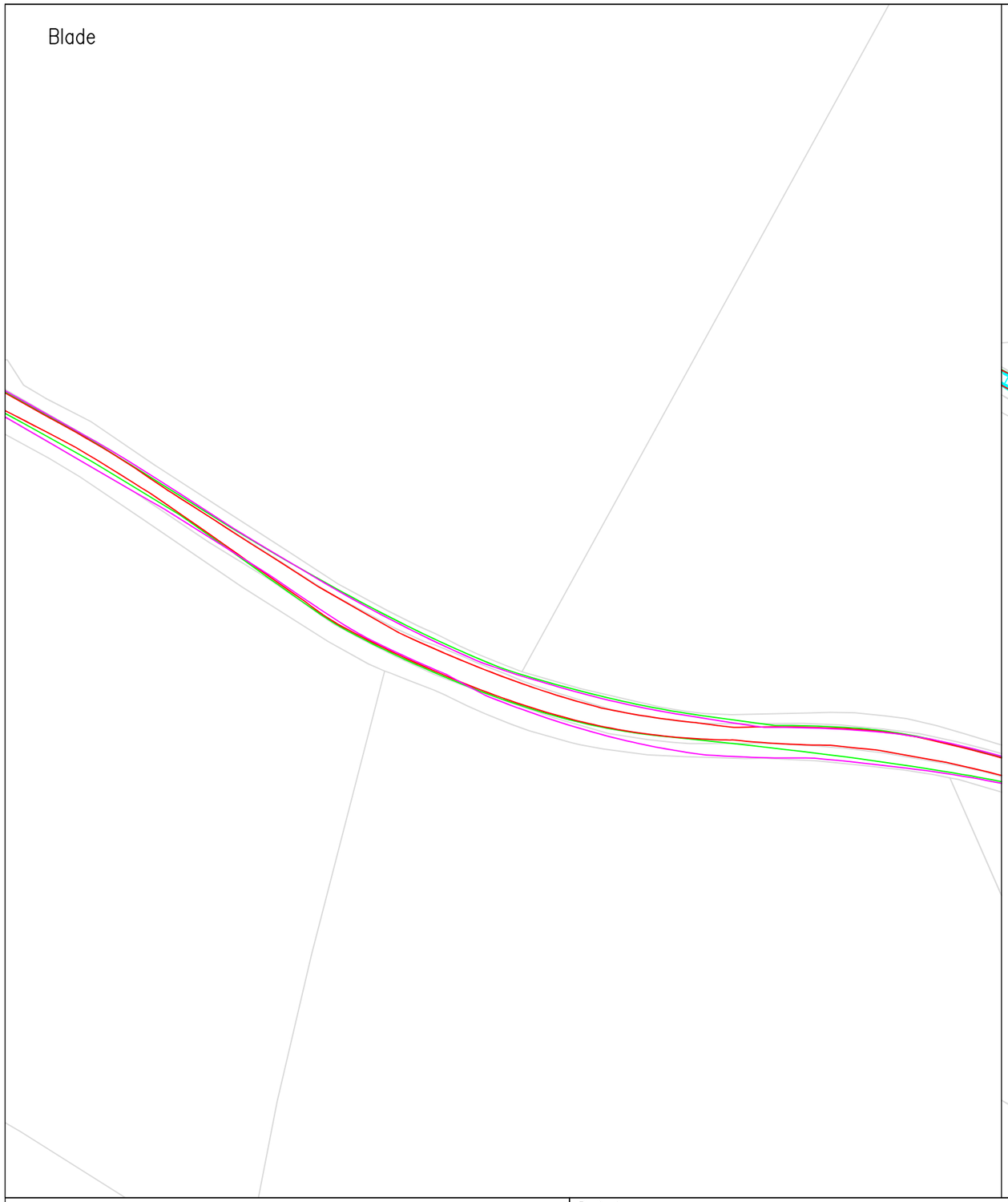

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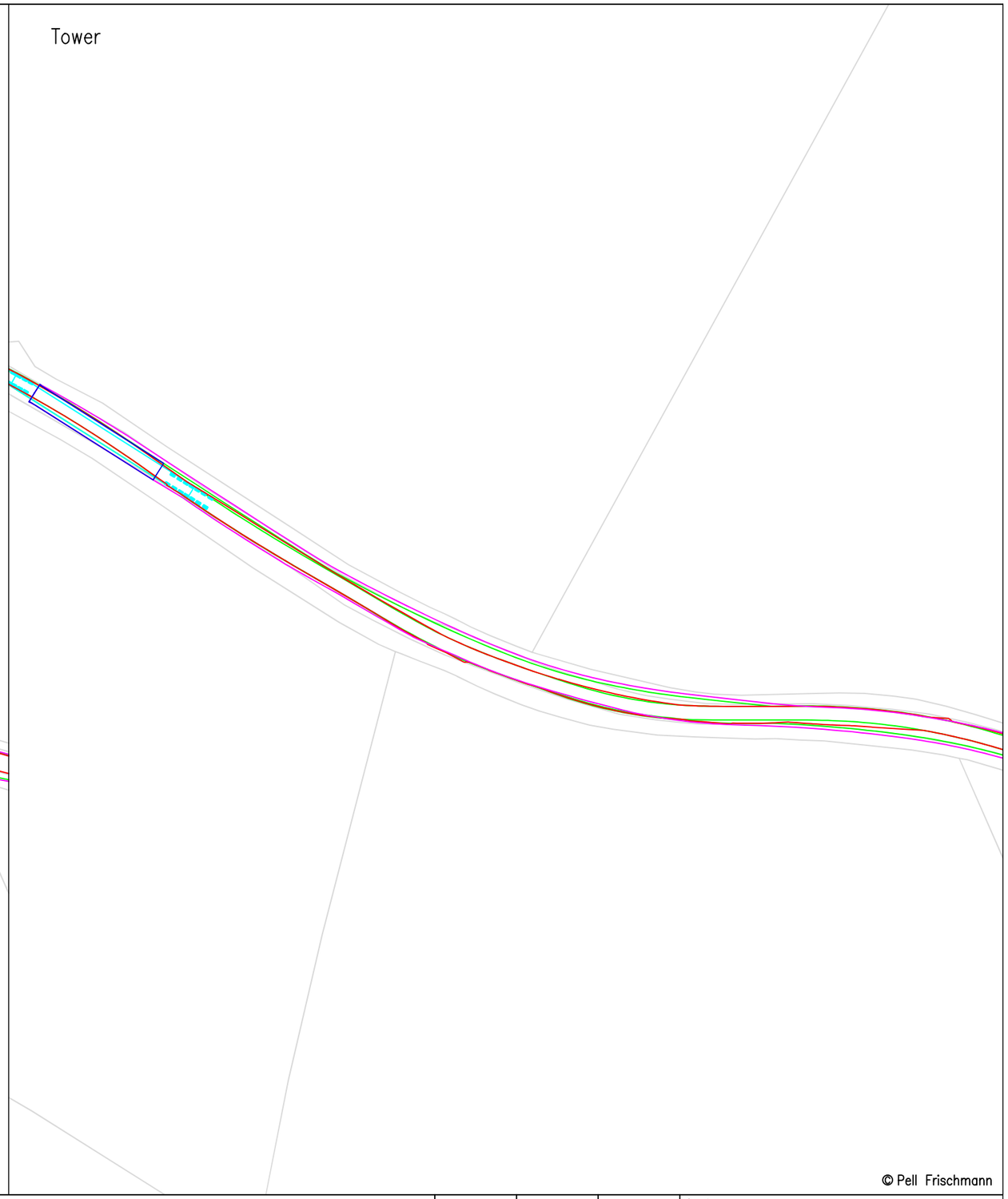

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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: Pirnhall Road Bend West of A872 Junction

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		2

Scale: 1:1000 @ A3

File No: 240528 Drummarnock SPA Revision.dwg

Drawing Status: Draft

Drawing No.: SK02

Notes:
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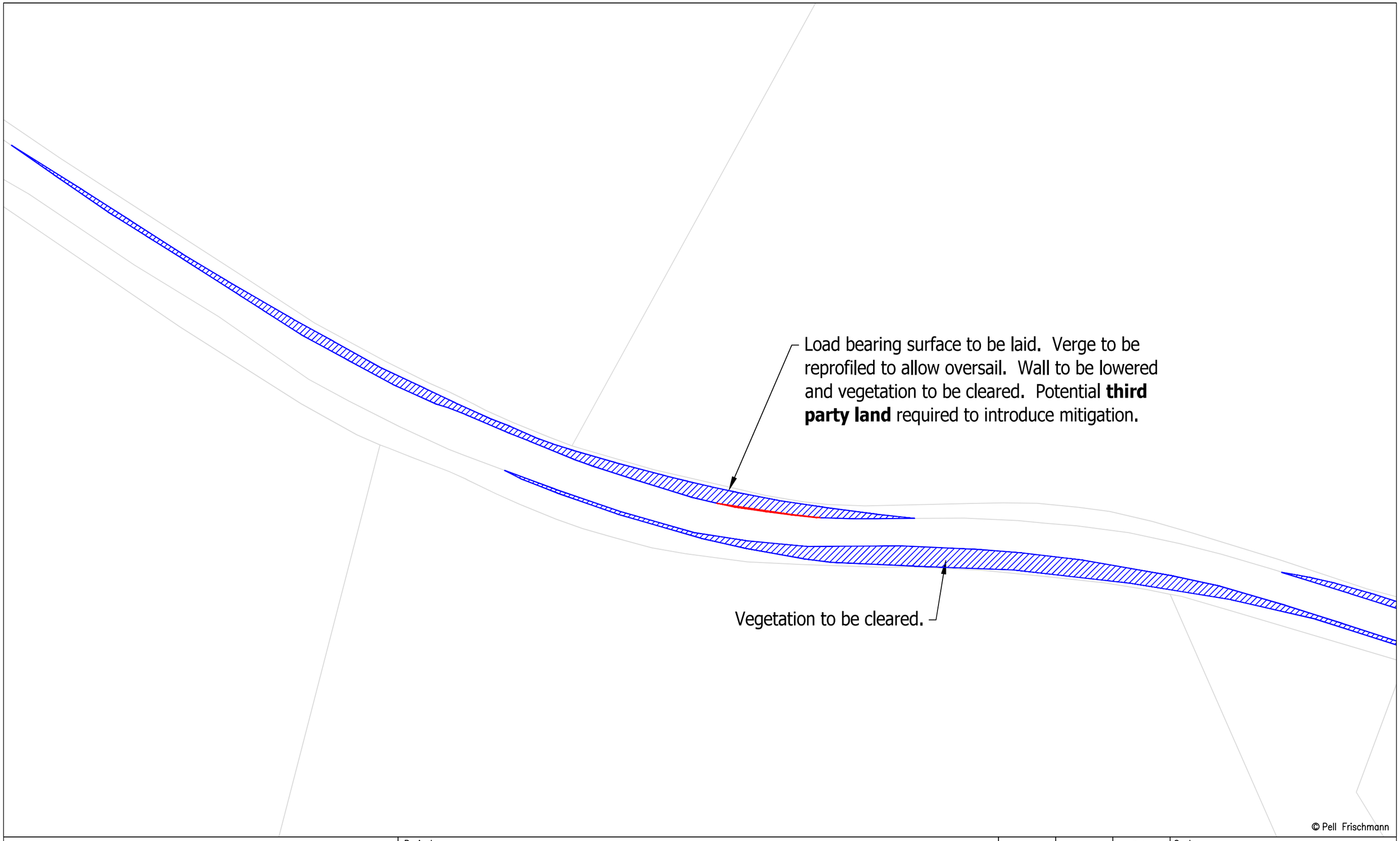

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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: Pirnhall Road Bend West of A872 Junction

	Name	Date
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Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		2

Scale: 1:500 @ A3

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Drawing Status: Draft

Drawing No.: SK02A

Notes:
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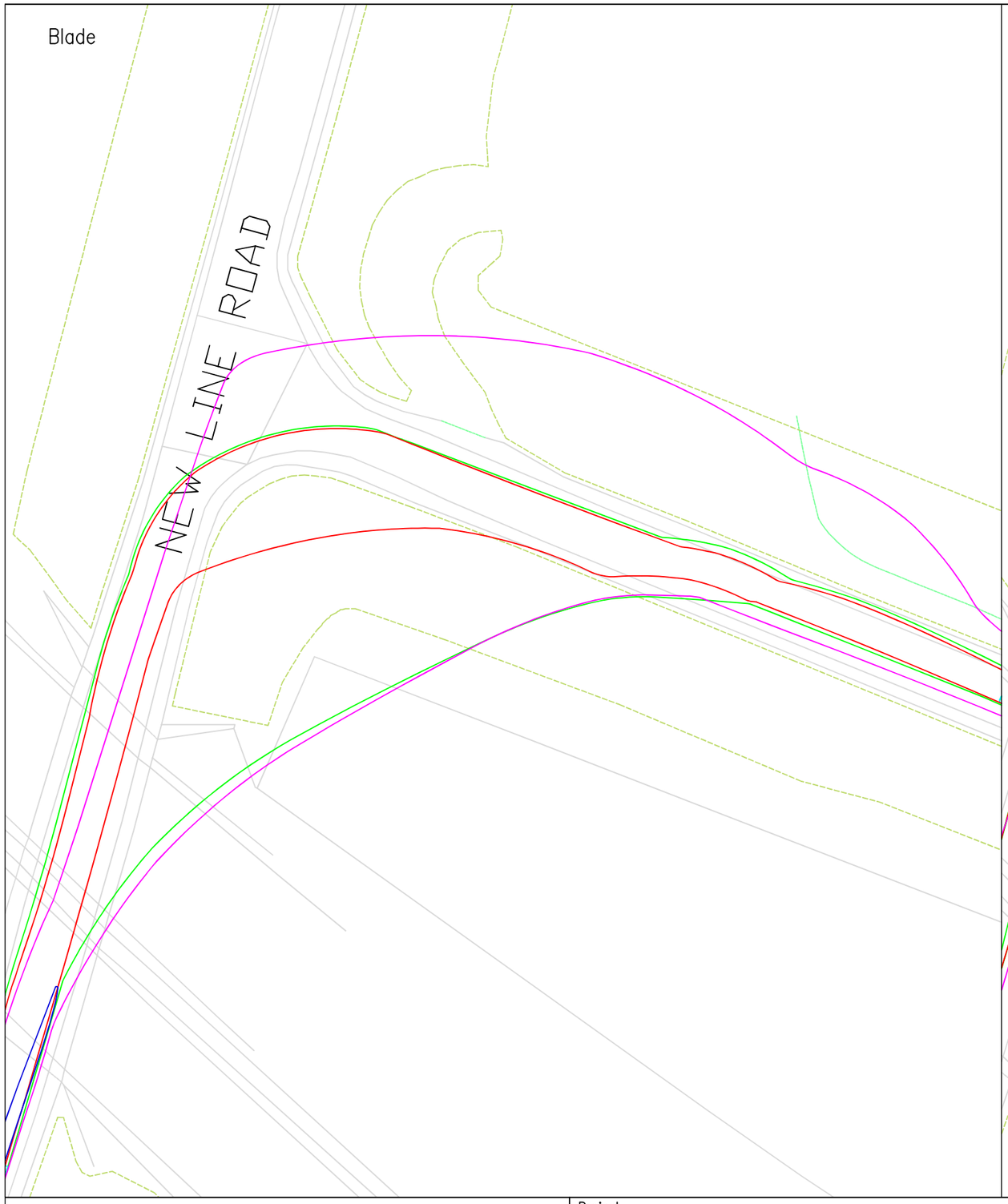

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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: Pirnhall Road / New Line Road Junction

	Name	Date
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Designed	GB	28/05/2024
Checked	GB	28/05/2024
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Scale: 1:500 @ A3

File No.: 240528 Drummarnock SPA Revision.dwg

Drawing Status: Draft

Drawing No.: SK04

Notes:
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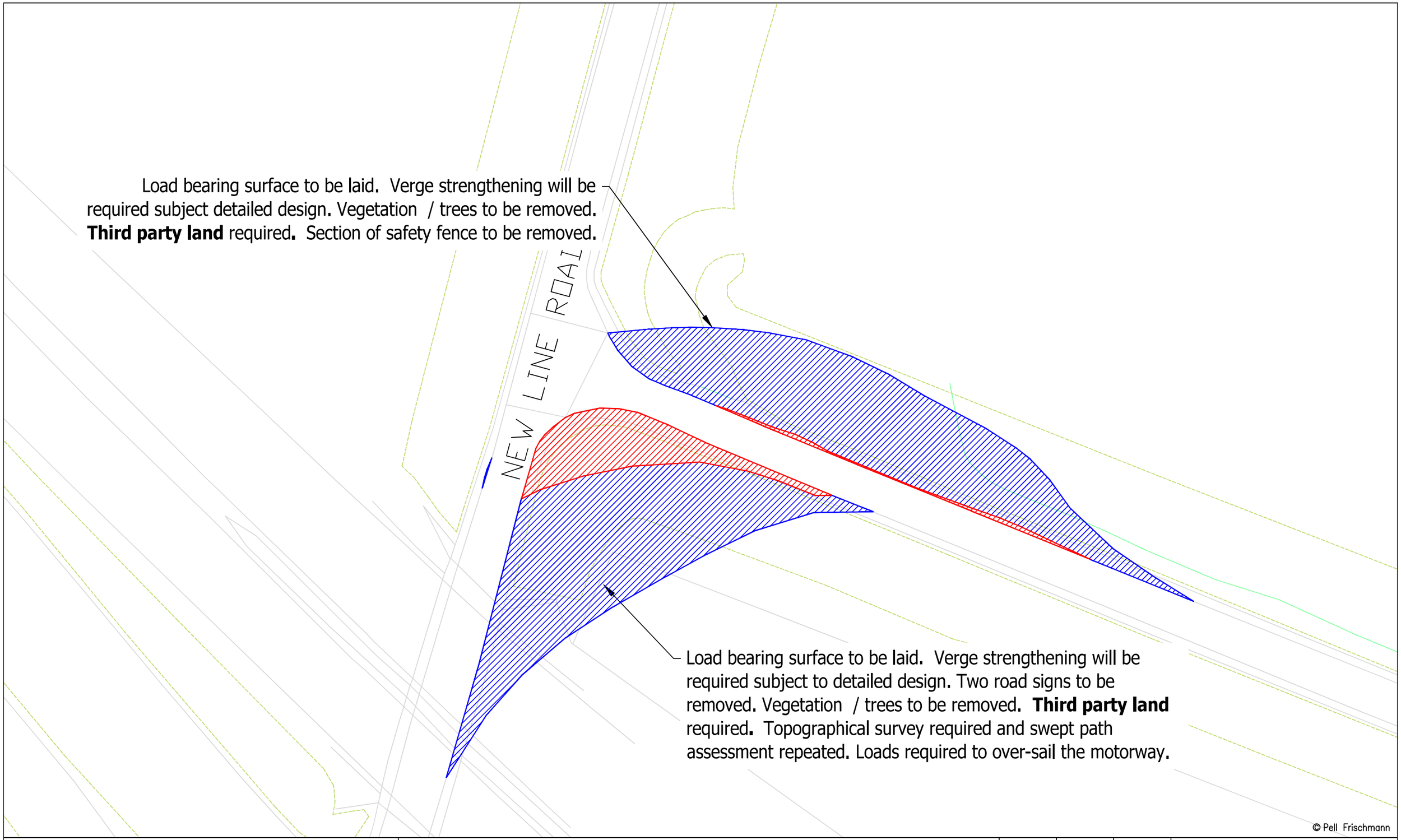
Revision: 0

Load bearing surface to be laid. Verge strengthening will be required subject detailed design. Vegetation / trees to be removed. **Third party land** required**.** Section of safety fence to be removed.



Load bearing surface to be laid. Verge strengthening will be required subject to detailed design. Two road signs to be removed. Vegetation / trees to be removed. **Third party land** required**.** Topographical survey required and swept path assessment repeated. Loads required to over-sail the motorway.

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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: Pirnhall Road / New Line Road Junction

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		3

Scale: 1:500 @ A3

File No: 240528 Drummarnock SPA Revision.dwg

Drawing Status: Draft

Drawing No.: SK04A

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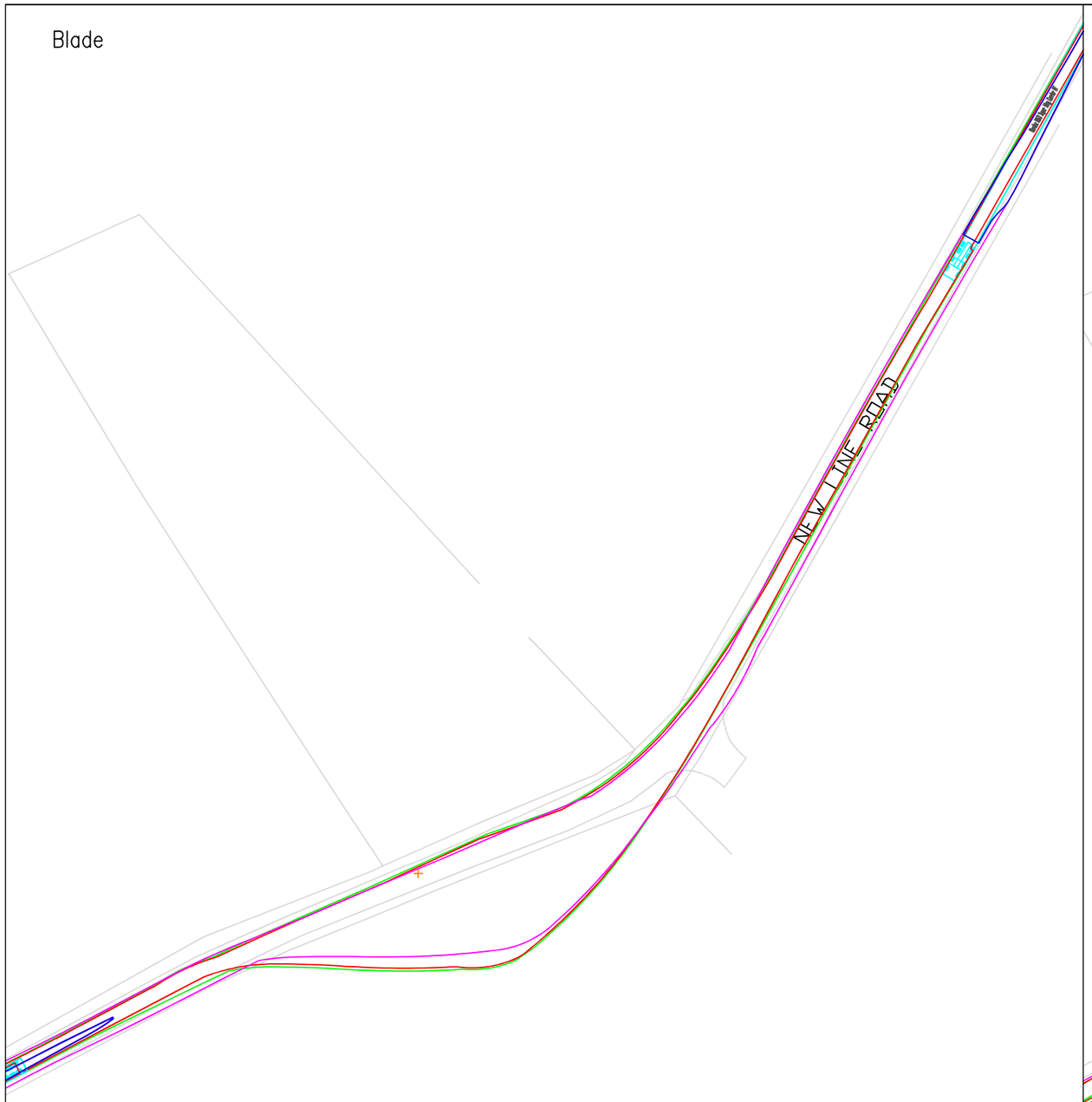
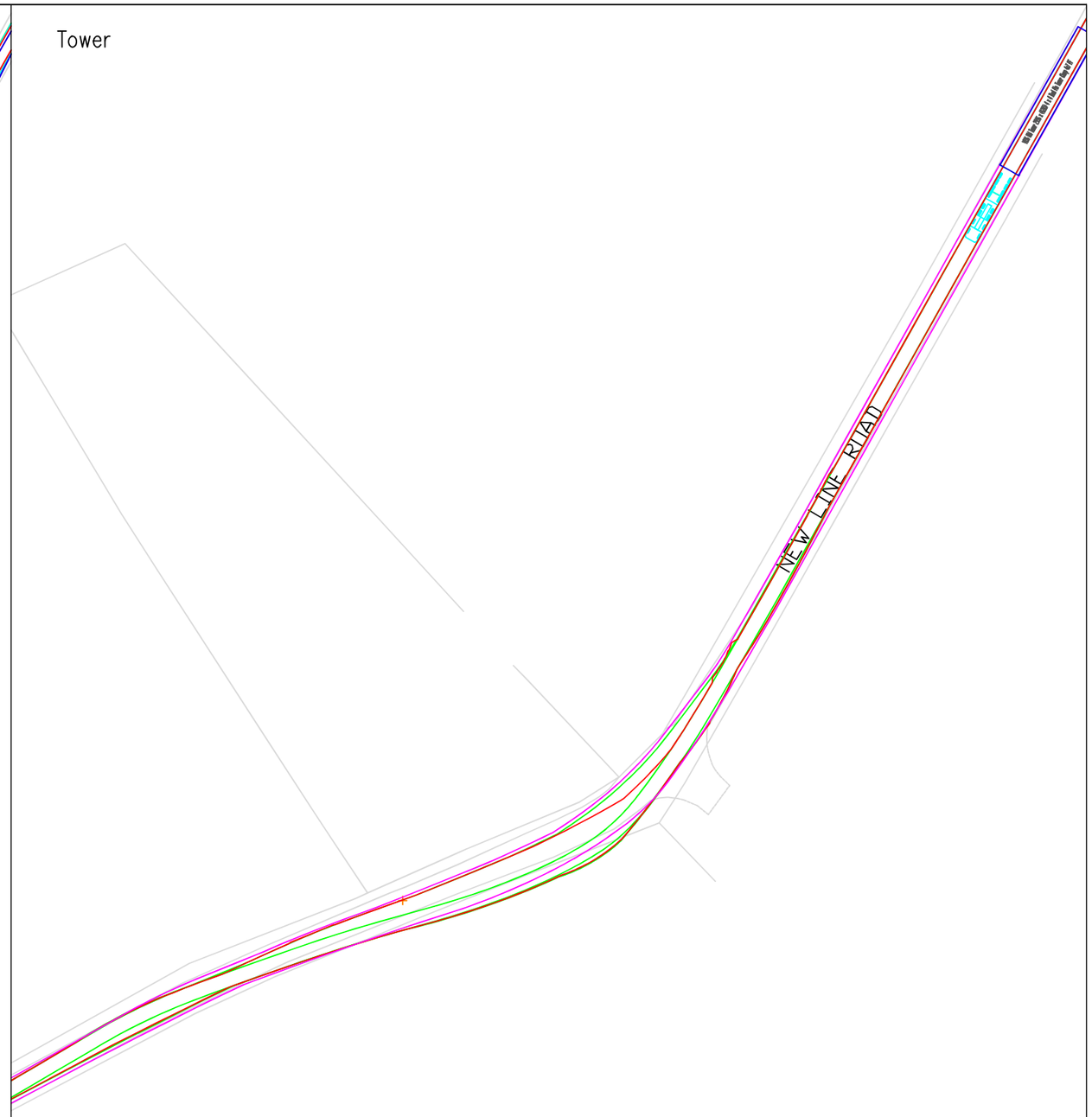


Tower



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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: New Line Road Cauldbarns

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		4

Scale: 1:1000 @ A3

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Drawing Status: Draft

Drawing No.: SK05

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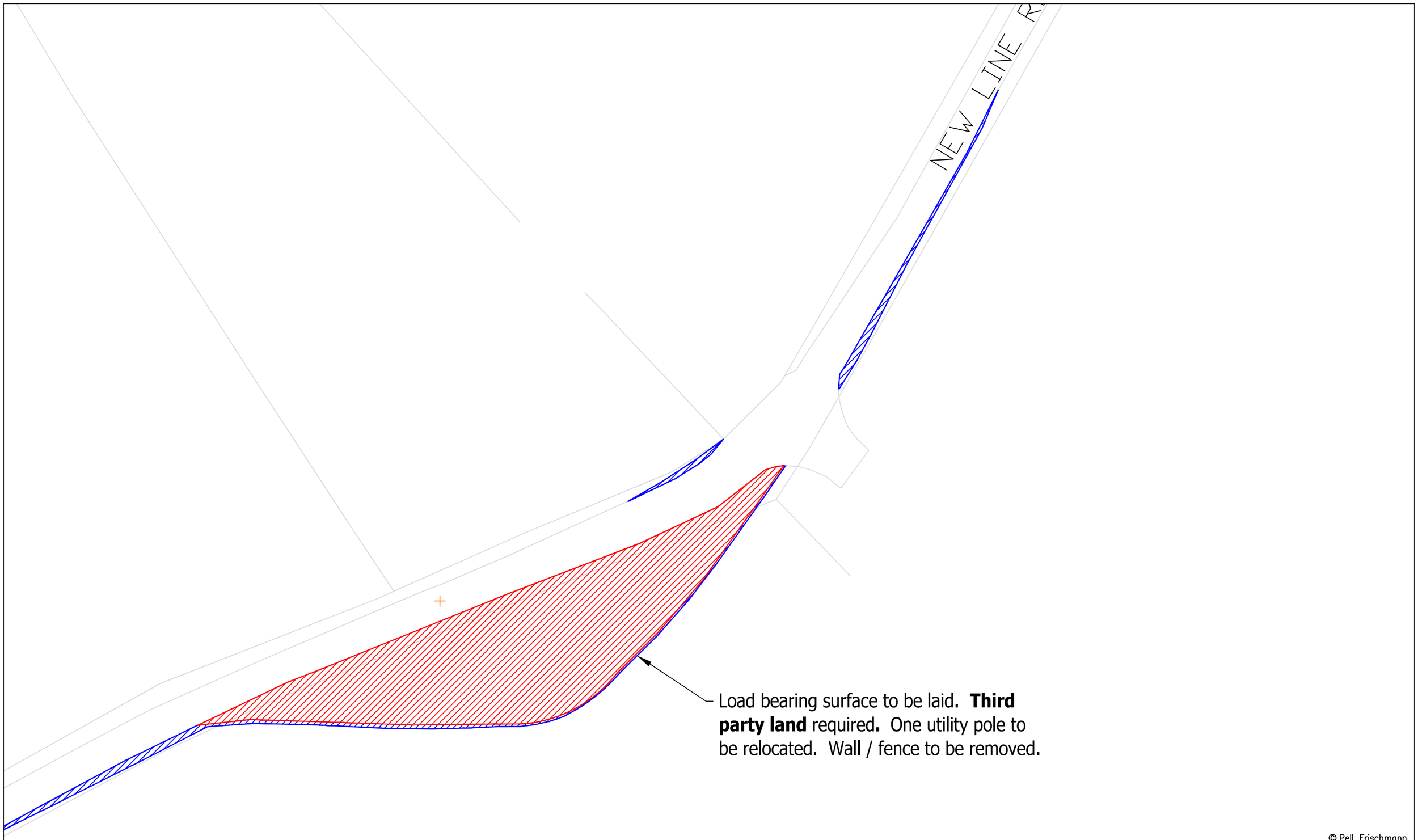

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Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: New Line Road Cauldbarns

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		4

Scale: 1:500 @ A3

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Drawing Status: Draft

Drawing No.: SK05A

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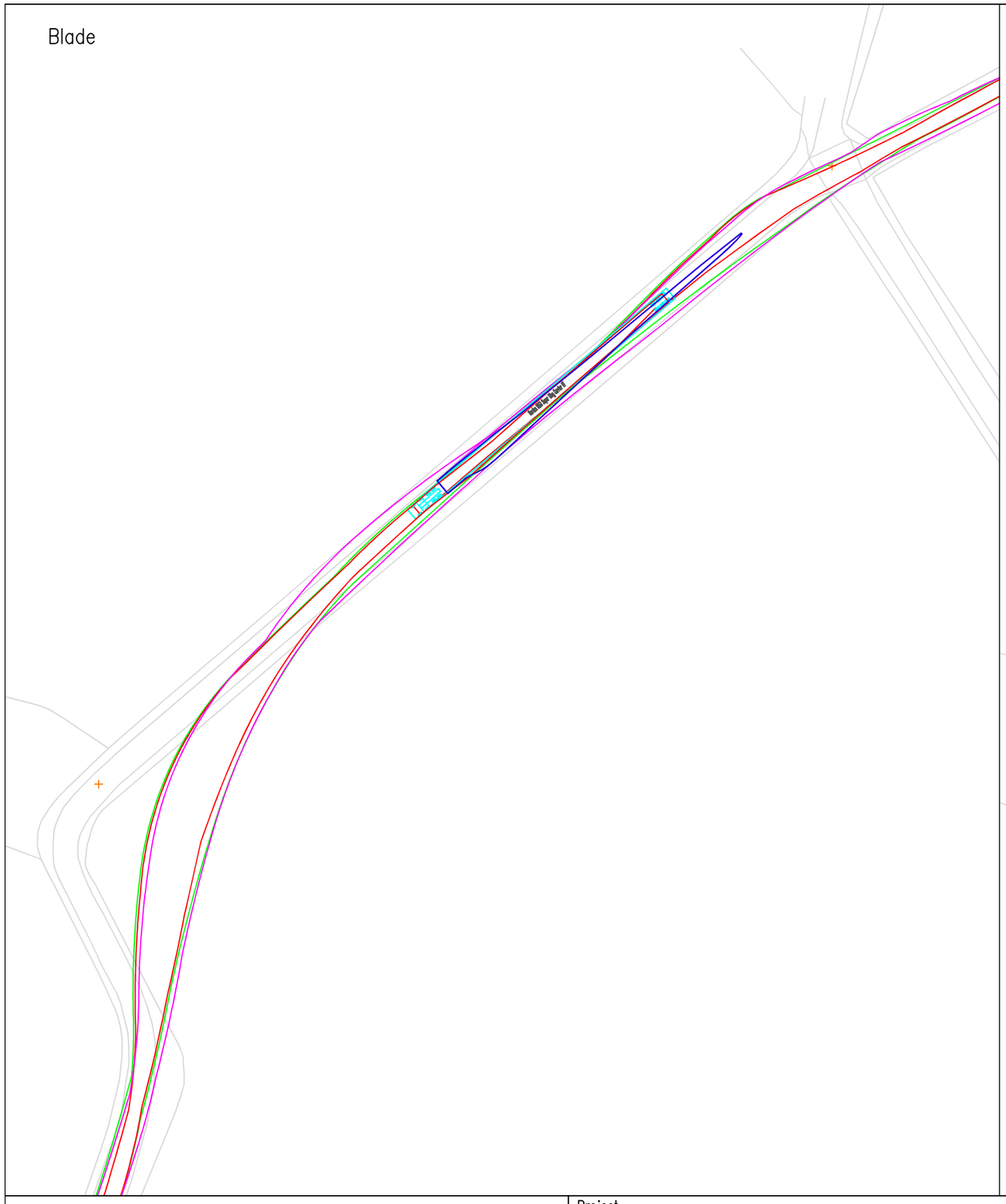

Tower

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Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: New Line Road West of Cauldbarns

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		5

Scale: 1:1000 @ A3

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Drawing Status: Draft

Drawing No.: SK06

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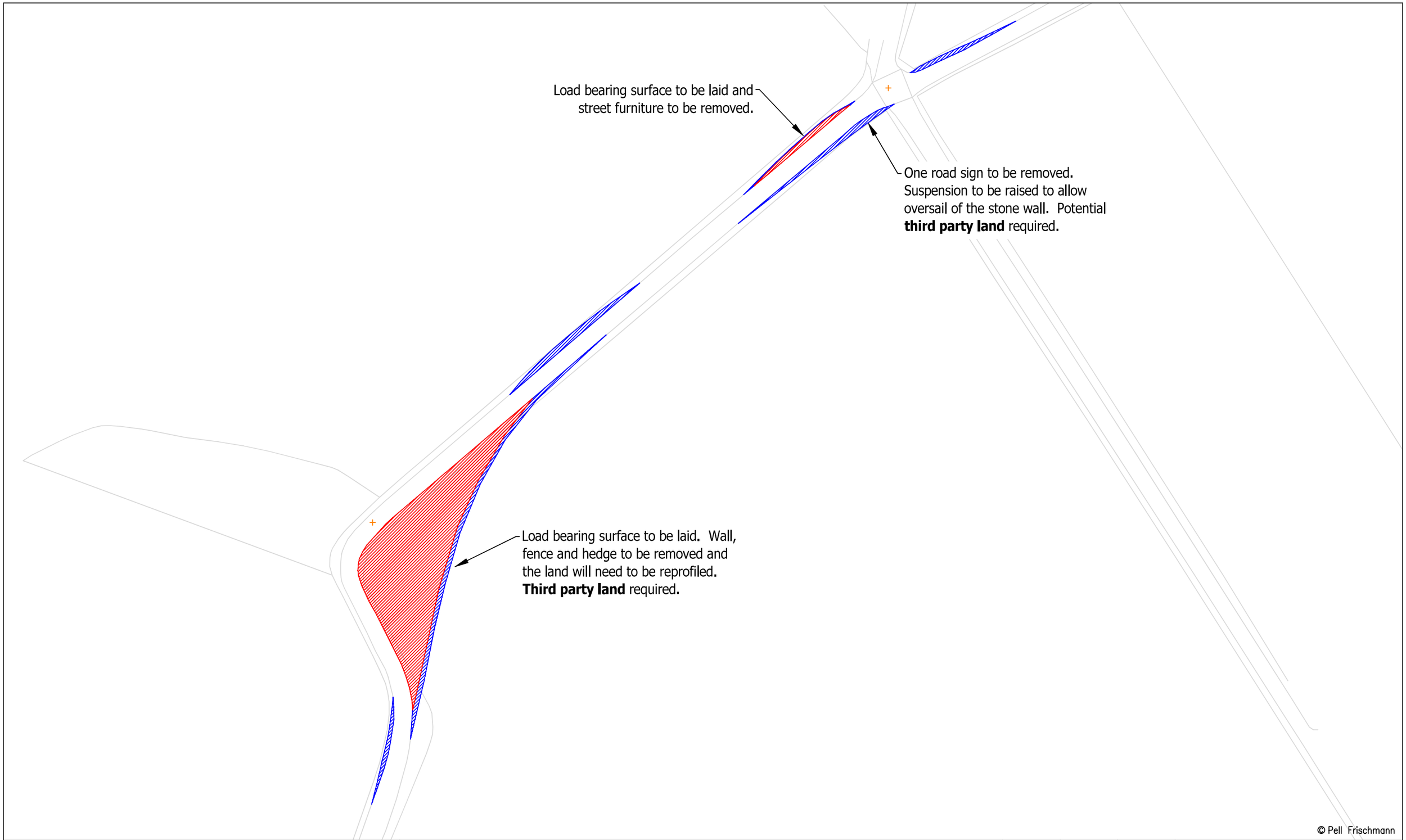

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Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: New Line Road West of Cauldbarns

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		5

Scale: 1:1000 @ A3

File No: 240528 Drummarnock SPA Revision.dwg

Drawing Status: Draft

Drawing No.: SK06A

Notes:
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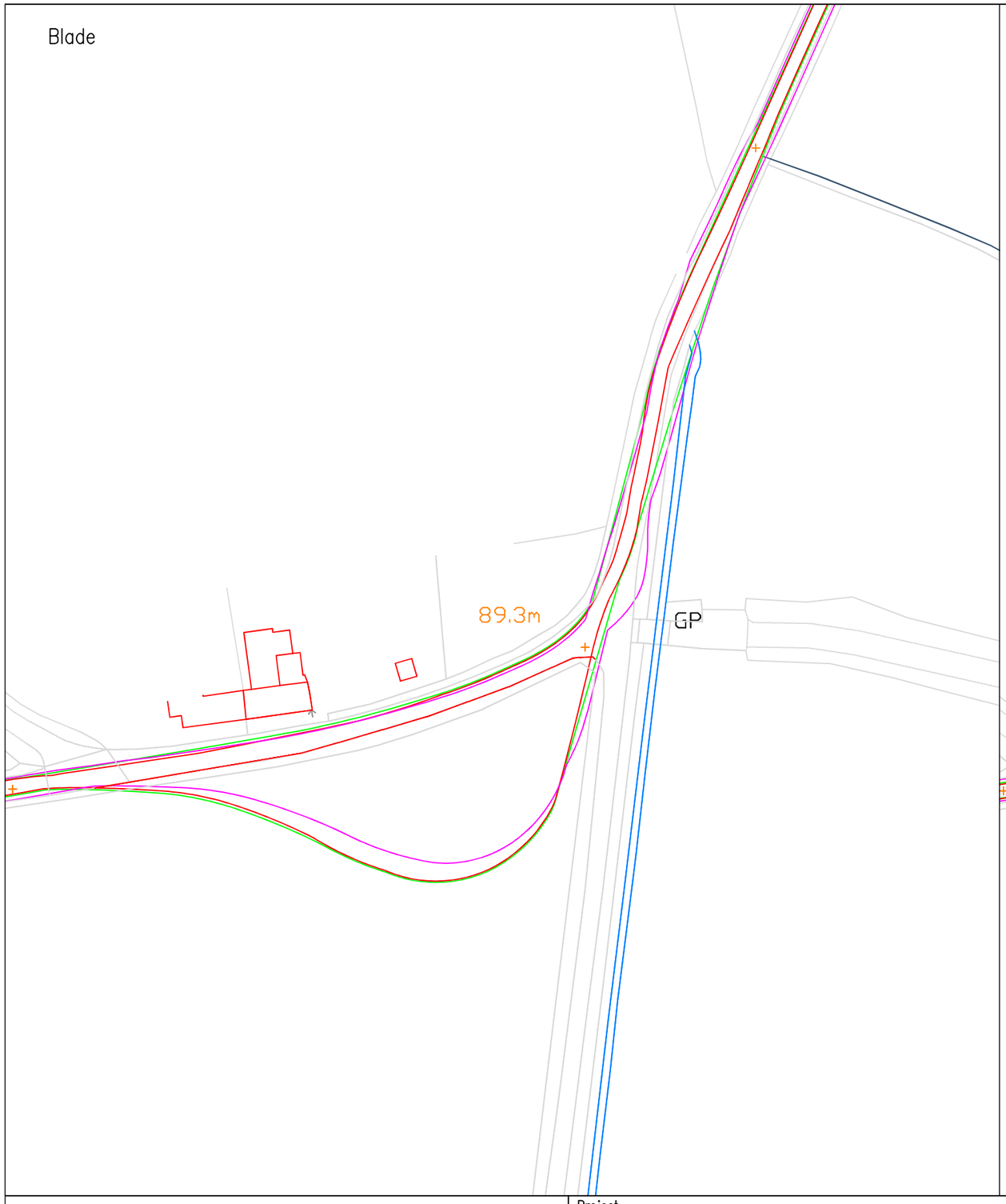
Blade



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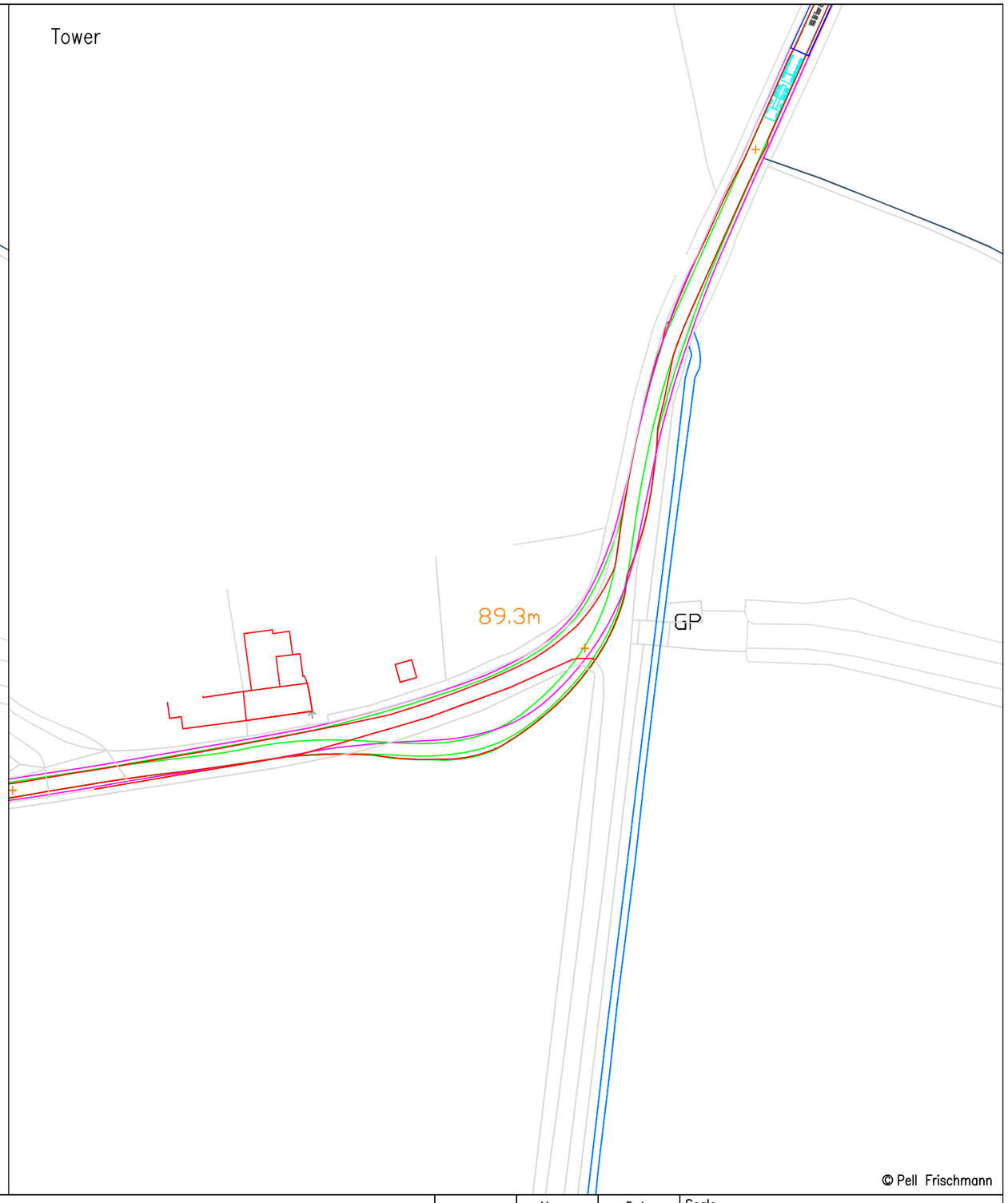

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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: New Line Road Milnholm Junction

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		6

Scale: 1:1000 @ A3

File No: 240528 Drummarnock SPA Revision.dwg

Drawing Status: Draft

Drawing No.: SK07

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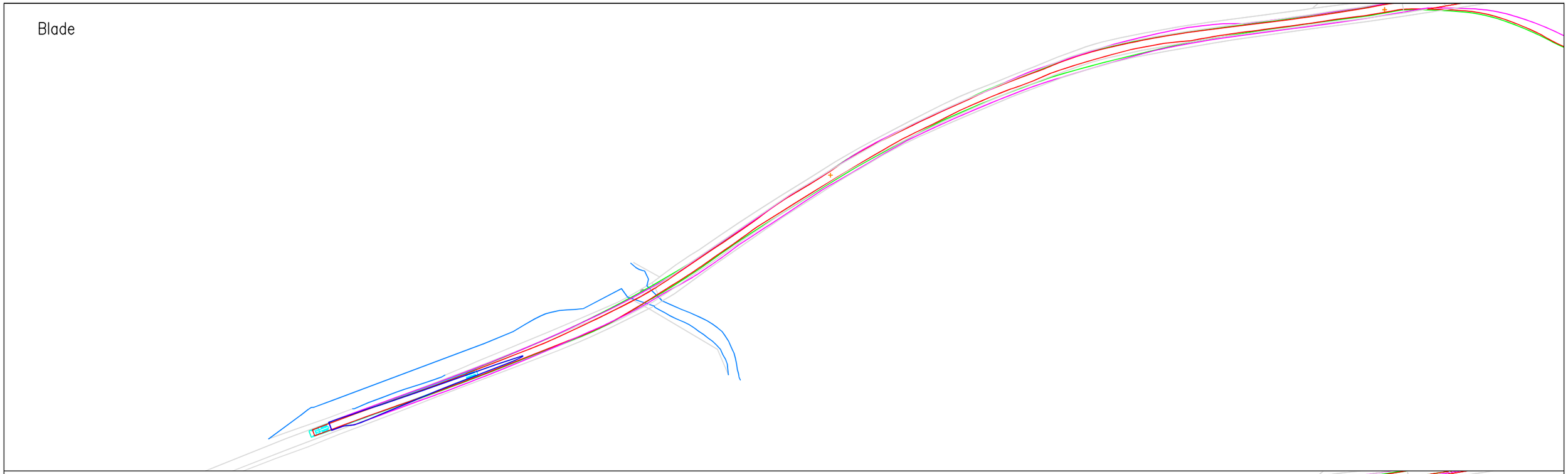
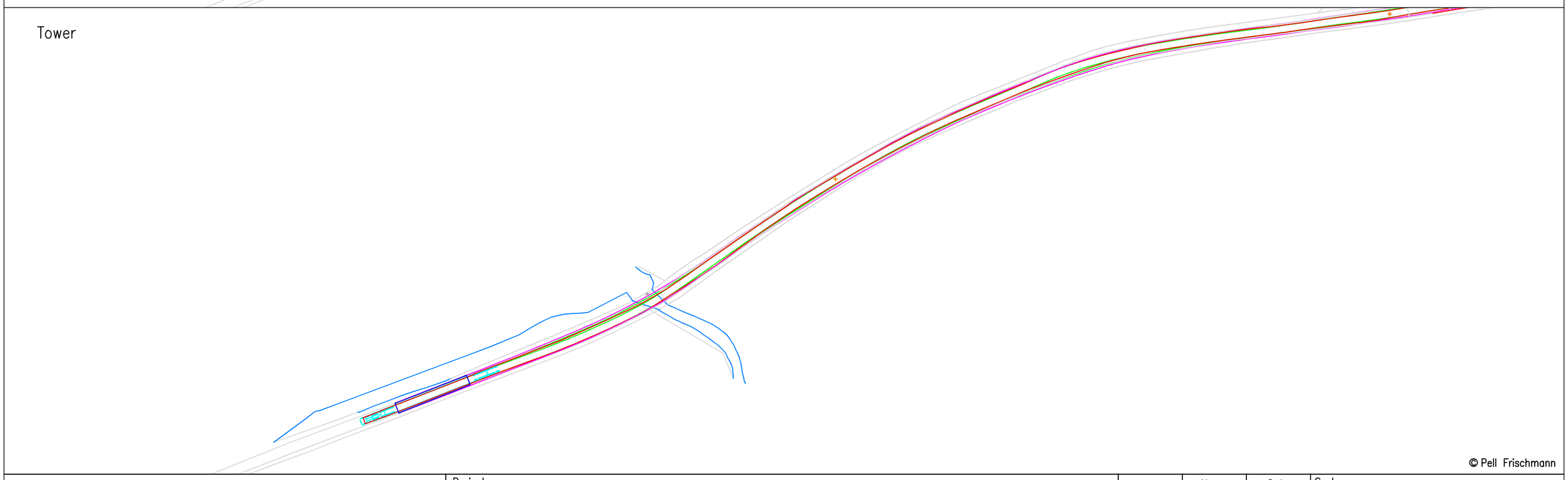
Revision: 0

Blade



Tower



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Email: pfedinburgh@pellfrischmann.com
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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: New Line Road Milnholm Junction

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		7

Scale: 1:1500 @ A3

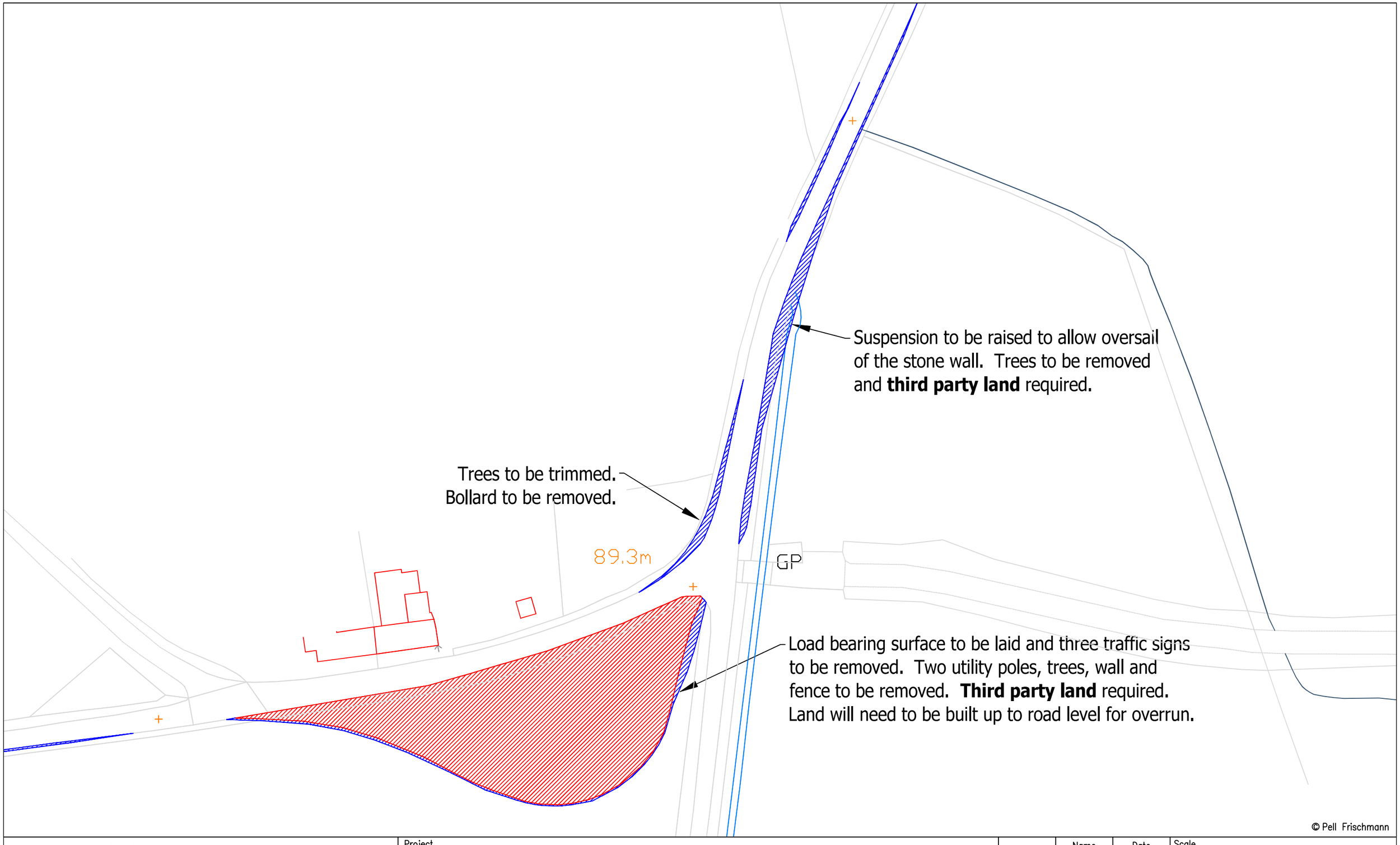
File No: 240528 Drummarnock SPA Revision.dwg

Drawing Status: Draft

Drawing No.: SK07A

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. Indicative road edge should be confirmed on a topographical survey base.

Revision: 0



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www.pellfrischmann.com

Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: New Line Road Milnholm Junction

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		6

Scale: 1:750 @ A3

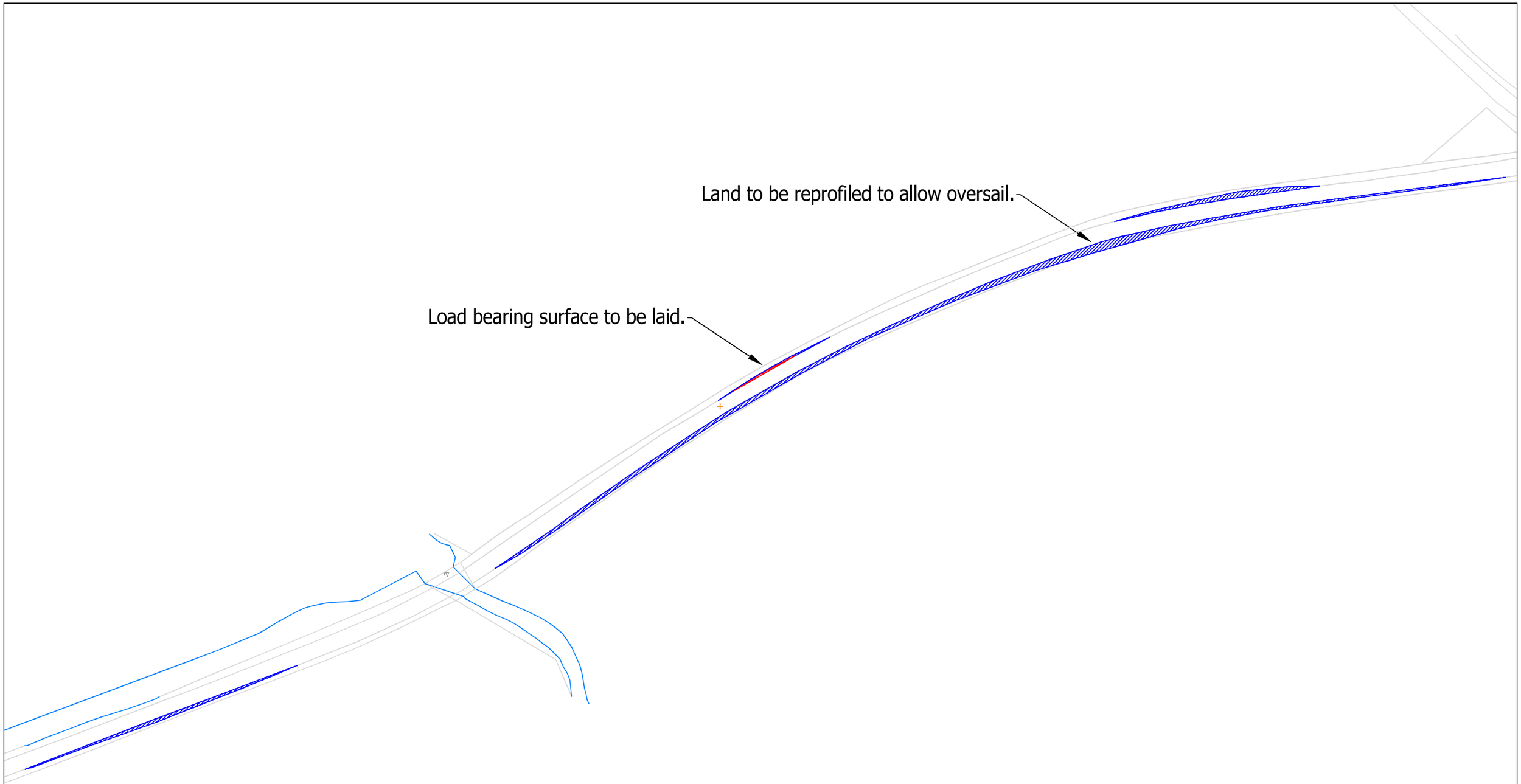
File No: 240528 Drummarnock SPA Revision.dwg

Drawing Status: Draft

Drawing No.: SK07B

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.
3. Indicative road edge should be confirmed on a topographical survey base.

Revision: 0



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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: New Line Road Milnholm Junction

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		7

Scale: 1:1000 @ A3

File No: 240528 Drummarnock SPA Revision.dwg

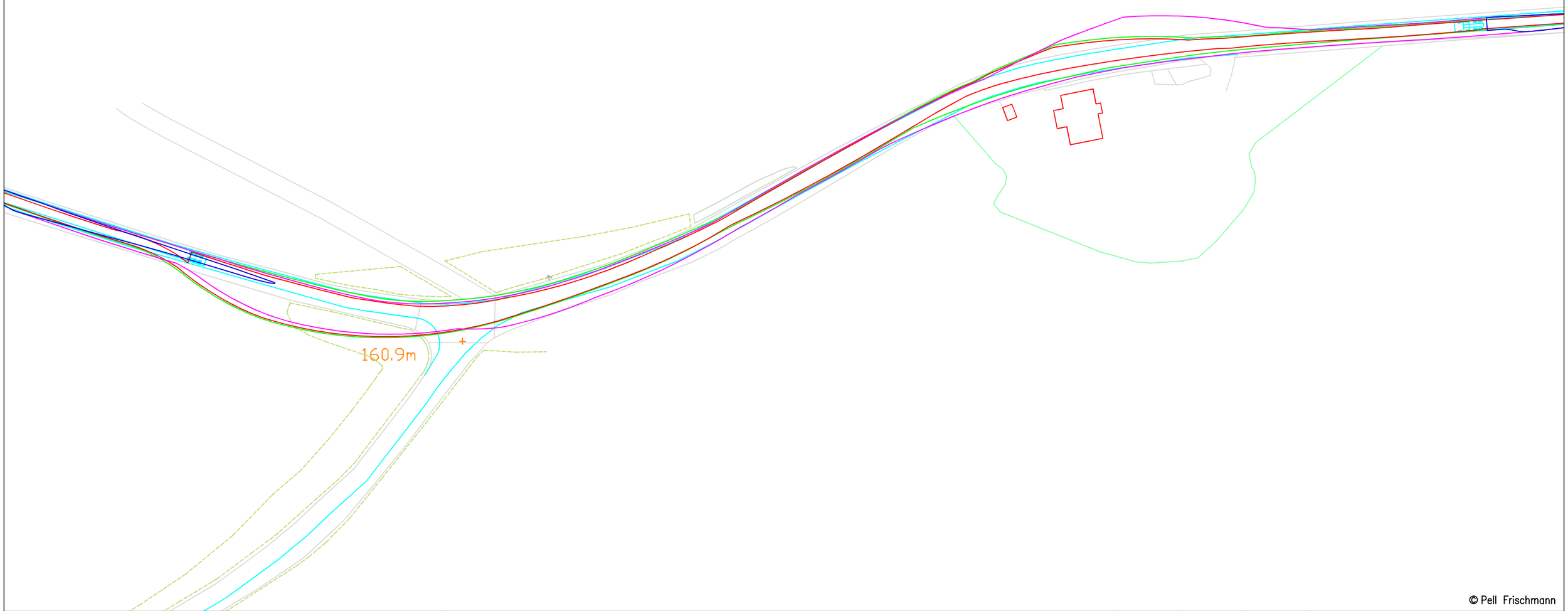
Drawing Status: Draft

Drawing No.: SK07C

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.
3. Indicative road edge should be confirmed on a topographical survey base.

Revision: 0

Blade



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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: New Line Road Canglour Glen Junction – Route 1

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		8&9

Scale: 1:1000 @ A3

File No: 240528 Drummarnock SPA Revision.dwg

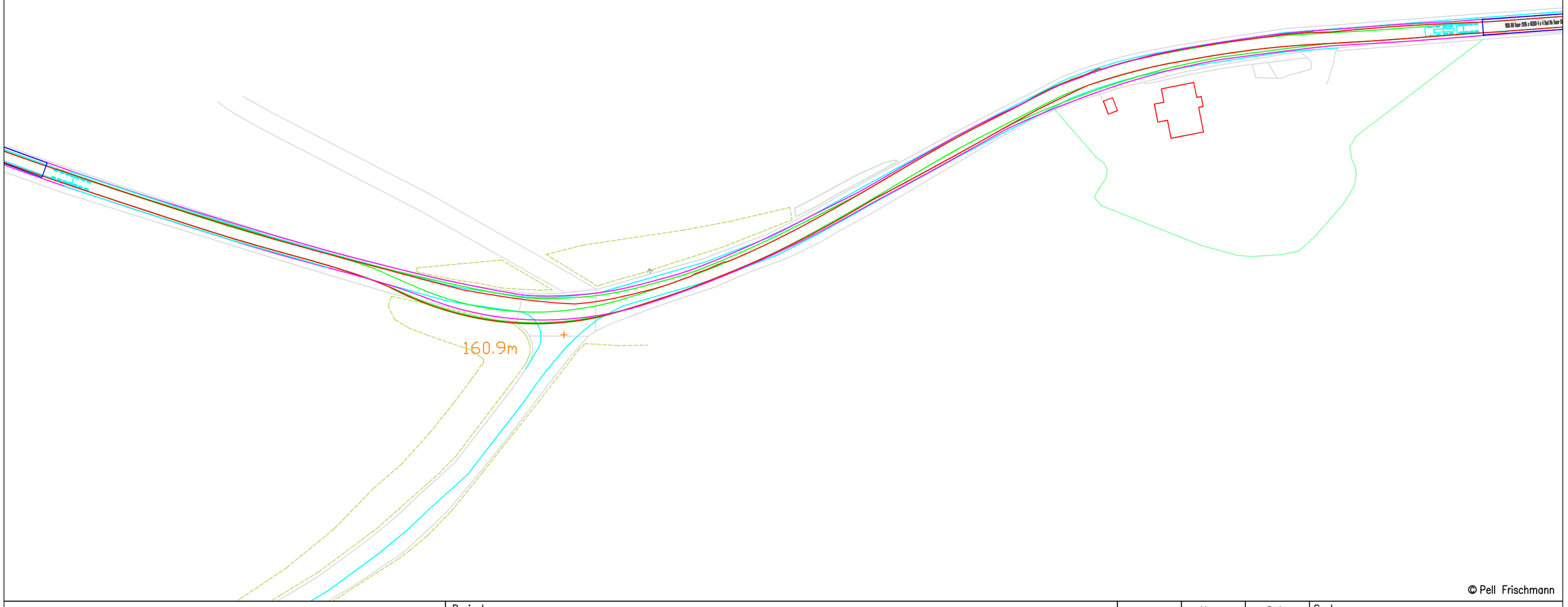
Drawing Status: Draft

Drawing No.: SK08

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.
3. Indicative road edge should be confirmed on a topographical survey base.

Revision: 0

Tower



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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: New Line Road Canglour Glen Junction – Route 1

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		8&9

Scale: 1:1000 @ A3

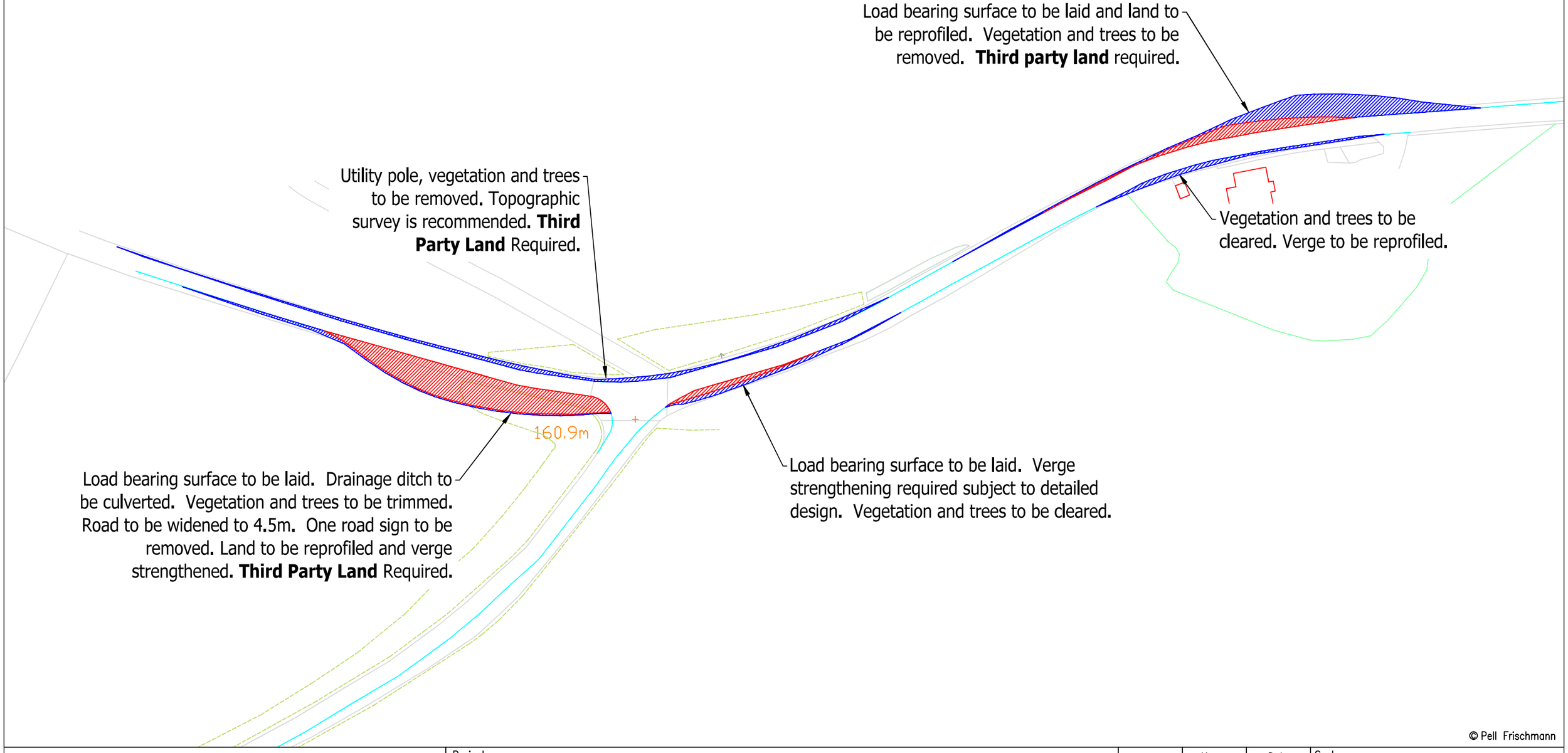
File No: 240528 Drummarnock SPA Revision.dwg

Drawing Status: Draft

Drawing No.: SK08A

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.
3. Indicative road edge should be confirmed on a topographical survey base.

Revision: 0



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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: New Line Road Canglour Glen Junction – Route 1

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		8&9

Scale: 1:1000 @ A3

File No: 240528 Drummarnock SPA Revision.dwg

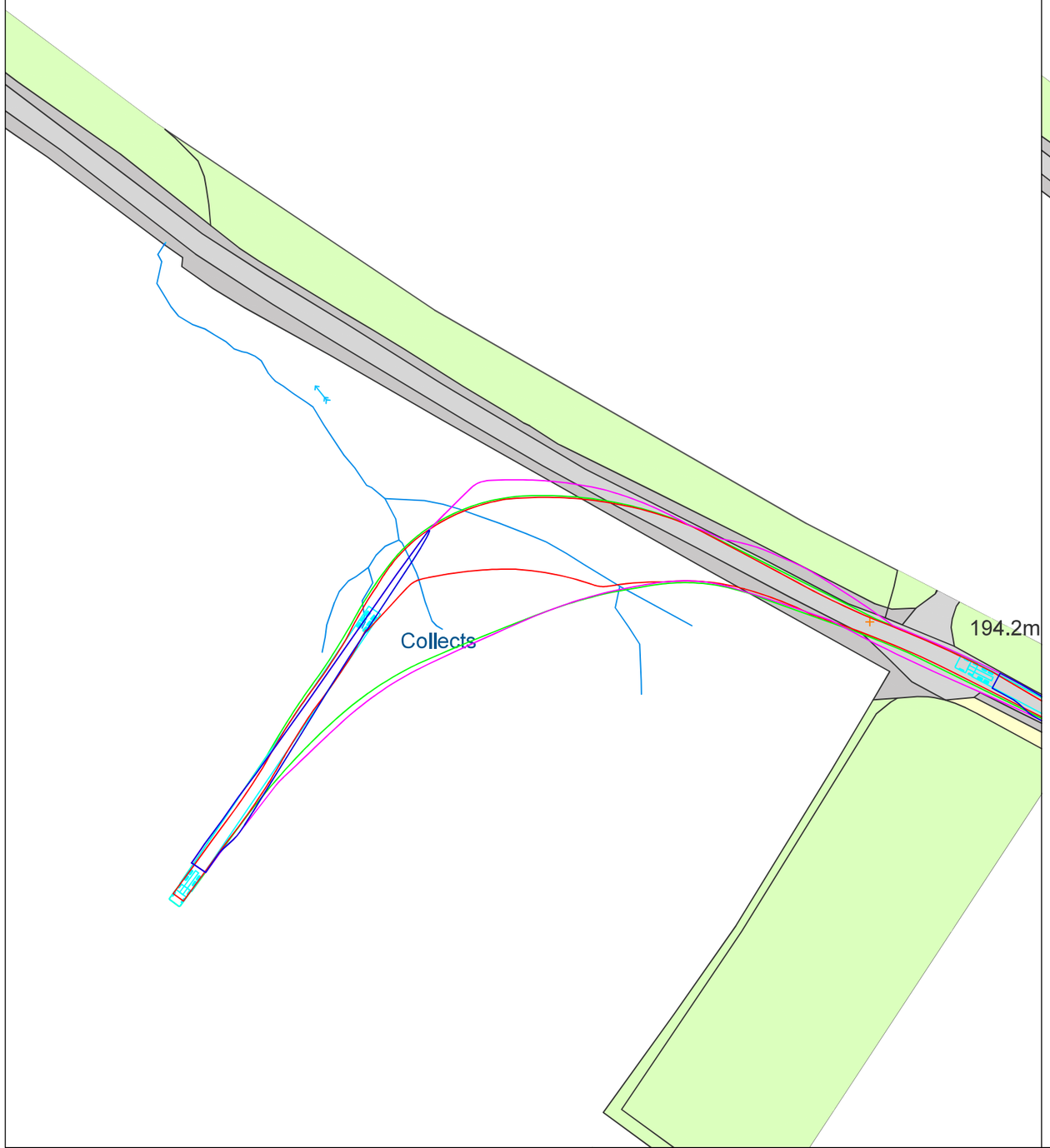
Drawing Status: Draft

Drawing No.: SK08B

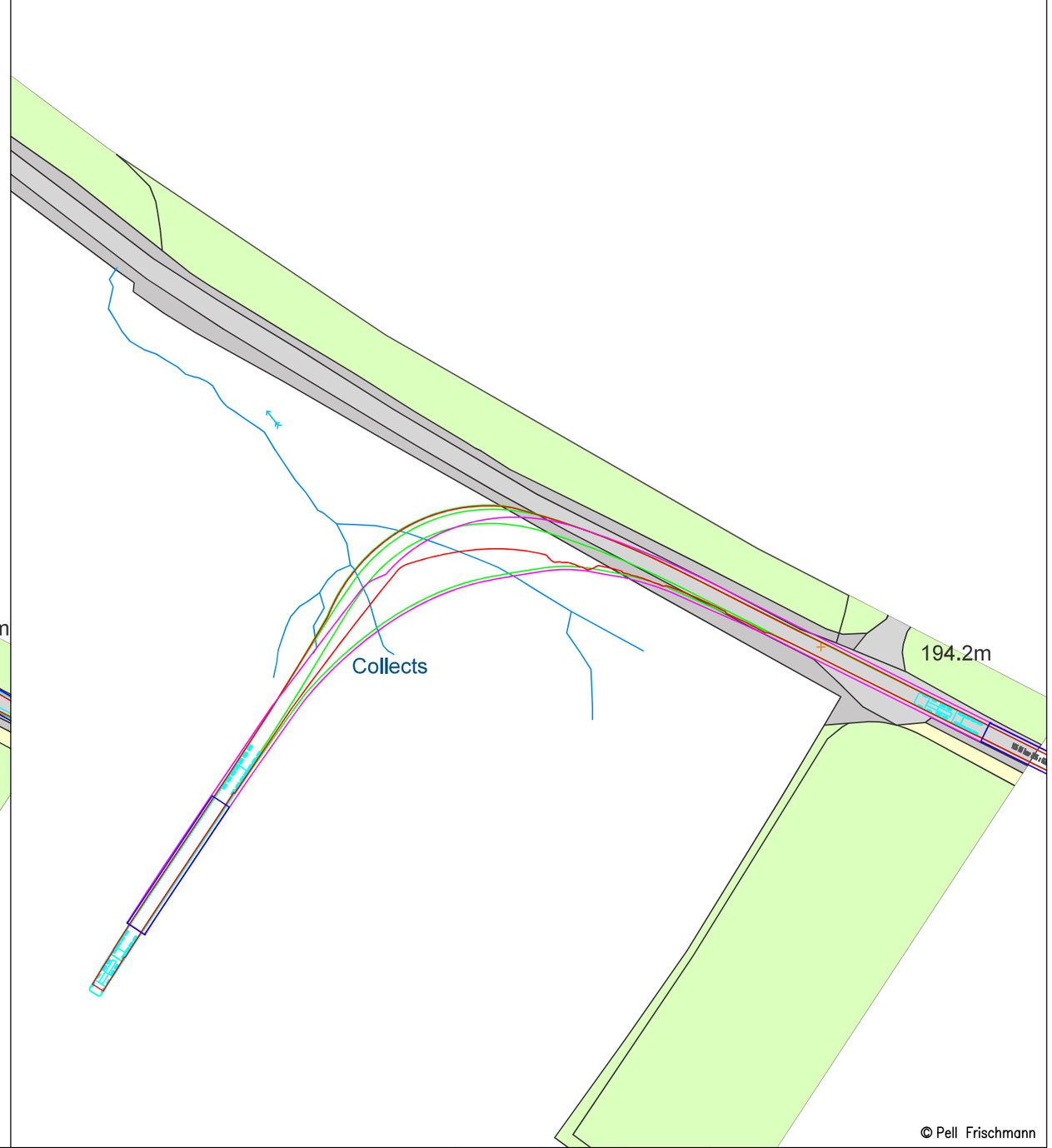
Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. Indicative road edge should be confirmed on a topographical survey base.

Revision: 0

Blade



Tower



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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: Indicative Site Access Junction – Route 1

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		10

Scale: 1:1000 @ A3

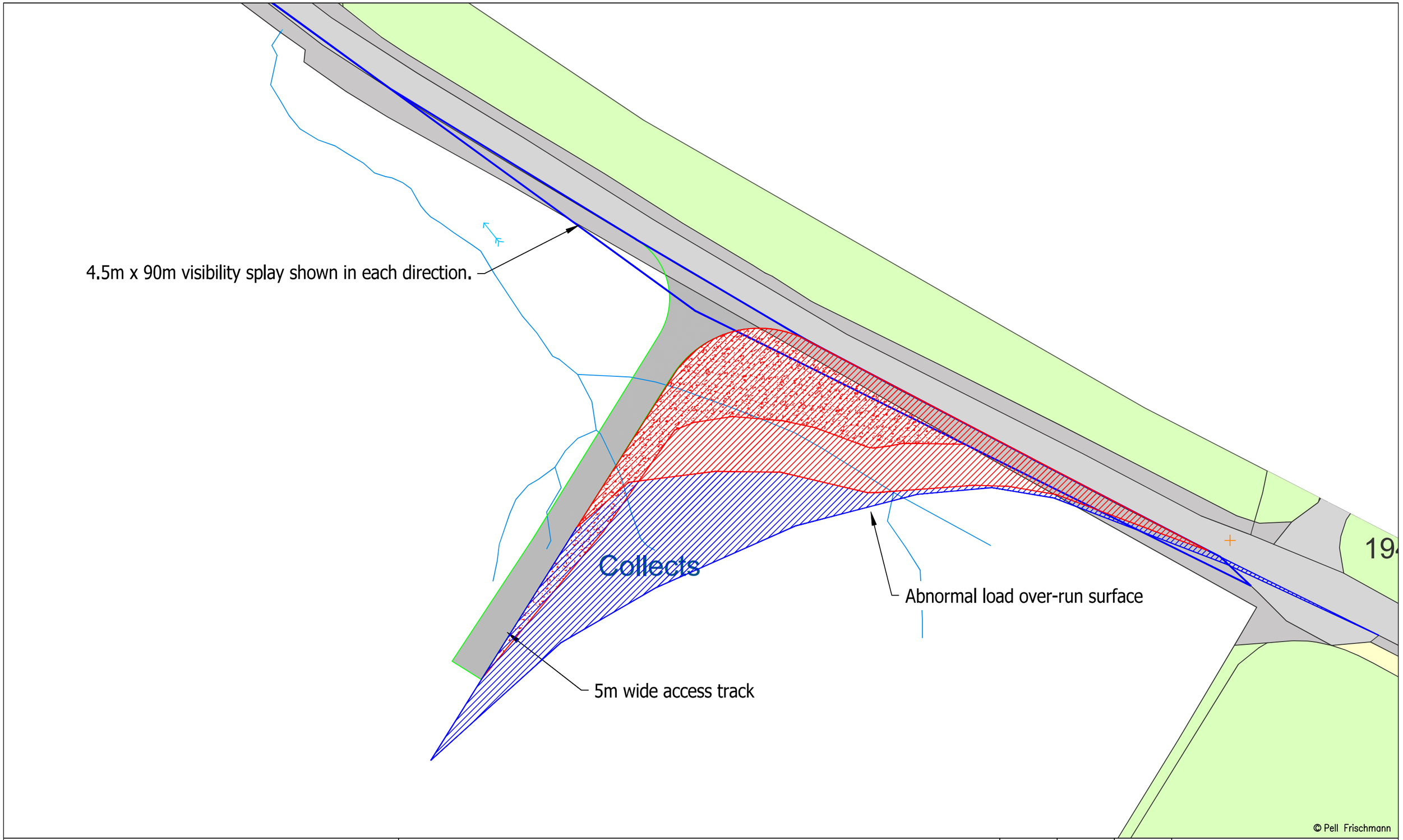
File No: 240528 Drummarnock SPA Revision.dwg

Drawing Status: Draft

Drawing No.: SK09

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. Indicative road edge should be confirmed on a topographical survey base.

Revision: 0



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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: Indicative Site Access Junction – Route 1

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		10

Scale: 1:500 @ A3

File No: 240528 Drummarnock SPA Revision.dwg

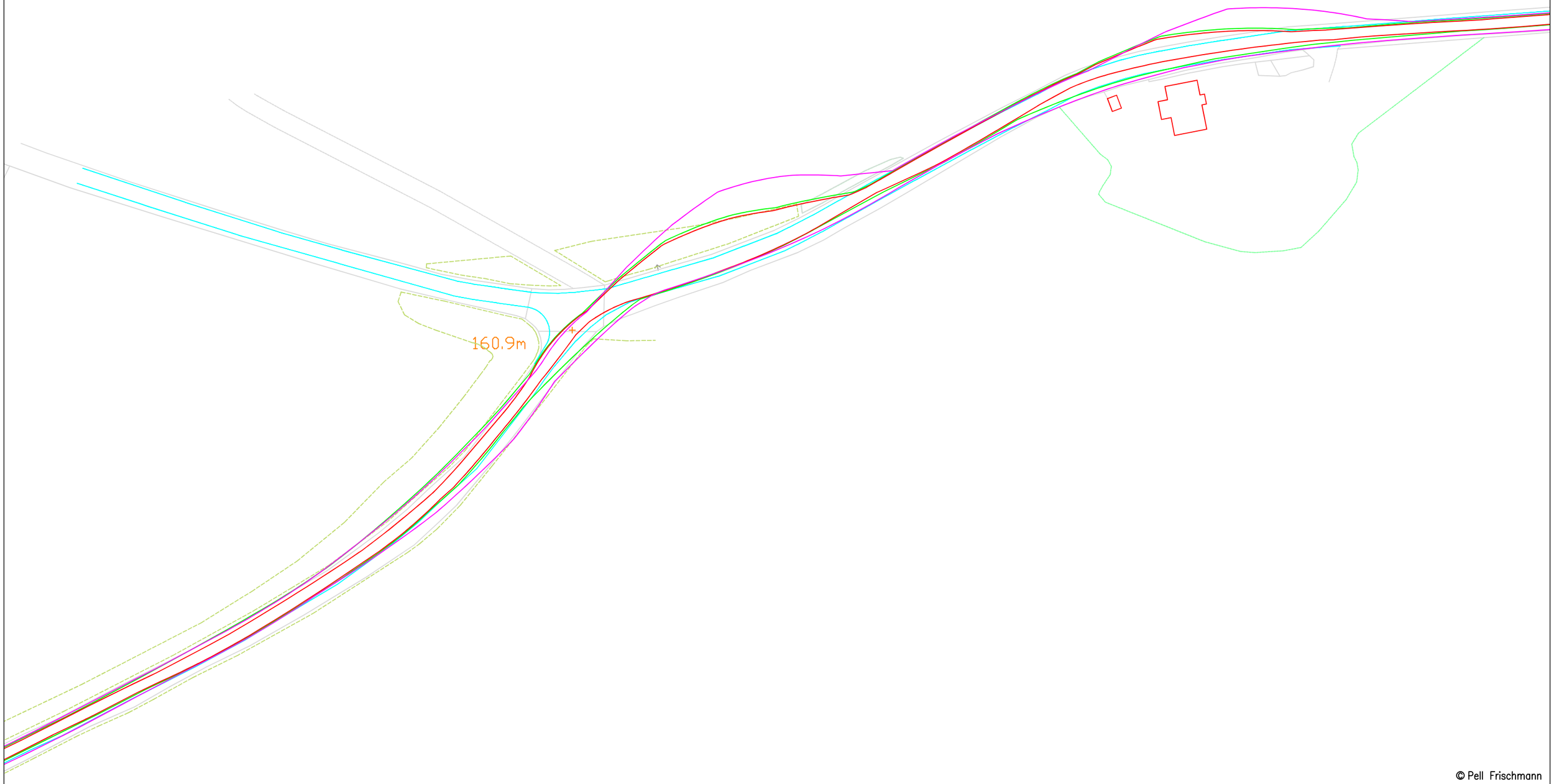
Drawing Status: Draft

Drawing No.: SK09A

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.
3. Indicative road edge should be confirmed on a topographical survey base.

Revision: 0

Blade



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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: New Line Road Canglour Glen Junction – Route 2

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		8&9

Scale: 1:1000 @ A3

File No: 240528 Drummarnock SPA Revision.dwg

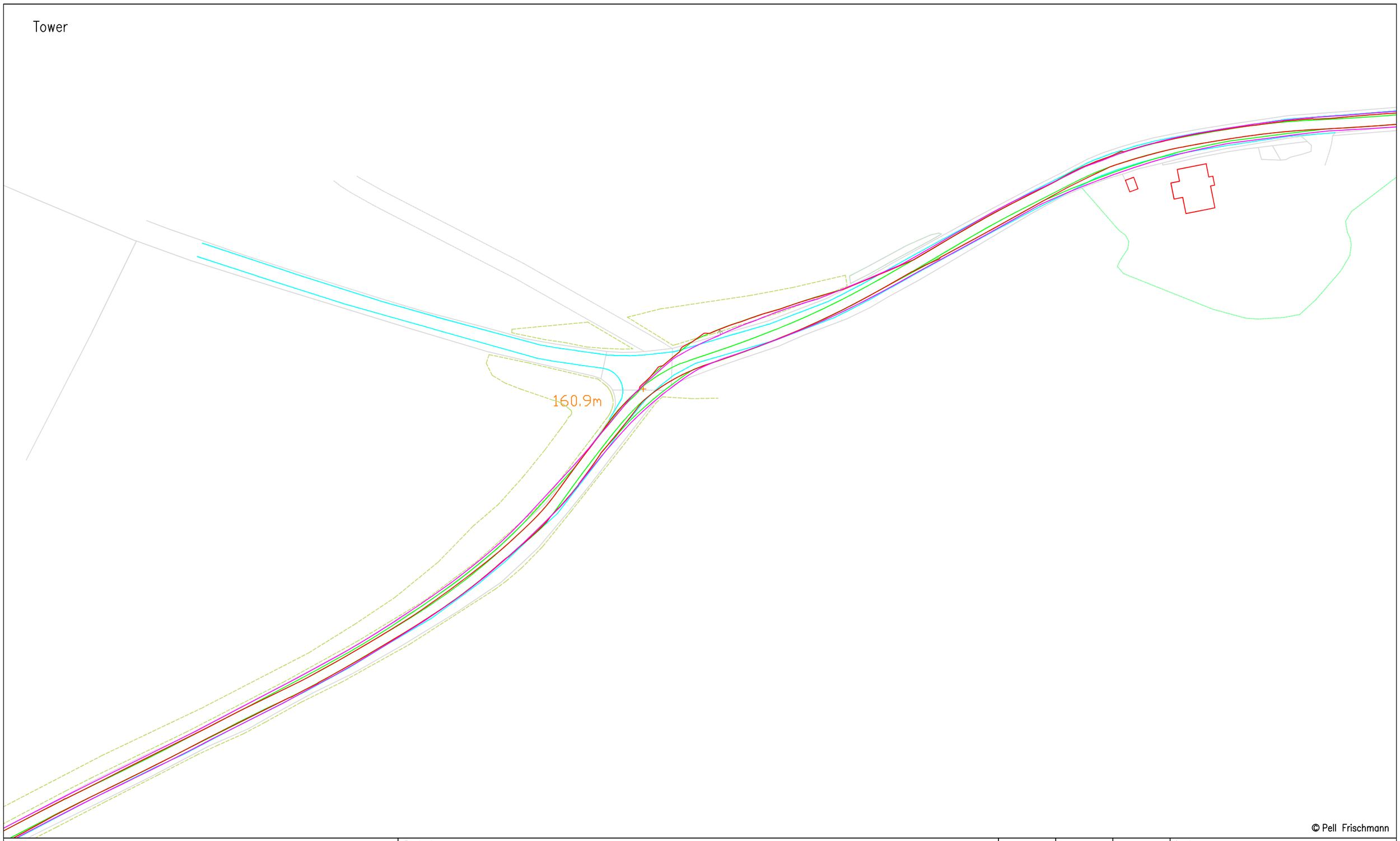
Drawing Status: Draft

Drawing No.: SK10

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.
3. Indicative road edge should be confirmed on a topographical survey base.

Revision: 0

Tower



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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: New Line Road Canglour Glen Junction – Route 2

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		8&9

Scale: 1:1000 @ A3

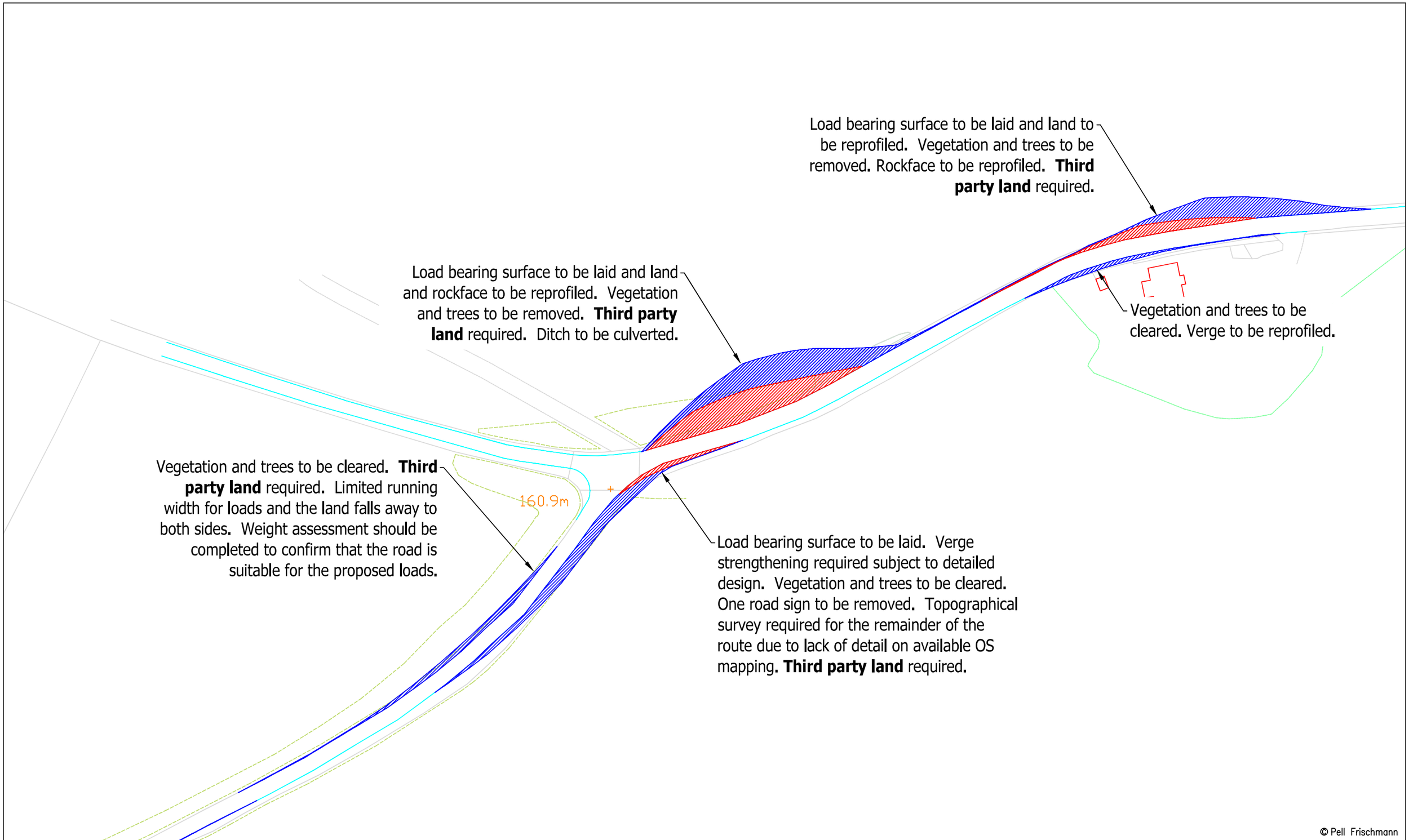
File No: 240528 Drummarnock SPA Revision.dwg

Drawing Status: Draft

Drawing No.: SK10A

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.
3. Indicative road edge should be confirmed on a topographical survey base.

Revision: 0



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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: New Line Road Canglour Glen Junction – Route 2

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		8&9

Scale: 1:1000 @ A3

File No: 240528 Drummarnock SPA Revision.dwg

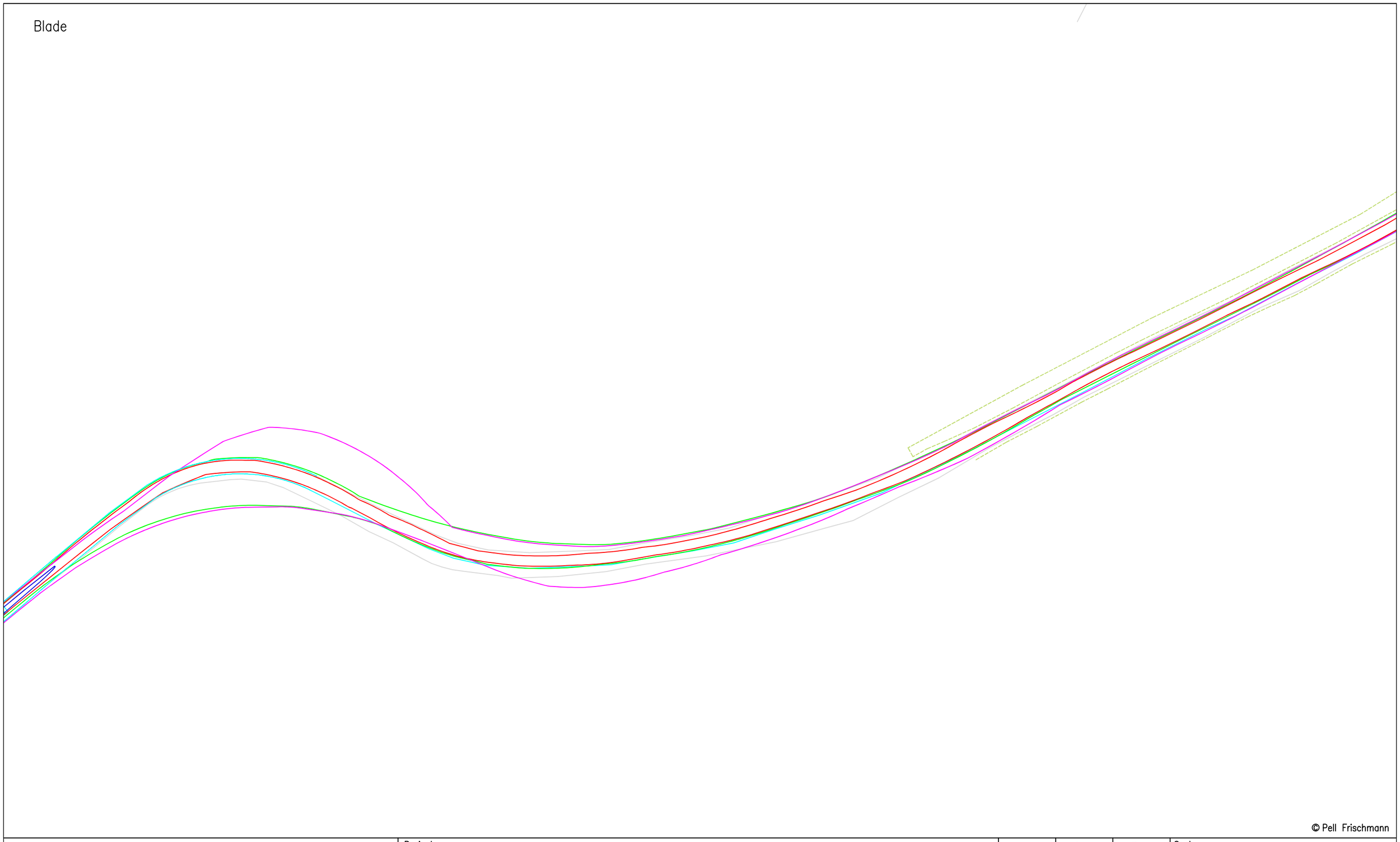
Drawing Status: Draft

Drawing No.: SK10B

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.
3. Indicative road edge should be confirmed on a topographical survey base.

Revision: 0

Blade



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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: New Line Road West of Canglour Glen – Route 2

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		11

Scale: 1:1000 @ A3

File No: 240528 Drummarnock SPA Revision.dwg

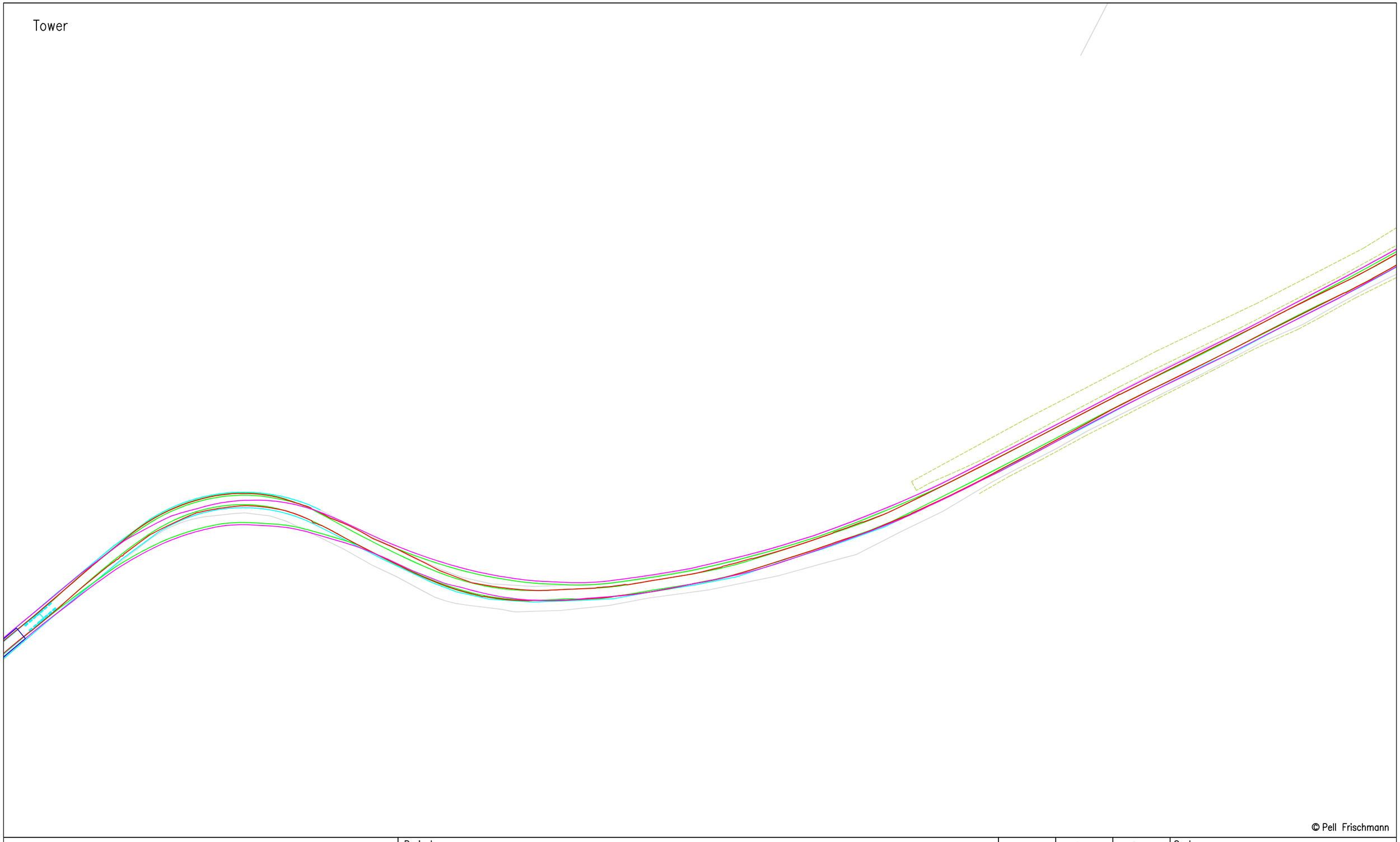
Drawing Status: Draft

Drawing No.: SK11

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.
3. Indicative road edge should be confirmed on a topographical survey base.

Revision: 0

Tower



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www.pellfrischmann.com

Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: New Line Road West of Canglour Glen – Route 2

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		11

Scale: 1:1000 @ A3

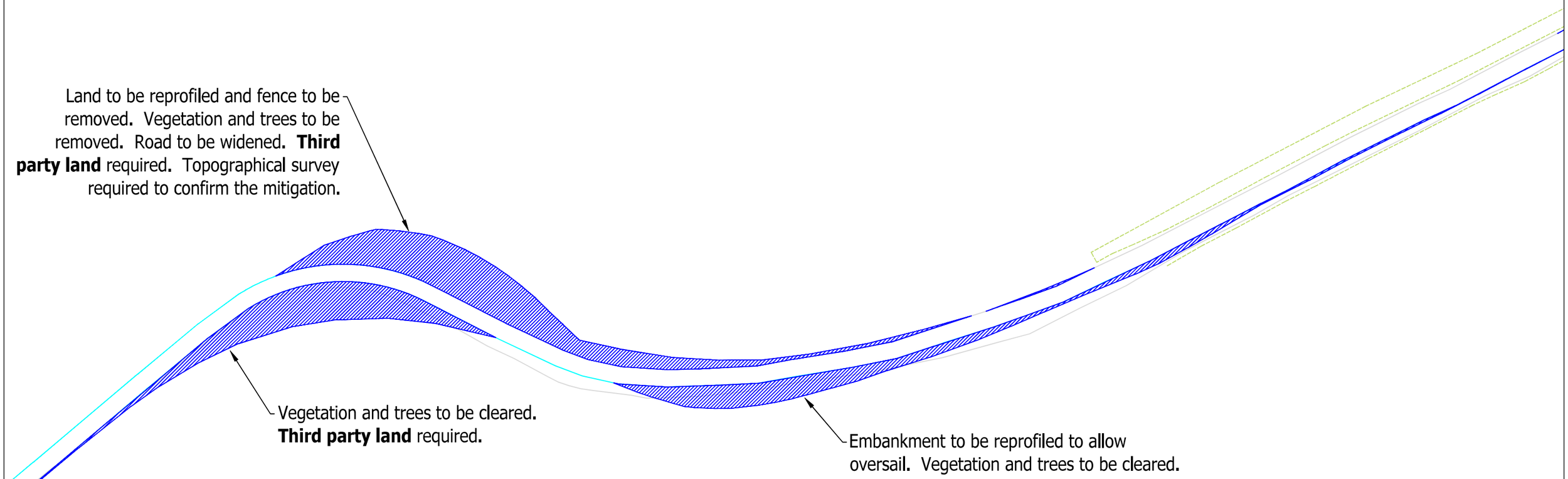
File No: 240528 Drummarnock SPA Revision.dwg

Drawing Status: Draft

Drawing No.: SK11A

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.
3. Indicative road edge should be confirmed on a topographical survey base.

Revision: 0



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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: New Line Road West of Canglour Glen – Route 2

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		11

Scale: 1:1000 @ A3

File No: 240528 Drummarnock SPA Revision.dwg

Drawing Status: Draft

Drawing No.: SK11B

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.
3. Indicative road edge should be confirmed on a topographical survey base.

Revision: 0

Blade

Tower

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Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: Site Access Junction – Route 2

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		12

Scale: 1:500 @ A3

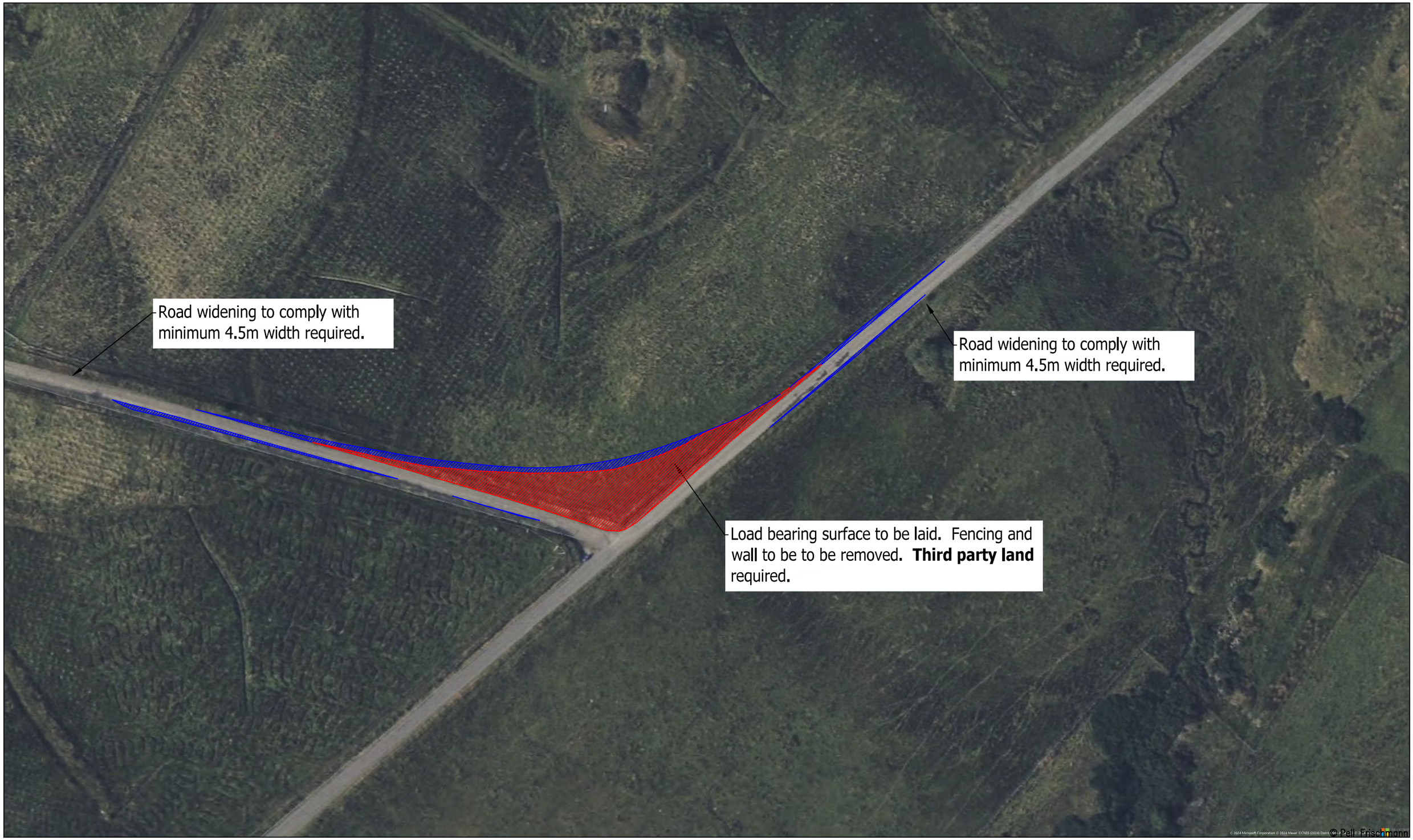
File No. 240528 Drummarnock SPA Revision.dwg

Drawing Status: Draft

Drawing No.: SK12

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.
3. Indicative road edge should be confirmed on a topographical survey base.

Revision: 0



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Email: pfedinburgh@pellfrischmann.com
www.pellfrischmann.com

Client: Wind2

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

Project: Drummarnock Wind Farm

Drawing Title: Nordex N163 Blade and Tower

SPA Location: Site Access Junction – Route 2

	Name	Date
Drawn	TL	28/05/2024
Designed	GB	28/05/2024
Checked	GB	28/05/2024
Point of Interest		12

Scale: 1:1000 @ A3

File No: 240528 Drummarnock SPA Revision.dwg

Drawing Status: Draft

Drawing No.: SK12A

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.
3. Indicative road edge should be confirmed on a topographical survey base.

Revision: 0

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Tel: +44 1904 454 600

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