

RECEIVED: 27/08/2025

ABNORMAL LOADS ASSESSMENT



SYSTRA

ILLAUNBAUN WIND FARM

ABNORMAL LOADS ASSESSMENT

IDENTIFICATION TABLE

Client/Project owner	Gavin & Doherty Geosolutions
Project	Illaunbaun Wind Farm
Study	Abnormal Loads Assessment
Type of document	Report
Date	18/10/2024
File name	Illaunbaun Wind Farm ALA v2.1.docx
Reference number	GB01T23F60/ALA
Number of pages	24

APPROVAL

Version	Name		Position	Date	Modifications
1	Author	T Foster	Consultant	12/08/2024	V1
	Checked by	Alan DeVenny	Projects Director	15/08/2024	
	Approved by	Alan DeVenny	Projects Director	15/08/2024	
2	Author	T Foster	Consultant	16/10/2024	V2 - Updated following client comments.
	Checked by	Alan DeVenny	Projects Director	18/10/2024	
	Approved by	Alan DeVenny	Projects Director	18/10/2024	

Clare Planning Authority Inspection Purposes Only!

RECEIVED: 27/08/2025

TABLE OF CONTENTS

1.	INTRODUCTION	5
1.1	GENERAL	5
1.2	TURBINE TRANSPORT REQUIREMENTS	5
1.3	ASSESSED ABNORMAL LOADS ROUTE	7
2.	SWEPT PATH ASSESSMENT	9
2.1	PINCH POINTS	9
3.	ASSESSMENT OUTCOMES AND CONCLUSIONS	19
3.1	HORIZONTAL FEASIBILITY	19
3.2	IDENTIFICATION OF UTILITIES	20
3.3	LIMERICK TUNNEL	20
3.4	IDENTIFICATION OF BRIDGE STRUCTURES	20
3.5	SUMMARY	22

LIST OF FIGURES

Figure 1.	Site Location	5
Figure 2.	Turbine Delivery Vehicle	6
Figure 3.	Assessed Abnormal Loads Route	7
Figure 4.	PPs at Foynes Port	9
Figure 5.	PPs East of Limerick	10
Figure 6.	PPs on N85 Ennis Western Relief Road	10
Figure 7.	PPs West of Ennis	11
Figure 8.	PPs on R460	11
Figure 9.	PPs Near Site Access	12
Figure 10.	PPs in Galway	12
Figure 11.	PP at Rathmorrisy Interchange	13
Figure 12.	PPs North of Ennis	13
Figure 13.	Alternative Alignment of Route 2	19

LIST OF TABLES

Table 1.	Abnormal Loads Route Sections	8
Table 2.	Pinch Point Summary – Blade Delivery Vehicle	15

1. INTRODUCTION

1.1 General

1.1.1 SYSTRA has been commissioned by Gavin & Doherty Geosolutions to undertake an assessment of two identified abnormal load routes to the Illaunbaun Wind Farm site. The site is located within County Clare whilst the identified routes also pass through County Limerick and County Galway. The approximate site location is indicated by **Figure 1**.

Figure 1. Site Location



1.1.2 The site access is approximately 4.2km to the east of Milltown Malbay and 7.2km south of Lahinch. The site sits to the south of the L1074 road which runs between the R460 in the east and Milltown Malbay in the west.

1.1.3 The turbine components would be landed at either the existing Foynes Port or Galway Harbour facilities, both of which have previously supported the development of onshore wind farms.

1.2 Turbine Transport Requirements

1.2.1 The candidate turbine for the Illaunbaun Wind Farm is the Vestas V117 turbine. For the purposes of this assessment the turbine blade has been assessed as the “worst-case” design component.

Blade Transporter

1.2.2

The turbine blade of the V117 is 57.2m in length and would be loaded onto a specialised blade trailer. For the purposes of assessment, it has been assumed that the Turbine Delivery Vehicle (TDV) would compose of a tractor unit, intermediate dolly and a Noteboom Super Wing Carrier Trailer.

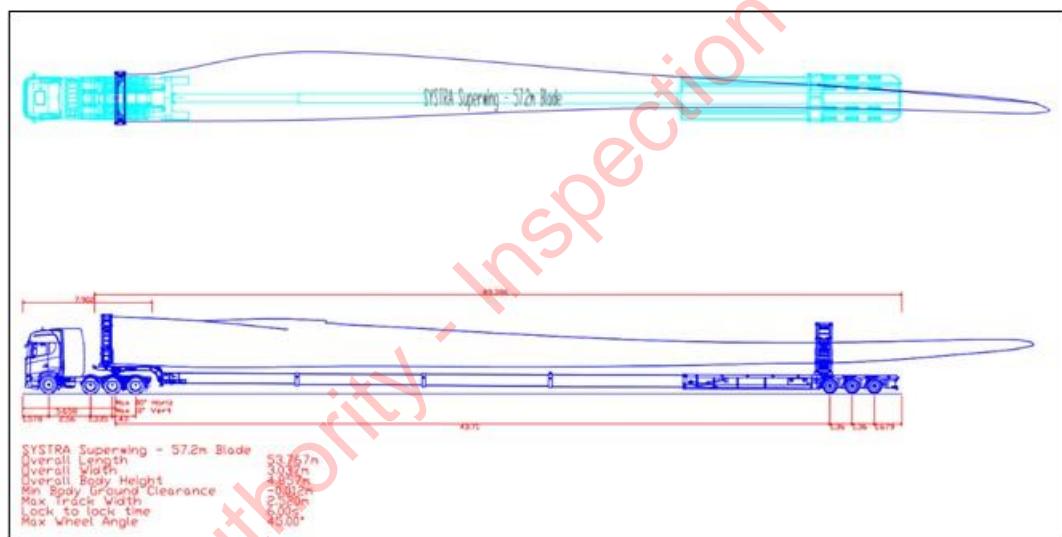
1.2.3

The Super Wing Trailer incorporates pendle axles which allow for a secondary rear wheel angle of up to 55 degrees. The Super Wing trailer can be extended to 64.3m in length. For this assessment it has been assumed that the trailer would be retracted by 15m for a length of 49.3m. This assumption is based on the loading configuration of other wind turbine blade components. In total the TDV is ~61.7m in length. The turbine blade would overhang the end of the trailer by ~8.2m.

1.2.4

A drawing of the TDV is provided in **Appendix A** and at **Figure 2** below.

Figure 2. Turbine Delivery Vehicle



1.2.5

At this stage in the design process, the haulier of the wind turbine blades 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 detailed and accurate route assessment to be undertaken.

1.2.6

SYSTRA has used the Autodesk (CAD) extension package AutoTrack to undertake swept path analysis (SPA) for the identified Pinch Points (PP) on the delivery route. The trailer units associated with the design vehicle for the transportation of the blades are extendable so on delivery of the abnormal load, the trailer can be reduced in length. In these circumstances, the AutoTracking and route assessment has only been undertaken for the delivery route to the site.

1.3 Assessed Abnormal Loads Route

1.3.1

The Port of Entry (PoE) for the turbine components is likely to be either Foynes Port or Galway Harbour. The facilities have both been used for the transportation of renewable components in the past. The assessed routes to site are indicated by **Figure 3** below.

Figure 3. Assessed Abnormal Loads Route



1.3.2

The identified abnormal load routes are set out in **Table 1**.

Table 1. Abnormal Loads Route Sections

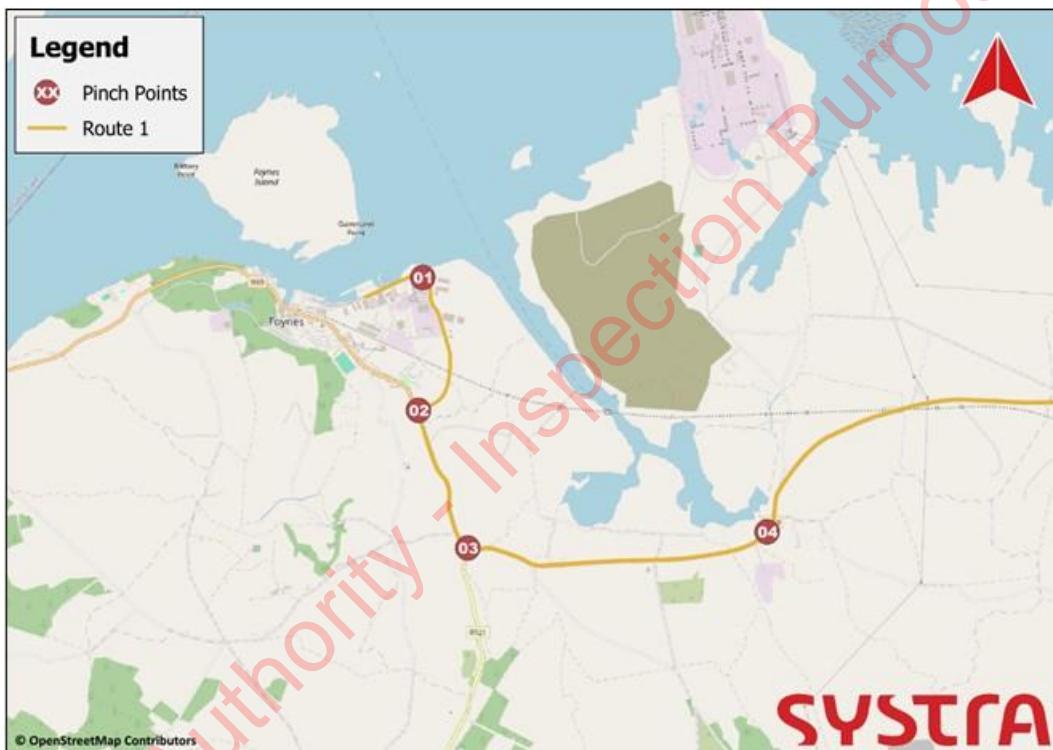
SECTION	CUMULATIVE DISTANCE (KM)	
	Route 1	Route 2
Leave Foynes Port via Dock Road to the east	0.0	-
Turn left onto the N69	1.8	-
At the Dock Road West Roundabout take the 2 nd exit onto the N18 slip road	33.9	-
At J12 of the M18 exit onto the N85	64.3	-
Exit Galway Harbour onto Lough Atalia Road	-	0.5
Bear left onto College Road	-	1.9
Continue straight onto the R339	-	2.0
Turn left at the R339 / Connolly Avenue junction	-	2.9
Turn right onto Tuam Road	-	3.2
Turn right onto the N6	-	3.5
At the Rathmorrisy Interchange take the 3 rd exit onto the M18 south	-	18.3
At J14 of the M18 exit onto the R458	-	68.1
Turn right onto Ballyalla Grove	-	71.8
Turn left onto the unclassified road	-	71.9
At the Drumcliffe Road crossroads turn right onto the L4180	-	74.8
Turn right onto the N85	-	76.5
Turn left onto the R460 at Inagh	86.0	88.1
Bear right onto the L1074	90.3	92.4
Turn right onto Slievenalicka	98.0	100.1
Turn right into Site Access	98.5	100.6

2. SWEPT PATH ASSESSMENT

2.1 Pinch Points

2.1.1 In total, there are 18 Pinch Points between Foynes Port and where the two routes meet at the N85 and L4180 junction. There are 16 Pinch Points between Galway Harbour and the convergence point. There are then a further 18 Pinch Points which the two routes have in common. The location of the Pinch Points that have been identified and assessed are indicated by **Figures 4 to 12** below.

Figure 4. PPs at Foynes Port

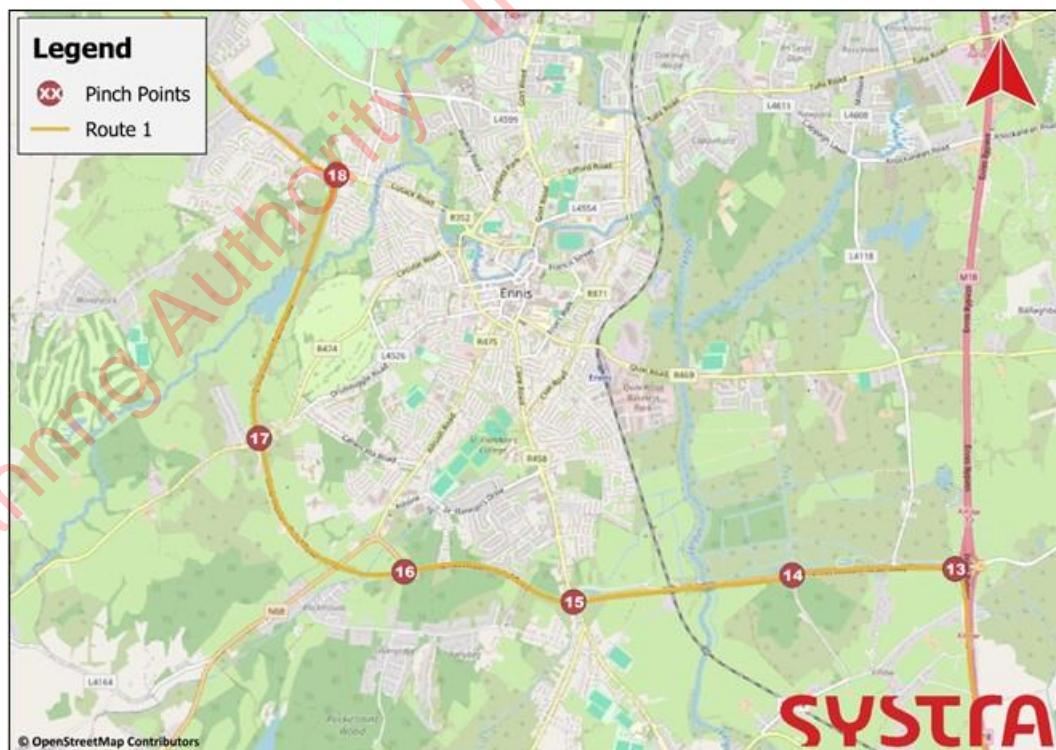


RECEIVED: 27/08/2025

Figure 5. PPs East of Limerick



Figure 6. PPs on N85 Ennis Western Relief Road



RECEIVED: 27/08/2025

Figure 7. PPs West of Ennis



Figure 8. PPs on R460



RECEIVED: 27/08/2025

Figure 9. PPs Near Site Access

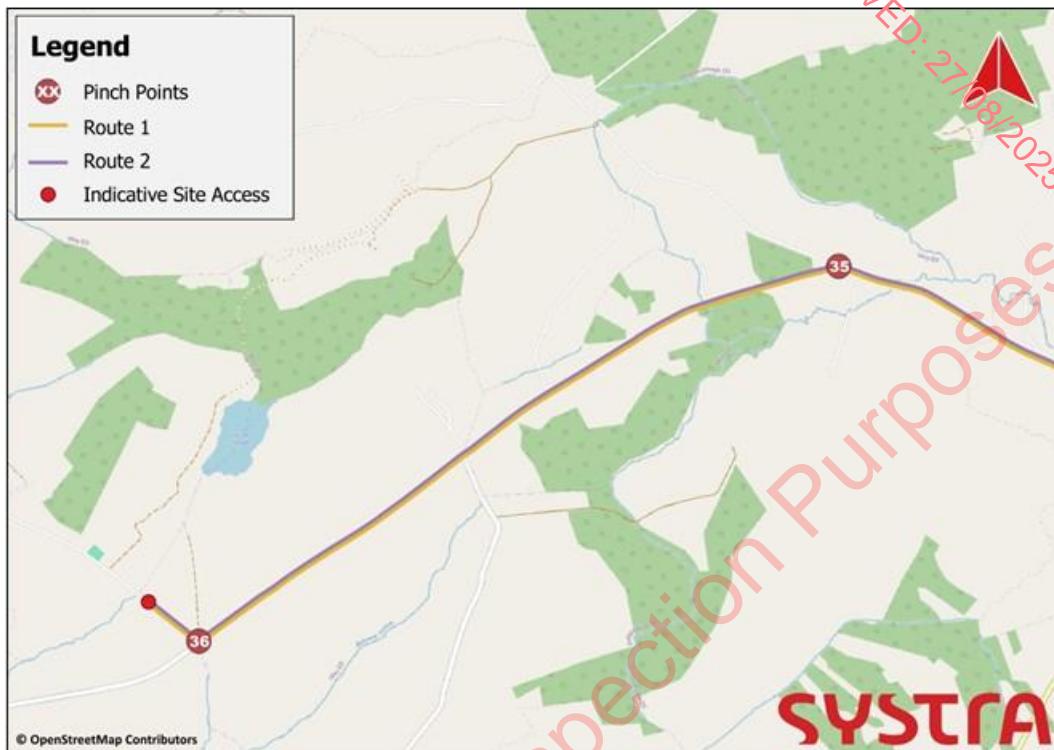


Figure 10. PPs in Galway

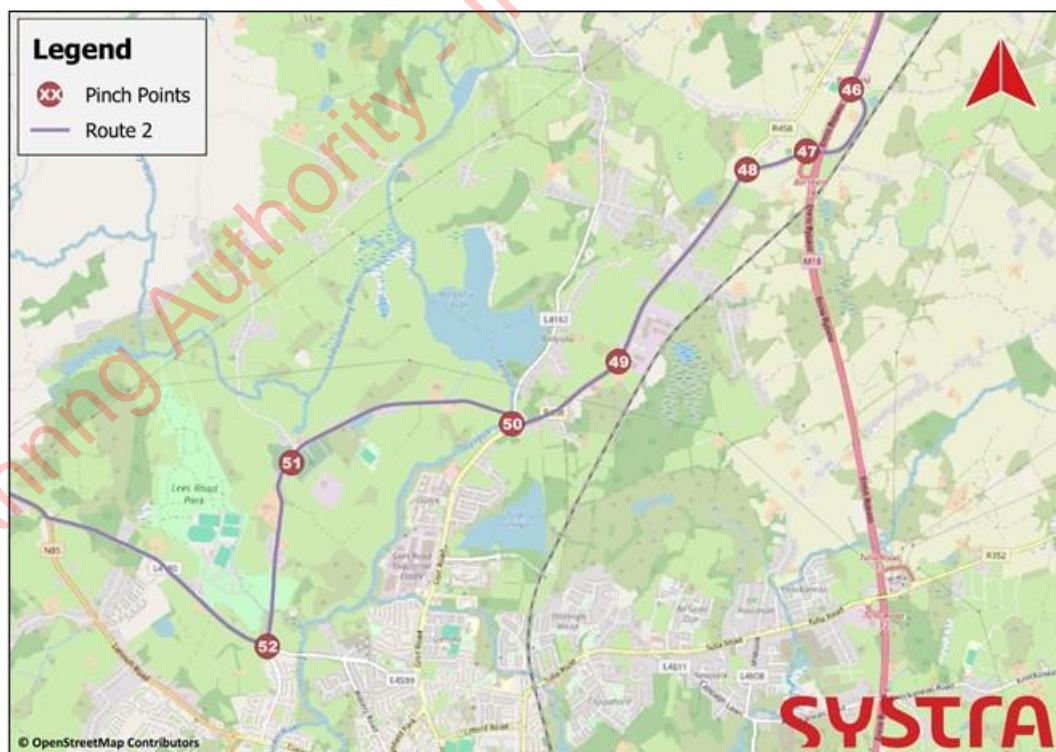


RECEIVED: 27/08/2025

Figure 11. PP at Rathmorrisy Interchange



Figure 12. PPs North of Ennis



RECEIVED: 27/08/2024
Clare Planning Authority - Inspection Purposes Only!

- 2.1.2 The swept path plans are contained within **Appendix A**. The plans indicate areas of overrun and over-sail, as well as highlighting potential clashes with street furniture and requirements for third-party land.
- 2.1.3 The base mapping utilised in these plans is an extract from Tailte Éireann's Digital Landscape Model. In urban areas, the distinction between carriageway, footways and verges areas is typically shown, however in rural areas typically only the extent of the adopted highway boundary is shown, i.e. no distinction between carriageway and verges.
- 2.1.4 Where possible, during the assessment process, the base mapping was supplemented by aerial mapping with the aim of keeping the TDV within the carriageway extents. While every effort has been made to report any instances of the TDV travelling outwith the carriageway extents, without a detailed survey, the swept path assessment is an estimate at this stage. Although the extent of third party land agreements is unlikely to be affected.
- 2.1.5 **Table 2** summarises the findings at each location for the transportation of the blade component.

Table 2. Pinch Point Summary – Blade Delivery Vehicle

PP	LOCATION	LAT	LONG	STREET FURNITURE REMOVAL	TEMPORARY PAVING / GRADING WORKS	3RD PARTY LAND REQUIREMENTS
01	Bends in Dock Road leaving Foynes Port	52.61447	-9.09469	• None	• None - wheels of vehicle remain within carriageway.	• None
02	Left-hand turn onto N69	52.60478	-9.09497	• Overhead cables – height to be checked but should be unaffected	• Use of existing overrun area subject to permissions on inside of turn.	• None
03	Left-hand bend in N69 at R521 junction	52.59479	-9.08880	• None	• None – wheels of vehicle remain within carriageway.	• None
04	Left-hand bend in N69 south of L6052 junction	52.59629	-9.05295	• Overhead cables – height to be checked	• None – wheels of vehicle remain within carriageway.	• None
05	Right-hand bend in N9 at Curraghchase	52.61846	-8.87959	• Overhead cables – height to be checked	• None – wheels of vehicle remain within carriageway.	• None
06	Right-hand bend in N69 at L1241 junction	52.62781	-8.84042	• Overhead cables – height to be checked	• None – wheels of vehicle remain within carriageway.	• None
07	Right-hand bend in N69 at Kildimo	52.62382	-8.81281	• Overhead cables – height to be checked	• None – wheels of vehicle remain within carriageway.	• None
08	Narrow bridge over River Maigue	52.61972	-8.76518	• Overhead cables – height to be checked	• None – wheels of vehicle remain within carriageway.	• None
09	Right-hand bend in N69 at Massy's Bridge	52.62885	-8.74751	• Overhead cables – height to be checked	• None – wheels of vehicle remain within carriageway.	• None
10	Roundabout on N69 at Clarina	52.63194	-8.73332	• 1no. chevron sign	• Use of existing overrun area in roundabout central island subject to permissions and reinstatement	• None
11	Left-hand bend in N69 at Munget	52.63583	-8.69515	• None	• None – wheels of vehicle remain within carriageway.	• None
12	Dock Road West Roundabout at J2 of N18	52.64553	-8.67253	• 1no. chevron sign	• Use of existing overrun area within roundabout central island subject to permissions and reinstatement	• None
13	Killow West Roundabout at J12 of M18	52.82723	-8.93960	• None	• None – wheels of vehicle remain within carriageway.	• None
14	Roundabout on N85	52.82672	-8.95582	• 1no. chevron sign	• New hardstanding overrun area required within roundabout central island.	• None
15	Roundabout on N85 at R458	52.82493	-8.97757	• 1no. chevron sign	• New hardstanding overrun area required across roundabout central island	• None
15 Alt	Roundabout on N85 at R458	52.82493	-8.97757	• 1no. chevron sign	• None – wheels of vehicle just remain within carriageway extents.	• None

PP	LOCATION	LAT	LONG	STREET FURNITURE REMOVAL	TEMPORARY PAVING / GRADING WORKS	3RD PARTY LAND REQUIREMENTS
16	Roundabout on N85 at N68	52.82662	-8.99448	<ul style="list-style-type: none"> 1no. chevron sign 1no. road sign Section of guard rail 	<ul style="list-style-type: none"> New hardstanding overrun area required across roundabout central island. 	<ul style="list-style-type: none"> None
17	Roundabout on N85 at Golf Links Road	52.83454	-9.00913	<ul style="list-style-type: none"> 1no. chevron sign 2no. traffic signs 	<ul style="list-style-type: none"> New hardstanding overrun area required across roundabout central island Transition ramps to enable TDV to mount kerb 	<ul style="list-style-type: none"> None
18	Roundabout on N85 at Cusack Road	52.85048	-9.00176	<ul style="list-style-type: none"> 1no. chevron sign 4no. traffic signs 	<ul style="list-style-type: none"> New hardstanding overrun area required within roundabout central island 	<ul style="list-style-type: none"> None
19	Left-hand bend in N85 at L4180 junction	52.86349	-9.02063	<ul style="list-style-type: none"> Overhead cables – height to be checked 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
20	Tight right-hand bend in N85	52.86315	-9.05065	<ul style="list-style-type: none"> Overhead cables – height to be checked 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
21	Left-hand bend in N85	52.86669	-9.05923	<ul style="list-style-type: none"> Overhead cables – height to be checked 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
22	Right-hand bend in N85	52.86586	-9.06531	<ul style="list-style-type: none"> Overhead cables – height to be checked 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
23	Left-hand bend in N85	52.86642	-9.07069	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
24	Right-hand bend in N85	52.86405	-9.07731	<ul style="list-style-type: none"> 3no. chevron signs 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
25	Left-hand bend in N85	52.86456	-9.08033	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
26	Right-hand bend in N85 at L4144	52.86332	-9.08466	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
27	Left-hand bend in N85	52.86324	-9.08794	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
28	Bends in N85 adjacent to properties	52.86152	-9.09326	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
29	Left-hand bend in N85	52.86389	-9.11291	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
30	Left-hand turn onto R460 at Inagh	52.87742	-9.17506	<ul style="list-style-type: none"> 1no. stop sign 1no. lighting column Removal of wall Temporary suspension of car parking 	<ul style="list-style-type: none"> None anticipated 	<ul style="list-style-type: none"> None anticipated

PP	LOCATION	LAT	LONG	STREET FURNITURE REMOVAL	TEMPORARY PAVING / GRADING WORKS	3RD PARTY LAND REQUIREMENTS
31	Bend in R460	52.87333	-9.21076	<ul style="list-style-type: none"> Overhead cables – height to be checked 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
32	S-bend in R460	52.87374	-9.21798	<ul style="list-style-type: none"> Overhead cables – height to be checked 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
33	Bends in R460	52.87528	-9.22415	<ul style="list-style-type: none"> Overhead cables – height to be checked 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
34	Right-hand turn onto L1074	52.87379	-9.23520	<ul style="list-style-type: none"> 1no. traffic sign 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
35	Tight left-hand bend in L1074	52.88171	-9.29393	<ul style="list-style-type: none"> Overhead cables – height to be checked Hedge to be trimmed 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
36	Right-hand turn onto Slievenalicka	52.86514	-9.33880	<ul style="list-style-type: none"> Overhead cables – height to be checked 	<ul style="list-style-type: none"> New hardstanding overrun area required on outside of turn. 	<ul style="list-style-type: none"> Yes – required for overrun area
37	Right-hand turns onto Lough Atalia Road	53.26977	-9.04697	<ul style="list-style-type: none"> Unclear at this time – to be handled by Galway Harbour 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> All land likely under harbour control
38	Right-hand bend following Moneenageisha Cross	53.28257	-9.03307	<ul style="list-style-type: none"> 4no. bollards 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
39	Left-hand turn onto Unclassified Road	53.28619	-9.02372	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
40	Right-hand turn onto Tuam Road	53.28901	-9.02279	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
41	Right-hand turn onto the N6	53.29075	-9.01986	<ul style="list-style-type: none"> 2no. signal heads 3no. bollards 1no. traffic sign Guard railing 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
41 Alt	Right-hand turn onto the N6 (contra-flow)	53.29075	-9.01986	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
42	Tight bend in N6 at R865	53.28868	-9.01252	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
43	Right-hand bend in N6 at R339	53.29177	-8.98607	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
44	Left-hand turn at Coolagh Roundabout	53.28605	-8.97928	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
45	Right-hand turn at Rathmorrissy Interchange	53.29734	-8.80699	<ul style="list-style-type: none"> 2no. traffic signs 1no. lighting column 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None

PP	LOCATION	LAT	LONG	STREET FURNITURE REMOVAL	TEMPORARY PAVING / GRADING WORKS	3RD PARTY LAND REQUIREMENTS
46	Left-hand turn from M18 at J14	52.88998	-8.94101	<ul style="list-style-type: none"> 2no. lighting columns 1no. traffic sign Bollards on centreline 	<ul style="list-style-type: none"> None but possible re-grading of banking required to facilitate over-sail. 	<ul style="list-style-type: none"> None
47	Barefield Roundabout on Unclassified Road	52.88623	-8.94537	<ul style="list-style-type: none"> Bollards on centreline 2no. chevron signs 	<ul style="list-style-type: none"> New hardstanding overrun area required across roundabout central island 	<ul style="list-style-type: none"> None
48	Barefield South Roundabout on R458	52.88507	-8.95129	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> New hardstanding overrun area required across roundabout central island 	<ul style="list-style-type: none"> None
49	Roundabout on R458 at Ballymaley Business Park	52.87338	-8.96388	<ul style="list-style-type: none"> 3no. traffic signs 1no. bollard 	<ul style="list-style-type: none"> New hardstanding overrun area required to roundabout central roundabout Transition ramps required to enable TDV to mount kerb Raised roundabout island to be removed 	<ul style="list-style-type: none"> None
50	Tight right- and left-hand turn onto L1098	52.86954	-8.97442	<ul style="list-style-type: none"> 2no. utility poles 2no. traffic signs 	<ul style="list-style-type: none"> Small area of hardstanding required on inside of bend New bridge over River Fergus likely required 	<ul style="list-style-type: none"> Yes – over-sail into likely third-party land
				TDV required to reverse to navigate Pinch Point. This is technically achievable but likely to be challenging in practice. Additionally, narrow and likely very weak bridge.		
51	Bends in narrow road at Drumcliffe Cemetery	52.86701	-8.99634	<ul style="list-style-type: none"> 1no. traffic sign 1no. chevron sign 2no. short sections of stone wall 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> Yes – over-sail of chassis into likely third-party land at two locations
52	Right-hand turn onto L4180	52.85592	-8.9985	<ul style="list-style-type: none"> 6no. traffic signs 2no. utility poles 	<ul style="list-style-type: none"> Transition ramps required to enable TDV to mount kerb New hardstanding overrun area required on inside of turn 	<ul style="list-style-type: none"> Yes – overrun and over-sail into likely third-party land
19	Right-hand turn onto N85	52.86349	-9.02063	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None – wheels of vehicle remain within carriageway. 	<ul style="list-style-type: none"> None
	Alternative route to bypass PP46-52	n/a	n/a	Preliminary investigation of an alternative route to bypass Pinch Points 46 to 52 outlined in the following section.		

3. ASSESSMENT OUTCOMES AND CONCLUSIONS

3.1 Horizontal Feasibility

3.1.1 The abnormal load assessment has identified that Route 1, from Foynes Port, is technically feasible in terms of horizontal geometry. Due to the tight turns, narrow and weak bridge and narrow road width at Pinch Points 50 and 51, route 2, from Galway Harbour is challenging.

3.1.2 To bypass these Pinch Points an alternative route has been tested. This route would remain on the M18 (instead of coming off at J14 – Pinch Point 46) and use the grade separated roundabout at J9 of the M18, at Shannon, to turn around. Vehicles would then continue back north on the M18 and proceed on the remaining section of Route 1. The revised route is indicated by **Figure 13**.

Figure 13. Alternative Alignment of Route 2



3.1.3 This alternative alignment only contains one additional pinch point at J9 of the M18, which has been subject to a swept path assessment. This assessment is contained within **Appendix A** as drawings *GB01T23F60/I/SPA066* to *GB01T23F60/I/SPA071*. The assessment indicates that the route is technically feasible, with no requirement for third party land. The following street furniture would require temporary removal:

- 10no. traffic signs;
- 1no. chevron sign; and
- 7no. lighting columns.

3.1.4 An alternative route to bypass Pinch Point 50 and 51 via Gort Road and Drumcliffe Road was also considered but was not considered to be feasible due to the Drumcliffe Road bridge crossing over the River Fergus. The present bridge is narrow and subject to a 10T weight limit.

3.1.5 No vertical checks have been undertaken at this point, but no major impediments have been identified at this stage. Third party land may be required to facilitate an overrun area to enable the final right-hand turn onto Slievenalicka.

3.2 Identification of Utilities

3.2.1 Where the location of overhead cables (both telecommunications and power transmission) coincides with the location of a Pinch Point, the approximate location of cables and poles have been marked on the drawings contained with **Appendix A**. Further checks should be carried out on site to determine the height of all cables along the route to ensure any risk of collision is mitigated.

3.3 Limerick Tunnel

3.3.1 Route 1 requires the Turbine Delivery Vehicle (TDV) to pass through the Limerick Tunnel. The tunnel has a height restriction of 4.65m. As the loading configuration of the TDV is not yet finalised, SYSTRA cannot comment on the suitability of the use of the Limerick Tunnel. From experience with other loading configurations SYSTRA understand that the use of alternative trailer arrangements, such as the blade being loaded into a 'Clamp and Bogie', can reduce the overall height of the vehicle.

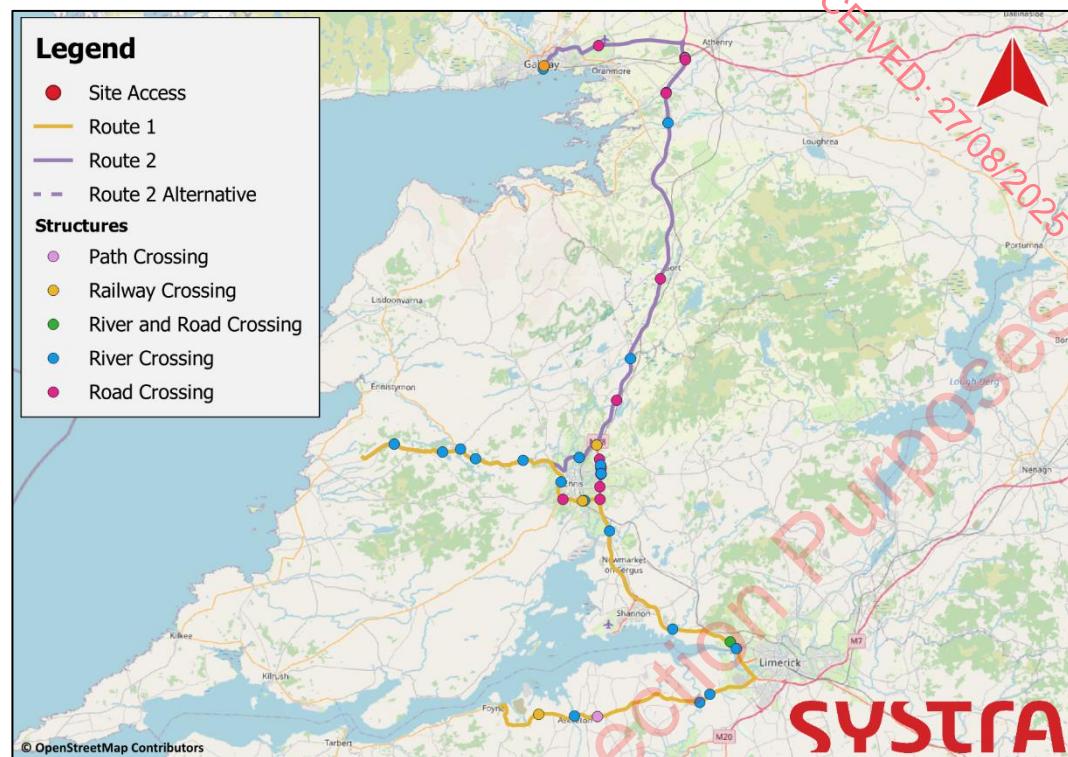
3.3.2 It is recommended that, if they haven't already, discussions are commenced with hauliers and DirectRoute (Limerick) Limited, the operator of the Limerick Tunnel, to determine the feasibility of utilising the tunnel for the transport of turbine components.

3.4 Identification of Bridge Structures

3.4.1 SYSTRA has identified 13 structures on Route 1, between Foynes Port and where the two route meets. A further 14 have been identified on Route 2 between Galway Harbour and where the routes meet and 5 on the common section. The location and type of these structures are shown in **Figure 14**. It is noted that the list is not exhaustive at this stage.

RECEIVED:

27/08/2025



3.4.2 The majority of crossing are over water which variously take the form of multi-span steel beam bridges, multi-arch stone bridges and stone culverts. Discussions will be required with the relevant road authorities to determine whether any structural assessments are required.

3.4.3 In the first instance, it is recommended that third-party land enquiries are made at the identified location, and it is also recommended that further engagement is undertaken with Galway City Council, Galway County Council, Limerick City and County Council, Transport Infrastructure Ireland and DirectRoute Limerick in relation to the identified route.

3.5 Summary

- 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.

Clare Planning Authority - Inspection Purposes Only!

Appendix A – TDV Drawing and Swept Path Assessment

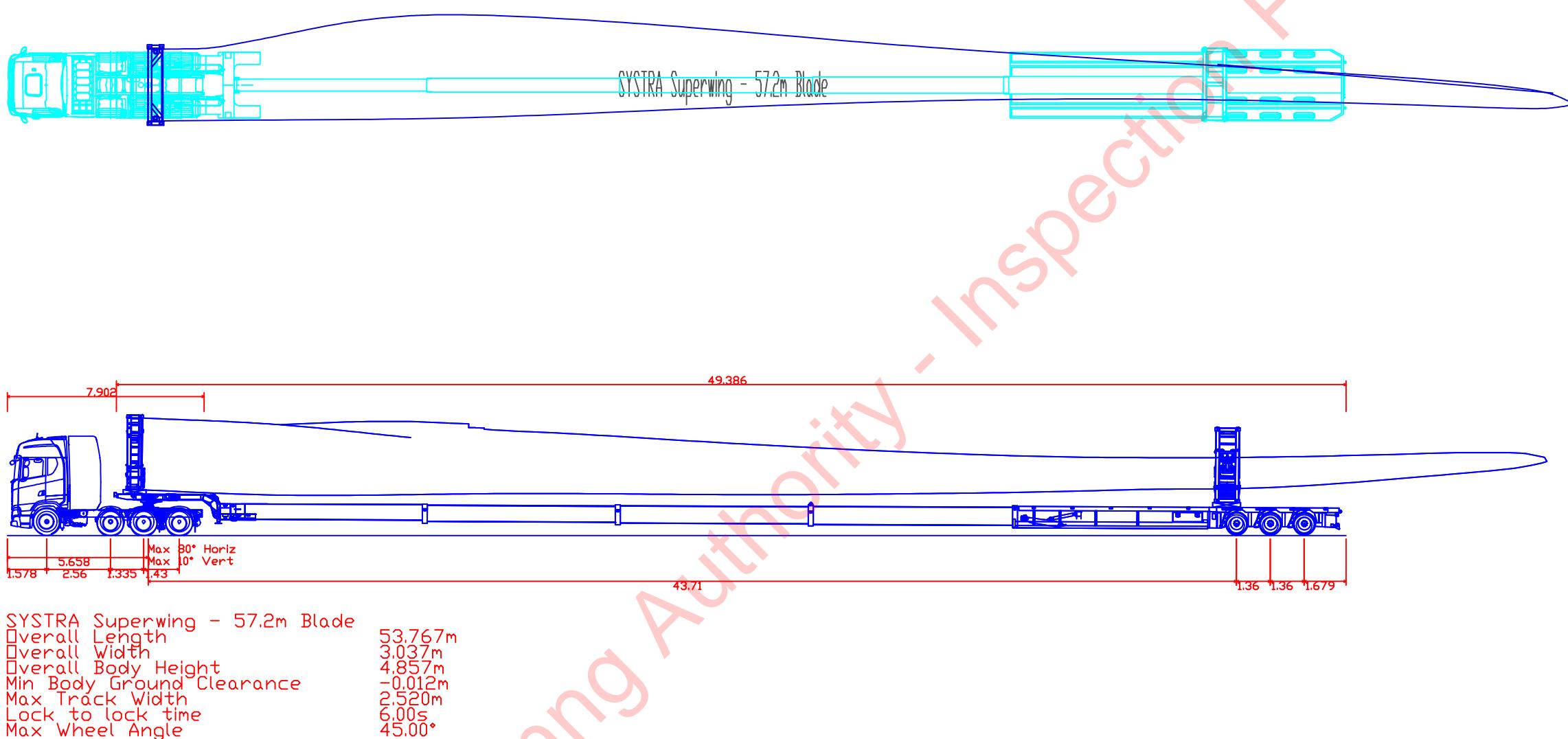
Notes:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.

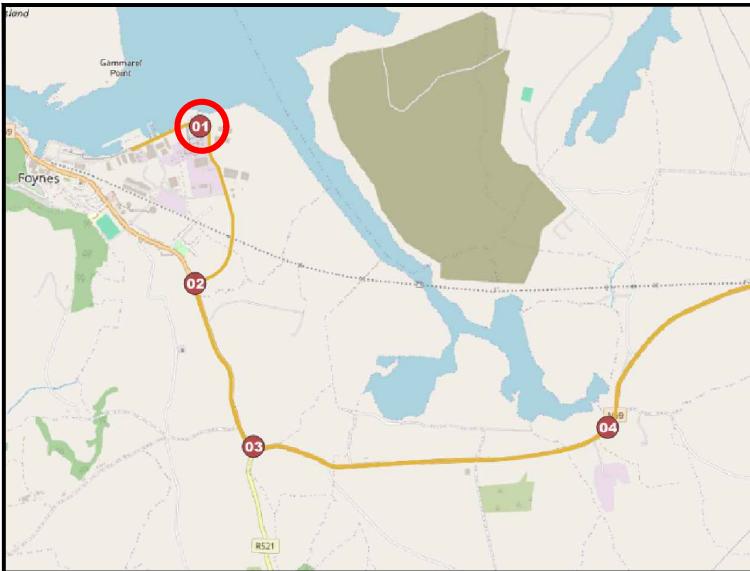


Key:

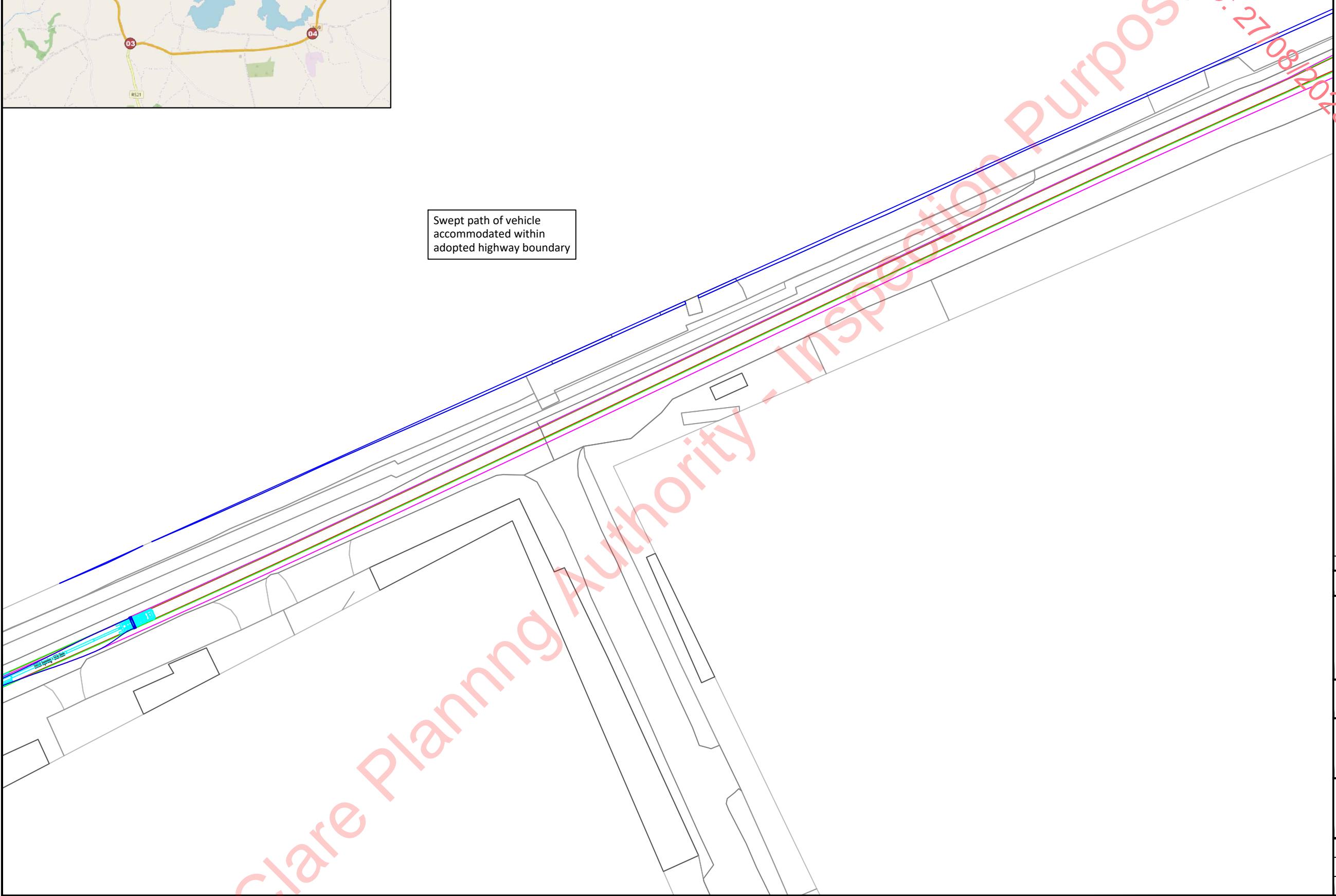
- Blade Transporter Vehicle (cyan line)
- Blade Outline (blue line)



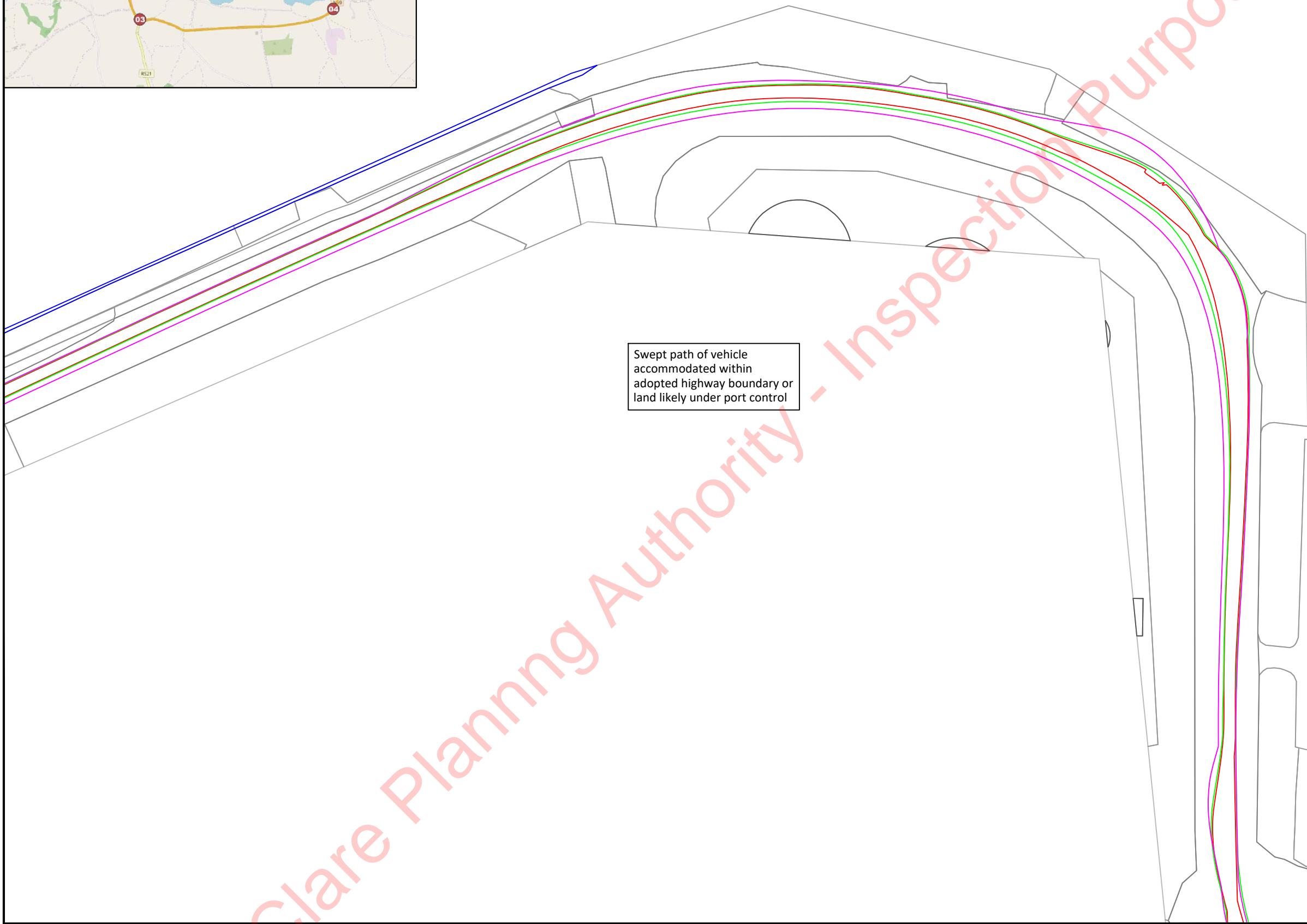
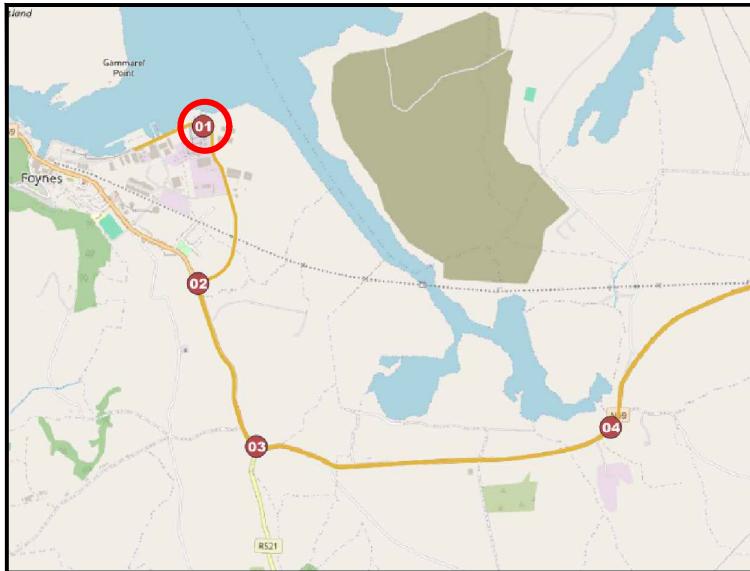
Rev	Date	Revision details	Drawn	Checked	Approved
© This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.					
			SYSTRA www.systra.com.uk		
			18 Charlotte Square, Edinburgh, EH2 4DF	T 0131 460 1847 E scotland@systra.co.uk	
Client					
Project			Gavin & Doherty Geosolutions		
Title			Illaunbaun Wind Farm Swept Path Assessment		
			Super Wing Blade Carrier Vestas V117 - 57.2m Blade		
Drawn	TF	Checked	ADV	Approved	ADV
Original drg. size		Date		Scale	
A3		16/10/2024		NTS	
Drawing Status		Drawing Number			
Information		GB01T23F60/I/VEH001	Rev.	-	



Swept path of vehicle
accommodated within
adopted highway boundary



Notes:																																																																																							
1. Do not scale from drawing.																																																																																							
2. All dimensions in metres unless otherwise stated.																																																																																							
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.																																																																																							
																																																																																							
Key:																																																																																							
Blade Transporter Vehicle																																																																																							
Blade Outline																																																																																							
Over-run envelope of tractor and trailer wheels																																																																																							
Over-sail envelope being swept by tractor and trailer bed																																																																																							
Over-sail envelope being swept by blade path																																																																																							
Over-run area of tractor and trailer wheels out with carriageway																																																																																							
Over-sail area of tractor and trailer bed out with carriageway																																																																																							
Over-sail area of blade out with carriageway																																																																																							
<table border="1"> <tr> <td>Rev</td><td>Date</td><td>Revision details</td><td>Drawn</td><td>Checked</td><td>Approved</td></tr> <tr> <td colspan="6">© This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.</td></tr> <tr> <td colspan="6">  18 Charlotte Square, Edinburgh, EH2 4DF T 0131 460 1847 E scotland@systra.co.uk </td></tr> <tr> <td colspan="6">Client</td></tr> <tr> <td colspan="6">Gavin & Doherty Geosolutions</td></tr> <tr> <td colspan="6">Project</td></tr> <tr> <td colspan="6">Illaunbaun Wind Farm Swept Path Assessment</td></tr> <tr> <td colspan="6">Title</td></tr> <tr> <td colspan="6">Super Wing Blade Carrier Vestas V117 - 57.2m Blade Pinch Point 1 Sheet 1 of 4</td></tr> <tr> <td>Drawn</td><td>TF</td><td>Checked</td><td>ADV</td><td>Approved</td><td>ADV</td></tr> <tr> <td>Original drg. size</td><td></td><td>Date</td><td>Scale</td><td></td><td></td></tr> <tr> <td>A3</td><td></td><td>16/10/2024</td><td>1:1000</td><td></td><td></td></tr> <tr> <td>Drawing Status</td><td colspan="2">Drawing Number</td><td>Rev.</td><td></td><td></td></tr> <tr> <td>Information</td><td colspan="2">GBO1T23F60/I/SPA001</td><td></td><td></td><td></td></tr> </table>				Rev	Date	Revision details	Drawn	Checked	Approved	© This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.						 18 Charlotte Square, Edinburgh, EH2 4DF T 0131 460 1847 E scotland@systra.co.uk						Client						Gavin & Doherty Geosolutions						Project						Illaunbaun Wind Farm Swept Path Assessment						Title						Super Wing Blade Carrier Vestas V117 - 57.2m Blade Pinch Point 1 Sheet 1 of 4						Drawn	TF	Checked	ADV	Approved	ADV	Original drg. size		Date	Scale			A3		16/10/2024	1:1000			Drawing Status	Drawing Number		Rev.			Information	GBO1T23F60/I/SPA001				
Rev	Date	Revision details	Drawn	Checked	Approved																																																																																		
© This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.																																																																																							
 18 Charlotte Square, Edinburgh, EH2 4DF T 0131 460 1847 E scotland@systra.co.uk																																																																																							
Client																																																																																							
Gavin & Doherty Geosolutions																																																																																							
Project																																																																																							
Illaunbaun Wind Farm Swept Path Assessment																																																																																							
Title																																																																																							
Super Wing Blade Carrier Vestas V117 - 57.2m Blade Pinch Point 1 Sheet 1 of 4																																																																																							
Drawn	TF	Checked	ADV	Approved	ADV																																																																																		
Original drg. size		Date	Scale																																																																																				
A3		16/10/2024	1:1000																																																																																				
Drawing Status	Drawing Number		Rev.																																																																																				
Information	GBO1T23F60/I/SPA001																																																																																						



Notes:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.



Key:

- Blade Transporter Vehicle
- Blade Outline
- Over-run envelope of tractor and trailer wheels
- Over-sail envelope being swept by tractor and trailer bed
- Over-sail envelope being swept by blade path
- Over-run area of tractor and trailer wheels out with carriageway
- Over-sail area of tractor and trailer bed out with carriageway
- Over-sail area of blade out with carriageway

Rev	Date	Revision details	Drawn	Checked	Approved
© This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.					

SYSTRA
www.systra.co.uk

18 Charlotte Square,
Edinburgh,
EH2 4DF

T 0131 460 1847
E scotland@systra.co.uk

Client

Gavin & Doherty Geosolutions

Project

Illaunbaun Wind Farm
Swept Path Assessment

Title

Super Wing Blade Carrier
Vestas V117 - 57.2m Blade
Pinch Point 1
Sheet 2 of 4

Drawn	Checked	Approved
TF	ADV	ADV

Original drg. size
A3

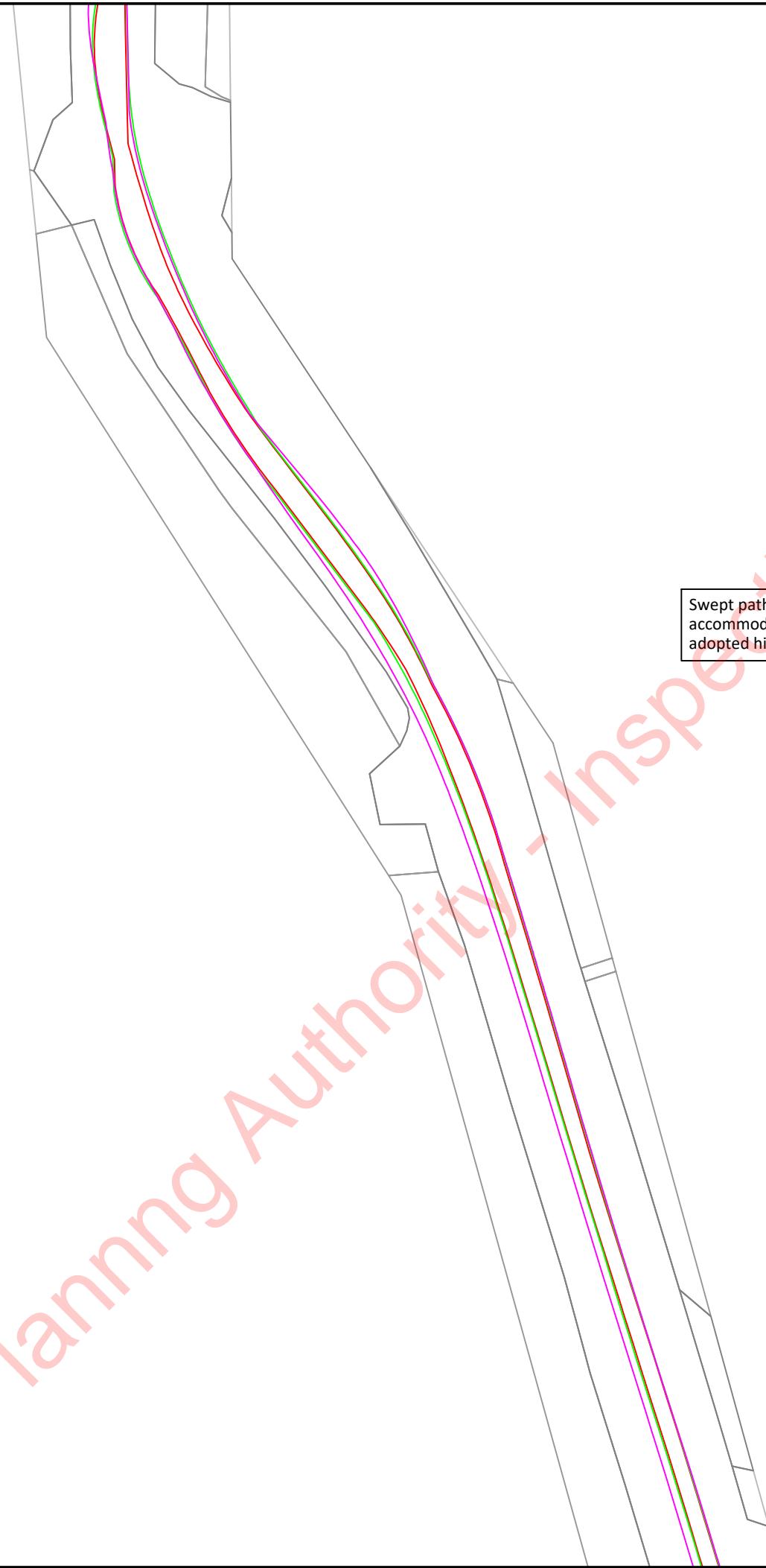
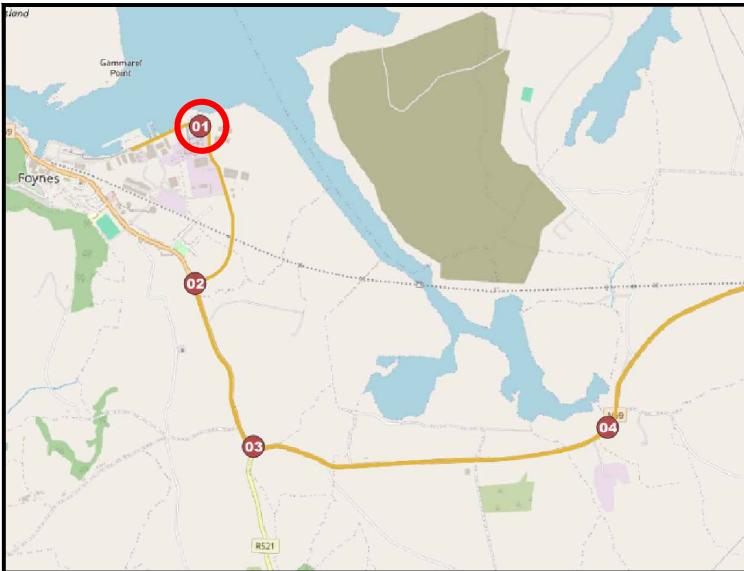
Date
16/10/2024

Scale
1:1000

Drawing Status
Information

Drawing Number
GBO1T23F60/I/SPA002

Rev.
-



RECEIVED: 21/08/2025
Clare Planning Authority - Inspection Purposes Only

Notes:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.



Key:

- Blade Transporter Vehicle
- Blade Outline
- Over-run envelope of tractor and trailer wheels
- Over-sail envelope being swept by tractor and trailer bed
- Over-sail envelope being swept by blade path
- Over-run area of tractor and trailer wheels out with carriageway
- Over-sail area of tractor and trailer bed out with carriageway
- Over-sail area of blade out with carriageway

Rev	Date	Revision details	Drawn	Checked	Approved
© This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.					

SYSTRA
www.systra.com/uk

18 Charlotte Square,
Edinburgh,
EH2 4DF
T 0131 460 1847
E scotland@systra.co.uk

Client

Gavin & Doherty Geosolutions

Project

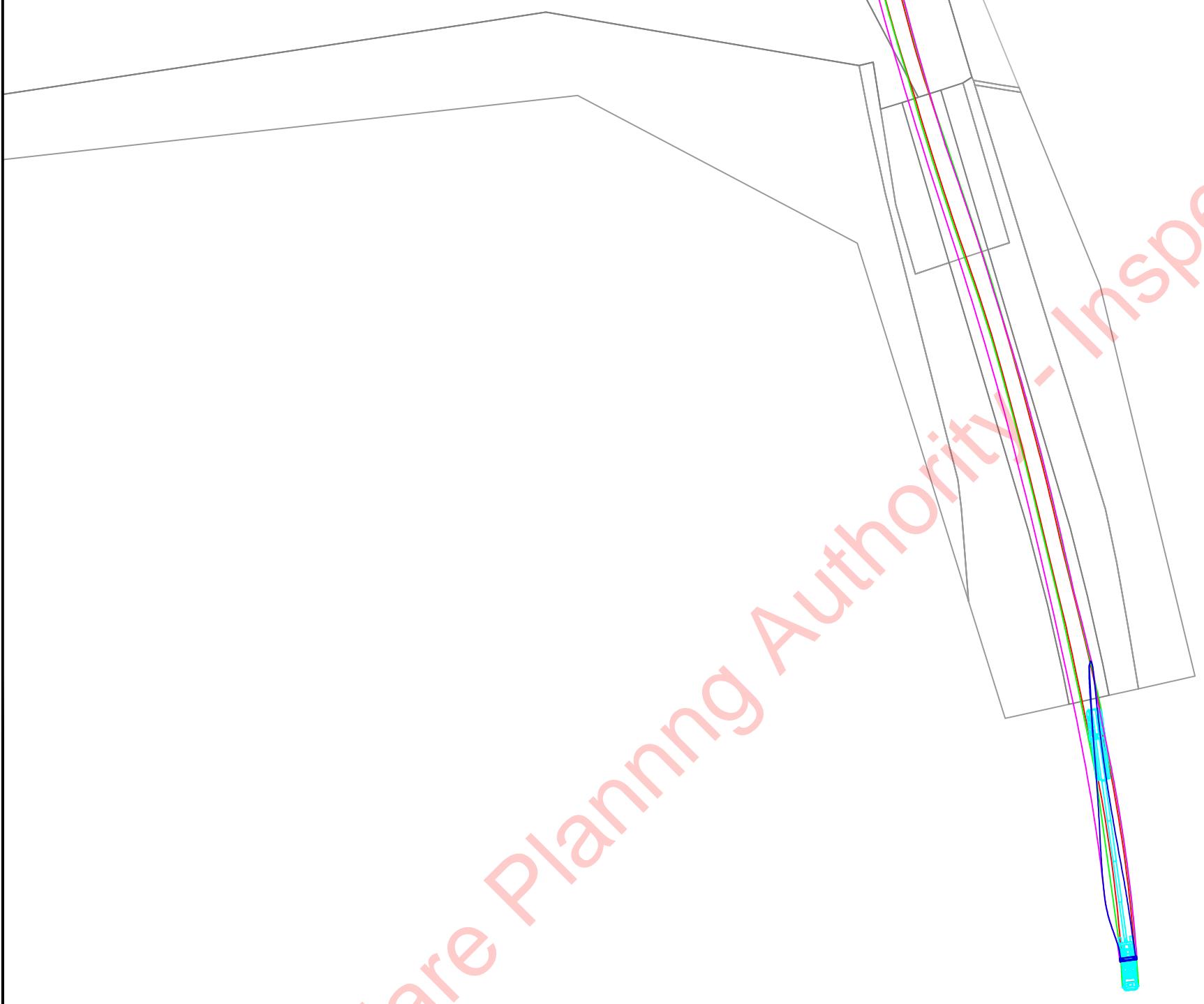
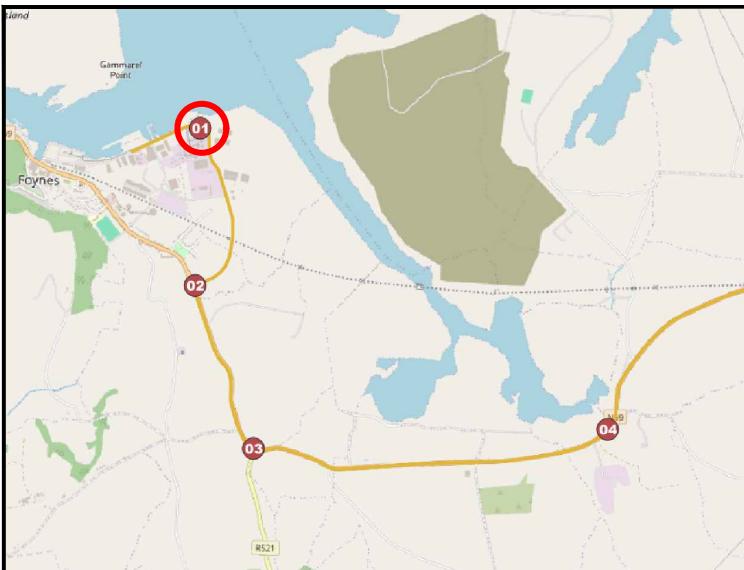
Illaunbaun Wind Farm
Swept Path Assessment

Title

Super Wing Blade Carrier
Vestas V117 - 57.2m Blade
Pinch Point 1
Sheet 3 of 4

Drawn	TF	Checked	ADV	Approved
Original drg. size	A3	Date	Scale	1:1000

Drawing Status	Drawing Number	Rev.
Information	GB01T23F60/I/SPA003	-



RECEIVED: 21/08/2025
Clare Planning Authority - Inspection Purposes Only

Notes:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.



Key:

- Blade Transporter Vehicle
- Blade Outline
- Over-run envelope of tractor and trailer wheels
- Over-sail envelope being swept by tractor and trailer bed
- Over-sail envelope being swept by blade path
- Over-run area of tractor and trailer wheels out with carriageway
- Over-sail area of tractor and trailer bed out with carriageway
- Over-sail area of blade out with carriageway

Rev	Date	Revision details	Drawn	Checked	Approved
© This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.					

SYSTRA
www.systra.co.uk

18 Charlotte Square,
Edinburgh,
EH2 4DF
T 0131 460 1847
E scotland@systra.co.uk

Client

Gavin & Doherty Geosolutions

Project

Illaunbaun Wind Farm
Swept Path Assessment

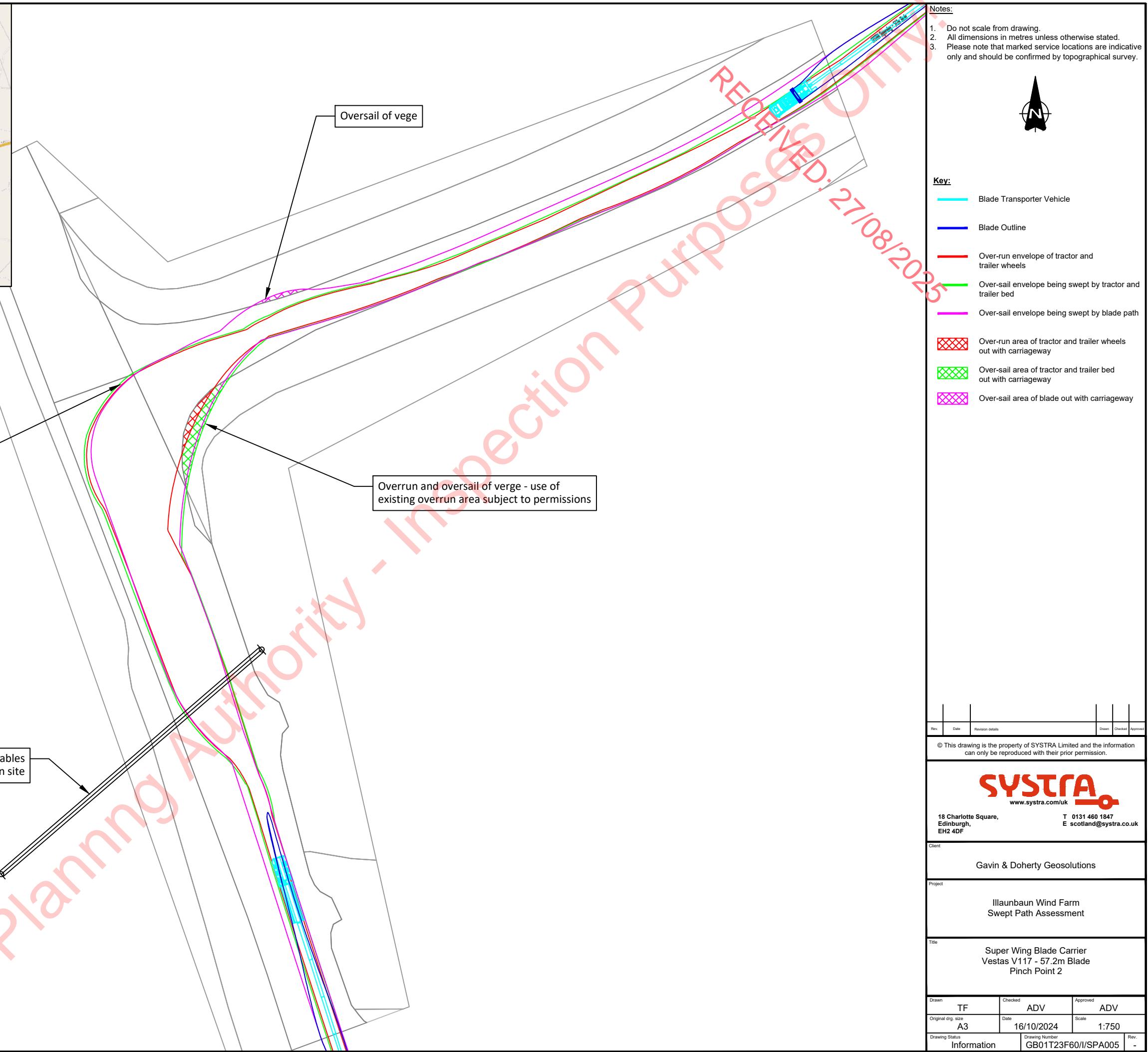
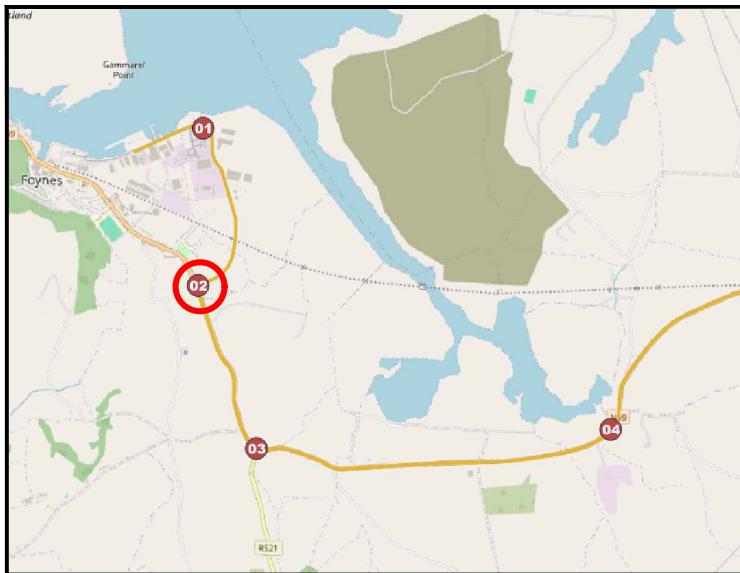
Title

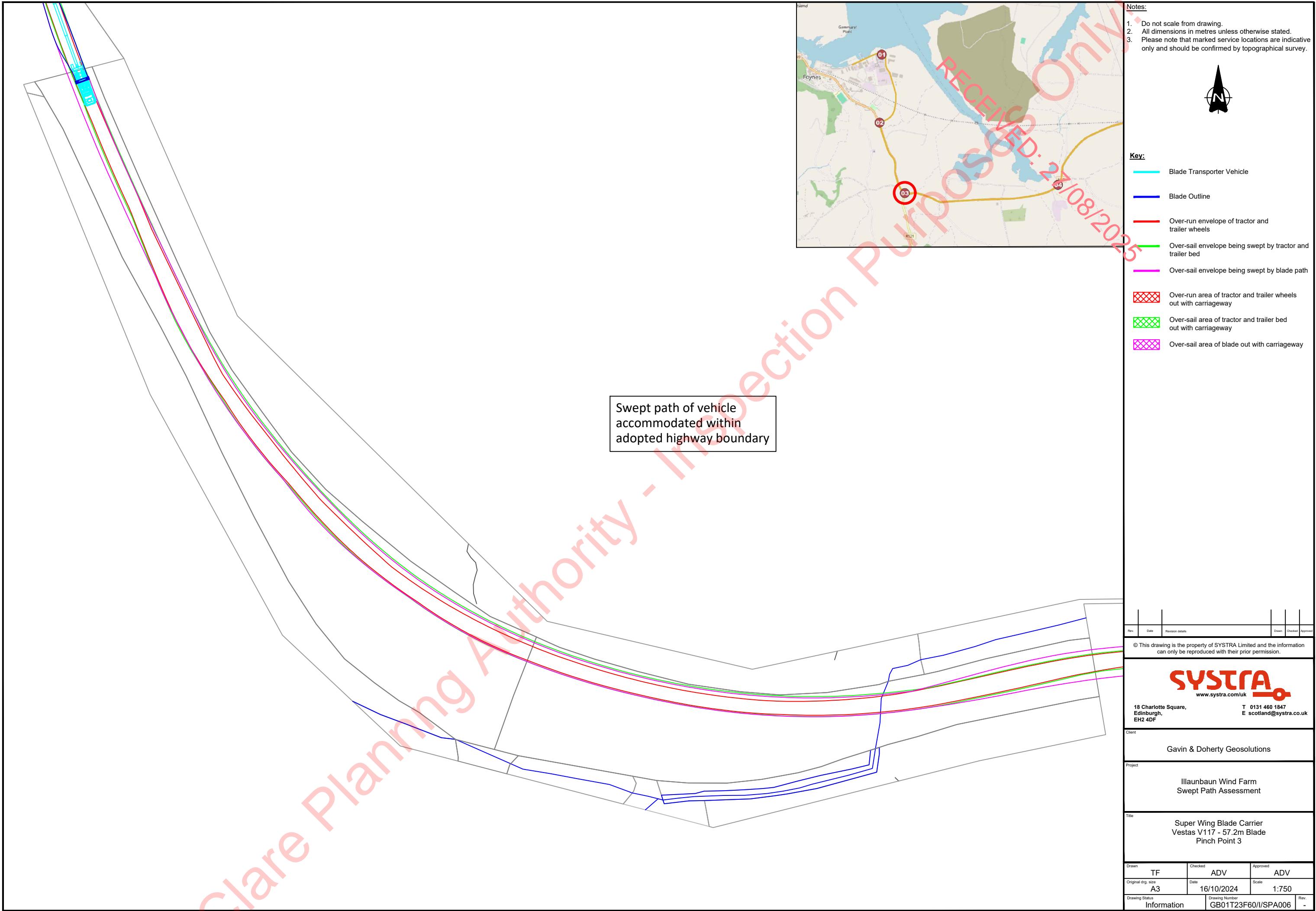
Super Wing Blade Carrier
Vestas V117 - 57.2m Blade
Pinch Point 1
Sheet 4 of 4

Drawn TF Checked ADV Approved ADV

Original drg. size A3 Date 16/10/2024 Scale 1:1000

Drawing Status Information Drawing Number GBO1T23F60/I/SPA004 Rev. -





Notes:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.



Key:

- Blade Transporter Vehicle
- Blade Outline
- Over-run envelope of tractor and trailer wheels
- Over-sail envelope being swept by tractor and trailer bed
- Over-sail envelope being swept by blade path
- Over-run area of tractor and trailer wheels out with carriageway
- Over-sail area of tractor and trailer bed out with carriageway
- Over-sail area of blade out with carriageway

© This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.

SYSTRA
www.systra.com/uk

18 Charlotte Square,
Edinburgh,
EH2 4DF

Gavin & Doherty Consultations

Gavin & Denerty Geosolutions

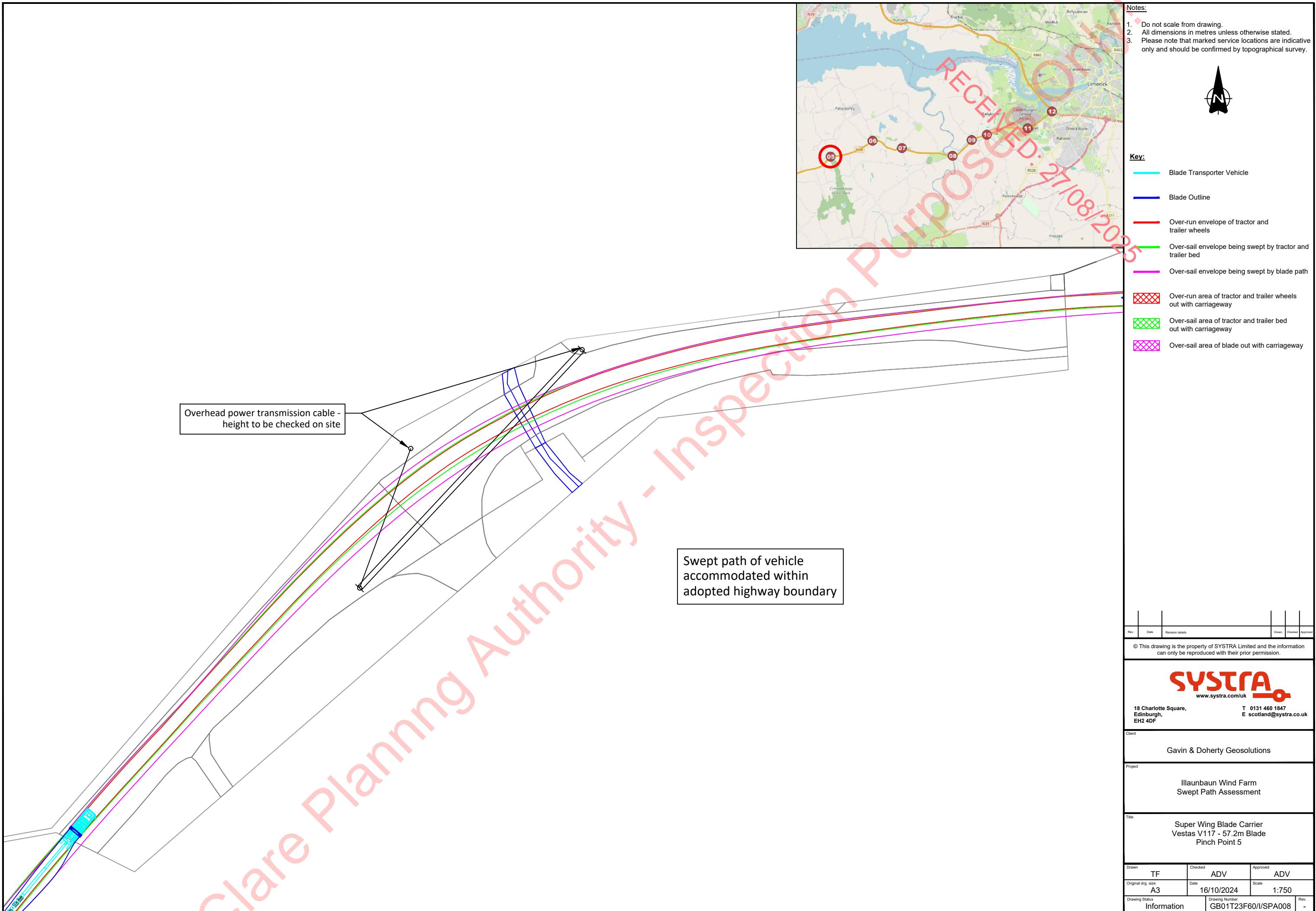
IIIaunbaun Wind Farm
Swept Path Assessment

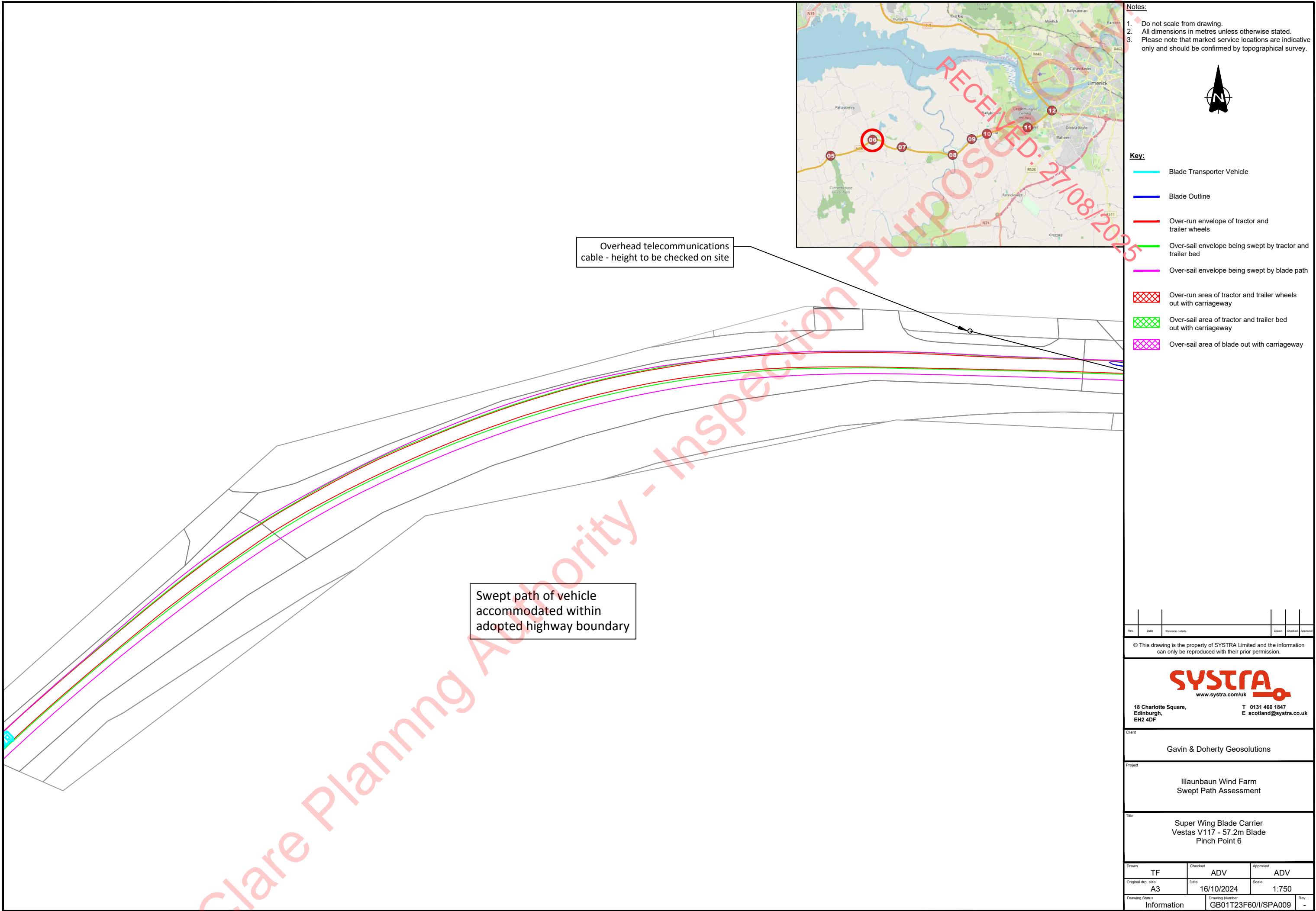
Title Super Wing Blade Carrier Vestas V117 - 57.2m Blade Pinch Point 4			
Drawn TF	Checked ADV	Approved ADV	
Original drg. size A3	Date 16/10/2024	Scale 1:1000	
Drawing Status Information	Drawing Number GB01T23F60/I/SPA007	Rev. -	

Swept path of vehicle accommodated within adopted highway boundary

Overhead telecommunications cable - height to be checked on site

Overhead
telecommunications cable -
height to be checked on site





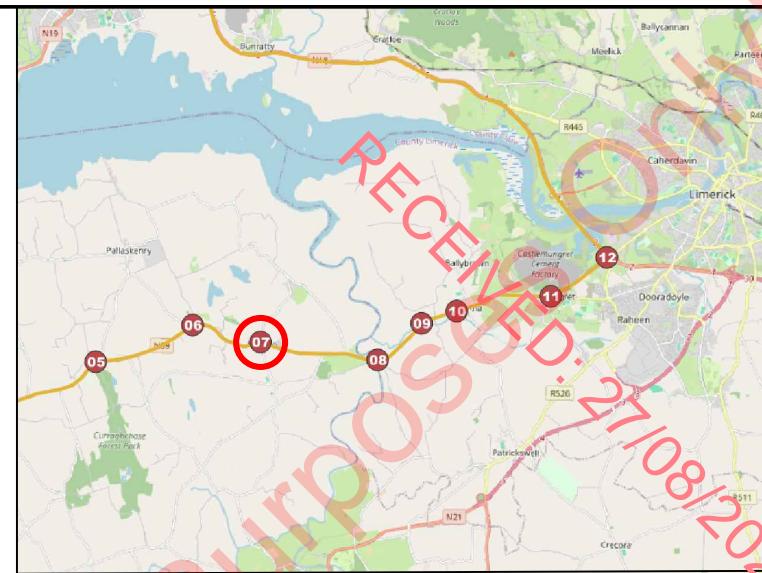
Notes:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.



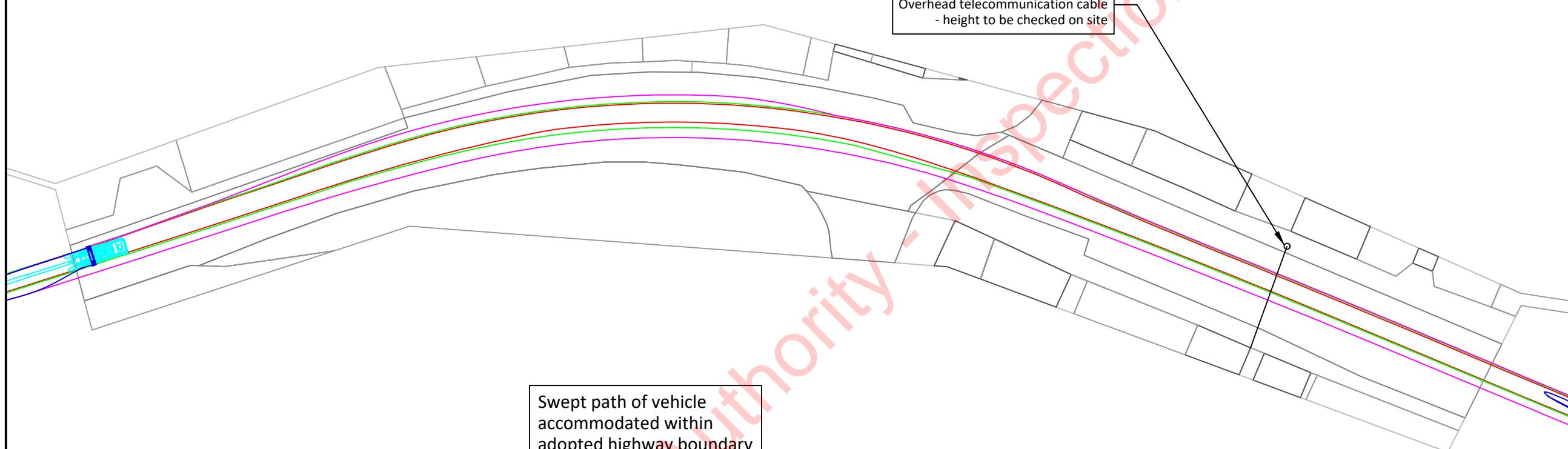
Key:

- Blade Transporter Vehicle
- Blade Outline
- Over-run envelope of tractor and trailer wheels
- Over-sail envelope being swept by tractor and trailer bed
- Over-sail envelope being swept by blade path
- Over-run area of tractor and trailer wheels out with carriageway
- Over-sail area of tractor and trailer bed out with carriageway
- Over-sail area of blade out with carriageway



Overhead telecommunication cable
- height to be checked on site

Swept path of vehicle accommodated within adopted highway boundary



Rev.	Date	Revision details	Drawn	Checked	Approved
© This drawing is the property of SYSTEA Limited and the information					

SYSTRA
Systech

18 Charlotte Square,
Edinburgh,
EH2 4DF

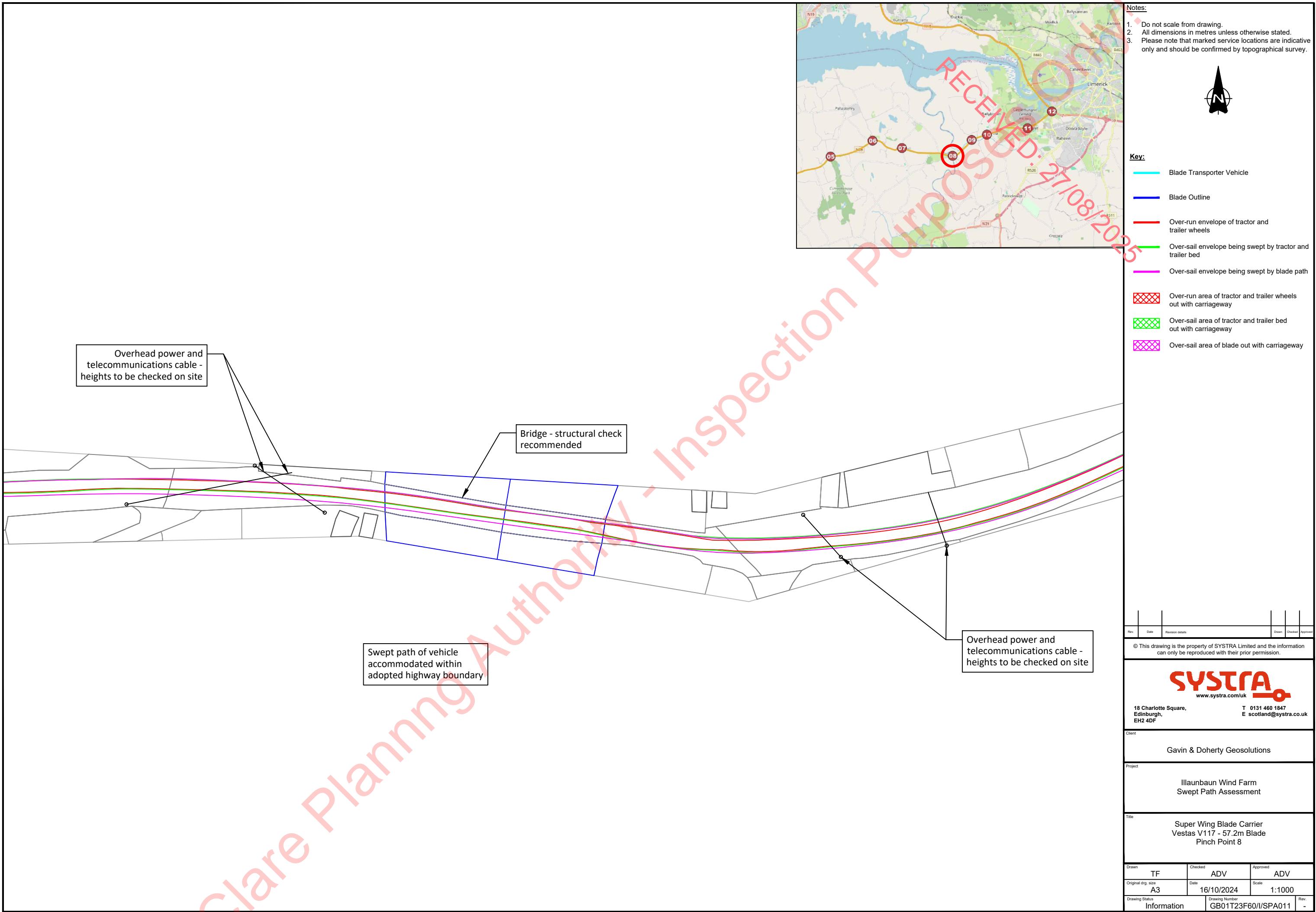
Gavin & Doherty Geosolutions

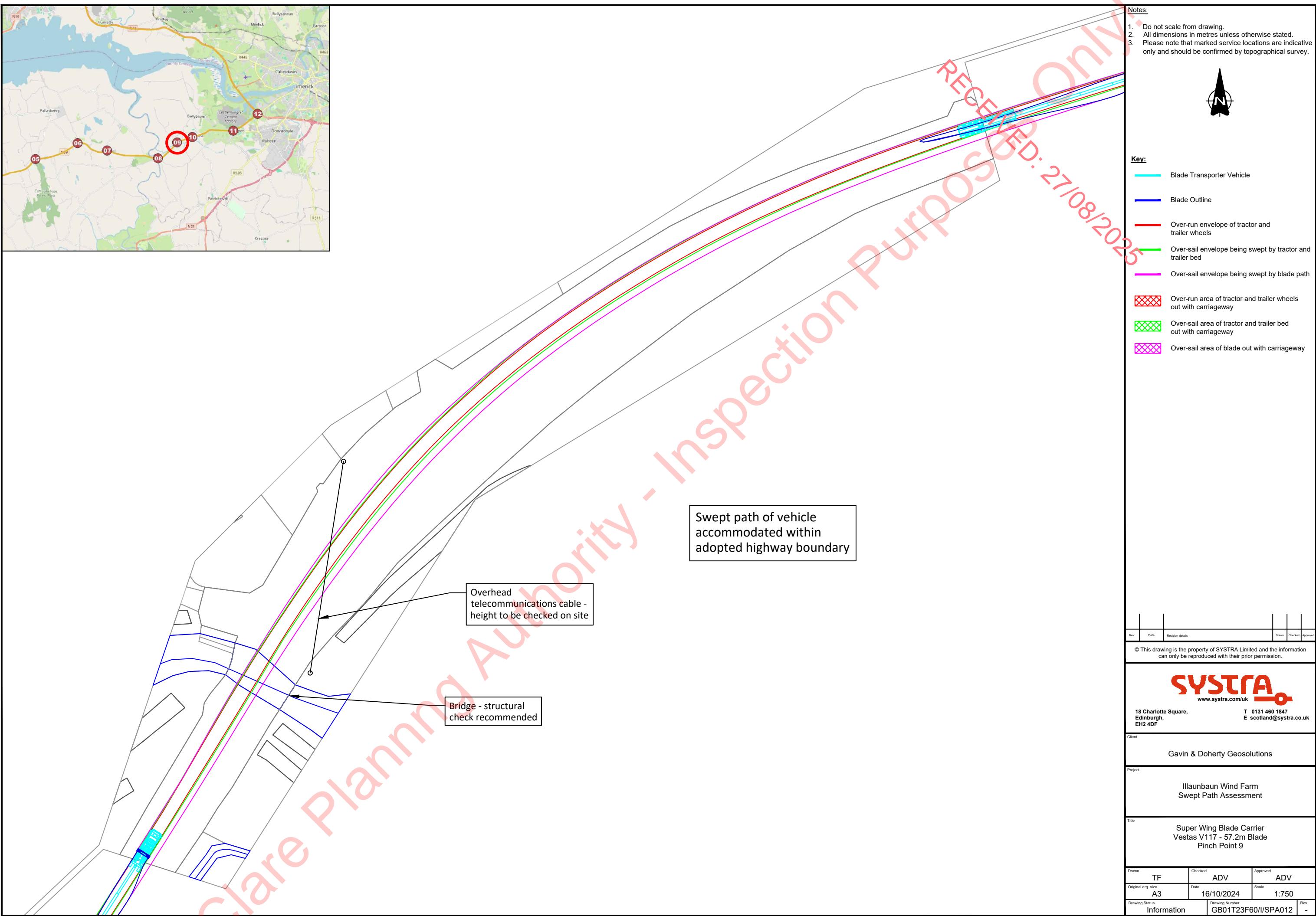
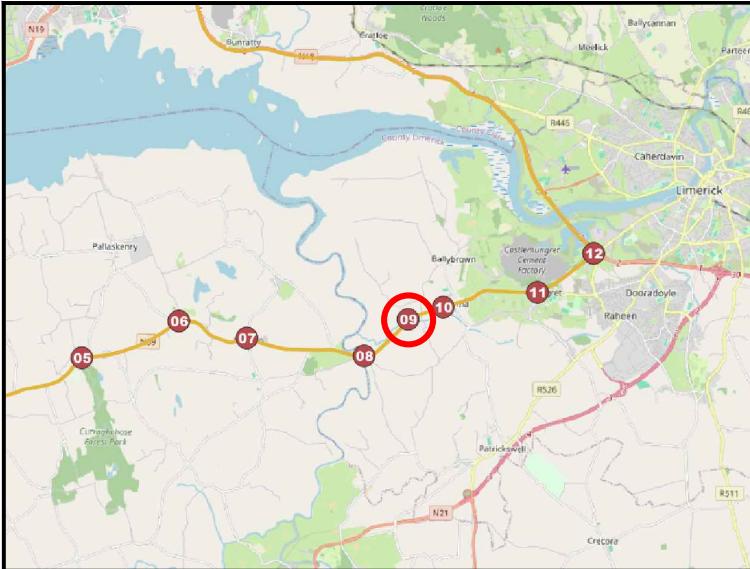
Illaunbaun Wind Farm
Swept Path Assessment

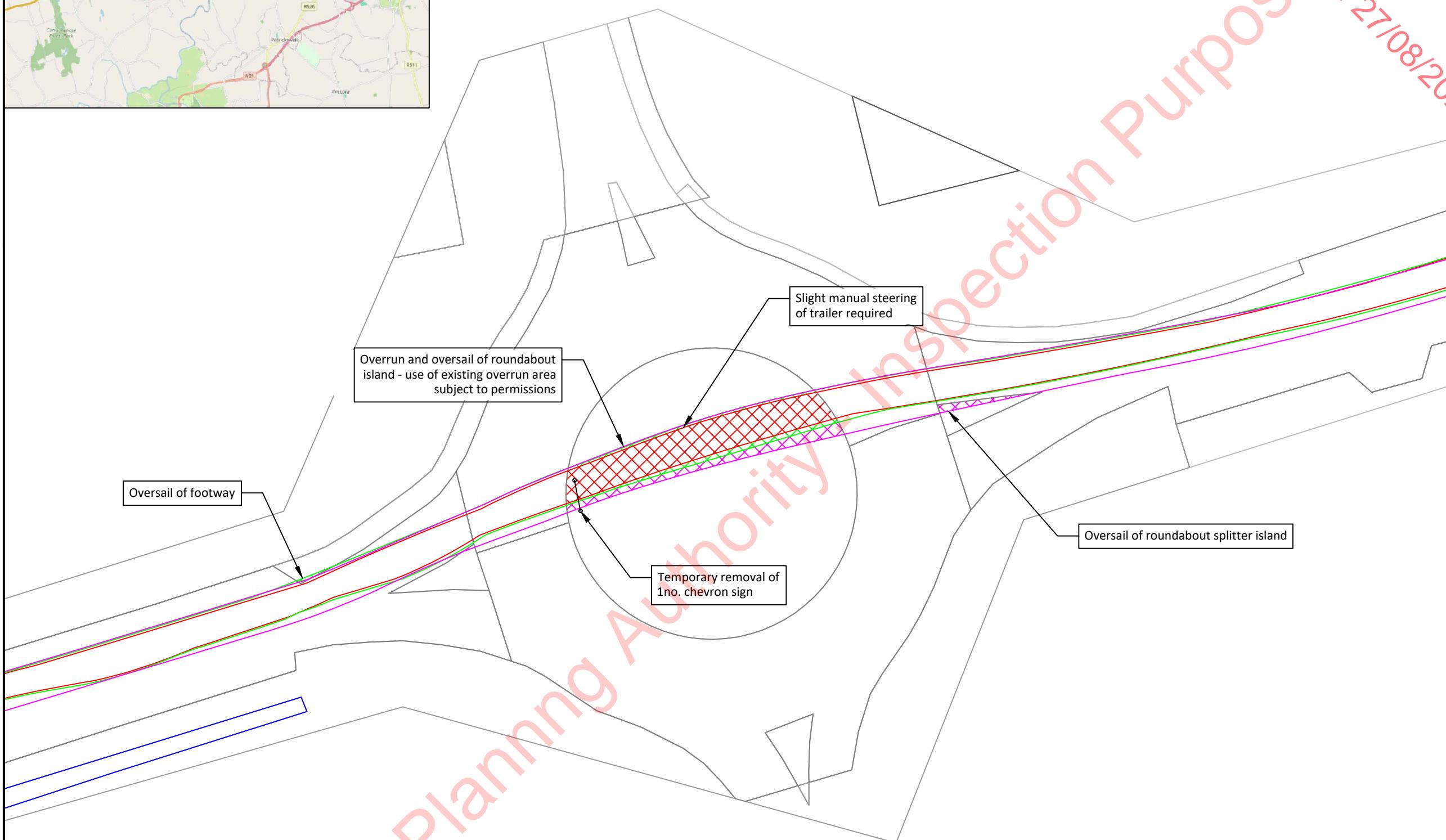
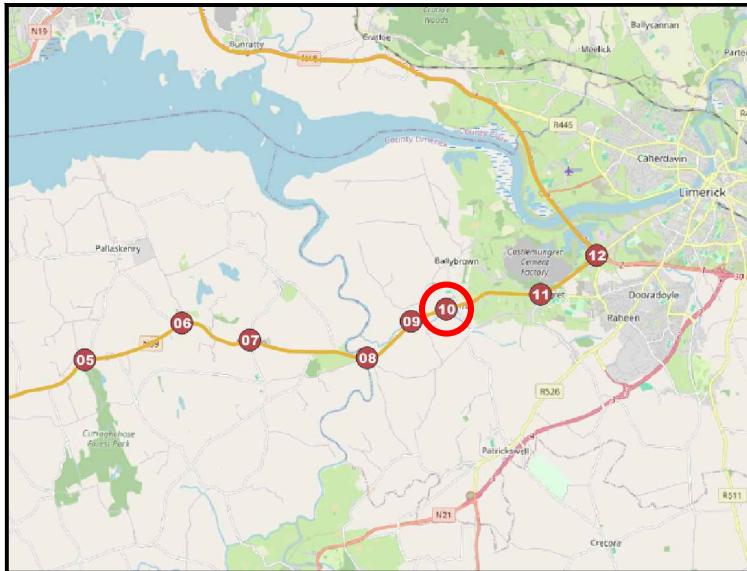
Super Wing Blade Carrier
Vestas V117 - 57.2m Blade
Pinch Point 7

Drawn	TF	Checked	Approved
Original drg. size		ADV	ADV
A3	Date	Scale	
	16/10/2024	1:750	

Drawing Status	Drawing Number	Rev.
Information	GB01T23F60/I/SPA010	







Notes:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.



Key:	
Blade Transporter Vehicle	(cyan line)
Blade Outline	(blue line)
Over-run envelope of tractor and trailer wheels	(red line)
Over-sail envelope being swept by tractor and trailer bed	(green line)
Over-sail envelope being swept by blade path	(magenta line)
Over-run area of tractor and trailer wheels out with carriageway	(red hatched area)
Over-sail area of tractor and trailer bed out with carriageway	(green hatched area)
Over-sail area of blade out with carriageway	(magenta hatched area)

Rev	Date	Revision details	Drawn	Checked	Approved
© This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.					

SYSTRA
www.systra.co.uk

18 Charlotte Square,
Edinburgh,
EH2 4DF
T 0131 460 1847
E scotland@systra.co.uk

Client

Gavin & Doherty Geosolutions

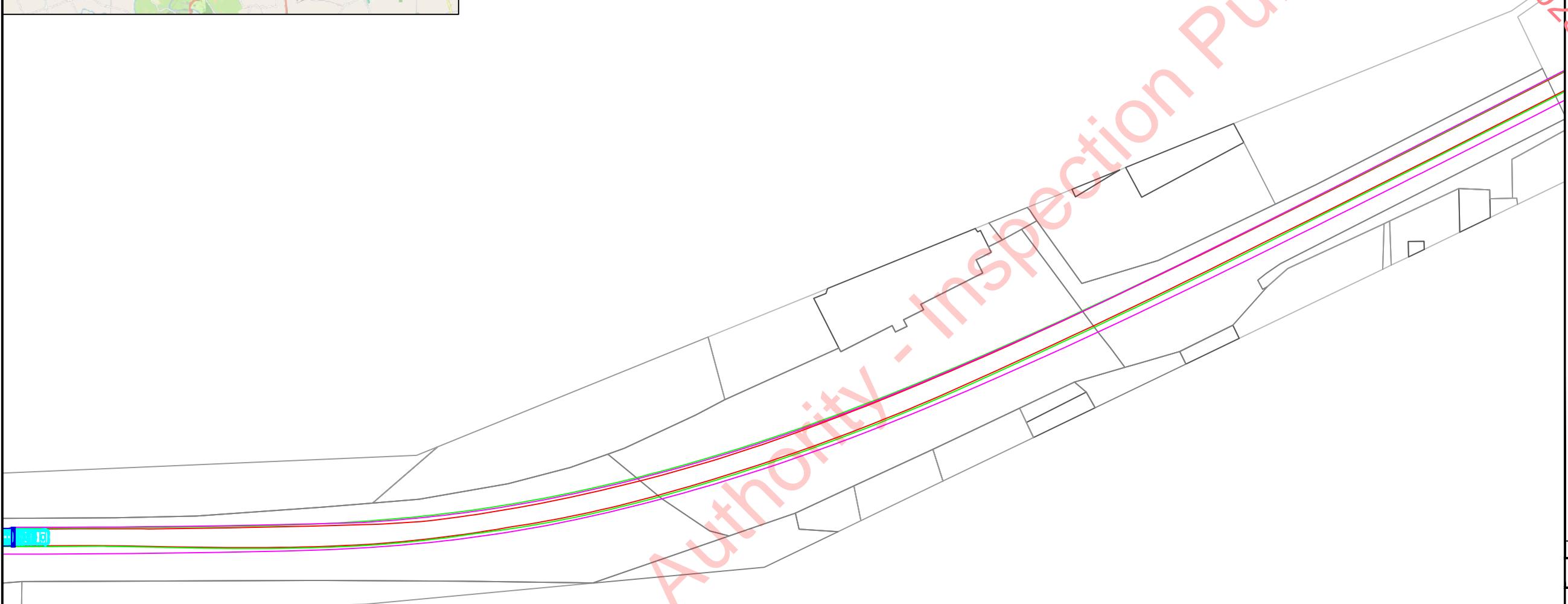
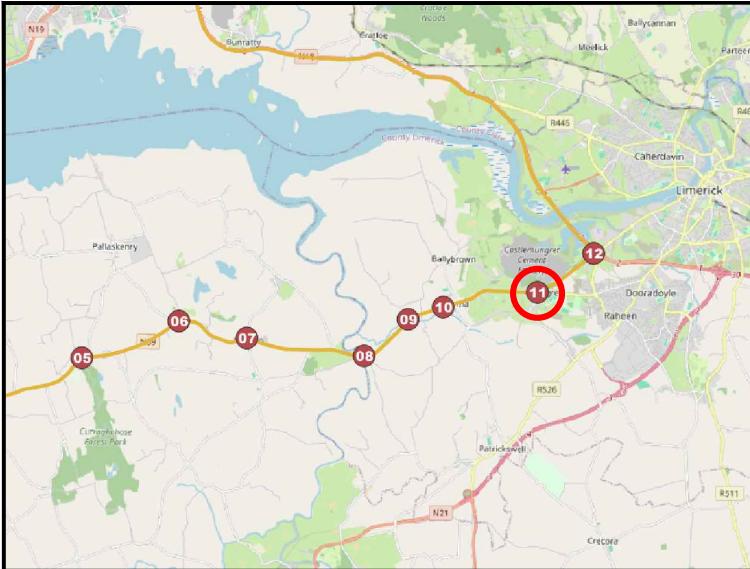
Project

Illaunbaun Wind Farm
Swept Path Assessment

Title

Super Wing Blade Carrier
Vestas V117 - 57.2m Blade
Pinch Point 10

Drawn	TF	Checked	ADV	Approved
Original drg. size		Date	Scale	
A3		16/10/2024	1:500	
Drawing Status	Information	Drawing Number	GB01T23F60/I/SPA013	Rev. -



Swept path of vehicle
accommodated within
adopted highway boundary

RECEIVED: 21/08/2025
Clare Planning Authority - Inspection Purposes Only

Notes:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.



Key:

- Blade Transporter Vehicle
- Blade Outline
- Over-run envelope of tractor and trailer wheels
- Over-sail envelope being swept by tractor and trailer bed
- Over-sail envelope being swept by blade path
- Over-run area of tractor and trailer wheels out with carriageway
- Over-sail area of tractor and trailer bed out with carriageway
- Over-sail area of blade out with carriageway

Rev	Date	Revision details	Drawn	Checked	Approved
-----	------	------------------	-------	---------	----------

© This drawing is the property of SYSTRA Limited and the information
can only be reproduced with their prior permission.

SYSTRA
www.systra.com/uk

18 Charlotte Square,
Edinburgh,
EH2 4DF
T 0131 460 1847
E scotland@systra.co.uk

Client

Gavin & Doherty Geosolutions

Project

Illaunbaun Wind Farm
Swept Path Assessment

Title

Super Wing Blade Carrier
Vestas V117 - 57.2m Blade
Pinch Point 11

Drawn	TF	Checked	ADV	Approved	ADV
Original drg. size	A3	Date	16/10/2024	Scale	1:750

Drawing Status

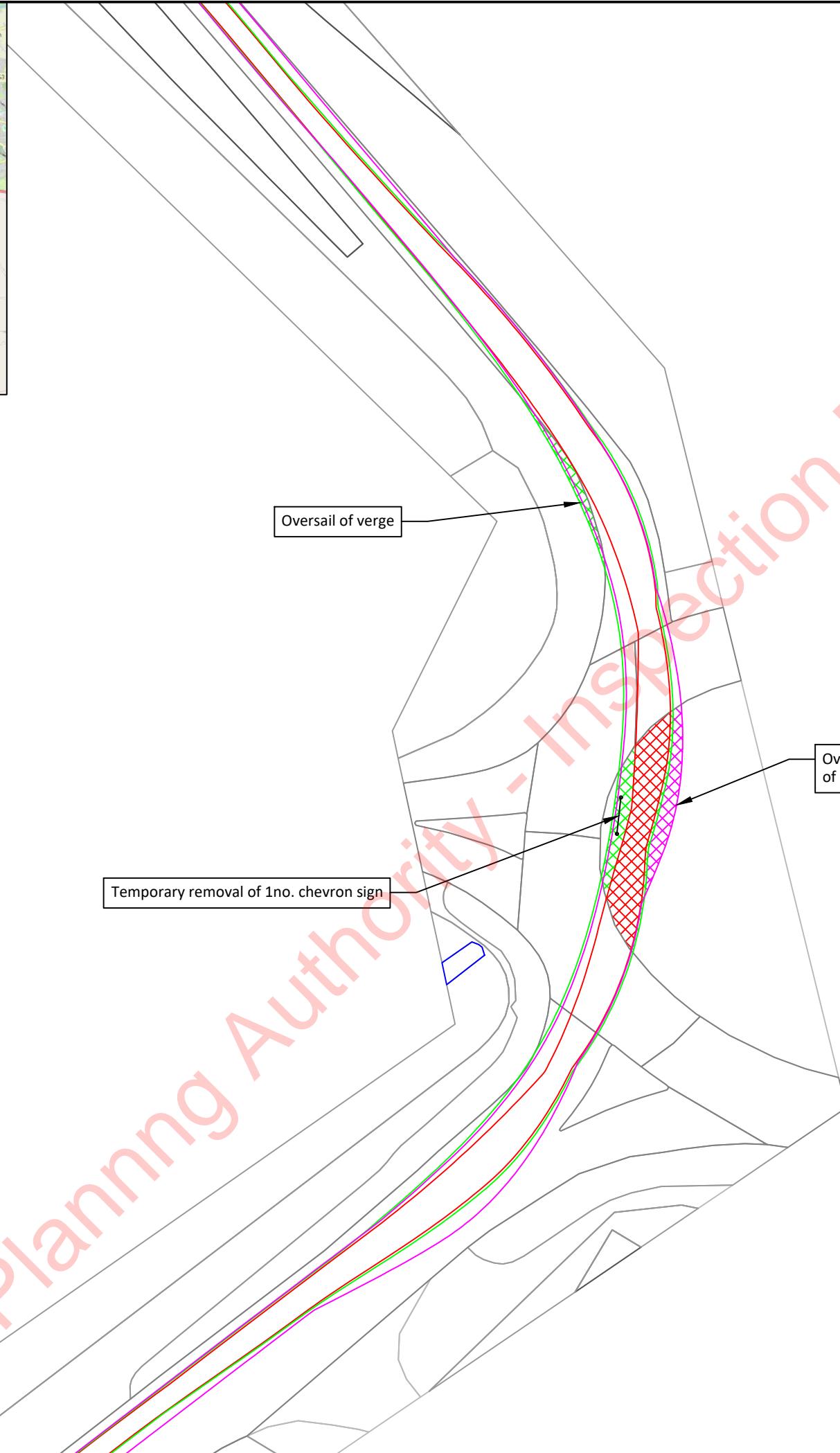
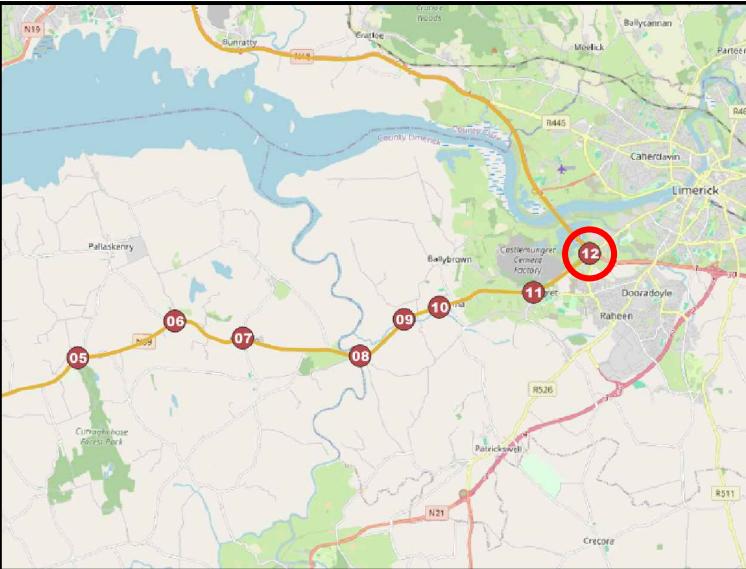
Information

Drawing Number

Rev.

Information

GB01T23F60/I/SPA014



Notes:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.



Key:

- Blade Transporter Vehicle
- Blade Outline
- Over-run envelope of tractor and trailer wheels
- Over-sail envelope being swept by tractor and trailer bed
- Over-sail envelope being swept by blade path
- Over-run area of tractor and trailer wheels out with carriageway
- Over-sail area of tractor and trailer bed out with carriageway
- Over-sail area of blade out with carriageway

Rev	Date	Revision details	Drawn	Checked	Approved
-----	------	------------------	-------	---------	----------

© This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.

SYSTRA
www.systra.co.uk

18 Charlotte Square,
Edinburgh,
EH2 4DF
T 0131 460 1847
E scotland@systra.co.uk

Client

Gavin & Doherty Geosolutions

Project

Illaunbaun Wind Farm
Swept Path Assessment

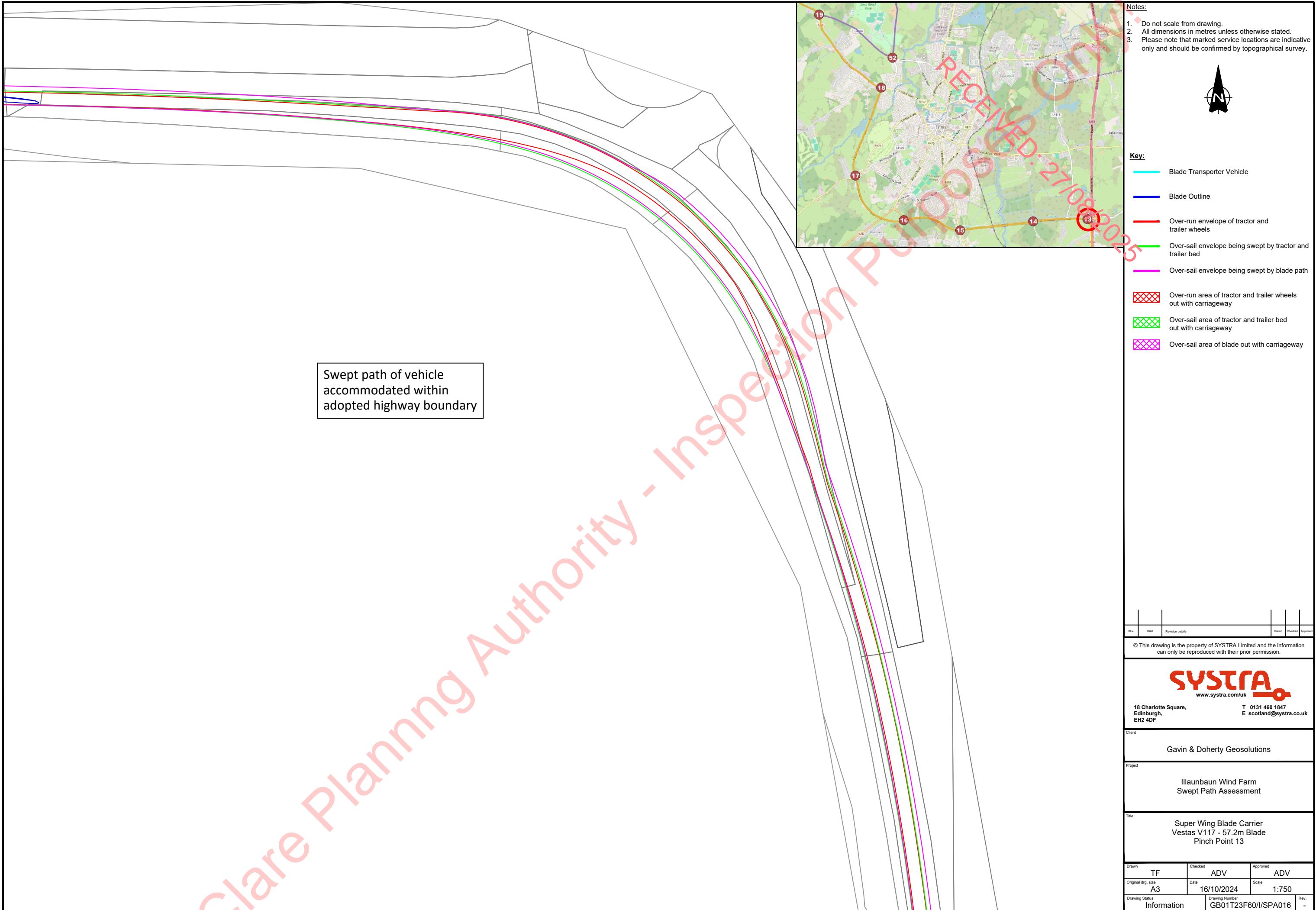
Title

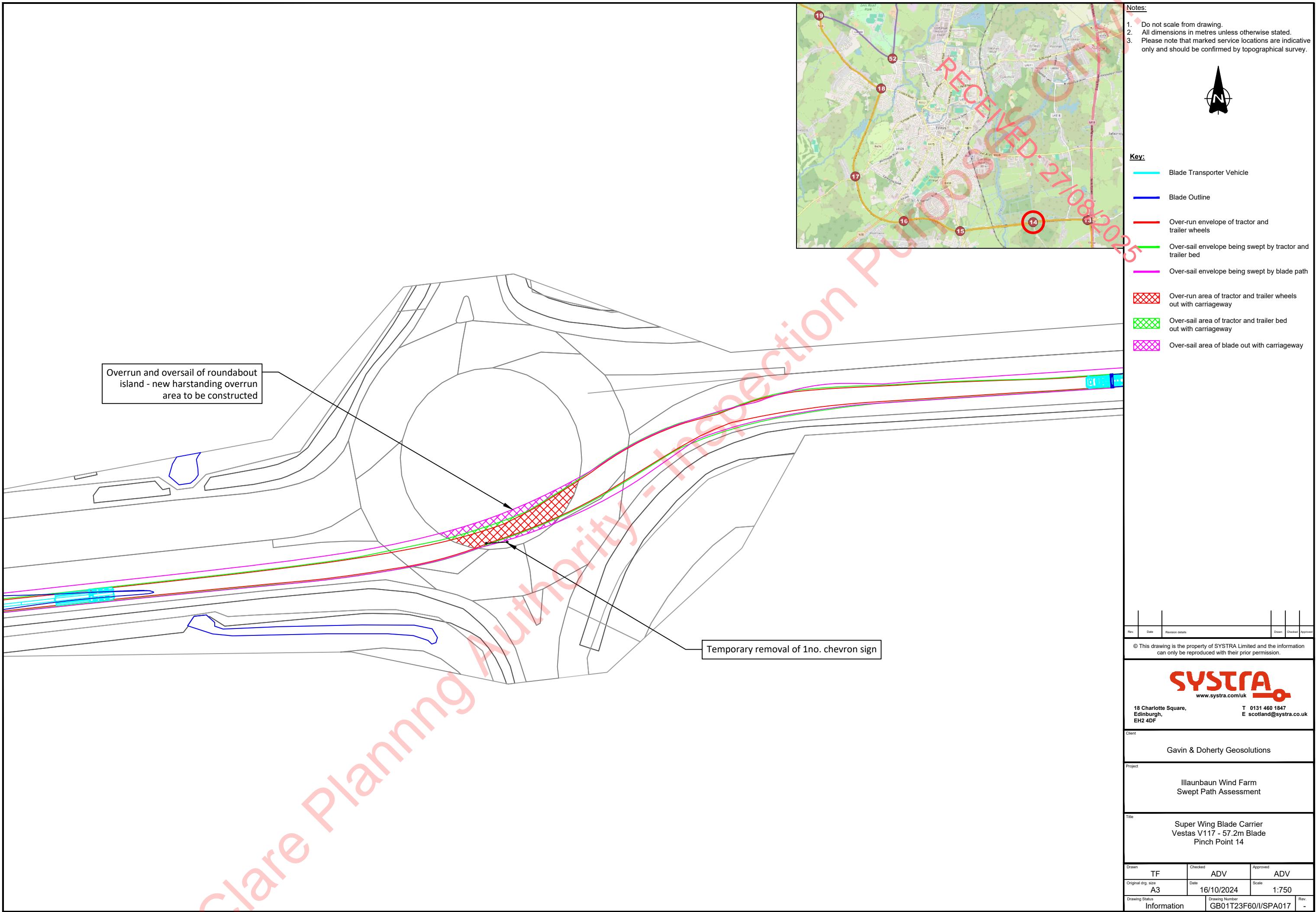
Super Wing Blade Carrier
Vestas V117 - 57.2m Blade
Pinch Point 12

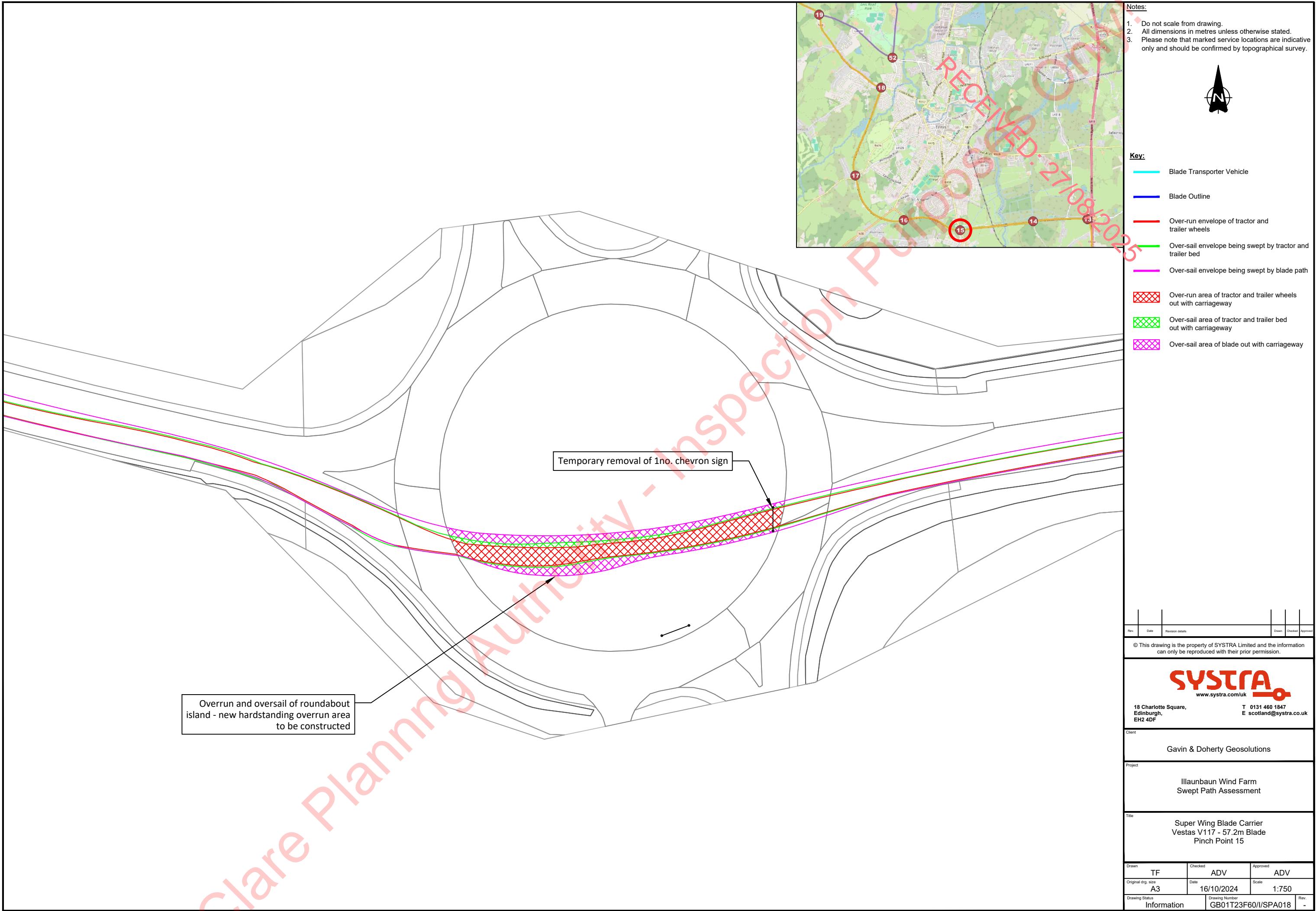
Drawn **TF** Checked **ADV** Approved **ADV**

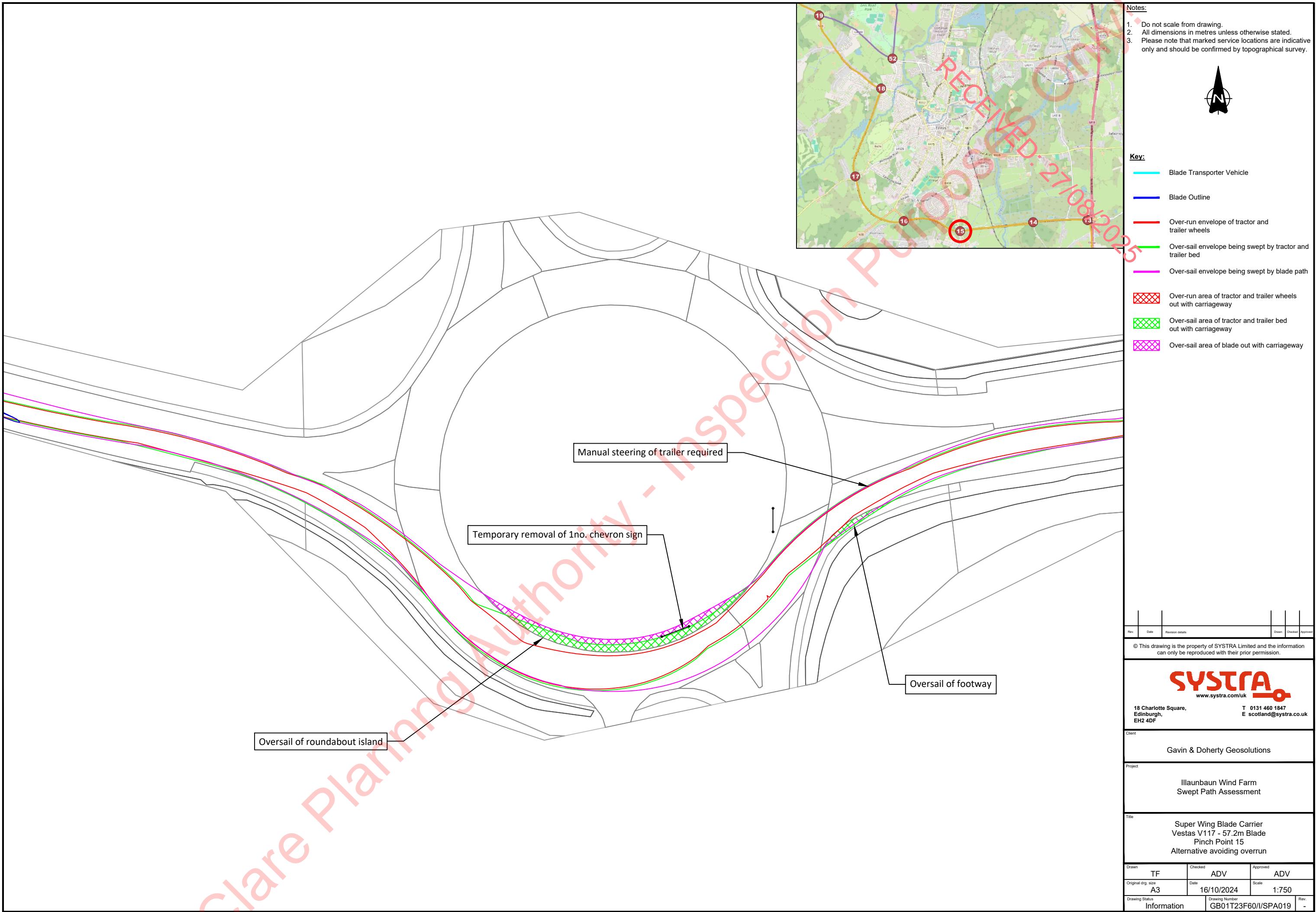
Original drg. size **A3** Date **16/10/2024** Scale **1:750**

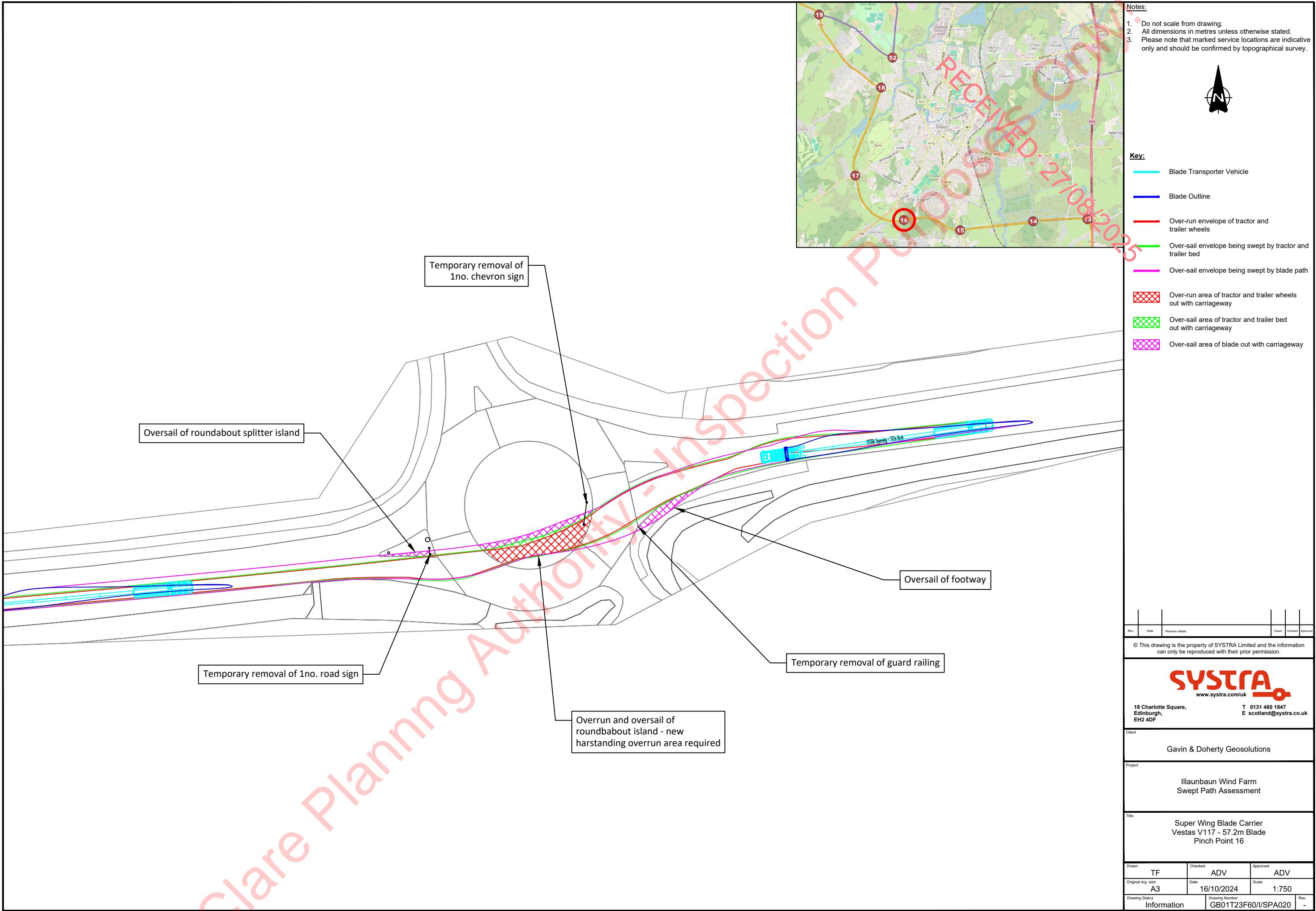
Drawing Status **Information** Drawing Number **GB01T23F60/I/SPA015** Rev. **-**

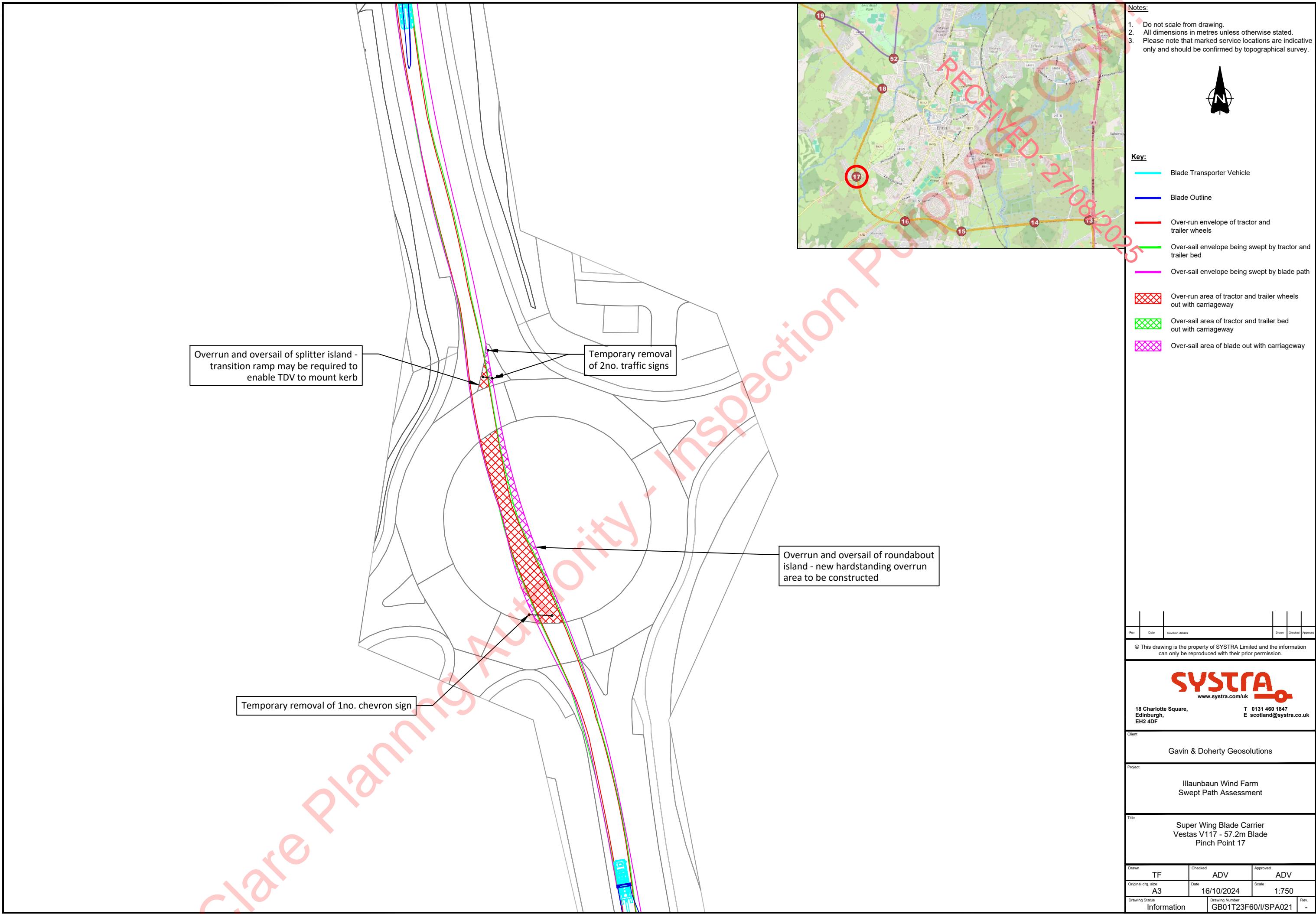


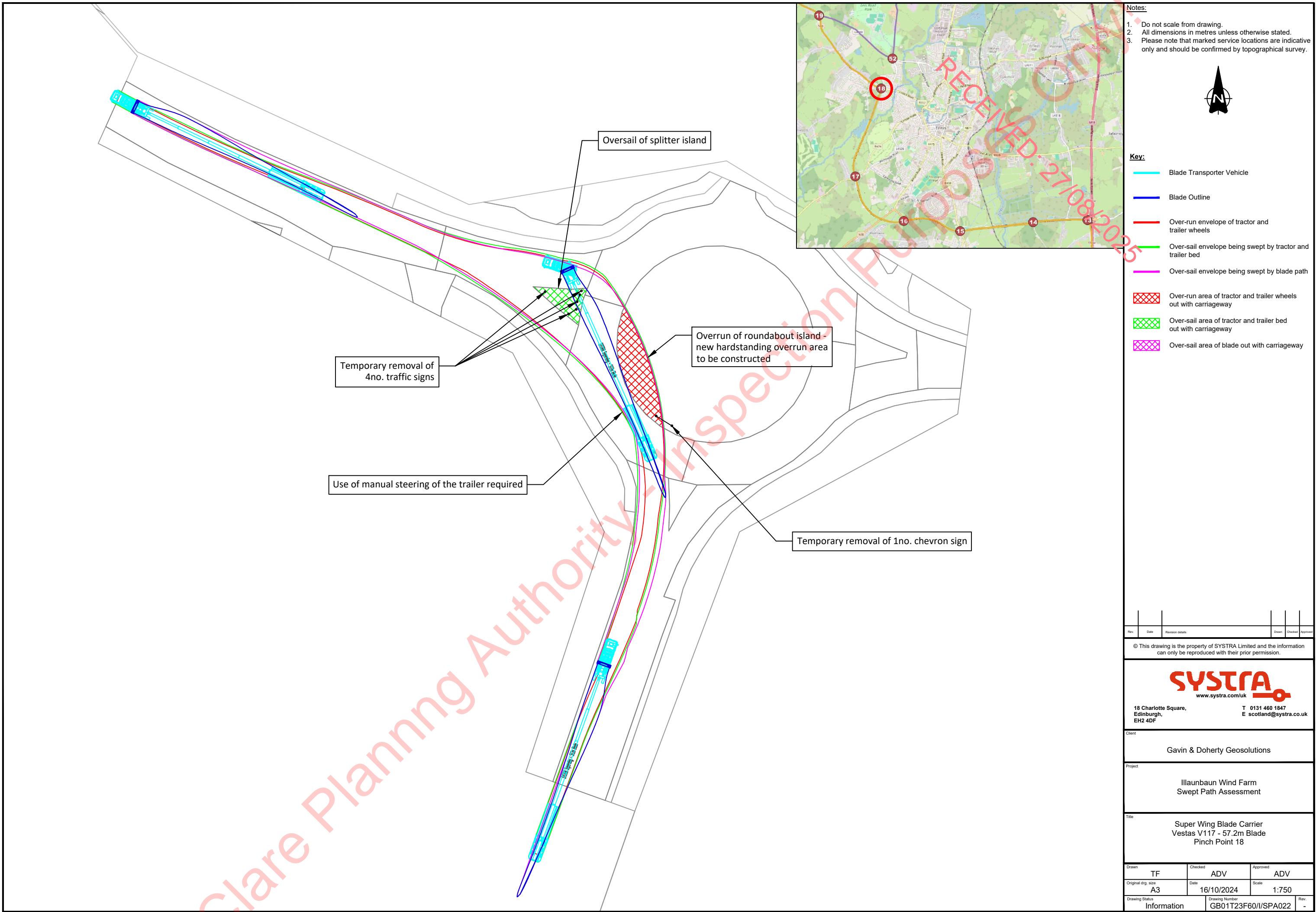


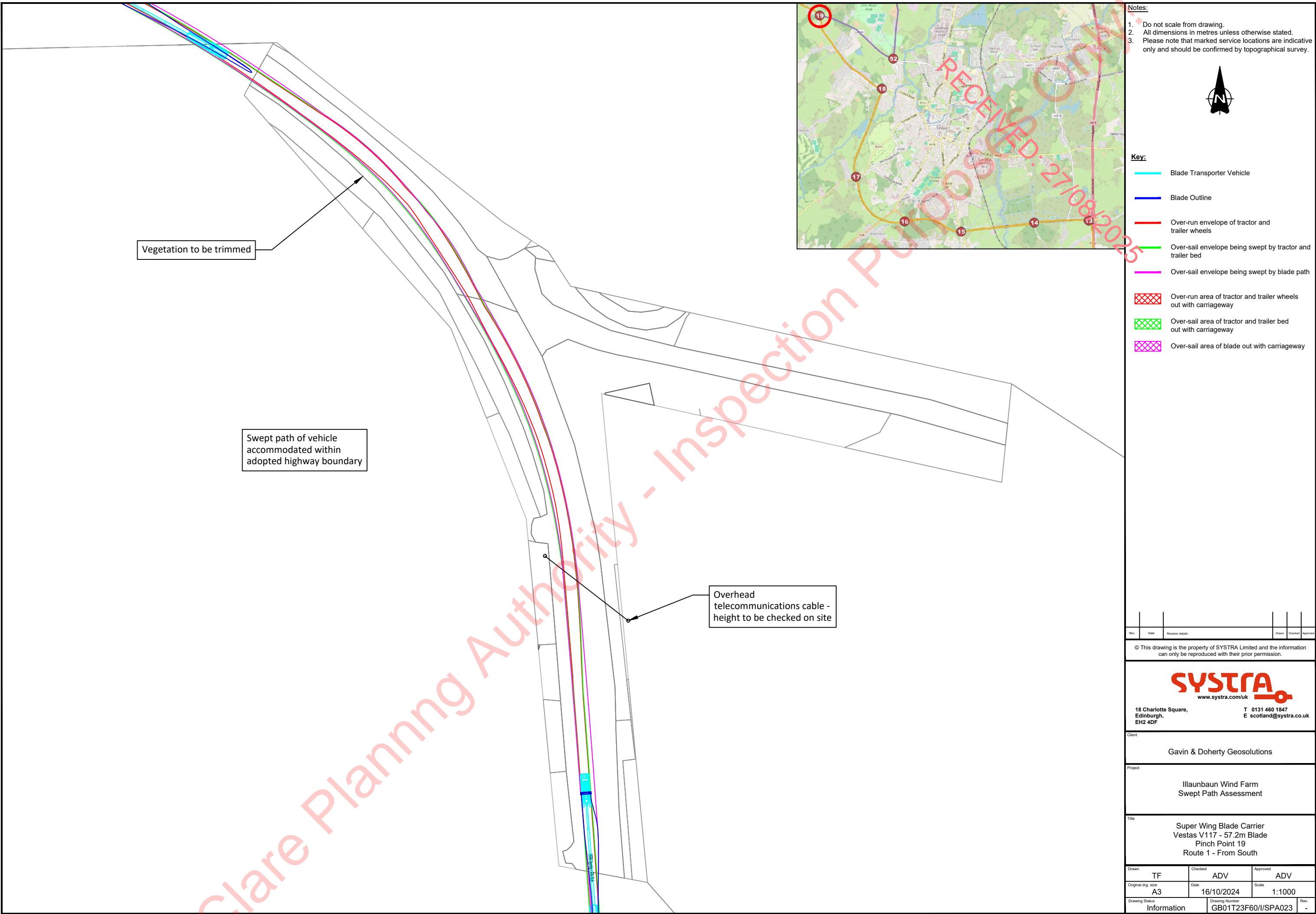


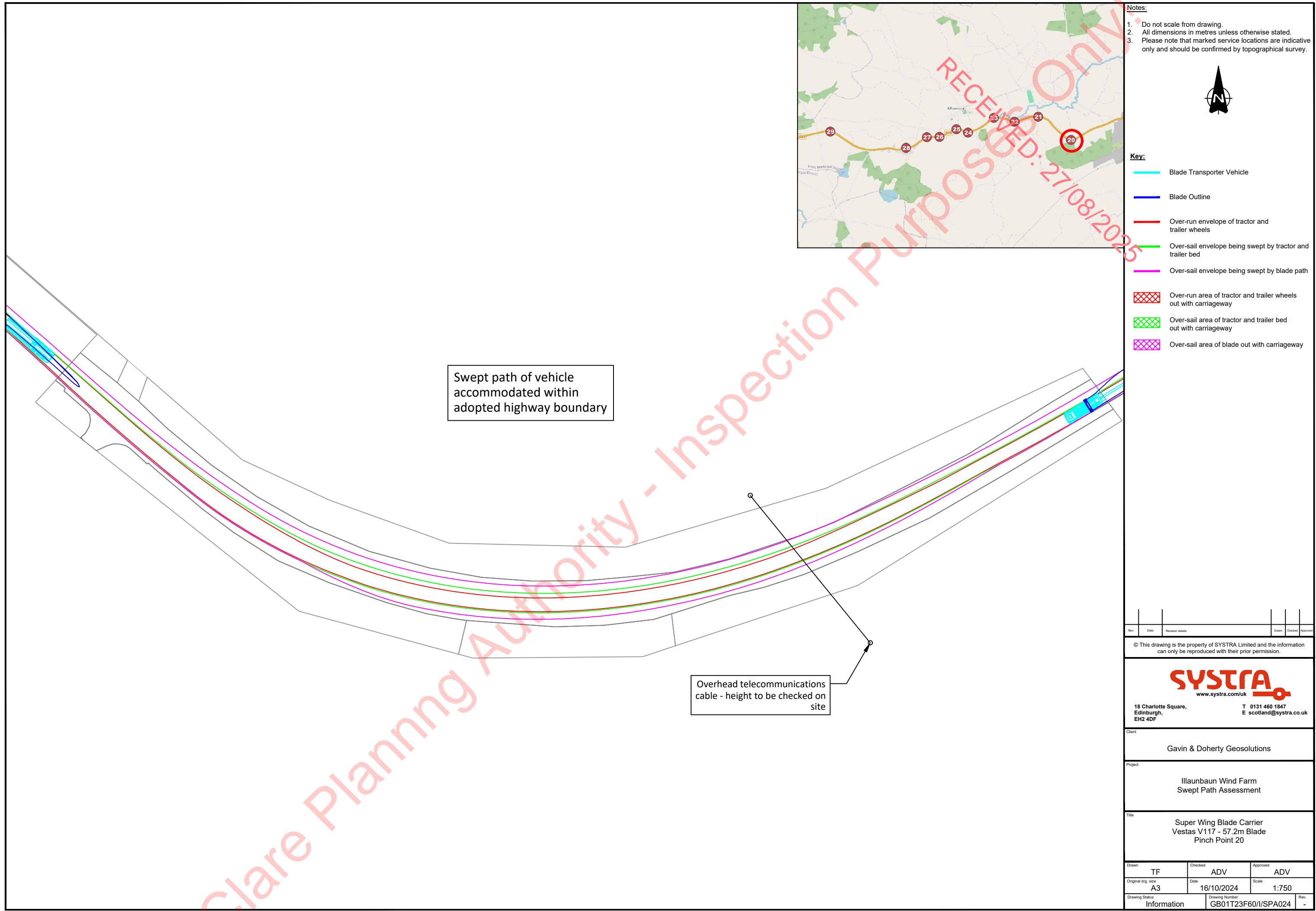


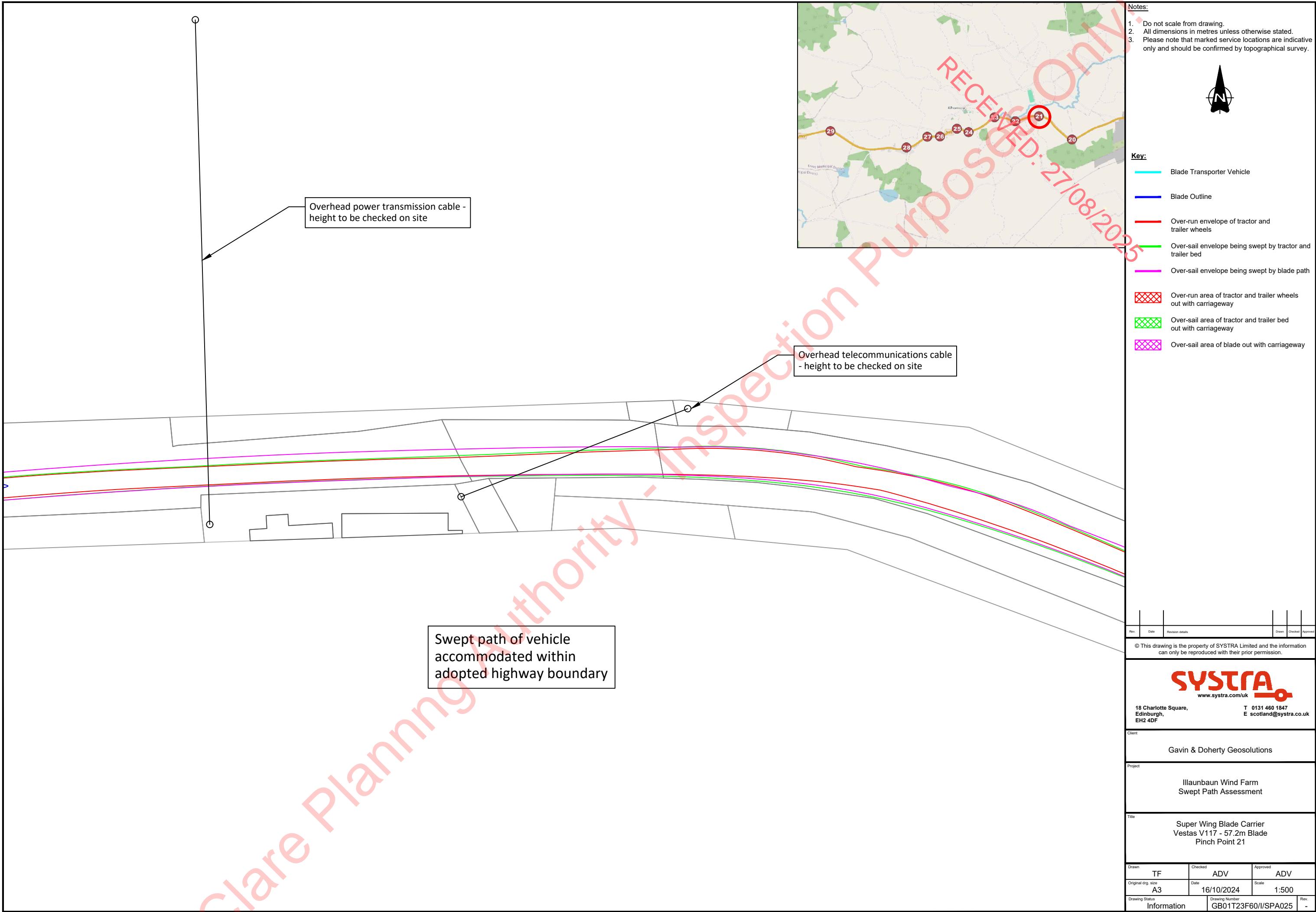












Notes:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.



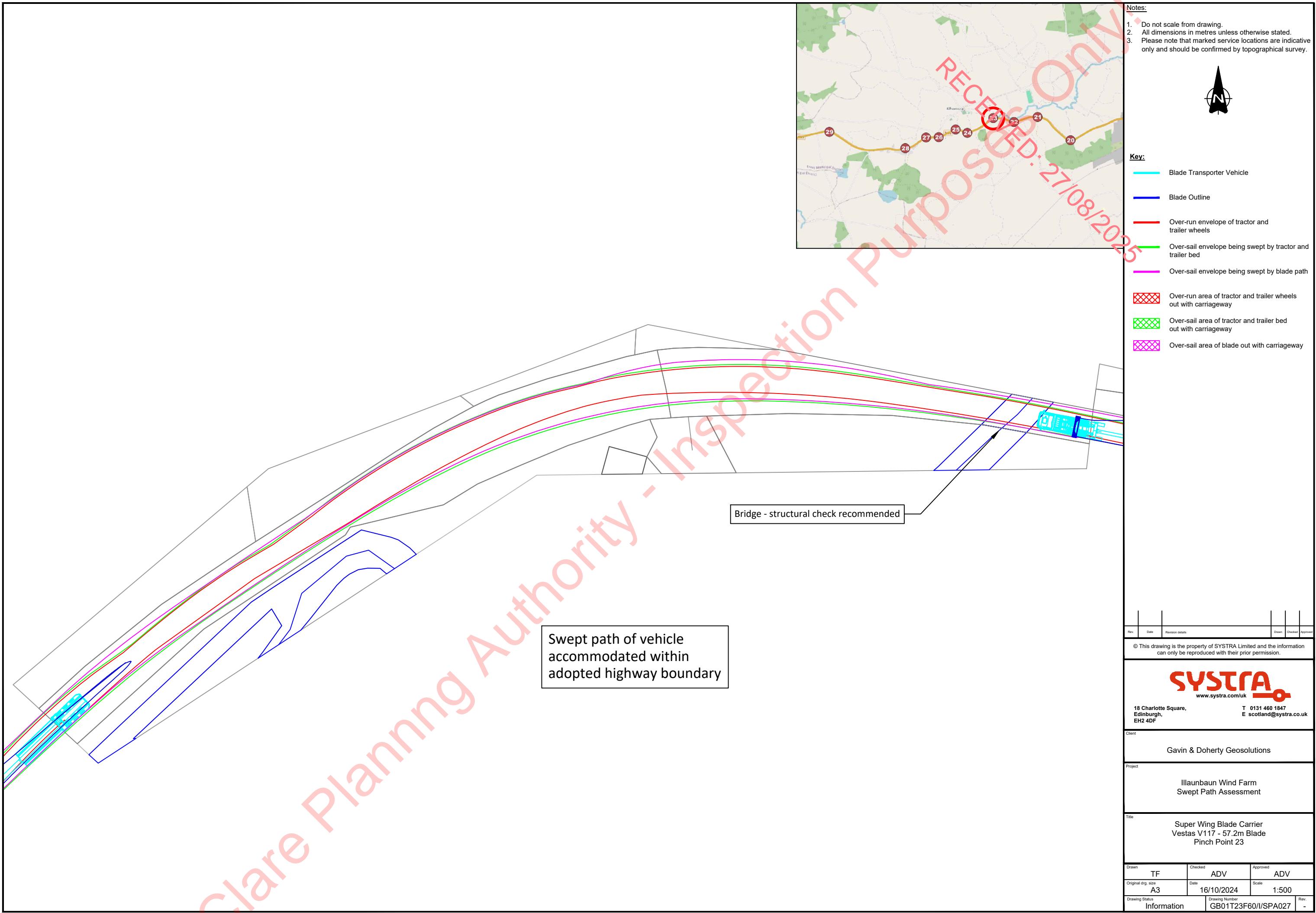
Key:

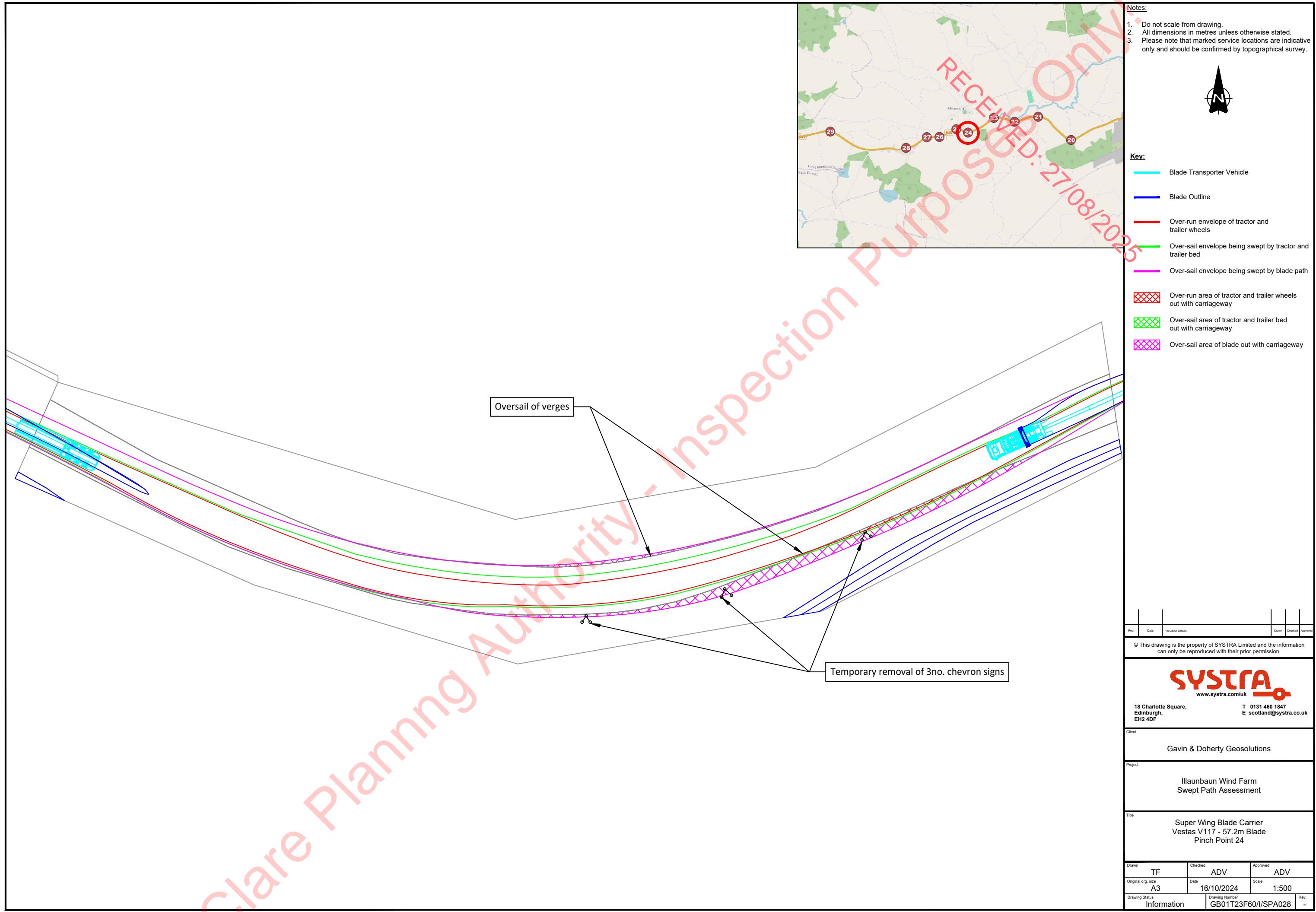
- Blade Transporter Vehicle
- Blade Outline
- Over-run envelope of tractor and trailer wheels
- Over-sail envelope being swept by tractor and trailer bed
- Over-sail envelope being swept by blade path
- Over-run area of tractor and trailer wheels out with carriageway
- Over-sail area of tractor and trailer bed out with carriageway
- Over-sail area of blade out with carriageway

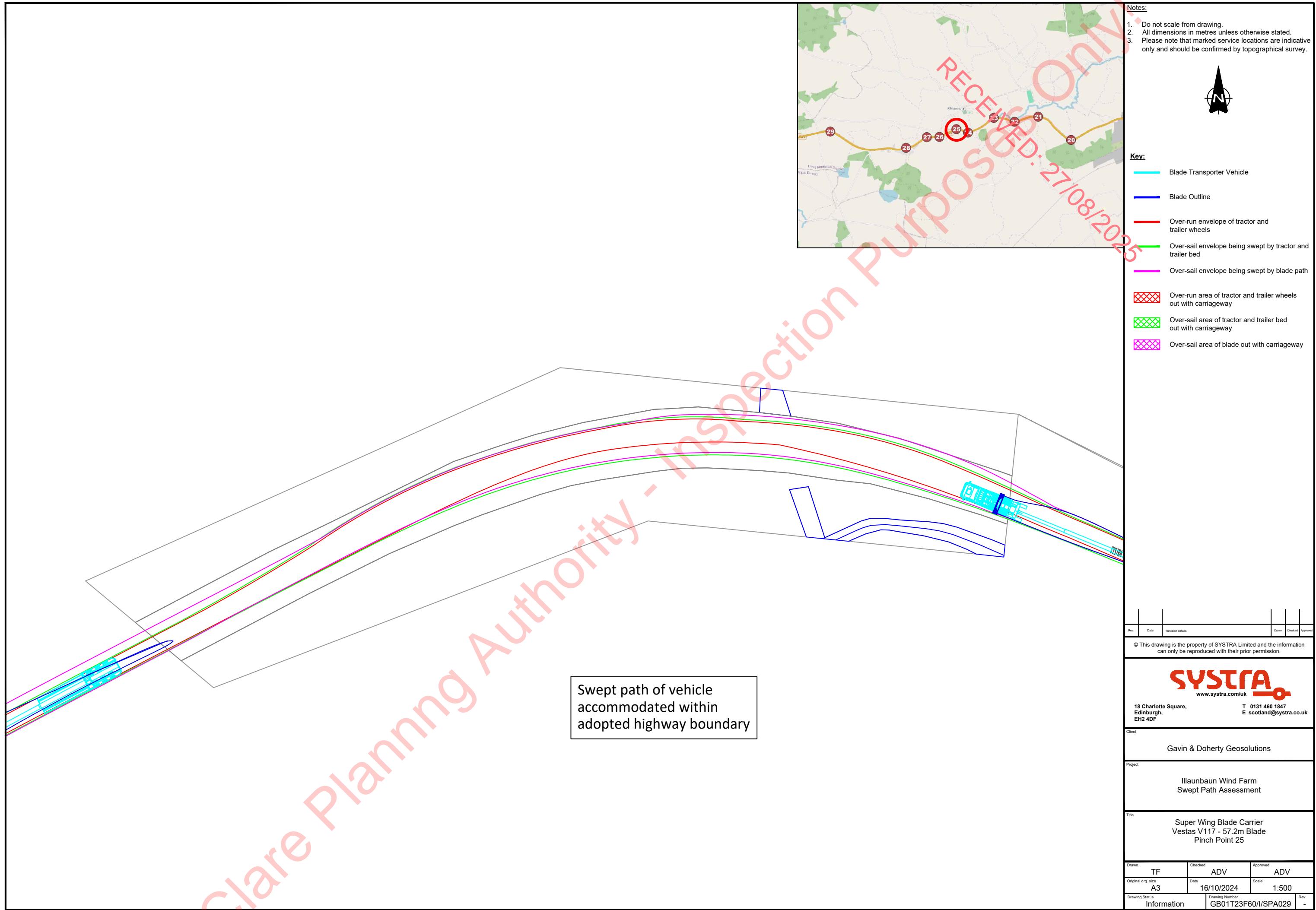
Swept path of vehicle accommodated within adopted highway boundary

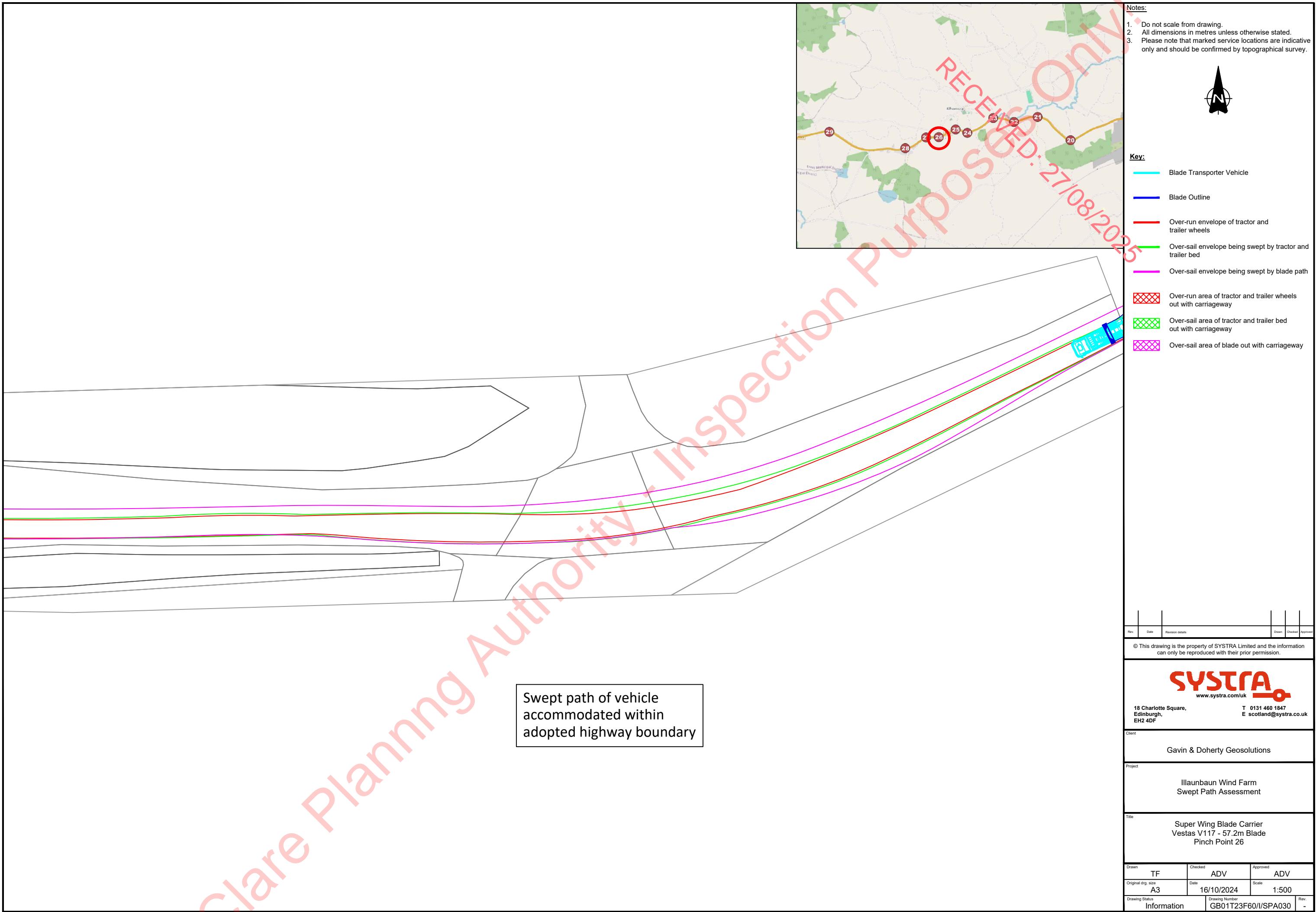
Overhead telecommunications cable
- height to be checked on site

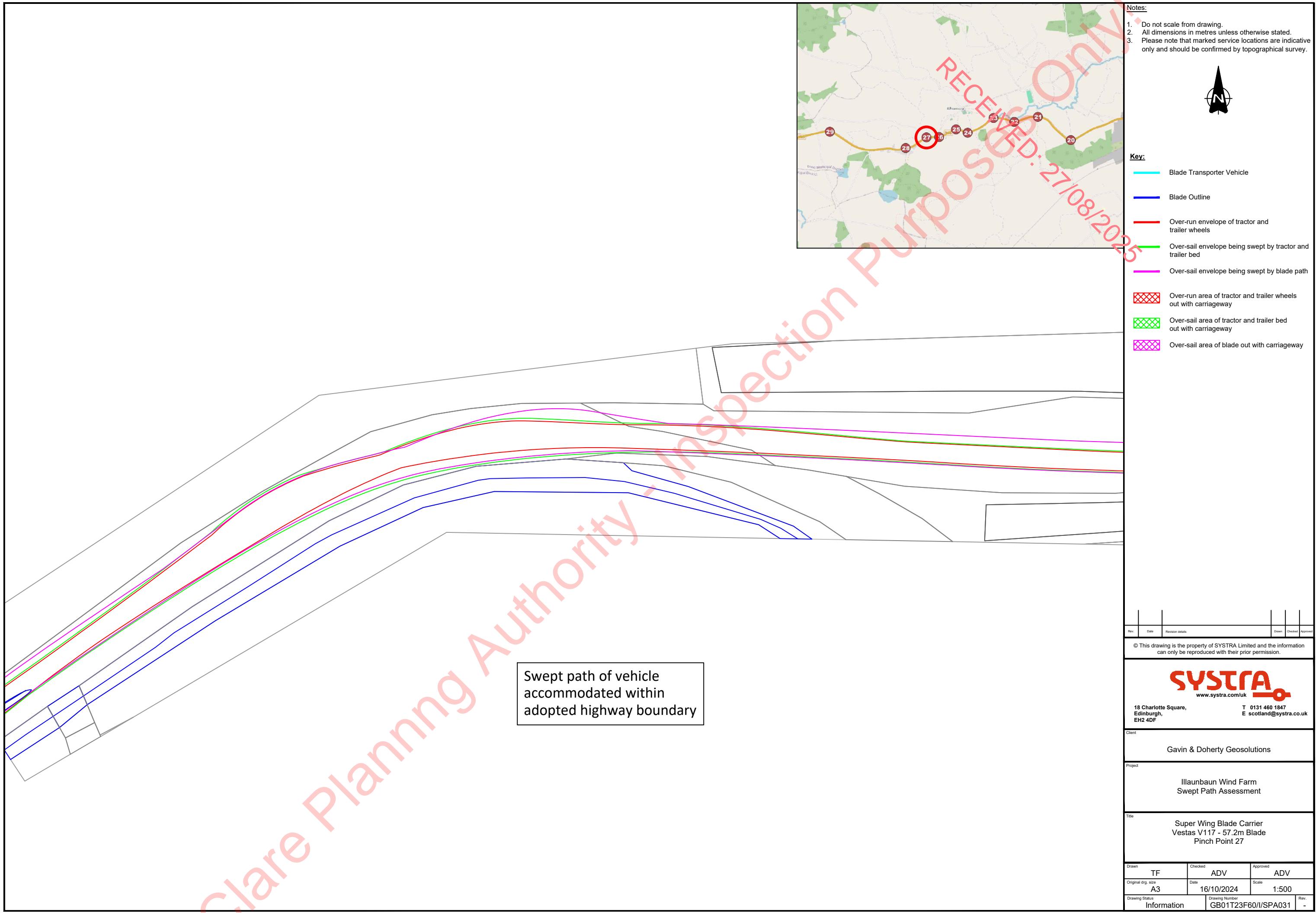
Rev.	Date	Revision details		Drawn	Checked	Approved
© This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.						
 www.sysstra.com/uk						
18 Charlotte Square, Edinburgh, EH2 4DF			T 0131 460 1847 E scotland@sysstra.co.uk			
Client						
Gavin & Doherty Geosolutions						
Project						
Illaunbaun Wind Farm Swept Path Assessment						
Title						
Super Wing Blade Carrier Vestas V117 - 57.2m Blade Pinch Point 22						
Drawn TF		Checked ADV		Approved ADV		
Original drg. size A3		Date 16/10/2024		Scale 1:750		
Drawing Status Information		Drawing Number GB01T23F60/I/SPA026			Rev. -	

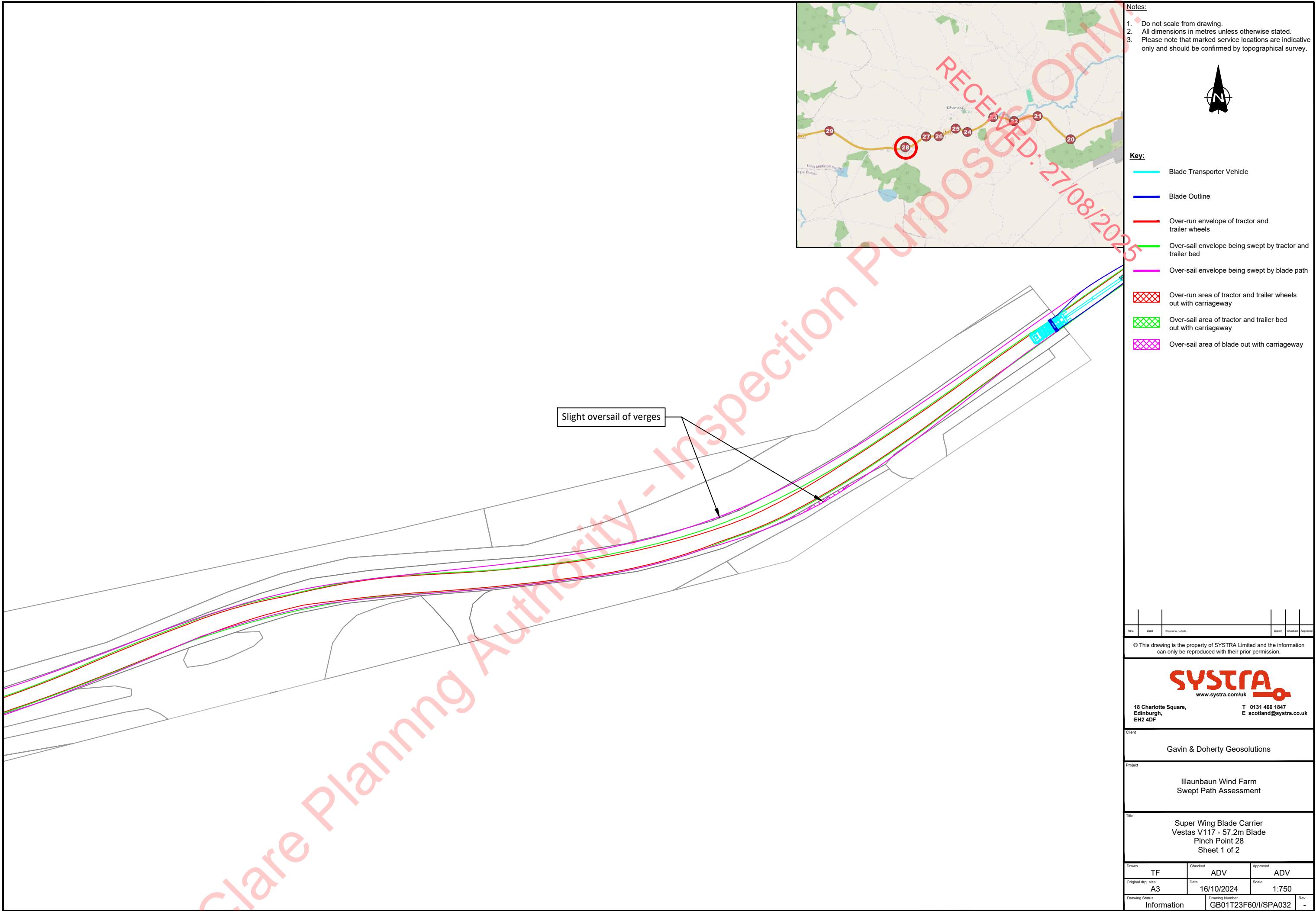


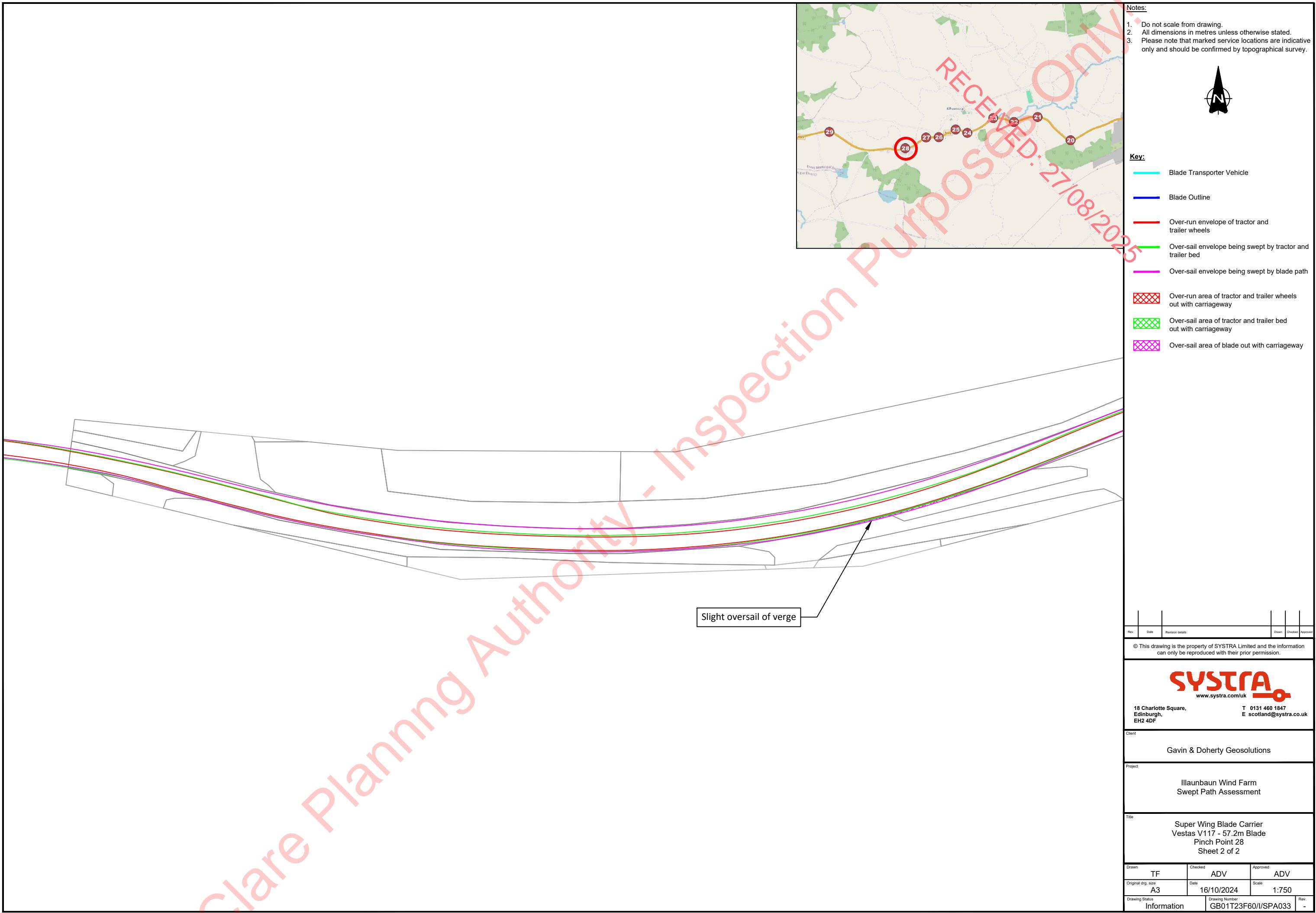


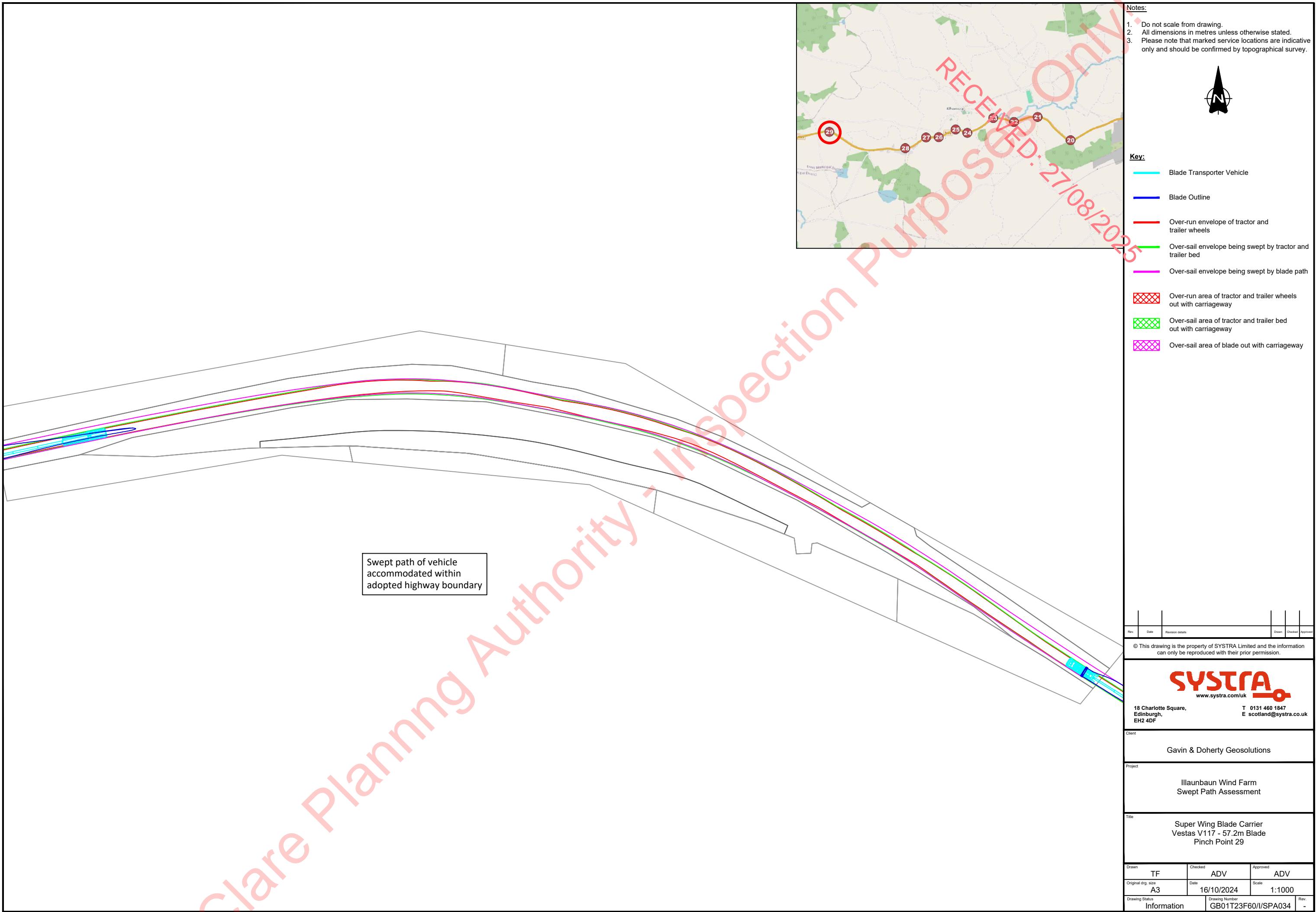


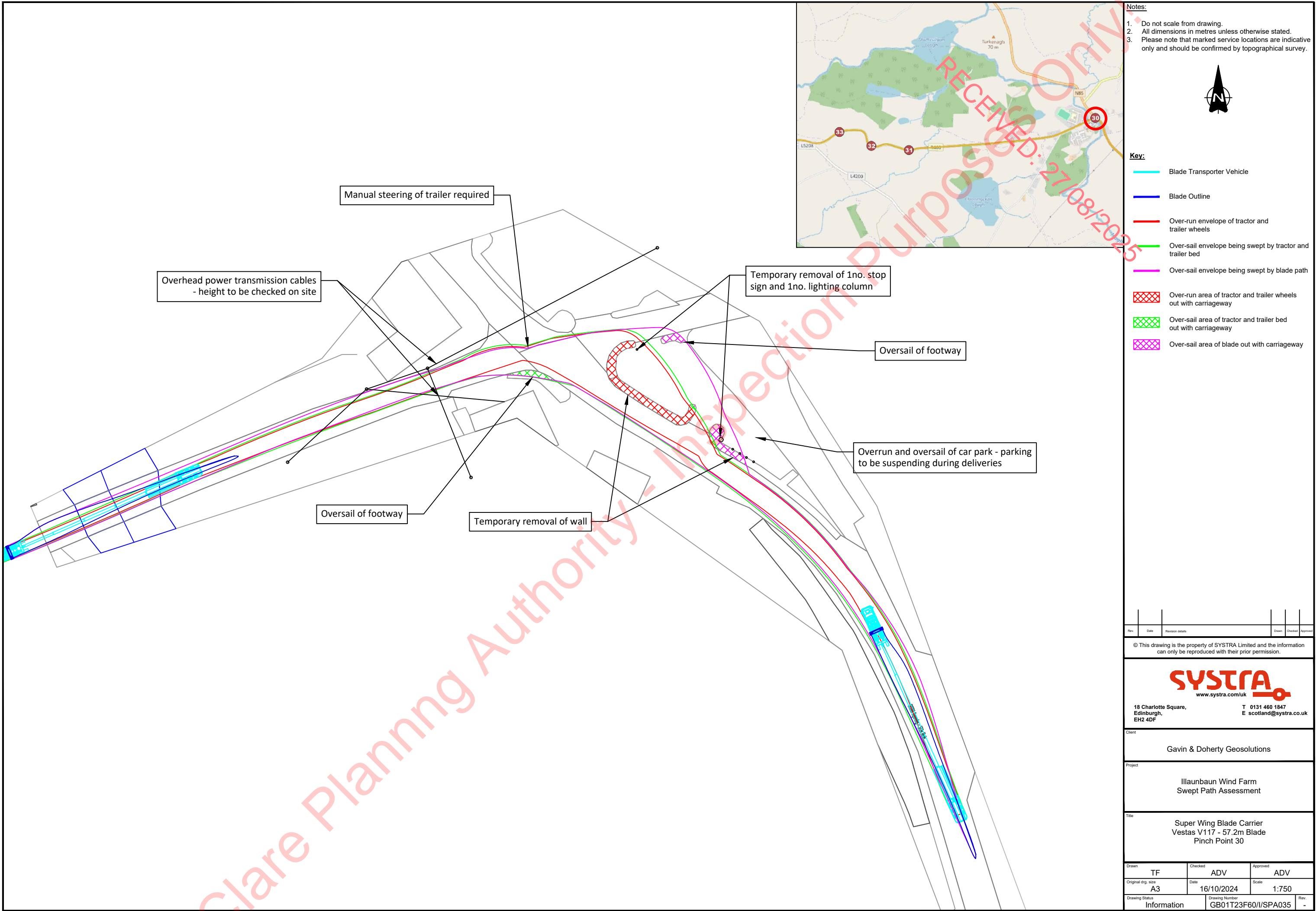


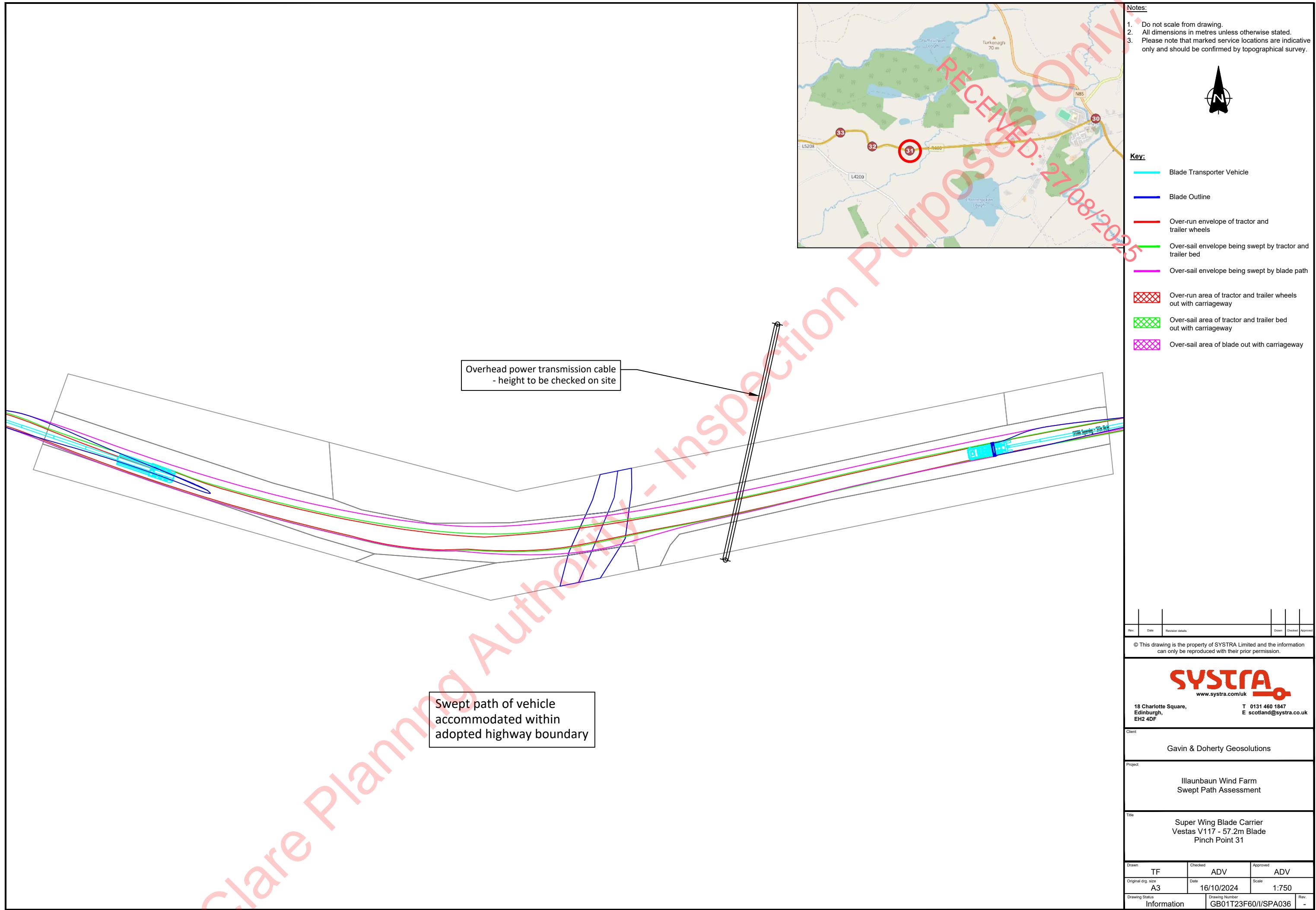


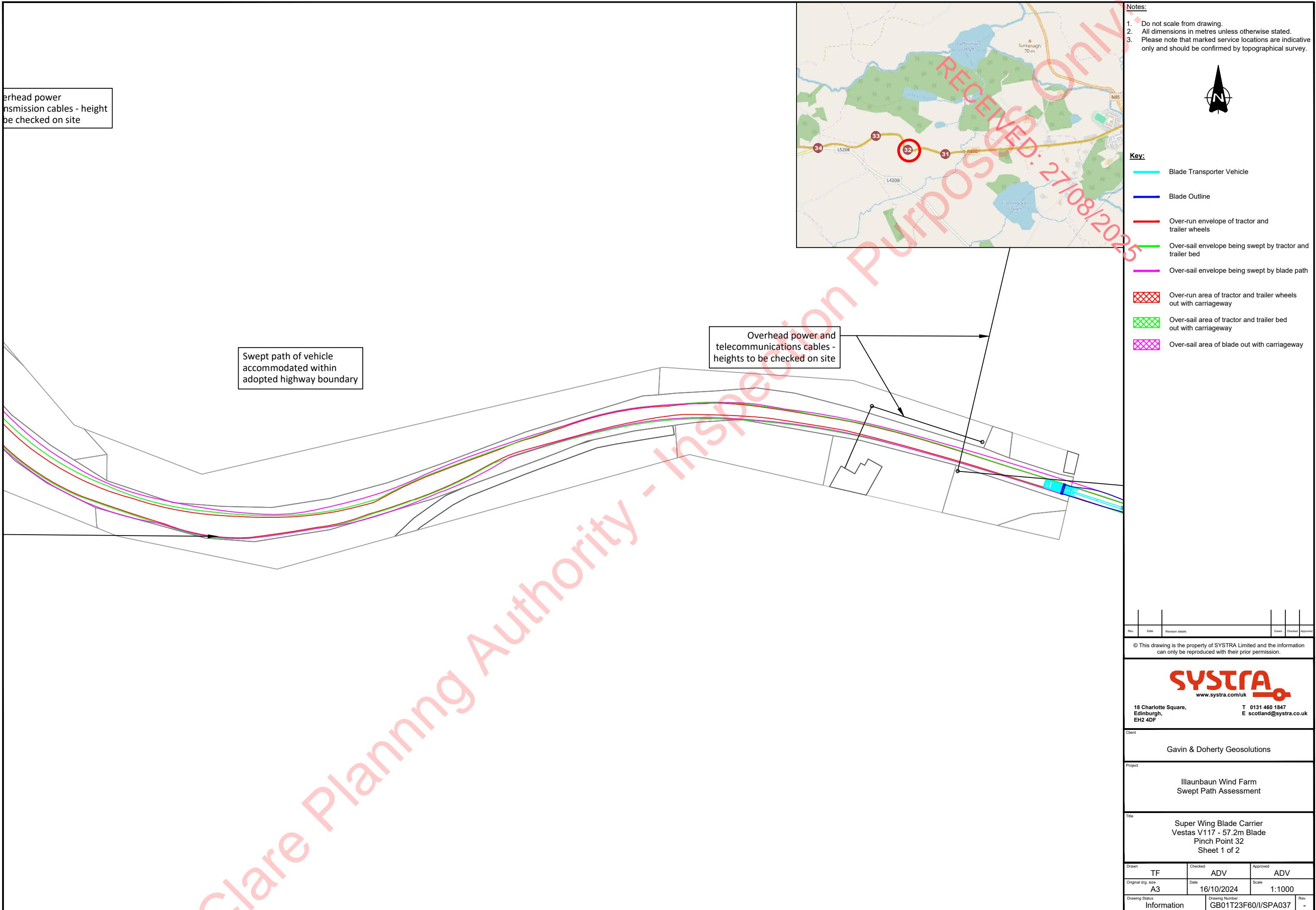


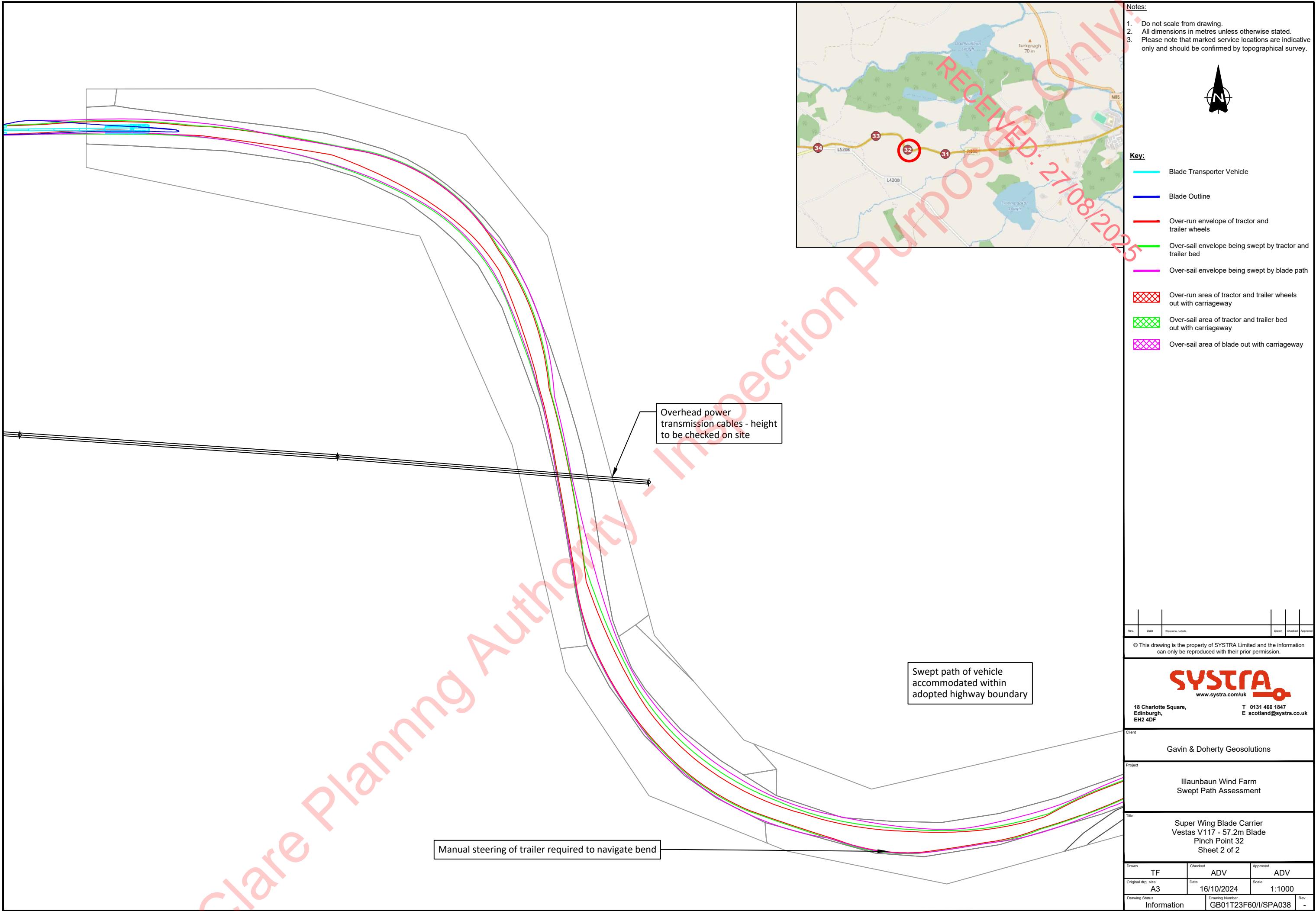


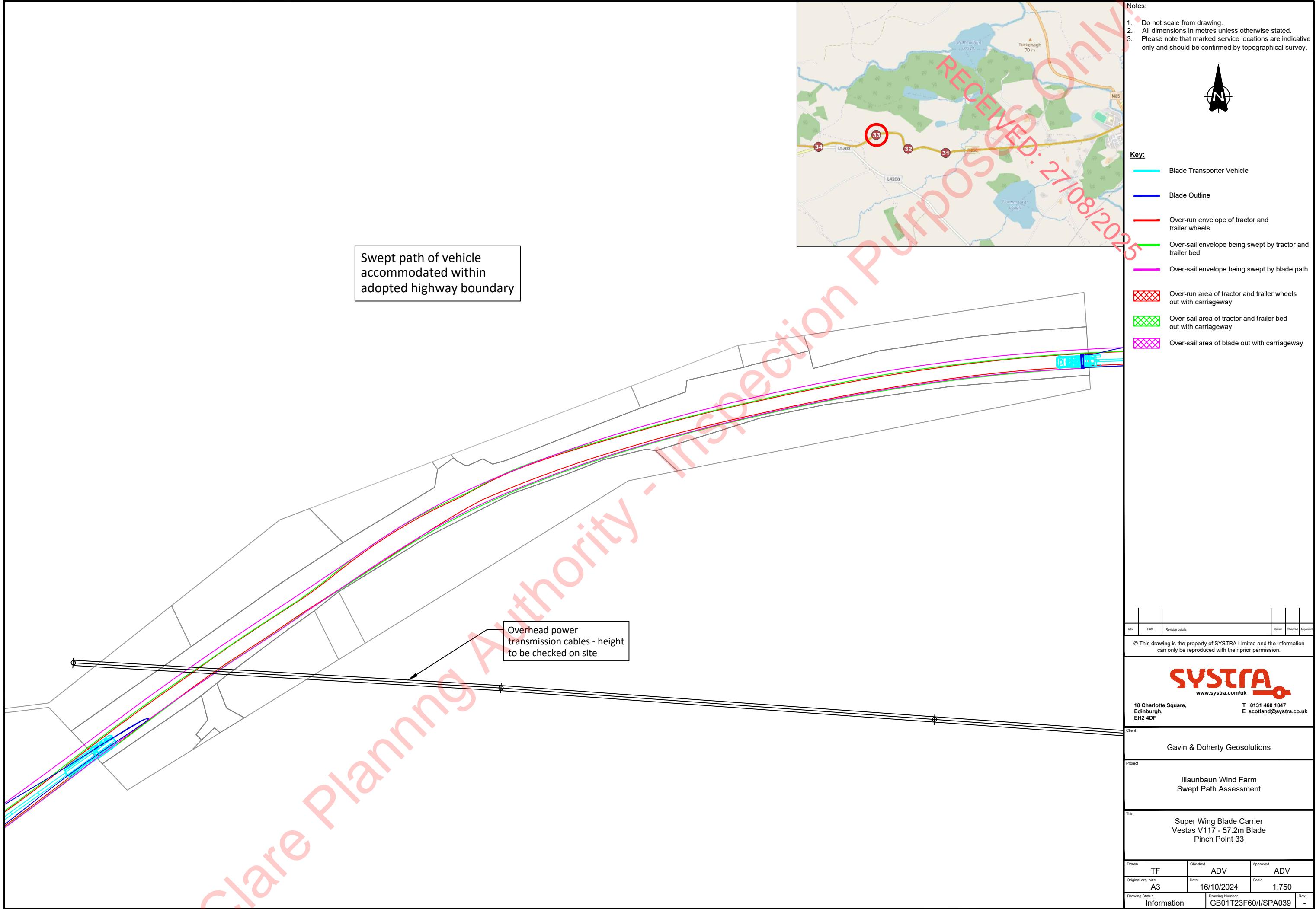












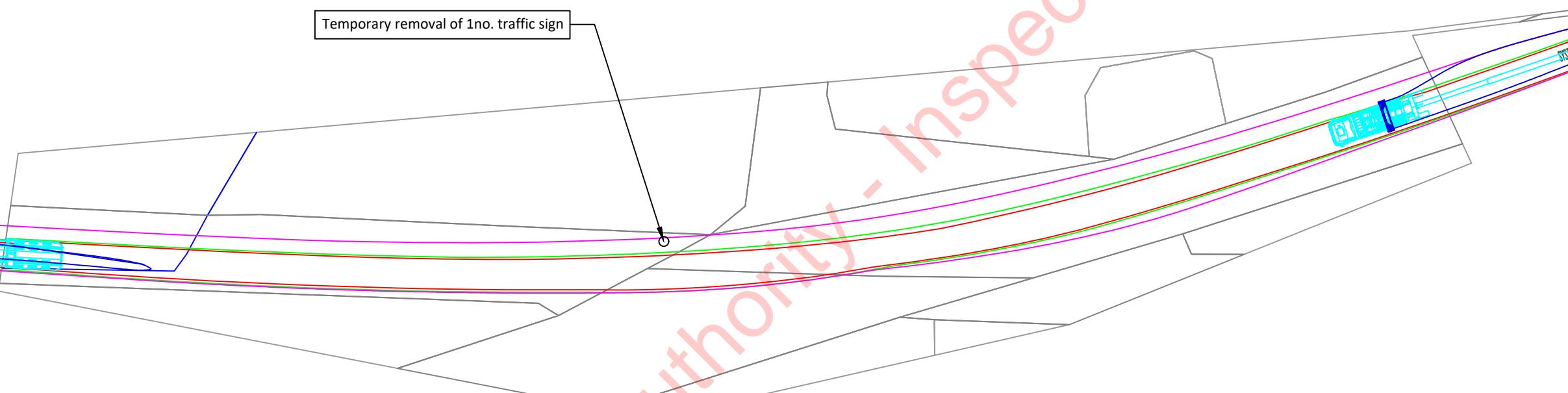
Notes:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.



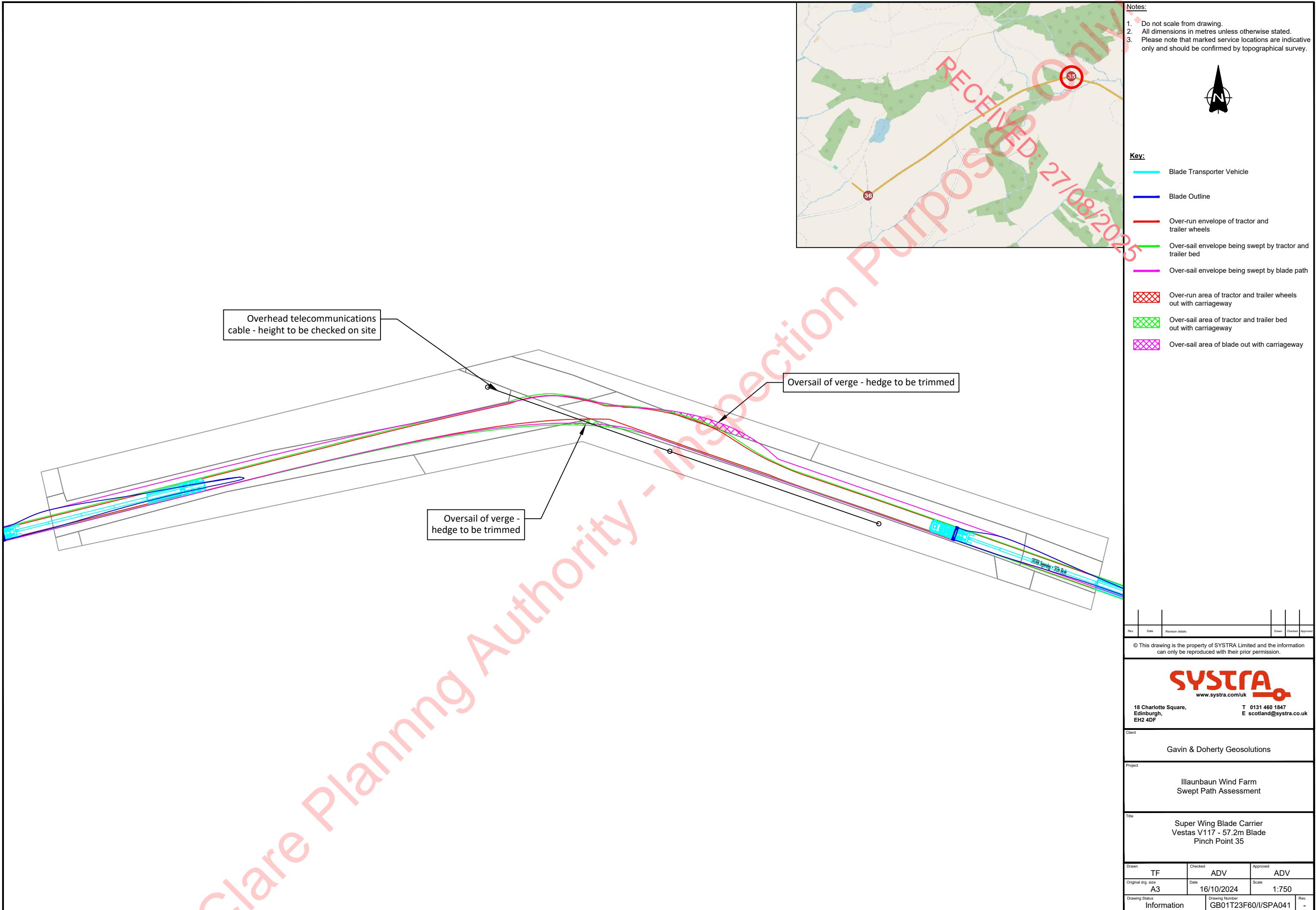
Key:

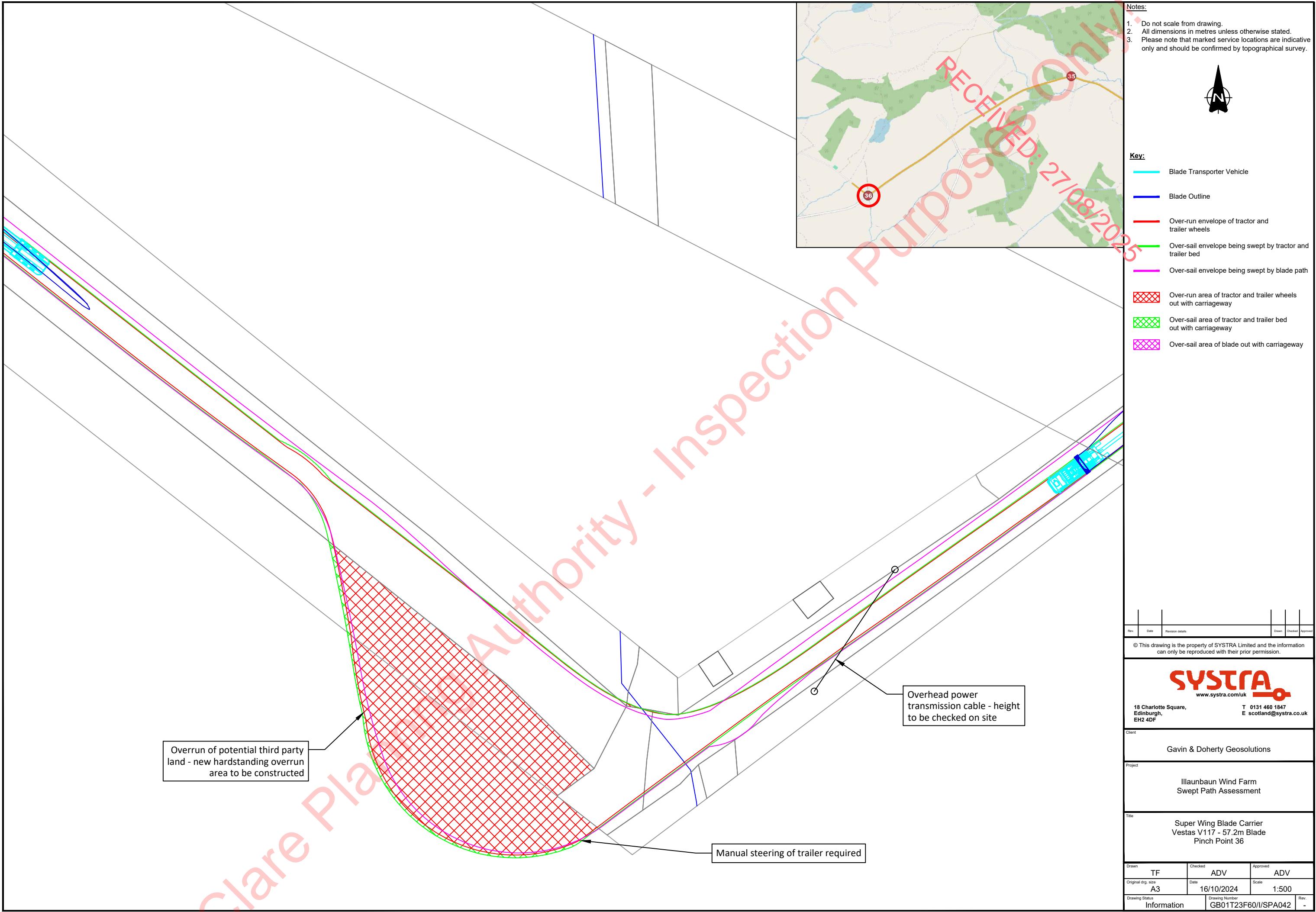
- Blade Transporter Vehicle
- Blade Outline
- Over-run envelope of tractor and trailer wheels
- Over-sail envelope being swept by tractor and trailer bed
- Over-sail envelope being swept by blade path
- Over-run area of tractor and trailer wheels out with carriageway
- Over-sail area of tractor and trailer bed out with carriageway
- Over-sail area of blade out with carriageway

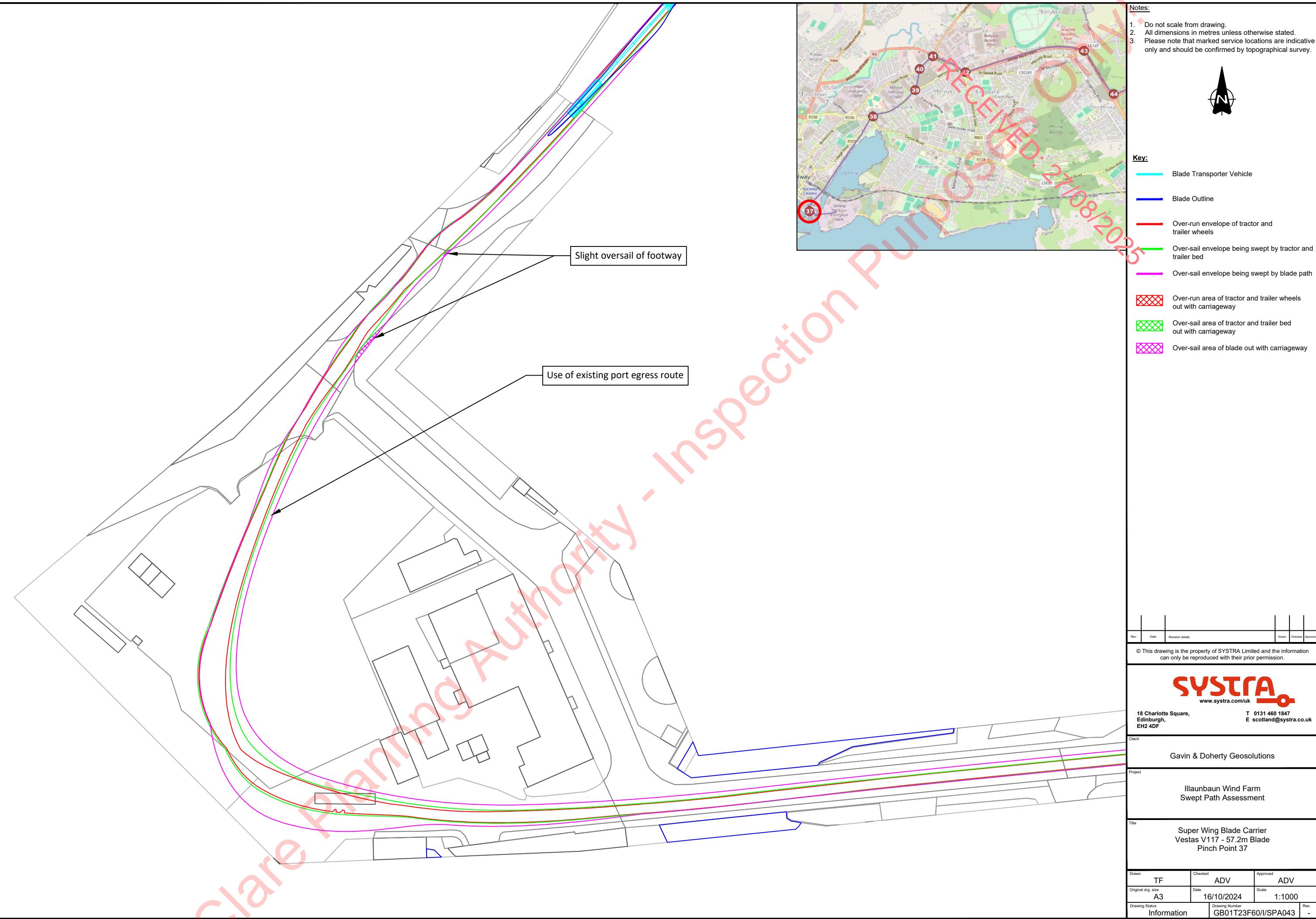


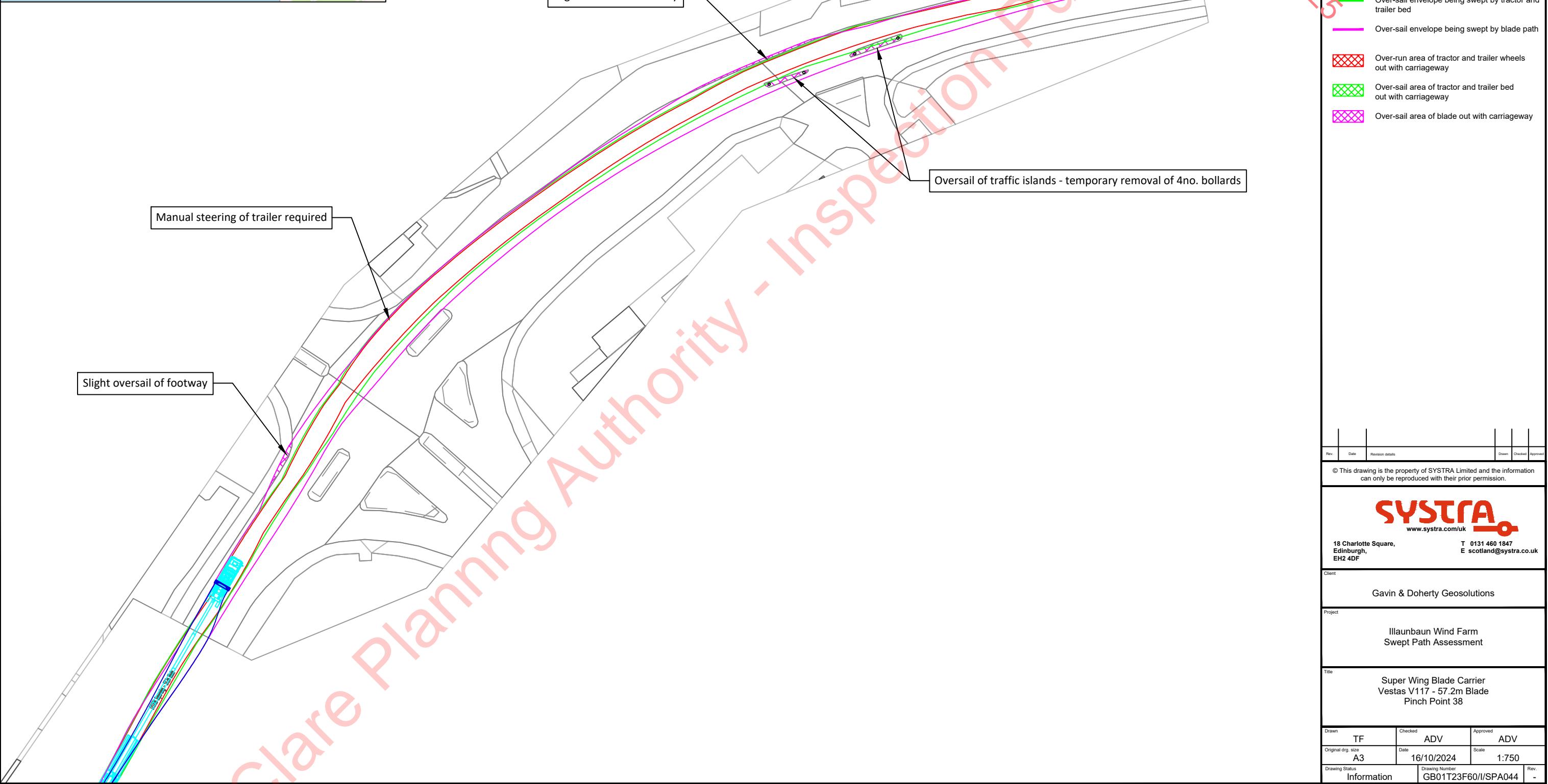
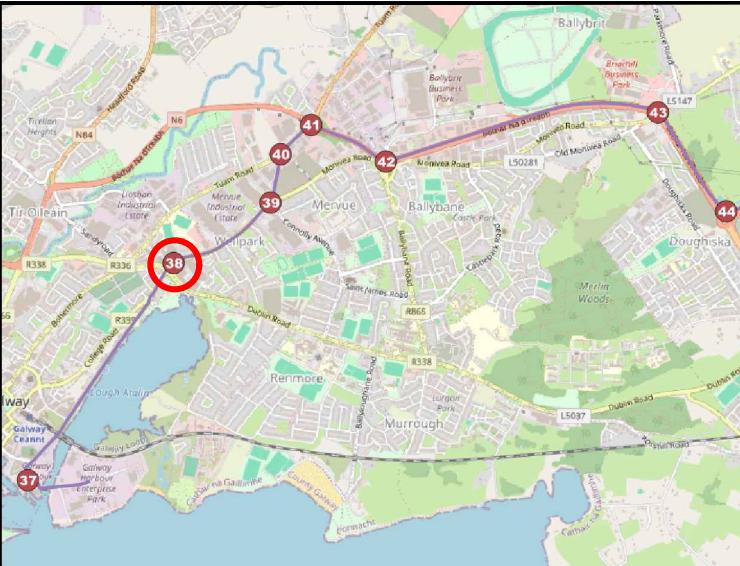
Swept path of vehicle
accommodated within
adopted highway boundary

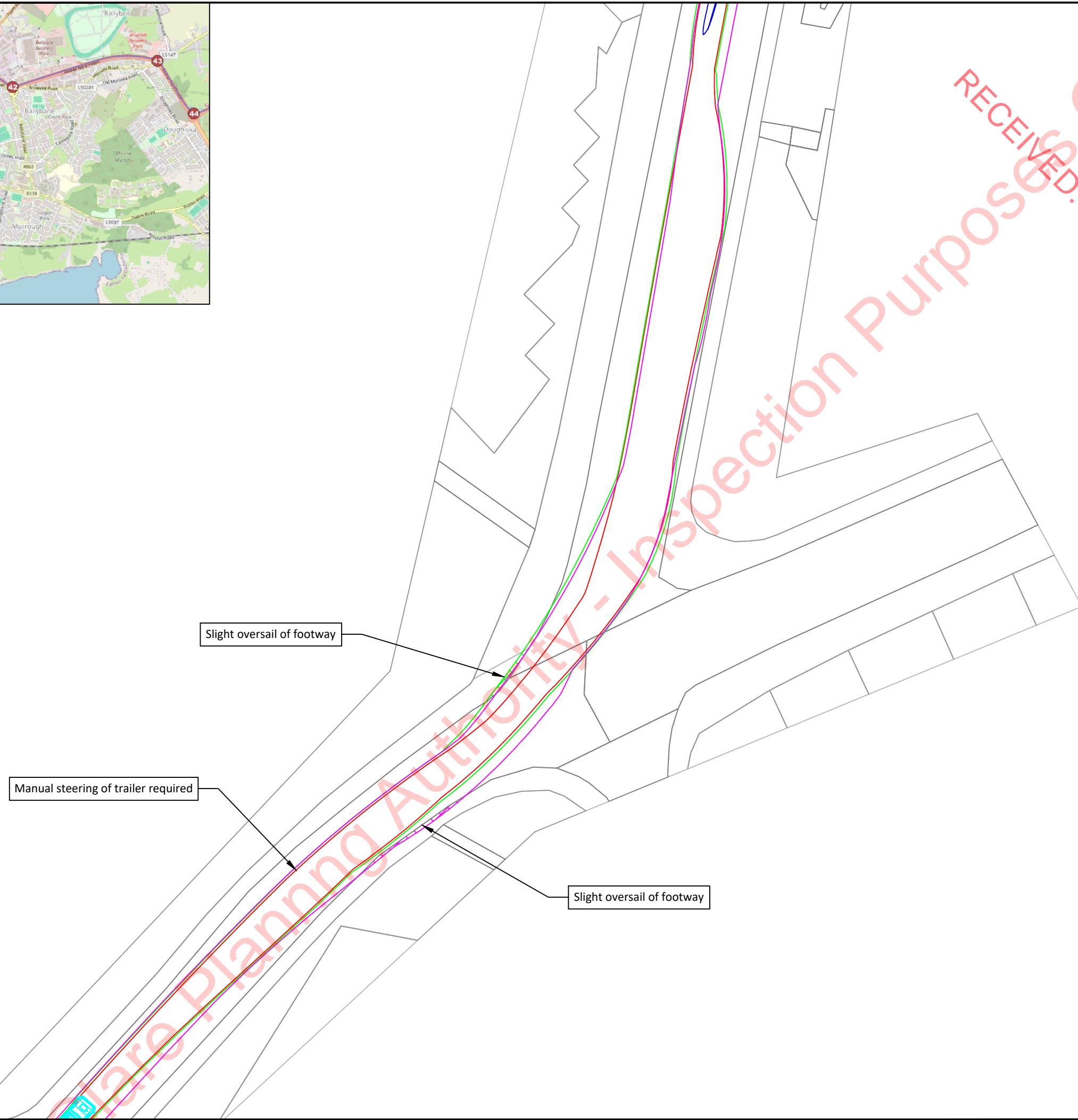
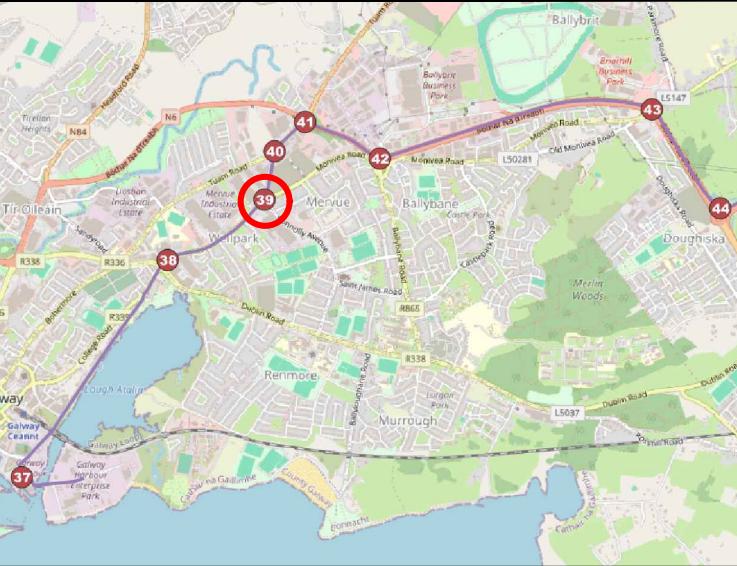
Rev	Date	Revision details	Drawn	Checked	Approved
© This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.					
SYSTRA					
www.sysstra.co.uk					
18 Charlotte Square, Edinburgh, EH2 4DF					
T 0131 460 1847					
E scotland@sysstra.co.uk					
Client					
Gavin & Doherty Geosolutions					
Project					
Illaunbaun Wind Farm Swept Path Assessment					
Title					
Super Wing Blade Carrier Vestas V117 - 57.2m Blade Pinch Point 34					
Drawn	TF	Checked	ADV	Approved	ADV
Original drg. size		Date		Scale	
A3		16/10/2024		1:500	
Drawing Status		Drawing Number			
Information		GB01T23F60/I/SPA040		Rev.	-











Notes:

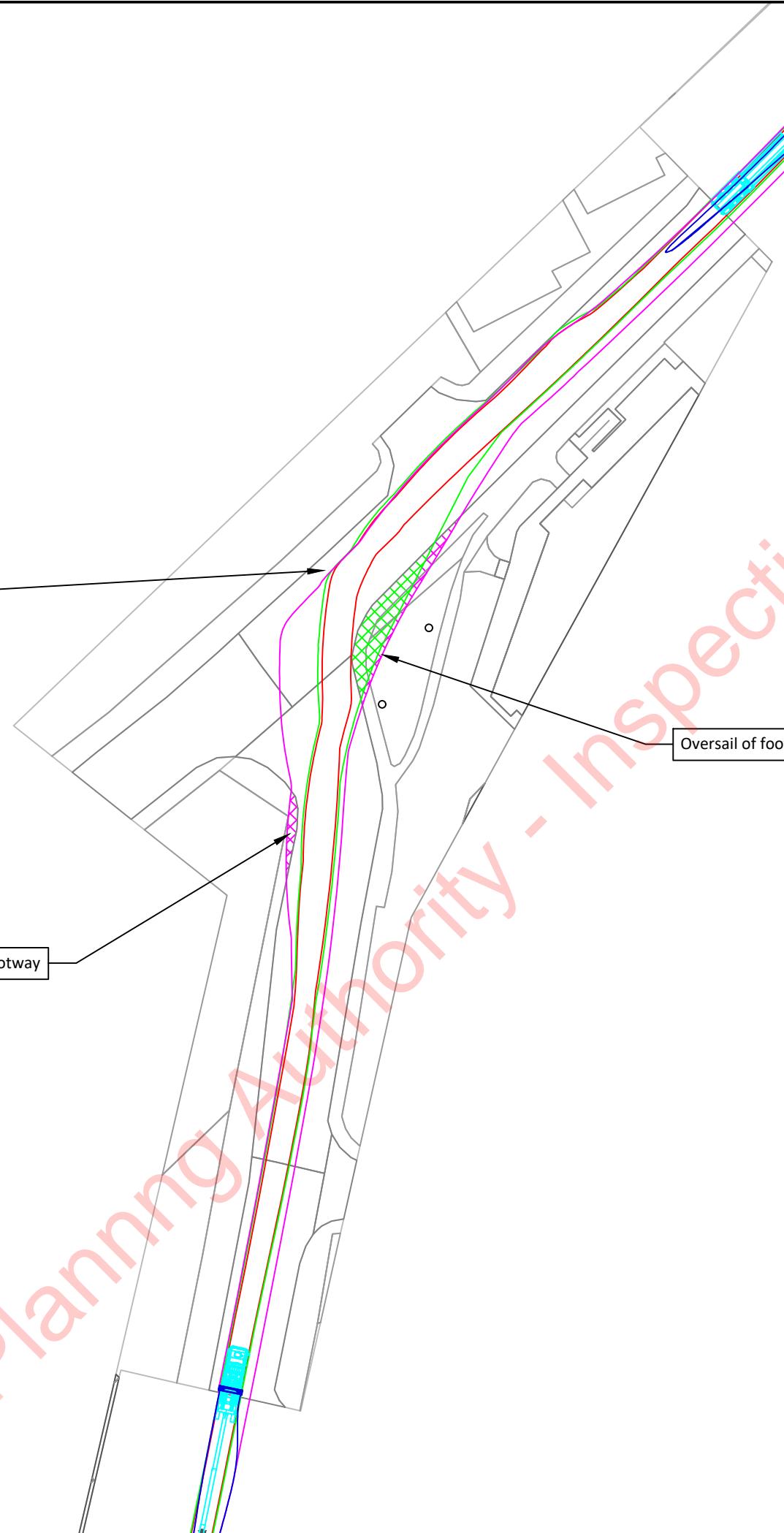
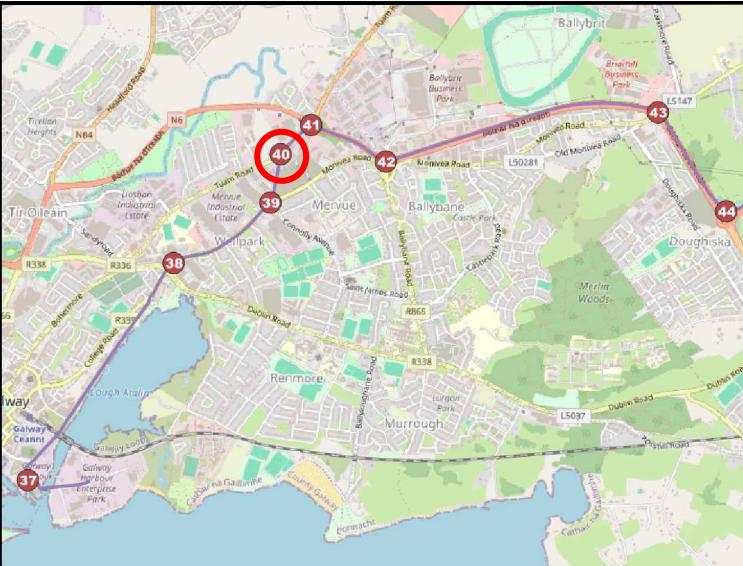
1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.



Key:

- Blade Transporter Vehicle
- Blade Outline
- Over-run envelope of tractor and trailer wheels
- Over-sail envelope being swept by tractor and trailer bed
- Over-sail envelope being swept by blade path
- Over-run area of tractor and trailer wheels out with carriageway
- Over-sail area of tractor and trailer bed out with carriageway
- Over-sail area of blade out with carriageway

Rev	Date	Revision details	Drawn	Checked	Approved
© This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.					
			SYSTRA www.systra.com/uk		
			18 Charlotte Square, Edinburgh, EH2 4DF	T 0131 460 1847 E scotland@systra.co.uk	
Client			Gavin & Doherty Geosolutions		
Project			Illaunbaun Wind Farm Swept Path Assessment		
Title			Super Wing Blade Carrier Vestas V117 - 57.2m Blade Pinch Point 39		
Drawn	TF	Checked	ADV	Approved	ADV
Original drg. size			Date	Scale	
A3			16/10/2024	1:500	
Drawing Status	Information	Drawing Number	GB01T23F60/I/SPA045	Rev.	-



RECEIVED: 27/08/2025
Clare Planning Authority - Inspection Purposes Only

Notes:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.



Key:

- Blade Transporter Vehicle
- Blade Outline
- Over-run envelope of tractor and trailer wheels
- Over-sail envelope being swept by tractor and trailer bed
- Over-sail envelope being swept by blade path
- Over-run area of tractor and trailer wheels out with carriageway
- Over-sail area of tractor and trailer bed out with carriageway
- Over-sail area of blade out with carriageway

Rev	Date	Revision details	Drawn	Checked	Approved
© This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.					

SYSTRA
www.systra.co.uk

18 Charlotte Square,
Edinburgh,
EH2 4DF
T 0131 460 1847
E scotland@systra.co.uk

Client

Gavin & Doherty Geosolutions

Project

Illaunbaun Wind Farm
Swept Path Assessment

Title

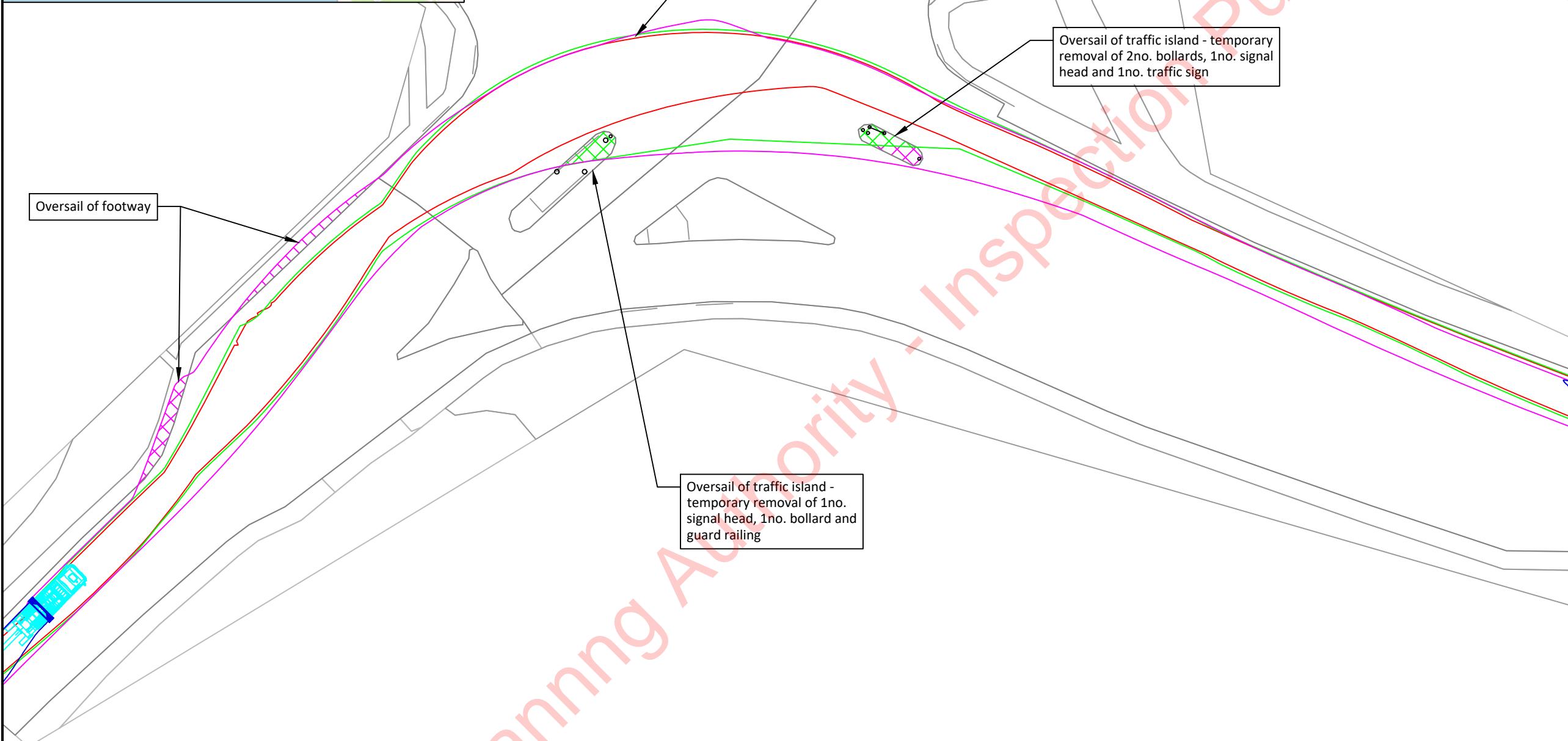
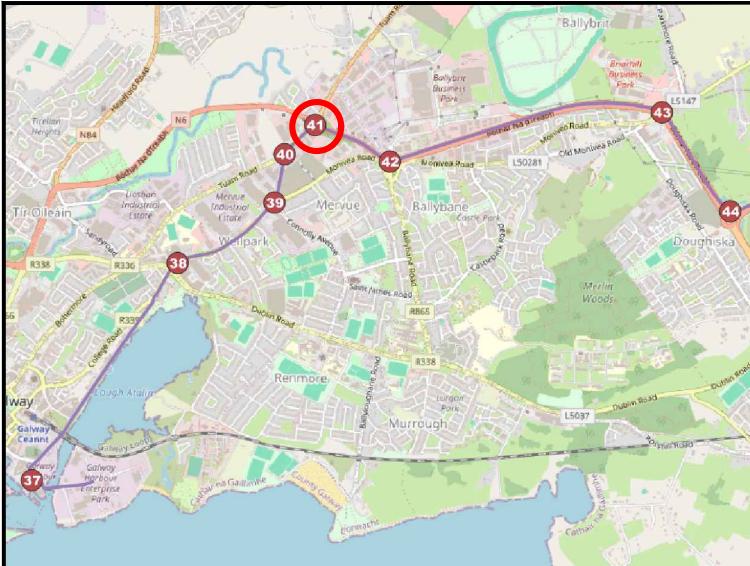
Super Wing Blade Carrier
Vestas V117 - 57.2m Blade
Pinch Point 40

Drawn	TF	Checked	ADV	Approved
Original drg. size A3		Date 16/10/2024	Scale 1:750	

Drawing Status
Information

Drawing Number
GBO1T23F60/I/SPA046

Rev. -



Notes:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.



Key:
Blade Transporter Vehicle
Blade Outline
Over-run envelope of tractor and trailer wheels
Over-sail envelope being swept by tractor and trailer bed
Over-sail envelope being swept by blade path
Over-run area of tractor and trailer wheels out with carriageway
Over-sail area of tractor and trailer bed out with carriageway
Over-sail area of blade out with carriageway

Rev Date Revision details Drawn Checked Approved
 © This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.

SYSTRA
 www.systra.co.uk

18 Charlotte Square,
 Edinburgh,
 EH2 4DF
 Client

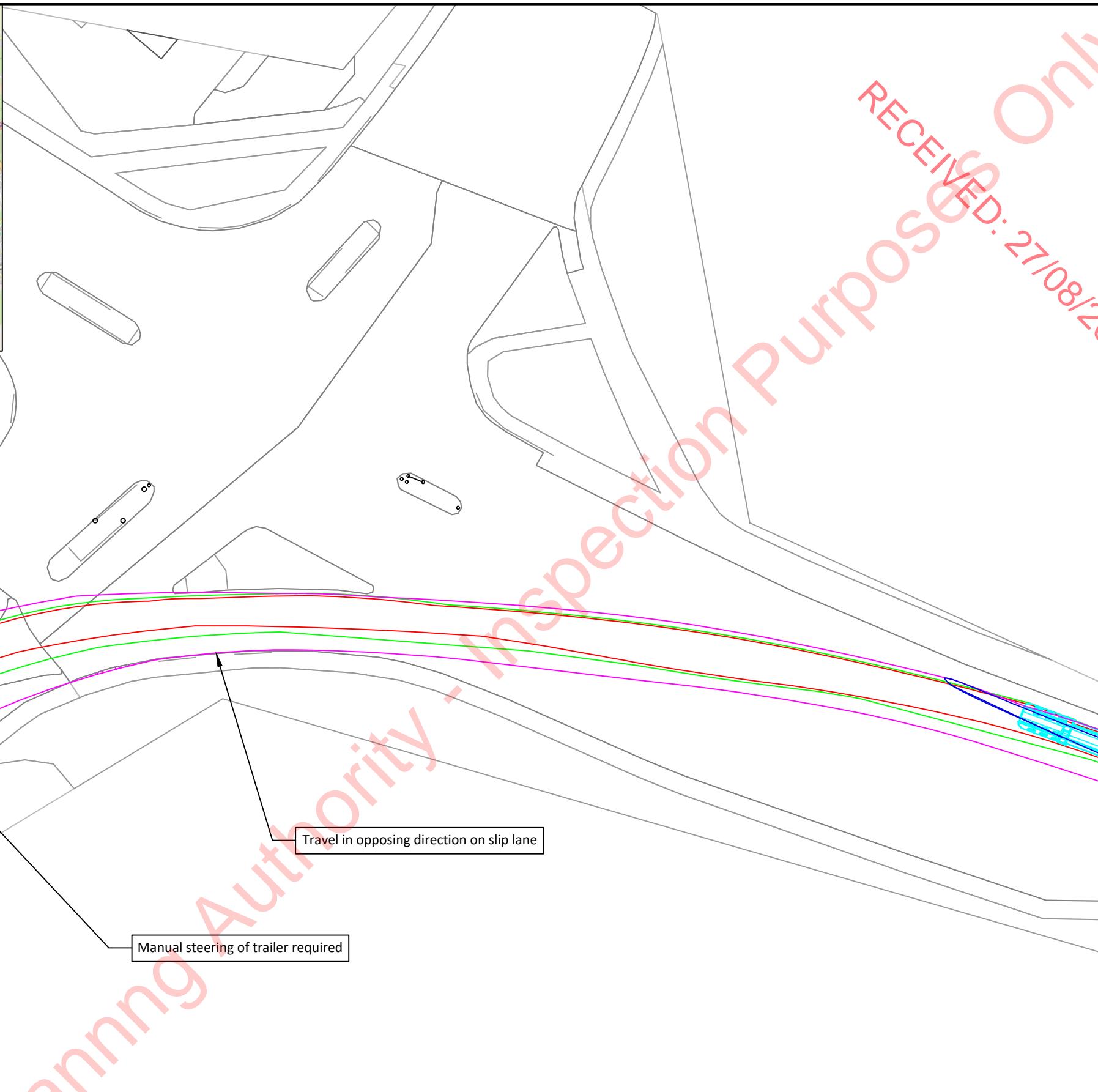
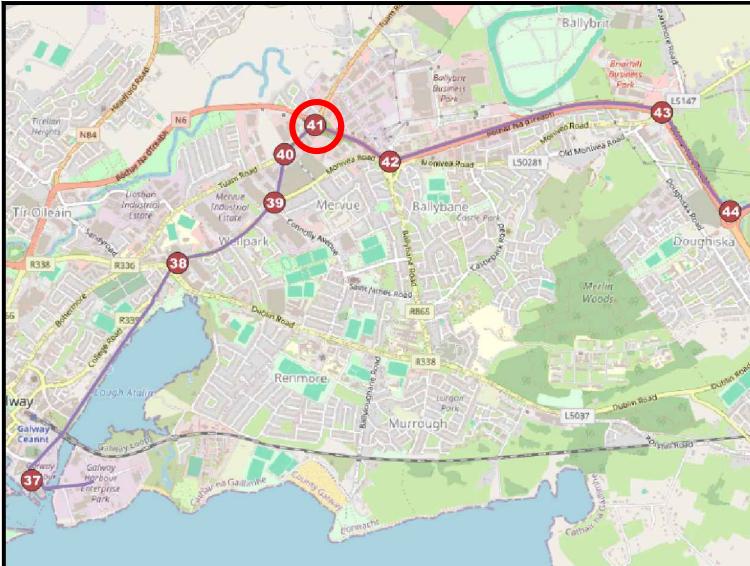
T 0131 460 1847
 E scotland@systra.co.uk

Gavin & Doherty Geosolutions

Project
 Illaunbaun Wind Farm
 Swept Path Assessment

Title
 Super Wing Blade Carrier
 Vestas V117 - 57.2m Blade
 Pinch Point 41

Drawn	TF	Checked	ADV	Approved
Original drg. size		Date	Scale	
A3		16/10/2024	1:500	
Drawing Status	Information	Drawing Number	GB01T23F60/I/SPA047	Rev. -



RECEIVED: 21/08/2025
Clare Planning Authority - Inspection Purposes Only

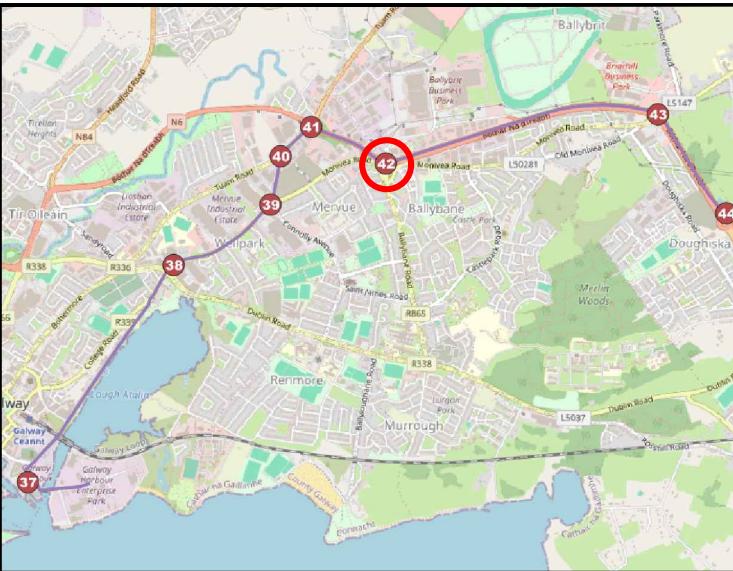
Notes:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.

Key:

- Blade Transporter Vehicle
- Blade Outline
- Over-run envelope of tractor and trailer wheels
- Over-sail envelope being swept by tractor and trailer bed
- Over-sail envelope being swept by blade path
- Over-run area of tractor and trailer wheels out with carriageway
- Over-sail area of tractor and trailer bed out with carriageway
- Over-sail area of blade out with carriageway

Rev	Date	Revision details		Drawn	Checked	Approved
© This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.						
SYSTRA www.systra.co.uk						
18 Charlotte Square, Edinburgh, EH2 4DF						
T 0131 460 1847 E scotland@systra.co.uk						
Client						
Gavin & Doherty Geosolutions						
Project						
Illaunbaun Wind Farm Swept Path Assessment						
Title						
Super Wing Blade Carrier Vestas V117 - 57.2m Blade Pinch Point 41 Alternative minimising oversail						
Drawn		TF	Checked	ADV	Approved	ADV
Original drg. size		A3	Date	16/10/2024	Scale	1:500
Drawing Status		Drawing Number				
Information		GBO1T23F60/I/SPA048		Rev. -		



Notes:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.

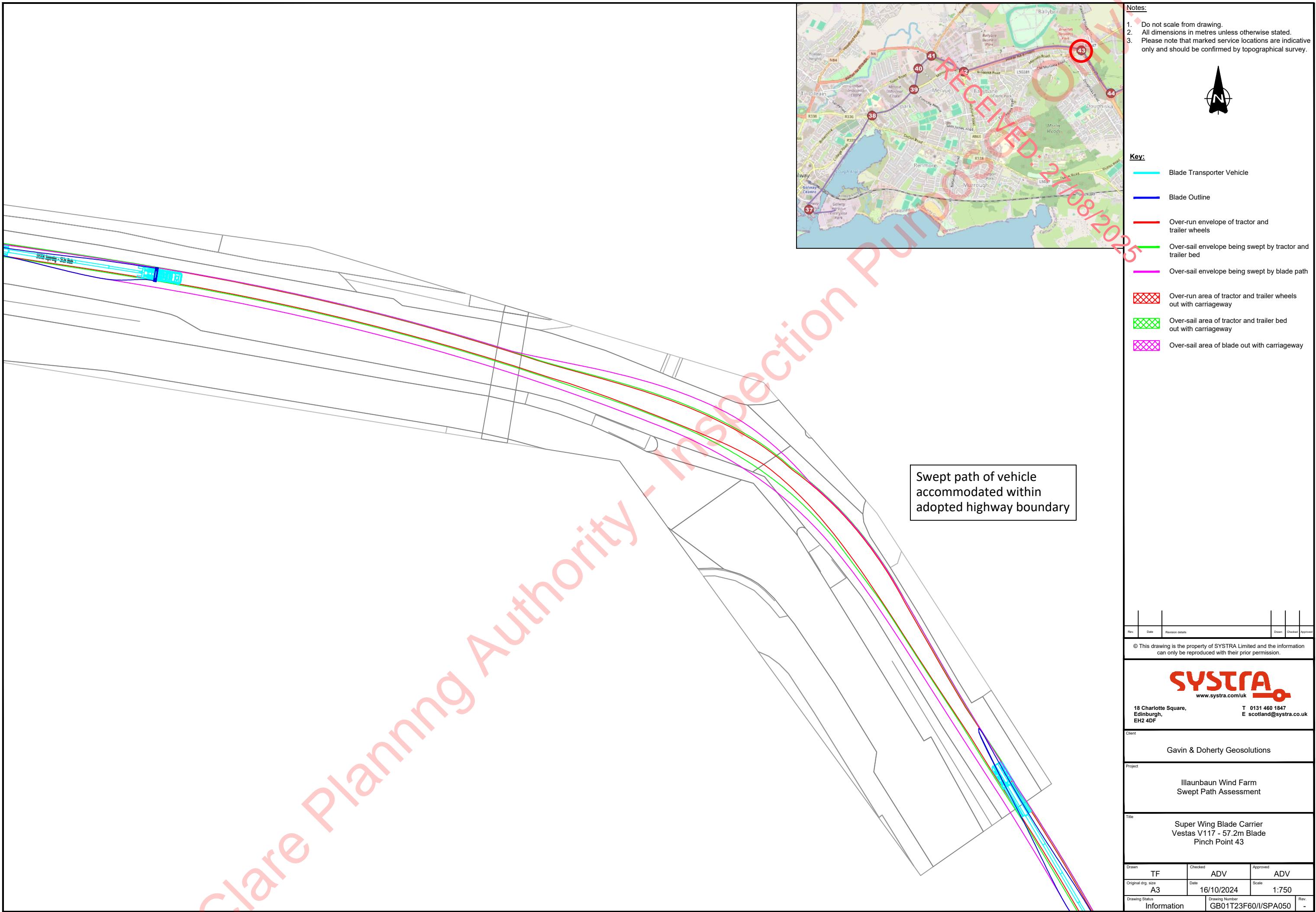


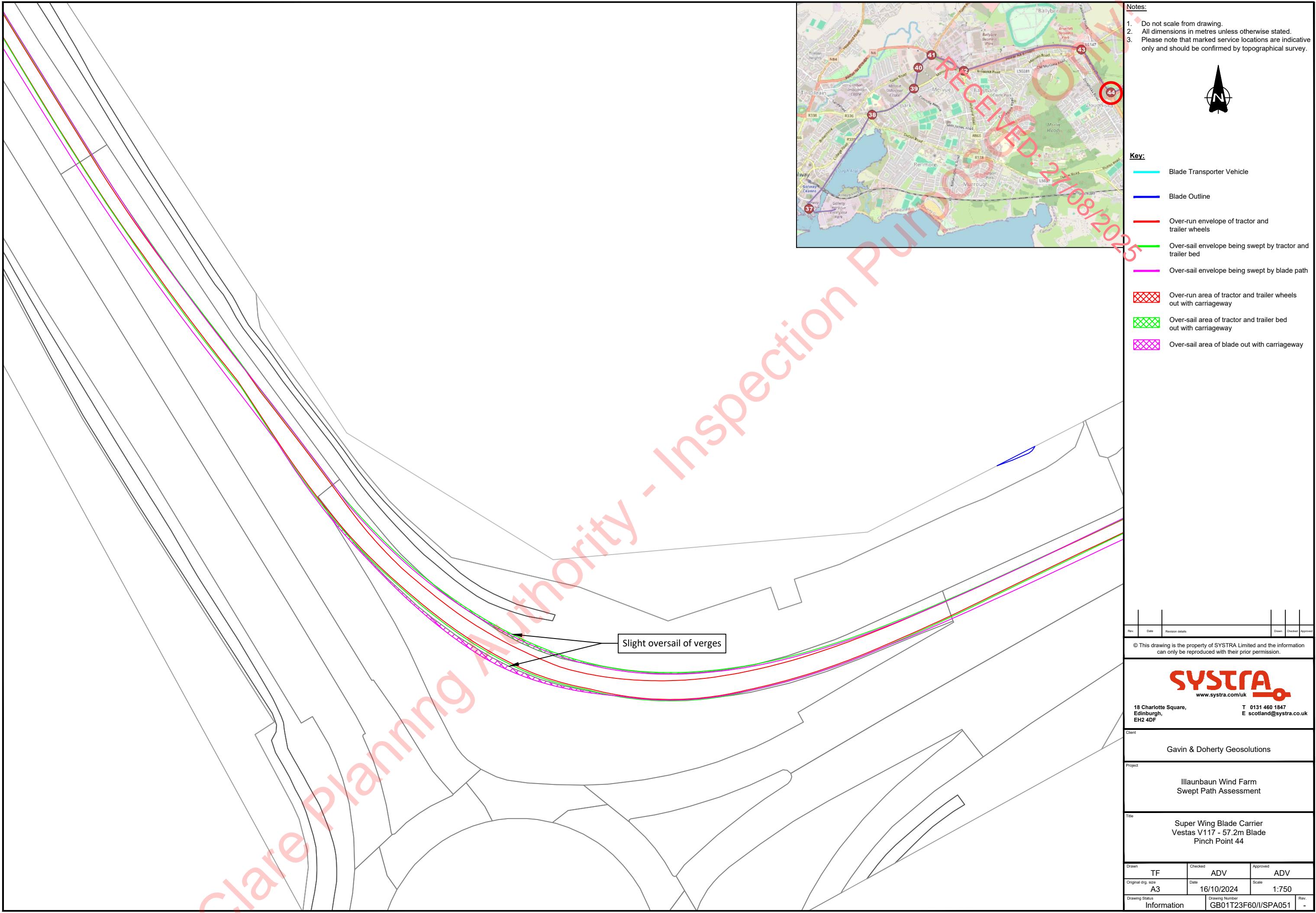
Key:

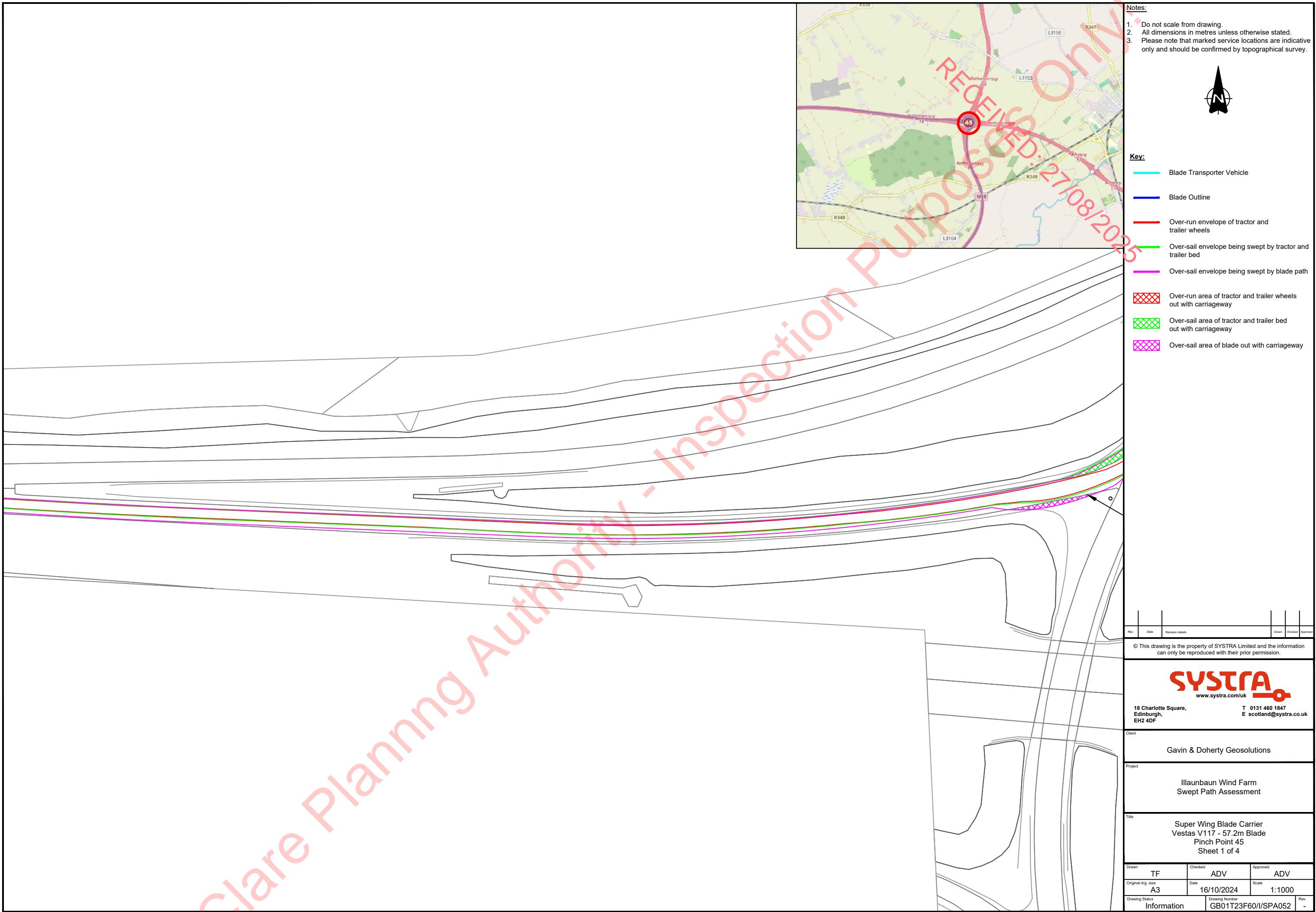
- Blade Transporter Vehicle
- Blade Outline
- Over-run envelope of tractor and trailer wheels
- Over-sail envelope being swept by tractor and trailer bed
- Over-sail envelope being swept by blade path
-  Over-run area of tractor and trailer wheels out with carriageway
-  Over-sail area of tractor and trailer bed out with carriageway
-  Over-sail area of blade out with carriageway

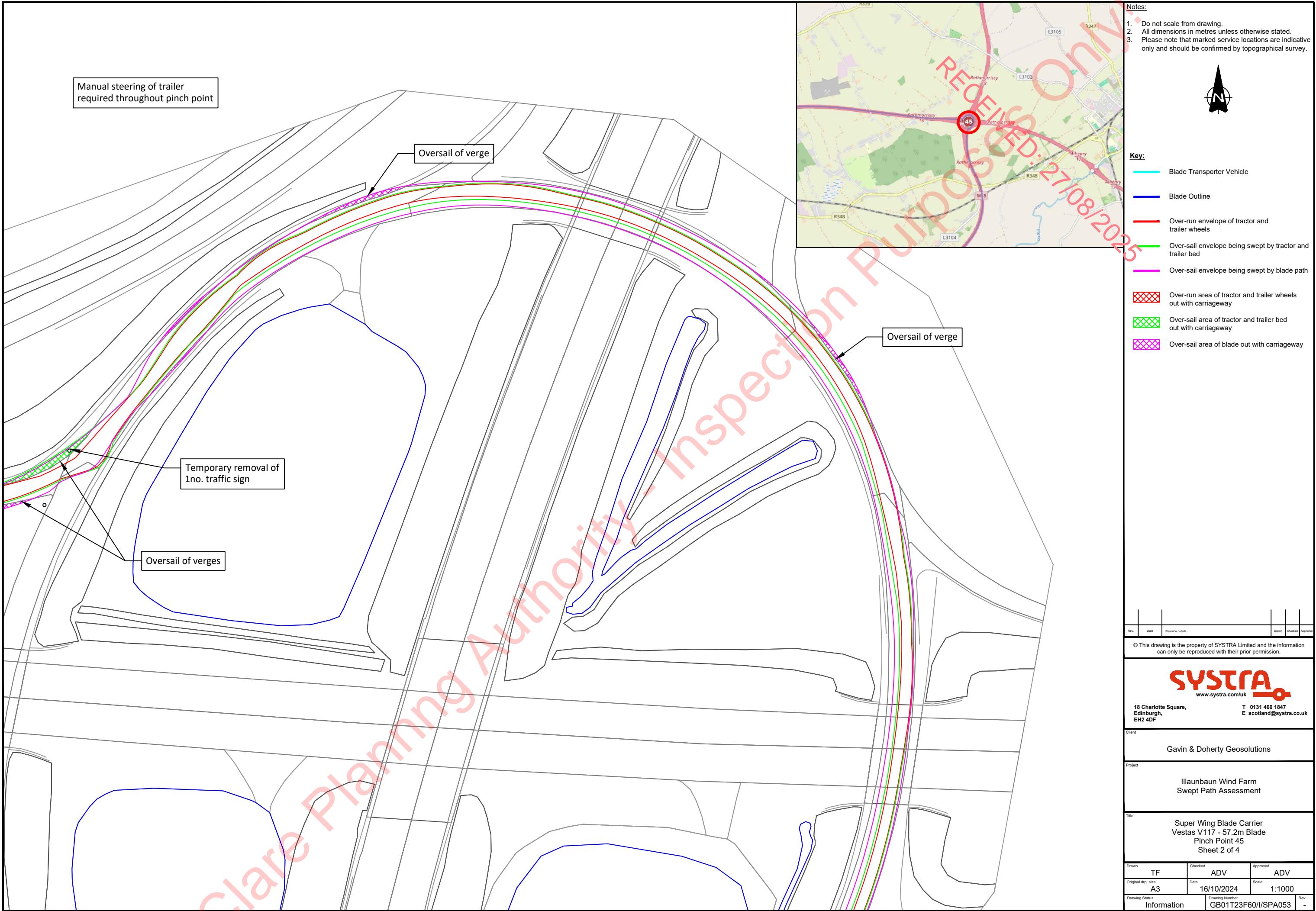
Swept path of vehicle accommodated within adopted highway boundary

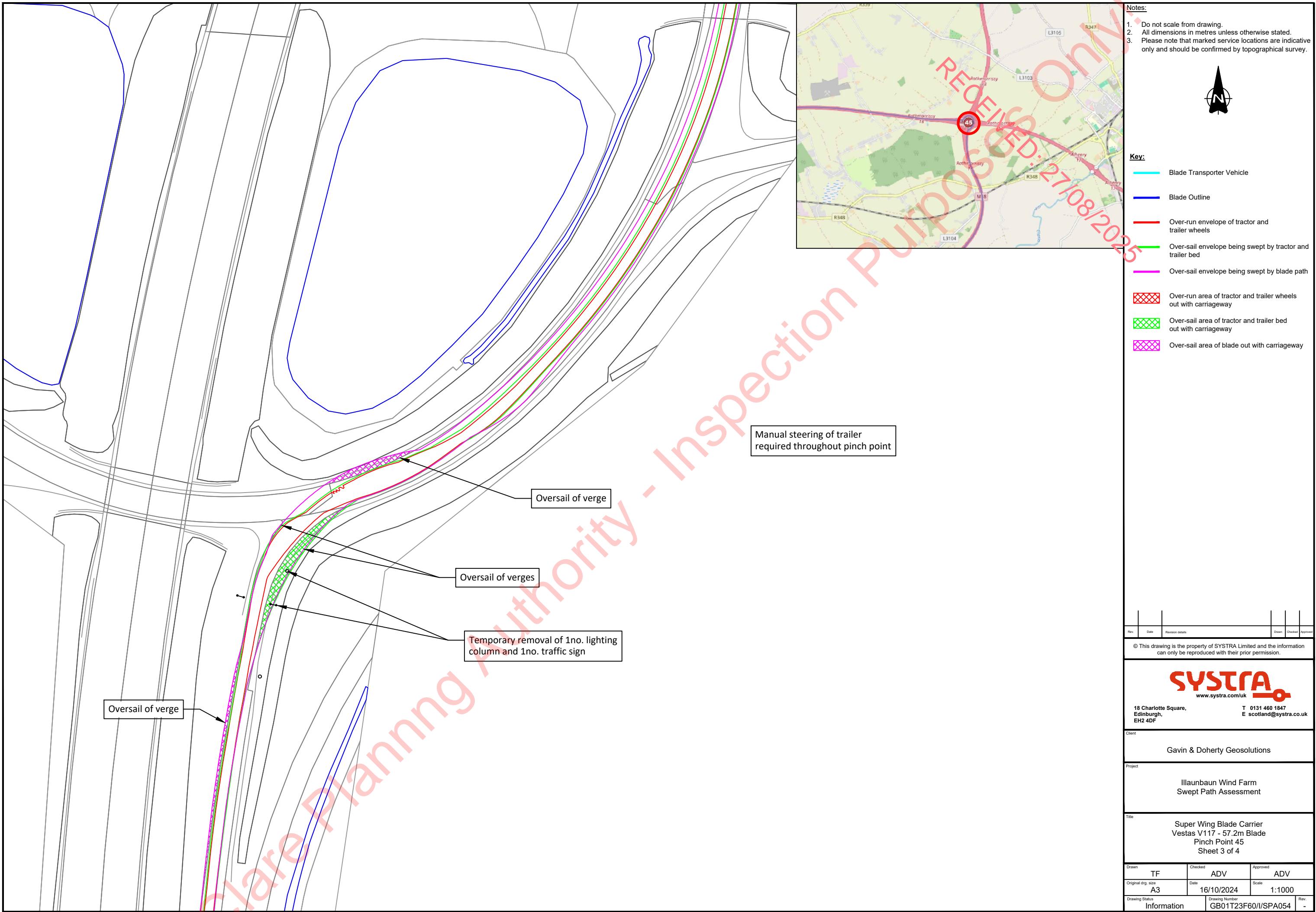
Rev.	Date	Revision details	Drawn	Checked	Approved
© This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.					
 www.systra.com/uk					
18 Charlotte Square, Edinburgh, EH2 4DF			T 0131 460 1847 E scotland@systra.co.uk		
Client					
Gavin & Doherty Geosolutions					
Project					
Illaunbaun Wind Farm Swept Path Assessment					
Title					
Super Wing Blade Carrier Vestas V117 - 57.2m Blade Pinch Point 42					
Drawn TF		Checked ADV		Approved ADV	
Original drg. size A3		Date 16/10/2024		Scale 1:750	
Drawing Status Information		Drawing Number GBO1T23F60/I/SPA049			Rev. -

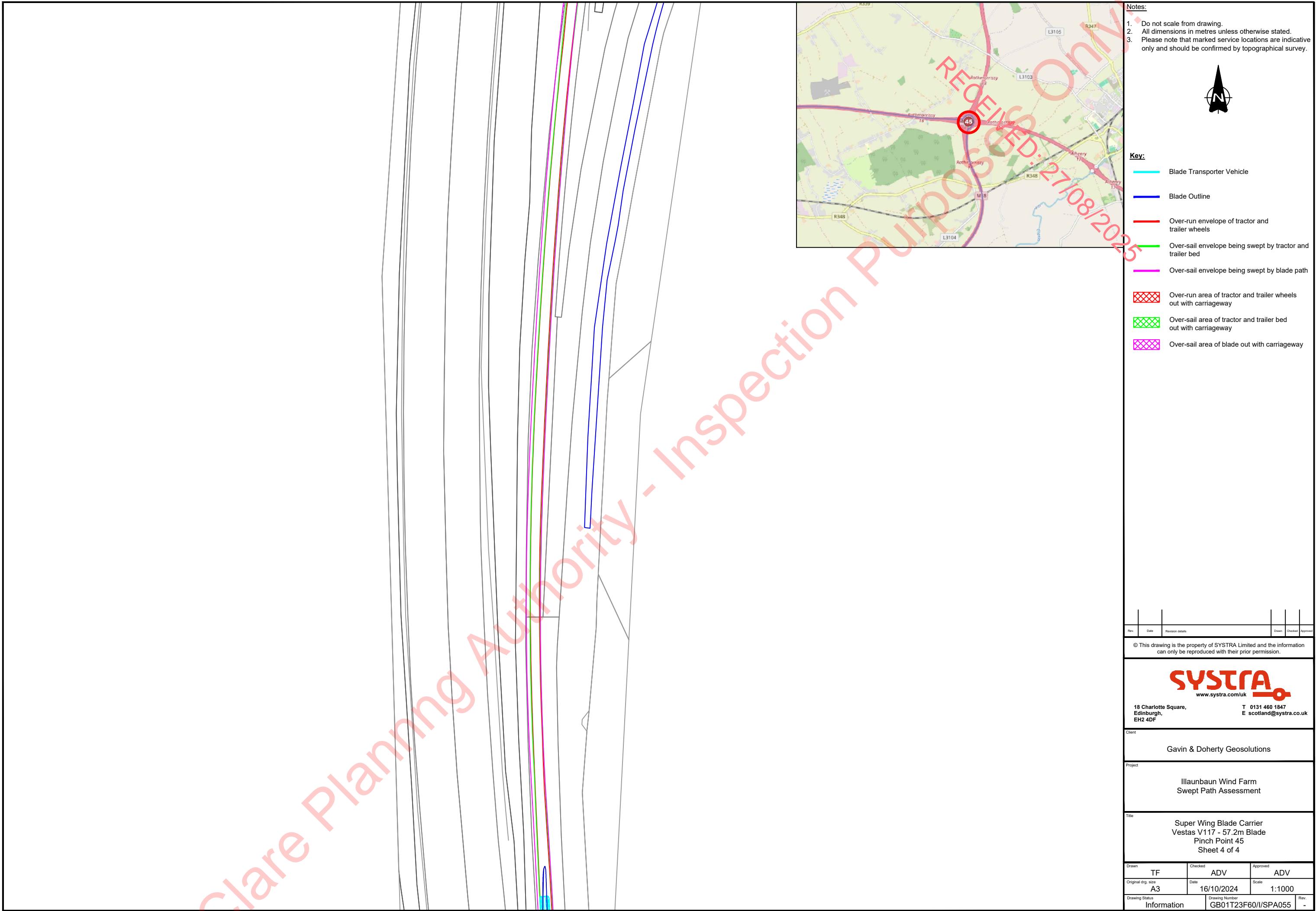


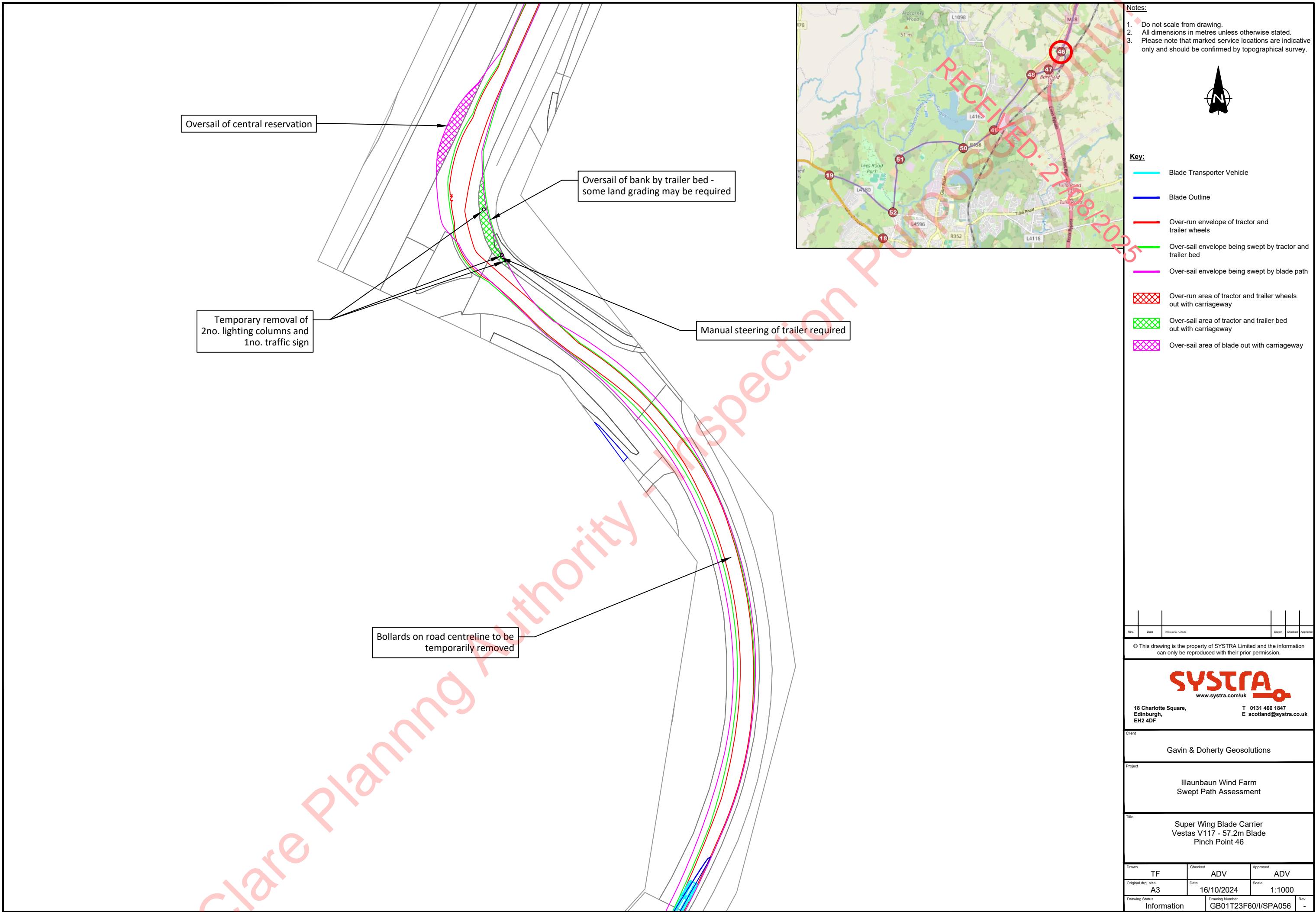












Notes:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.



Key:

- Blade Transporter Vehicle
- Blade Outline
- Over-run envelope of tractor and trailer wheels
- Over-sail envelope being swept by tractor and trailer bed
- Over-sail envelope being swept by blade path
- Over-run area of tractor and trailer wheels out with carriageway
- Over-sail area of tractor and trailer bed out with carriageway
- Over-sail area of blade out with carriageway

Rev.	Date	Revision details	Drawn	Checked	Approved
© This drawing is the property of SYSTRA Limited and the information					

SYSTRA
www.systra.com/uk

18 Charlotte Square,
Edinburgh,
EH2 4DF

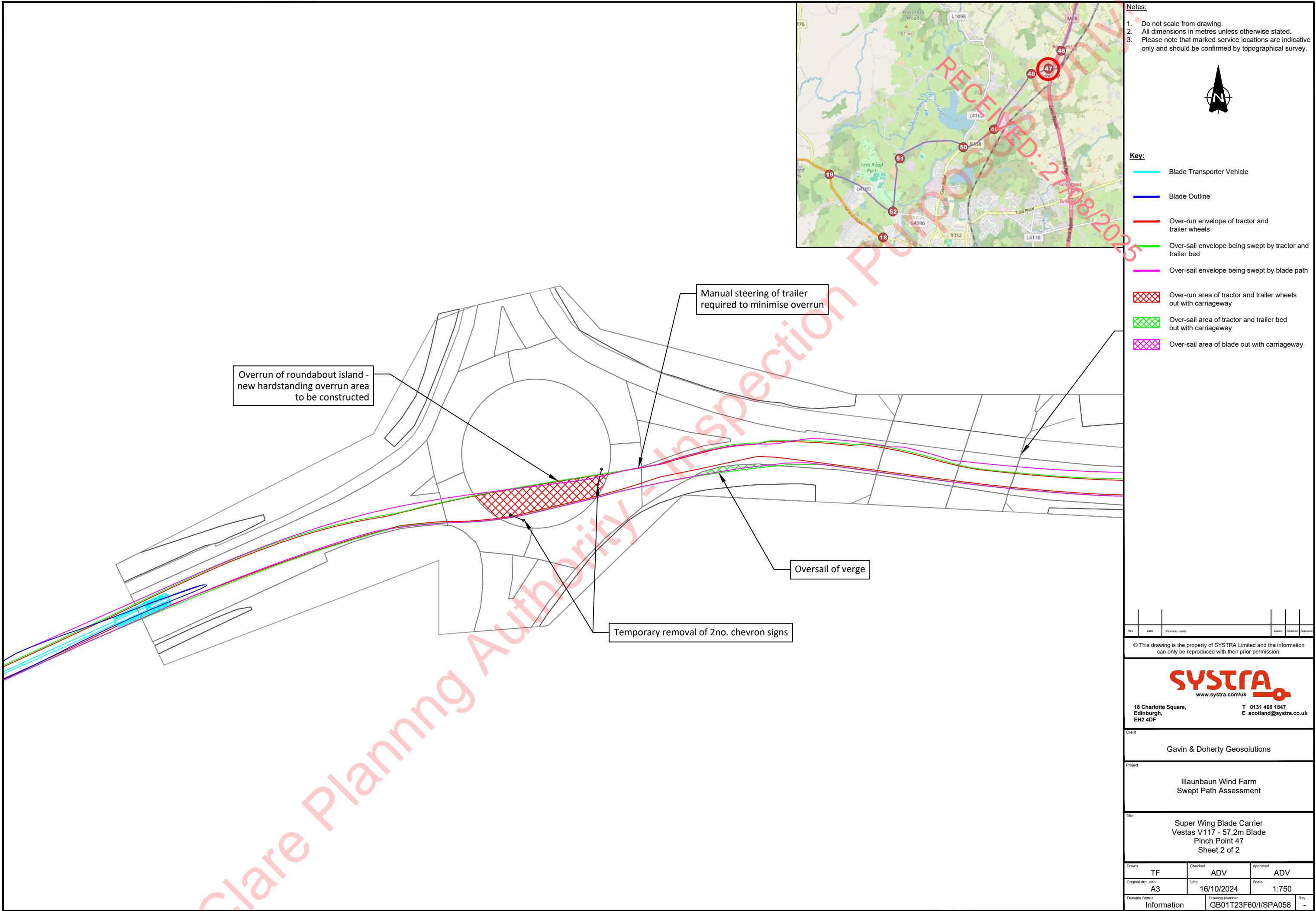
Gavin & Doherty Geosolutions

IIIaunbaun Wind Farm Swept Path Assessment

Title
Super Wing Blade Carrier
Vestas V117 - 57.2m Blade
Pinch Point 47
Sheet 1 of 2

Drawn	Checked	Approved
TF	ADV	ADV
Original drg. size	Date	Scale
A3	16/10/2024	1:750
Drawing Status	Drawing Number	Rev.
Information	GB01T23F60/I/SPA057	-

© This drawing and its content are the copyright of SYSTRA Ltd and may not be reproduced or amended except by prior written permission. SYSTRA accepts no liability for any amendments made by other persons.



Notes:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.



Key:

- Blade Transporter Vehicle
- Blade Outline
- Over-run envelope of tractor and trailer wheels
- Over-sail envelope being swept by tractor and trailer bed
- Over-sail envelope being swept by blade path
- Over-run area of tractor and trailer wheels out with carriageway
- Over-sail area of tractor and trailer bed out with carriageway
- Over-sail area of blade out with carriageway

Rev.	Date	Revision details		Drawn	Checked	Approved
<p>© This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.</p>						
 <p>www.systra.com/uk</p>						
<p>18 Charlotte Square, Edinburgh, EH2 4DF</p>			<p>T 0131 460 1847 E scotland@systra.co.uk</p>			
<p>Client</p>						
<p>Gavin & Doherty Geosolutions</p>						
<p>Project</p>						
<p>Illaunbaun Wind Farm Swept Path Assessment</p>						
<p>Title</p>						
<p>Super Wing Blade Carrier Vestas V117 - 57.2m Blade Pinch Point 48</p>						
<p>Drawn</p>		<p>Checked</p>		<p>Approved</p>		
<p>TF</p>		<p>ADV</p>		<p>ADV</p>		
<p>Original drg. size</p>		<p>Date</p>		<p>Scale</p>		
<p>A3</p>		<p>16/10/2024</p>		<p>1:750</p>		
<p>Drawing Status</p>		<p>Drawing Number</p>		<p>Rev.</p>		
<p>Information</p>		<p>GB01T23E60//SPA059</p>		<p>-</p>		

SYSTRA
www.systra.com/uk

18 Charlotte Square,
Edinburgh,
EH2 4DF

Section 3: Results

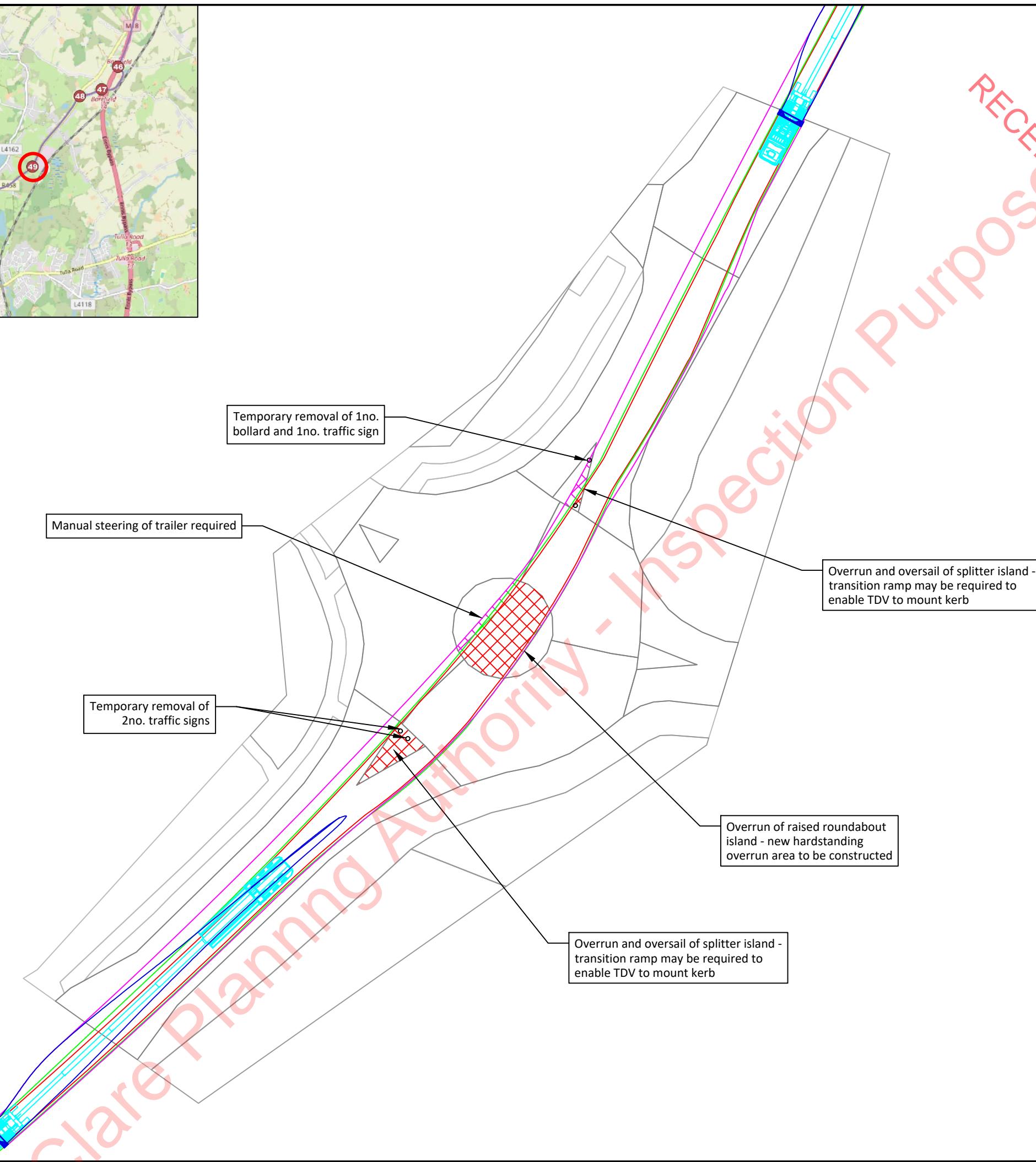
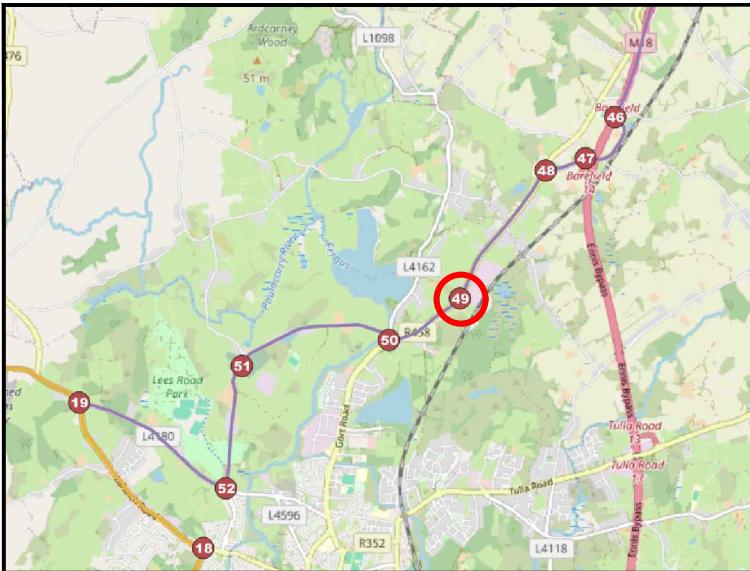
Project

IIIaunbaun Wind Farm Swept Path Assessment

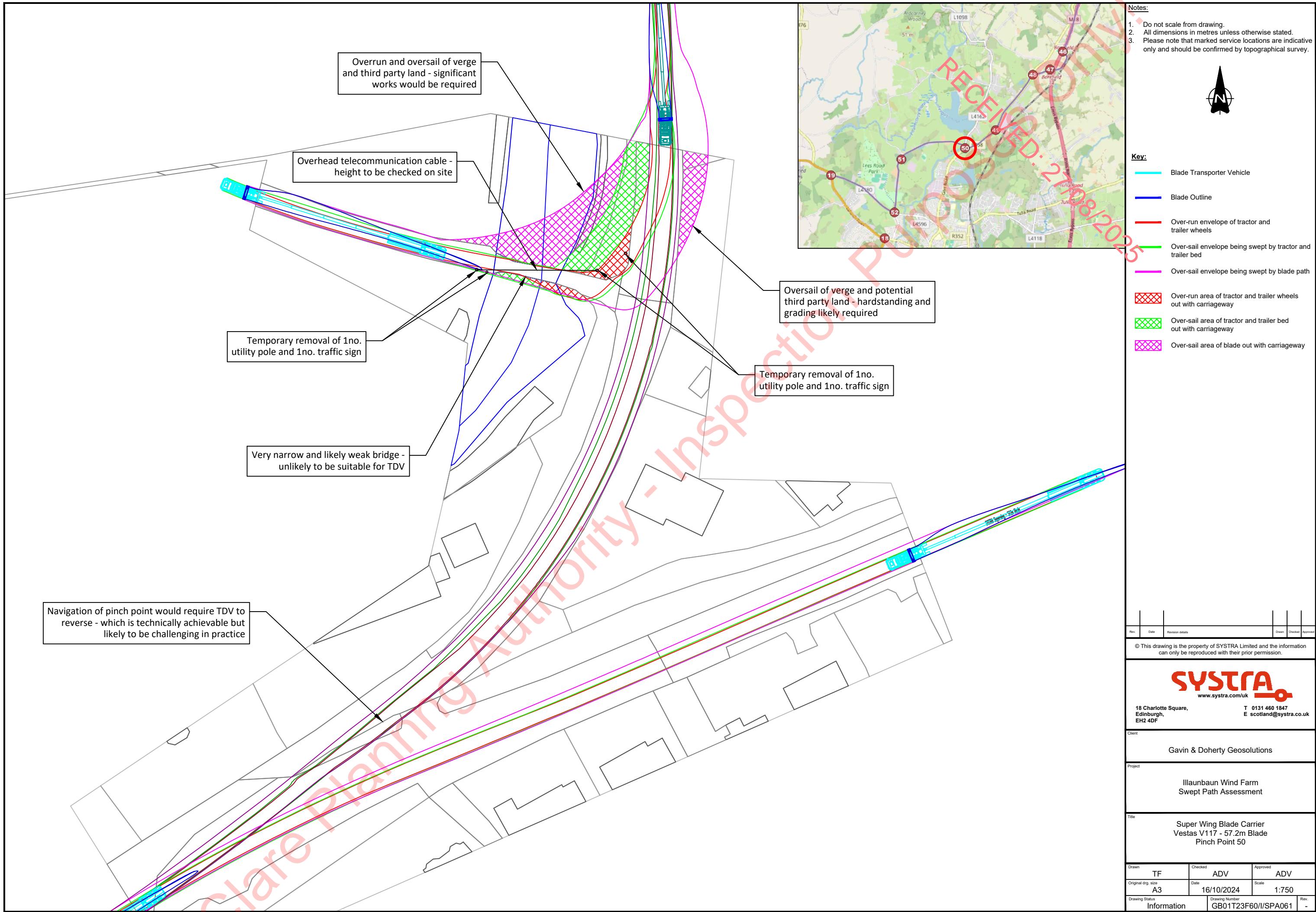
Title			
Super Wing Blade Carrier Vestas V117 - 57.2m Blade Pinch Point 48			
Drawn	Checked	Approved	
TF	ADV	ADV	
Original drg. size	Date	Scale	
A3	16/10/2024	1:750	
Drawing Status	Information	Drawing Number	Rev.
		GB01T23F60/I/SPA059	-

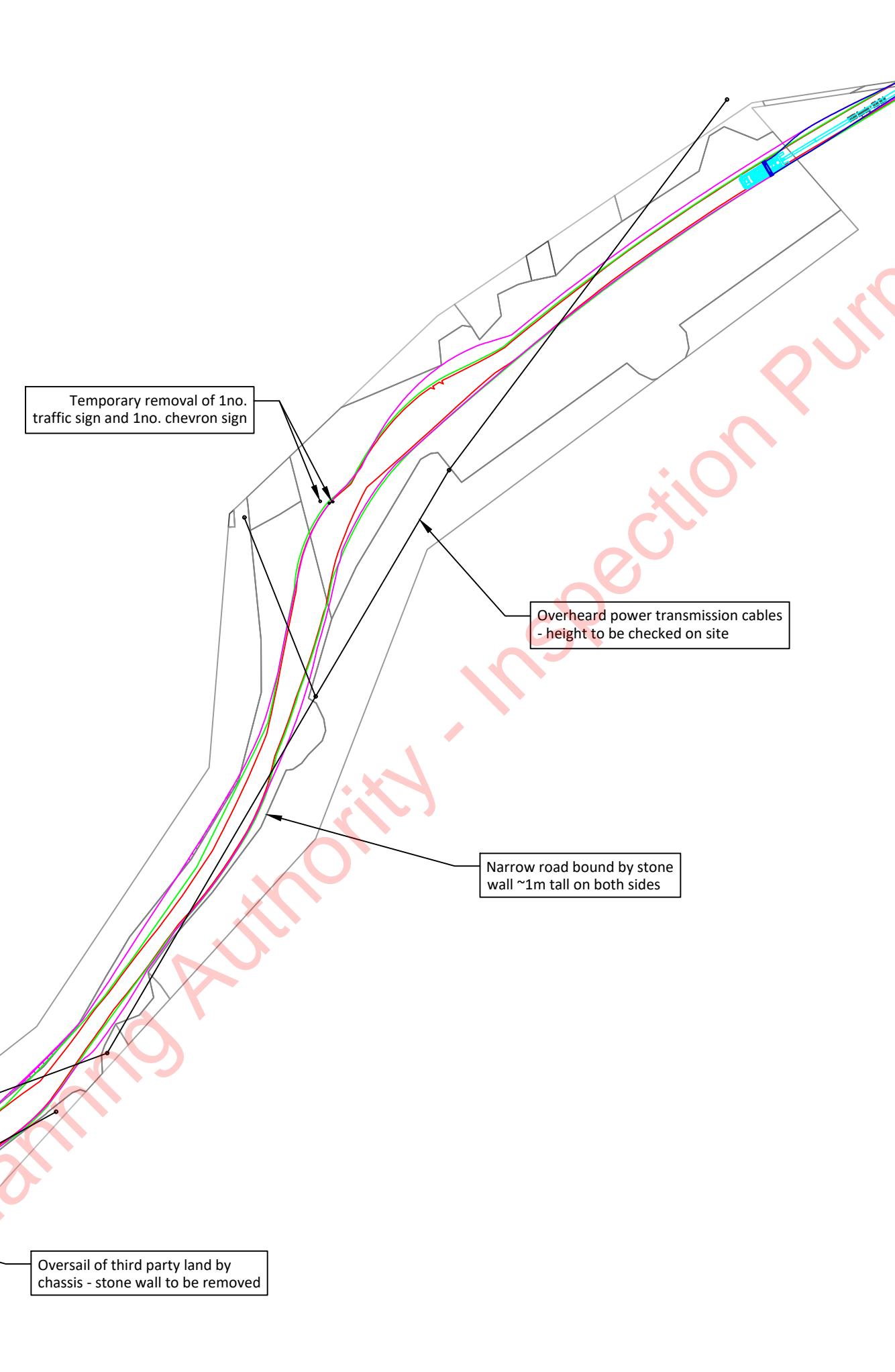
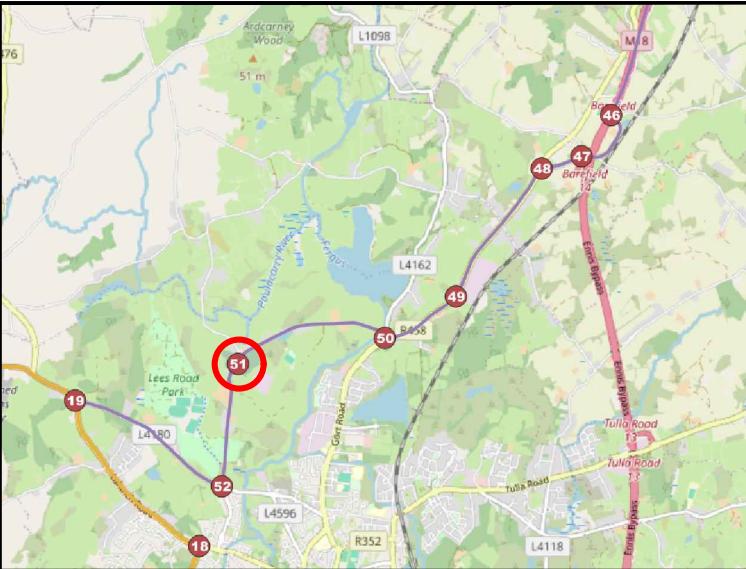
Contains OSI data © 2023 Tailte Éireann

© This drawing and its content are the copyright of SYSTRA Ltd and may not be reproduced or amended except by prior written permission. SYSTRA accepts no liability for any amendments made by other persons.



Notes:			
1. Do not scale from drawing.			
2. All dimensions in metres unless otherwise stated.			
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.			
Key:			
Blade Transporter Vehicle			
Blade Outline			
Over-run envelope of tractor and trailer wheels			
Over-sail envelope being swept by tractor and trailer bed			
Over-sail envelope being swept by blade path			
Over-run area of tractor and trailer wheels out with carriageway			
Over-sail area of tractor and trailer bed out with carriageway			
Over-sail area of blade out with carriageway			
Rev Date Revision details Drawn Checked Approved			
© This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.			
SYSTRA www.systra.co.uk			
18 Charlotte Square, Edinburgh, EH2 4DF			
T 0131 460 1847 E scotland@systra.co.uk			
Client			
Gavin & Doherty Geosolutions			
Project			
Illaunbaun Wind Farm Swept Path Assessment			
Title			
Super Wing Blade Carrier Vestas V117 - 57.2m Blade Pinch Point 49			
Drawn TF Checked ADV Approved ADV			
Original drg. size A3 Date 16/10/2024 Scale 1:500			
Drawing Status Information Drawing Number GBO1T23F60/I/SPA060 Rev. -			





RECEIVED: 27/08/2025
Check Planning Authority - Inspection Purposes Only

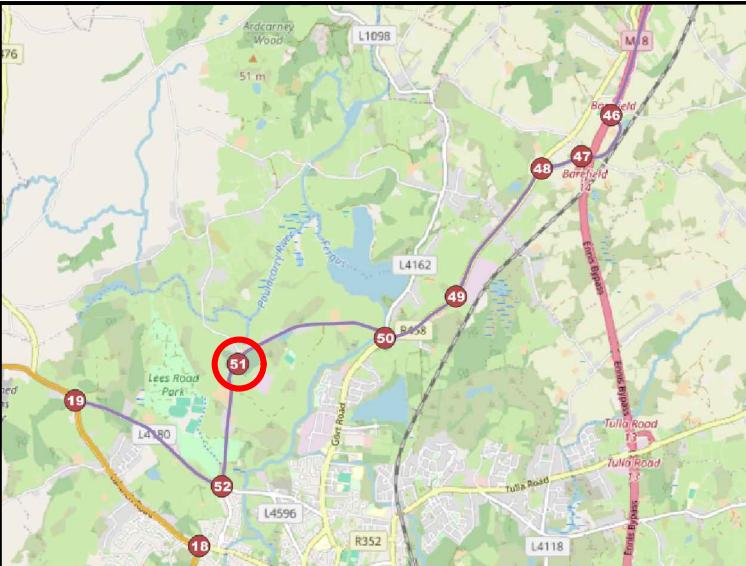
Notes:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.

Key:

- Blade Transporter Vehicle
- Blade Outline
- Over-run envelope of tractor and trailer wheels
- Over-sail envelope being swept by tractor and trailer bed
- Over-sail envelope being swept by blade path
- Over-run area of tractor and trailer wheels out with carriageway
- Over-sail area of tractor and trailer bed out with carriageway
- Over-sail area of blade out with carriageway

Rev	Date	Revision details	Drawn	Checked	Approved
© This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.					
SYSTRA www.systra.co.uk 18 Charlotte Square, Edinburgh, EH2 4DF Client Gavin & Doherty Geosolutions Project Illaunbaun Wind Farm Swept Path Assessment Title Super Wing Blade Carrier Vestas V117 - 57.2m Blade Pinch Point 51 Sheet 1 of 2 Drawn TF Checked ADV Approved ADV Original drg. size A3 Date 16/10/2024 Scale 1:1000 Drawing Status Information Drawing Number GBO1T23F60/ISPA062 Rev. - 					



Overhead telecommunications cables - height to be checked on site

Slight oversail of chassis into potential third party land - small section of stone wall to be removed

Oversail of third party land by chassis - stone wall to be removed

Slight oversail of verge

Road bound by stone wall to the east

Notes:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.



Key:

- Blade Transporter Vehicle
- Blade Outline
- Over-run envelope of tractor and trailer wheels
- Over-sail envelope being swept by tractor and trailer bed
- Over-sail envelope being swept by blade path
- Over-run area of tractor and trailer wheels out with carriageway
- Over-sail area of tractor and trailer bed out with carriageway
- Over-sail area of blade out with carriageway

Rev	Date	Revision details	Drawn	Checked	Approved
© This drawing is the property of SYSTRA Limited and the information can only be reproduced with their prior permission.					

SYSTRA
www.systra.co.uk

18 Charlotte Square,
Edinburgh,
EH2 4DF
T 0131 460 1847
E scotland@systra.co.uk

Client

Gavin & Doherty Geosolutions

Project

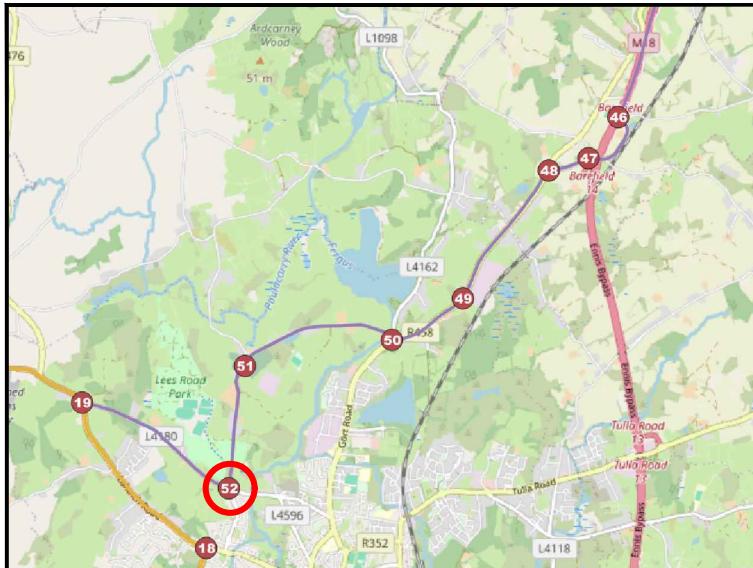
Illaunbaun Wind Farm
Swept Path Assessment

Title

Super Wing Blade Carrier
Vestas V117 - 57.2m Blade
Pinch Point 51
Sheet 2 of 2

Drawn	TF	Checked	ADV	Approved
Original drg. size A3		Date 16/10/2024	Scale 1:1000	ADV

Drawing Status	Drawing Number	Rev.
Information	GB01T23F60/I/SPA063	-



Overhead telecommunications cable
to be temporarily grounded

Temporary removal of 5no. traffic signs and 2no. utility poles

Overhead power transmission cables - height to be checked on site

Temporary removal of 1no. traffic sig

Slight overrun of footway - transition ramp may be required to enable TDV to mount kerb

New hardstanding overrrun area required

Overrun and oversail of verges and potential third party land

Do not scale from drawing.
All dimensions in metres unless otherwise stated.
Please note that marked service locations are indicative only and should be confirmed by topographical survey.



Key:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.

© 2013 SYSTRA Limited. All rights reserved. SYSTRA is a registered trademark of SYSTRA International S.A. SYSTRA is not responsible for any omissions or errors in this document.

can only be reproduced with their prior permission.

SOSTRA

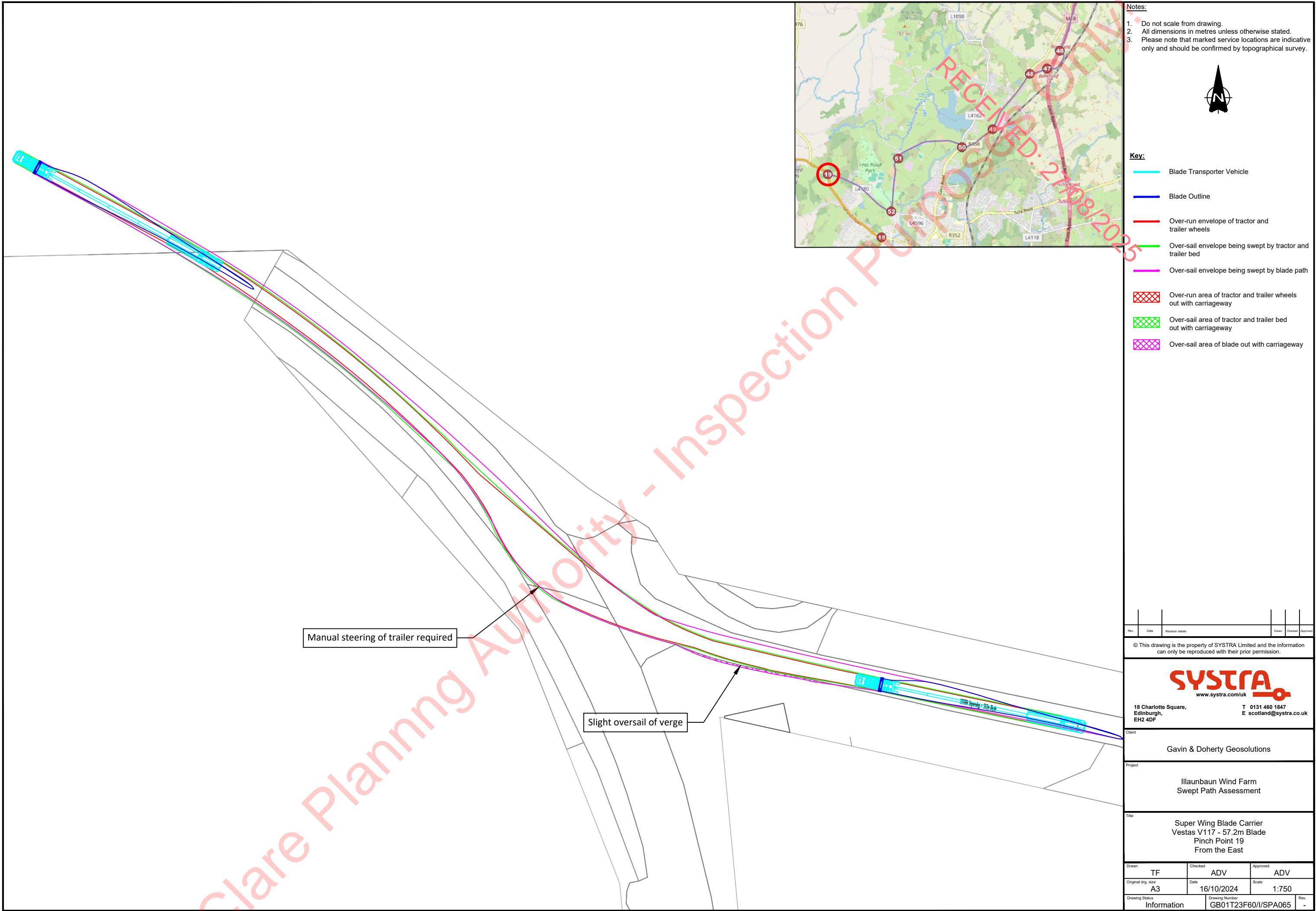
Gaynor & Doherty Geosolutions

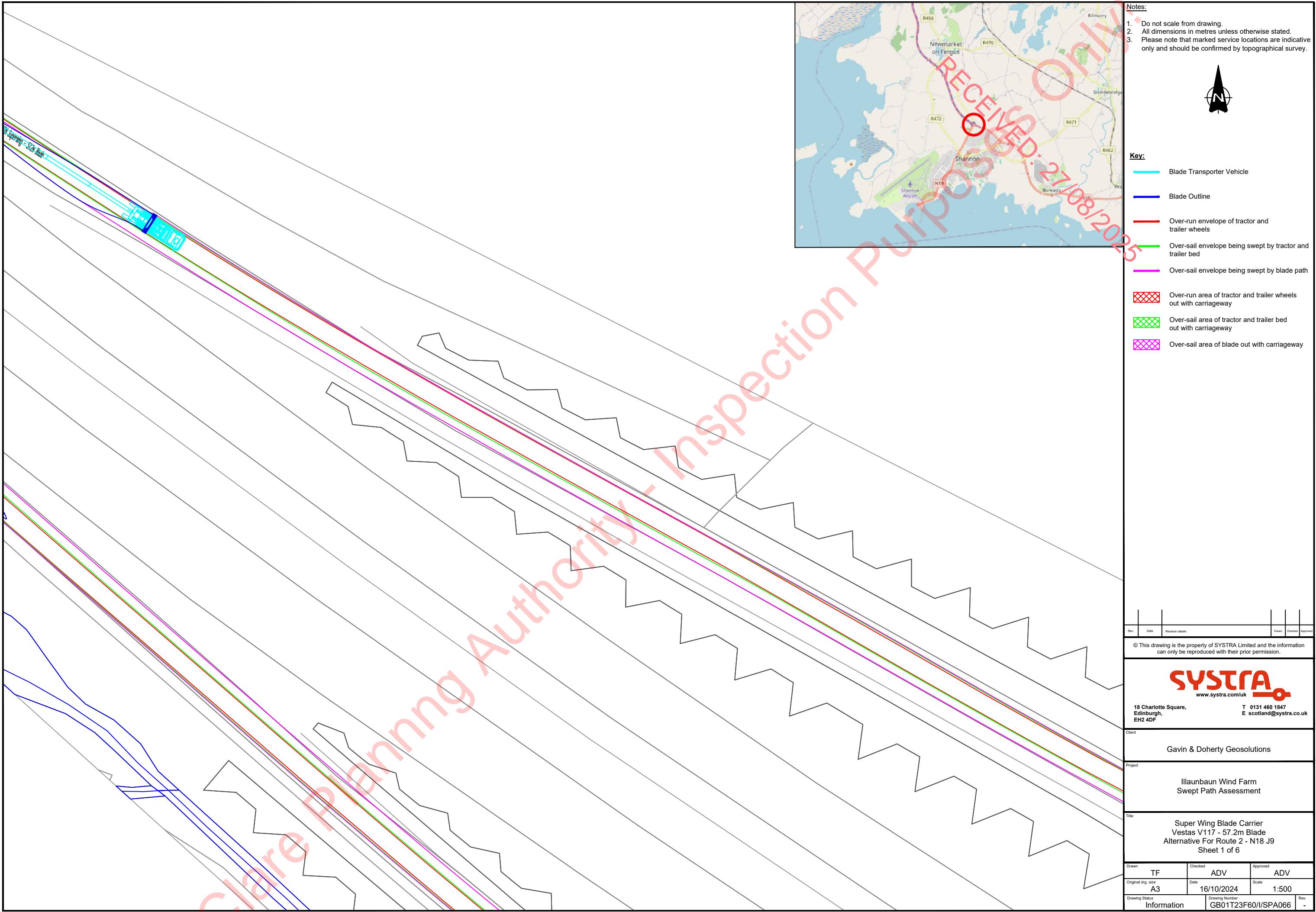
Haunbaun Wind Farm

Super Wing Blade Carrier
Vestas V117 - 57.2m Blade
Pinch Point 52

	Checked ADV	Approved ADV

16/10/2024 1:500
Drawing Number GB01T23F60/I/SPA064 Rev. -





Notes:

1. Do not scale from drawing.
2. All dimensions in metres unless otherwise stated.
3. Please note that marked service locations are indicative only and should be confirmed by topographical survey.



Key:

- Blade Transporter Vehicle
- Blade Outline
- Over-run envelope of tractor and trailer wheels
- Over-sail envelope being swept by tractor and trailer bed
- Over-sail envelope being swept by blade path
- Over-run area of tractor and trailer wheels out with carriageway
- Over-sail area of tractor and trailer bed out with carriageway
- Over-sail area of blade out with carriageway

Temporary removal of 2no. traffic signs and 1no. lighting column

Oversail of verg

Temporary removal
2no. traffic sig

Temporary rem
of 3no. traffic s

SYSTRA
www.systra.com/uk

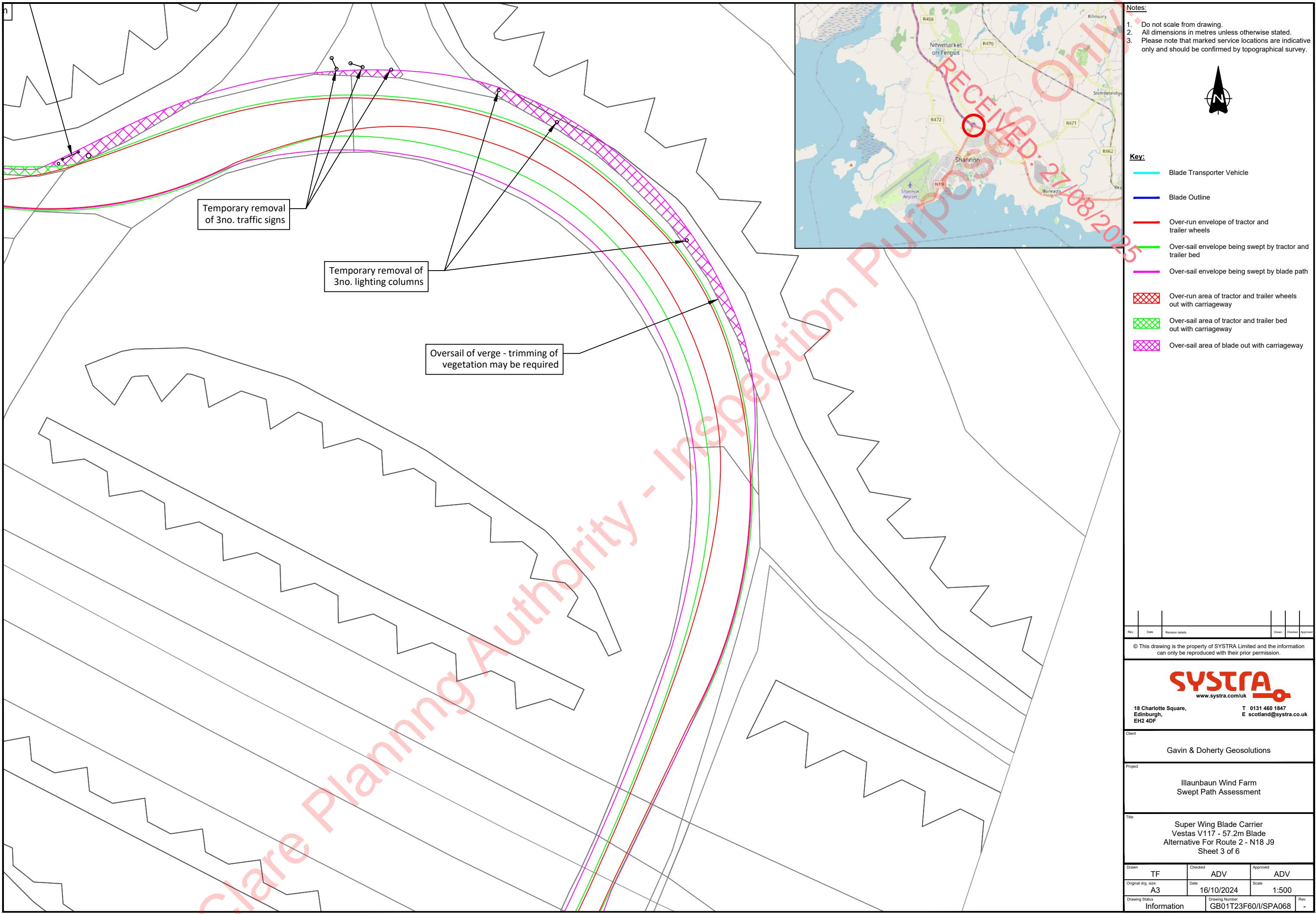
18 Charlotte Square,
Edinburgh,
EH2 4DF

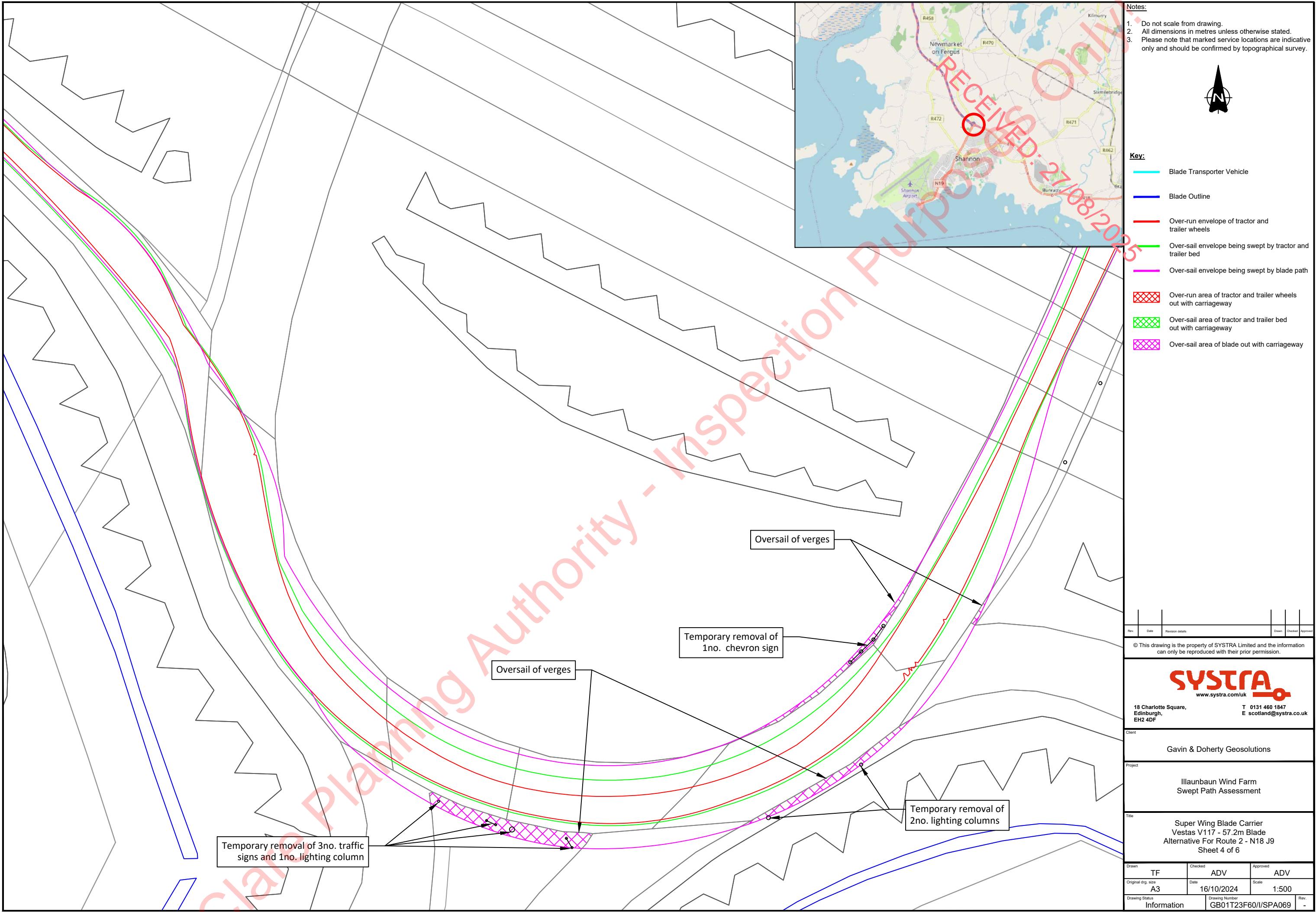
Gavin & Doherty Geosolutions

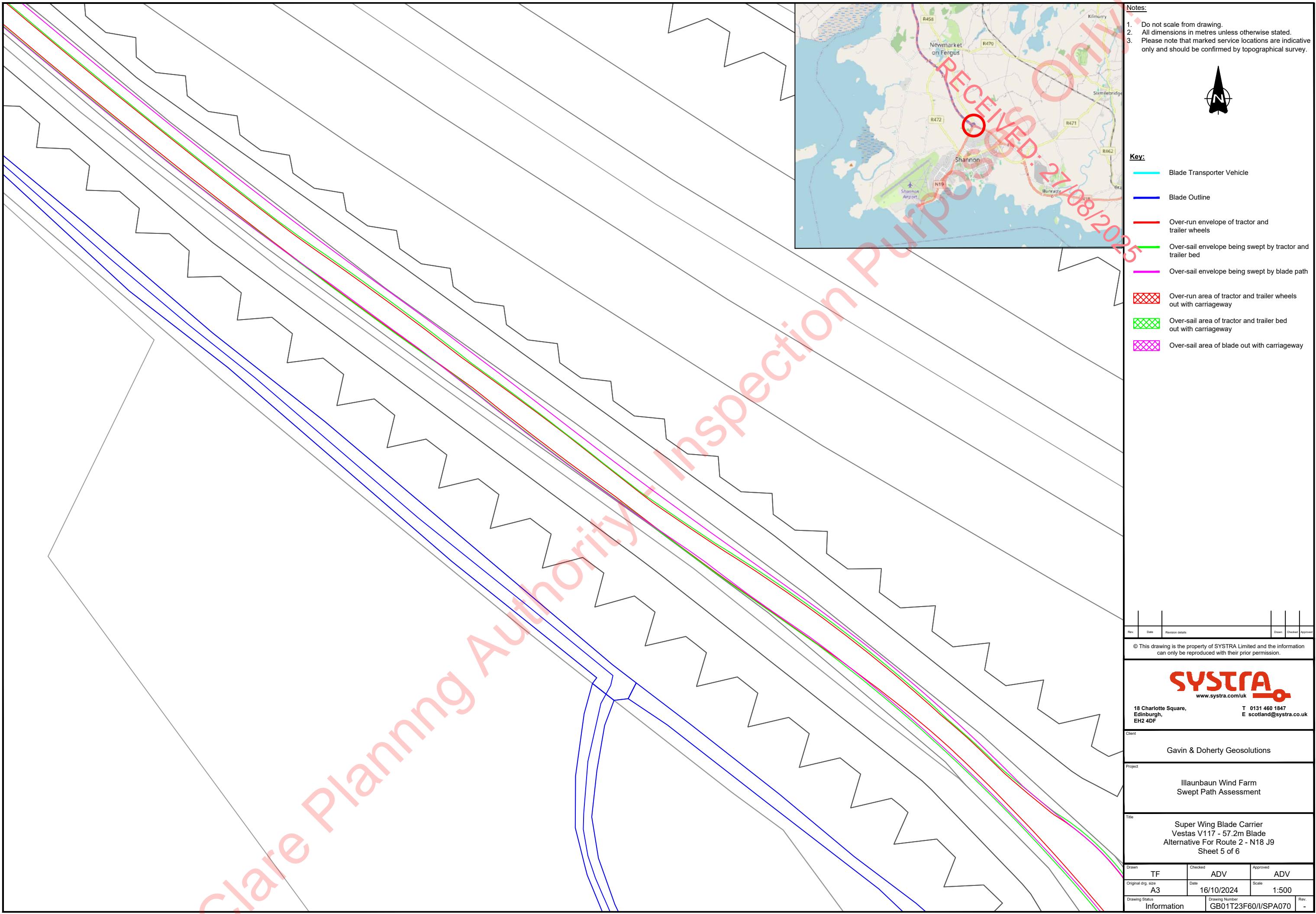
Illaunbaun Wind Farm Swept Path Assessment

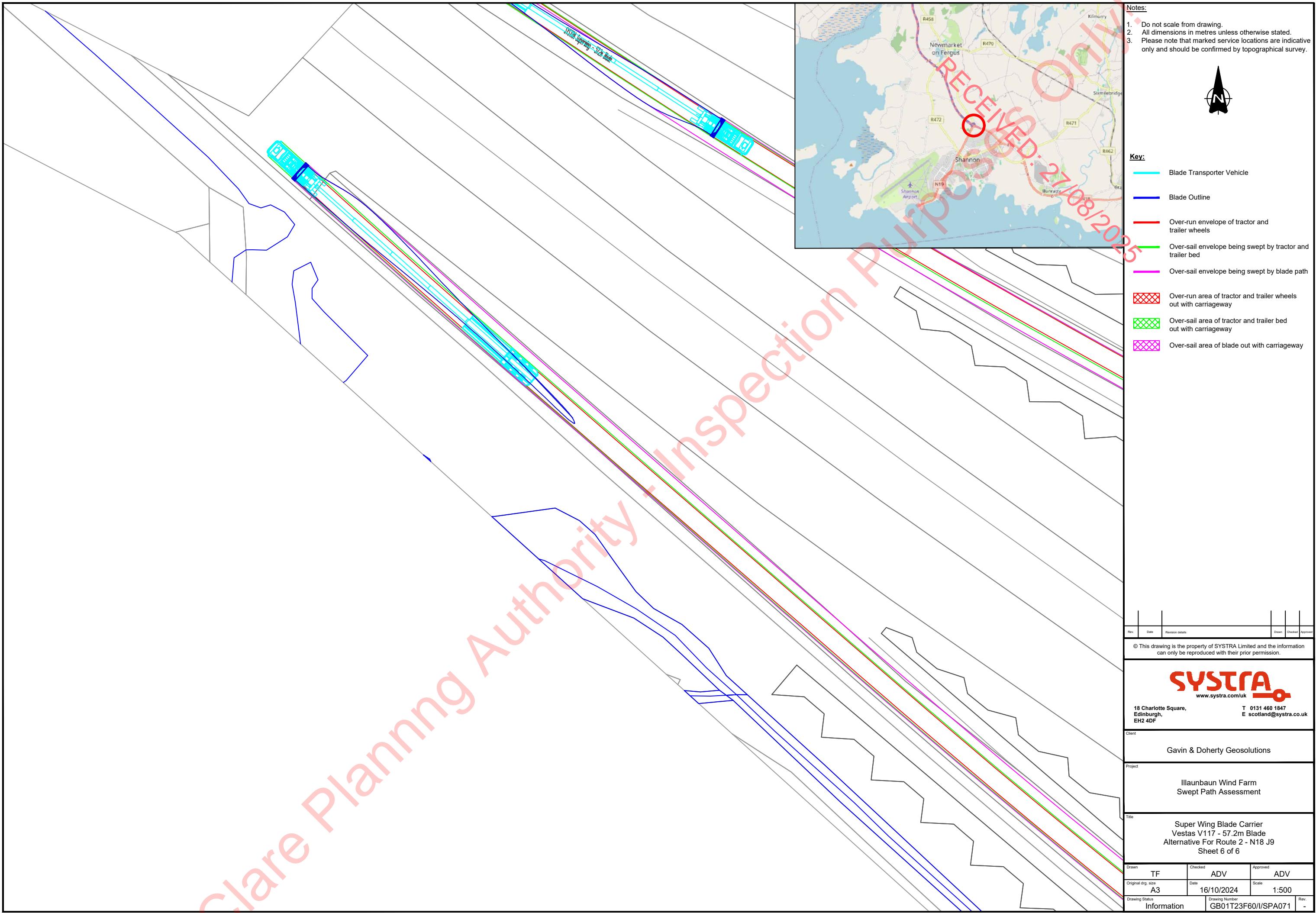
Super Wing Blade Carrier
Vestas V117 - 57.2m Blade
Alternative For Route 2 - N18 J9
Sheet 2 of 6

	Checked ADV	Approved ADV
Date	16/10/2024	Scale 1:500
Information	Drawing Number GB01T23F60/I/SPA067	Rev. -









SYSTRA provides advice on transport, to central, regional and local government, agencies, developers, operators and financiers.

A diverse group of results-oriented people, we are part of a strong team of professionals worldwide. Through client business planning, customer research and strategy development we create solutions that work for real people in the real world.

For more information visit www.systra.com/uk

Birmingham

Alpha Tower, Crowne Plaza, Suffolk Street
Birmingham, B1 1TT
T: +44 (0)121 393 4841

Bristol

33 Colston Avenue, Bristol, BS1 4UA

Cork

City Quarter, Lapps Quay, Cork City
Cork, T12 WY42, Republic of Ireland

Dublin

2nd Floor, Riverview House, 21-23 City Quay
Dublin D02 AY91, Republic of Ireland
T: +353 (0) 1 566 2028

Edinburgh

Ground Floor, 18 Charlotte Square, Edinburgh, EH2 4DF
T: +44 (0)131 460 1847

Glasgow

The Centrum Business Centre Limited, 38 Queen Street, Glasgow,
G1 3DX
T: +44 (0)141 468 4205

Leeds

100 Wellington Street, Leeds, LS1 1BA
T: +44 (0)113 360 4842

London

One Carey Lane, London, England EC2V 8AE
T: +44 (0)20 3855 0079

Manchester

5th Floor, Four Hardman Street, Spinningfields
Manchester, M3 3HF
Tel: +44 (0)161 504 5026

Newcastle

Block C, First Floor, Portland House, New Bridge Street West,
Newcastle, NE1 8AL
Tel: +44 191 249 3816

Reading

Davidson House, Forbury Square,
Reading, RG1 3EU
T: +44 118 208 0111

Woking

Dukes Court, Duke Street
Woking, Surrey GU21 5BH
T: +44 (0)1483 357705

York

Meridian House, The Crescent
York, YO24 1AW
Tel: +44 1904 454 600

Other locations:

France:
Bordeaux, Lille, Lyon, Marseille, Paris

Northern Europe:
Astana, Copenhagen, Kiev, London, Moscow, Riga, Wroclaw

Southern Europe & Mediterranean: Algiers, Baku, Bucharest,
Madrid, Rabat, Rome, Sofia, Tunis

Middle East:

Cairo, Dubai, Riyadh

Asia Pacific:

Bangkok, Beijing, Brisbane, Delhi, Hanoi, Hong Kong, Manila,
Seoul, Shanghai, Singapore, Shenzhen, Taipei

Africa:

Abidjan, Douala, Johannesburg, Kinshasa, Libreville, Nairobi

Latin America:

Lima, Mexico, Rio de Janeiro, Santiago, São Paulo

North America:

Little Falls, Los Angeles, Montreal, New-York, Philadelphia,
Washington

SYSTRA