NORTH FALLS

Offshore Wind Farm

Outline Construction Traffic Management Plan

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Glossary of Acronyms

AIL	Abnormal Indivisible Load
CLO	Community Liaison Officer
CTMP	Construction Traffic Management Plan
DCO	Development Consent Order
EIA	Environmental Impact Assessment
ES	Environmental Statement
ESDAL	Electronic Service Delivery for Abnormal Loads
HDD	Horizontal Direction Drilling
HGV	Heavy Goods Vehicle
HW	Highways Works
LV	Light Vehicle
OCoCP	Outline Code of Construction Practice
OCTMP	Outline Construction Traffic Management Plan
HW	Highways Works
PC	Principal Contractor
TCC	Temporary Construction Compounds
TMCo	Traffic Management Co-ordinator
TTSA	Traffic and Transport Study Area
UK	United Kingdom

Glossary of Terminology

Bentley Road improvement works	Works involving the widening and improvement of the carriageway along Bentley Road, required to facilitate heavy goods vehicle and abnormal indivisible load access to the onshore cable route and the onshore substation.
Array area	The offshore wind farm area, within which the wind turbine generators, array cables, platform interconnector cable, offshore substation platform(s) and/or offshore converter platform will be located.
Haul road	The track along the onshore cable route used by construction traffic to access different sections of the onshore cable route.
Heavy Goods Vehicle (HGV)	HGV is the term for any vehicle with a Gross Weight over 3.5 tonnes. This is also used as a proxy for HGVs and buses / coaches recognising the similar size and environmental characteristics of the respective vehicle types.
horizontal directional drill (HDD)	Trenchless technique to bring the offshore export cables ashore at landfall. The technique will also be the primary trenchless technique used for installation of the onshore export cables at sensitive areas of the onshore cable route.
Landfall	The location where the offshore export cables come ashore at Kirby Brook.
Light Vehicle (LV)	The term ‘light vehicle’ is used to describe the range of vehicles that would be used by construction employees, i.e. cars, vans, pick-ups, minibuses, etc.
Movement	A two-way trip (i.e. the arrival and departure from site) for the transfer of employees or goods.
National Grid connection point	The grid connection location for the Project. National Grid are proposing to construct new electrical infrastructure (a new substation) to allow the Project to connect to the grid, and this new infrastructure will be located at the National Grid connection point.

Offshore cable corridor	The corridor of seabed from the array area to the landfall within which the offshore export cables will be located.
Onshore cable route	Onshore route within which the onshore export cables and associated infrastructure would be located.
onshore export cables	The cables which take the electricity from landfall to the onshore substation. These comprise High Voltage Alternative Current (HVAC) cables, buried underground.
Onshore substation	A compound containing electrical equipment required to transform and stabilise electricity generated by the Project so that it can be connected to the National Grid.
Onshore substation works area	Area within which all temporary and permanent works associated within the onshore substation are located, including onshore substation, construction compound, access, landscaping, drainage and earthworks.
Temporary construction compound	Area set aside to facilitate construction of the onshore cable route. Will be located adjacent to the onshore cable route, with access to the highway where required.
The Applicant	North Falls Offshore Wind Farm Limited (NFOW).
The Project Or 'North Falls'	North Falls Offshore Wind Farm, including all onshore and offshore infrastructure.
Traffic and Transport Study Area (TTSA)	Area where potential impacts from the Project could occur, as defined for each individual EIA topic.
Trenchless crossing	Use of a technique to install limited lengths of cable below ground without the need to excavate a trench from the surface, used in sensitive areas of the onshore cable route to prevent surface disturbance. Includes techniques such as HDD.
Vehicle (HGV, Traffic) trips	A two-way trip (i.e. the arrival and departure from site) for the transfer of employees or goods.

1 Introduction

1.1 Background

1. The following provides a brief description of the North Falls Offshore Wind Farm (herein 'the Project'). Further detail is provided within Environmental Statement (ES) Chapter 5 Project Description (Document Reference: 3.1.7).
2. The North Falls array is located off the East Anglian coastline. The offshore cable corridor runs from the array area to the landfall area at Kirby Brook, Essex.
3. Onshore export cables will then transport the electricity to the onshore substation located west of Little Bromley within the Tendring district of Essex before it enters the national grid. The offshore and onshore project locations are shown in ES Figures 1.1 and 1.2 (Document Reference: 3.2.1), respectively.

1.2 Purpose of the Outline Construction Traffic Management Plan

4. ES Chapter 27 Traffic and Transport (Document Reference: 3.1.29) contains an assessment of the likely significant effects and associated mitigation for the construction, operation and decommissioning of the Project.
5. The Outline Construction Traffic Management Plan (OCTMP) contains the control measures and monitoring procedures for managing the potential traffic and transport effects of constructing the Project. The objective of the OCTMP is to define a strategy to ensure that the construction traffic parameters (e.g. traffic numbers and routes) assessed within the ES are managed and not exceeded.
6. The OCTMP would form the basis for a final Construction Traffic Management Plan (CTMP) for each phase of the Project's onshore works, which would be prepared and submitted prior to the commencement of the construction of the relevant phase for approval by the local planning authority. This is secured through DCO Requirement.
7. The final CTMP would set the standards and procedures that would be adopted and implemented by the appointed Principal Contractor (PC), including;
    - Managing the numbers and routeing of Heavy Goods Vehicles (HGVs) during the construction phase;
    - Managing the movement of employee traffic during the construction phase;
    - Details of localised road improvements necessary to facilitate safe use of the existing road network; and
    - Detail of measures to manage the safe passage of HGV traffic via the local highway network.

1.3 OCTMP scope

8. The realistic worst case scenarios for the likely significant effects scoped into the Environmental Impact Assessment (EIA) for the traffic and transport assessment are summarised in ES Chapter 27 Traffic and Transport (Document Reference: 3.1.29) and based on project parameters described in ES Chapter 5 Project Description (Document Reference: 3.1.7). The main grid connection options considered in the ES, as relevant to this OCTMP, are outlined below:

   - **Option 1:** Onshore electrical connection at a national grid connection point within the Tendring peninsula of Essex, with a project alone onshore cable route and onshore substation infrastructure.
   - **Option 2:** Onshore electrical connection at a national grid connection point within the Tendring peninsula of Essex, sharing an onshore cable route and onshore cable duct installation (but with separate onshore export cables) and co-locating separate project onshore substation infrastructure with Five Estuaries Offshore Wind Farm ('Five Estuaries').

9. Unless explicitly specified, the measures and controls contained within this OCTMP would be applicable to both options.

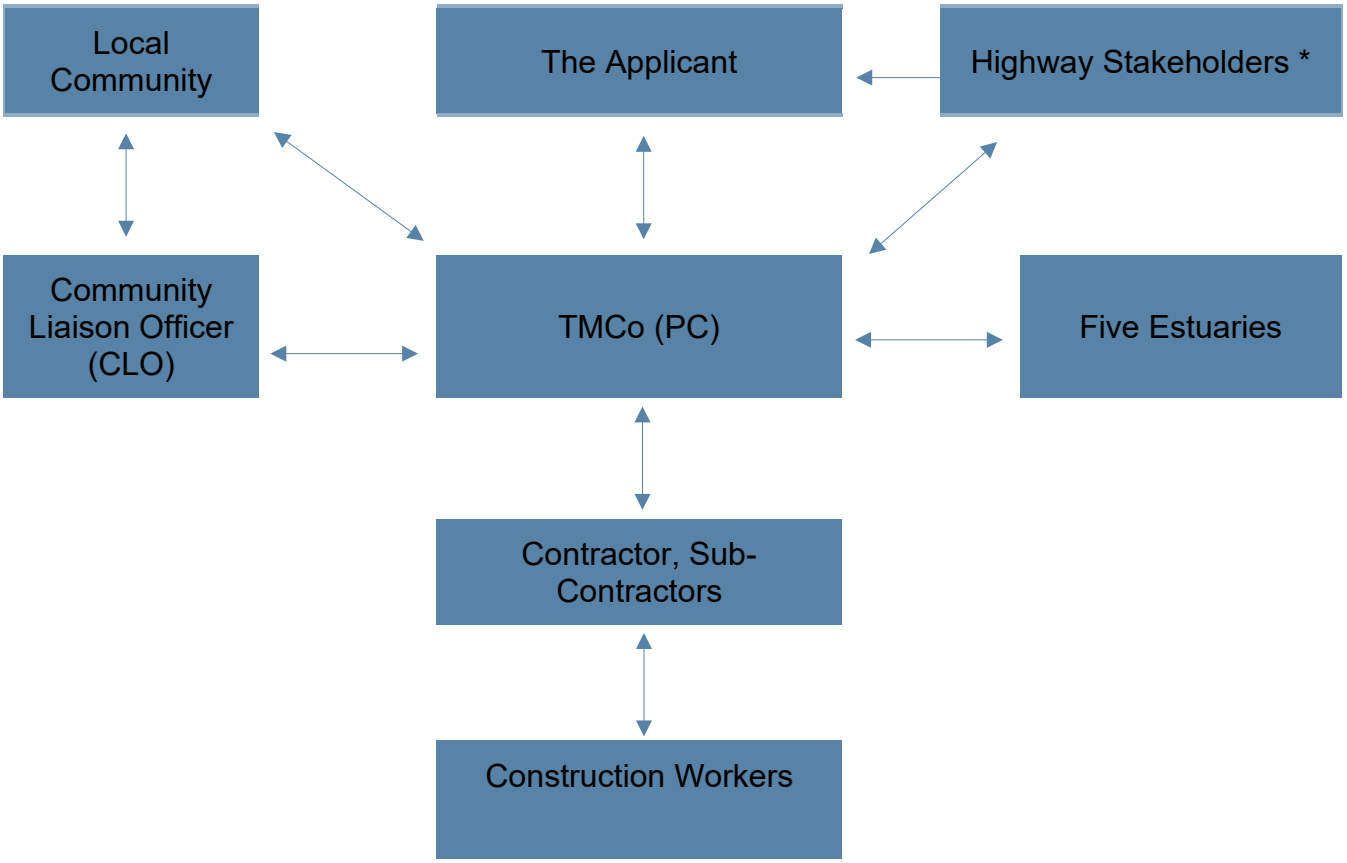
1.4 CTMP governance

10. Prior to the commencement of the construction of the relevant phase, a Traffic Management Co-ordinator (TMCo) would be appointed by the PC. Their key responsibilities would include:

    - Managing the implementation of the approved CTMP;
    - Collating monitoring data and preparing a monitoring report (as outlined in Section 5);
    - Acting as a point of contact for the local community;
    - Regular liaison and reporting to the Applicant;
    - Sharing information with emergency and healthcare services, e.g. dates of any road closures, abnormal load movements, etc.;
    - Supporting the Applicant with highway stakeholder engagement; and
    - Acting as a point of contact for construction workers and sub-contractors.

11. The TMCo would also be assisted in their role by a Community Liaison Officer (CLO).

12. To ensure clarity of flow of information and responsibilities of the OCTMP, the TMCO's intended coordination and collaboration with other key stakeholders in respect of traffic and transport is set out in Plate 1.1.



** Highways Stakeholders will include Suffolk and North East Essex Integrated Care Board, Emergency Services, Essex County Council, National Highways, relevant local District, Town and Parish Councils.*

Plate 1.1 TMCO Stakeholder Coordination / Collaboration Structure

13. Further details of all the responsibilities of the TMCo and CLO and associated timescales are provided as an Action Plan in Section 5.4. Contact details for the TMCo and CLO would be submitted to stakeholders prior to the commencement of construction.

1.5 OCTMP structure

14. Following this introduction, the structure of the OCTMP is as follows:

- Section 2 defines the measures to manage and control HGV demand;
- Section 3 defines the measures to manage and control employee traffic demand;
- Section 4 sets out access and traffic management proposals; and
- Section 5 sets out how the OCTMP would be monitored and provides an Action Plan for its implementation.

2 Control of HGV trips

2.1 Introduction

15. The OCTMP provides a 'framework' of traffic management measures that would be implemented to control HGV trips during the construction phase. In doing so, the OCTMP sets the management measures and performance required of the PC.

16. The finalised measures are an absolute requirement, established from the parameters outlined in Section 27.6 of ES Chapter 27 Traffic and Transport (Document Reference: 3.1.29), to be adopted by the PC and only revised with the prior agreement of the relevant highway authority.

2.2 HGV traffic generation

17. Table 27.16 of ES Chapter 27 Traffic and Transport (Document Reference: 3.1.29) sets out the forecast numbers of peak and average daily construction HGV trips (for all of the 46 links within the Traffic and Transport Study Area (TTSA)) for North Falls Option 2.

18. ES Chapter 27 Traffic and Transport (Document Reference: 3.1.29) identifies that to mitigate potential amenity and road safety impacts (of the Project's construction traffic) it is necessary to reduce peak daily HGV trips on links 25 and 35.

19. Five Estuaries is also in its application phase, having submitted a DCO for the project, which was accepted by the Planning Inspectorate on 22 April 2024. Although subject to a separate DCO, Five Estuaries shares the same landfall location and onshore cable route (including Bentley Road improvement works) as North Falls, with the two projects also having co-located onshore substations within the same onshore substation works area. The two projects also have the same national grid connection point.

20. Five Estuaries Offshore Wind Farm Limited (VEOWL) and North Falls Offshore Wind Farm Limited (NFOW) have sought to collaborate and coordinate where practicable, which has led to collaborative design of the projects' onshore infrastructure. When developing a co-ordinated design onshore, North Falls and Five Estuaries have developed three possible build-out scenarios for both projects. These are:

    - **Scenario 1:** North Falls 'Option 2' build out is progressed, and Five Estuaries undertakes landfall, onshore substation construction and cable pull which overlaps with North Falls equivalent works. In this scenario, onshore cable route associated works, including temporary construction compounds, accesses and haul road, all remain in place and are used by the second project during its construction.

    - **Scenario 2:** North Falls 'Option 2' build out is progressed, and Five Estuaries undertakes landfall, onshore substation and onshore cable route construction and cable pull sequentially (i.e. not overlapping) with North

Falls. There would be a gap of between 1 and 3 years between each Projects' construction. In this scenario, onshore cable route associated works, including temporary construction compounds, accesses and haul road, all remain in place and are used by the second project during its construction.

- **Scenario 3:** North Falls 'Option 1' build out is progressed, and Five Estuaries undertakes a separate landfall, onshore substation and onshore cable route construction and cable pull with a multi-year (>3 year) gap between the two construction activities. In this scenario, there is no reuse in onshore temporary works between the two projects, and all onshore cable route associated works are rebuilt and reinstated in full by the second project.

21. Table 2.1 sets out the options and scenarios that inform the maximum HGV demand for the HGV controls.

Table 2.1 Maximum HGV Options and Scenarios

Option / Scenario	Rationale
Option 2	Maximum intensity of construction activity leading to maximum daily Heavy Goods Vehicle (HGV) demand for a single project.
North Falls and Five Estuaries (Scenario 1)	Maximum intensity of construction activity leading to maximum daily HGV demand for North Falls and Five Estuaries cumulatively.

22. The resultant peak daily HGV trips per link for both North Falls Option 2 and the cumulative construction of North Falls and Five Estuaries (Scenario 1) are summarised in Appendix A and Appendix B of this OCTMP respectively. These appendices form the basis of a monitoring strategy set out later in Section 5 of this OCTMP.

2.2.1 HGV numbers

23. To ensure compliance with the assessed worst-case scenario for HGV trips (within Appendix A) for North Falls Option 2, a booking system for deliveries would be established by the TMCo to monitor HGVs at supply chain source and point of delivery. The booking system would enable a daily profile of deliveries to be maintained, allow the TMCo to ensure that the required deliveries are forecast and planned and also serves to inform route compliance.

24. Should there be a cumulative construction of North Falls and Five Estuaries, to ensure compliance with the assessed worst-case scenario for HGV trips (within Appendix B) for cumulative construction of North Falls and Five Estuaries (Scenario 1) the TMCo will liaise with Five Estuaries to establish their potential forward programme for deliveries. If any potential exceedances of the numbers outlined in Appendix B are identified, the TMCo for North Falls will liaise with Five Estuaries to reschedule deliveries to ensure the cumulative numbers are not exceeded.

25. To provide the relevant highway authorities with an indication of when peak deliveries may occur within the construction programme, the final CTMP would also be updated to include the indicative profiles for monthly deliveries per each road link for the construction duration.

2.2.2 HGV timings

26. The Outline Code of Construction Practice (OCoCP) (Document Reference: 7.13) outlines that construction work for the onshore works must only take place between 0700 hours and 1900 hours Monday to Saturdays, with no activity on Sundays and bank holidays.

27. It is therefore proposed that HGVs would not be permitted to arrive at site before 0700 or depart after 1900 hours (Monday to Saturday). This would however mean that HGVs could be travelling to or from the site outside of the working hours.

28. Any HGVs which are projected to arrive on site prior to 0700 would be required to park at an appropriate lorry park, services and other designated overnight parking locations until they can complete their journey within appropriate restrictions. These locations would be agreed with the relevant highway authorities prior to the commencement of construction and would be communicated to drivers within their delivery instructions (outlined within Section 2.4.1).

29. In addition to the restrictions outlined above, ES Chapter 27 Traffic and Transport (Document Reference: 3.1.29) also outlines embedded mitigation measures to manage HGV movements through Thorpe-le-Soken to occur outside of school start and finish times. The TMCo would agree the exact periods to be avoided with Essex County Council as part of finalising the CTMP.

30. The OCoCP (Document Reference: 7.13) includes a list of limited circumstances where onshore works could occur outside of the working hours (0700 to 1900 Monday to Saturday) but notes that save for emergency works, full details (including but not limited to type of activity, vehicle movements and type, timing and duration and any proposed mitigation) of all essential construction activities undertaken outside of the consented construction hours must be agreed with the relevant planning authority in writing in advance, and must be carried out within the agreed time. The TMCo would ensure this prior agreement with Essex County Council was reached for any such out of hours onshore works, and that works were undertaken within the agreed time, utilising the same methods as outlined above for the monitoring and management of the standard working hours.

2.3 Control of HGV routes

31. The proposed routes to be used by HGVs have been carefully selected to minimise effects upon sensitive receptors.

32. The proposed HGV routes to each access would be limited to the assessed links within ES Chapter 27 Traffic and Transport (Document Reference: 3.1.29)

and as shown on Figure 1 of this OCTMP. To ensure compliance with the HGV delivery routes, the following measures are proposed:

- Direction signing would be implemented to direct construction traffic to the respective accesses along the assessed delivery routes (the location and design of these signs would be agreed with Essex County Council and National Highways (as appropriate) prior to the commencement of the construction of the relevant phase);
- The delivery routes and timing would be communicated (by the TMCo) through the issuing of delivery instructions to all companies and / or drivers involved in the transport of materials and plant to and from the site by HGV construction vehicles;
- The registration numbers for all HGVs making deliveries would be recorded by the TMCo. This would allow for checking and enforcement of any non-compliance of the agreed delivery route;
- The TMCo would require that where vehicle tracking is fitted to vehicles, that the systems are operational and suppliers / drivers make the data available to the TMCo. Vehicle tracking would allow the TMCo to investigate any potential non-compliances; and
- The TMCo would provide an 'identifier' that would be placed within the window of all delivery vehicles to enable residents to identify if an HGV is engaged on work on the Project and would be submitted to and approved by the relevant highway authorities as part of the final CTMP.

2.4 Driver induction

33. All HGV drivers for the Project would be formally inducted. The induction would establish a clear set of responsibilities that all drivers would be required to follow, such as:

- Timings, pre-booked slots;
- Clarification of approved HGV routes;
- Highway safety concerns;
- Adherence to speed limits; and
- Details of reporting accidents and 'near misses'.

2.4.1 Delivery packs

34. To support the strategy to control HGV routes, each driver would be issued with a delivery pack. This pack would include the following information:

- A plan showing the delivery routes, the location of the site access and areas with road safety concerns;
- Details of appropriate lorry parks, services and other designated overnight parking locations where drivers are permitted to stop;

- A copy of the identifier to display in the vehicle window;
- Details of restrictions on delivery hours (set out in Section 2.2.2); and
- Details of disciplinary measures for non-compliance (set out in Section 5.3).

35. Compliance with the agreed HGV delivery routes would be subject to the monitoring and enforcement measures set out in Section 5.

2.5 Abnormal loads

2.5.1 Special order abnormal loads

36. ES Chapter 27 Traffic and Transport (Document Reference: 3.1.29) identified that the construction of the Project's onshore substation would require the delivery of large electrical plant items such as transformers. Each transformer delivery would be classified as a Special Order[1] Abnormal Indivisible Load (AIL) delivery due to the size of the vehicle.

37. The movement of Special Order AILs would be outside the restrictions (routes and times) contained within this OCTMP and would be subject to a separate agreement with the relevant highway authorities and police under the Electronic Service Delivery for Abnormal Loads (ESDAL) system.

2.5.2 Non-special order abnormal loads

38. There would also be a potential requirement for abnormal load movements associated with the delivery of items such as cable drums and plant. These abnormal load deliveries would not however constitute a Special Order.

39. The final size of these loads (cable drums and plant) has not been determined at this stage and would be subject to further detailed design pre-construction. It is therefore proposed that prior to submitting the formal approval via ESDAL, the PC would first consult with the relevant local highway authorities to seek their views in regard to the best routes to be used and size of vehicles.

40. The movement of the non-Special Order abnormal loads would be subject to the same delivery route restrictions as HGVs (outlined in Section 2.3) however the timing of movements may be outside the standard hours (outlined in Section 2.2.2) and subject to separate agreement with the relevant highway authorities and police through the ESDAL system.

41. Prior to the movement of any AILs or abnormal loads, the TMCo would ensure relevant stakeholders are notified through ESDAL and agree appropriate

[1] *The Road Vehicles (Authorisation of Special Types) (General) Order 2003 (SI 1998) limits gross weight of an AIL to 150 tonnes, axle weight to 16,500kg, length to 30m and/or width to 6.1m, above which a Special Order is required from National Highways.*

timings, routes and asset protection measures (with the relevant highway authorities, police and Network Rail as relevant) appropriate to the type of load.

42. Separate to the ESDAL process, the TMCo would also ensure that Suffolk and North East Essex Integrated Care Board and the East of England Ambulance Service are notified of the timing and route of any AILs or abnormal loads.

3 Control of employee trips

3.1 Introduction and background

43. ES Chapter 27 Traffic and Transport (Document Reference: 3.1.29) assessed a worst case scenario of all employees travelling by vehicle, with a car share ratio of 1.5 employees per car (or three employees per every two cars).

44. Employee vehicle trips are expressed as Light Vehicles (LV) trips. The term LVs is a collective term used to describe the range of vehicle types that could be used by construction employees (e.g. cars, vans, pick-ups, minibuses, etc).

45. The resultant peak daily LV trips per link for both North Falls Option 2 and the cumulative construction of North Falls and Five Estuaries (Scenario 1) are summarised in Appendix A and Appendix B of this OCTMP respectively.

46. Experience of large scale 'linear' construction projects indicates that detailed monitoring of LV routing is notoriously difficult due to the similarity of the vehicle type with baseline traffic and the need to distinguish legitimate trips (Section 3.2 refers). Therefore, light vehicle measures concentrate primarily on volume controls (e.g. resource forecasts, car sharing and monitoring vehicles at Project destination).

3.2 Measures

3.2.1 LV numbers

47. To ensure compliance with the assessed worst-case scenario for LV trips (Appendix A), the TMCo would be required to establish a resource forecast for the numbers of employees that could be travelling to the Project. The resource forecast would enable the TMCo to identify any potential exceedances and would be regularly reviewed / reforecast during construction.

48. Should there be cumulative construction of North Falls and Five Estuaries, to ensure compliance with the assessed worst-case scenario for LV trips (within Appendix B) for cumulative construction of North Falls and Five Estuaries (Scenario 1), the TMCo will liaise with Five Estuaries to establish their potential forward resource programme and identify any anticipated exceedances of the numbers within Appendix B.

49. Where potential exceedances are identified either for North Falls Option 2 or North Falls and Five Estuaries (Scenario 1), the TMCo will liaise with the Five Estuaries equivalent (where applicable) to review the resource forecast to determine legitimate trips, these could be:

- Activities which have an agreed economic benefit to the local area, e.g. food retail;
- Emergency trips through restricted areas;
- Employees travelling from a point of residence within the TTSA; and
- Local support services with a business origin within the TTSA.

50. Table 3.1 outlines a range of industry good practice measures that could be adopted to reduce the number of single occupancy vehicle trips.

Table 3.1 Personnel Travel Plan Measures

Measure	Rationale
Identify car share, pickup locations	The Traffic Management Co-ordinator (TMCo) would identify and group employees who are in nearby accommodation and explore opportunities for car-sharing including the assignment of crew vans and designated drivers.
Drivers required to park within designated areas	All drivers would be required to park within designated areas. Drivers not parking within the designated area, would be subject to enforcement action as set out in Section 5.3.
Walking / cycling facilities	It is recognised that the transient nature of the construction workforce would reduce the potential opportunities for walking and cycling. However, the TMCo would encourage employees to walk and cycle by providing changing facilities and secure cycle parking. The level of cycle parking requirements would be established by the TMCo based upon personnel origins and reviewed throughout construction.
Guaranteed lift home	To allow personnel who car-share to get home in an emergency, a guaranteed lift home would be offered.
Staff noticeboard	Staff noticeboards would be provided within communal areas, which would include details of the car-sharing options including details of parking requirements and the guaranteed lift home. The noticeboards would also include details of local walking and cycling routes and bus and train times (where options exist).
Welfare facilities	To minimise the requirement for employees to drive off site during the working day, the TMCo would ensure welfare facilities are available where workers can store, prepare and eat lunch.

3.2.2 LV timings

51. The OCoCP (Document Reference: 7.13) outlines that construction work for the onshore works must only take place between 0700 hours and 1900 hours Monday to Saturdays, with no activity on Sundays and bank holidays.

52. The assessment of driver delay (capacity) presented within ES Chapter 27 Traffic and Transport (Document Reference: 3.1.29) is predicated upon industry experience that highlights that the majority of the construction workforce would

arrive before the morning network peak hour of (07:15 to 08:15) and depart before or after the evening peak (16:30 to 17:45).

53. The TMCo will therefore encourage staff to arrive prior to 07:15 and depart before 16:30 or after 17:45 in the evening. Notwithstanding, there may be some employees who would work a shorter day, or trips outside of the peak traffic hours. To ensure that there would not be an adverse impact upon capacity, the TMCo would limit these movements to no more than 20% of the peak daily LV demand (outlined in Appendix A). Section 5.2.4 includes details of how employee movements would be monitored.

54. Alternatively, it could be possible that once appointed, the PC would require that more employees could travel during these peak hours. In this case the relevant highway authority would be consulted and the scope of any further capacity assessments would be agreed.

55. Should the assessment identify potentially significant effects, mitigation measures would be agreed with the relevant highway authority to manage effects to reduce the significance to a level that is not significant.

56. It is proposed that any mitigation measures would focus upon 'traffic management' measures to reduce peak traffic movements, such as, a higher car sharing ratio, reprofiling deliveries, etc.

57. It is proposed that the TMCo would discuss and agree the final form of mitigation with the relevant highway authorities prior to the commencement of the relevant phase of construction.

58. The OCoCP (Document Reference: 7.13) includes a list of limited circumstances where onshore works could occur outside of the working hours (0700 to 1900 Monday to Saturday) but notes that save for emergency works, full details, including but not limited to type of activity, vehicle movements and type, timing and duration and any proposed mitigation, of all essential construction activities undertaken outside of the consented construction hours must be agreed with the relevant planning authority in writing in advance, and must be carried out within the agreed time. This agreement with the relevant planning authority would include discussion of the likely timing of LV movements by construction workers for such out of hours works.

4 Traffic management

4.1 Introduction

59. This section sets out the standards and procedures for managing the interaction between construction traffic, existing highway users and local communities.

4.2 Control of material on the highway

60. To prevent detritus and other material being deposited on the public highway, the TMCo would be required to implement a series of site-specific measures. Prior to the commencement of construction of the relevant phase, the details of

the measures that would be used for each access and crossing would be submitted to and agreed with the relevant highway authorities as part of the final CTMP.

61. It is envisaged that as a minimum, measures would include the following:

- All accesses and crossings would be provided with a bound surface (asphalt / concrete) to prevent mud and dirt being tracked onto the highway;
- Regular inspections of the public highway in the vicinity of the active site accesses to ensure cleanliness; and
- Road sweepers on call to clear any detritus and other material from the public highway.

62. Where deliveries are likely to be more intense, such as at compounds, further measures such as wheel washing facilities and dust suppression may be provided.

63. Prior to the commencement of construction of the relevant phase, the TMCo would agree with the relevant highway authorities an appropriate response time to remove any reported detritus / material on the highway following a report.

4.3 Accesses and road crossings

64. A suite of outline access and road crossing designs have been developed for the Project and are detailed within Appendix C of this OCTMP. The location of these accesses and road crossings is also shown on ES Figure 27.2 (Document Reference: 3.2.23).

65. It has been agreed with Essex County Council that these outline access and crossing designs would be refined post consent, to be included in the final CTMP.

66. Prior to the commencement of the construction for the relevant phase, the technical approvals for the access and crossing designs would be submitted to and agreed with Essex County Council under relevant provisions of the DCO or via Section 278 of the Highways Act 1980.

67. The technical approval process would include submission of finalised drawings showing full details of access and crossing improvements, including drainage, lighting, signing and standard construction details.

68. The technical approval documentation would also include a Stage 2 Road Safety Audit and a Road Safety Audit Response Report (on behalf of the designers) for the access and crossing designs.

69. In addition to any powers set out in the draft DCO, relevant powers under the Road Traffic Regulation Act 1984 would be sought to implement any temporary speed limit changes required.

70. All accesses and crossings identified for construction are temporary and following completion of the construction works would be reinstated to their former state. The exception to this would be the access / crossing (AC-12) to

the onshore substation which would remain permanently in-situ for operation and maintenance purposes (notated OA-39).

4.4 Traffic management measures

71. Table 27.2 of the ES Chapter 27 Traffic and Transport (Document Reference: 3.1.29) outlines the requirement for a limited number of construction vehicles to travel via Ardleigh Road from access AC-12 to access AC-13 (a distance of approximately 350m) to undertake drainage works.

72. Noting the limited numbers of vehicles and temporary duration of the works, it is proposed to use mobile traffic management measures to manage the potential for conflict between two vehicles along this narrow road. These measures could include:

- Using an escort vehicle to guide construction traffic along Ardleigh Road and past oncoming traffic;
- Using 'Stop-works' signage to hold traffic back (for up to two minutes in any 15 minutes) whilst construction traffic travels along Ardleigh Road; or
- A banksman to observe oncoming traffic on Ardleigh Road and signal to the construction traffic driver when it is clear to proceed.

73. It is proposed that prior to the commencement of the construction of the relevant phase, the TMCo would formalise and agree the measures to be adopted for Ardleigh Road with Essex County Council.

4.5 Highways works

74. The Highways Works (HW) consist of:

- Bentley Road improvement works;
- a temporary 40mph speed limit along Bentley Road;
- installing a footway / cycleway parallel to Bentley Road; and
- widening the junction between Bentley Road and the A120.

75. The Bentley Road improvement works and the junction widening are proposed to be permanent, and the footway / cycleway is proposed to be removed following the end of the construction phase. The outline HW designs are provided in Appendix D.

76. It has been agreed with the relevant highway authorities that these outline designs will be refined post-consent and final designs subject to technical approval and agreement from Essex County Council and National Highways under relevant provisions of the DCO or via Section 278 of the Highways Act 1980. The technical approval process would include submission of finalised drawings showing full details of the HWs, including drainage, lighting, signage and standard construction details.

77. Prior to the construction of the Bentley Road improvement works, pavement coring and condition surveys will be undertaken, as requested by Essex County

Council, to determine whether the road needs reconstruction or strengthening prior to construction commencing. These works would also include consideration of whether resurfacing to reduce road noise may be appropriate (Section 4.12).

78. The technical approval documentation would also include a Stage 2 Road Safety Audit and a Road Safety Audit Response Report (on behalf of the designers) for the HW.

4.6 Cable crossing

79. ES Chapter 27 Traffic and Transport (Document Reference: 3.1.29) outlines that cable installation works, along the onshore cable route would need to be installed across four minor public roads using open-cut trenching techniques. All other roads would be crossed using trenchless crossing techniques such as Horizontal Directional Drilling (HDD). The location of all roads to be crossed by the Project's onshore cables and the form of crossing (i.e. open cut or trenchless techniques) are shown on ES Figure 27.4 (Document Reference: 3.1.23).

80. Due to the width of four of these roads, it is proposed that they would be closed for a period of up to six weeks (per crossing) whilst the cables are installed. These four roads include:

- Damant's Farm Lane;
- Paynes Lane;
- Spratts Lane; and
- Barlon Road.

81. To minimise the effect to existing road users of these four roads, the following measures are proposed:

- A safe route would be maintained for pedestrians and cyclists through the works area;
- Advanced signing would be implemented to assist drivers in finding alternative routes;
- The closures would be staggered, to ensure that nearby roads are not closed at the same time to ensure alternative diversions exist; and
- The TMCo and CLO would engage with affected local communities and stakeholders (including emergency services) to provide advanced notification and identify if there may be periods which could be avoided.

4.7 Road safety

82. Section 27.6.1 of the ES Chapter 27 Traffic and Transport (Document Reference: 3.1.29) identified potentially significant road safety effects along links 22 and 23 and within Cluster 8 (which lies on the roundabout junction between links 23 and 48).

83. Noting the temporary nature of the Project's construction phase, ES Chapter 27 Traffic and Transport (Document Reference: 3.1.29) outlines it is proposed that mitigation measures for links 22, 23 would focus predominantly upon management measures with the exception of physical measures at Cluster 8 (St John's Roundabout).

84. With regard to Cluster 8 it is proposed that prior to the commencement of construction of the relevant phase, the condition of the road marking and surfacing upon the approach to the roundabout will be reviewed and if markings and high friction surfacing (on the A133 approach to the roundabout) are deemed to require refreshing, the Applicant will facilitate conversations with Essex County Council to prioritise the delivery of these maintenance measures.

85. Management measures to minimise the impact on highway safety during the Project's construction phase are:

- HGV driver inductions and training. Drivers would be informed of the areas with existing highway safety issues and appropriate training would be provided to minimise the effect on highway safety;
- HGV driver information packs. Where vehicles are routed via links 22, 23 and Cluster 8, the existing highway safety issues would be highlighted to drivers within information packs provided inside their delivery instructions; and
- Near miss reporting. Drivers would be requested during the induction to report any collisions or near misses. This would allow any potential highway safety concerns to be identified early and remedial action taken.

4.8 Streetworks

86. To construct each of the accesses, crossings and HW (including cable crossings and road safety improvements) temporary traffic management would be implemented to maintain highway safety and to ensure minimal delays to existing road users.

87. Prior to the commencement of construction of the relevant phase, details of traffic management would be developed by the TMCo in liaison with Essex County Council (and National Highways where appropriate).

88. Street works will be in accordance with the DCO and applications for road space booking would be made via the Essex Permitting Scheme.

4.9 Parking and loading

89. Appropriate loading / unloading and parking areas for construction vehicles would be designated within the construction sites to avoid the need for parking or waiting on the highway. The planning of deliveries via the booking system would assist the TMCo to allocate sufficient space to accommodate the planned number of deliveries.

4.10 Traffic incident management

90. To reduce the potential for construction traffic to have an adverse effect upon the highway network during planned and unplanned events, the measures set out in Table 4.1 would be adopted.

Table 4.1 Traffic Incident Management Measures to be Adopted During Events

Measure	Rationale
Managing traffic demand during major events that impact on the highway (e.g. Little Bromley 10km race and the Corbeau Seats Rally).	The Community Liaison Officer (CLO) and Traffic Management Co-ordinator (TMCo) would liaise with local stakeholders to understand when major events occur. To ensure there are limited Heavy Goods Vehicle (HGV) trips planned during planned major events, the TMCo would undertake advanced planning to schedule activities and stockpile of materials in advance.
Managing traffic demand during major incidents such as accidents on the highway.	The TMCo would monitor traffic conditions. Should the TMCo become aware of an incident then the Principal Contractor (PC) would liaise directly with suppliers to suspend HGV deliveries along affected routes where required.
Managing traffic demand during road closures.	In the event that the TMCo becomes aware that the agreed delivery routes (Figure 1) are unavailable (e.g. due to road closures by others) the TMCo would initially seek to reschedule works utilising the affected links. Where this is not possible (e.g. in the case of long term closures which would disrupt the construction programme) the following approach is proposed: • The TMCo would identify contingency diversion routes having regard for the road hierarchy (e.g. where practicable utilising A and B roads) • The TMCo would submit details of the proposed contingency diversion routes to the relevant highway authorities who would be requested to advise if they consider the routes are suitable or if they require any further assessment; and • If further assessment is required, the TMCo would undertake the required assessment utilising the methodology detailed with ES Chapter 27 Traffic and Transport (Document Reference: 3.1.29) and request the relevant highway authorities to review the outputs and confirm acceptance or otherwise.
Incidents involving PC HGV traffic blocking the highway, such as, breakdowns, accidents, etc.	The PC and their suppliers' fleet would have arrangements with recovery companies to allow breakdowns and accidents to be cleared as quickly as possible. All breakdowns and accidents would be reported to the TMCo.

4.11 Highway condition surveys

91. Highway condition surveys would be undertaken by the TMCo prior to the commencement of construction of the relevant phase and after substantial completion of construction works in relation to sections of a highway to be agreed with Essex County Council. Where required, the surveys would include all roads and verges within the TTSA that are not specifically designated for HGV movements, i.e. excluding all A-roads.

92. Any damage to the existing highway network as a consequence of the Project would be repaired by the PC or a financial contribution made to Essex County

Council to cover the cost of remedial works. The survey would most likely comprise of a Coarse Visual Inspection survey (in accordance with the United Kingdom (UK) Pavement Management System standard). Prior to the commencement of construction of the relevant phase, the extent and scope of the surveys would be agreed between the TMCo and Essex County Council and outlined within the final CTMP.

93. In addition to undertaking surveys prior to and on completion of the construction works, the PC would also undertake regular inspections of the sections of the highway network agreed with Essex County Council (for condition surveys) to identify any emerging issues (such as damage to verges or potholes forming). The PC would be assisted in this function by the CLO who would feedback any local highway condition issues from their community engagement.

94. Further coring works would be carried out on Bentley Road (Link 4) prior to the widening works to ascertain the condition of the highway structure, more details are given in Section 4.4.

95. Where emerging issues are identified as a result of the Project's construction traffic, the PC would notify the relevant highway authority and either repair the issue or ask the relevant highway authority to undertake the repairs (with costs being recharged to the PC).

4.12 Noise management

96. ES Chapter 26 Noise and Vibration (Document Reference: 3.1.28) identified potentially significant noise effects to receptors associated with the addition of the Project's peak construction traffic travelling via Bentley Road (Link 4). However, when the embedded highway mitigation measure of a temporary reduction in the speed limit along Bentley Road (outlined in Section 4.4) was applied the residual noise effects were reassessed as not significant in EIA terms.

97. It is therefore proposed that prior to the commencement of the construction of the relevant phase of the Project, the TMCo will ensure that a temporary 40mph speed limit has been implemented along Bentley Road and that the measures to manage the number of vehicle movements via Bentley Road (detailed in Section 2.2.1 and 3.2.1) are implemented.

98. Whilst the number of construction vehicles for North Falls alone (271 LVs and 235 HGVs per day) traveling via Bentley Road (Link 4) is not assessed to result in significant noise effects, the addition of further cumulative traffic associated with Five Estuaries and Norwich to Tilbury is assessed to result in potentially significant noise effects requiring further mitigation (beyond a reduction in the speed limit).

99. During the Project's construction phase, should a temporal overlap with Five Estuaries and / or Norwich to Tilbury be identified, the TMCo would liaise with the respective projects to establish their forward forecast for vehicle trips via Bentley Road (Link 4). Should these forecast identify there could be an increase in vehicle movements along Bentley Road above the levels for North Falls alone (271 LVs and 235 HGVs per day) the TMCo will work with the respective

projects to assess the likely significant effects and establish a mitigation strategy.

100. Prior to the commencement of the relevant phase of construction, the TMCo would undertake baseline noise level monitoring at the worst-affected property (detailed in ES Chapter 26 Noise and Vibration (Document Reference: 3.1.28)) and assess potential noise effects.

101. Should the assessment identify potentially significant effects, mitigation measures would be proposed and agreed with Tendring District Council (prior to the commencement of the relevant phase) to reduce the effect to a level that is not significant. Mitigation measures could include:

- Temporary screening between the road and receptors;
- Offers of improved noise insulation (glazing and ventilation) or temporary rehousing to residents of affected properties;
- Resurfacing of Bentley Road, e.g. with low noise asphalt or to remove existing damage, deflections in the surface that could lead to higher noise levels;
- A reduction in peak LV trips through enhanced travel planning measures, e.g. further car-sharing or contractor provided minibuses, etc;
- A reduction in peak daily HGV trips through measures such as:
    - Stockpiling of materials to reduce peak daily HGV demand;
    - Backhauling, i.e. using laden vehicles to import stone and export excavated material;
    - Optimising the size of HGVs to reduce the total number;
    - Incentivising the appointed construction Contractor to seek engineering refinements to reduce material quantities and therefore HGV numbers; and
    - Reuse of materials onsite to reduce offsite HGV trips, e.g. using excavated materials to form bunds, etc.

5 Monitoring, enforcement and action plan

5.1 Introduction

102. The following section sets out how the targets and measures contained within this OCTMP would be monitored to ensure compliance.

5.2 Monitoring

5.2.1 Community liaison

103. The Applicant would appoint a CLO who would be the first point of contact for all concerns raised. Contact details would be circulated to local parish and town councils and included on the Project's website and newsletters for reference.

104. In accordance with the requirements of 'Safety at Street Works and Road Works: A Code of Practice' (Department for Transport, 2013) signs would also be erected at road works with the relevant contact number (the Project's dedicated telephone number) clearly displayed for public enquires.

105. All enquiries would be recorded and responded to within seven working days. The enquirer would receive a written response detailing what action (if necessary) has been taken.

5.2.2 HGV numbers

106. To ensure compliance with the assessed daily HGV trips (outlined in Appendix A and B), the TMCo would operate a booking system for all deliveries. The booking system would be monitored (by the TMCo) to ensure the assessed number of trips are adhered to.

5.2.3 HGV routing

107. To assist the TMCo in responding to any complaints regarding HGV routing, the booking system (described in Section 2.2.1) would provide an initial check. The booking system would allow the TMCo to check if the reported HGV may have been employed in delivering to the Project, e.g. allowing checking of number plates, supplier names, scheduled timings and origin and destination, etc.

108. The TMCo would also implement a system to help the public distinguish HGV construction vehicles associated with the Project from other traffic on the network. Each vehicle would be required to display a unique identifier within the window of the cab (a recognisable logo) that would allow members of the public to report any concerns such as driver behaviour or the use of unapproved routes via a published telephone contact number.

109. The TMCo would also ensure that weighting is given to the selection of suppliers with vehicle tracking software. Vehicle tracking software, together with delivery records would serve to augment the unique identifier to allow the TMCo to respond to any complaints and provide a complete evidence base.

5.2.4 Employee monitoring

110. The TMCo would require all employees and visitors to sign in and out. This process would capture the details including the employee's method of travel to work and arrival / departure times and origin.

5.2.5 Road safety

111. The TMCo would operate a 'near miss' reporting system for all highways incidents. The TMCo would ensure that all accidents and near misses are recorded within this system and that drivers are reminded to report all issues through inductions. Any accidents or near misses would be recorded, investigated and reported to the relevant highway authorities by the TMCo.

112. The TMCo would retain records of all incidents and submit to the relevant highway authorities upon request. If emerging issues are identified, the TMCo would initiate discussions with stakeholders to promote a 'Zero Harm Culture'.

5.2.6 Monitoring reports

113. Data recorded from the monitoring processes outlined above would be drawn together by the TMCo to produce a monthly monitoring report during construction of the relevant phase and shared with the relevant highway authorities.

114. In compiling the monitoring report, the TMCo would be able to identify effective / ineffective measures and the requirement for any remedial action to achieve the agreed targets. A typical structure for the monitoring report would be as follows:

- Introduction and Background – this would provide detail with regard to the types of works being undertaken and number of construction workers;
- Results of Surveys and Monitoring – the TMCo would collate the results of the surveys and monitoring that have been undertaken. Where appropriate, the results of the surveys undertaken would be compared to the targets defined in the OCTMP. Data obtained from the surveys would be included as an appendix;
- Achievements – this would detail how all measures form the CTMP have been implemented;
- Summary – the TMCo would detail whether the CTMP is on track to meet its targets and if not, why not; and
- Future Plan – this would detail the aims of objectives of the CTMP for the next period to include any specific outcomes or desired results with any additional measures that are to be included to remediate action.

5.3 Enforcement

115. To ensure that the final CTMP is effectively enforced to following matters have been defined as non-compliance that would be investigated to understand if corrective measures would be required:

- Exceedance of target daily vehicle numbers;

- Failure to display the unique identifier, or to remove the unique identifier when not making deliveries to the Project;
- Construction workers overspill parking on the public highway;
- Construction traffic operating outside agreed hours; or
- HGV drivers not adhering to the agreed routes / times.

116. On receipt of a report of a potential non-compliance, the TMCo would investigate the circumstances and compile a report for the relevant highway authority as soon as reasonably practicable. The report would outline the outcome of the investigation and what corrective action (as necessary) has been implemented.

117. If the non-compliance is found to be material, the TMCo would take appropriate action within the jurisdiction of the contract and report back to the relevant highway authority.

118. Individual employee non-compliances would be addressed through UK employment law whereby the process outlined above may form the basis for disciplinary proceedings, if appropriate.

5.4 Action plan

119. The action plan set out in Table 5.1 summarises the commitments and measures that would be implemented by the Applicant, PC and TMCo.

120. Table 5.1 also provides an indicative timescale for the implementation of each of the measures. The exact details and associated timescales would be established in consultation with the relevant highway authorities as part of the preparation of the final CTMP.

Table 5.1 OCTMP Action plan

Measure ID	Measure	Responsibility	Indicative Timescales
M01	Appoint an Applicant's representative.	The Applicant	During mobilisation
M02	Appointment of a CLO.	The Applicant	Prior to commencement of construction
M03	Appointment of a TMCo.	PC	Prior to commencement of construction
M04	Obtain technical approval for construction accesses and crossings.	The Applicant	Prior to commencement of construction

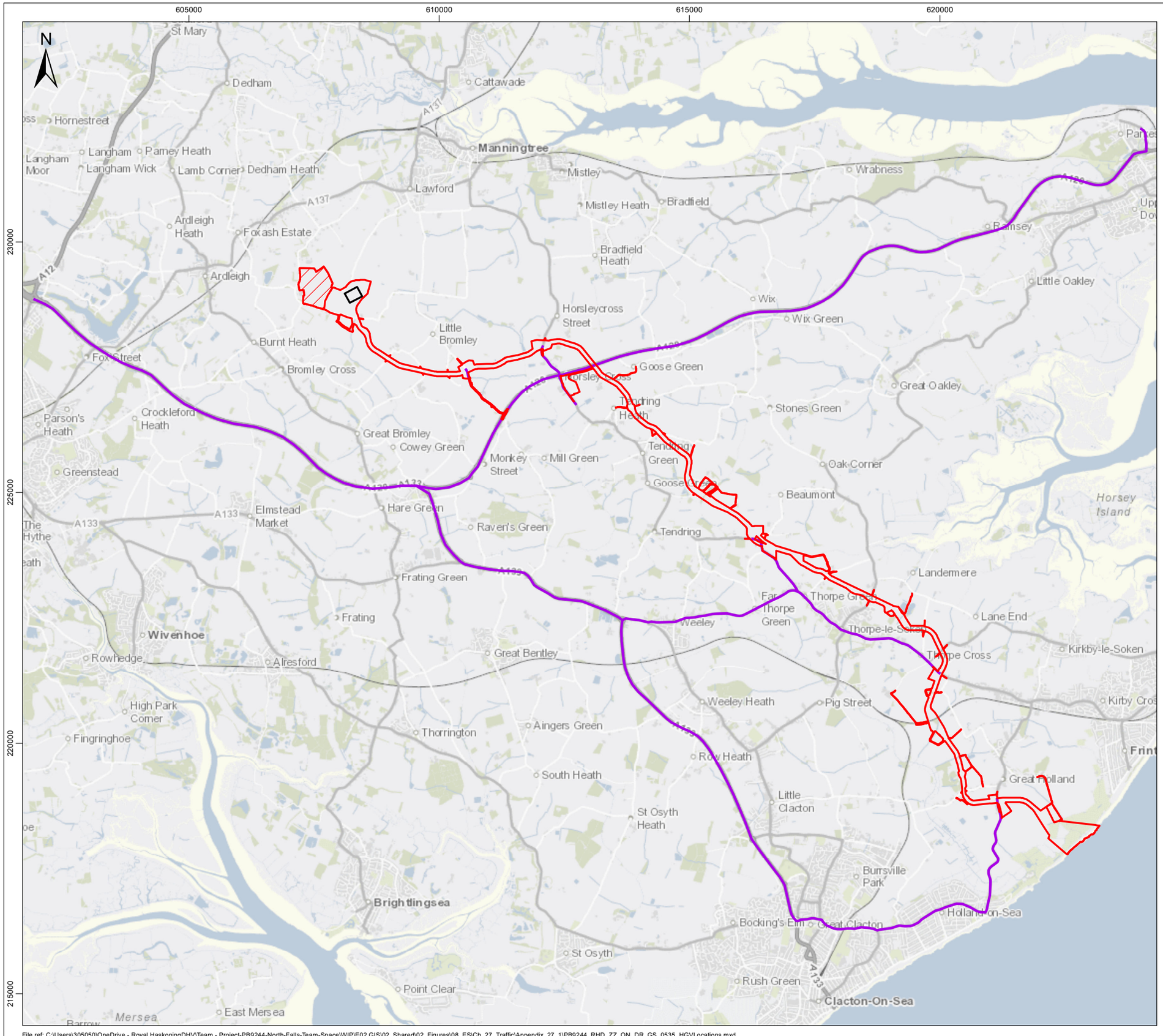
Measure ID	Measure	Responsibility	Indicative Timescales
M05	Obtain technical approval for construction of highways works.	The Applicant	Prior to commencement of construction
M06	Implement highways works.	PC	Prior to commencement of construction
M07	Implement direction signing.	TMCo	Prior to commencement of construction
M08	Agree timing, diversion routes and reinstatement details for cable crossings.	TMCo	Prior to commencement of construction
M09	Establish monitoring systems: • Delivery booking system; • Highway condition; • Unique vehicle identifier; and • Telephone reporting system.	TMCo	Prior to commencement of construction
M10	Agree scope of and undertake pre-commencement highway condition surveys.	TMCo	Prior to commencement of construction
M11	Agree and implement measures for each access and crossing to control the deposition of detritus on the public highway.	TMCo	Prior to commencement of construction
M12	Regularly review the potential for cumulative noise effects along Bentley Road and if necessary, agree and implement noise mitigation.	TMCo	Prior to and ongoing throughout construction
M13	Undertake ongoing liaison with communities and stakeholders.	TMCo and CLO	Prior to and ongoing throughout construction
M14	Inspect the highway for detritus and request regular cleansing as required.	TMCo	Ongoing throughout construction
M15	Monitoring of CTMP measures: • Heavy Goods Vehicle (HGV) trips;	TMCo	Ongoing throughout construction

Measure ID	Measure	Responsibility	Indicative Timescales
	• Accidents and near misses; • Employee mode share; and • Complaints.		
M16	Produce monthly monitoring reports.	TMCo	Ongoing throughout construction
M17	Update condition surveys and agree any remedial works.	TMCo	Following the completion of construction

6 References

Department for Transport (1980), Highways Act 1980. Available at: https://www.legislation.gov.uk/ukpga/1980/66/contents/1991-11-01 [Accessed February 2024]
Department for Transport (1984), Road Traffic Regulation Act 1984. Available at: https://www.legislation.gov.uk/ukpga/1984/27/contents [Accessed February 2024]
Department for Transport (2013), Safety at Street Works and Road Works: A Code of Practice. Available at: https://www.gov.uk/government/publications/safety-at-street-works-and-road-works [Accessed February 2024]

Figures



Legend

- Onshore Project Area
- Onshore Substation
- East Anglia Connection Node (EACN)
- HGV Routes

0 1.25 2.5 5 km

Drawing Title

HGV Routes

Rev	Date	Remarks	Drwn	Chkd
02	31/05/2024	Second issue	FC	CB
01	08/04/2024	First issue	JH	CB

Drawing Number	Figure Number
PB9244-RHD-ZZ-ON-DR-GS-0535	1

Scale	Plot Size	Datum	Projection
1:75,000	A3	OSGB36	BNG

Royal HaskoningDHV
Enhancing Society Together

NORTH FALLS
Offshore Wind Farm

File ref: C:\Users\305050\OneDrive - Royal HaskoningDHV\Team - Project-PB9244-North-Falls-Team-Space\WIP\E02 GIS\02_Shared\02_Figures\08_ES\Ch_27_Traffic\Appendix_27_1\PB9244_RHD_ZZ_ON_DR_GS_0535_HGVLocations.mxd

Appendix A: Peak Vehicle Movements Per Link - Option 2

Appendix A

Link Details		North Falls Option 2 Construction Flows (peak)		
Link	Link Description	Base 18Hr AAWT		
		Total Vehicles	LVs	HGVs
1	A120 from the A12 to the A133	780	286	494
2	A120 from the A133 to Harwich Road	812	318	494
3	A120 from Harwich Road to Bentley Road	812	318	494
4	Bentley Road from the A120 to Little Bromley	506	271	235
5	Bentley Road through Little Bromley	64	64	0
6	B1035 south of the A120 to Tendring Green	255	183	72
7	Bromley Road north of Little Bromley	64	64	0
8	Bromley Road south of the A137	64	64	0
9	A137 east-west through Lawford	0	0	0
10	A137 north-south through Lawford	6	6	0
13	B1035 south of the B1352	71	71	0
14	B1035 north of the A120	130	101	29
15	A120 from Bentley Road to the B1035	851	357	494
16	A120 from the B1035 to Colchester Road	535	41	494
18	A120 from Colchester Road to the B1352	535	41	494
19	A120 from the B1352 to Parkeston Road	520	26	494
20	A133 south of the A120	371	194	177
21a	A133 to Crown Lane	568	303	265
21b	A133 from Crown Lane to the B1034	585	320	265
22	A133 south of the B1033 to Progress Way	278	172	106
23	A133 south of Progress Way to the B1032	263	157	106
24	B1032 east of the A133 to Holland Road	259	153	106
25	B1032 from Holland Road to Kings Parade	259	153	106
26	B1032 from Kings Parade to the south of Great Holland	259	153	106
27	B1032 through Great Holland	61	61	0
28	B1033 north of the B1032 through Kirby Cross to Pork Lane	91	91	0
29	B1033 from Pork Lane to the south of Thorpe-le-Soken	181	148	33
30	B1033 south of the B1414 through Thorpe-le-Soken	181	148	33
31	B1414 east of the B1033	53	53	0
32	B1033 north of the B1414 through Thorpe-le-Soken	180	147	33
33	B1033 from the B1441 to the B1035 through Weeley	348	189	159
34	B1033 from the A133 to the B1441	348	189	159
35	B1035 north of B1033 to Whitehall Lane	319	236	83
36	B1035 through Tendring Green from Parsonage Lane to Stones Green Road	126	126	0
37	B1035 north of Whitehall Lane to Swan Road	199	160	39
38	B1035 through Goose Green	126	126	0
39	B1035 north of Swan Road to the south of Tendring	109	109	0
40	B1035 through Tendring to Crown Lane	109	109	0
41	Crown Lane	17	17	0
42	B1035 from Crown Lane to Lodge Lane	126	126	0
43	A133/Colchester Road from A133/Colchester Road roundabout to end of TTSA	96	96	0
44	B1441 (Progress Way) from A133/St Osyth Road/Progress Way Roundabout to B1414	13	13	0
45	B1414 east of B1441 to B1033 in Thorpe-le-Soken	4	4	0
46	B1441 from B1414 to B1033 in Weeley	0	0	0
47	A120 from Parkeston Roundabout to St Nicholas Roundabout	499	5	494
48	St John's Road from St Osyth Roundabout to end of TTSA	48	48	0

Mitigated Flows

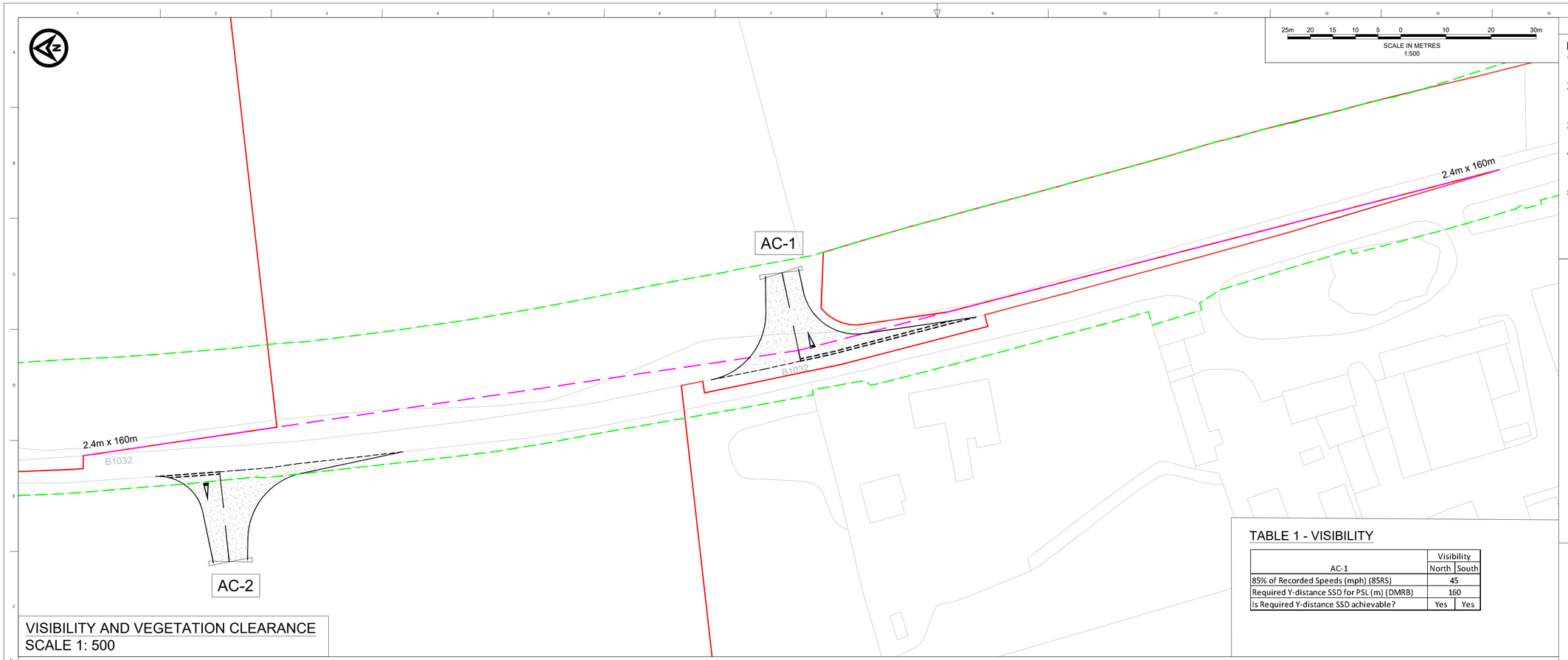
Appendix B: Peak Vehicle Movements Per Link – Scenario 1

Link Details		North Falls / Five Estuaries Scenario 1 Construction Flows (peak)		
Link	Link Description	Base 18Hr AAWT		
		Total Vehicles	LVs	HGVs
1	A120 from the A12 to the A133	956	351	605
2	A120 from the A133 to Harwich Road	1,157	552	605
3	A120 from Harwich Road to Bentley Road	1,157	552	605
4	Bentley Road from the A120 to Little Bromley	823	458	365
5	Bentley Road through Little Bromley	109	109	0
6	B1035 south of the A120 to Tendring Green	288	216	72
7	Bromley Road north of Little Bromley	109	109	0
8	Bromley Road south of the A137	109	109	0
9	A137 east-west through Lawford	0	0	0
10	A137 north-south through Lawford	7	7	0
13	B1035 south of the B1352	74	74	0
14	B1035 north of the A120	135	107	29
15	A120 from Bentley Road to the B1035	1,157	552	605
16	A120 from the B1035 to Colchester Road	663	58	605
18	A120 from Colchester Road to the B1352	663	58	605
19	A120 from the B1352 to Parkeston Road	640	35	605
20	A133 south of the A120	403	224	179
21a	A133 to Crown Lane	621	353	268
21b	A133 from Crown Lane to the B1034	602	334	268
22	A133 south of the B1033 to Progress Way	311	202	109
23	A133 south of Progress Way to the B1032	292	183	109
24	B1032 east of the A133 to Holland Road	273	164	109
25	B1032 from Holland Road to Kings Parade	273	164	109
26	B1032 from Kings Parade to the south of Great Holland	273	164	109
27	B1032 through Great Holland	62	62	0
28	B1033 north of the B1032 through Kirby Cross to Pork Lane	105	105	0
29	B1033 from Pork Lane to the south of Thorpe-le-Soken	196	163	33
30	B1033 south of the B1414 through Thorpe-le-Soken	196	163	33
31	B1414 east of the B1033	81	81	0
32	B1033 north of the B1414 through Thorpe-le-Soken	205	172	33
33	B1033 from the B1441 to the B1035 through Weeley	351	192	159
34	B1033 from the A133 to the B1441	351	192	159
35	B1035 north of B1033 to Whitehall Lane	350	265	85
36	B1035 through Tendring Green from Parsonage Lane to Stones Green Road	154	154	0
37	B1035 north of Whitehall Lane to Swan Road	225	186	39
38	B1035 through Goose Green	154	154	0
39	B1035 north of Swan Road to the south of Tendring	135	135	0
40	B1035 through Tendring to Crown Lane	135	135	0
41	Crown Lane	19	19	0
42	B1035 from Crown Lane to Lodge Lane	154	154	0
43	A133/Colchester Road from A133/Colchester Road roundabout to end of TTSA	97	97	0
44	B1441 (Progress Way) from A133/St Osyth Road/Progress Way Roundabout to B1414	17	17	0

45	B1414 east of B1441 to B1033 in Thorpe-le-Soken	4	4	0
46	B1441 from B1414 to B1033 in Weeley	0	0	0
47	A120 from Parkeston Roundabout to St Nicholas Roundabout	618	13	605
48	St John's Road from St Osyth Roundabout to end of TTSA	58	58	0

Mitigated Flows

Appendix C: Outline Access Designs



VISIBILITY AND VEGETATION CLEARANCE
SCALE 1: 500

25m 20 15 10 5 0 10 20 30m
SCALE IN METRES
1:500

DO NOT SCALE FROM THIS DRAWING

NOTES
1. Do not scale from this drawing. all dimensions are in metres unless noted otherwise.
2. This drawing has been based upon Ordnance Survey Maps and Royal HaskoningDHV can not guarentee the accuracy of data.
3. X-distance - the set back from the nearest edge of the carriageway from which the access will be taken.
4. Y-Distance - the SSD measured along the nearest edge of the carriageway to its intersection with the centreline of the access.
5. All vegetation to be cleared/trimmed within identified visibility envelope and thereafter maintained in accordance with Local Highway Authority maintenance practices.

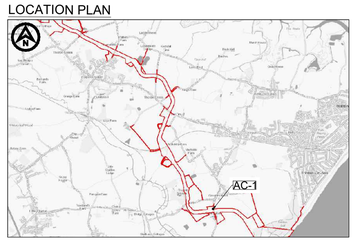
KEY

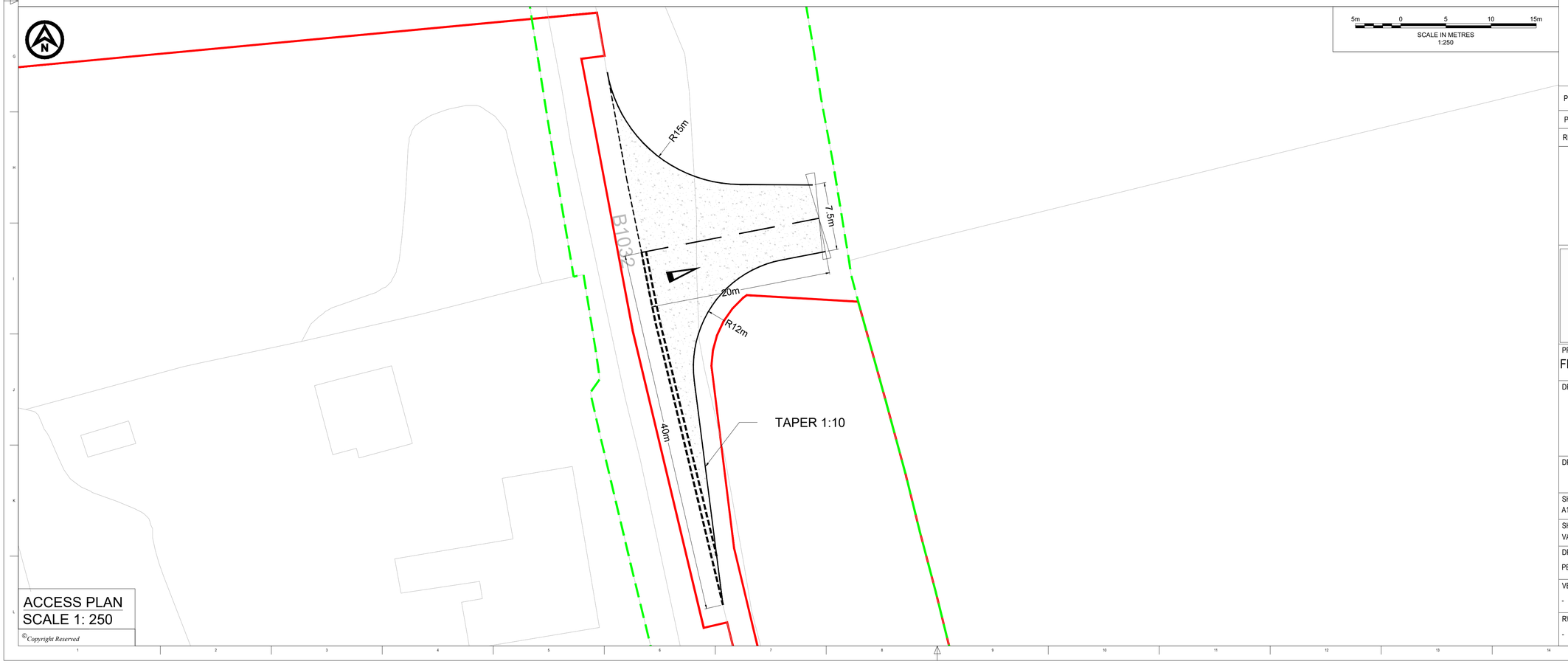
- EXISTING ARRANGEMENT
- ONSHORE RED LINE BOUNDARY
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- HIGHWAY BOUNDARY

TABLE 1 - VISIBILITY

AC-1	Visibility	
	North	South
85% of Recorded Speeds (mph) (85RS)	45	
Required Y-distance SSD for PSL (m) (DMRB)	160	
Is Required Y-distance SSD achievable?	Yes	Yes

LOCATION PLAN





5m 0 5 10 15m
SCALE IN METRES
1:250

ACCESS PLAN
SCALE 1: 500

REV	DATE	DESCRIPTION	BY	CHK	APP
P02	02/02/2024	ORDER LIMIT AND ROAD SAFETY AUDIT UPDATES	CB	SKT	SKT
P01	07/08/2023	FIRST ISSUE	AA	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM
NORTH FALLS Offshore Wind Farm

Royal HaskoningDHV
Enhancing Society Together
Westpoint, Peterborough Business Park, Lynch Wood, Peterborough PE2 6FZ
Tel +44(0)1932 569566
www.royalhaskoningdhv.com

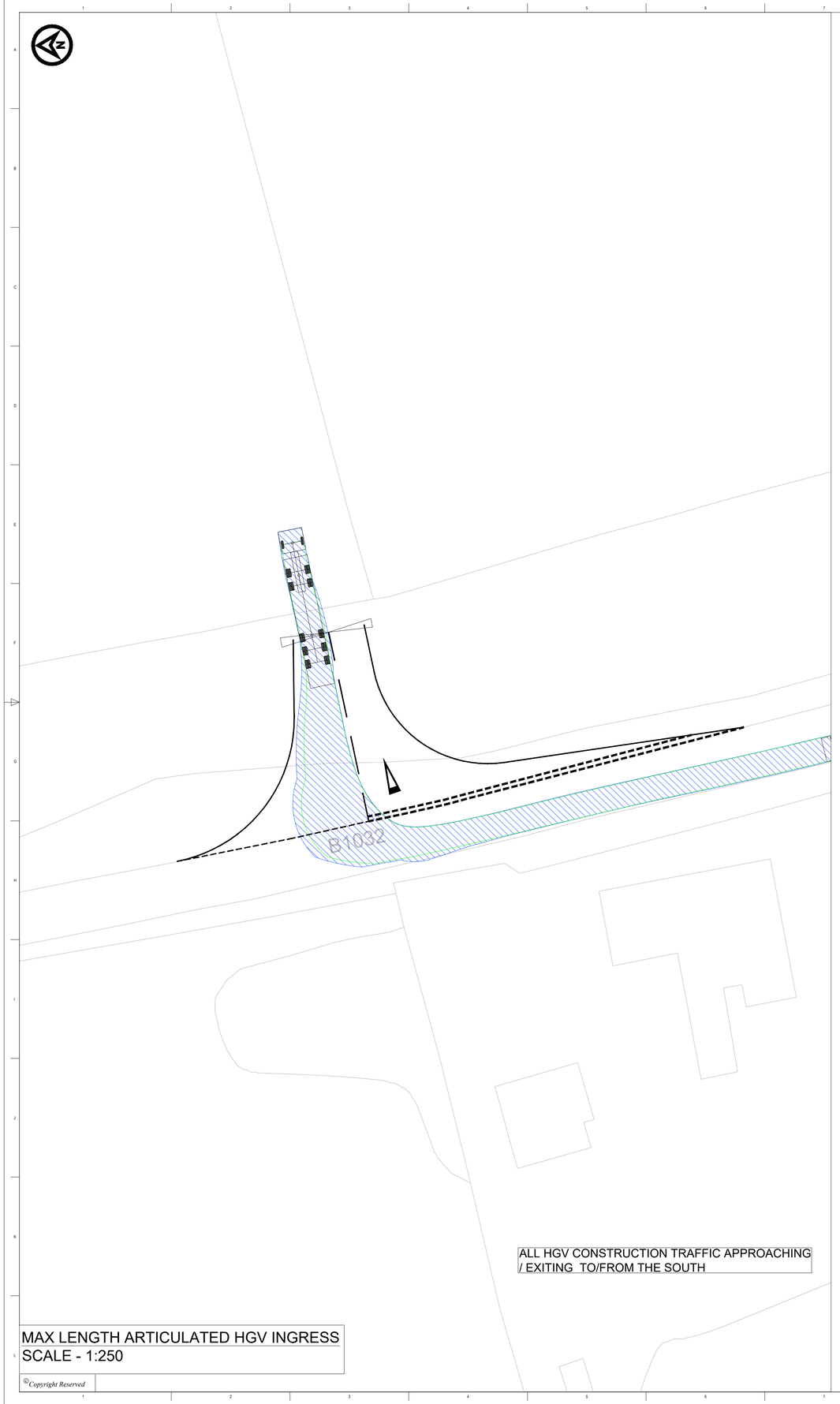
PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
AC-1 - B1032
GENERAL ARRANGEMENT

DRAWING STATUS
PLANNING

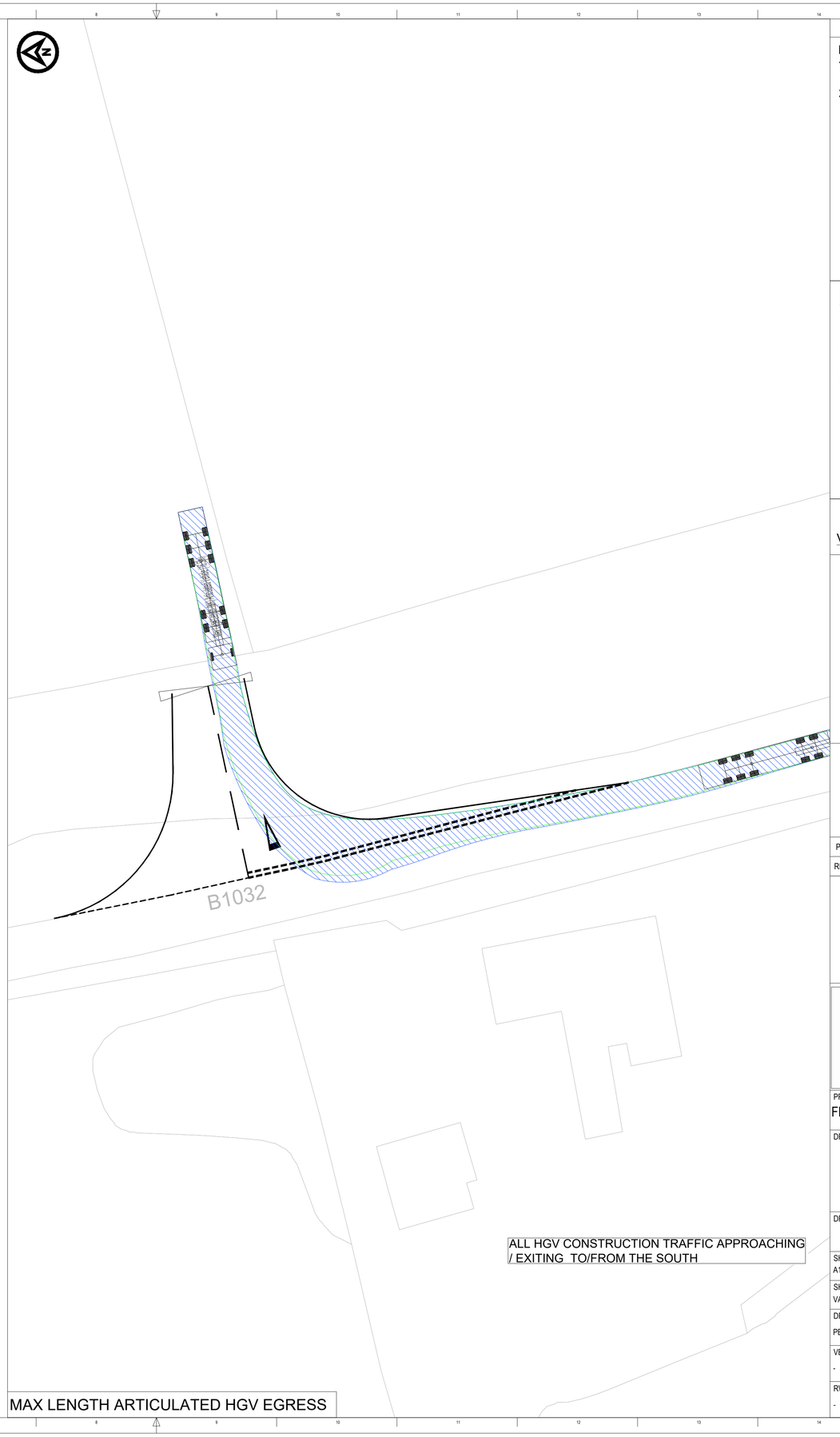
SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	07/08/2023	07/08/2023	07/08/2023	07/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0001	P02
VE DOCUMENT NUMBER	REVISION
-	-
RWE ECODOC NUMBER	SHEET No / REVISION
-	1_OF_1 / -



ALL HGV CONSTRUCTION TRAFFIC APPROACHING / EXITING TO/FROM THE SOUTH

MAX LENGTH ARTICULATED HGV INGRESS
SCALE - 1:250



ALL HGV CONSTRUCTION TRAFFIC APPROACHING / EXITING TO/FROM THE SOUTH

MAX LENGTH ARTICULATED HGV EGRESS

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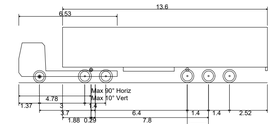
KEY

- EXISTING ARRANGEMENT
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- PROPOSED GATE

VEHICLE TRACKING



Max Legal Length (UK) Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

VEHICLE BODY SWEPT PATH (FORWARD GEAR)
VEHICLE CHASIS SWEPT PATH

REV	DATE	DESCRIPTION	BY	CHK	APP
P01	31/08/2023	FIRST ISSUE	AA	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM
NORTH FALLS Offshore Wind Farm

Royal HaskoningDHV
Enhancing Society Together
Westpoint, Peterborough Business Park, Lynch Wood, Peterborough PE2 6FZ
Tel +44(0)1932 569566
www.royalhaskoningdhv.com

PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
AC1 - B1032
SWEPT PATH ANALYSIS

DRAWING STATUS
PLANNING

SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	31/08/2023	31/08/2023	31/08/2023	31/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0021	P01
VE DOCUMENT NUMBER	REVISION
-	-
RWE ECODOC NUMBER	SHEET No / REVISION
-	1_OF_1 / -

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4. Y-Distance - the SSD measured along the nearest edge of the carriageway to its intersection with the centreline of the access.
5. All vegetation to be cleared/trimmed within identified visibility envelope and thereafter maintained in accordance with Local Highway Authority maintenance practices.

KEY

- EXISTING ARRANGEMENT
- ONSHORE RED LINE BOUNDARY
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- HIGHWAY BOUNDARY

25m 20 15 10 5 0 10 20 30m
SCALE IN METRES
1:500

AC-1

AC-2

B1032

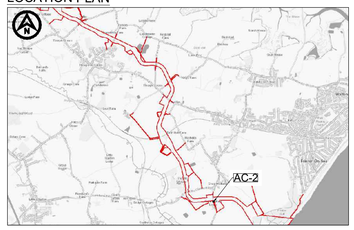
2.4m x 160m

2.4m x 160m

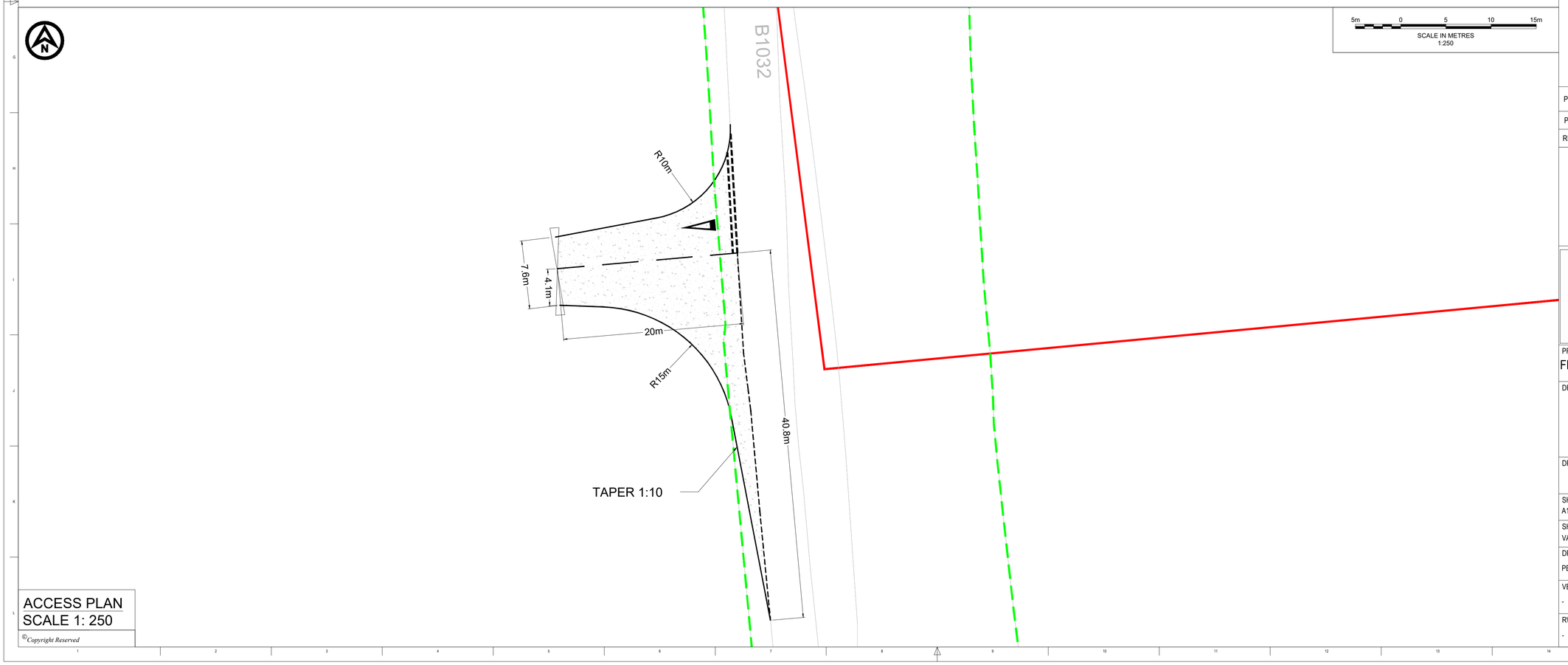
TABLE 1 - VISIBILITY

AC-2	Visibility North	Visibility South
85% of Recorded Speeds (mph) (85RS)	45	
Required Y-distance SSD for PSL (m) (DMRB)	160	
Is Required Y-distance SSD achievable?	Yes	Yes

LOCATION PLAN



VISIBILITY AND VEGETATION CLEARANCE
SCALE 1: 500



5m 0 5 10 15m
SCALE IN METRES
1:250

ACCESS PLAN
SCALE 1: 250

REV	DATE	DESCRIPTION	BY	CHK	APP
P02	02/02/2024	ORDER LIMIT AND ROAD SAFETY AUDIT UPDATES	CB	SKT	SKT
P01	07/08/2023	FIRST ISSUE	AA	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM
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Royal HaskoningDHV
Enhancing Society Together

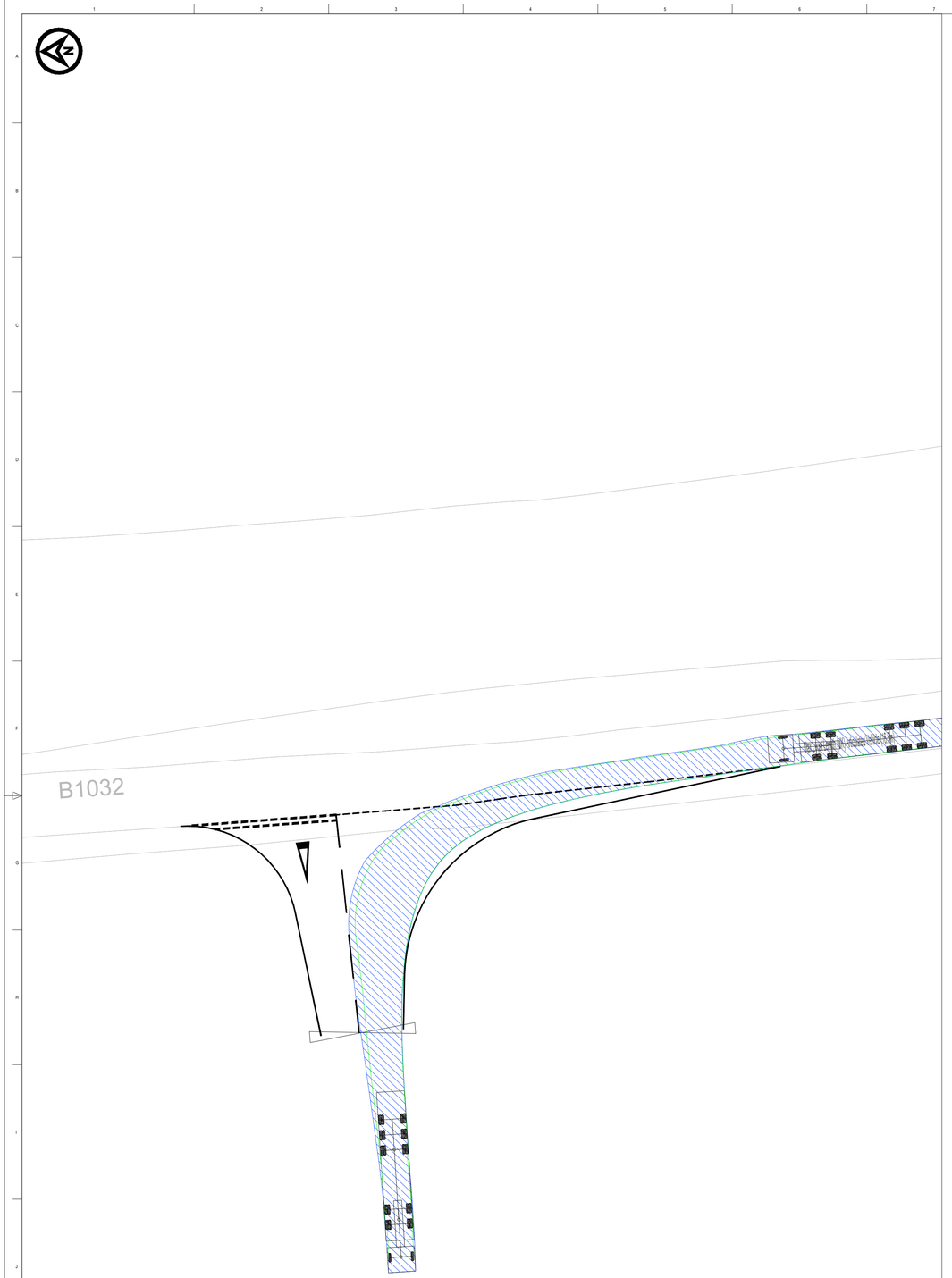
PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
AC-2 - B1032
GENERAL ARRANGEMENT

DRAWING STATUS
PLANNING

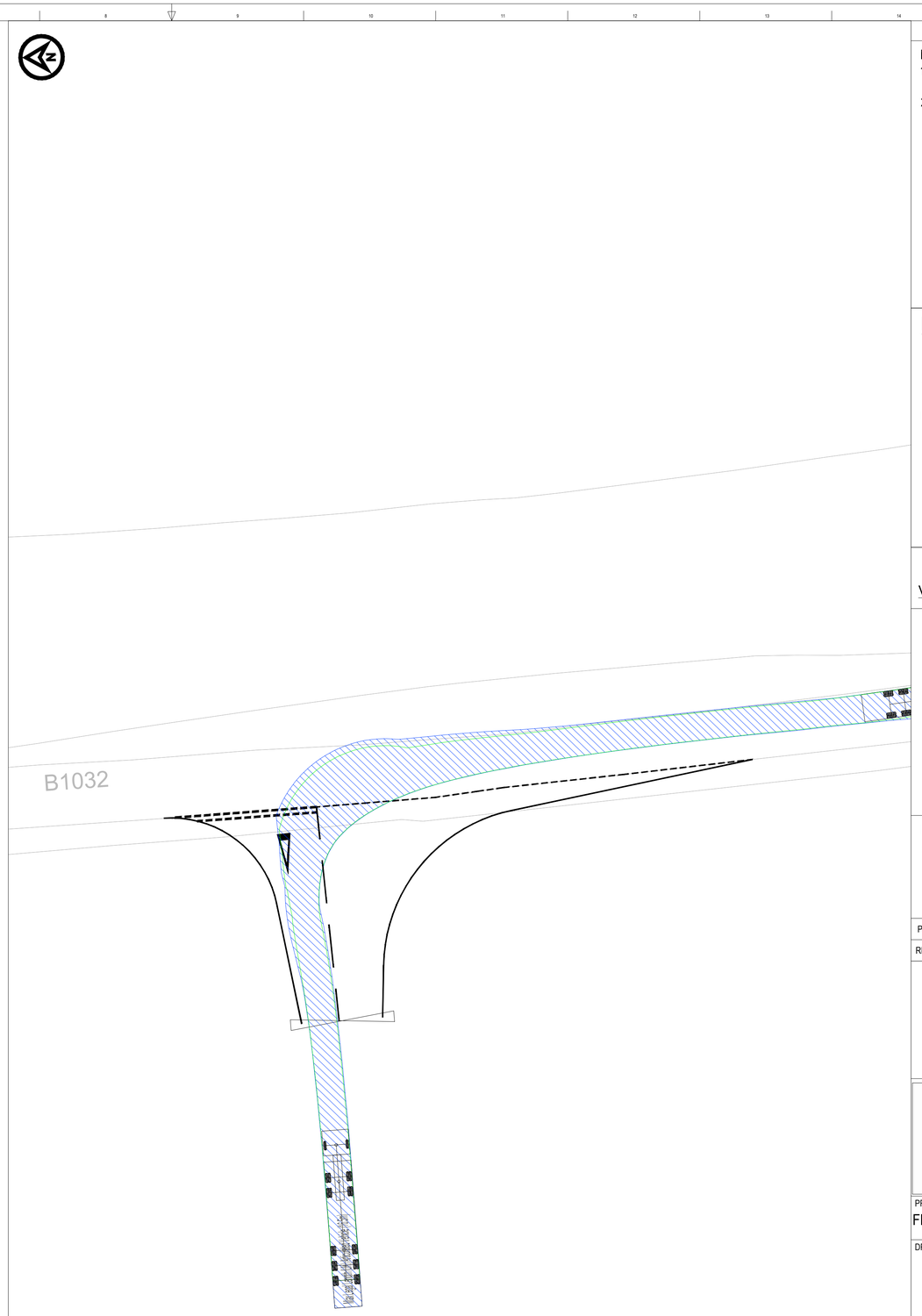
SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	07/08/2023	07/08/2023	07/08/2023	07/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0002	P02
VE DOCUMENT NUMBER	REVISION
-	-
RWE ECODOC NUMBER	SHEET No / REVISION
-	1_OF_1 / -



ALL HGV CONSTRUCTION TRAFFIC APPROACHING / EXITING TO/FROM THE SOUTH

MAX LENGTH ARTICULATED HGV INGRESS



ALL HGV CONSTRUCTION TRAFFIC APPROACHING / EXITING TO/FROM THE SOUTH

MAX LENGTH ARTICULATED HGV EGRESS

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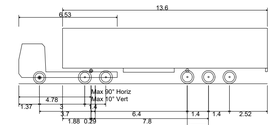
KEY

EXISTING ARRANGEMENT

PROPOSED ACCESS BOUNDARY/ROAD MARKINGS

PROPOSED GATE

VEHICLE TRACKING



Max Legal Length (UK) Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

VEHICLE BODY SWEPT PATH (FORWARD GEAR)

VEHICLE CHASIS SWEPT PATH

REV	DATE	DESCRIPTION	BY	CHK	APP
P01	31/08/2023	FIRST ISSUE	AA	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM

NORTH FALLS Offshore Wind Farm

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Westpoint, Peterborough Business Park,
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Peterborough PE2 6FZ
Tel +44(0)1932 569566
www.royalhaskoningdhv.com

PROJECT TITLE

FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE

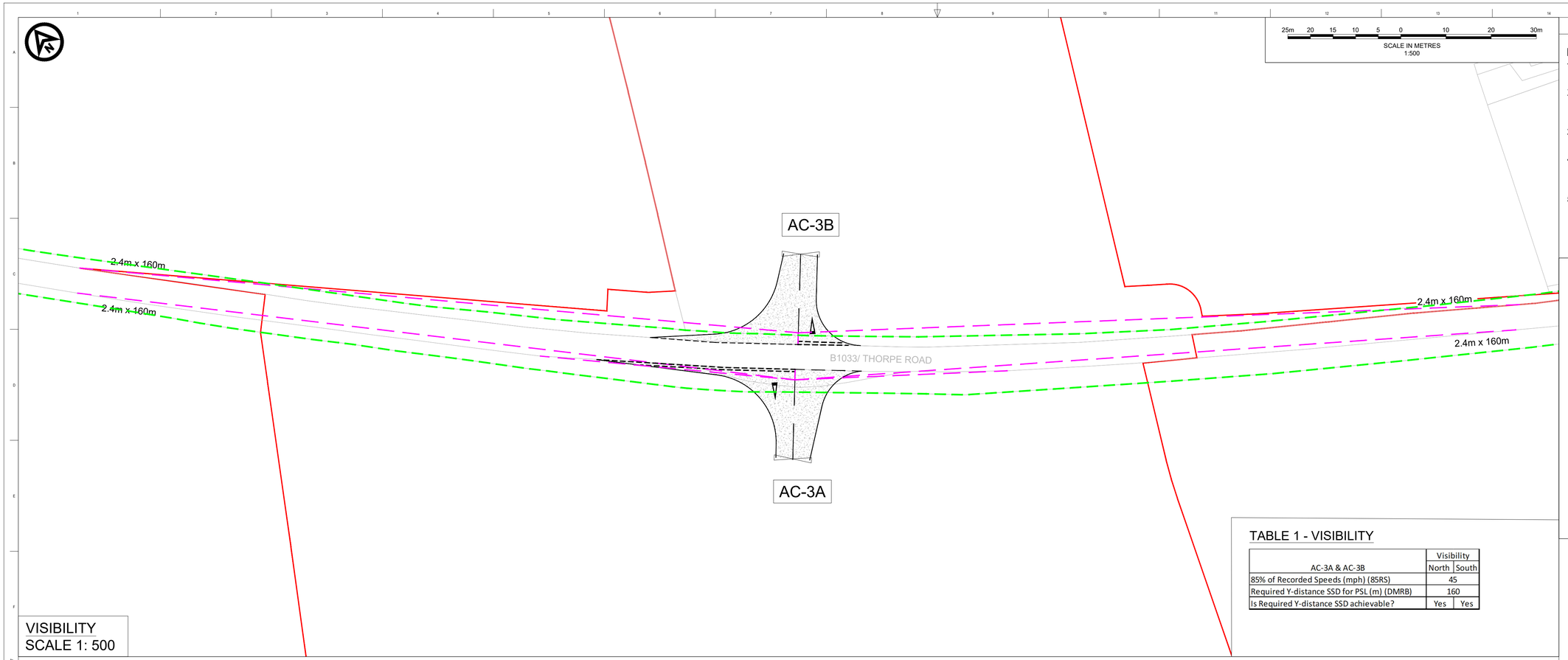
AC-2 - B1032
SWEPT PATH ANALYSIS

DRAWING STATUS

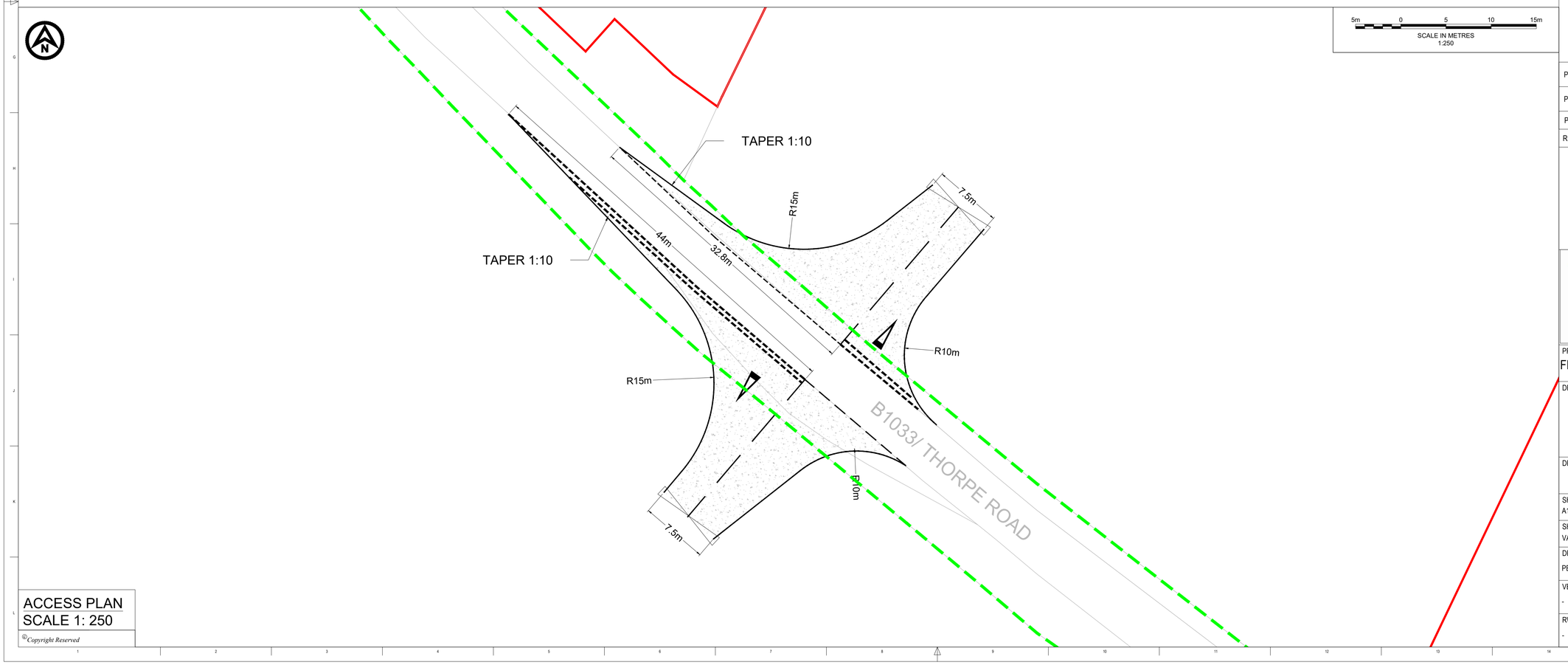
PLANNING

SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	31/08/2023	31/08/2023	31/08/2023	31/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0022	P01
VE DOCUMENT NUMBER	REVISION
-	-
RWE ECODOC NUMBER	SHEET No / REVISION
-	1_OF_1 / -



VISIBILITY
SCALE 1: 500



ACCESS PLAN
SCALE 1: 250

25m 20 15 10 5 0 10 20 30m
SCALE IN METRES
1:500

5m 0 5 10 15m
SCALE IN METRES
1:250

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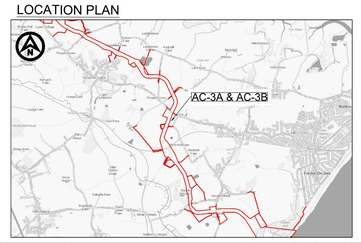
KEY

- EXISTING ARRANGEMENT
- ONSHORE RED LINE BOUNDARY
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- HIGHWAY BOUNDARY

TABLE 1 - VISIBILITY

AC-3A & AC-3B	Visibility	
	North	South
85% of Recorded Speeds (mph) (85RS)	45	
Required Y-distance SSD for PSL (m) (DMRB)	160	
Is Required Y-distance SSD achievable?	Yes	Yes

LOCATION PLAN



REV	DATE	DESCRIPTION	BY	CHK	APP
P03	18/06/2024	UPDATE TO ACCESS NUMBERING	CB	SKT	SKT
P02	02/02/2024	ORDER LIMIT AND ROAD SAFETY AUDIT UPDATES	CB	SKT	SKT
P01	07/08/2023	FIRST ISSUE	AA	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM
NORTH FALLS Offshore Wind Farm

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Tel +44(0)1932 569566
www.royalhaskoningdhv.com

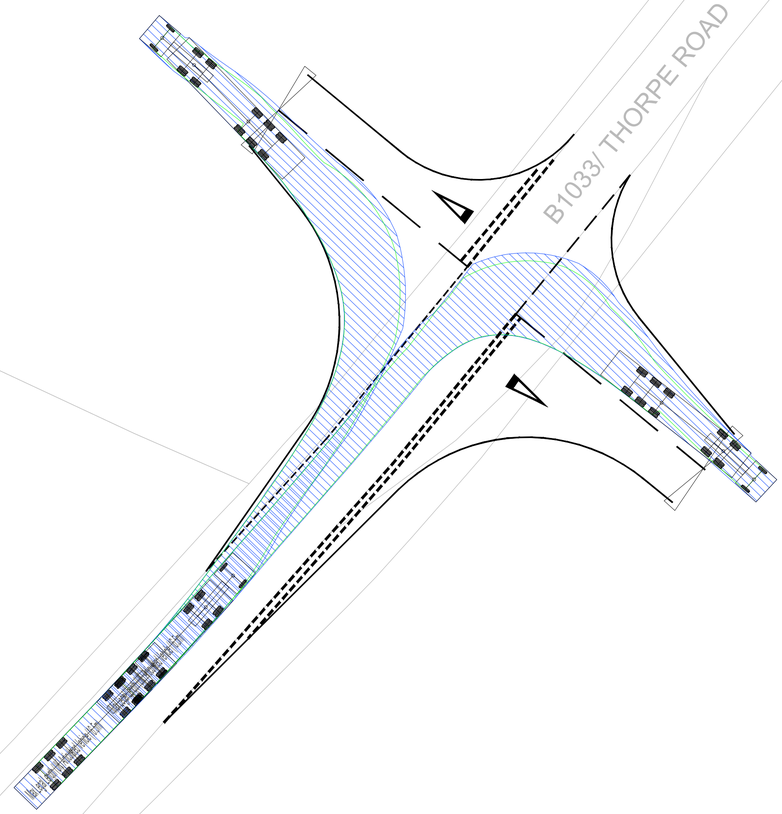
PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
AC-3A & AC-3B - B1033/THORPE ROAD
GENERAL ARRANGEMENT

DRAWING STATUS
PLANNING

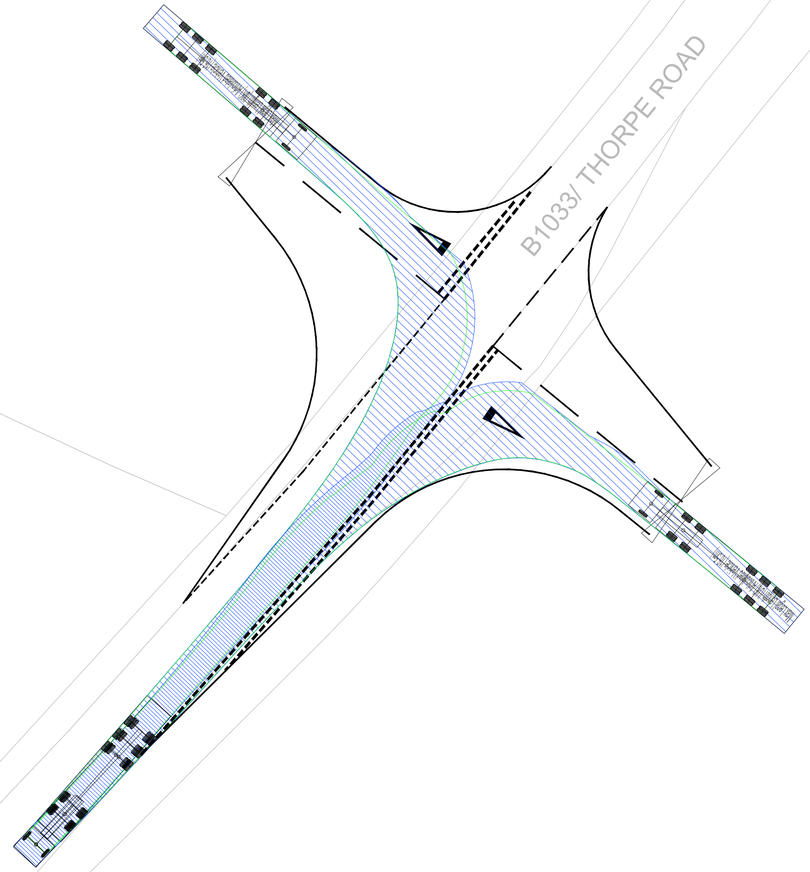
SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	07/08/2023	07/08/2023	07/08/2023	07/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0003	P03
VE DOCUMENT NUMBER	REVISION
-	-
RWE ECODOC NUMBER / SHEET No	REVISION
- / 1_OF_1	-



ALL HGV CONSTRUCTION TRAFFIC APPROACHING / EXITING TO/FROM THE WEST

MAX LENGTH ARTICULATED HGV INGRESS



ALL HGV CONSTRUCTION TRAFFIC APPROACHING / EXITING TO/FROM THE WEST

MAX LENGTH ARTICULATED HGV EGRESS

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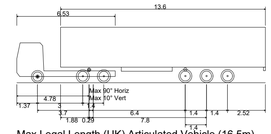
KEY

EXISTING ARRANGEMENT

PROPOSED ACCESS BOUNDARY/ROAD MARKINGS

PROPOSED GATE

VEHICLE TRACKING



Max Legal Length (UK) Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

VEHICLE BODY SWEPT PATH (FORWARD GEAR)

VEHICLE CHASIS SWEPT PATH

REV	DATE	DESCRIPTION	BY	CHK	APP
P01	31/08/2023	FIRST ISSUE	AA	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM

NORTH FALLS Offshore Wind Farm

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Tel +44(0)1932 569568
www.royalhaskoningdhv.com

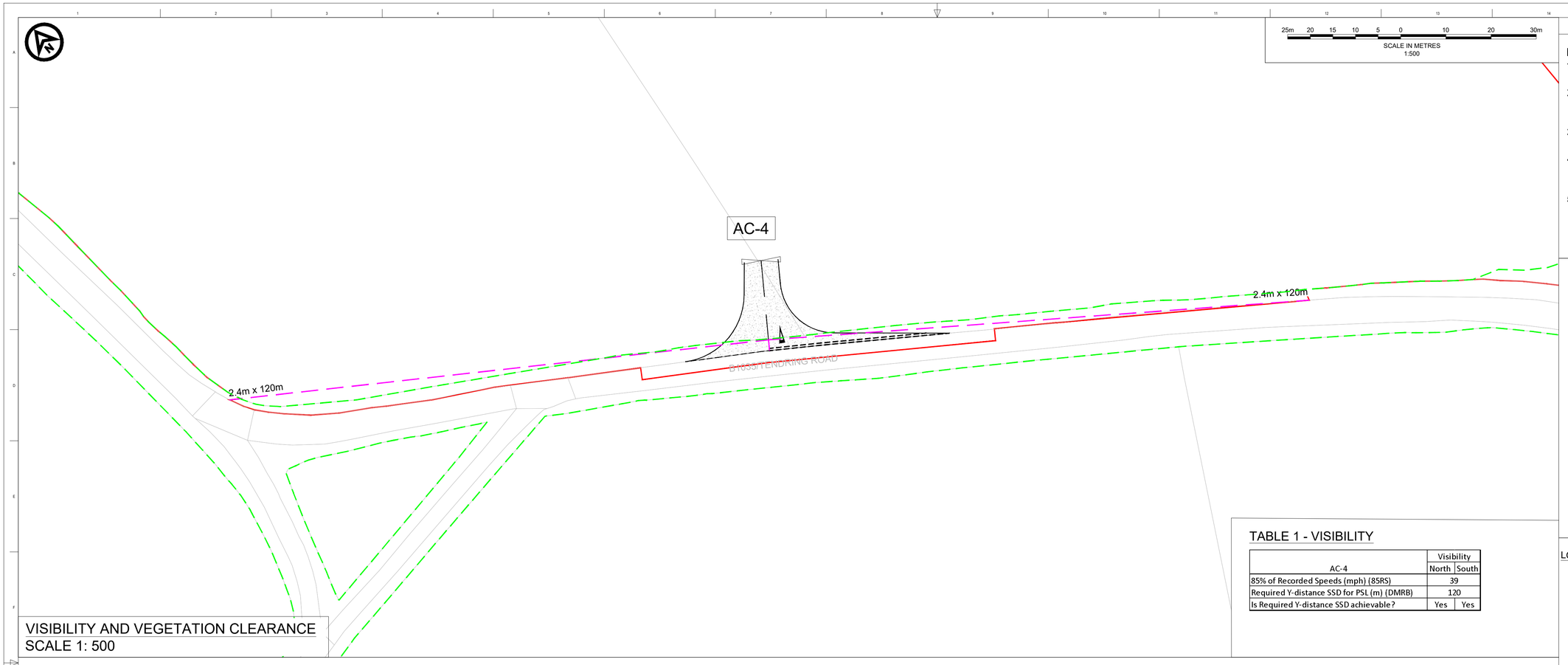
PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
AC-3A & AC-3B - B1033/THORPE ROAD
SWEPT PATH ANALYSIS

DRAWING STATUS
PLANNING

SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	31/08/2023	31/08/2023	31/08/2023	31/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0023	P01
VE DOCUMENT NUMBER	REVISION
-	-
RWE ECODOC NUMBER	SHEET No / REVISION
-	1_OF_1 / -



VISIBILITY AND VEGETATION CLEARANCE
SCALE 1: 500

25m 20 15 10 5 0 10 20 30m
SCALE IN METRES
1:500

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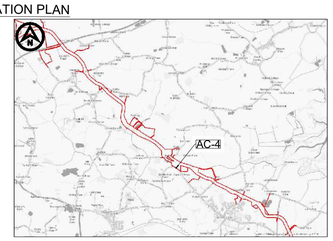
KEY

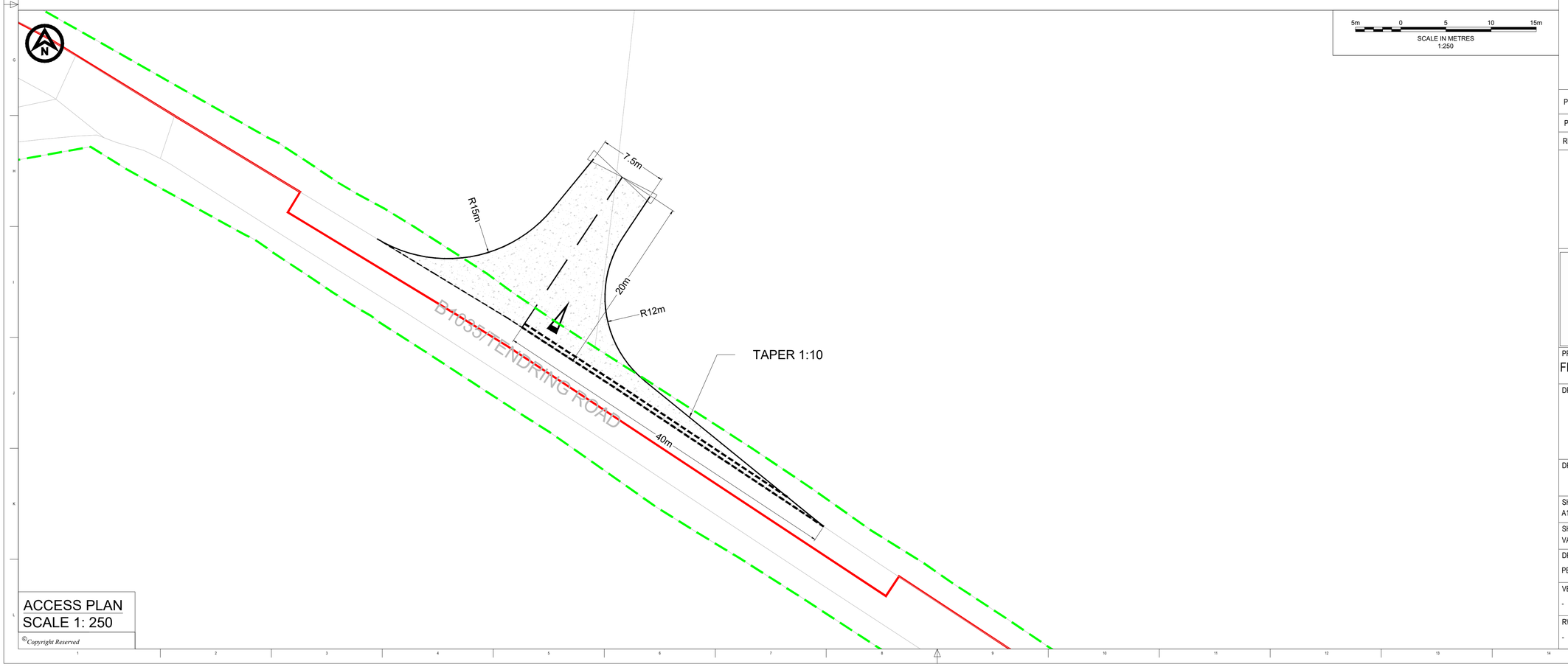
- EXISTING ARRANGEMENT
- ONSHORE RED LINE BOUNDARY
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- HIGHWAY BOUNDARY

TABLE 1 - VISIBILITY

AC-4	Visibility	
	North	South
85% of Recorded Speeds (mph) (85RS)	39	
Required Y-distance SSD for PSL (m) (DMRB)	120	
Is Required Y-distance SSD achievable?	Yes	Yes

LOCATION PLAN





ACCESS PLAN
SCALE 1: 250

5m 0 5 10 15m
SCALE IN METRES
1:250

REV	DATE	DESCRIPTION	BY	CHK	APP
P02	02/02/2024	ORDER LIMIT AND ROAD SAFETY AUDIT UPDATES	CB	SKT	SKT
P01	07/08/2023	FIRST ISSUE	AA	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM
NORTH FALLS Offshore Wind Farm

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www.royalhaskoningdhv.com

PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
AC-4 - B1035/TENDRING ROAD
GENERAL ARRANGEMENT

DRAWING STATUS
PLANNING

SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	07/08/2023	07/08/2023	07/08/2023	07/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0004	P02
VE DOCUMENT NUMBER	REVISION
-	-
RWE ECODOC NUMBER	SHEET No / REVISION
-	1_OF_1 / -

MAX LENGTH ARTICULATED HGV INGRESS

ALL HGV CONSTRUCTION TRAFFIC APPROACHING / EXITING TO/FROM THE EAST

MAX LENGTH ARTICULATED HGV EGRESS

ALL HGV CONSTRUCTION TRAFFIC APPROACHING / EXITING TO/FROM THE EAST

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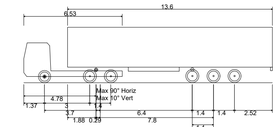
KEY

EXISTING ARRANGEMENT

PROPOSED ACCESS BOUNDARY/ROAD MARKINGS

PROPOSED GATE

VEHICLE TRACKING



Max Legal Length (UK) Articulated Vehicle (16.5m)

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Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

VEHICLE BODY SWEPT PATH (FORWARD GEAR)

VEHICLE CHASIS SWEPT PATH

REV	DATE	DESCRIPTION	BY	CHK	APP
P01	06/09/2023	FIRST ISSUE	AA	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM

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PROJECT TITLE

FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE

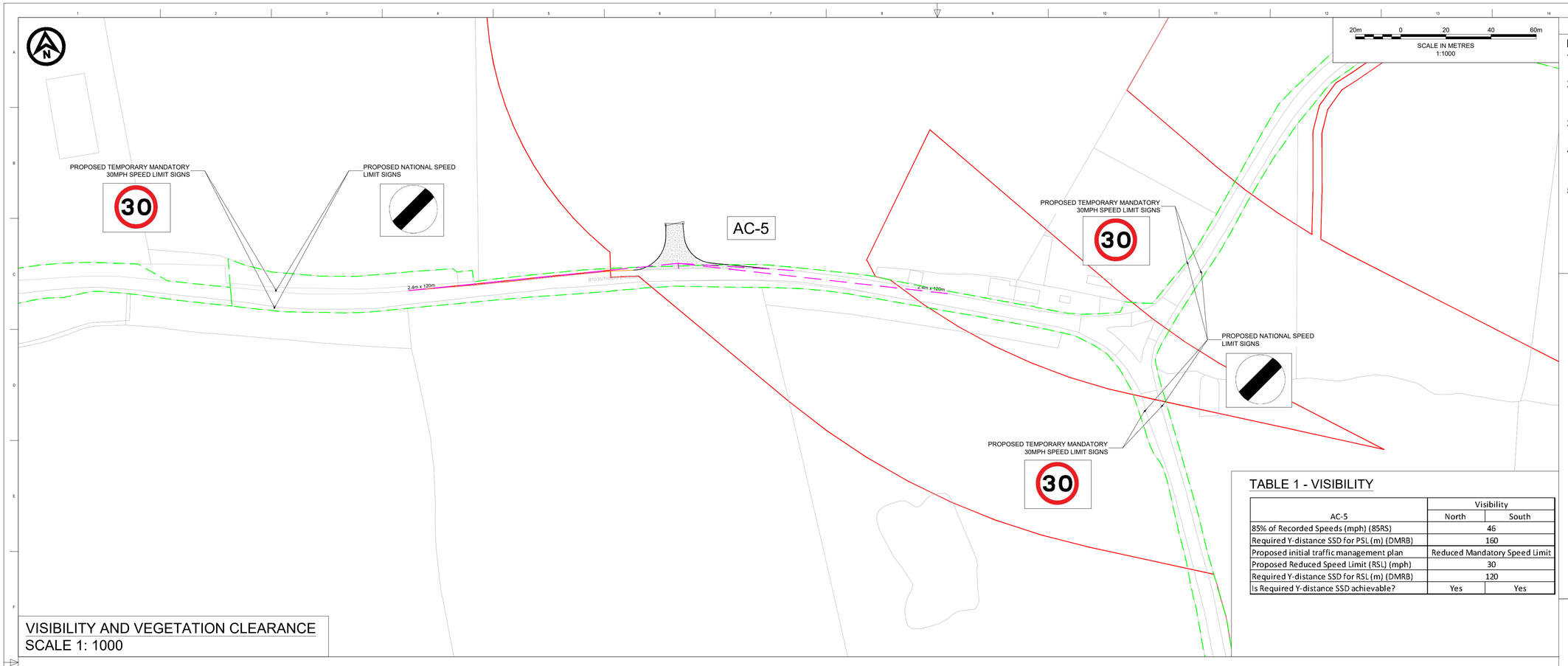
AC-4 - B1035/TENDRING ROAD
SWEPT PATH ANALYSIS

DRAWING STATUS

PLANNING

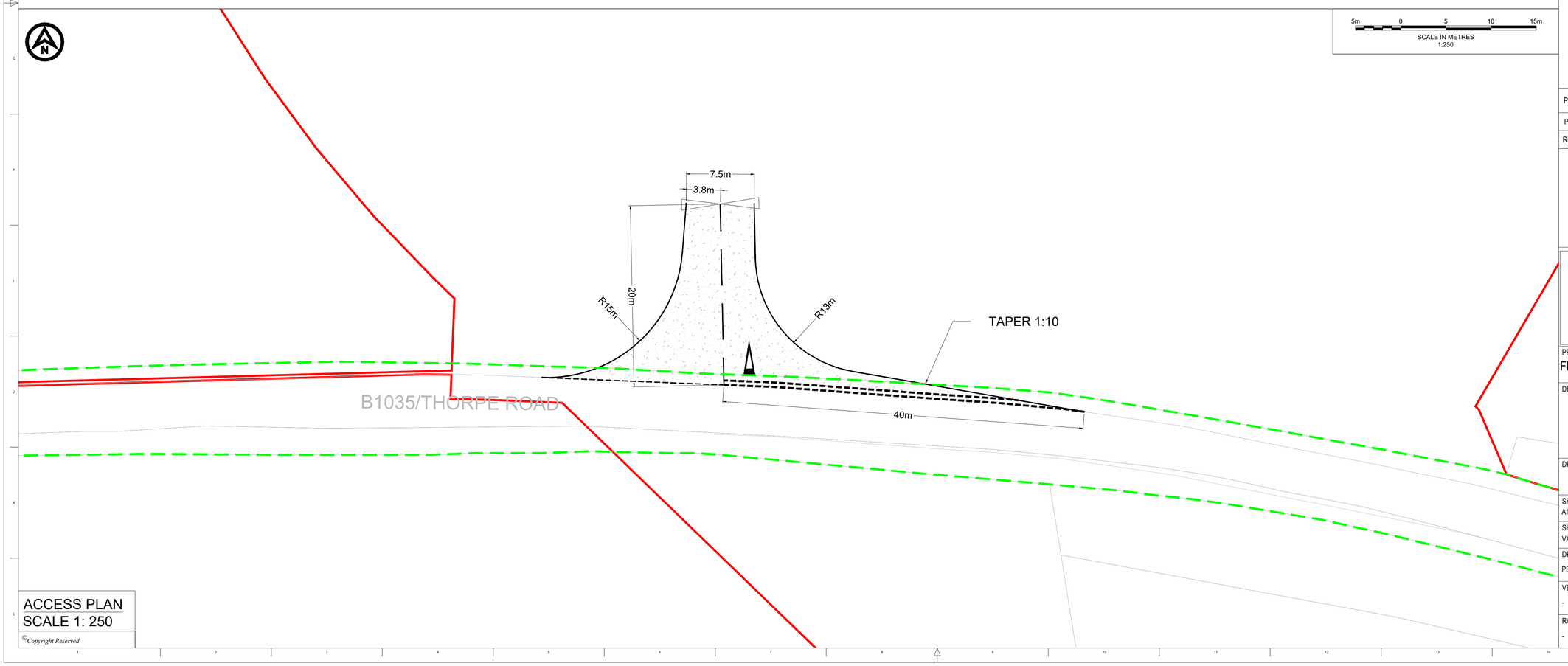
SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	06/09/2023	06/09/2023	06/09/2023	06/09/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0024	P01
VE DOCUMENT NUMBER	REVISION
-	-
RWE ECODOC NUMBER	SHEET No / REVISION
-	1_OF_1 / -



VISIBILITY AND VEGETATION CLEARANCE
SCALE 1: 1000

20m 0 20 40 60m
SCALE IN METRES
1:1000



ACCESS PLAN
SCALE 1: 250

5m 0 5 10 15m
SCALE IN METRES
1:250

DO NOT SCALE FROM THIS DRAWING

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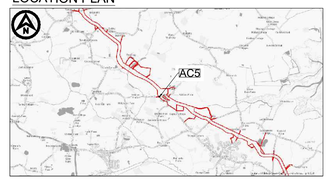
TABLE 1 - VISIBILITY

AC-5	Visibility	
	North	South
85% of Recorded Speeds (mph) (85RS)	46	
Required Y-distance SSD for PSL (m) (DMRB)	160	
Proposed initial traffic management plan	Reduced Mandatory Speed Limit	
Proposed Reduced Speed Limit (RSL) (mph)	30	
Required Y-distance SSD for RSL (m) (DMRB)	120	
Is Required Y-distance SSD achievable?	Yes	Yes

KEY

- EXISTING ARRANGEMENT
- ONSHORE RED LINE BOUNDARY
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- HIGHWAY BOUNDARY
- PROPOSED TEMPORARY ROAD SIGN

LOCATION PLAN



REV	DATE	DESCRIPTION	BY	CHK	APP
P02	02/02/2024	ORDER LIMIT AND ROAD SAFETY AUDIT UPDATES	CB	SKT	SKT
P01	07/08/2023	FIRST ISSUE	AA	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM
NORTH FALLS Offshore Wind Farm

Royal HaskoningDHV
Enhancing Society Together
Westpoint, Peterborough Business Park,
Lynch Wood,
Peterborough PE2 6FZ
Tel +44(0)1932 569568
www.royalhaskoningdhv.com

PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
AC-5 - B1035/THORPE ROAD
GENERAL ARRANGEMENT

DRAWING STATUS
PLANNING

SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	07/08/2023	07/08/2023	07/08/2023	07/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0005	P02
VE DOCUMENT NUMBER	REVISION
-	-

RWE ECODOC NUMBER	SHEET No	REVISION
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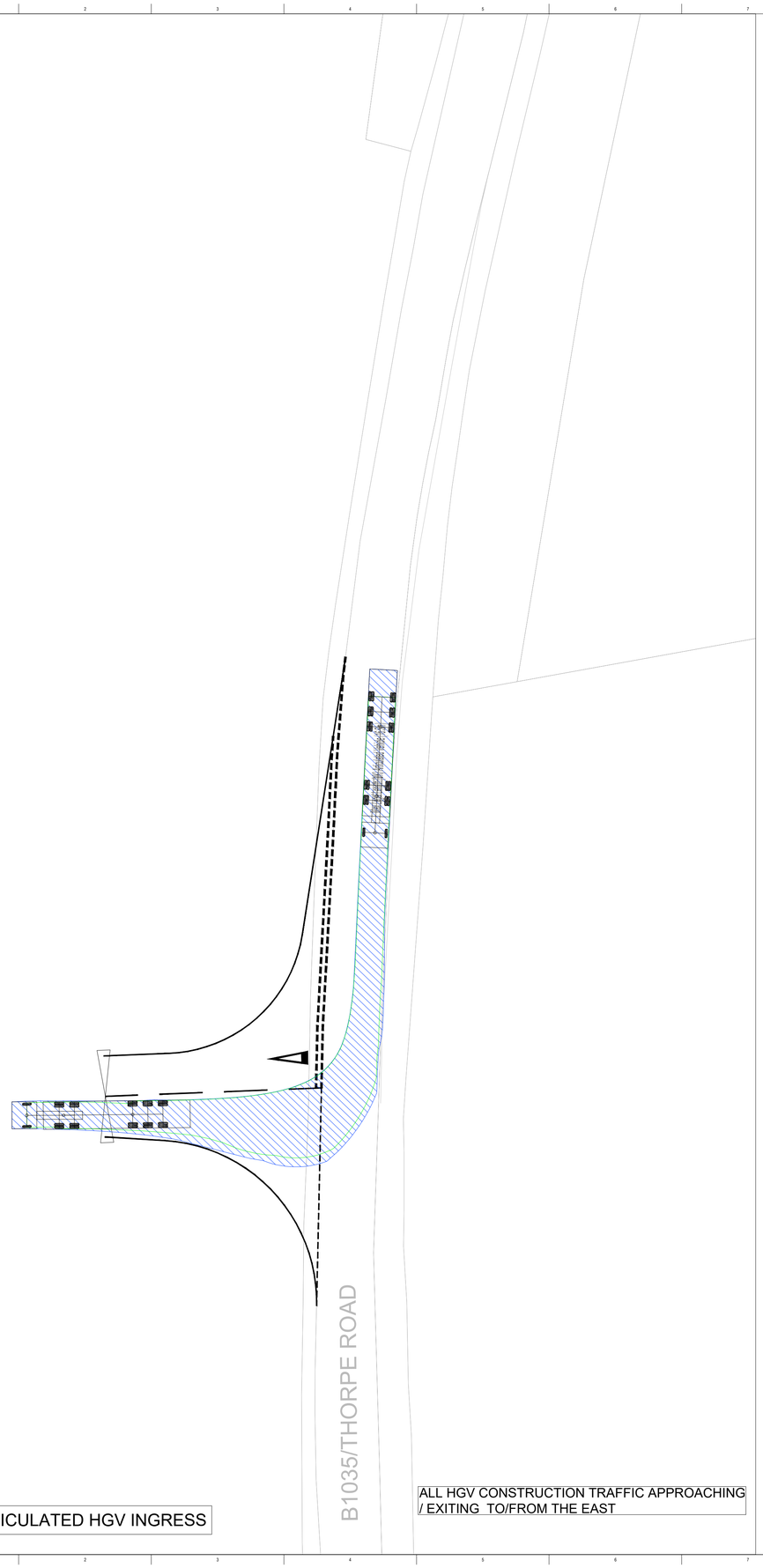
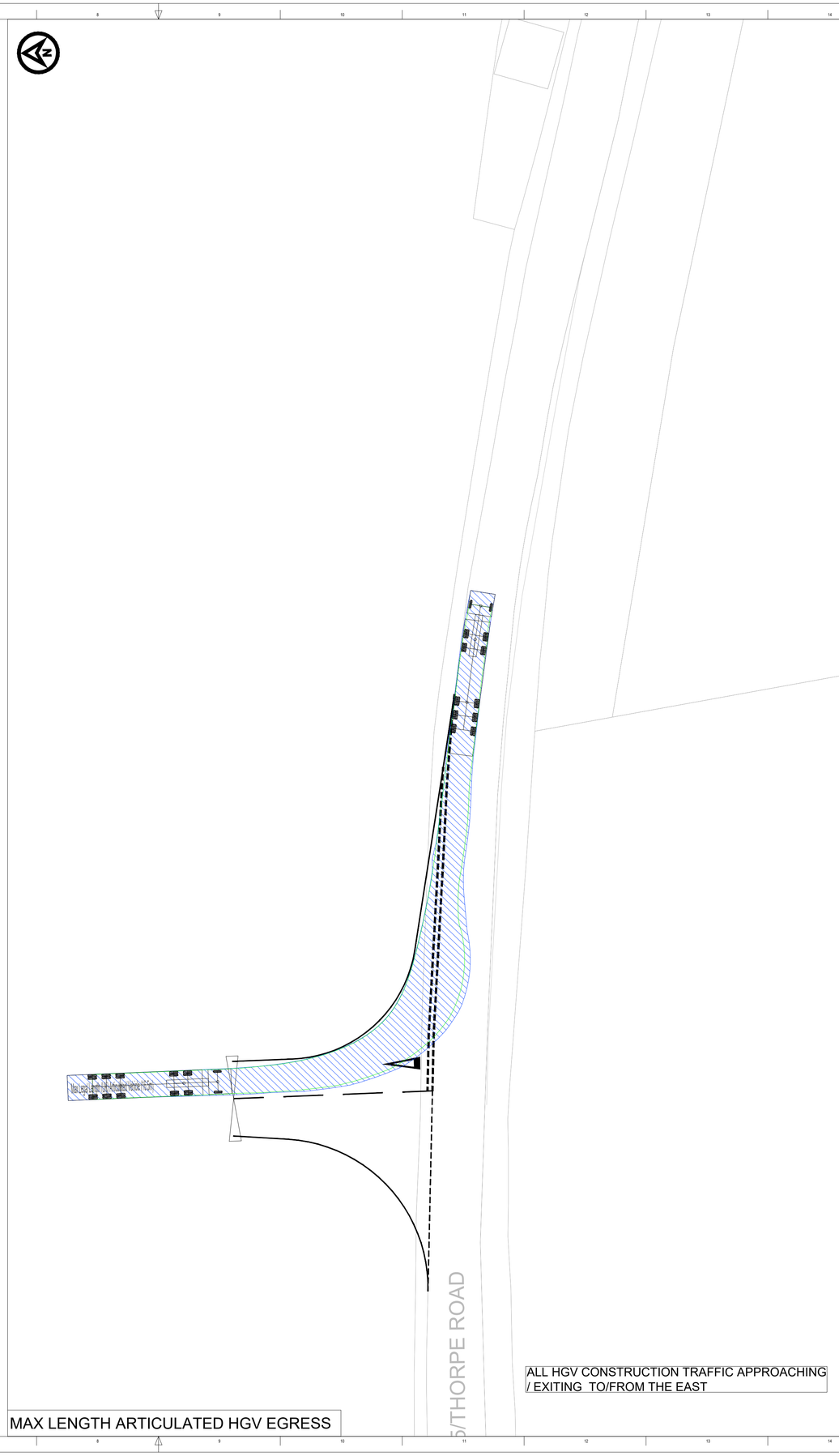


MAX LENGTH ARTICULATED HGV INGRESS

ALL HGV CONSTRUCTION TRAFFIC APPROACHING / EXITING TO/FROM THE EAST



MAX LENGTH ARTICULATED HGV EGRESS

ALL HGV CONSTRUCTION TRAFFIC APPROACHING / EXITING TO/FROM THE EAST

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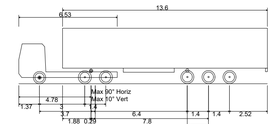
KEY

EXISTING ARRANGEMENT

PROPOSED ACCESS BOUNDARY/ROAD MARKINGS

PROPOSED GATE

VEHICLE TRACKING



Max Legal Length (UK) Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

VEHICLE BODY SWEPT PATH (FORWARD GEAR)

VEHICLE CHASIS SWEPT PATH

REV	DATE	DESCRIPTION	BY	CHK	APP
P01	06/09/2023	FIRST ISSUE	AA	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM

NORTH FALLS Offshore Wind Farm

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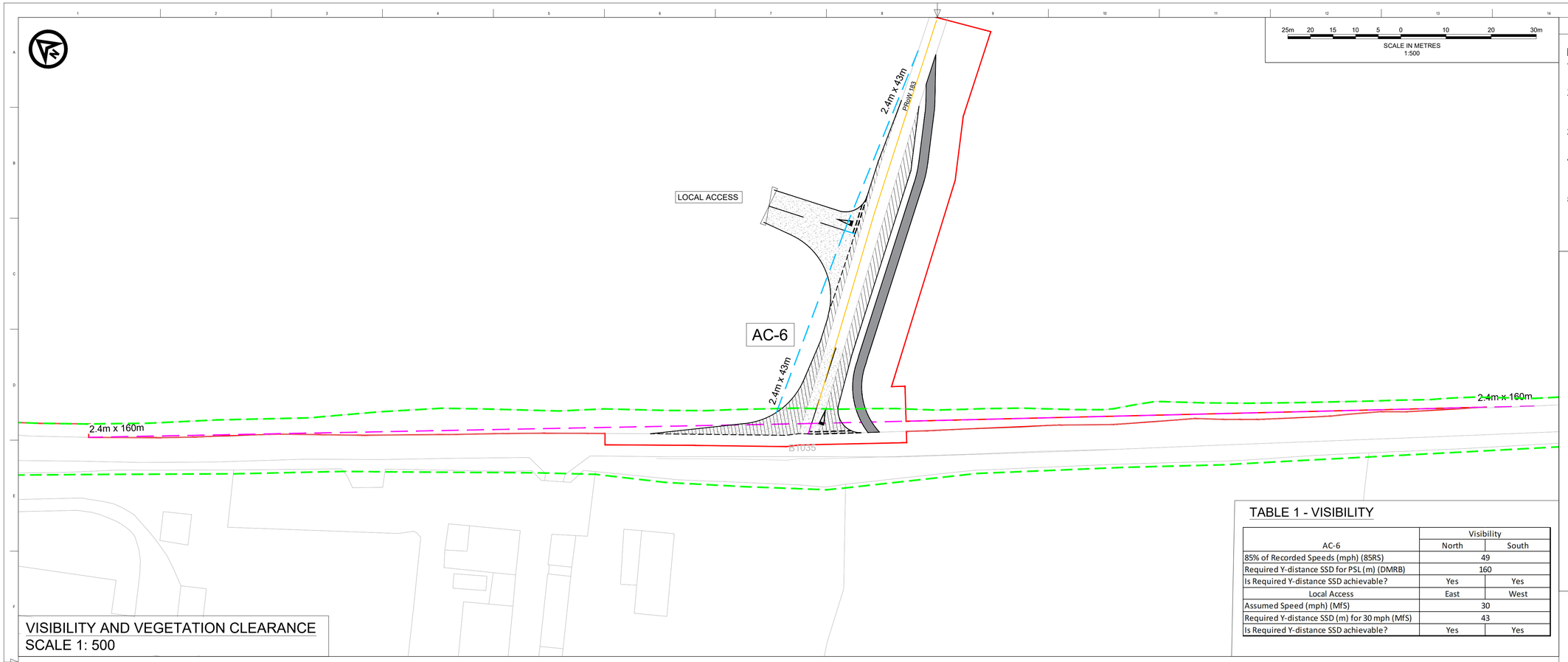
PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
AC-5 - B1035/THORPE ROAD
SWEPT PATH ANALYSIS

DRAWING STATUS
PLANNING

SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	06/09/2023	06/09/2023	06/09/2023	06/09/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0025	P01
VE DOCUMENT NUMBER	REVISION
-	-
RWE ECODOC NUMBER	SHEET No / REVISION
-	1_OF_1 / -



VISIBILITY AND VEGETATION CLEARANCE
SCALE 1: 500

25m 20 15 10 5 0 10 20 30m
SCALE IN METRES
1:500

DO NOT SCALE FROM THIS DRAWING

NOTES
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4. Y-Distance - the SSD measured along the nearest edge of the carriageway to its intersection with the centreline of the access.
5. All vegetation to be cleared/trimmed within identified visibility envelope and thereafter maintained in accordance with Local Highway Authority maintenance practices.

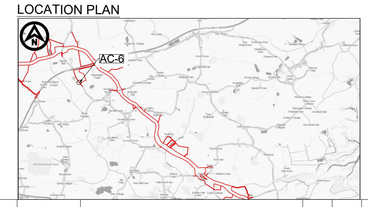
KEY

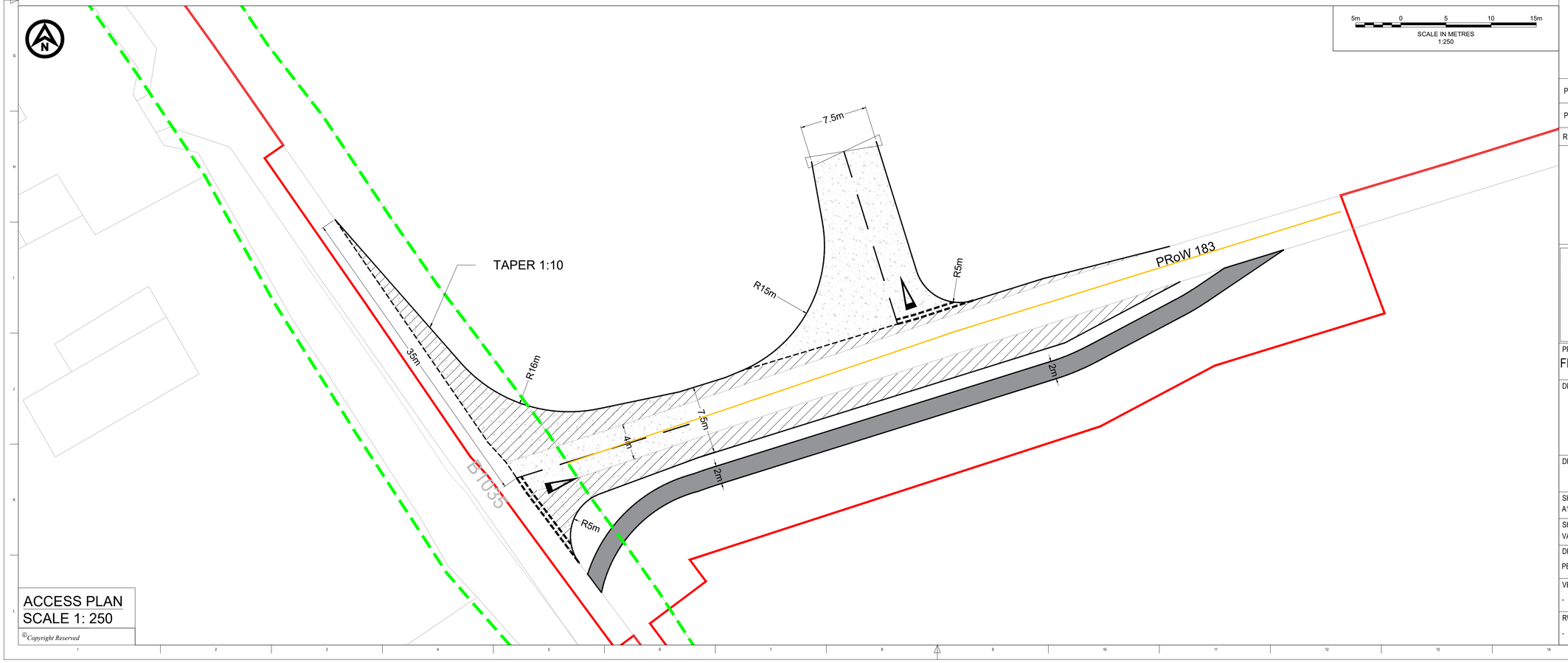
- EXISTING ARRANGEMENT
- ONSHORE RED LINE BOUNDARY
- HIGHWAY BOUNDARY
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- DMRB - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- MfS - VISIBILITY SPLAY FOR ASSUMED LOCAL ACCESS (SEE TABLE 1)
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- CARRIAGEWAY WIDENING - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- EXISTING PUBLIC RIGHTS OF WAY
- PROPOSED TEMPORARY OFFROAD PUBLIC RIGHTS OF WAY ROUTE
- PROPOSED GATE

TABLE 1 - VISIBILITY

AC-6	Visibility	
	North	South
85% of Recorded Speeds (mph) (85RS)	49	
Required Y-distance SSD for PSL (m) (DMRB)	160	
Is Required Y-distance SSD achievable?	Yes	Yes
Local Access	East	West
Assumed Speed (mph) (MfS)	30	
Required Y-distance SSD (m) for 30 mph (MfS)	43	
Is Required Y-distance SSD achievable?	Yes	Yes

LOCATION PLAN





5m 0 5 10 15m
SCALE IN METRES
1:250

ACCESS PLAN
SCALE 1: 250

REV	DATE	DESCRIPTION	BY	CHK	APP
P04	18/06/2024	UPDATED ACCESS NUMBERING	CB	SKT	SKT
P03	02/02/2024	ORDER LIMIT AND ROAD SAFETY AUDIT UPDATES	CB	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM
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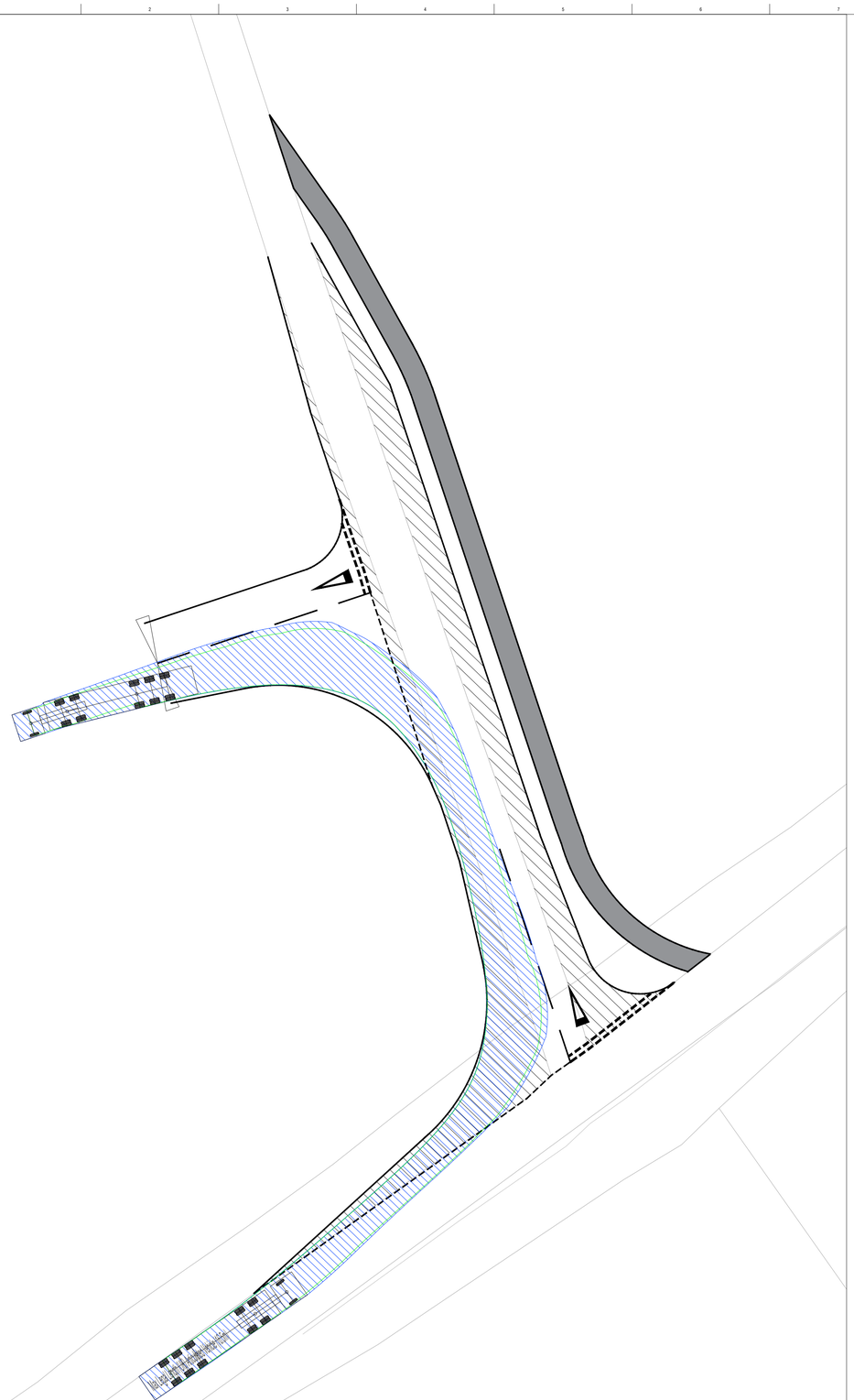
PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
AC-6 - B1035
GENERAL ARRANGEMENT

DRAWING STATUS
PLANNING

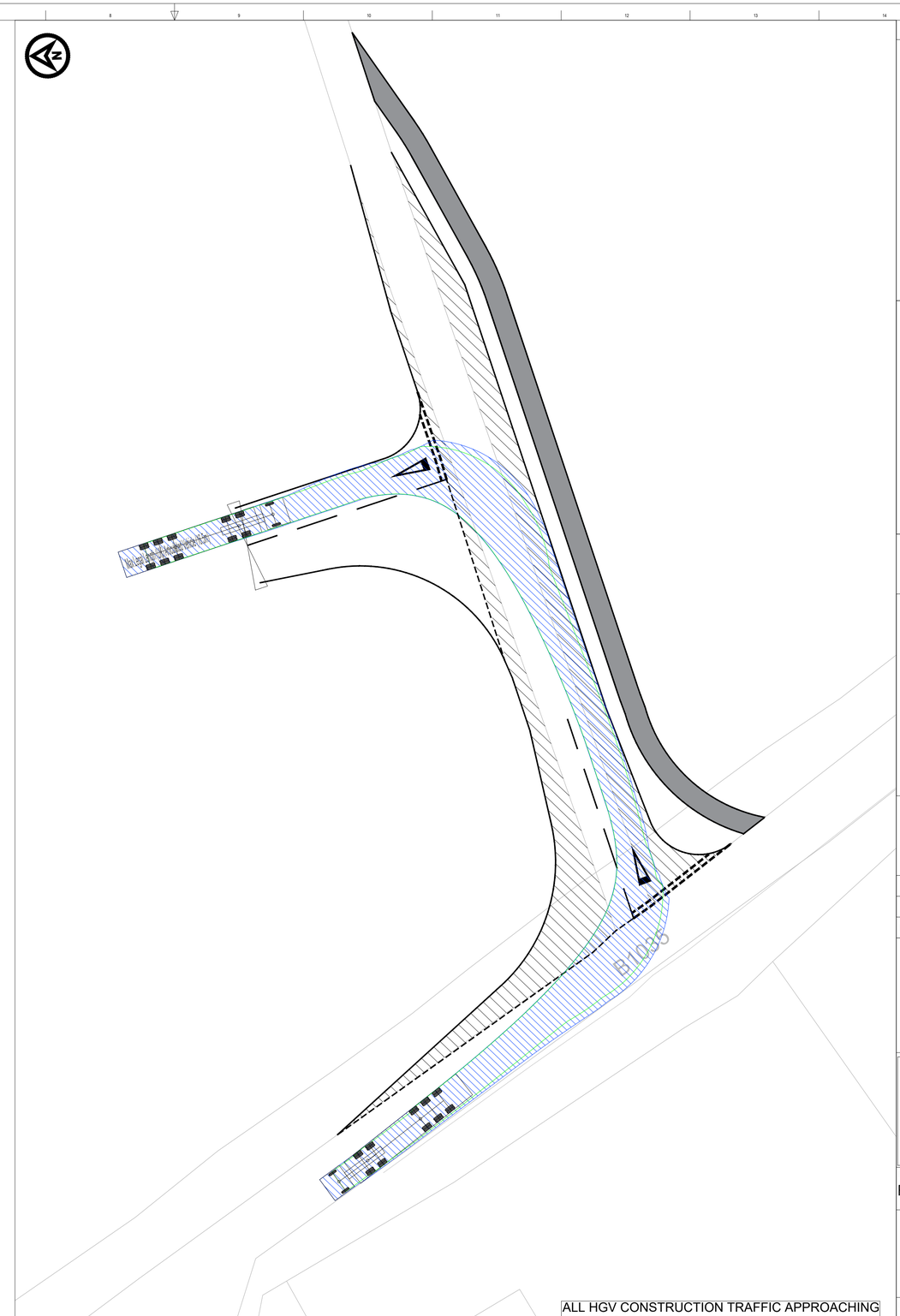
SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	07/08/2023	07/08/2023	07/08/2023	07/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0007	P04
VE DOCUMENT NUMBER	REVISION
-	-
RWE ECODOC NUMBER / SHEET No	REVISION
- / 1_OF_1	-



ALL HGV CONSTRUCTION TRAFFIC APPROACHING / EXITING TO/FROM THE NORTH

MAX LENGTH ARTICULATED HGV INGRESS



ALL HGV CONSTRUCTION TRAFFIC APPROACHING / EXITING TO/FROM THE NORTH

MAX LENGTH ARTICULATED HGV EGRESS

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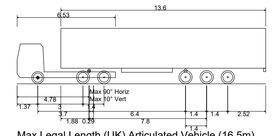
KEY

EXISTING ARRANGEMENT

PROPOSED ACCESS BOUNDARY/ROAD MARKINGS

PROPOSED GATE

VEHICLE TRACKING



Max Legal Length (UK) Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

VEHICLE BODY SWEPT PATH (FORWARD GEAR)

VEHICLE CHASIS SWEPT PATH

REV	DATE	DESCRIPTION	BY	CHK	APP
P02	18/06/2024	UPDATE TO ACCESS NUMBERING	CB	SKT	SKT
P01	06/09/2023	FIRST ISSUE	AA	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM

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PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
AC-6 - B1035
SWEPT PATH ANALYSIS

DRAWING STATUS
PLANNING

SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	06/09/2023	06/09/2023	06/09/2023	06/09/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0026	P02
VE DOCUMENT NUMBER	REVISION
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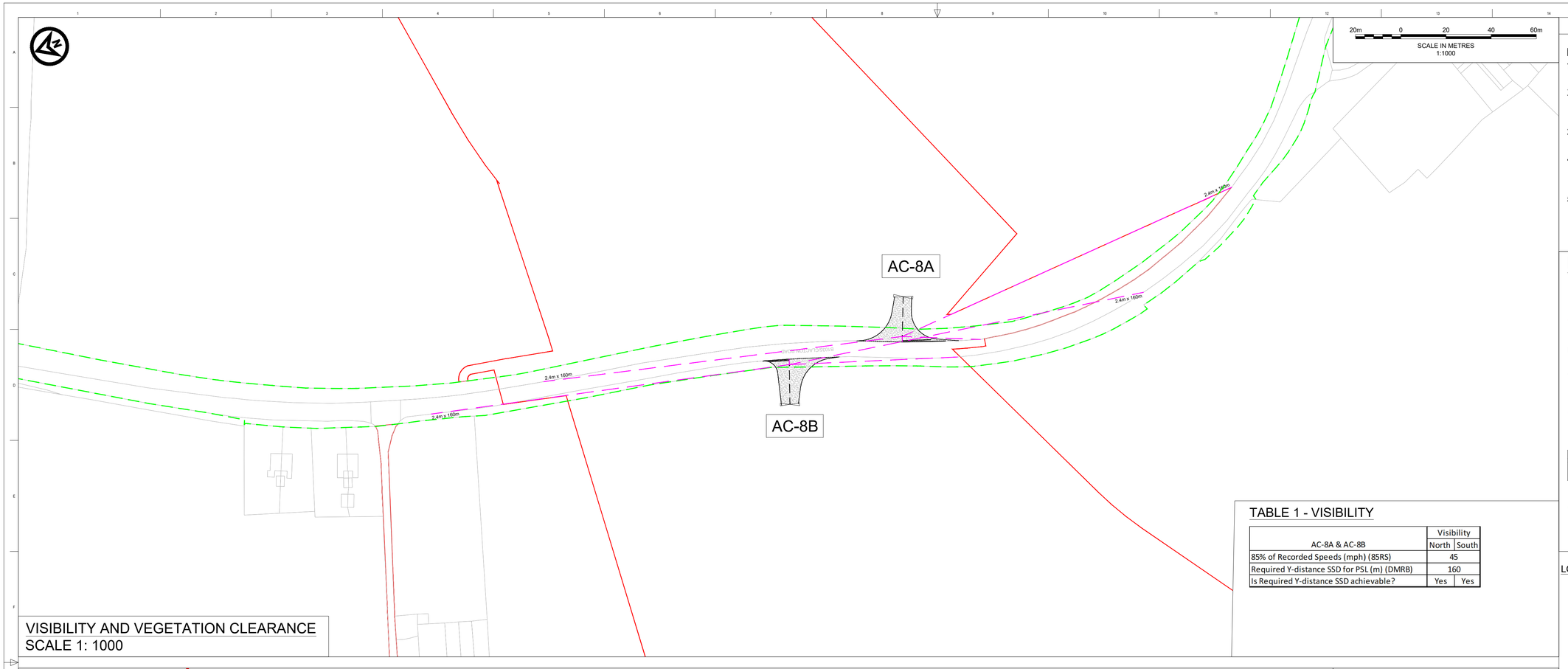
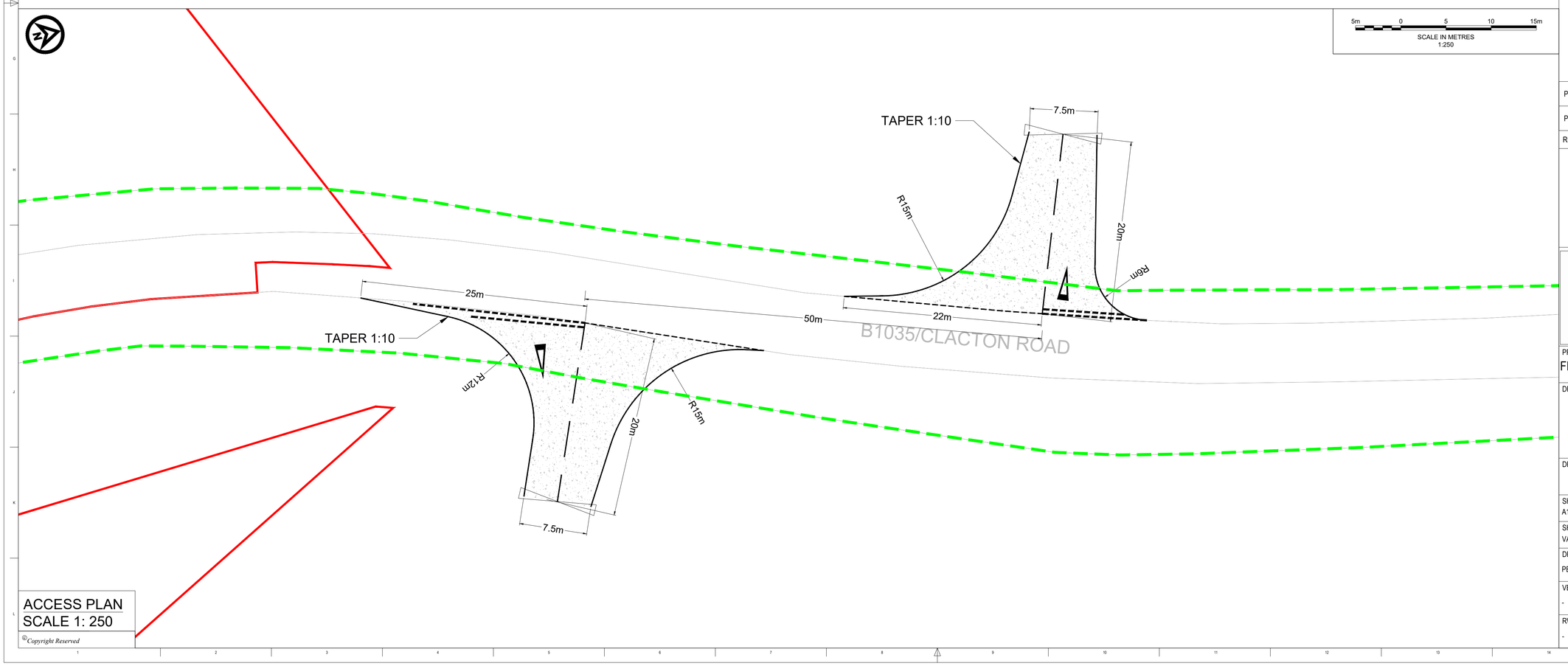
RWE ECODOC NUMBER	SHEET No / REVISION
-	1_OF_1 / -



VISIBILITY AND VEGETATION CLEARANCE
SCALE 1: 1000



ACCESS PLAN
SCALE 1: 250

DO NOT SCALE FROM THIS DRAWING

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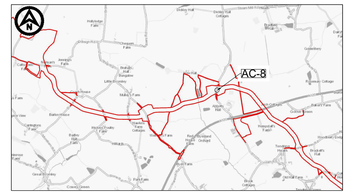
KEY

- EXISTING ARRANGEMENT
- ONSHORE RED LINE BOUNDARY
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- HIGHWAY BOUNDARY

TABLE 1 - VISIBILITY

AC-8A & AC-8B	Visibility	
	North	South
85% of Recorded Speeds (mph) (85RS)	45	
Required Y-distance SSD for PSL (m) (DMRB)	160	
Is Required Y-distance SSD achievable?	Yes	Yes

LOCATION PLAN



REV	DATE	DESCRIPTION	BY	CHK	APP
P03	18/06/2024	UPDATE TO ACCESS NUMBERING	CB	SKT	SKT
P02	02/02/2024	ORDER LIMIT AND ROAD SAFETY AUDIT UPDATES	CB	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM
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Tel +44(0)1932 569566
www.royalhaskoningdhv.com

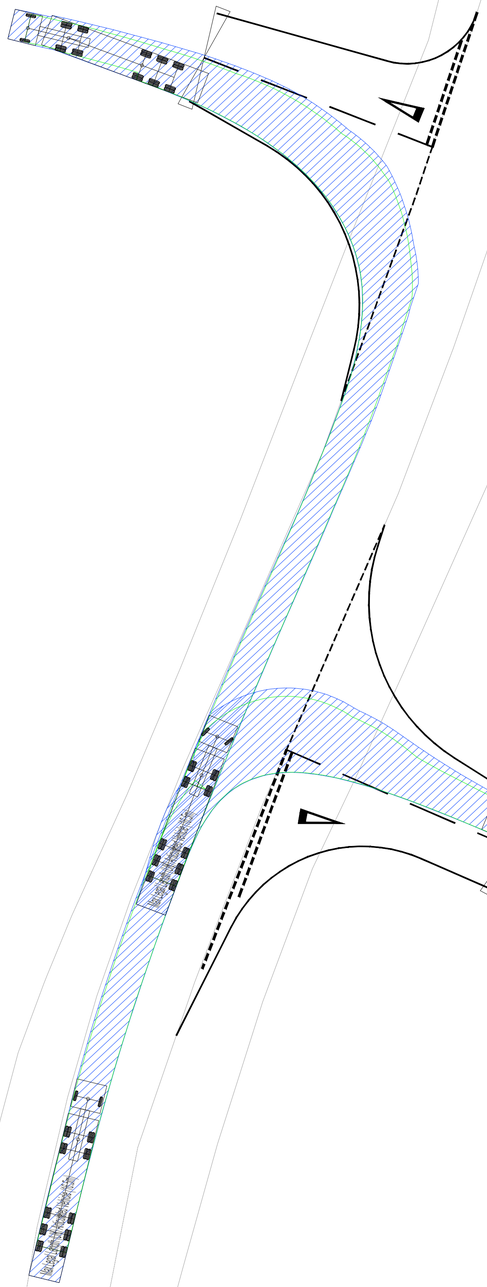
PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
AC-8A & AC-8B - B1035/CLACTON ROAD
GENERAL ARRANGEMENT

DRAWING STATUS
PLANNING

SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	07/08/2023	07/08/2023	07/08/2023	07/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0008	P02
VE DOCUMENT NUMBER	REVISION
-	-
RWE ECODOC NUMBER	SHEET No / REVISION
-	1_OF_1 / -



ALL HGV CONSTRUCTION TRAFFIC APPROACHING / EXITING TO/FROM THE SOUTH

MAX LENGTH ARTICULATED HGV INGRESS

ALL HGV CONSTRUCTION TRAFFIC APPROACHING / EXITING TO/FROM THE SOUTH

MAX LENGTH ARTICULATED HGV EGRESS

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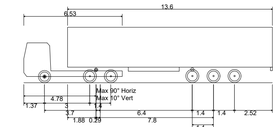
KEY

EXISTING ARRANGEMENT

PROPOSED ACCESS BOUNDARY/ROAD MARKINGS

PROPOSED GATE

VEHICLE TRACKING



Max Legal Length (UK) Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

VEHICLE BODY SWEPT PATH (FORWARD GEAR)

VEHICLE CHASIS SWEPT PATH

REV	DATE	DESCRIPTION	BY	CHK	APP
P01	06/09/2023	FIRST ISSUE	AA	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM

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PROJECT TITLE

FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE

AC-8A & AC-8B - B1035/CLACTON ROAD SWEPT PATH ANALYSIS

DRAWING STATUS

PLANNING

SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	06/09/2023	06/09/2023	06/09/2023	06/09/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0027	P01
VE DOCUMENT NUMBER	REVISION
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RWE ECODOC NUMBER	SHEET No / REVISION
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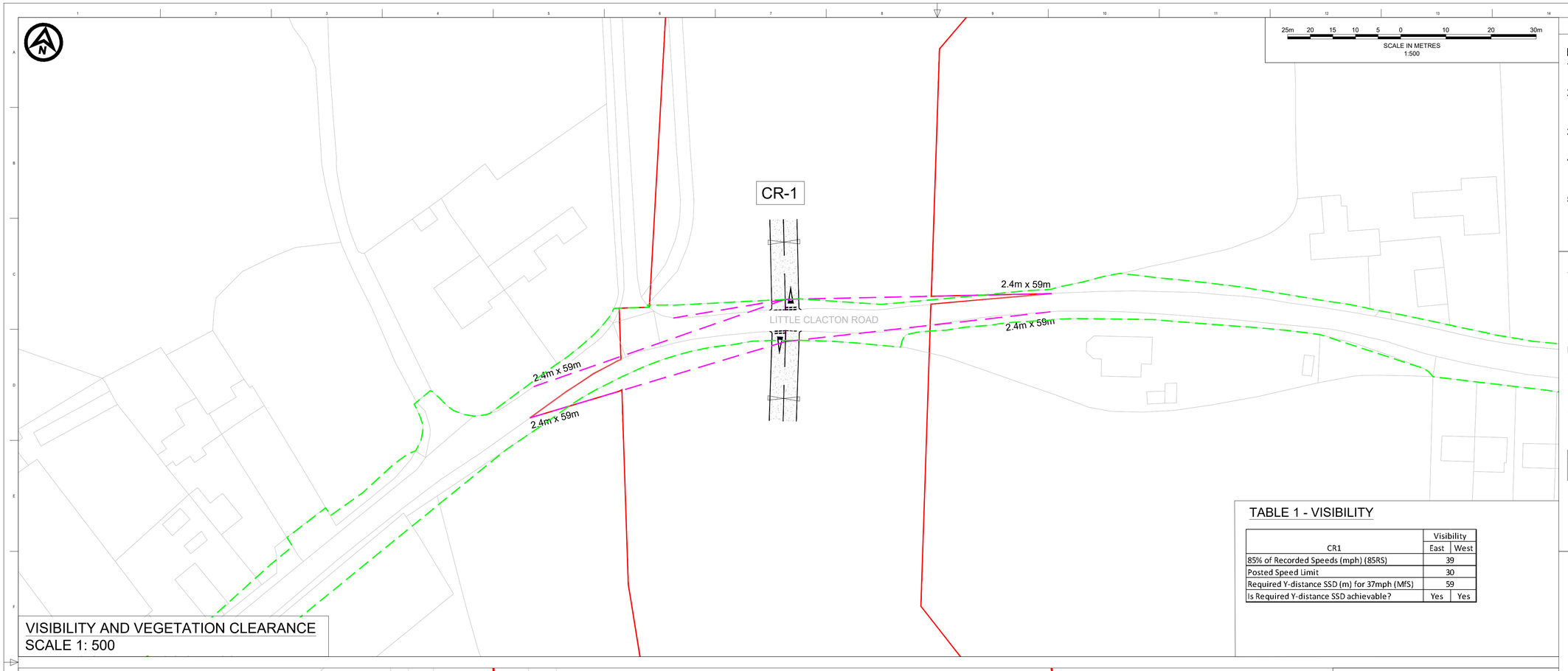
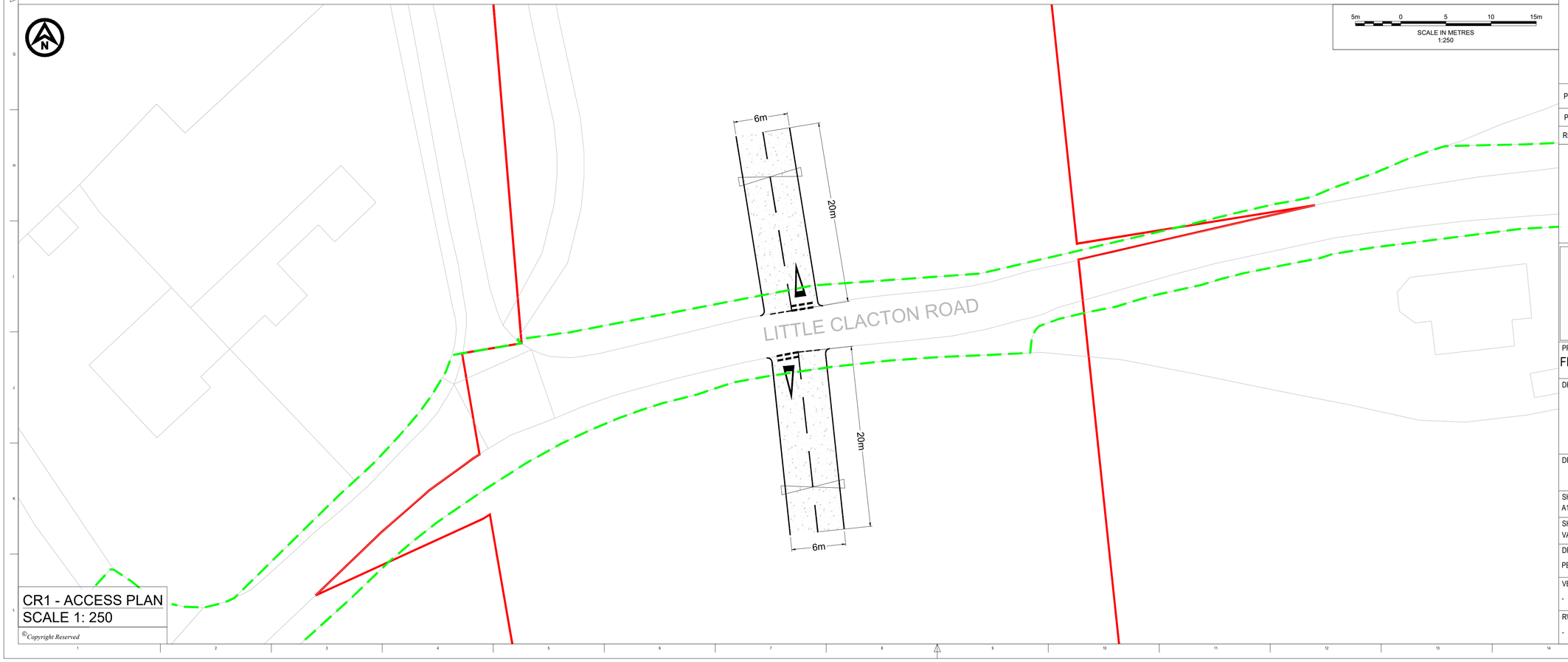


25m 20 15 10 5 0 10 20 30m
SCALE IN METRES
1:500

VISIBILITY AND VEGETATION CLEARANCE
SCALE 1: 500



5m 0 5 10 15m
SCALE IN METRES
1:250

CR1 - ACCESS PLAN
SCALE 1: 250

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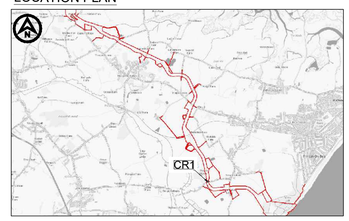
KEY

- EXISTING ARRANGEMENT
- ONSHORE RED LINE BOUNDARY
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- HIGHWAY BOUNDARY

TABLE 1 - VISIBILITY

CR1	Visibility East	Visibility West
85% of Recorded Speeds (mph) (85RS)	39	
Posted Speed Limit	30	
Required Y-distance SSD (m) for 37mph (MfS)	59	
Is Required Y-distance SSD achievable?	Yes	Yes

LOCATION PLAN



REV	DATE	DESCRIPTION	BY	CHK	APP
P02	02/02/2024	ORDER LIMIT AND ROAD SAFETY AUDIT UPDATES	CB	SKT	SKT
P01	07/08/2023	FIRST ISSUE	AA	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM
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PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
CR-1 - LITTLE CLACTON ROAD
GENERAL ARRANGEMENT

DRAWING STATUS
PLANNING

SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	07/08/2023	07/08/2023	07/08/2023	07/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0016	P02
VE DOCUMENT NUMBER	REVISION
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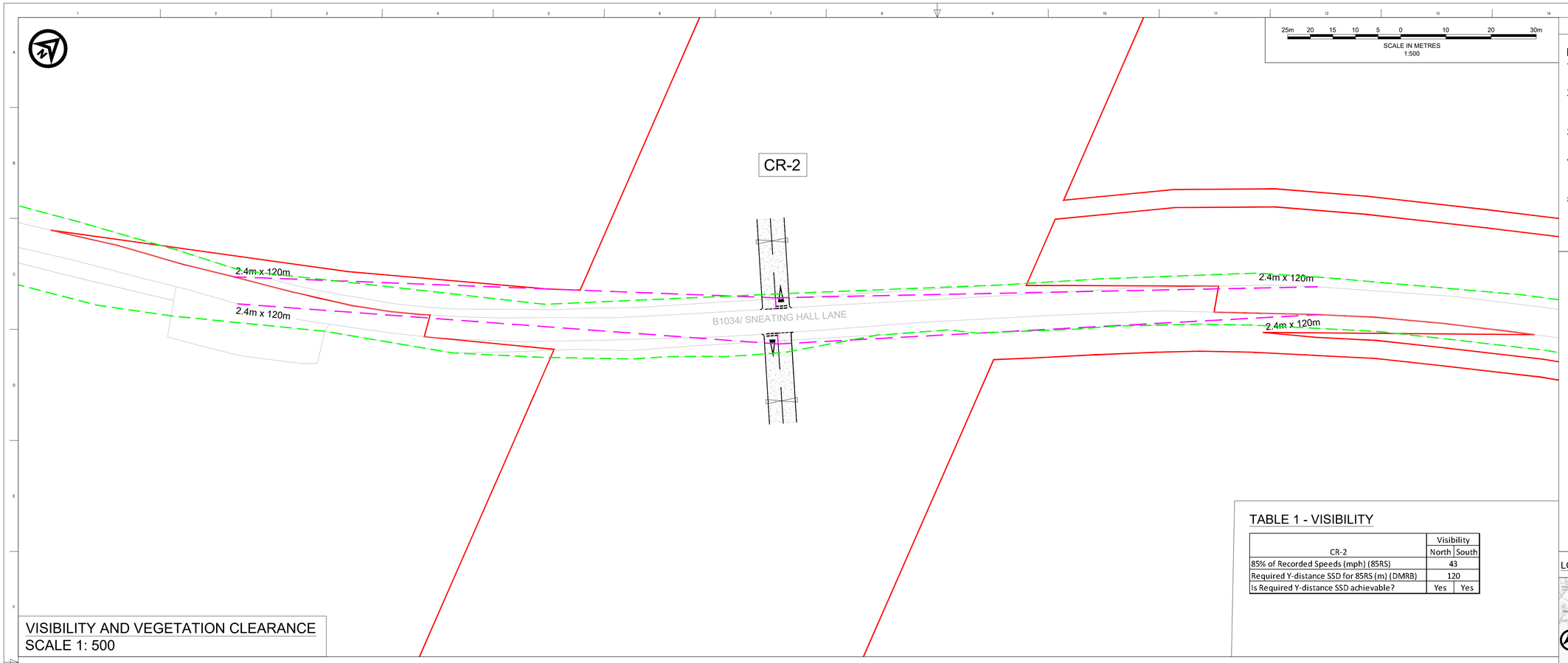
RWE ECODOC NUMBER	SHEET No / REVISION
-	1_OF_1 / -



VISIBILITY AND VEGETATION CLEARANCE
SCALE 1: 500

25m 20 15 10 5 0 10 20 30m
SCALE IN METRES
1:500

DO NOT SCALE FROM THIS DRAWING

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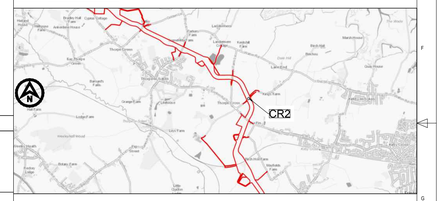
KEY

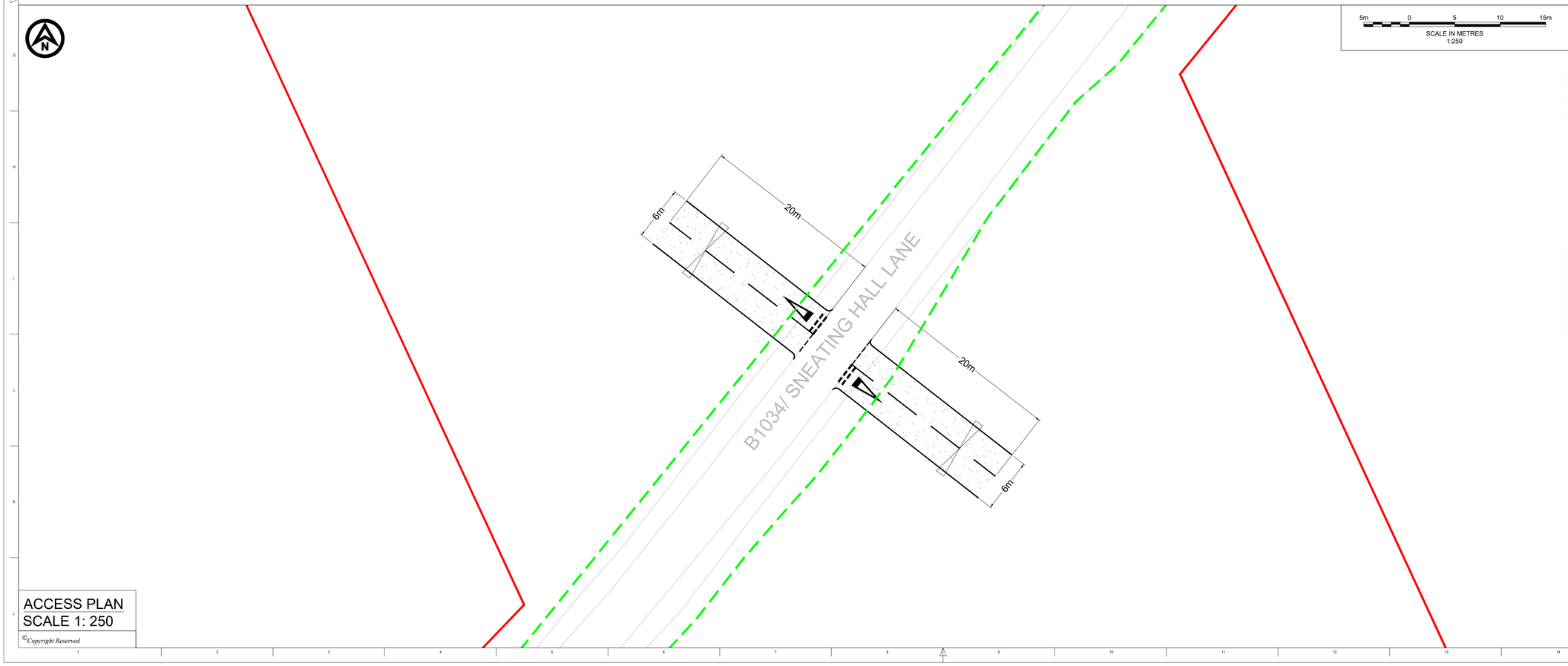
- EXISTING ARRANGEMENT
- ONSHORE RED LINE BOUNDARY
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- HIGHWAY BOUNDARY

TABLE 1 - VISIBILITY

CR-2	Visibility	
	North	South
85% of Recorded Speeds (mph) (85RS)	43	
Required Y-distance SSD for 85RS (m) (DMRB)	120	
Is Required Y-distance SSD achievable?	Yes	Yes

LOCATION PLAN





ACCESS PLAN
SCALE 1: 250

5m 0 5 10 15m
SCALE IN METRES
1:250

REV	DATE	DESCRIPTION	BY	CHK	APP
P03	02/02/2024	ORDER LIMIT AND ROAD SAFETY AUDIT UPDATES	CB	SKT	SKT
P02	09/01/2024	UPDATE TO CROSSING NUMBERING	CB	SKT	SKT
P01	07/08/2023	FIRST ISSUE	AA	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM
NORTH FALLS Offshore Wind Farm

Royal HaskoningDHV
Enhancing Society Together
Westpoint, Peterborough Business Park, Lynch Wood, Peterborough PE2 6FZ
Tel +44(0)1932 569566
www.royalhaskoningdhv.com

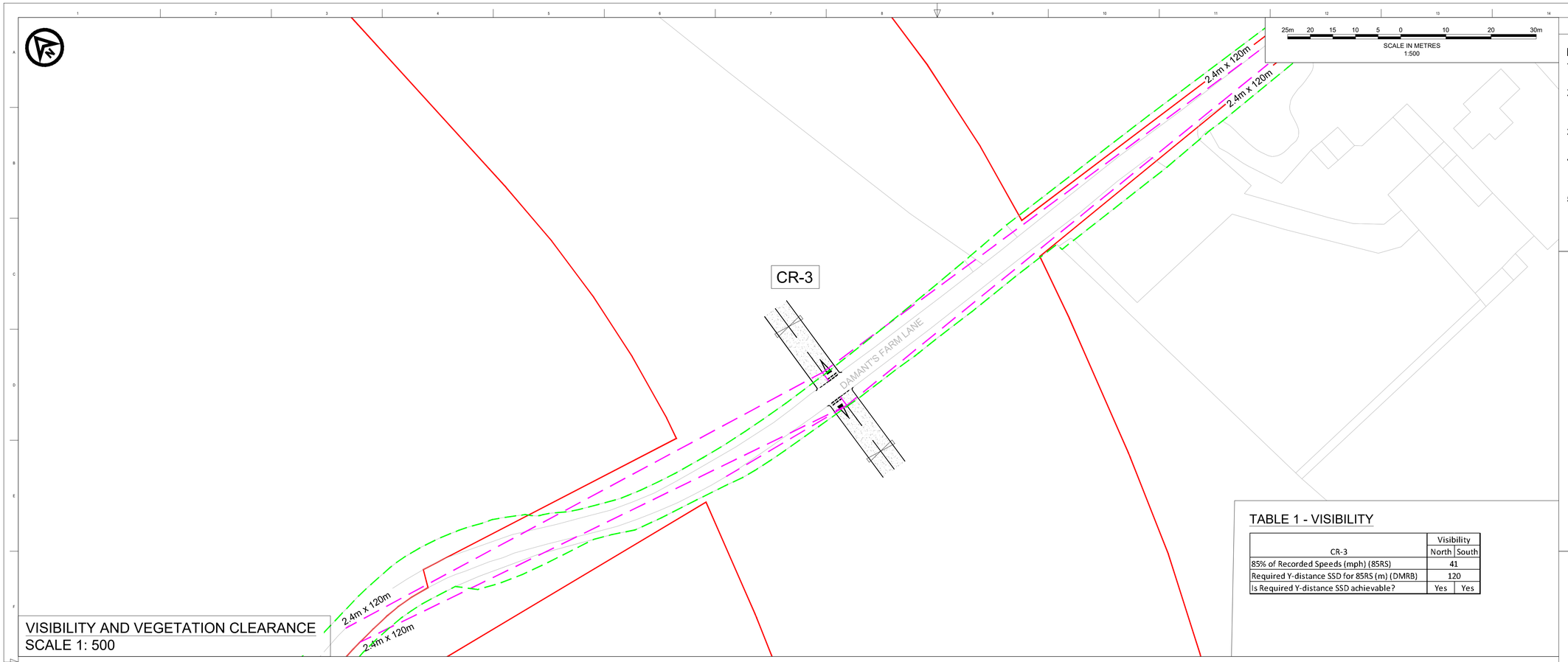
PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
CR2 - B1034/ SNEATING HALL LANE
GENERAL ARRANGEMENT

DRAWING STATUS
PLANNING

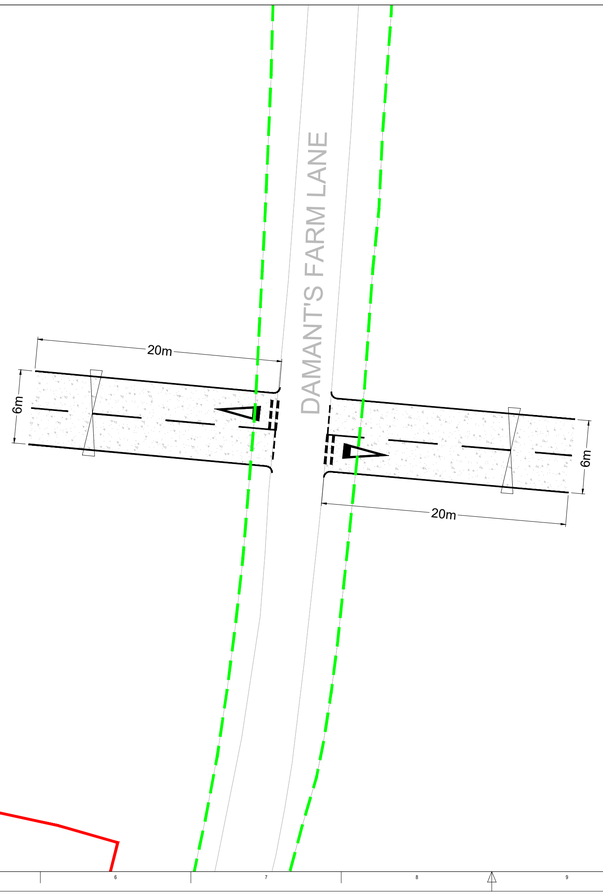
SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	07/08/2023	07/08/2023	07/08/2023	07/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0009	P03
VE DOCUMENT NUMBER	REVISION
-	-
RWE ECODOC NUMBER / SHEET No	REVISION
- / 1_OF_1	-



VISIBILITY AND VEGETATION CLEARANCE
SCALE 1: 500

25m 20 15 10 5 0 10 20 30m
SCALE IN METRES
1:500



ACCESS PLAN
SCALE 1: 250

5m 0 5 10 15m
SCALE IN METRES
1:250

DO NOT SCALE FROM THIS DRAWING

NOTES
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4. Y-Distance - the SSD measured along the nearest edge of the carriageway to its intersection with the centreline of the access.
5. All vegetation to be cleared/trimmed within identified visibility envelope and thereafter maintained in accordance with Local Highway Authority maintenance practices.

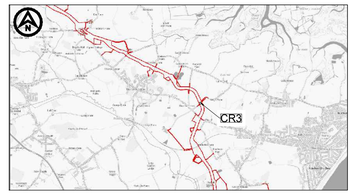
KEY

- EXISTING ARRANGEMENT
- ONSHORE RED LINE BOUNDARY
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- HIGHWAY BOUNDARY

TABLE 1 - VISIBILITY

CR-3	Visibility	
	North	South
85% of Recorded Speeds (mph) (85RS)	41	
Required Y-distance SSD for 85RS (m) (DMRB)	120	
Is Required Y-distance SSD achievable?	Yes	Yes

LOCATION PLAN



REV	DATE	DESCRIPTION	BY	CHK	APP
P03	02/02/2024	ORDER LIMIT AND ROAD SAFETY AUDIT UPDATES	CB	SKT	SKT
P02	09/01/2024	UPDATE TO CROSSING NUMBERING	CB	SKT	SKT
P01	07/08/2023	FIRST ISSUE	AA	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM
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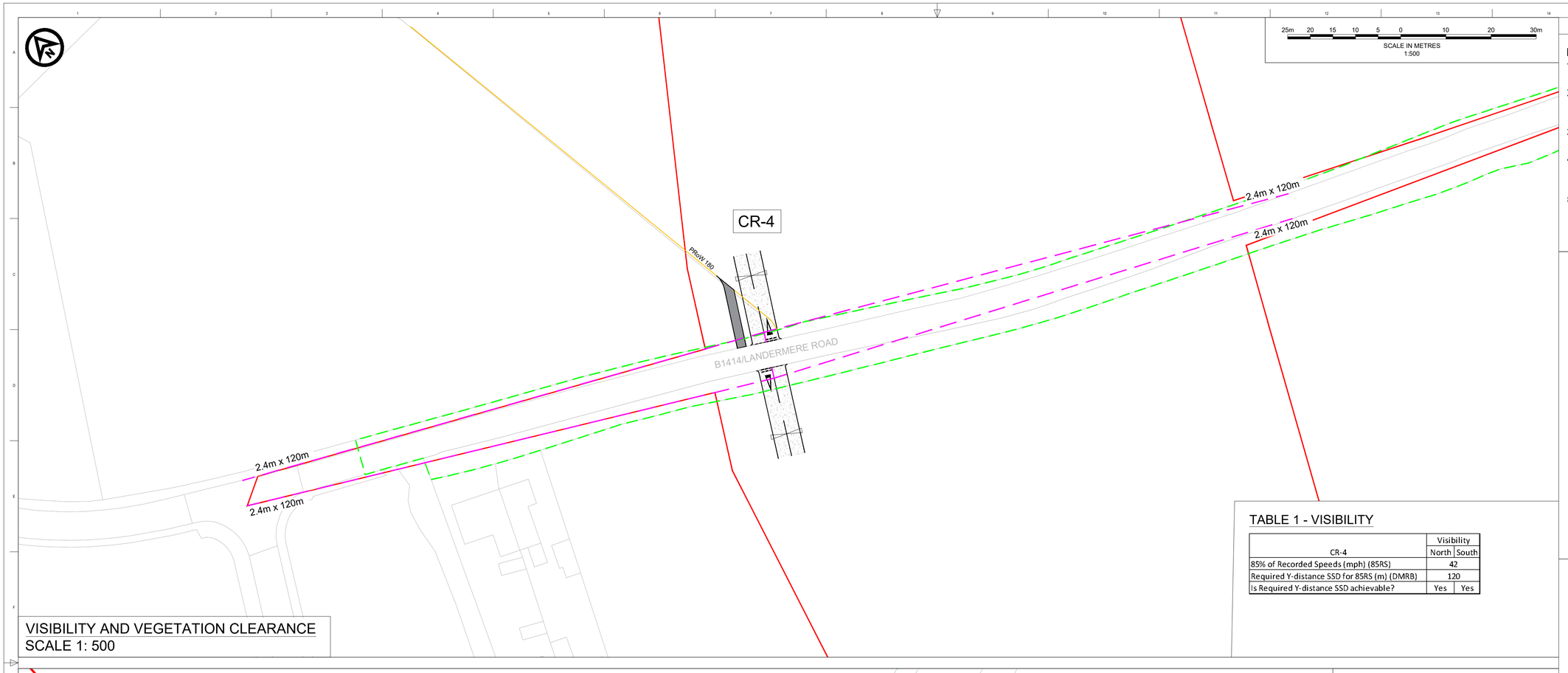
PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
CR-3 - DAMANT'S FARM LANE
GENERAL ARRANGEMENT

DRAWING STATUS
PLANNING

SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	07/08/2023	07/08/2023	07/08/2023	07/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0010	P03
VE DOCUMENT NUMBER	REVISION
-	-
RWE ECODOC NUMBER / SHEET No	REVISION
- / 1_OF_1	-



VISIBILITY AND VEGETATION CLEARANCE
SCALE 1: 500

25m 20 15 10 5 0 10 20 30m
SCALE IN METRES
1:500

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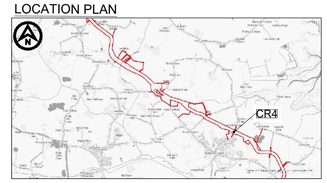
KEY

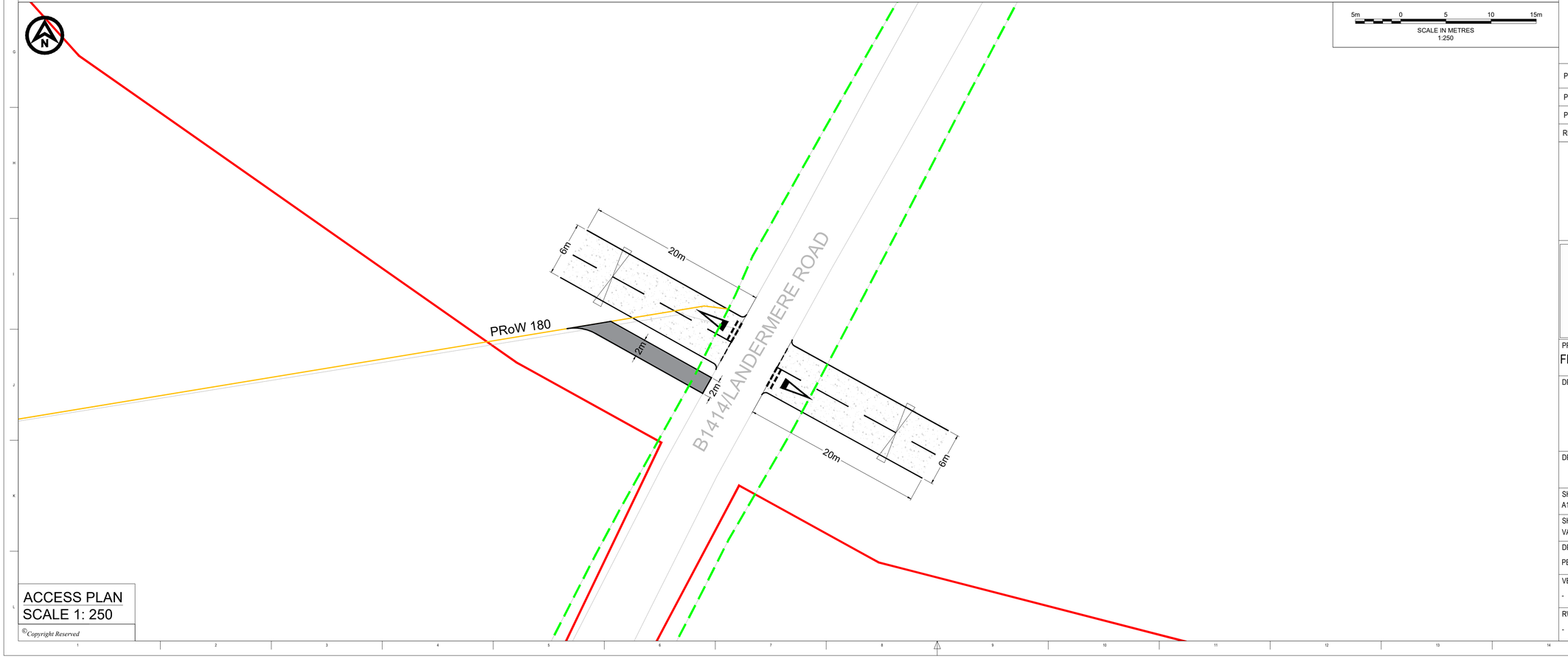
- EXISTING ARRANGEMENT
- ONSHORE CABLE CORRIDOR
- HIGHWAY BOUNDARY
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- EXISTING PUBLIC RIGHTS OF WAY
- PROPOSED TEMPORARY OFFROAD PUBLIC RIGHTS OF WAY ROUTE
- PROPOSED GATE

TABLE 1 - VISIBILITY

CR-4	Visibility North	Visibility South
85% of Recorded Speeds (mph) (85RS)	42	
Required Y-distance SSD for 85RS (m) (DMRB)	120	
Is Required Y-distance SSD achievable?	Yes	Yes

LOCATION PLAN





ACCESS PLAN
SCALE 1: 250

5m 0 5 10 15m
SCALE IN METRES
1:250

REV	DATE	DESCRIPTION	BY	CHK	APP
P04	02/02/2024	ORDER LIMIT AND ROAD SAFETY AUDIT UPDATES	CB	SKT	SKT
P03	09/01/2024	UPDATE TO CROSSING NUMBERING	CB	SKT	SKT
P02	15/11/2023	PUBLIC RIGHTS OF WAY AMENDMENTS	AA	SKT	SKT

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PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
CR-4 - B1414/LANDERMERE ROAD GENERAL ARRANGEMENT

DRAWING STATUS
PLANNING

SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	07/08/2023	07/08/2023	07/08/2023	07/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0011	P04
VE DOCUMENT NUMBER	REVISION
-	-

RWE ECODOC NUMBER	SHEET No	REVISION
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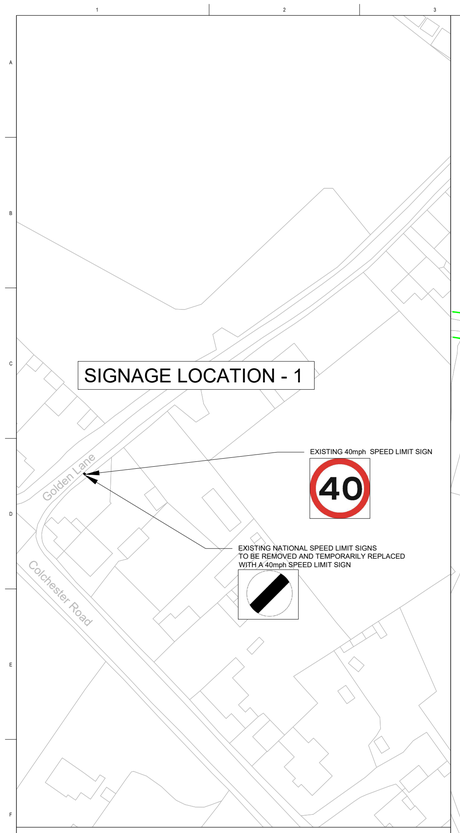
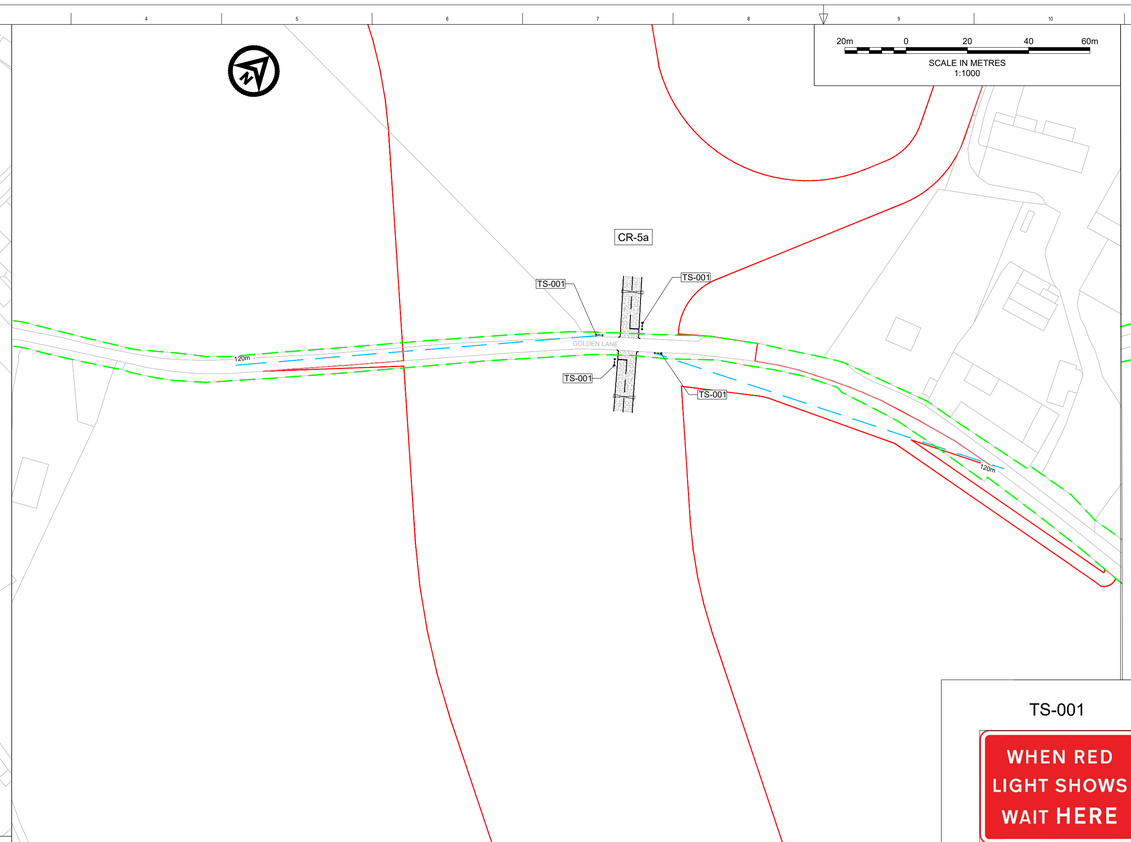
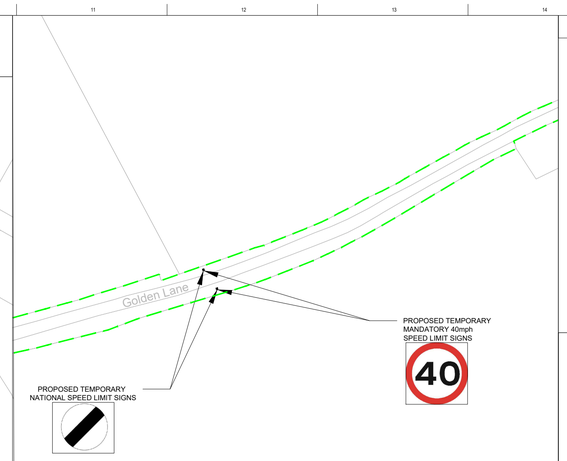


VISIBILITY AND VEGETATION CLEARANCE
SCALE 1: 1000





SIGNAGE LOCATION - 2

TS-001

TABLE 1 - VISIBILITY

CR-5a	Visibility	
	North	South
85% of Recorded Speeds (mph) (85RS)	45	
Required Y-distance SSD for 85RS (m) (DMRB)	160	
Proposed initial traffic management plan	Traffic signal control and reduced mandatory speed limit	
Proposed Reduced Speed Limit (RSL) (mph)	40	
Required Y-distance SSD for RSL (m) (DMRB)	120	
Is Required Y-distance SSD achievable?	Yes	Yes

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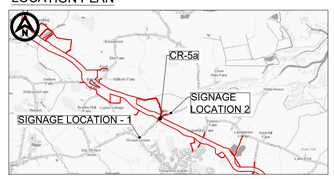
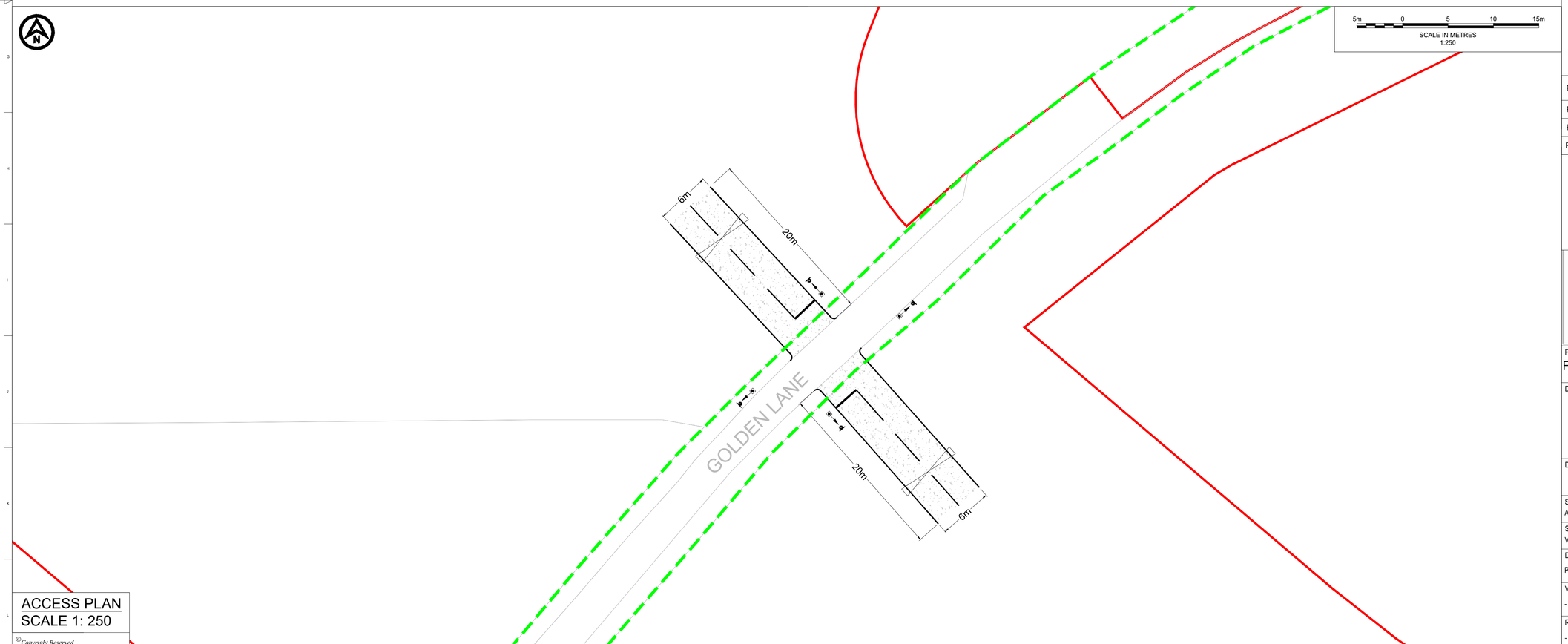
5. All vegetation to be cleared/trimmed within identified visibility envelope and thereafter maintained in accordance with Local Highway Authority maintenance practices.

KEY

- EXISTING ARRANGEMENT
- ONSHORE CABLE CORRIDOR
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- FORWARD STOPPING DISTANCE
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- HIGHWAY BOUNDARY
- PROPOSED TEMPORARY PORTABLE TRAFFIC LIGHTS
- PROPOSED TEMPORARY ROAD SIGN

LOCATION PLAN





ACCESS PLAN
SCALE 1: 250

REV	DATE	DESCRIPTION	BY	CHK	APP
P04	02/02/2024	ORDER LIMIT AND ROAD SAFETY AUDIT UPDATES	CB	SKT	SKT
P03	09/01/2024	UPDATE TO CROSSING NUMBERING	CB	SKT	SKT
P02	28/09/2023	UPDATE TO ACCESS LOCATION	CB	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM
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www.royalhaskoningdhv.com

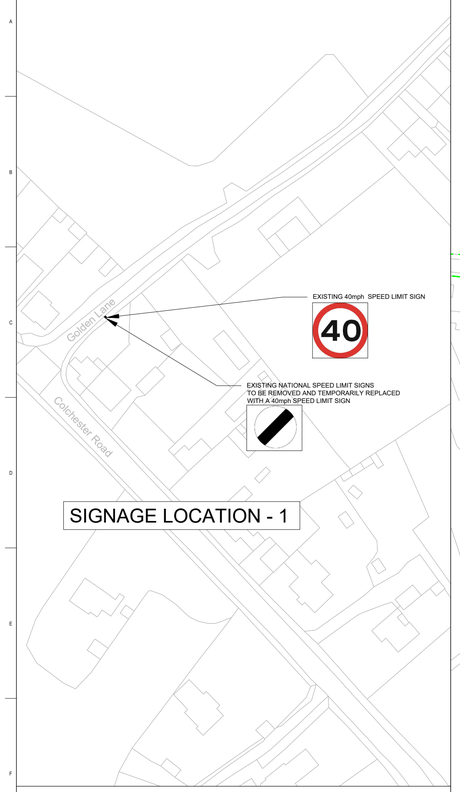
PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
CR-5a - GOLDEN LANE
GENERAL ARRANGEMENT
TRAFFIC SIGNAL OPTION

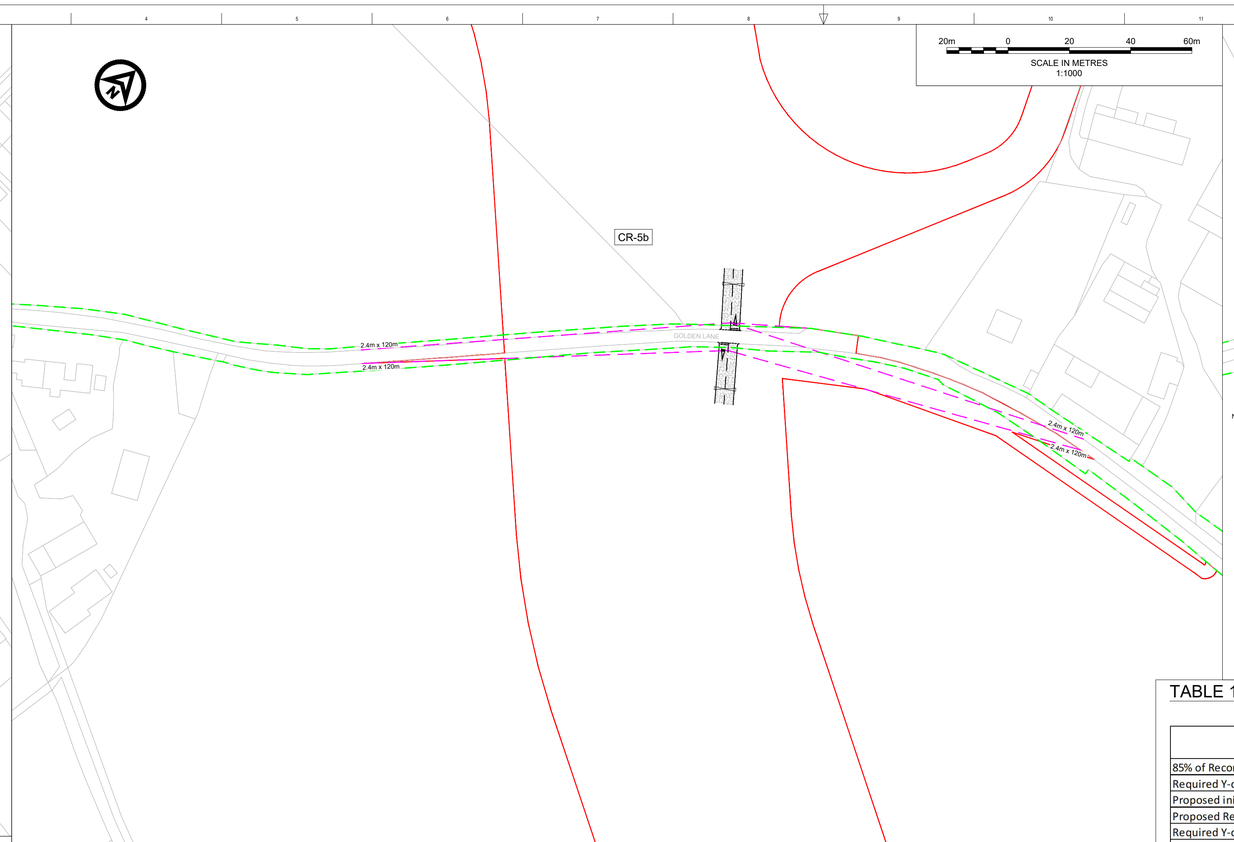
DRAWING STATUS
PLANNING

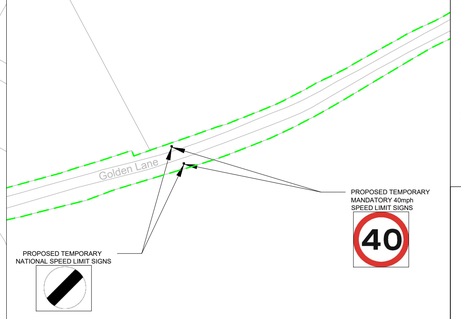
SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	07/08/2023	07/08/2023	07/08/2023	07/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0012	P04
VE DOCUMENT NUMBER	REVISION
-	-
RWE ECODOC NUMBER	SHEET No / REVISION
-	1_OF_1 / -



SIGNAGE LOCATION - 1





SIGNAGE LOCATION - 2

VISIBILITY AND VEGETATION CLEARANCE
SCALE 1: 1000

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5. All vegetation to be cleared/trimmed within identified visibility envelope and thereafter maintained in accordance with Local Highway Authority maintenance practices.

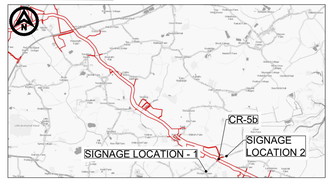
KEY

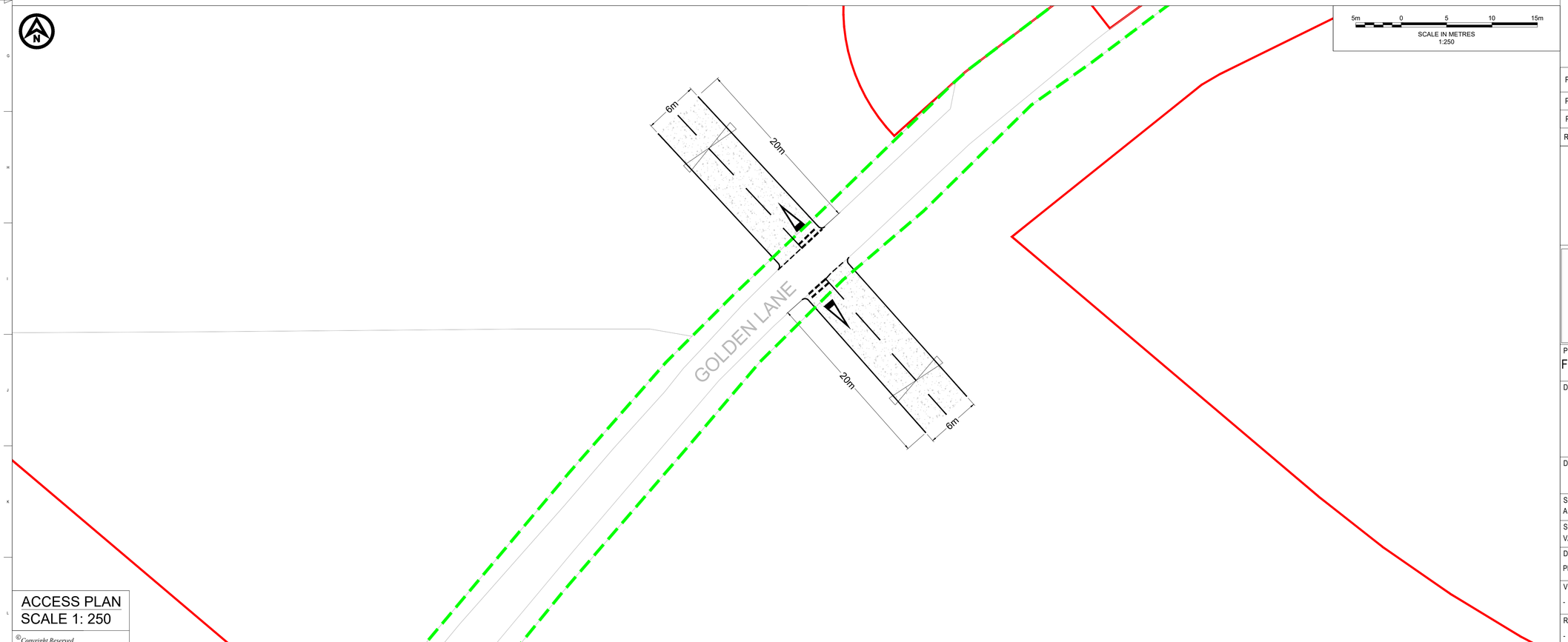
- EXISTING ARRANGEMENT
- ONSHORE CABLE CORRIDOR
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- FORWARD STOPPING DISTANCE
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- HIGHWAY BOUNDARY
- PROPOSED TEMPORARY ROAD SIGN

TABLE 1 - VISIBILITY

CR-5b	Visibility	
	North	South
85% of Recorded Speeds (mph) (85RS)	45	
Required Y-distance SSD for 85RS (m) (DMRB)	160	
Proposed initial traffic management plan	Reduced mandatory speed limit	
Proposed Reduced Speed Limit (RSL) (mph)	40	
Required Y-distance SSD for RSL (m) (DMRB)	120	
Is Required Y-distance SSD achievable?	Yes	Yes

LOCATION PLAN





ACCESS PLAN
SCALE 1: 250

REV	DATE	DESCRIPTION	BY	CHK	APP
P03	02/02/2024	ORDER LIMIT AND ROAD SAFETY AUDIT UPDATES	CB	SKT	SKT
P02	09/01/2024	UPDATE TO CROSSING NUMBERS	CB	SKT	SKT
P01	07/08/2023	FIRST ISSUE	AA	SKT	SKT

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PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
CR-5b - GOLDEN LANE
GENERAL ARRANGEMENT
PRIORITY OPTION

DRAWING STATUS
PLANNING

SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	07/08/2023	07/08/2023	07/08/2023	07/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0021	P03
VE DOCUMENT NUMBER	REVISION
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RWE ECODOC NUMBER	SHEET No / REVISION
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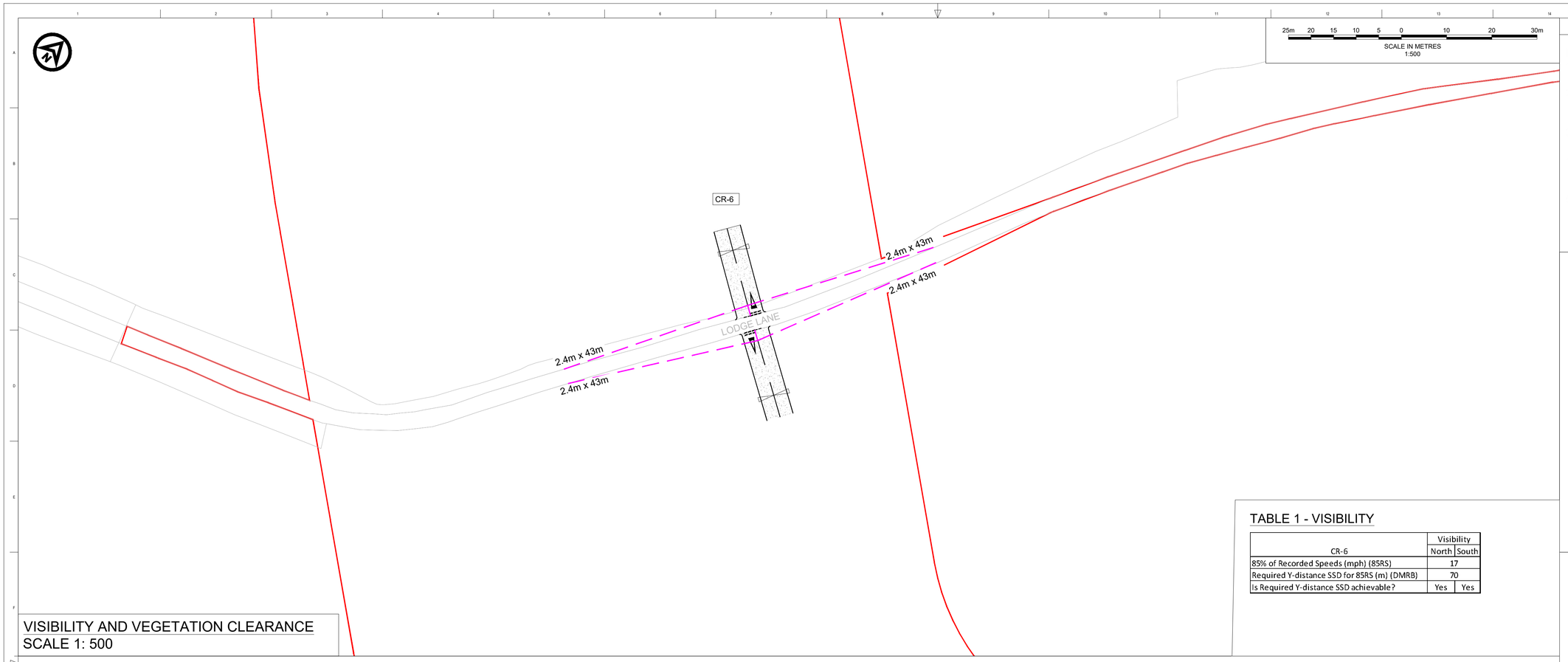

VISIBILITY AND VEGETATION CLEARANCE
SCALE 1: 500

25m 20 15 10 5 0 10 20 30m
SCALE IN METRES
1:500

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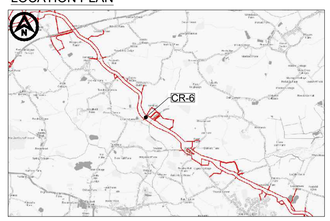
KEY

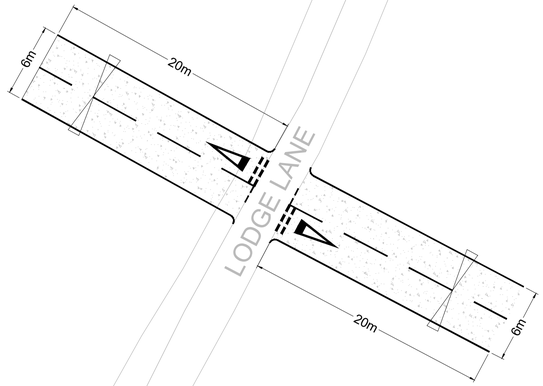
- EXISTING ARRANGEMENT
- ONSHORE RED LINE BOUNDARY
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE

TABLE 1 - VISIBILITY

CR-6	Visibility	
	North	South
85% of Recorded Speeds (mph) (85RS)	17	
Required Y-distance SSD for 85RS (m) (DMRB)	70	
Is Required Y-distance SSD achievable?	Yes	Yes

LOCATION PLAN





ACCESS PLAN
SCALE 1: 250

5m 0 5 10 15m
SCALE IN METRES
1:250

REV	DATE	DESCRIPTION	BY	CHK	APP
P03	02/02/2024	ORDER LIMIT AND ROAD SAFETY AUDIT UPDATES	CB	SKT	SKT
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P01	07/08/2023	FIRST ISSUE	AA	SKT	SKT

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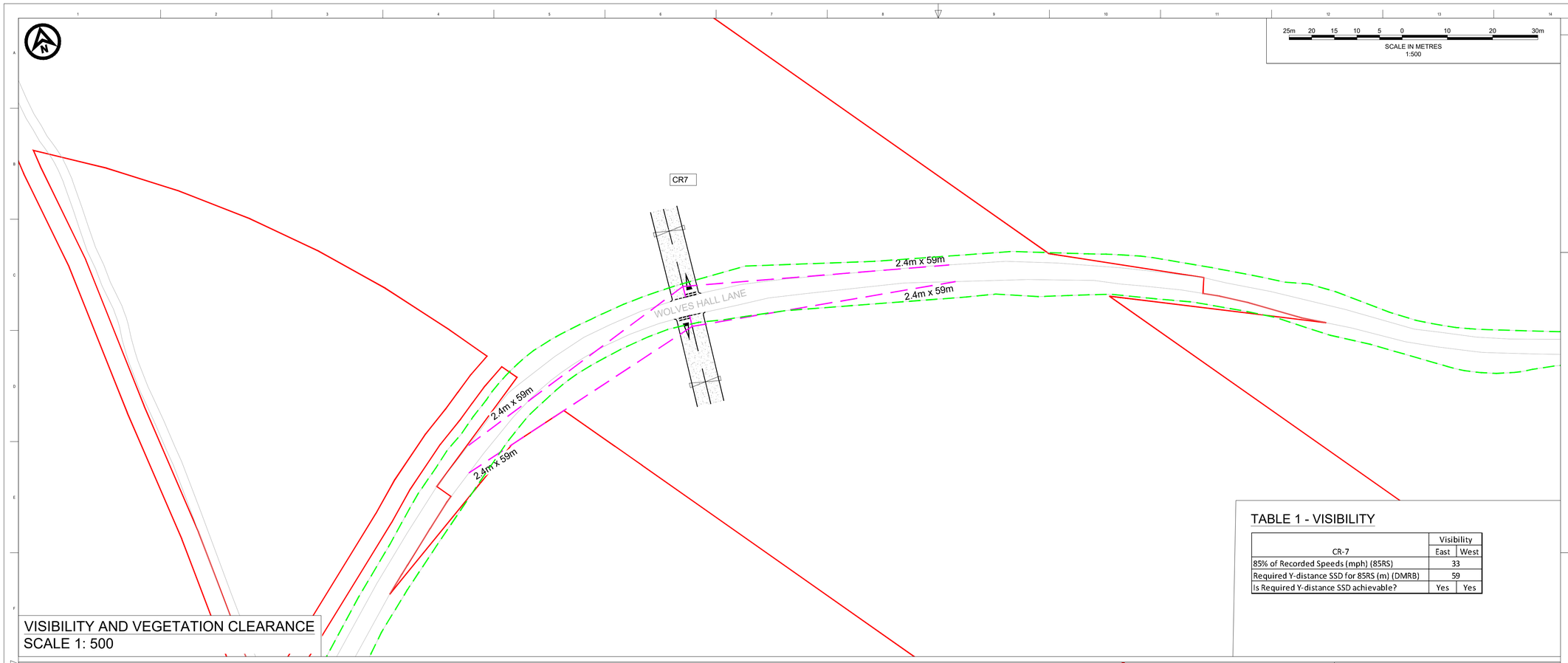
PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
CR-6 - LODGE LANE
GENERAL ARRANGEMENT

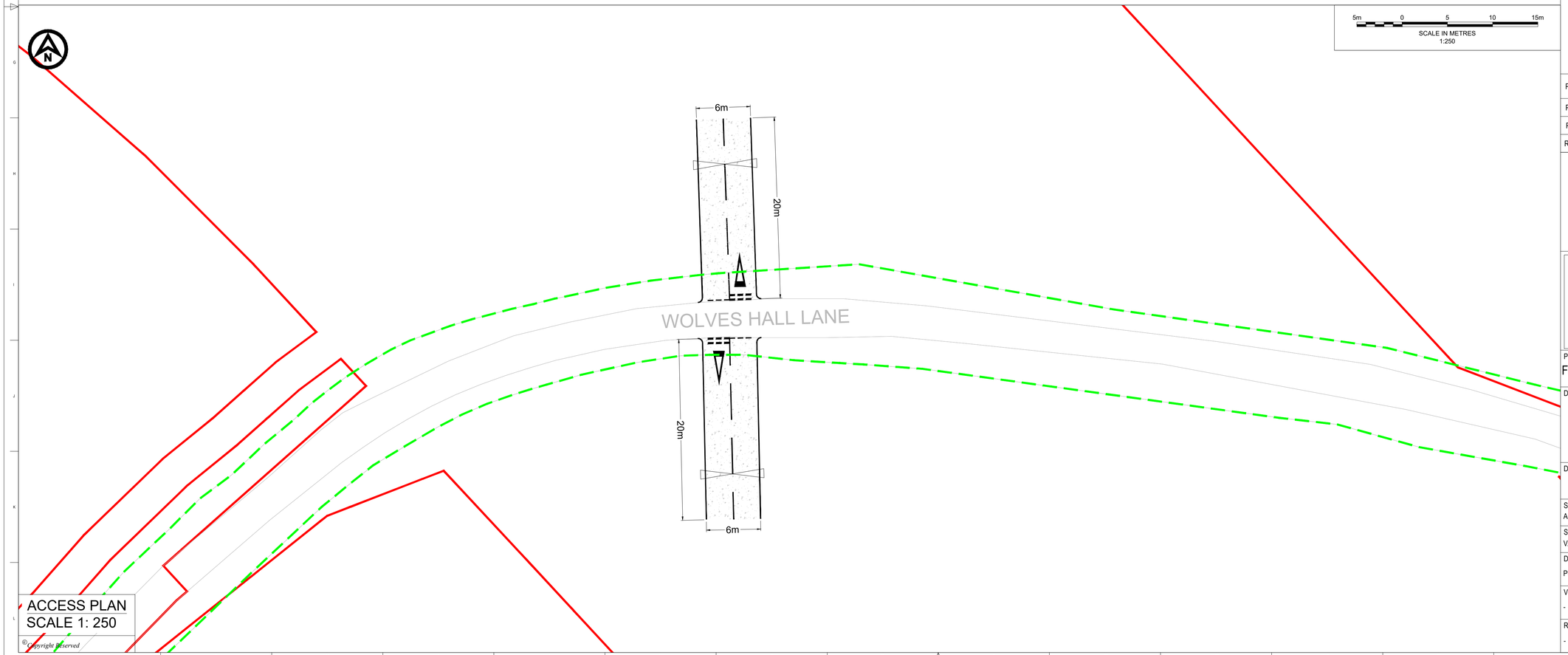
DRAWING STATUS
PLANNING

SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SRT	SRT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	07/08/2023	07/08/2023	07/08/2023	07/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0013	P03
VE DOCUMENT NUMBER	REVISION
-	-
RWE ECODOC NUMBER	SHEET No / REVISION
-	1_OF_1 / -



VISIBILITY AND VEGETATION CLEARANCE
SCALE 1: 500



ACCESS PLAN
SCALE 1: 250

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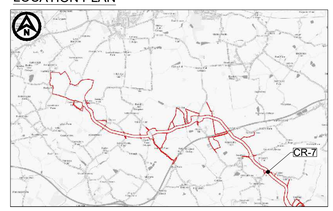
KEY

- EXISTING ARRANGEMENT
- ONSHORE RED LINE BOUNDARY
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- HIGHWAY BOUNDARY

TABLE 1 - VISIBILITY

CR-7	Visibility East	Visibility West
85% of Recorded Speeds (mph) (85RS)	33	
Required Y-distance SSD for 85RS (m) (DMRB)	59	
Is Required Y-distance SSD achievable?	Yes	Yes

LOCATION PLAN



REV	DATE	DESCRIPTION	BY	CHK	APP
P03	02/02/2024	ORDER LIMIT AND ROAD SAFETY AUDIT UPDATES	CB	SKT	SKT
P02	09/01/2024	UPDATE TO CROSSING NUMBERING	CB	SKT	SKT
P01	07/08/2023	FIRST ISSUE	AA	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM
NORTH FALLS Offshore Wind Farm

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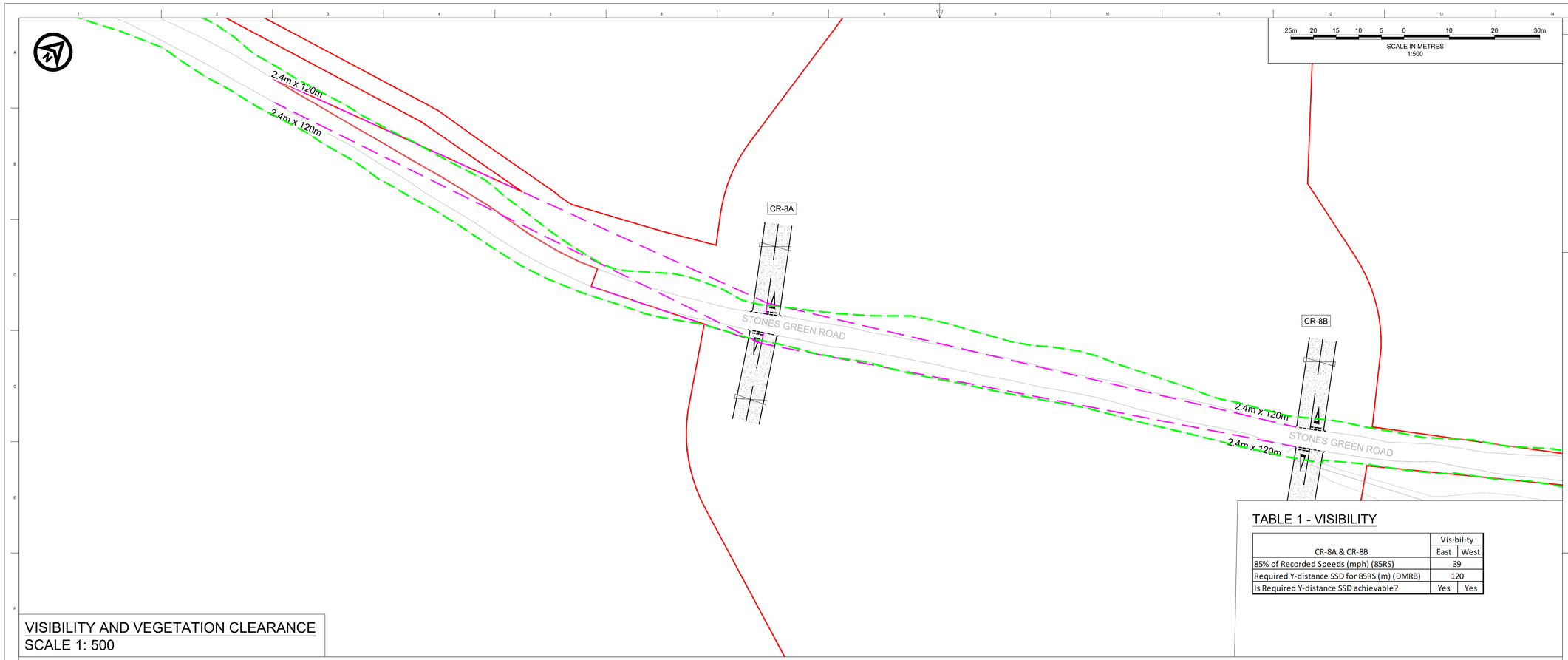
PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
CR-7 - WOLVES HALL LANE
GENERAL ARRANGEMENT

DRAWING STATUS
PLANNING

SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	07/08/2023	07/08/2023	07/08/2023	07/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0019	P03
VE DOCUMENT NUMBER	REVISION
-	-
RWE ECODOC NUMBER	SHEET No / REVISION
-	1_OF_1 / -



VISIBILITY AND VEGETATION CLEARANCE
SCALE 1: 500

25m 20 15 10 5 0 10 20 30m
SCALE IN METRES
1:500

DO NOT SCALE FROM THIS DRAWING

NOTES
1. Do not scale from this drawing. all dimensions are in metres unless noted otherwise.
2. This drawing has been based upon Ordnance Survey Maps and Royal HaskoningDHV can not guarentee the accuracy of data.
3. X-distance - the set back from the nearest edge of the carriageway from which the access will be taken.
4. Y-Distance - the SSD measured along the nearest edge of the carriageway to its intersection with the centreline of the access.
5. All vegetation to be cleared/trimmed within identified visibility envelope and thereafter maintained in accordance with Local Highway Authority maintenance practices.

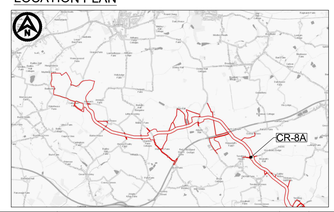
KEY

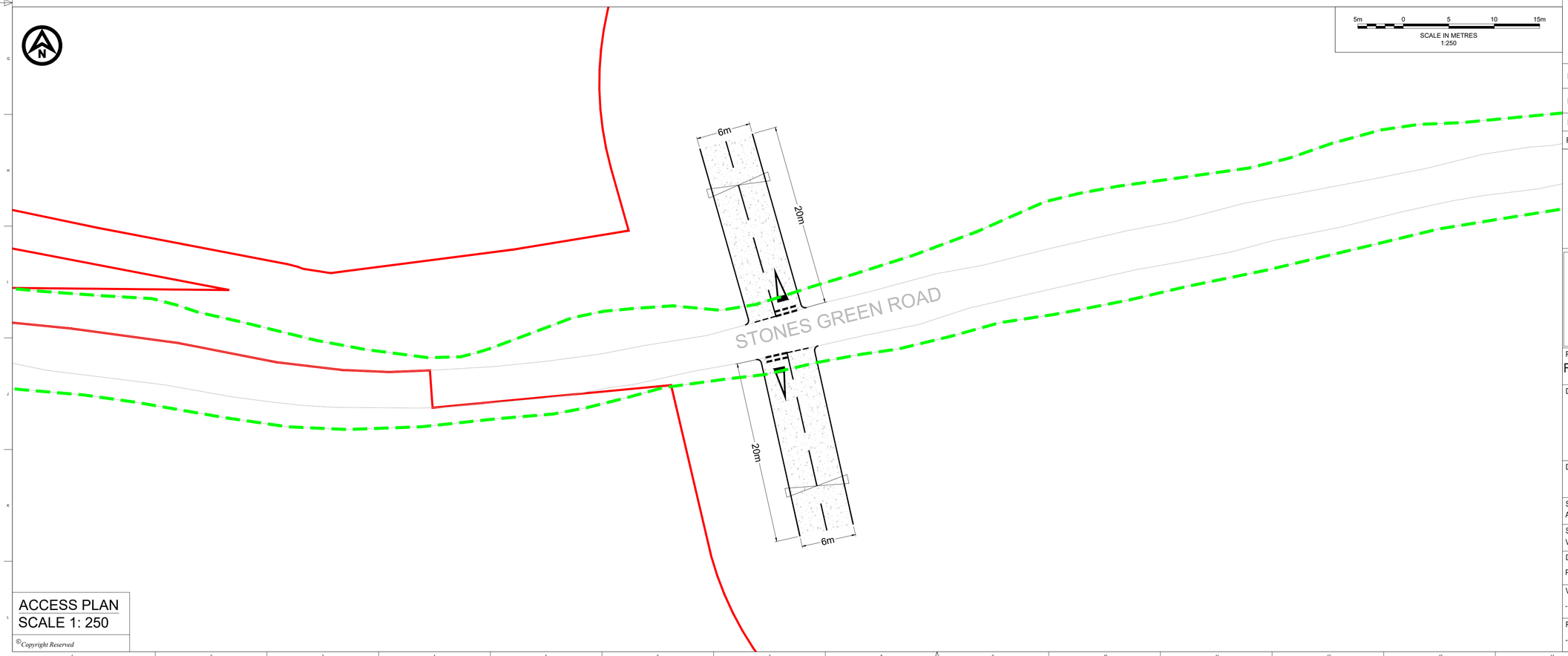
- EXISTING ARRANGEMENT
- ONSHORE RED LINE BOUNDARY
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- HIGHWAY BOUNDARY

TABLE 1 - VISIBILITY

CR-8A & CR-8B	Visibility	
	East	West
85% of Recorded Speeds (mph) (85RS)	39	
Required Y-distance SSD for 85RS (m) (DMRB)	120	
Is Required Y-distance SSD achievable?	Yes	Yes

LOCATION PLAN





ACCESS PLAN
SCALE 1: 250

5m 0 5 10 15m
SCALE IN METRES
1:250

REV	DATE	DESCRIPTION	BY	CHK	APP
P04	18/06/2024	UPDATED CROSSING NUMBERING	CB	SKT	SKT
P03	02/02/2024	ORDER LIMIT AND ROAD SAFETY AUDIT UPDATES	CB	SKT	SKT
P02	09/01/2024	UPDATE TO CROSSING NUMBERING	CB	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM
NORTH FALLS Offshore Wind Farm

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Westpoint, Peterborough Business Park, Lynch Wood, Peterborough PE2 6FZ
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www.royalhaskoningdhv.com

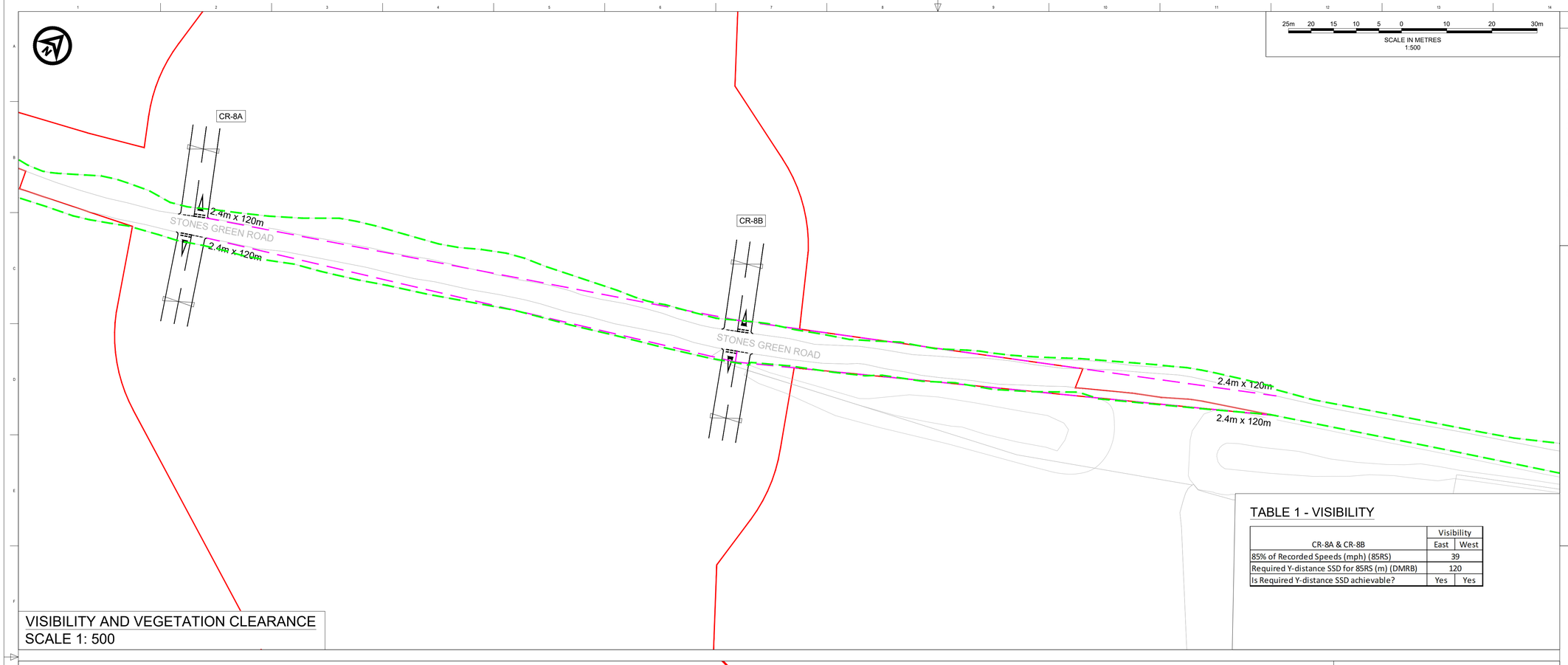
PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
CR-8A - STONES GREEN ROAD
GENERAL ARRANGEMENT

DRAWING STATUS
PLANNING

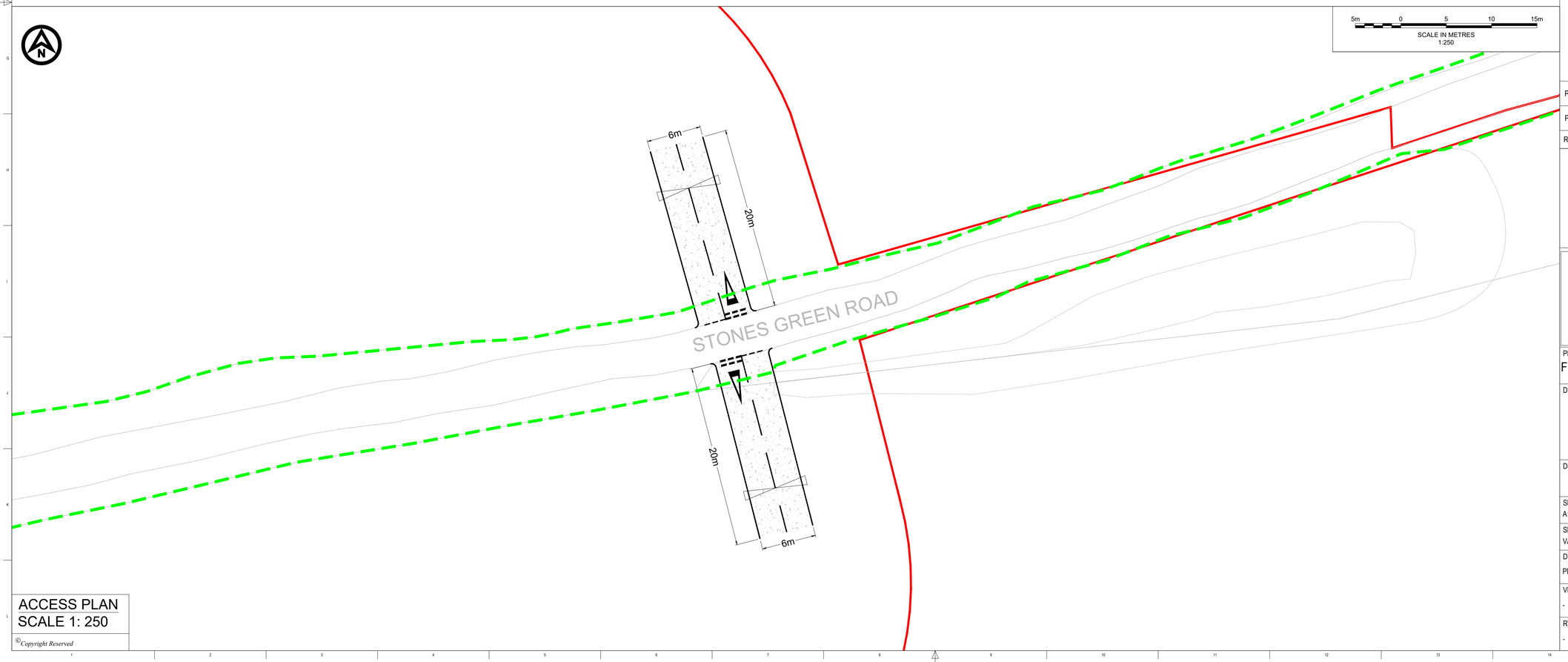
SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	07/08/2023	07/08/2023	07/08/2023	07/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0014	P04
VE DOCUMENT NUMBER	REVISION
-	-
RWE ECODOC NUMBER	SHEET No / REVISION
-	1_OF_1 / -



VISIBILITY AND VEGETATION CLEARANCE
SCALE 1: 500

25m 20 15 10 5 0 10 20 30m
SCALE IN METRES
1:500



ACCESS PLAN
SCALE 1: 250

5m 0 5 10 15m
SCALE IN METRES
1:250

DO NOT SCALE FROM THIS DRAWING

NOTES
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3. X-distance - the set back from the nearest edge of the carriageway from which the access will be taken.
4. Y-Distance - the SSD measured along the nearest edge of the carriageway to its intersection with the centreline of the access.
5. All vegetation to be cleared/trimmed within identified visibility envelope and thereafter maintained in accordance with Local Highway Authority maintenance practices.

KEY

- EXISTING ARRANGEMENT
- ONSHORE RED LINE BOUNDARY
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- HIGHWAY BOUNDARY

TABLE 1 - VISIBILITY

CR-8A & CR-8B	Visibility	
	East	West
85% of Recorded Speeds (mph) (85RS)	39	
Required Y-distance SSD for 85RS (m) (DMRB)	120	
Is Required Y-distance SSD achievable?	Yes	Yes

LOCATION PLAN

REV	DATE	DESCRIPTION	BY	CHK	APP
P03	18/06/2024	UPDATED NUMBERING	CB	SKT	SKT
P02	02/02/2024	ORDER LIMIT AND ROAD SAFETY AUDIT UPDATES	CB	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM
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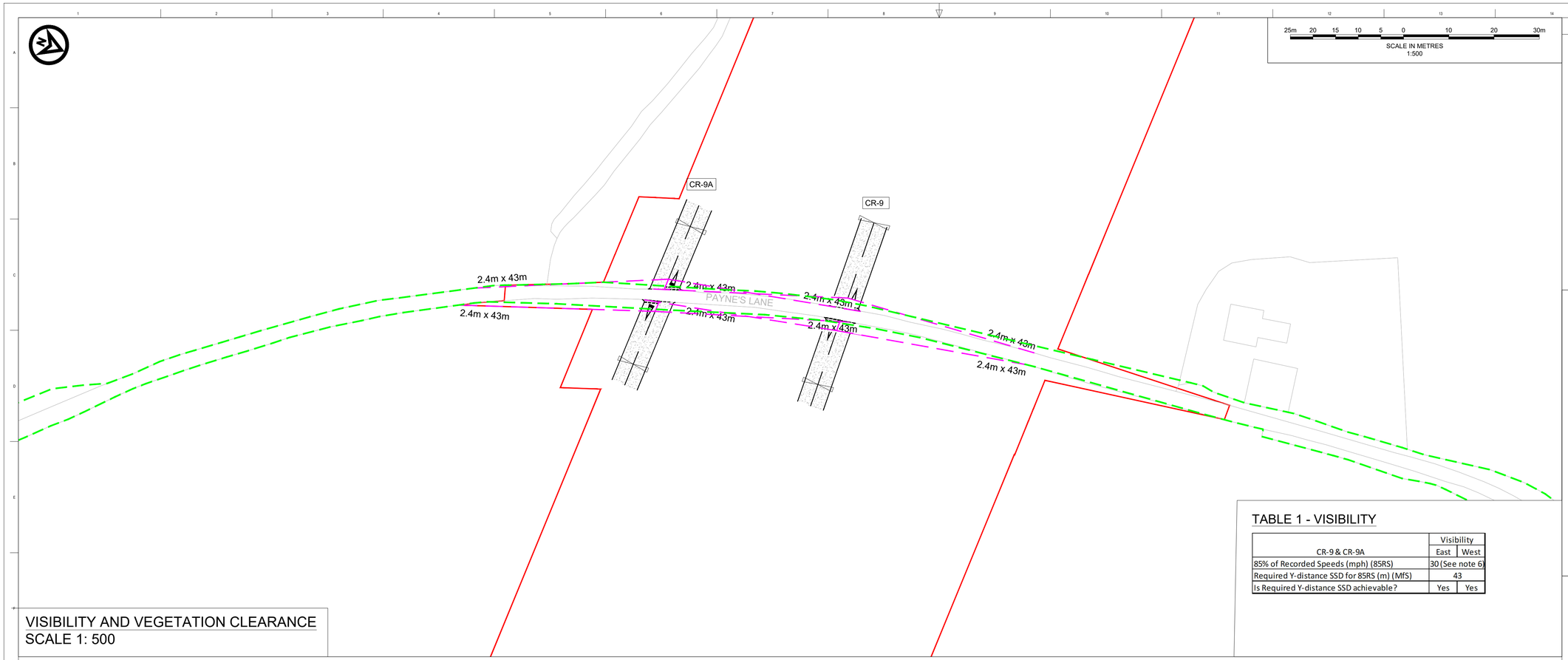
PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
CR-8B - STONES GREEN ROAD
GENERAL ARRANGEMENT

DRAWING STATUS
PLANNING

SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	07/08/2023	07/08/2023	07/08/2023	07/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0020	P02
VE DOCUMENT NUMBER	REVISION
-	-
RWE ECODOC NUMBER	SHEET No / REVISION
-	1_OF_1 / -



25m 20 15 10 5 0 10 20 30m
SCALE IN METRES
1:500

VISIBILITY AND VEGETATION CLEARANCE
SCALE 1: 500

TABLE 1 - VISIBILITY

	Visibility	
CR-9 & CR-9A	East	West
85% of Recorded Speeds (mph) (85RS)	30 (See note 6)	
Required Y-distance SSD for 85RS (m) (MfS)	43	
Is Required Y-distance SSD achievable?	Yes	Yes

DO NOT SCALE FROM THIS DRAWING

NOTES
1. Do not scale from this drawing. all dimensions are in metres unless noted otherwise.
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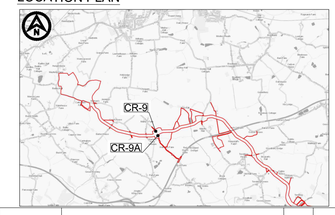
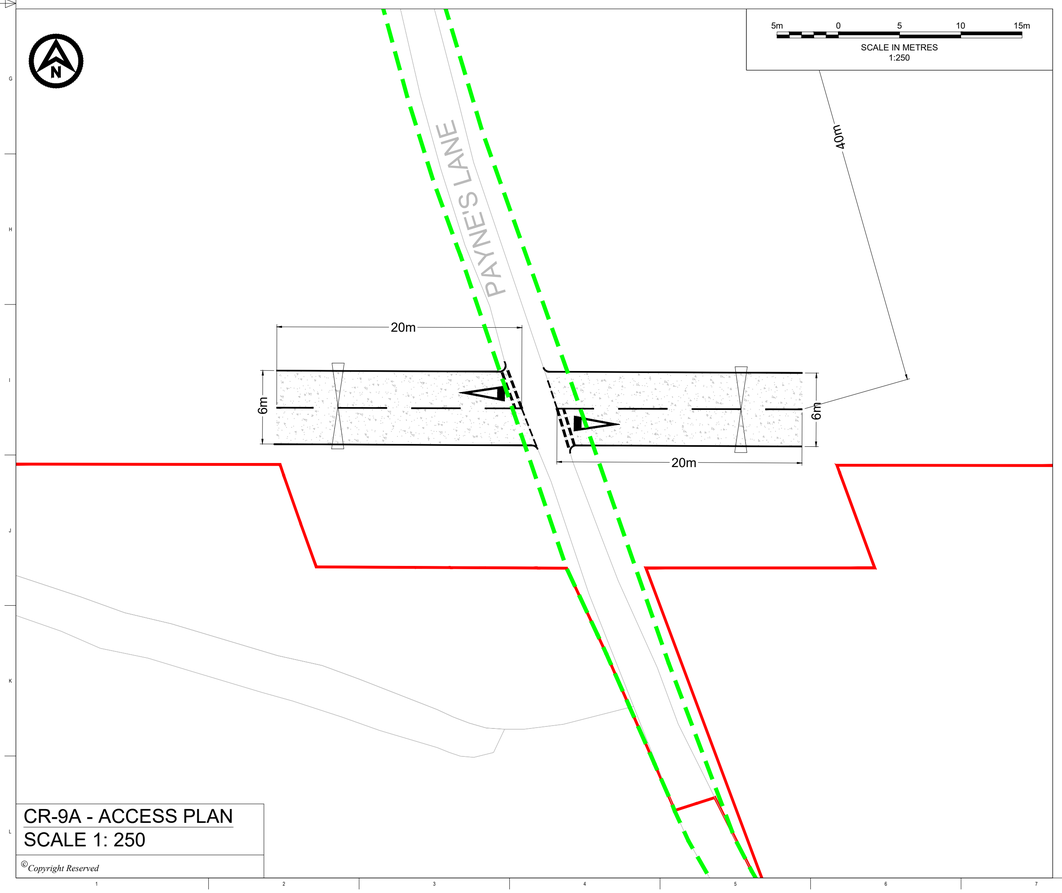
4. Y-Distance - the SSD measured along the nearest edge of the carriageway to its intersection with the centreline of the access.
5. All vegetation to be cleared/trimmed within identified visibility envelope and thereafter maintained in accordance with Local Highway Authority maintenance practices.
6. Reduced speed limit and Manual for Streets (MfS) visibility splays have been taken into account considering the geometry of the existing road.

KEY

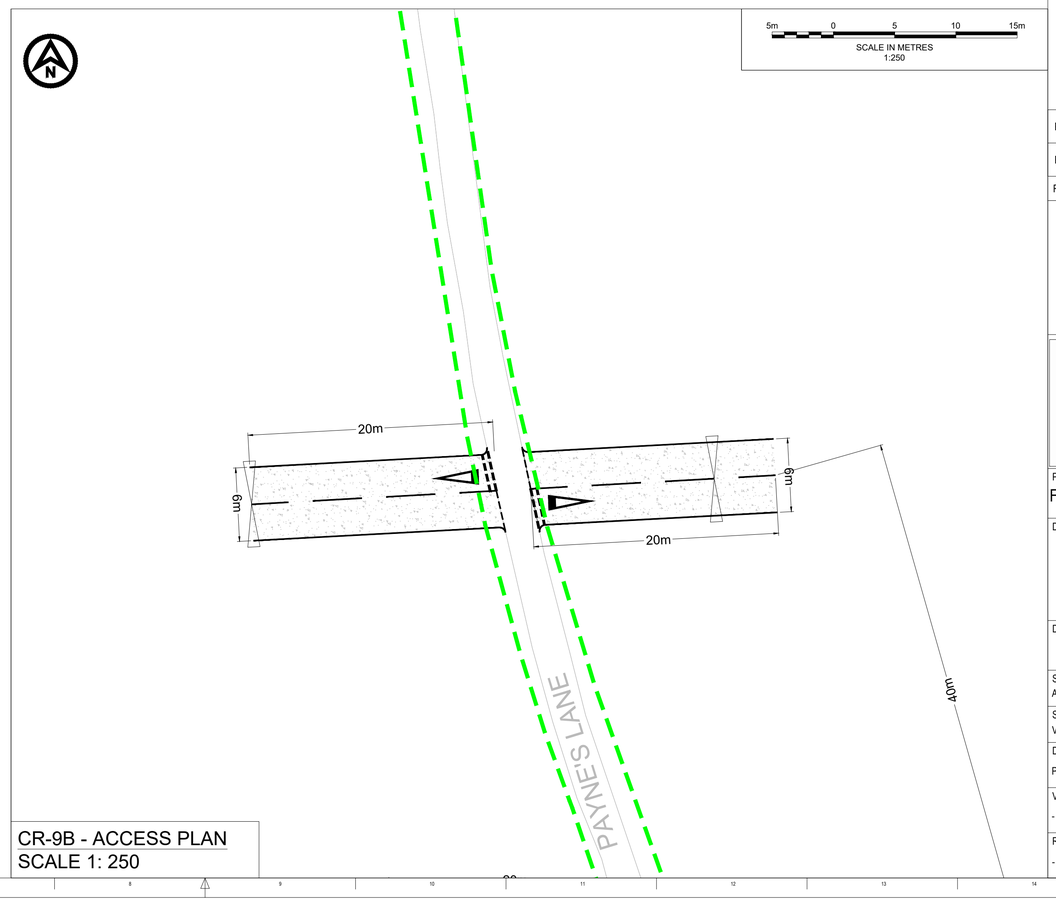
- EXISTING ARRANGEMENT
- ONSHORE RED LINE BOUNDARY
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- HIGHWAY BOUNDARY

LOCATION PLAN





CR-9A - ACCESS PLAN
SCALE 1: 250



CR-9B - ACCESS PLAN
SCALE 1: 250

REV	DATE	DESCRIPTION	BY	CHK	APP
P03	18/06/2024	UPDATED CROSSING NUMBERING	CB	SKT	SKT
P02	02/02/2024	ORDER LIMIT AND ROAD SAFETY AUDIT UPDATES	CB	SKT	SKT

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www.royalhaskoningdhv.com

PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

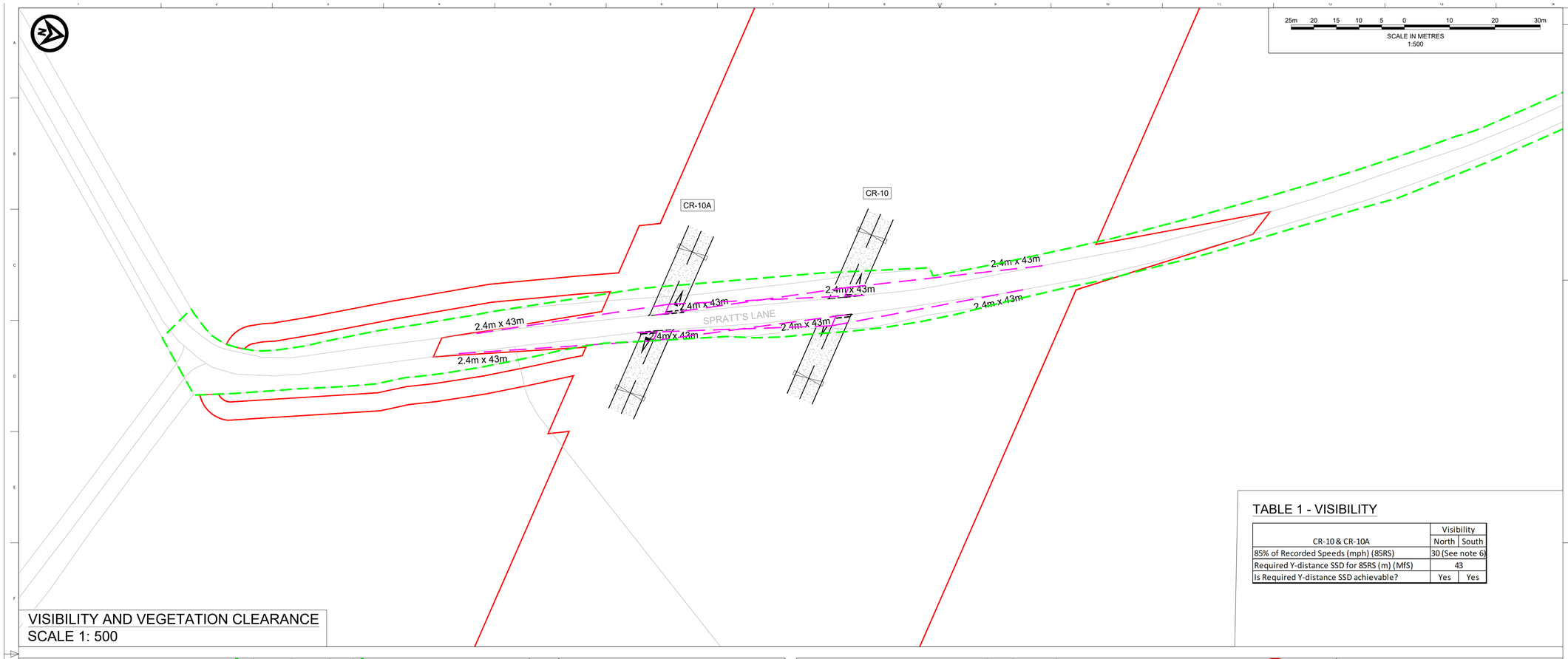
DRAWING TITLE
CR-9 & CR-9A - PAYNE'S LANE
GENERAL ARRANGEMENT

DRAWING STATUS
PLANNING

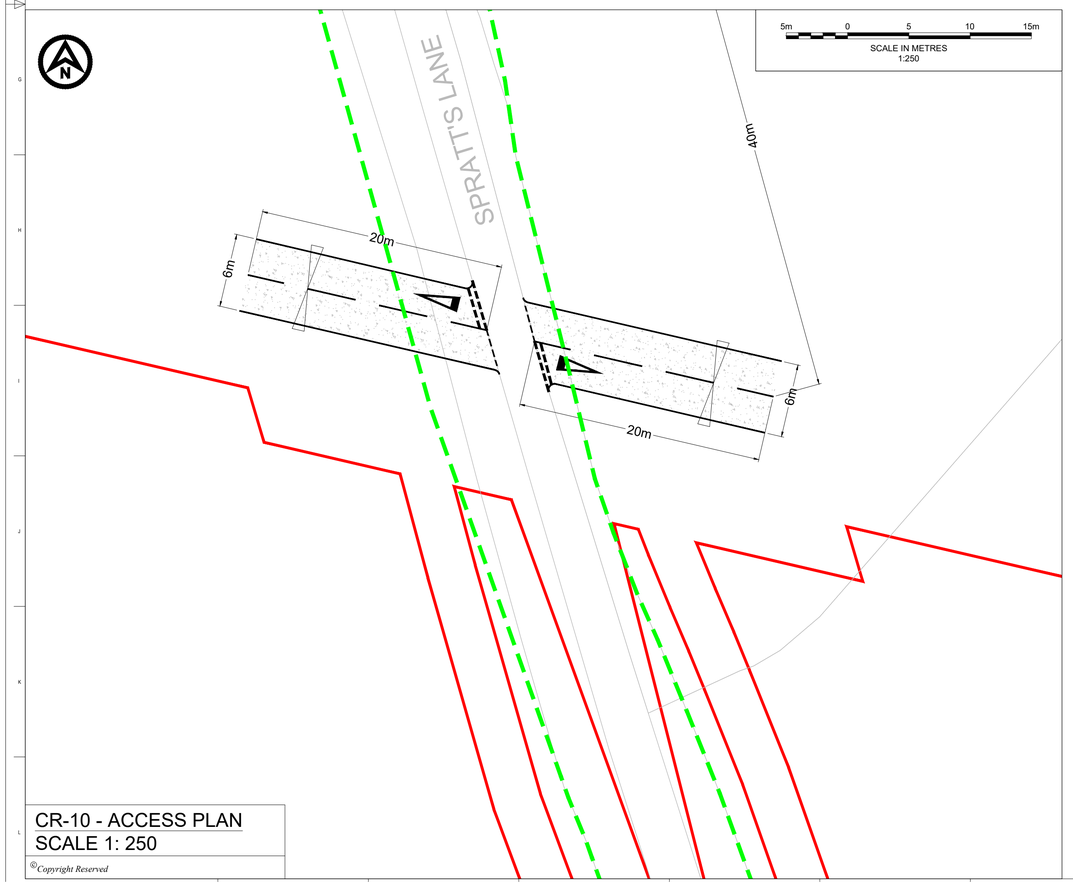
SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	07/08/2023	07/08/2023	07/08/2023	07/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0017	P03
VE DOCUMENT NUMBER	REVISION
-	-

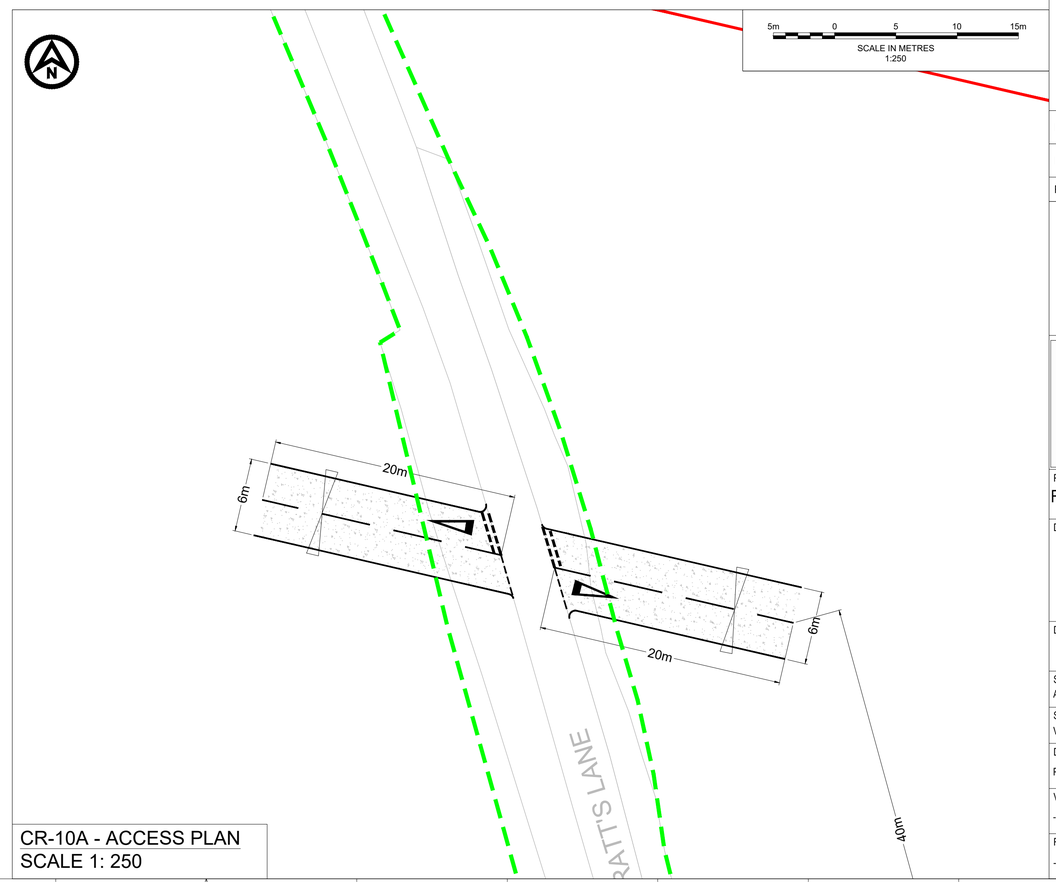
RWE ECODOC NUMBER	SHEET No	REVISION
-	1_OF_1	-



VISIBILITY AND VEGETATION CLEARANCE
SCALE 1: 500



CR-10 - ACCESS PLAN
SCALE 1: 250



CR-10A - ACCESS PLAN
SCALE 1: 250

TABLE 1 - VISIBILITY

CR-10 & CR-10A	Visibility	
	North	South
85% of Recorded Speeds (mph) (85RS)	30 (See note 6)	
Required Y-distance SSD for 85RS (m) (MfS)	43	
Is Required Y-distance SSD achievable?	Yes	Yes

DO NOT SCALE FROM THIS DRAWING

NOTES
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4. Y-Distance - the SSD measured along the nearest edge of the carriageway to its intersection with the centreline of the access.
5. All vegetation to be cleared/trimmed within identified visibility envelope and thereafter maintained in accordance with Local Highway Authority maintenance practices.
6. Reduced speed limit and Manual for Streets (MfS) visibility splays have been taken into account considering the geometry of the existing road.

KEY

- EXISTING ARRANGEMENT
- ONSHORE RED LINE BOUNDARY
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- HIGHWAY BOUNDARY

LOCATION PLAN

REV	DATE	DESCRIPTION	BY	CHK	APP
P03	18/06/2024	UPDATED CROSSING NUMBERING	CB	SKT	SKT
P02	02/02/2024	ORDER LIMIT AND ROAD SAFETY AUDIT UPDATES	CB	SKT	SKT

FIVE ESTUARIES OFFSHORE WIND FARM
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www.royalhaskoningdhv.com

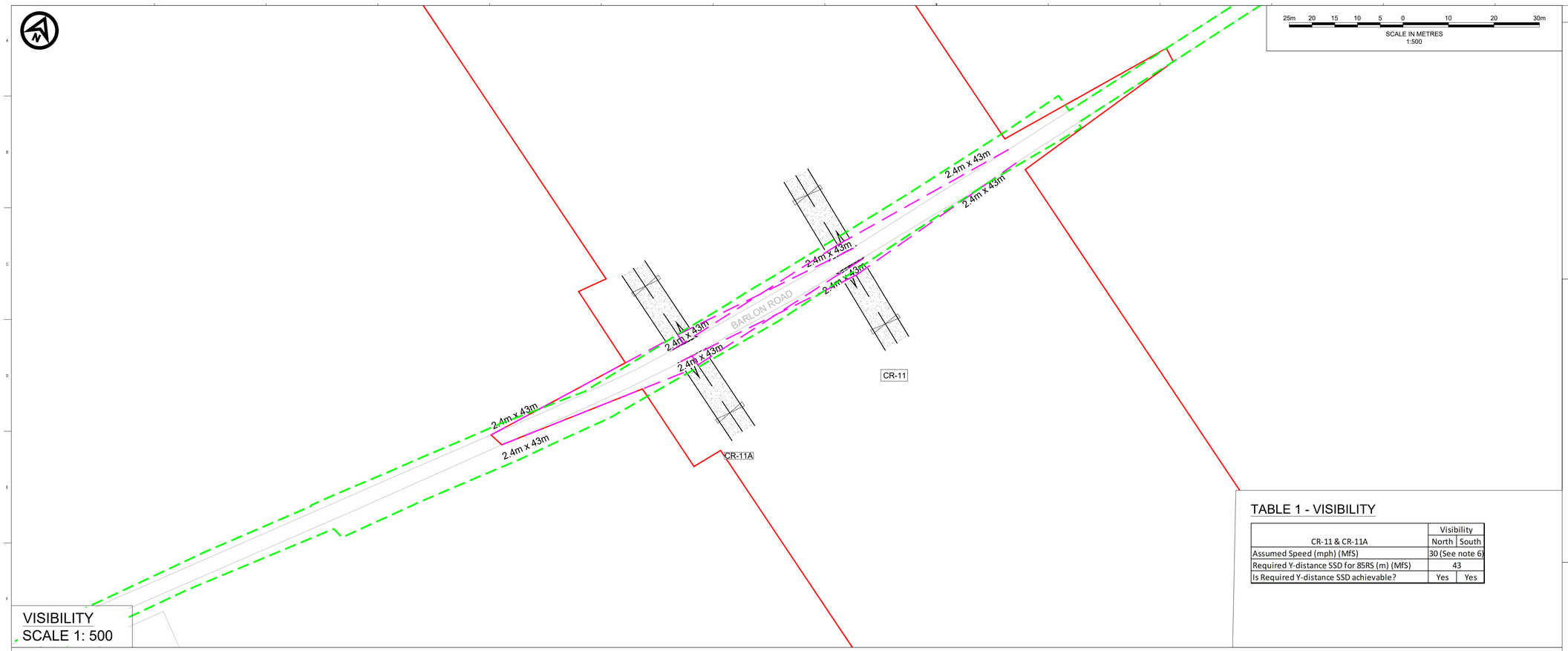
PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
CR-10 & CR-10A - SPRATT'S LANE
GENERAL ARRANGEMENT

DRAWING STATUS
PLANNING

SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	07/08/2023	07/08/2023	07/08/2023	07/08/2023

DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0018	P03
VE DOCUMENT NUMBER	REVISION
-	-
RWE ECODOC NUMBER	SHEET No / REVISION
-	1_OF_1 / -



VISIBILITY
SCALE 1: 500

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6. Reduced speed limit and Manual for Streets (MfS) visibility splays have been taken into account considering the geometry of the existing road.

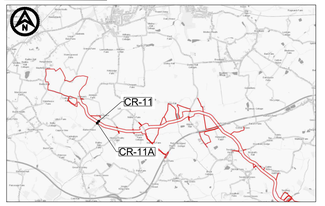
KEY

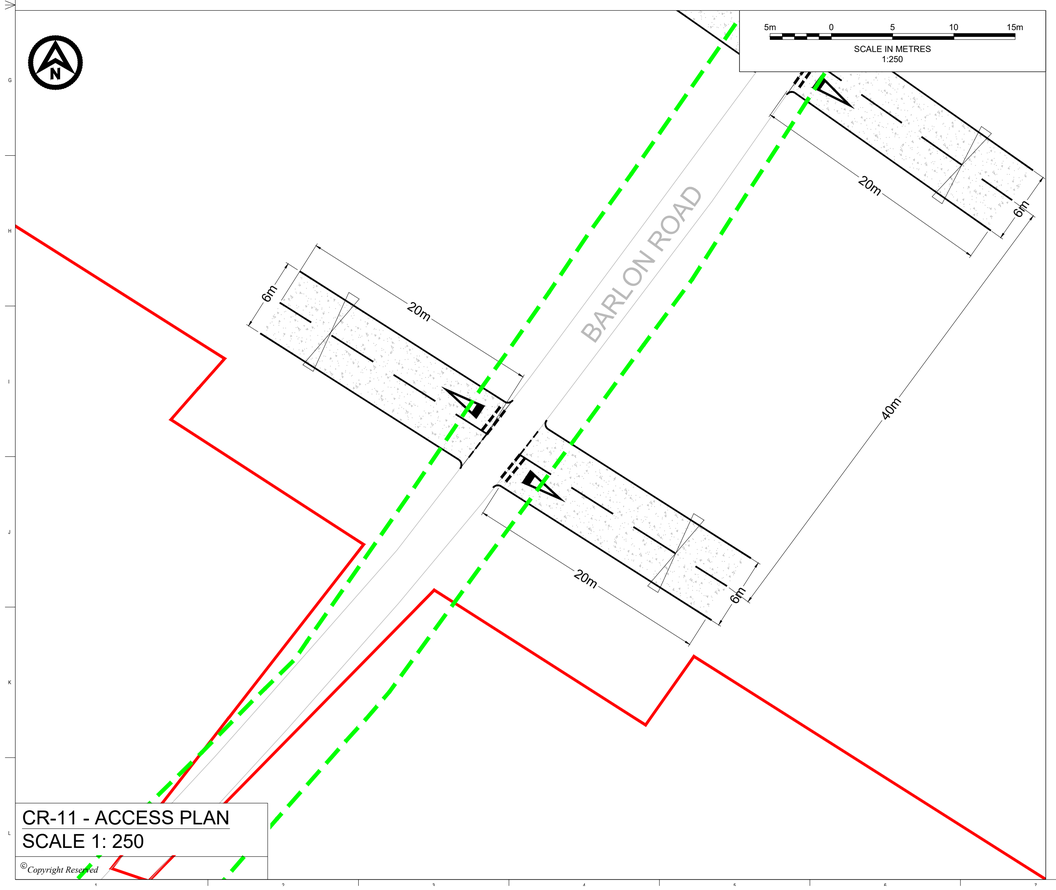
- EXISTING ARRANGEMENT
- ONSHORE RED LINE BOUNDARY
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- HIGHWAY BOUNDARY

TABLE 1 - VISIBILITY

CR-11 & CR-11A	Visibility	
	North	South
Assumed Speed (mph) (MfS)	30 (See note 6)	
Required Y-distance SSD for 85RS (m) (MfS)	43	
Is Required Y-distance SSD achievable?	Yes	Yes

LOCATION PLAN





CR-11 - ACCESS PLAN
SCALE 1: 250

CR-11A - ACCESS PLAN
SCALE 1: 250

REV	DATE	DESCRIPTION	BY	CHK	APP
P03	18/06/2024	UPDATED CROSSING NUMBERING	CB	SKT	SKT
P02	02/02/2024	ORDER LIMIT AND ROAD SAFETY AUDIT UPDATES	CB	SKT	SKT

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Peterborough PE2 6FZ
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www.royalhaskoningdhv.com

PROJECT TITLE
FIVE ESTUARIES / NORTH FALLS OFFSHORE WIND FARMS

DRAWING TITLE
CR-11 & CR-11A - BARLON ROAD
GENERAL ARRANGEMENT

DRAWING STATUS
PLANNING

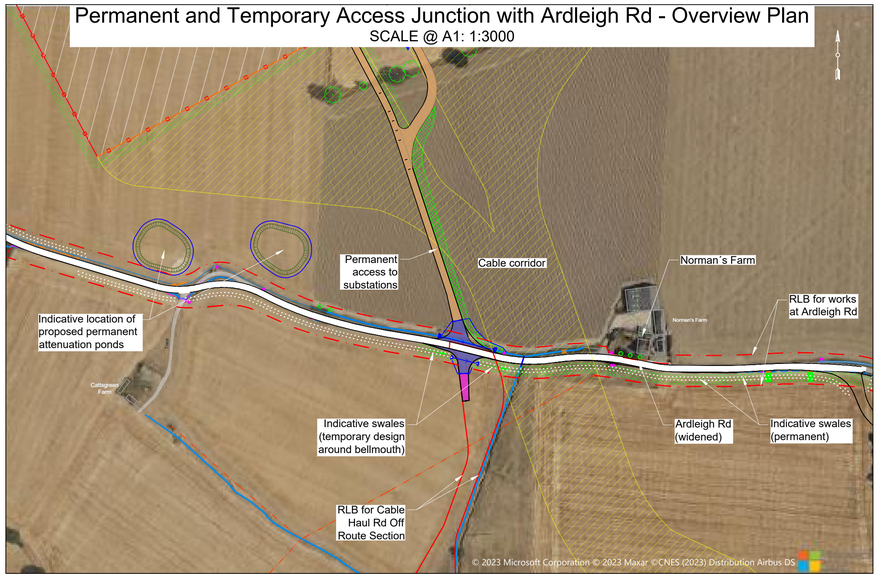
SHEET SIZE	DESIGNED	DRAWN	CHECKED	APPROVED
A1	AA	AA	SKT	SKT
SHEET SCALE	DATE	DATE	DATE	DATE
VARIES	07/08/2023	07/08/2023	07/08/2023	07/08/2023

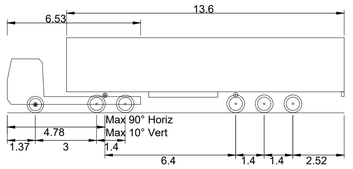
DRAWING NUMBER	REVISION
PB9244-RHD-ZZ-ZZ-DR-R-0015	P03
VE DOCUMENT NUMBER	REVISION
-	-

RWE ECODOC NUMBER	SHEET No	REVISION
-	1_OF_1	-

Permanent and Temporary Access Junction with Ardleigh Rd - Overview Plan

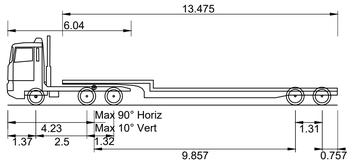
SCALE @ A1: 1:3000





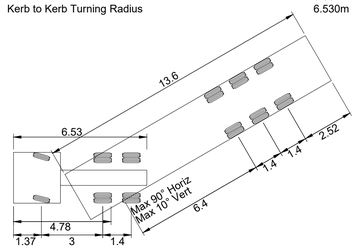
MAX. LEGAL LENGTH (UK) ARTICULATED VEHICLE (16.5m)

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m



LOW LOADER (16.154m)

Overall Length	16.154m
Overall Width	2.520m
Overall Body Height	3.393m
Min Body Ground Clearance	0.318m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.990m



Geometry has been checked against the bespoke vehicle models shown in the diagrams.
These models are generic and do not relate to any specific vehicle supplier's specification. All swept paths should be verified by the Contractor and their haulage supplier, once appointed, prior to detailed design and installation of the access.

Swept Path Analysis - Vehicles Details

Scale 1:150

Notes (continuation)

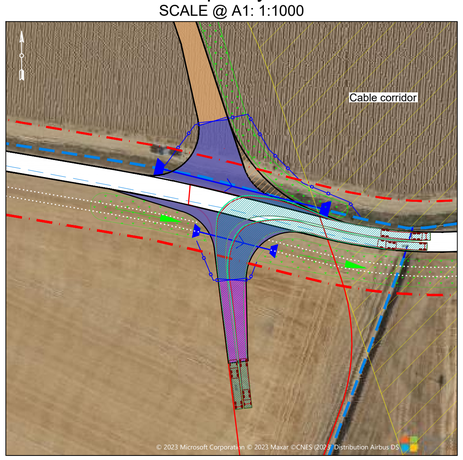
15. Alignment/specification of fencing and gates subject to site conditions and contractor requirements. Proposed fences to tie into existing fences/hedgerows.
16. Visibility splays and stopping sight distances (SSD) have been shown indicatively and have been determined in accordance with DMRB CD123 and CD109. The junctions is assumed to be simple priority. Minimum permissible setback (X) has been assumed to be 2.4m. Visibility for a setback of 9m has also been shown. Achievable road speed at this location is assumed to be < 60mph (national speed limit for single carriageway roads) due to its narrow width. However a conservative road speed value of 60mph was applied to determine the worst case scenario for vegetation clearance / crop growth limitation. The desirable SSD of 215m is currently achievable as there is only low vegetation on the affected land plots at the moment of analysis.
17. Vegetation clearance and groundwork may be required to facilitate any necessary sight distances.
18. A temporary 40mph speed limit is recommended for safety of all road users in the vicinity of the access.
19. Only partial utilities data has been provided for this indicative design. Full PAS128 utilities surveys shall be required at later design stages.
20. Geometric design of bellmouths has been carried out following guidance in the DMRB document CD123 *Geometric design of at-grade priority and signal-controlled junctions, Section 5,* along with SPA for the relevant vehicles.

Notes

1. Do not scale from this drawing.
2. Dimensions in m unless otherwise specified.
3. This drawing is to be read and printed in colour.
4. This drawing is to be read in conjunction with all relevant documents and drawings.
5. No unauthorised disclosure, storage or copying.
6. All spatial coordinates relate to the Ordnance Survey, British National Grid (OSGB36).
7. This drawing is for development purposes only and should not be used for construction.
8. Wider improvement works design at Ardleigh Rd carried out by others.
9. Proposed arrangements shown for indicative purposes only. Dimensions and design may vary following completion of site surveys at detailed design stage.
10. Swept path analysis carried out in this drawing refer to movements in/out of the bellmouths for the design vehicles indicated: a low loader with a turning radius of 6.990m (most restrictive turning radius) and articulated vehicle of maximum legal length in the UK. for details on the SPA for the AIL - AL50 Girder 24 Axle vehicle with rear tractor, please refer to drawing 104560-MMD-00-XX-DR-CE-1016 - Permanent Access Junction with Ardleigh Road.
11. Vehicle models used for the assessments are indicative only, actual turning radii and vehicle track will depend on the precise vehicles used by the works contractor.
12. For details on the bellmouth and overrun area at the proposed permanent access, please refer to drawing 104560-MMD-00-XX-DR-CE-1016.
13. For details on the proposed permanent access to the co-located substations, please refer to drawing 104560-MMD-00-XX-DR-CE-1015.
14. Drainage features are shown indicatively only. Drainage at bellmouths to be confirmed, construction boundary may change subject to drainage strategy and available outfalls.For further details on drainage features, please refer to drawing 104560-MMD-00-XX-DR-CE-1011.

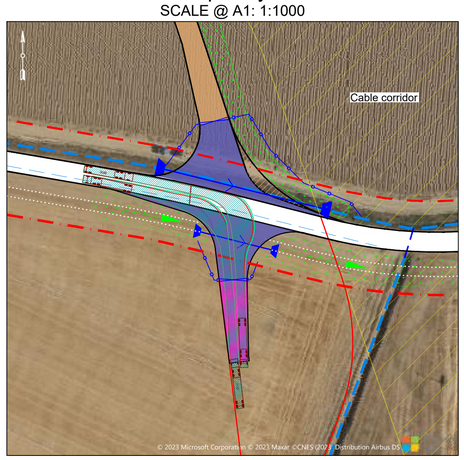
SPA - Right in/Right out movement to/from temporary bellmouth

SCALE @ A1: 1:1000



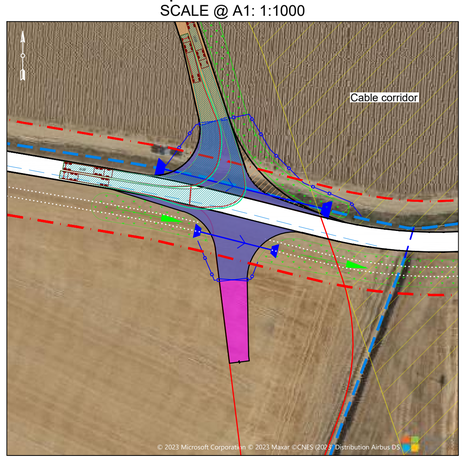
SPA - Left in/Left out movement to/from temporary bellmouth

SCALE @ A1: 1:1000



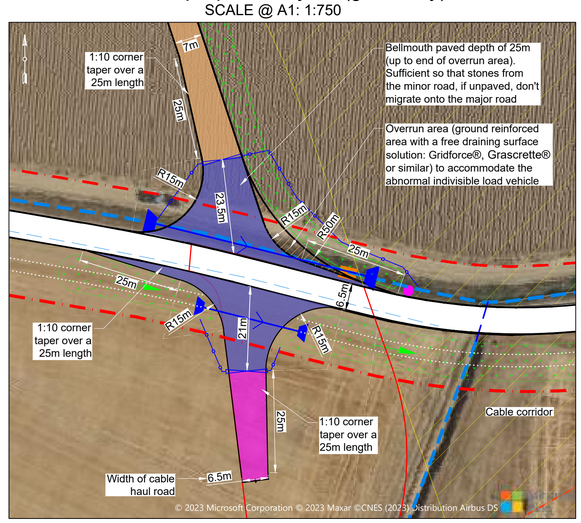
SPA - Right in/Right out movement to/from permanent bellmouth

SCALE @ A1: 1:1000



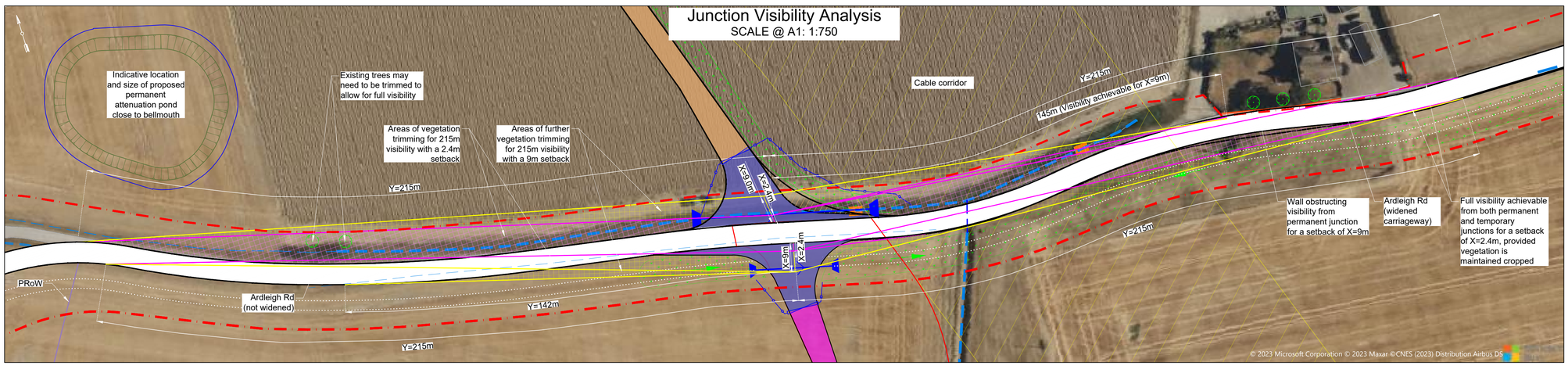
Junction proposed layout (geometry)

SCALE @ A1: 1:750



Junction Visibility Analysis

SCALE @ A1: 1:750



Legend:

- Cable corridor construction swathe
- Proposed edges of widened carriageway & bellmouth outline (by others)
- Proposed widened carriageway on Ardleigh Road (by others)
- Ardleigh Road construction swathe (@ scales 1:750 / 1:1000)
- Construction swathe for the cable haul road off route section
- Proposed tail of bellmouth at permanent access to substation
- Proposed paved area (tarmac) at bellmouths
- Proposed overrun area at the permanent access bellmouth
- Proposed tail of temporary bellmouth at the cable haul road
- Existing surface water ditch / watercourse (@ scales 1:750 / 1:1000)
- Assumed existing surface water ditch / watercourse (@ scales 1:750 / 1:1000)
- Assumed existing culvert below road
- Proposed permanent swale / infiltration ditch
- Proposed permanent drainage pipework / culvert
- Proposed permanent drainage headwall
- Indicative fenceline at co-located substations permanent access
- Indicative gate at co-located substations permanent access
- Visibility splays for an X=2.4m setback from stopping line
- Extents of vegetation clearance for full visibility at X=2.4m setback
- Visibility splays for an X=9m setback from stopping line
- Further extents of vegetation clearance for full visibility at X=9m setback
- Swept path - wheels (red) and vehicle body overswing (green) paths
- Envelope of vehicle body swept path
- Proposed location for a potential cycle track installation

Reference drawings

OS map
Essex County Council Private Rights of Way
Cable Route_Draft_Ardleigh_Rd_Update_Rev1_Opt.B (230628)
104560-MMD-00-XX-DR-CE-1004 - Site Layout/ Location Plan - AIS Option 2
104560-MMD-00-XX-DR-CE-1011 - Drainage Layout - Operational Phase - Opt. 2
104560-MMD-00-XX-DR-CE-1016 - Permanent Access Junction with Ardleigh Road

Rev	Date	Drawn	Description	Ch'k'd	App'd
02	15/12/2023	SAP	Ardleigh Rd widening updated w/ NG inform.	JW	AFC
01	18/10/2023	SAP	For Information	JW	AFC

Status Stamp

DRAFT

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Client

NORTH FALLS Offshore Wind Farm

FIVE ESTUARIES OFFSHORE WIND FARM

Title

Co-located AIS Substations Early Design - Temporary and Permanent Access Junction with Ardleigh Road

Sheet 01 of 01

Designed	S. Amado-Pedrosa	SAP	Eng check	John Weeks	JW
Drawn	S. Amado-Pedrosa	SAP	Coordination	Andrea F. Crespo	AFC
Dwg check	John Weeks	JW	Approved	Andrea F. Crespo	AFC

MMD Project Number	Scale at A1	Security
104560-001	As Indicated	STD

Client Number	Suit. Code
004943785-02	S3

Drawing Number	Revision
104560-MMD-00-XX-DR-CE-1061	02

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1:1000 0 50m 100m

1:3000 0 150m 300m

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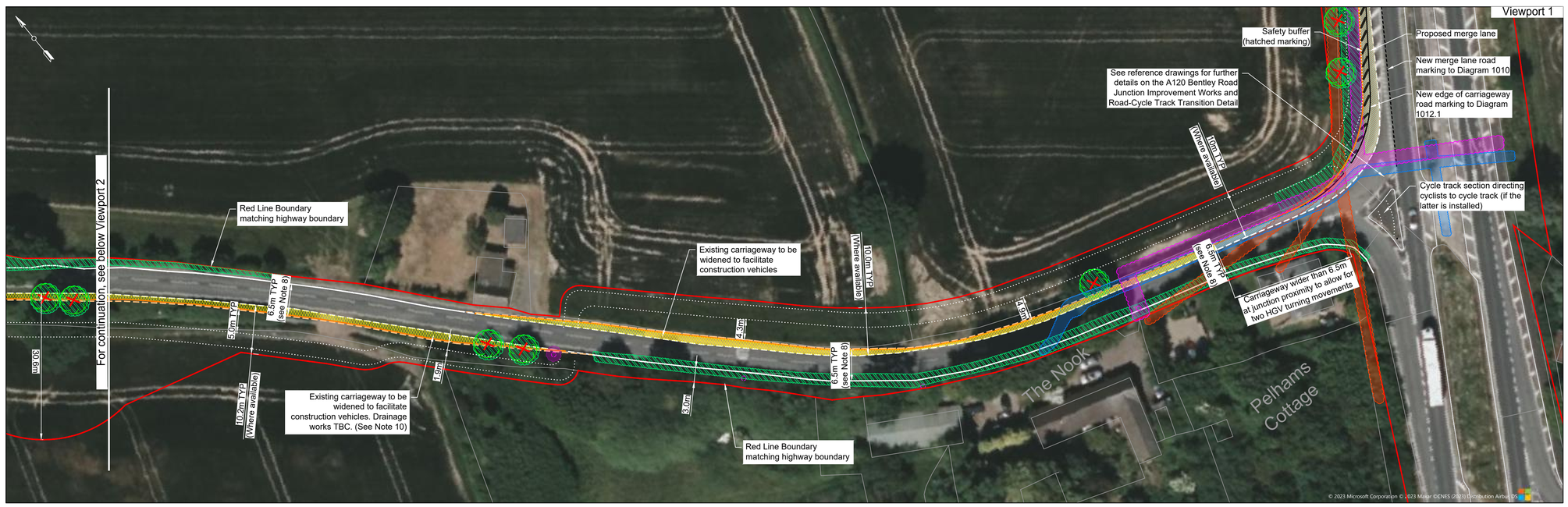
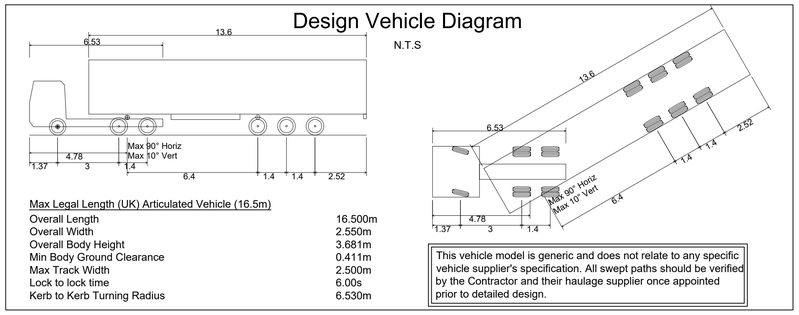
Appendix D: Highways Works Designs



Design Vehicle Diagram

N.T.S



Max Legal Length (UK) Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

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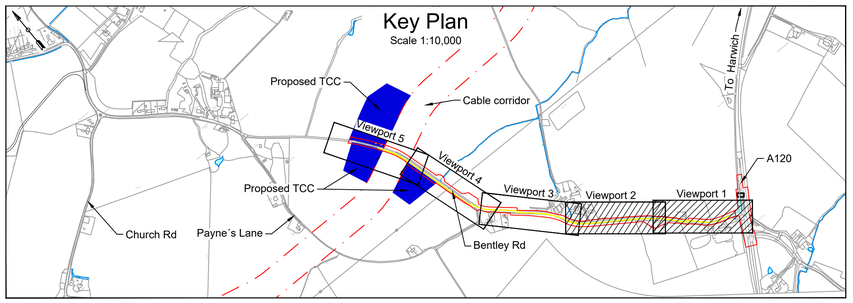
Legend (continuation)

- Existing trees to be removed (subject to detailed survey)
- Assumed location of existing electricity / communication poles
- Location of existing communication pole extracted from survey
- Location of existing electricity pole extracted from survey



1:500 0 25m 50m

1:10,000 0 500m 1000m

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- Construction works boundary (red line boundary) at Bentley Rd
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- Proposed new carriageway edge (indicative) for a width of 6.5m
- Proposed carriageway widening at Bentley Rd for a width of 6.5m
- Proposed new carriageway edge (indicative) for a width of 6.75m
- Proposed location for a potential cycle track installation
- Proposed carriageway widening at junction with the A120
- Existing surface water wide ditch / watercourse to remain
- Utility diversion or undergrounding required (Comms)
- Utility diversion or undergrounding required (HV)
- Water pipe protection or diversion required
- Vegetation / trees to be trimmed (or removed if on side to be widened; subject to detailed survey)

Reference drawings

104560-MMD-00-XX-DR-CE-1028 - A120 Bentley Road Junction Improvement Works
104560-MMD-00-XX-DR-CE-1032-1 & 2 - Bentley Rd w/ Cable Haul Rd Jct & SPA (Sheets 1 & 2)
104560-MMD-00-XX-DR-CE-1033 - New Bellmouth Access at Bentley Rd Jct for AIL Haul Road Diversion
104560-MMD-00-XX-DR-CE-1034 - Bentley Rd to Ardleigh Rd AIL Haul Rd Diversion
104560-MMD-00-XX-DR-CE-1059-1 & 2 - Proposed Cross-over points for Cycle Track
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Rev	Date	Drawn	Description	Ch'k'd	App'd
P03	30/11/2023	SAP	RLB & cycle track updated	JW	AFC
P02	08/09/2023	SAP	Red Line Boundary updated	JW	AFC
P01	24/04/2023	SG	Concept design for comment	JW	MB

Status Stamp

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Client

NORTH FALLS Offshore Wind Farm
FIVE ESTUARIES OFFSHORE WIND FARM

Title

Co-located Substation Early Design Bentley Rd Improvements Layout and Red Line Boundary for works

Sheet 01 of 03

Designed	S. Goode	SG	Eng check	J. Weeks	JW
Drawn	S. Goode	SG	Coordination	J. Weeks	JW
Dwg check	S. Amado-Pedrosa	SAP	Approved	M. Barton	MB

MMD Project Number 104560-001	Scale at A1 1:500	Security STD
Client Number 004786178-03		Suit. Code S3
Drawing Number 104560-MMD-00-XX-DR-CE-1031-1		Revision P03

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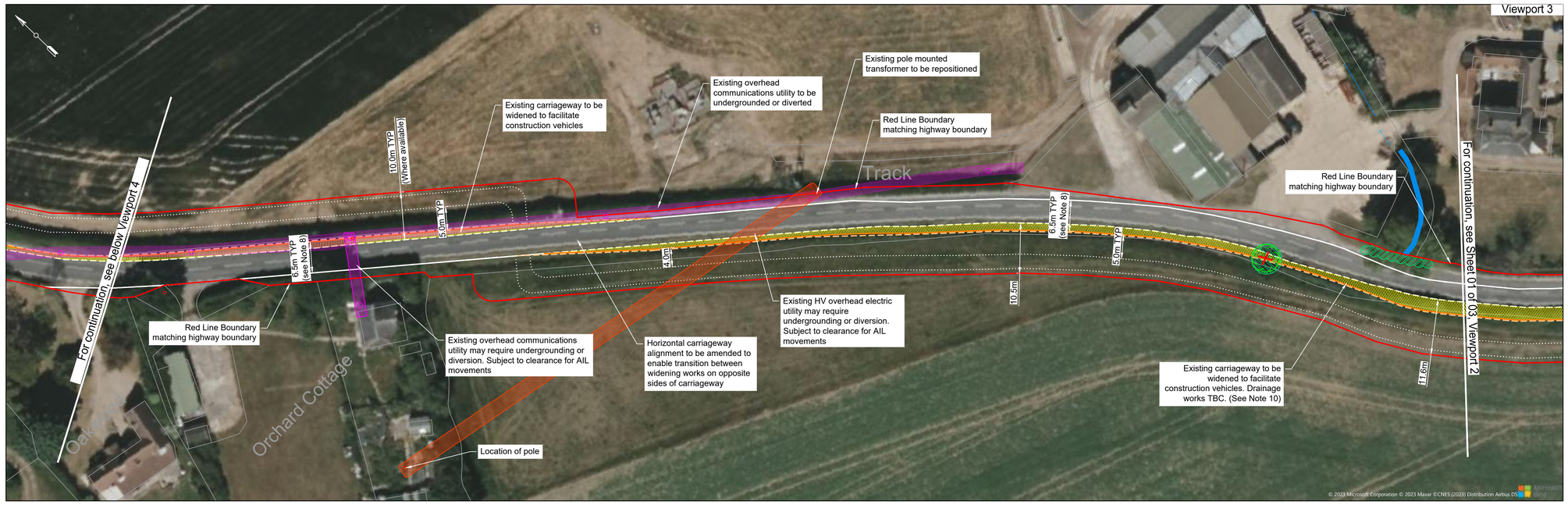
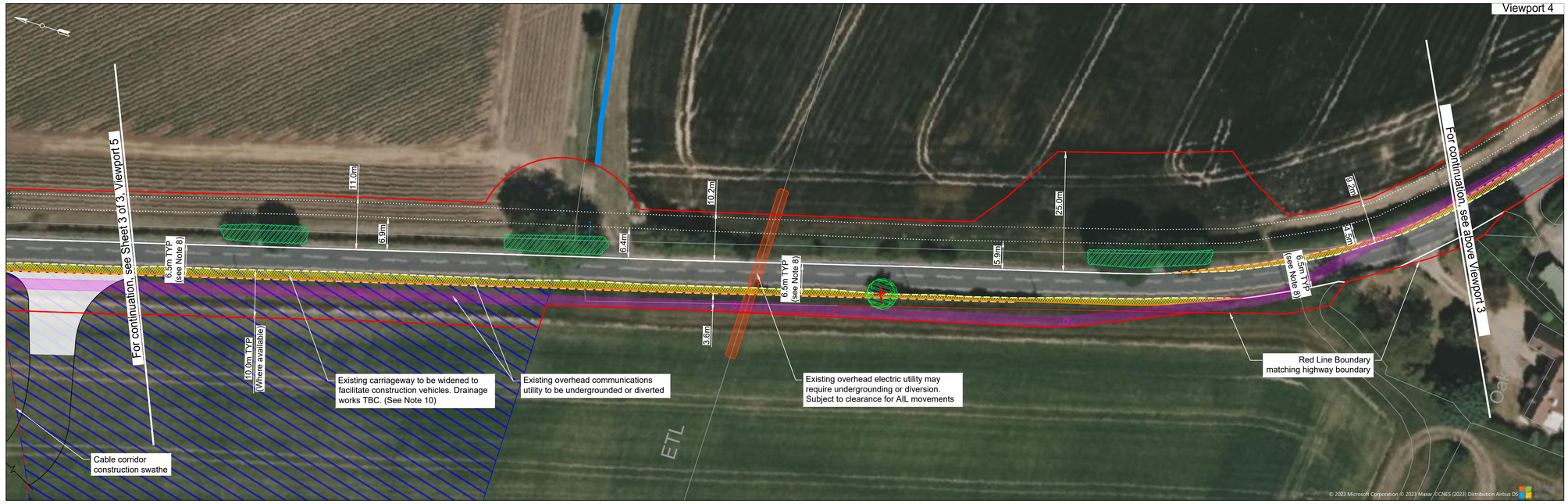
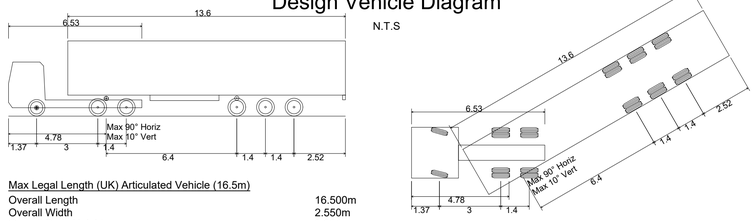




Design Vehicle Diagram

N.T.S



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Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

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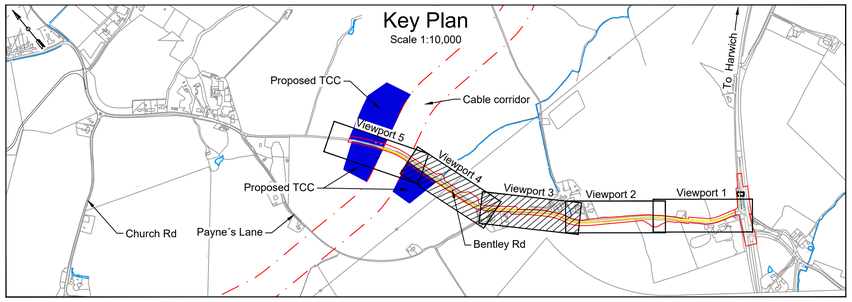
Legend (continuation)

- Proposed TCC location
- Location of existing communication pole extracted from survey
- Location of existing electricity pole extracted from survey

Key Plan

Scale 1:10,000



1:500 0 25m 50m

1:10,000 0 500m 1000m

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Reference drawings

104560-MMD-00-XX-DR-CE-1028 - A120 Bentley Road Junction Improvement Works
104560-MMD-00-XX-DR-CE-1032-1 & 2 - Bentley Rd w/ Cable Haul Rd Jct & SPA (Sheets 1 & 2)
104560-MMD-00-XX-DR-CE-1033 - New Bellmouth Access at Bentley Rd Jct for AIL Haul Road Diversion
104560-MMD-00-XX-DR-CE-1034 - Bentley Rd to Ardleigh Rd AIL Haul Rd Diversion
104560-MMD-00-XX-DR-CE-1059-1 & 2 - Proposed Cross-over points for Cycle Track
Utility Report Digitised_OSGB36 (received in January 2023)
VE-NF_Draft_Combined_Cable_Corridor_Rev_6 (received 29/09/2023)
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Rev	Date	Drawn	Description	Ch'k'd	App'd
P03	30/11/2023	SAP	RLB & cycle track updated	JW	AFC
P02	08/09/2023	SAP	Red Line Boundary updated	JW	AFC
P01	24/04/2023	SG	Concept design for comment	JW	MB

Status Stamp

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Client

NORTH FALLS Offshore Wind Farm
FIVE ESTUARIES OFFSHORE WIND FARM

Title

Co-located Substation Early Design Bentley Rd Improvements Layout

Sheet 02 of 03

Designed	S. Goode	SG	Eng check	J. Weeks	JW
Drawn	S. Goode	SG	Coordination	J. Weeks	JW
Dwg check	S. Amado-Pedrosa	SAP	Approved	M. Barton	MB

MMD Project Number 104560-001	Scale at A1 1:500	Security STD
Client Number 004786179-03		Suit. Code S3
Drawing Number 104560-MMD-00-XX-DR-CE-1031-2		Revision P03

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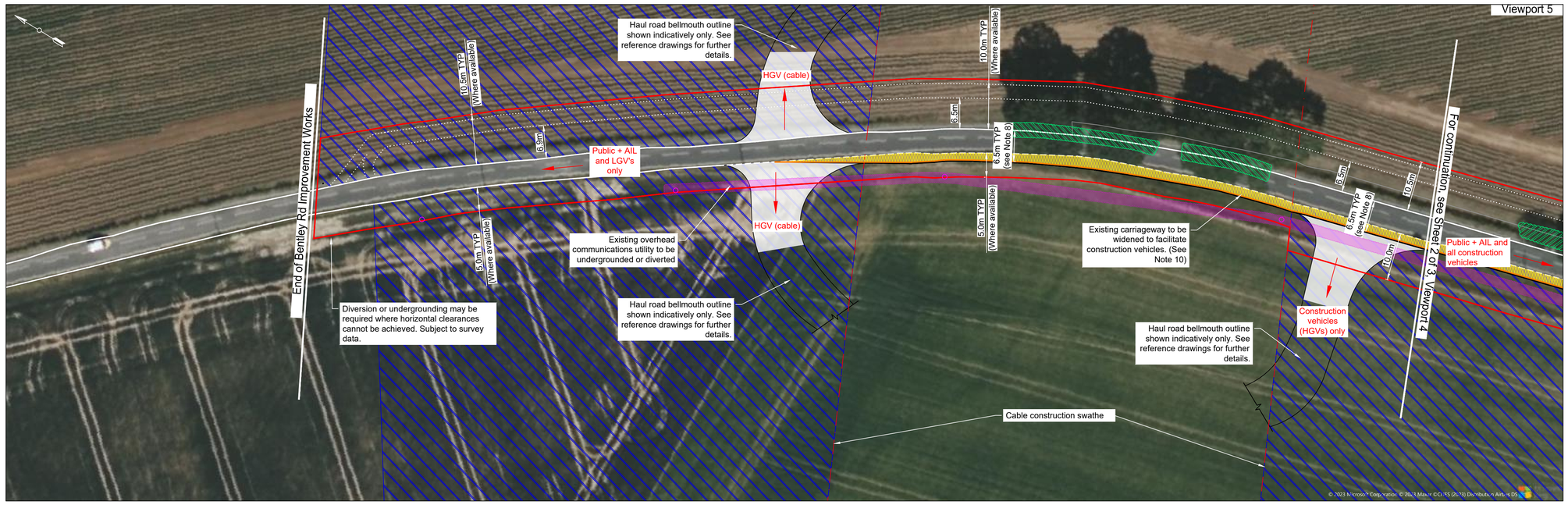

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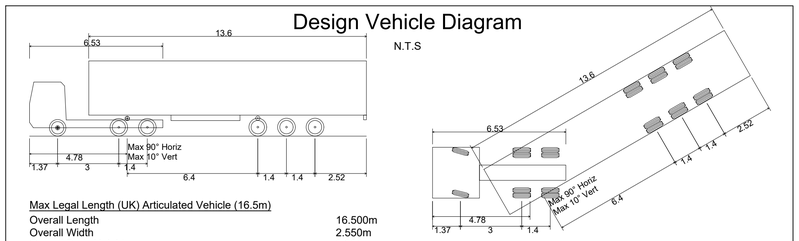
Design Vehicle Diagram

N.T.S



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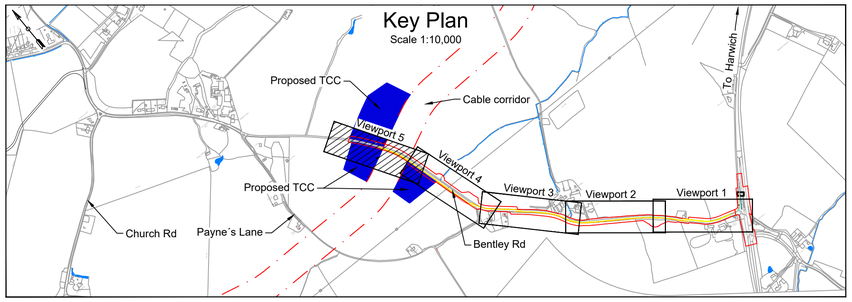
Key Plan

Scale 1:10,000



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1:10,000 0 500m 1000m

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- Proposed location for a potential cycle track installation
- Utility diversion or undergrounding required (Comms)
- Location of existing communication pole extracted from survey
- Vegetation / trees to be trimmed
- Proposed TCC location

Reference drawings

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Status Stamp

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Client

NORTH FALLS Offshore Wind Farm
FIVE ESTUARIES OFFSHORE WIND FARM

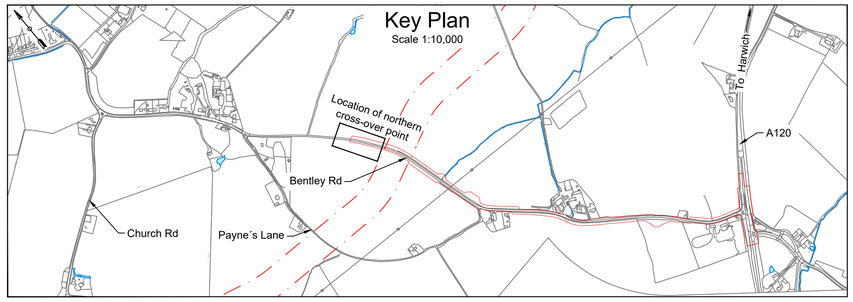
Title

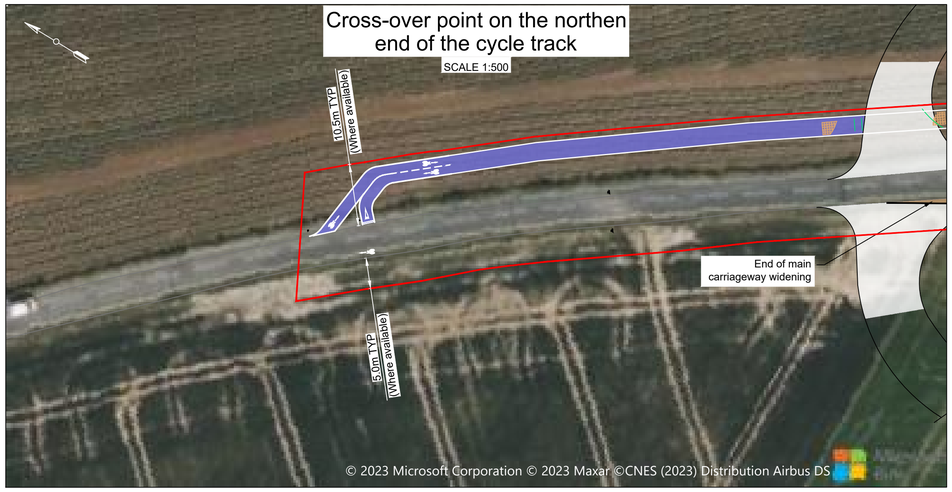
Co-located Substation Early Design
Bentley Rd Improvements Layout

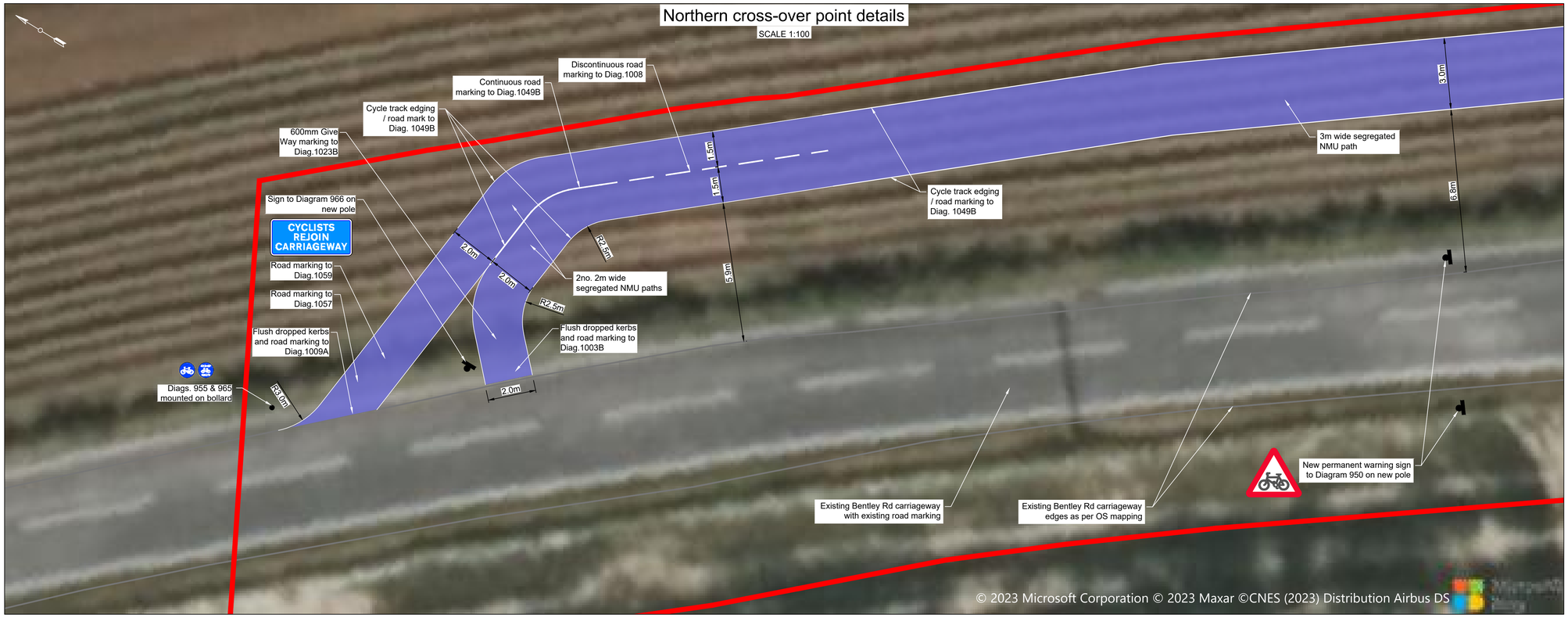
Sheet 03 of 03

Designed	S. Goode	SG	Eng check	J. Weeks	JW
Drawn	S. Goode	SG	Coordination	J. Weeks	JW
Dwg check	S. Amado-Pedrosa	SAP	Approved	M. Barton	MB

MMD Project Number 104560-001	Scale at A1 1:500	Security STD
Client Number 004786180-03		Suit. Code S3
Drawing Number 104560-MMD-00-XX-DR-CE-1031-3		Revision P03







Notes

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3. This drawing is to be read in conjunction with all relevant related documents and drawings.
4. No unauthorised disclosure, storage or copying.
5. This drawing is for development purposes only and should not be used for construction. This design is generic and provided indicatively only. This design is based on general Highways standards but does not incorporate the relevant local highway authority´s requirements and design specifications, which would need to be followed at later design stages.
6. Drainage works/strategy have not been considered as part of this concept design and will need to be developed in liaison with the lead local flood authority / Environment Agency (EA) and local highways authority during subsequent stages of design. Replacement and/or realignment of existing drainage may be required, existing watercourse crossings may need to be replaced and mitigation measures may be necessary to account for an increase in impermeable areas.
7. Road markings and upright signs are defined to document *The Traffic Signs and General Directions* (TSRGD) 2016.

Legend:

- Red Line Boundary for Works in Bentley Road
- Existing carriageway edges from OS mapping
- Proposed cycle track carriageway edges / road markings
- Proposed cycle track carriageway surface
- Proposed upright sign mounted on pole
- Proposed signing bollard

NOT FOR CONSTRUCTION

Reference drawings

104560-MMD-00-XX-DR-CE-1031- 1 to 3 - Bentley Road Improvements Layout and Red Line Boundary for works
104560-MMD-00-XX-DR-CE-1058 - Bentley Rd Improvements - Proposed Typical Cross Sections without /with Cycle Track
VE-NF_Draft_Combined_Cable_Corridor_Rev_6 (dated 29/09/2023)
UK_FES_Work_Areas_py_OSGB36_v8_13_Extract (dated 16/11/2023)
UK_FES_Work_Areas_py_OSGB36_v8_13B_Extract (dated 16/11/2023)

Rev	Date	Drawn	Description	Ch'k'd	App'd
P02	24/11/2023	SAP	Cycle track layout updated	JW	AFC
P01	19/09/2023	SAP	Concept design for comment	JW	AFC

Status Stamp

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Client

NORTH FALLS Offshore Wind Farm
FIVE ESTUARIES OFFSHORE WIND FARM

Title

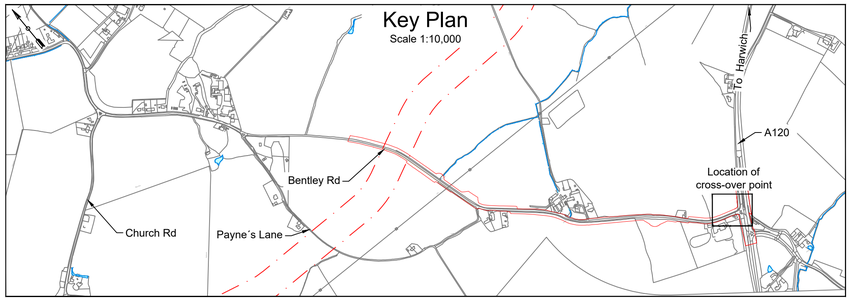
Co-located Substation Early Design
Bentley Rd Improvements - Proposed Cross-over Points for Cycle Track
Sheet 01 of 02

Designed	S. Amado-Pedrosa	SAP	Eng check	J. Weeks	JW
Drawn	S. Amado-Pedrosa	SAP	Coordination	A. F. Crespo	AFC
Dwg check	J. Weeks	JW	Approved	A. F. Crespo	AFC

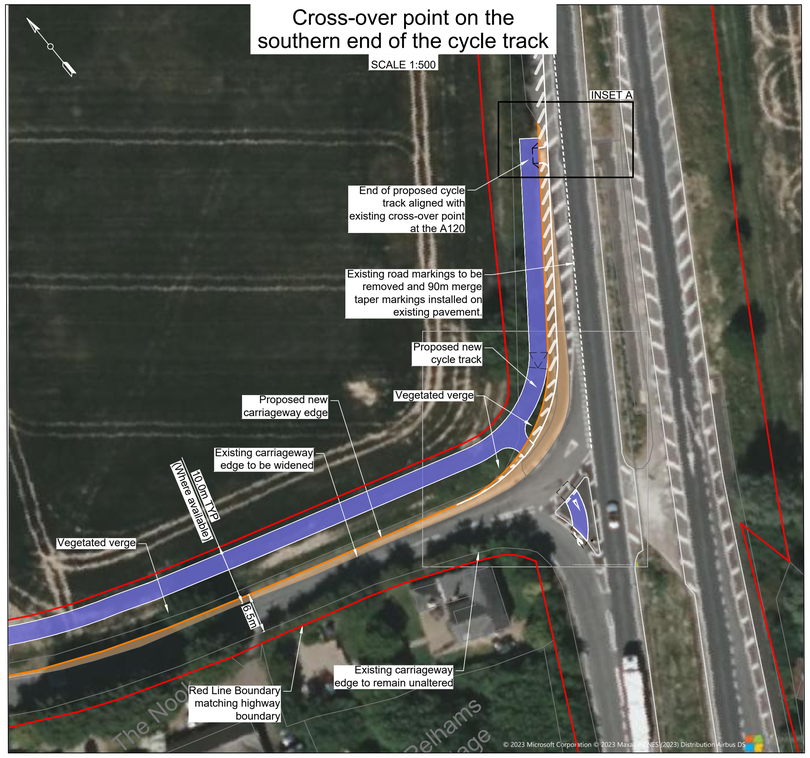
MMD Project Number	Scale at A1	Security
104560-001	As indicated	STD
Client Number		Suit. Code
004921123-02		S3
Drawing Number		Revision
104560-MMD-00-XX-DR-CE-1059-1		P02

1:20 0 1m 2m
1:500 0 25m 50m
1:10,000 0 500m 1000m

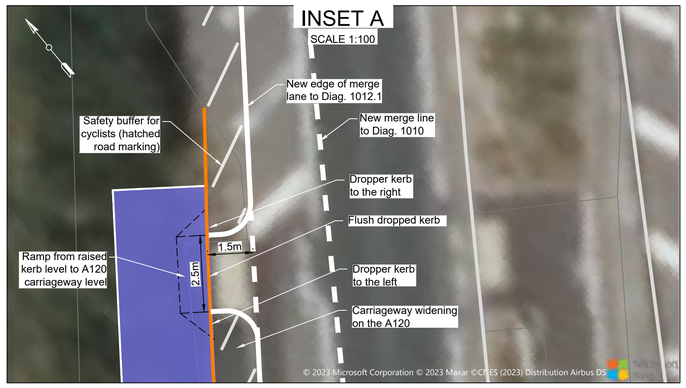
C:\Users\AMA100030\DC\ACCDocs\Mott MacDonald\t100104560 - RWE Co-location project\Project Files\MOTTMAC\C_CIV_MMD\DR\104560-MMD-00-XX-DR-CE-1059.dwg Nov 23, 2023 - 8:41AM AMA100030



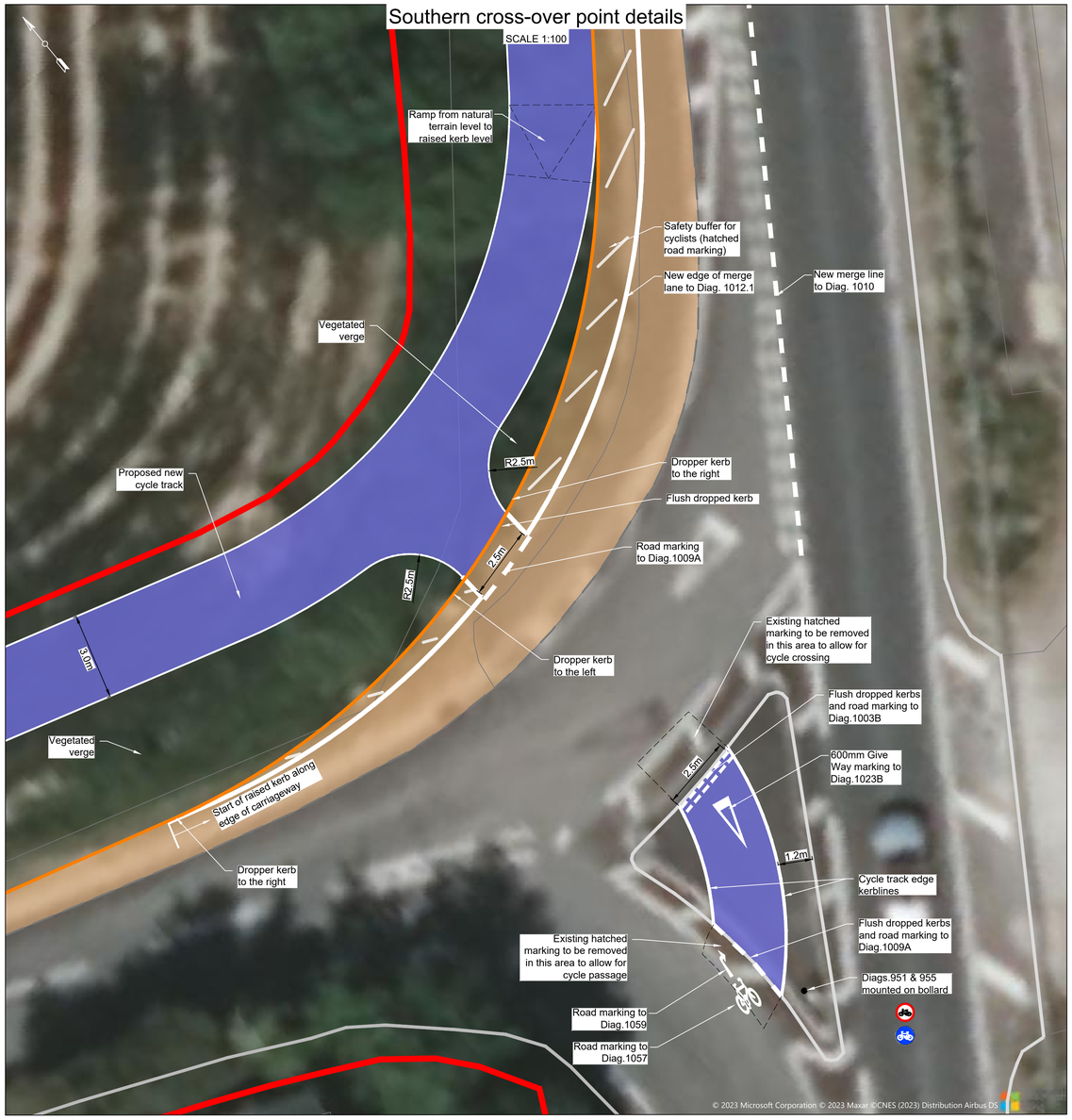
Cross-over point on the southern end of the cycle track



INSET A



Southern cross-over point details



1:20 0 1m 2m

1:500 0 25m 50m

1:10,000 0 500m 1000m

Notes

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7. Road markings and upright signs are defined to document *The Traffic Signs and General Directions* (TSRGD) 2016.
8. Safety buffer width at junction with the A120 is zero, since vehicles turning in/out of the junction are assumed to travel at a speed <30mph.

Legend:

- Red Line Boundary for Works in Bentley Road
- Existing carriageway edge from OS mapping to remain unaltered
- Existing carriageway edge from OS mapping to be widened
- Proposed new carriageway edge
- Proposed new carriageway widening
- Proposed cycle track carriageway edging
- Proposed cycle track carriageway surface
- Proposed signing bollard

NOT FOR CONSTRUCTION

Reference drawings

104560-MMD-00-XX-DR-CE-1031- 1 to 3 - Bentley Road Improvements Layout and Red Line Boundary for works
104560-MMD-00-XX-DR-CE-1058 - Bentley Rd Improvements - Proposed Typical Cross Sections without /with Cycle Track
VE-NF_Draft_Combined_Cable_Corridor_Rev_6 (dated 29/09/2023)
UK_FES_Work_Areas_py_OSGB36_v8_13_Extract (dated 16/11/2023)
UK_FES_Work_Areas_py_OSGB36_v8_13B_Extract (dated 16/11/2023)

Rev	Date	Drawn	Description	Ch'k'd	App'd
P02	24/11/2023	SAP	Cycle track layout updated	JW	AFC
P01	19/09/2023	SAP	Concept design for comment	JW	AFC

Status Stamp: PRELIMINARY

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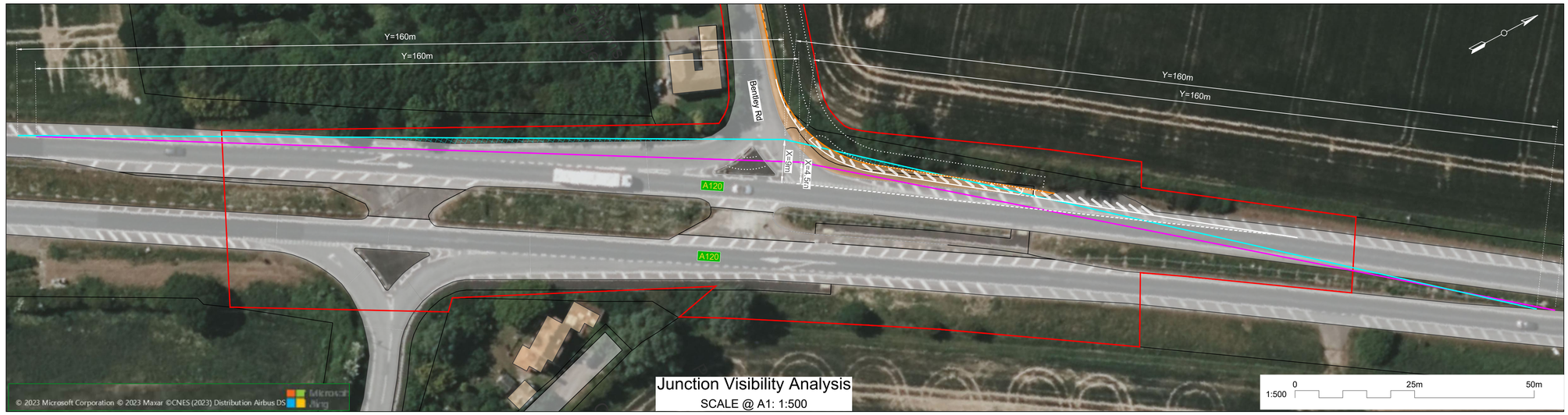
Client: NORTH FALLS Offshore Wind Farm; FIVE ESTUARIES OFFSHORE WIND FARM

Title: Co-located Substation Early Design
Bentley Rd Improvements - Proposed Cross-over Points for Cycle Track
Sheet 02 of 02

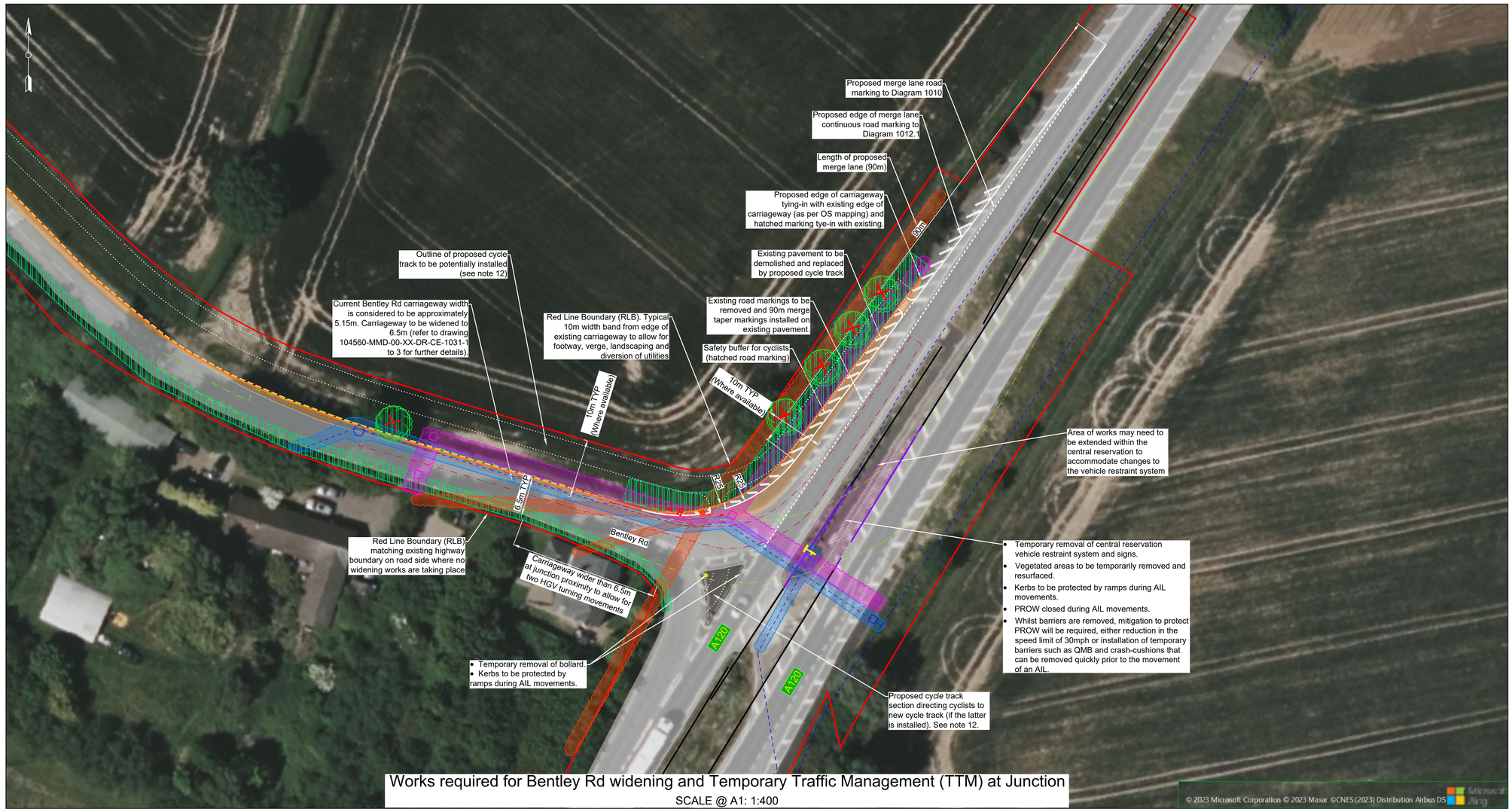
Designed	S. Amado-Pedrosa	SAP	Eng check	J. Weeks	JW
Drawn	S. Amado-Pedrosa	SAP	Coordination	A. F. Crespo	AFC
Dwg check	J. Weeks	JW	Approved	A. F. Crespo	AFC

MMD Project Number: 104560-001	Scale at A1: As indicated	Security: STD
Client Number: 004930806-02		Suit. Code: S3
Drawing Number: 104560-MMD-00-XX-DR-CE-1059-2		Revision: P02



Junction Visibility Analysis
SCALE @ A1: 1:500

1:500 0 25m 50m



Works required for Bentley Rd widening and Temporary Traffic Management (TTM) at Junction
SCALE @ A1: 1:400

1:400 0 20m 40m

Notes

1. Do not scale from this drawing.
2. All dimensions are in meters unless otherwise stated.
3. This drawing is to be printed in colour.
4. This drawing is to be read in conjunction with all relevant documents and drawings.
5. No unauthorised disclosure, storage or copying.
6. All spatial coordinates relate to the Ordnance Survey, British National Grid (OSGB36).
7. All levels are in meters and relate to AOD (Ordnance Survey, Newlyn).
8. The A road A120 has a 50mph (~80.5kph) speed limit applying to the dual carriageway section, where the junction with Bentley Road is located. For the purpose of visibility analysis, it has been considered a design speed of 85kph (~100kph) for the A120, as the above closer value as per DMRB, CD 109 *Highway link design*, Table 2.10. Based on Table 2.10, the desirable minimum length of visibility splays (Stopping sight distance - SSD) for a design speed of 85kph is 160m.
9. Indicative design layout based of OS grid, works may vary subject to detailed design and site survey.
10. Only partial utilities data has been provided for this indicative design, full PAS128 utilities surveys shall be required and additional land take may be required to accommodate diversions.
11. For swept path details, refer to drawings 104560-MMD-00-XX-DR-CE-1026 and 104560-MMD-00-XX-DR-CE-1027.
12. For further information on the transition detail carriageway/cycle track for the proposed cycle track, please refer to drawing 104560-MMD-00-XX-DR-CE-1059, Sheet 2.
13. Existing water utility may require diversion or protection in some areas.

Legend:

- OS grid map feature lines
- Visibility splays at 4.5m from stopping line
- Visibility splays at 9m from stopping line
- Extents of vegetation and street furniture clearance to achieve visibility requirements at X=9m
- Construction works boundary (red line boundary)
- Proposed new edge of carriageway
- Proposed permanent carriageway widening at junction
- Proposed new carriageway edge (indicative) for a width of 6.75m
- Proposed location for a potential cycle track installation
- AIL vehicle body & load swept path envelope
- Wheels swept path envelope for HGV exiting Bentley Rd
- Existing underground water pipes
- Existing road restraint system at central reservation
- Existing road restraint system elements to be temporarily removed
- Area of works in central reservation for TTM
- Existing road signs to be removed during AIL movements
- Existing road signs to be relocated for road widening
- Existing bollard to be removed during AIL movements
- Electricity pole to be relocated (location extracted from Survey)
- Utility diversion or undergrounding required (Comms)
- Utility diversion or undergrounding required (Electricity)
- Water pipe protection or diversion required
- Vegetation / trees to be trimmed (or removed if on side to be widened; subject to detailed survey)
- Existing trees to be removed (subject to detailed survey)
- Existing electricity pole (location extracted from Survey)
- Existing communications chamber/pole (location extracted from Survey)
- Existing water chambers (location extracted from Survey)

Reference drawings

104560-MMD-00-XX-DR-CE-1026 - Swept Path Analysis AIL (...) accessing Bentley Rd
104560-MMD-00-XX-DR-CE-1027 - Swept Path Analysis (...) Artic. Veh.-Two Way Traff.
104560-MMD-00-XX-DR-CE-1031-1 to 3 - Bentley Rd Improvements Layout and Red Line Boundary for works
104560-MMD-00-XX-DR-CE-1059-1 & 2 - Proposed Cross-over points for Cycle Track
Utility Report Digitised_OSGB36 (dated January 2023)
UK_FES_Work_Areas_py_OSGB36_v8_13_Extract (dated 16/11/2023)
UK_FES_Work_Areas_py_OSGB36_v8_13B_Extract (dated 16/11/2023)

Rev	Date	Drawn	Description	Ch'k'd	App'd
P03	30/11/2023	SAP	Cycle track added; road width updated	JW	AFC
P02	13/04/2023	SAP	Merge taper incorporated	JW	MB
P01	05/04/2023	SAP	Preliminary	JW	MB

Status Stamp
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Client
NORTH FALLS Offshore Wind Farm
FIVE ESTUARIES OFFSHORE WIND FARM

Title
A120 - Bentley Road Junction
Swept Path Analysis
Road improvements layout

Sheet 01 of 01

Designed	S. Amado-Pedrosa	SAP	Eng check	John Weeks	JW
Drawn	S. Amado-Pedrosa	SAP	Coordination	Andrea F. Crespo	AFC
Dwg check	Ollie Jeffcock	OJ	Approved	Matthew Barton	MB

MMD Project Number	Scale at A1	Security
104560-001	As Shown	STD
Client Number		Suit. Code
004781329-03		S3
Drawing Number		Revision
104560-MMD-00-XX-DR-CE-1028		P03

Junction Visibility Analysis

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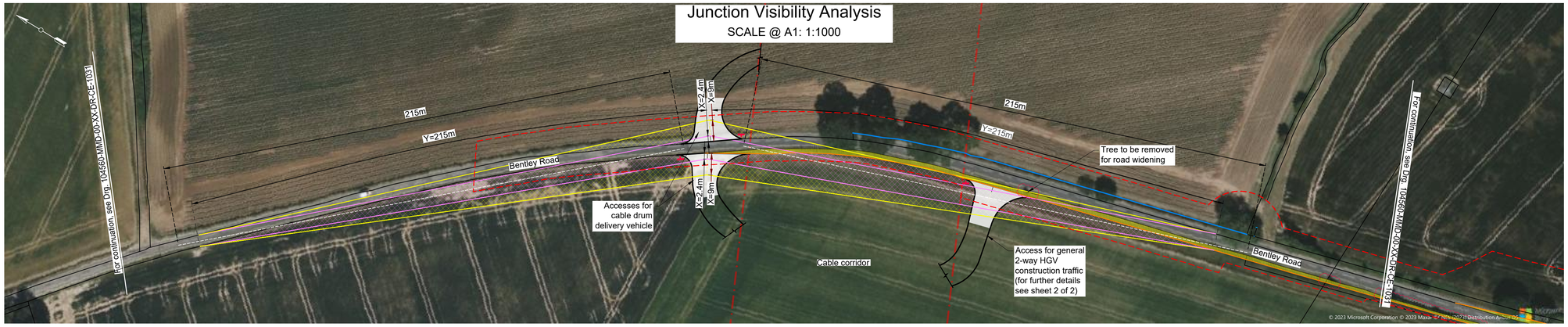
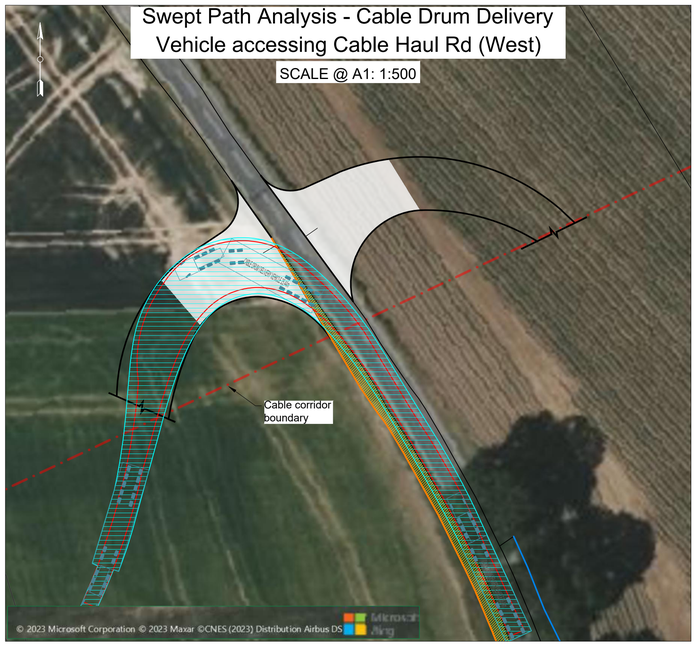


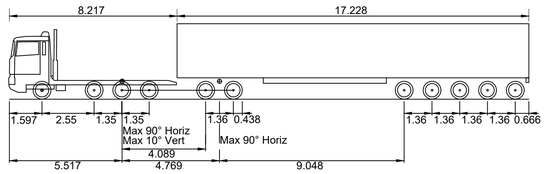
Swept Path Analysis - Cable Drum Delivery Vehicle accessing Cable Haul Rd (East)

SCALE @ A1: 1:500

Swept Path Analysis - Cable Drum Delivery Vehicle accessing Cable Haul Rd (West)

SCALE @ A1: 1:500





CABLE DRUM DELIVERY VEHICLE 25.44m

Overall Length	25.440m
Overall Width	4.500m
Overall Body Height	3.695m
Min Body Ground Clearance	0.332m
Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	14.500m

Note: Vehicles considered for the swept path analysis do not incorporate rear axles steering.

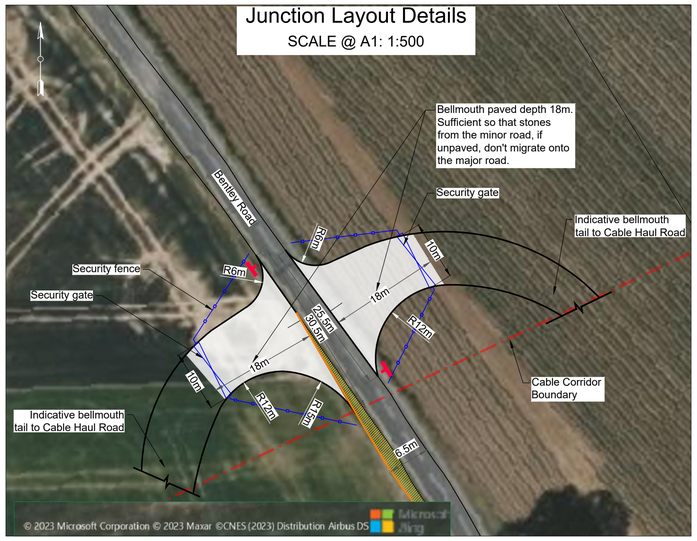
Geometry has been checked against the bespoke vehicle model shown in the diagram.
This model is generic and does not relate to any specific vehicle supplier's specification. All swept paths should be verified by the Contractor and their haulage supplier, once appointed, prior to detailed design and installation of the access.

Swept Path Analysis - Vehicle Details

Scale 1:150

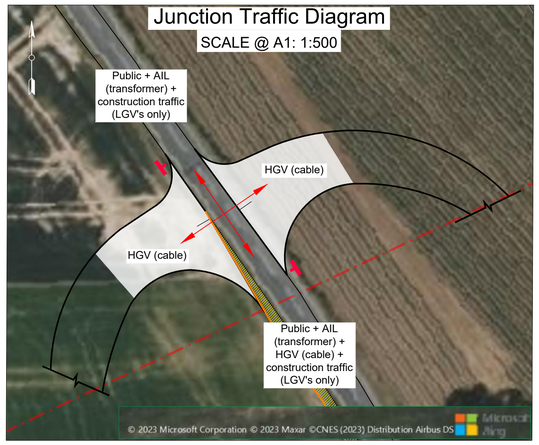
Junction Layout Details

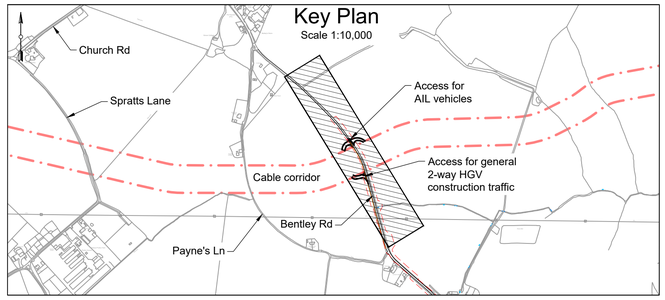
SCALE @ A1: 1:500



Junction Traffic Diagram

SCALE @ A1: 1:500





0 25m 50m
1:500

0 50m 100m
1:1000

0 500m 1000m
1:10,000

Notes

1. Do not scale any items of information from this drawing.
2. All dimensions are in metres unless otherwise stated.
3. This drawing is to be printed in colour and read in conjunction with all other relevant documents and drawings.
4. No unauthorised disclosure, storage or copying.
5. This drawing is for development purposes only and should not be used for construction.
6. Proposed arrangements shown for indicative purposes only. Dimensions and design may vary following completion of site surveys and the detailed design.
7. Alignment/specification of fencing and gates subject to site conditions and contractor requirements. Proposed fences to tie into existing fences/hedgerows.
8. Vegetation clearance and groundwork may be required to facilitate any necessary sight distances.
9. Vehicles used in this drawing are indicative of those expected to be using this construction access. Actual turning radii and vehicle track will depend on the precise vehicles used by the works contractor.
10. Where required by the local highways authority, the proposed junction will be controlled by traffic signals designed and installed in accordance with Chapter 6 of the Traffic Signs Manual. Appropriate warning signage will be used where necessary.
11. Visibility splay of 215m either side of bellmouth used to indicate required Stopping Site Distance as per CD 109 of the DMRB for 60mph design speeds. Bentley road speed limit considered to be the national speed limit on single carriageways, that is 60mph (~96 kph).
12. A temporary 40mph speed limit is recommended for safety of all road users in the vicinity of the access.
13. Cable deliveries are expected to require use of additional lanes and will require traffic control measures.
14. For construction of the bellmouths it is anticipated that temporary traffic signals will be installed with alternate lane closures. Cables crossing the road will be installed using trenchless techniques.
15. The junction has been assessed for the cable drum delivery vehicle, the max. legal length articulated vehicle (16.5m log) and a generic low loader (16.154m long). The junction geometry has been considered suitable to accommodate the movements of the forementioned vehicles.
16. Only partial utilities data has been provided for this indicative design. Full PAS128 utilities surveys shall be required at later design stages.
17. Drainage at bellmouth to be confirmed, construction boundary may change subject to drainage strategy and available outfalls.

Legend:

- Edge of carriageway line from OS Mastermap
- New carriageway edge (indicative) at Bentley Rd
- Edge of carriageway at bellmouth accesses
- Cable corridor
- RLB for Bentley Rd works
- Vehicle chassis/wheels outline
- Vehicle body outline
- Area swept by vehicle body/overhang
- Visibility splays at X=4.5m from stopping line
- Extents of vegetation and street furniture clearance to achieve visibility requirements at X=4.5m
- Visibility splays at X=9m from stopping line
- Extents of vegetation and street furniture further clearance to achieve visibility requirements at X=9m
- Forward visibility (Length= 175m)
- Bellmouth paved carriageway
- Proposed road widening
- Proposed vertical sign to be installed
- Proposed fence
- Proposed gate at bellmouth
- Existing surface water ditch / watercourse

Reference drawings

OS Mastermap
Essex County Council Private Rights of Way
VE-NF_Draft_Combined_Cable_Corridor_Rev_6 (dated 29/09/2023)
UK_FES_Work_Areas_py_OSGB36_v8_13_Extract (dated 16/11/2023)
104560-MMD-00-XX-DR-CE-1031- 1 to 3 - Bentley Rd Improvements Layout

Rev	Date	Drawn	Description	Ch'k'd	App'd
03	24/11/2023	SAP	Forward visibility added	JW	AFC
02	26/06/2023	SAP	Cable route & bellmouth arrangement updated	JW	AFC
01	25/04/2023	SAP	Preliminary	SG	JW

Status Stamp

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Client

NORTH FALLS Offshore Wind Farm
FIVE ESTUARIES OFFSHORE WIND FARM

Title

Co-located Substation Early Design
Bentley Rd with Cable Haul Rd
Junction & SPA

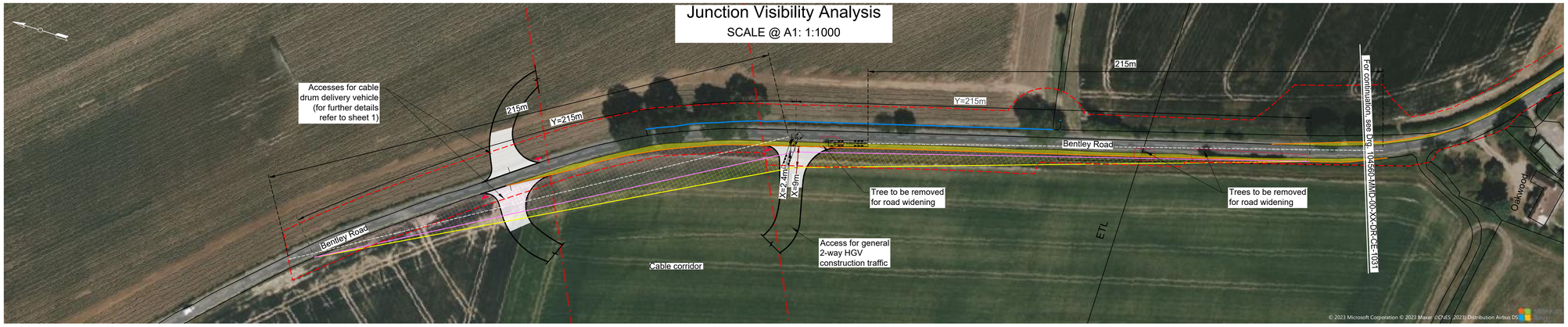
Sheet 01 of 02

Designed	S. Amado-Pedrosa	SAP	Eng check	Sam Goode	SG
Drawn	S. Amado-Pedrosa	SAP	Coordination	John Weeks	JW
Dwg check	Sam Goode	SG	Approved	John Weeks	JW

MMD Project Number	Scale at A1	Security
104560-001	As shown	STD
Client Number		Suit. Code
004786171-03		S3
Drawing Number		Revision
104560-MMD-00-XX-DR-CE-1032-1		03

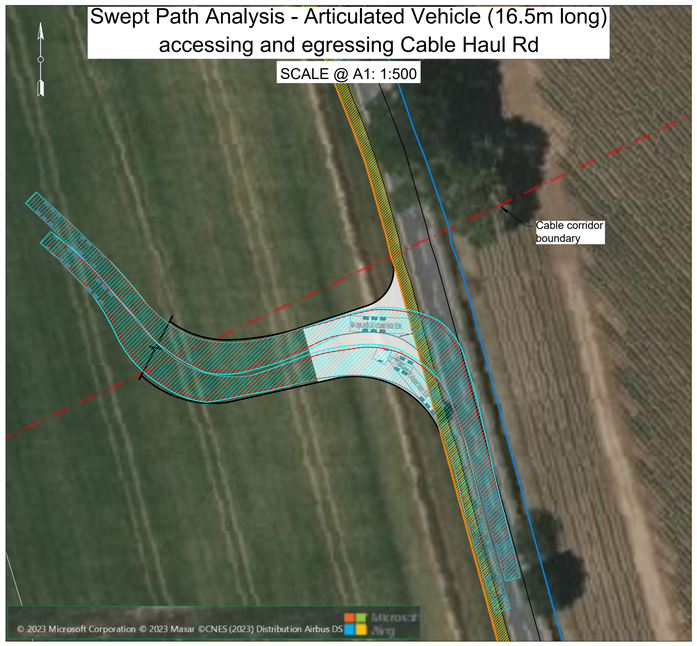
Junction Visibility Analysis

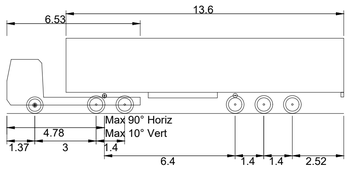
SCALE @ A1: 1:1000



Swept Path Analysis - Articulated Vehicle (16.5m long) accessing and egressing Cable Haul Rd

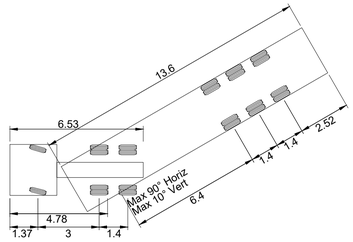
SCALE @ A1: 1:500



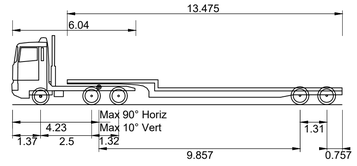


MAX. LEGAL LENGTH (UK) ARTICULATED VEHICLE (16.5m)

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m



Geometry has been checked against the bespoke vehicle models shown in the diagrams.
These models are generic and do not relate to any specific vehicle supplier's specification. All swept paths should be verified by the Contractor and their haulage supplier, once appointed, prior to detailed design and installation of the access.



LOW LOADER (16.154m)

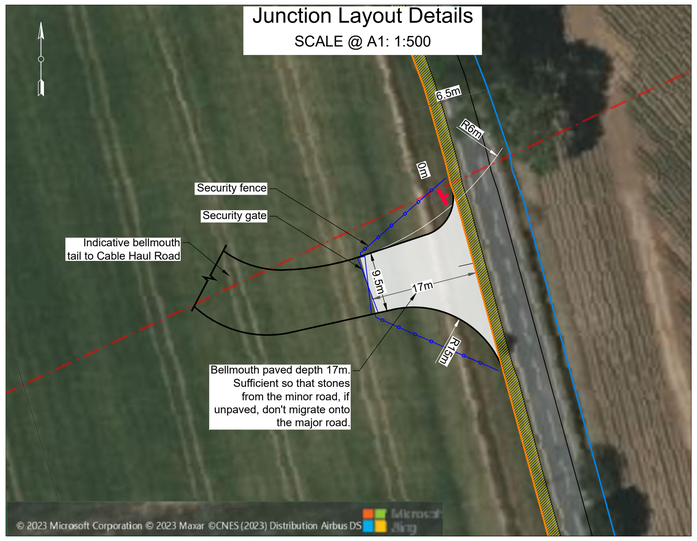
Overall Length	16.154m
Overall Width	2.520m
Overall Body Height	3.393m
Min Body Ground Clearance	0.318m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.990m

Swept Path Analysis - Vehicle Details

Scale 1:150

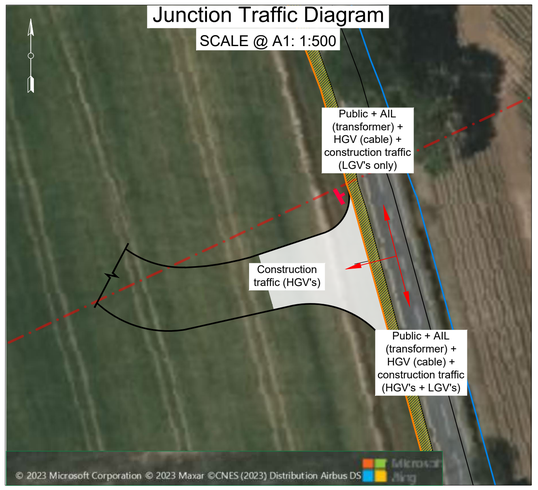
Junction Layout Details

SCALE @ A1: 1:500



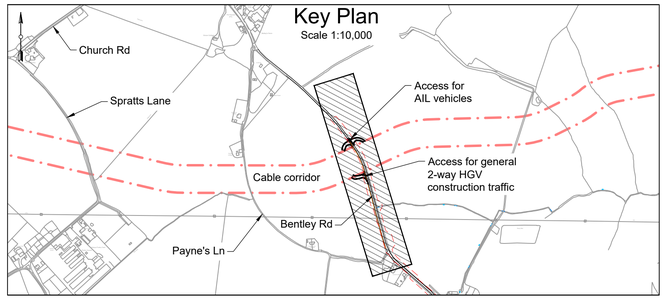
Junction Traffic Diagram

SCALE @ A1: 1:500



Key Plan

Scale 1:10,000



1:500 — 0 — 25m — 50m

1:1000 — 0 — 50m — 100m

1:10,000 — 0 — 500m — 1000m

C:\Users\AMA100030\DC\ACCDocs\Mott MacDonald\100104560 - RWE Co-location project\Project Files\MOTTMAC\C_CIV_MMD\DR\104560-MMD-00-XX-DR-CE-1032.dwg Nov 28, 2023 - 8:01PM AMA100030

Notes

1. Do not scale any items of information from this drawing.
2. All dimensions are in metres unless otherwise stated.
3. This drawing is to be printed in colour and read in conjunction with all other relevant documents and drawings.
4. No unauthorised disclosure, storage or copying.
5. This drawing is for development purposes only and should not be used for construction.
6. Proposed arrangements shown for indicative purposes only. Dimensions and design may vary following completion of site surveys and the detailed design.
7. Alignment/specification of fencing and gates subject to site conditions and contractor requirements. Proposed fences to tie into existing fences/hedgerows.
8. Vegetation clearance and groundwork may be required to facilitate any necessary sight distances.
9. Vehicles used in this drawing are indicative of those expected to be using this construction access. Actual turning radii and vehicle track will depend on the precise vehicles used by the works contractor.
10. Where required by the local highways authority, the proposed junction will be controlled by traffic signals designed and installed in accordance with Chapter 6 of the Traffic Signs Manual. Appropriate warning signage will be used where necessary.
11. Visibility splay of 215m either side of bellmouth used to indicate required Stopping Site Distance as per CD 109 of the DMRB for 60mph design speeds. Bentley road speed limit considered to be the national speed limit on single carriageways, that is 60mph (~96 kph).
12. A temporary 40mph speed limit is recommended for safety of all road users in the vicinity of the access.
13. Cable deliveries are expected to require use of additional lanes and will require traffic control measures.
14. For construction of the bellmouths it is anticipated that temporary traffic signals will be installed with alternate lane closures. Cables crossing the road will be installed using trenchless techniques.
15. The junction has been assessed for the cable drum delivery vehicle, the max. legal length articulated vehicle (16.5m log) and a generic low loader (16.154m long). The junction geometry has been considered suitable to accommodate the movements of the forementioned vehicles.
16. Only partial utilities data has been provided for this indicative design. Full PAS128 utilities surveys shall be required at later design stages.
17. Drainage at bellmouth to be confirmed, construction boundary may change subject to drainage strategy and available outfalls.

Legend:

- Edge of carriageway line from OS Mastermap
- New carriageway edge (indicative) at Bentley Rd
- Edge of carriageway at bellmouth accesses
- Cable corridor
- RLB for Bentley Rd works
- Vehicle chassis/wheels outline
- Vehicle body outline
- Area swept by vehicle body/overhang
- Visibility splays at X=4.5m from stopping line
- Extents of vegetation and street furniture clearance to achieve visibility requirements at X=4.5m
- Visibility splays at X=9m from stopping line
- Extents of vegetation and street furniture further clearance to achieve visibility requirements at X=9m
- Forward visibility (Length= 175m)
- Bellmouth paved carriageway
- Proposed road widening
- Proposed vertical sign to be installed
- Proposed fence
- Proposed gate at bellmouth
- Existing surface water ditch / watercourse

Reference drawings

OS Mastermap
Essex County Council Private Rights of Way
VE-NF_Draft_Combined_Cable_Corridor_Rev_6 (dated 29/09/2023)
UK_FES_Work_Areas_py_OSGB36_v8_13_Extract (dated 16/11/2023)
104560-MMD-00-XX-DR-CE-1031- 1 to 3 - Bentley Rd Improvements Layout

Rev	Date	Drawn	Description	Ch'k'd	App'd
02	24/11/2023	SAP	Forward visibility added	JW	AFC
01	26/06/2023	SAP	Cable route & bellmouth arrangement updated	JW	AFC

Status Stamp

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Client

NORTH FALLS Offshore Wind Farm
FIVE ESTUARIES OFFSHORE WIND FARM

Title

Co-located Substation Early Design Bentley Rd with Cable Haul Rd Junction & SPA

Sheet 02 of 02

Designed	S. Amado-Pedrosa	SAP	Eng check	John Weeks	JW
Drawn	S. Amado-Pedrosa	SAP	Coordination	Andrea F. Crespo	AFC
Dwg check	John Weeks	JW	Approved	Andrea F. Crespo	AFC

MMD Project Number	Scale at A1	Security
104560-001	As shown	STD
Client Number		Suit. Code
004845330-02		S3
Drawing Number		Revision
104560-MMD-00-XX-DR-CE-1032-2		02

Junction Visibility Analysis

SCALE @ A1: 1:500

Notes

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6. All spatial coordinates relate to the Ordnance Survey, British National Grid (OSGB36).
7. All levels are in meters and relate to AOD (Ordnance Survey, Newlyn).
8. The A road A120 has a 50mph (~80.5kph) speed limit applying to the dual carriageway section, where the junction with Bentley Road is located. For the purpose of visibility analysis, it has been considered a design speed of 85kph (~100kph) for the A120, as the above closer value as per DMRB, CD 109 *Highway link design*, Table 2.10. Based on Table 2.10, the desirable minimum length of visibility splays (Stopping sight distance - SSD) for a design speed of 85kph is 160m.
9. The visibility splay on Bentley Road are shown as what is feasible.
10. Indicative design layout based of OS grid, works may vary subject to detailed design and site survey.
11. Only partial utilities data has been provided for this indicative design, full PAS128 utilities surveys shall be required and additional land take may be required to accommodate diversions.
12. For swept path details, refer to drawings 104560-MMD-00-XX-DR-CE-1026 and 104560-MMD-00-XX-DR-CE-1027.
12. For further information on the transition detail carriageway/cycle track for the proposed cycle track, please refer to drawing 104560-MMD-00-XX-DR-CE-1059, Sheet 2.
13. Existing water utility may require diversion or protection in some areas.

Legend:

- Indicative visibility splay from property driveway
- Five Estuaries Order Limits Boundary
- North Falls Order Limits Boundary
- Proposed new edge of carriageway
- Proposed permanent carriageway widening at junction
- 2m shift of carriageway
- Cycle path

Reference drawings

104560-MMD-00-XX-DR-CE-1028 - Bentley Rd Junction SPA Road improvements
104560-MMD-00-XX-DR-CE-1064 - Early Design Bentley Rd SPA "contra-flow" Option
104560-MMD-00-XX-DR-CE-1031-1 to 3 - Bentley Rd Improvements Layout and Red Line Boundary for works
UK_FES_Work_Areas_py_OSGB36_v8_13_Extract (dated 16/11/2023)
UK_FES_Work_Areas_py_OSGB36_v8_13B_Extract (dated 16/11/2023)

Rev	Date	Drawn	Description	Ch'k'd	App'd
P02	08.03.2024	AT	Issue for comment	JW	AFC
P01	23.02.2024	AT	Issue for comment	JW	AFC

Status Stamp

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Client

NORTH FALLS Offshore Wind Farm

FIVE ESTUARIES OFFSHORE WIND FARM

Title

A120 - Bentley Road Junction Alternative Alignment

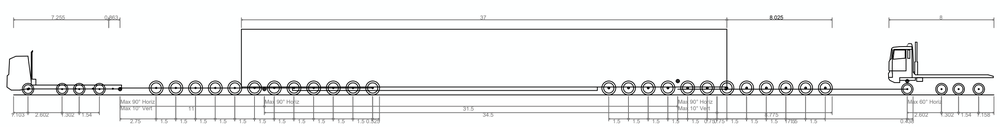
Sheet 01 of 01

Designed	A. Towse	AT	Eng check	J. Weeks	JW
Drawn	A. Towse	AT	Coordination	A. Fontaina Crespo	AFC
Dwg check	J. Weeks	JW	Approved	A. Fontaina Crespo	AFC

MMD Project Number	Scale at A1	Security
104560-001	1:500	STD

Client Number	Suit. Code
005070991-02	S3

Drawing Number	Revision
104560-MMD-00-XX-DR-CE-1065	P02



AIL- AL50 Girder 12 Axial (with rear tractor)

Overall Length	74.720m
Overall Width	6.300m
Overall Body Height	5.000m
Min Body Ground Clearance	0.337m
Max Track Width	3.000m
Lock to lock time	6.00s
Wall to Wall Turning Radius	11.550m

Geometry has been checked against a bespoke vehicle model shown in the diagram. This model is generic and does not relate to any specific vehicle supplier's specification. All swept paths should be verified by the Contractor and their haulage supplier once appointed prior to detailed design and installation of the access.

Notes

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7. Geometry has been checked against a bespoke vehicle model shown in the diagram. This model is generic and does not relate to any specific vehicle suppliers specification. All swept paths should be verified by the Contractor and their haulage supplier once appointed prior to detailed design and installation of the access.
8. Kerb line would need to be realigned to accommodate AIL movement requiring increased pavement widening.
9. AIL switch to contraflow position can occur between Red House Farm and the Single Lane Dual Carriageway section of the A120.

Key to symbols

- Chassis outline
- Body outline
- Swept path area by vehicle body
- OS map feature lines
- Five Estuaries Order Limits Boundary
- Proposed kerb line
- Proposed pavement widening
- Cycle path
- North Falls Order Limits Boundary

Reference drawings

Rev	Date	Drawn	Description	Ch'k'd	App'd
P3	07/03/2024	AT	Issue for comment	JW	AFC
P2	23/02/2024	AT	Issue for comment	JW	AFC
P1	08/02/2024	AT	Issue for comment	JW	AFC

Status Stamp

DRAFT

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Client

NORTH FALLS Offshore Wind Farm
FIVE ESTUARIES OFFSHORE WIND FARM

Title

Co-located Substation Early Design
A120 - Bentley Road Junction
Swept Path Analysis
"contra-flow" Option
Sheet 01 of 01

Designed	A. Towse	AT	Eng check	J. Weeks	JW
Drawn	A. Towse	AT	Coordination	A. Fontaina Crespo	AFC
Dwg check	J. Weeks	JW	Approved	A. Fontaina Crespo	AFC

MMD Project Number 104560	Scale at A1 1:400	Security STD
Client Number 005069954-03		Suit. Code S3
Drawing Number 104560-MMD-00-XX-DR-CE-1064		Revision P3

1:400 0 20m 40m

NORTH FALLS

Offshore Wind Farm

sse Renewables | RWE

HARNESSING THE POWER OF NORTH SEA WIND

North Falls Offshore Wind Farm Limited

A joint venture company owned equally by SSE Renewables and RWE.

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