

RWE Renewables UK Dogger Bank South (West) Limited

RWE Renewables UK Dogger Bank South (East) Limited

Dogger Bank South Offshore Wind Farms

Outline Construction Traffic Management Plan Volume 8

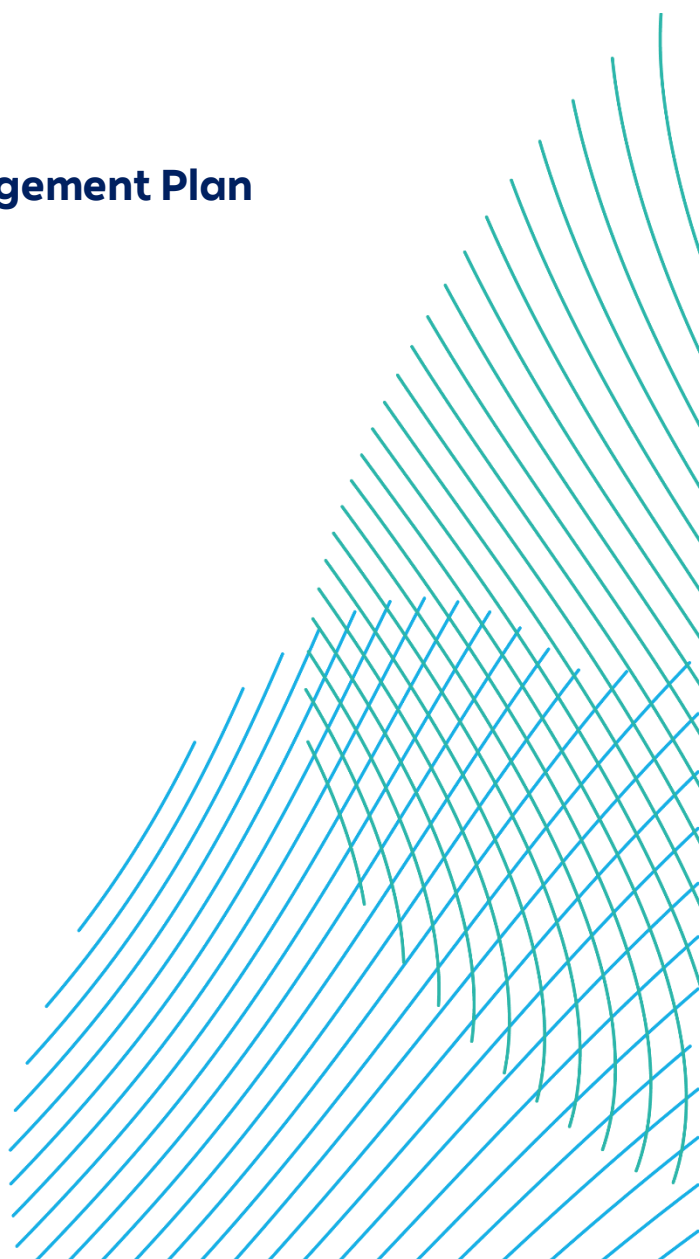
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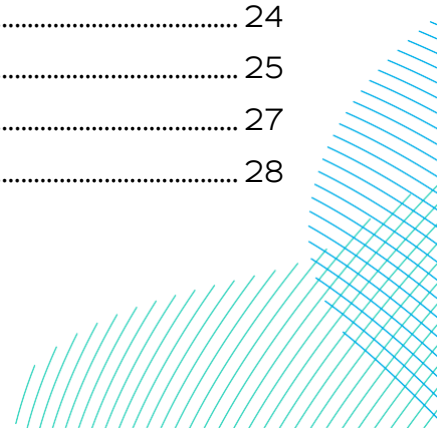
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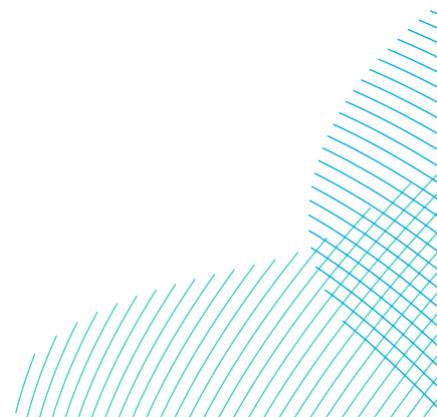
Figure 1 HGV Routes

Annexes

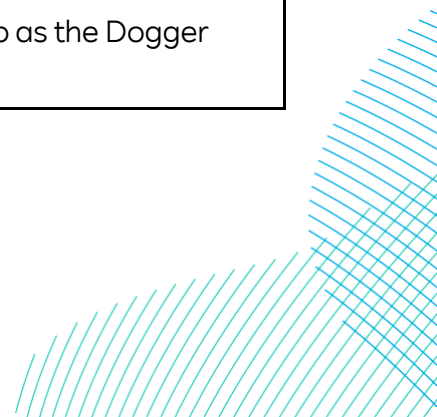
Annex 1	Peak Vehicle Movements Per Link
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Glossary

Term	Definition
Concurrent Scenario	A potential construction scenario for the Projects where DBS East and DBS West are both constructed at the same time.
Development Scenario	Description of how the DBS East and/or DBS West Projects would be constructed either in isolation, sequentially or concurrently.
Dogger Bank South (DBS) Offshore Wind Farms	The collective name for the two Projects, DBS East and DBS West.
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.
In Isolation Scenario	A potential construction scenario for one Project which includes either the DBS East or DBS West array, associated offshore and onshore cabling and only the eastern Onshore Converter Station within the Onshore Substation Zone and only the northern route of the onward cable route to the proposed Birkhill Wood National Grid Substation.
Landfall	The point on the coastline at which the Offshore Export Cables are brought onshore, connecting to the onshore cables at the Transition Joint Bay (TJB).
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 single trip (i.e. the arrival or departure from site) for the transfer of employees or delivery of goods.



Term	Definition
Onshore Export Cable Corridor	This is the area which includes cable trenches, haul roads, spoil storage areas, and limits of deviation for micro-siting. For assessment purposes, the cable corridor does not include the Onshore Converter Stations, Transition Joint Bays or temporary access routes; but includes Temporary Construction Compounds (purely for the cable route).
Onshore Export Cables	Onshore Export Cables take the electric from the Transition Joint Bay to the Onshore Converter Stations.
Onshore Substation Zone	Parcel of land within the Onshore Development Area where the Onshore Converter Station infrastructure (including the haul roads, temporary construction compounds and associated cable routeing) would be located.
Principal Contractor	A contractor appointed under Regulation 5(1) (b) of the Construction (Design and Management) Regulations 2015. They have control over the construction phase of a project with several contractors.
Relevant Highway Authorities	The term relevant highway authorities for the Projects includes all highway authorities within the traffic and transport study area, namely, East Riding of Yorkshire Council, Hull City Council and National Highways.
Sequential Scenario	A potential construction scenario for the Projects where DBS East and DBS West are constructed with a lag between the commencement of construction activities. Either Project could be built first.
The Applicants	The Applicants for the Projects are RWE Renewables UK Dogger Bank South (East) Limited and RWE Renewables UK Dogger Bank South (West) Limited. The Applicants are themselves jointly owned by the RWE Group of companies (51% stake) and Masdar (49% stake).
The Projects	DBS East and DBS West (collectively referred to as the Dogger Bank South Offshore Wind Farms).



Term	Definition
Traffic and Transport Study Area (TTSA)	Area where potential impacts from the Projects could occur, as defined for the traffic and transport EIA topic.
Vehicle (HGV, Traffic) trips	A vehicle movement (i.e. the arrival or departure from site) for the transfer of employees or delivery of goods.



Acronyms

Term	Definition
AIL	Abnormal Indivisible Load
CLO	Community Liaison Officer
CTMP	Construction Traffic Management Plan
TMCo	Traffic Management Co-ordinator
DBS	Dogger Bank South
DCO	Development Consent Order
EIA	Environmental Impact Assessment
ESDAL	Electronic Service Delivery for Abnormal Loads
ES	Environmental Statement
GW	Gigawatt
HDD	Horizontal Directional Drilling
HGV	Heavy Goods Vehicle
km	Kilometre
LV	Light Vehicle
OCTMP	Outline Construction Traffic Management Plan
PC	Principal Contractor
TTSA	Traffic and Transport Study Area
UK	United Kingdom

1 Introduction

1.1 Background

1. In November 2017, The Crown Estate announced a new round of offshore wind leasing and in September 2019 the final bidding areas were announced and the Offshore Wind Leasing Round 4 was launched. As part of the Round 4 process, developers were able to identify preferred sites within bidding areas defined by The Crown Estate.
2. RWE (herein 'the Applicants') was successful in this auction process, securing preferred bidder status on two adjacent projects, Dogger Bank South (DBS) East and DBS West Offshore Wind Farms, collectively known as DBS Offshore Wind Farms (herein 'the Projects'). Agreements for Lease were entered into by the Applicants in January 2023.
3. The Array Areas for DBS East and DBS West are located more than 100km offshore on the Dogger Bank in the southern North Sea and each covers approximately 350km².
4. Based on an estimated capacity of 3GW once fully operational, the DBS projects could be capable of generating enough electricity to meet the average annual domestic energy needs of around 3 million typical UK homes.¹
5. The proposed onshore construction works consist of installation of buried Onshore Export Cables, from a landfall on East Riding of Yorkshire coastline near Skipsea to (up to) two newly constructed Onshore Converter Stations, located to the southwest of Beverley. Onward onshore cable routeing would transfer power from the Projects' Onshore Converter Stations to a proposed new National Grid substation (located near to the existing National Grid Creyke Beck substation), known as the proposed Birkhill Wood National Grid Substation.
6. A full description of the Projects is provided within **Volume 7, Chapter 5 Project Description (application ref: 7.5)** of the Environmental Statement (ES).

¹ Calculation based on 2021 generation, and assuming average (mean) annual household consumption of 3,509 kWh, based on latest statistics from Department of Energy Security and Net Zero (Subnational Electricity and Gas Consumption Statistics Regional and Local Authority, Great Britain, 2021, Mean domestic electricity consumption (kWh per meter) by country/region, Great Britain, 2021

1.2 Purpose of the Outline Construction Traffic Management Plan

7. **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** of the ES contains an assessment of the potential effects and associated mitigation for the construction, operation, and decommissioning phases of the Projects.
8. 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 Projects. 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.
9. The OCTMP would form the basis for a final Construction Traffic Management Plan (CTMP) for each phase of the Projects' onshore works, which would be prepared and submitted prior to the commencement of construction of the relevant phase for approval by East Riding of Yorkshire Council, in consultation with their own highways team, Hull City Council and National Highways as appropriate (referred to hereafter as the relevant highway authorities). This is secured by Requirement 14 of the draft Development Consent Order (DCO) which states:

14. – (1) No phase of the onshore works may commence until a construction traffic management plan (which must be in accordance with the outline construction traffic management plan) has for that phase been submitted to and approved by the relevant planning authority in consultation with the relevant highway authority and National Highways or Hull City Council (if appropriate).

(2) Any plan submitted under sub-paragraph (1) may cover one or more phase of the onshore works.

(3) Each plan approved under sub-paragraph (1) must be implemented upon commencement of the relevant phase of the onshore works.
10. The final CTMP would set the standards and procedures that would be adopted by the appointed Principal Contractor (PC), including:
 - Managing the numbers and routing 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

11. **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** considers a range of possible Development Scenarios:

- Either DBS East or DBS West is built In Isolation; or
- DBS East and DBS West are both built either Sequentially or Concurrently.

12. **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** highlights that the construction of the Projects in isolation generates lower overall traffic flows than the construction of the Projects sequentially or concurrently and that construction of the Projects concurrently generates the highest flows.

13. Adopting the ‘Rochdale Envelope’² principle the In Isolation and Concurrent traffic scenarios represent the bounds of the assessment and to ensure that the traffic and transport assessment is proportionate, no separate assessment of traffic flows under the Sequential Scenario is presented.

14. Unless explicitly specified, the measures and controls contained within this OCTMP would be applicable to all Development Scenarios.

1.4 CTMP Governance

15. Prior to the commencement of 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 Applicants;
- Sharing information with emergency and healthcare services, e.g. dates of any road closures, abnormal load movements, etc;

² The ‘Rochdale Envelope’ approach is employed where the nature of the Proposed Development means that some details of the whole project have not been confirmed when the application is submitted and flexibility is sought to address uncertainty (Advice Note Nine: Rochdale Envelope, 2018).

- Supporting the Applicants with highway stakeholder engagement; and
 - Acting as a point of contact for construction workers and sub-contractors.
16. The TMCo would also be assisted in their role by a Community Liaison Officer (CLO). The CLO would be appointed by the Applicants.
17. To ensure clarity of the responsibilities of the OCTMP, its governance structure is set out in **Diagram 1-1**.

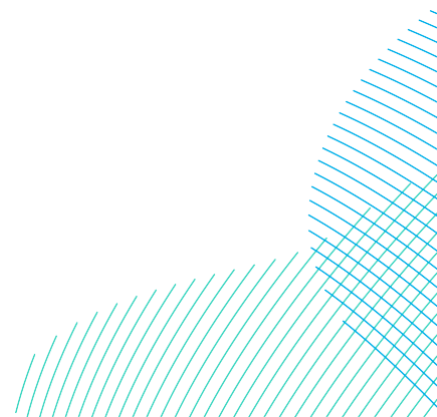
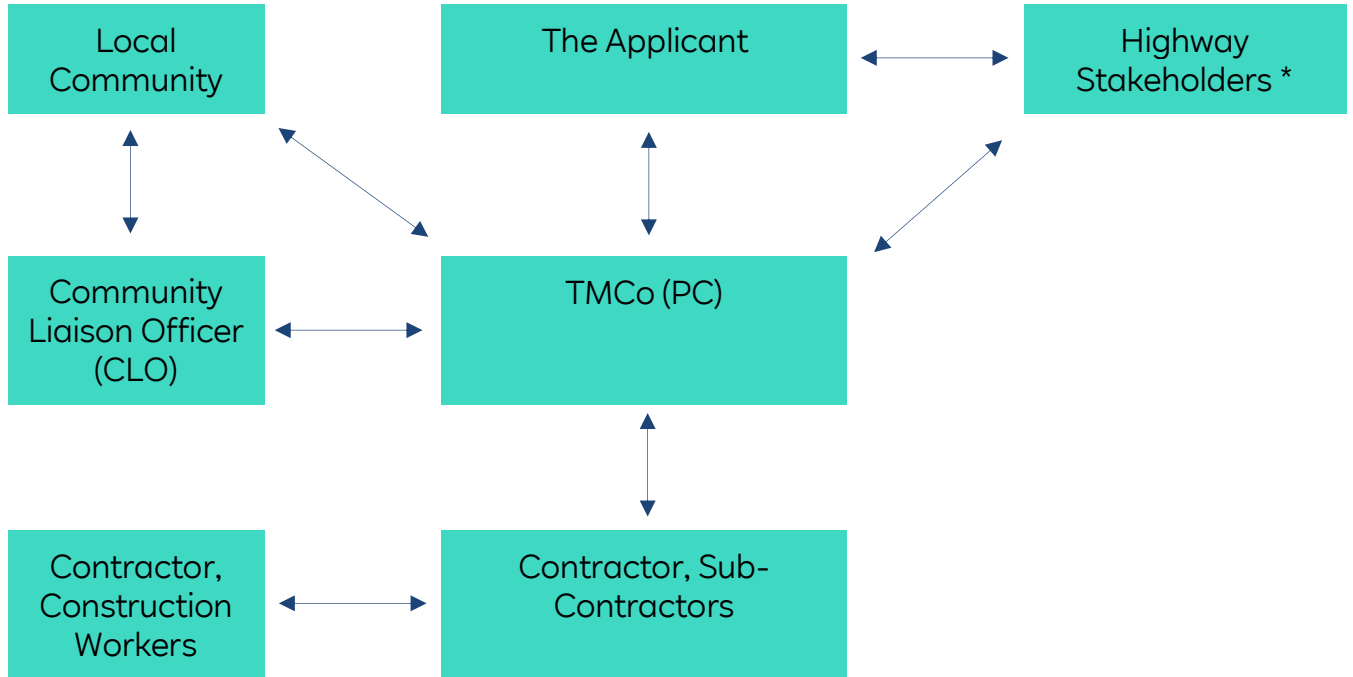


Diagram 1-1 CTMP Governance Structure



* Highways Stakeholders will include East Riding of Yorkshire Council, Hull City Council, National Highways, relevant local District, Town and Parish Councils.

18. Full details of all the responsibilities of the TMC Co and CLO and associated timescales are provided as an Action Plan in section 5.4. Contact details for the TMC Co and CLO would be submitted to the highway stakeholders for their records prior to the commencement of construction.

1.5 OCTMP Structure

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

- Section 2 defines measures to manage and control HGV demand;
- Section 3 defines 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

20. The OCTMP provides a level of detail as to the 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.
21. These measures are an absolute requirement established from the parameters outlined in section 24.6.1 of **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)**, to be adopted by the PC and only revised with the prior agreement of the relevant highway authorities.

2.2 HGV Traffic Generation

22. Table 24-17 and Table 24-18 of **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** sets out the forecast number of peak and average daily construction HGV trips (for all of the 66 links within the Traffic and Transport Study Area (TTSA)) for Projects In Isolation and Concurrently respectively.
23. **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** identifies that to mitigate potential amenity and road safety impacts (of the Projects construction traffic) it is necessary to reduce peak daily HGV trips on some links.
24. The resultant peak daily HGV trips per link are summarised in **Annex 1**. **Annex 1** also highlights which links have been subject to a reduction in peak construction HGV demand. The rationale for this mitigation is set out in **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)**.

2.2.1 HGV Numbers

25. To ensure compliance with the assessed worst case scenario for HGV trips (Concurrent Scenario as detailed in **Annex 1**), 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 and allow the TMCo to ensure that the required deliveries are forecast and planned.
26. 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 indicative profiles for monthly deliveries per link for the construction duration.

2.2.2 HGV Timings

27. Requirement 20 of the draft DCO outlines the working hours and hours during which construction related traffic can take place for the construction of Projects. Requirement 20 notes:

20. — (1) Construction work for the onshore works must only take place between 0700 hours and 1900 hours Monday to Saturday, with no activity on Sundays or public holidays, except as specified in sub-paragraphs (2) to (4).

(2) Outside the hours specified in sub-paragraph (1), construction work may be undertaken for essential activities including but not limited to:

(a) continuous periods of operation that are required as assessed in the environmental statement, such as concrete pouring, drilling, and pulling cables (including fibre optic cables) through ducts and trenchless crossings;

internal fitting out works associated with the onshore HVDC converter station buildings comprised within Work Nos. 25A or 26A and 26B;

(b) delivery of abnormal loads to the onshore works that may otherwise cause congestion on the local road network;

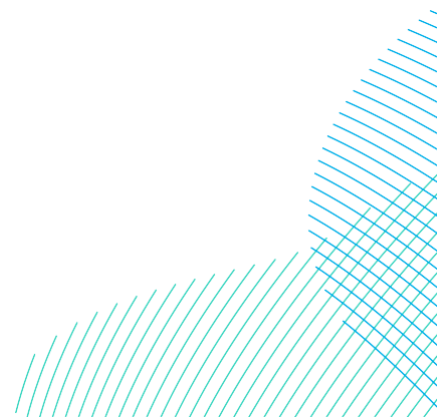
(c) the testing or commissioning of any electrical plant installed as part of the onshore works;

(d) security monitoring; or

(e) activity necessary in the instance of an emergency or where there is an immediate risk to persons, the environment, delivery of electricity, or property.

(3) 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 under sub-paragraph (2) and undertaken outside of the hours specified in sub-paragraph (1) must be approved by the relevant planning authority in writing in advance, and must be carried out within the agreed time.

(4) In the event of an emergency, notification of that emergency must be given to the relevant planning authority and the relevant highway authority as soon as reasonably practicable.



(5) For the purposes of this requirement “emergency” means a situation where, if the relevant action is not taken, there will be adverse health, safety, security or environmental consequences that in the reasonable opinion of the undertaker would outweigh the adverse effects to the public (whether individuals, classes or generally as the case may be) of taking that action.

28. With the exception of the clauses above, HGV construction traffic movements would not be permitted outside of the hours referred to in Requirement 19. This does not preclude HGV travel to and from the site of the relevant work via the wider highway network which may occur during the mobilisation / demobilisation hours.
29. Any HGVs which are projected to arrive on site outside of normal working hours 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).
30. The assessment of amenity effects outlined within **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** identifies that to mitigate potential amenity impacts (of the Projects’ construction traffic) it is necessary to restrict HGV trips via links 5 and 6 during school start and finish times. The exact hours to be avoided would be agreed as part of the final CTMP with the East Riding of Yorkshire Council prior to commencement of any phase which would involve HGV trips via links 5 and 6.

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 **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)**, and as shown on **Figure 1** of this OCTMP.
33. In addition to following the prescribed routes, East Riding of Yorkshire Council has also requested that HGVs accessing to the south of Skipsea should travel from the A165 via the B1249 (west to east) and depart toward the A165 on the B1242 (south to north). This routing is also depicted on **Figure 1** of this OCTMP.
34. 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 East Riding of Yorkshire Council prior to the commencement of construction of the relevant phase);
- The delivery routes and timings 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 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 reported breaches of the agreed delivery routes;
- The TMCo would require that where vehicle tracking is fitted to vehicles, that the systems are operational, and the suppliers / drivers make the data available to the TMCo. Vehicle tracking would allow the TMCo to investigate any breaches; 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 Projects and would be submitted to and approved by the relevant highway authorities as part of the final CTMP.

2.4 Driver Inductions

35. All HGV drivers for the Projects 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

36. To support the strategy to control HGV routes, each driver would be issued with a delivery pack. This pack would be a convenient size so that it can be stored in the truck cab and include the following information:

- A plan showing the delivery routes and the location of the site access;
- 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).

37. 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

38. **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** of the ES identified that the construction of the Projects' Onshore Converter Station(s) would require the delivery of large electrical plant items such as transformers. Each transformer delivery would be classified as a Special Order³ Abnormal Indivisible Load (AIL) delivery due to the size of the vehicle.

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

2.5.2 Non-Special Order Abnormal Loads

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

41. The final size of cable drums 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 local highway authorities (East Riding of Yorkshire Council and Hull City Council) to seek their views in regard to the best routes to be used and size of vehicles.

³ 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.

42. 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.
43. Prior to the movement of any AILs or abnormal loads, the TMCo would ensure stakeholders are notified through ESDAL and agree appropriate timings, routes and asset protection measures (with the relevant highway authorities, police and Network Rail) appropriate to the type of load.

3 Control of Employee Trips

3.1 Introduction and Background

44. **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** of the ES assessed a worst case scenario of all employees travelling by car on their own (i.e. single occupancy). No allowance for employees to car-share or use other sustainable modes of transport were applied to the assessment.
45. 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).
46. Table 24.17 and Table 24.18 of **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** sets out the forecast number of peak and average daily construction LV trips (for all of the 66 links within the TTSA) for the Projects In isolation and concurrently respectively.
47. The resultant peak daily LV trips per link are summarised in **Annex 1**.
48. The OCTMP sets out measures to secure the adoption of more sustainable travel options (than single occupancy LVs).

3.2 Measures

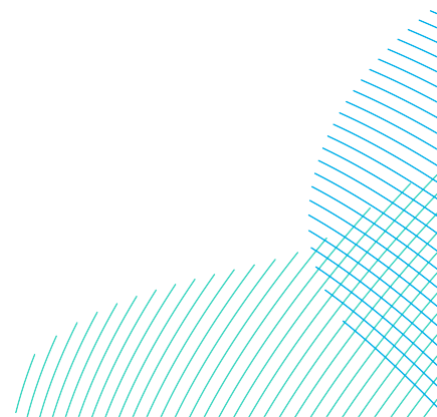
3.2.1 LV Vehicle Numbers

49. To ensure compliance with the assessed worst case scenario for LV trips (**Annex 1**), the TMCo would be required to establish a resource forecast for the number of employees that could be travelling to the Projects. The resource forecast would enable the TMCo to identify any potential exceedances and would be regularly reviewed / reforecast during construction.
50. Where potential exceedances are identified, the TMCo would first 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.
51. Should an exceedance be confirmed the TMCo would be required to, either:
- Reschedule activities to reduce the overlap or intensity of activities; or
 - Implement ‘enhanced travel planning’ measures, e.g. car-sharing, private minibus transport.
52. **Table 3-1** outlines a range of best practice measures that could be adopted to reduce the number of single occupancy vehicle trips. These types of measures would also form the basis for enhanced travel planning (if required).

Table 3-1 Personnel Travel Plan Measures

Measure	Rationale
Identify car-share, pickup locations	The 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 areas, 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.



Measure	Rationale
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 notice boards 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

53. Requirement 20 of the draft DCO outlines the working hours and hours during which construction related traffic can take place for the construction of Projects. Requirement 20 notes:

20. — (1) Construction work for the onshore works must only take place between 0700 hours and 1900 hours Monday to Saturday, with no activity on Sundays or public holidays, except as specified in sub-paragraphs (2) to (4).

(2) Outside the hours specified in sub-paragraph (1), construction work may be undertaken for essential activities including but not limited to:

(a) continuous periods of operation that are required as assessed in the environmental statement, such as concrete pouring, drilling, and pulling cables (including fibre optic cables) through ducts and trenchless crossings;

internal fitting out works associated with the onshore HVDC converter station buildings comprised within Work Nos. 25A or 26A and 26B;

(b) delivery of abnormal loads to the onshore works that may otherwise cause congestion on the local road network;

(c) the testing or commissioning of any electrical plant installed as part of the onshore works;

(d) security monitoring; or

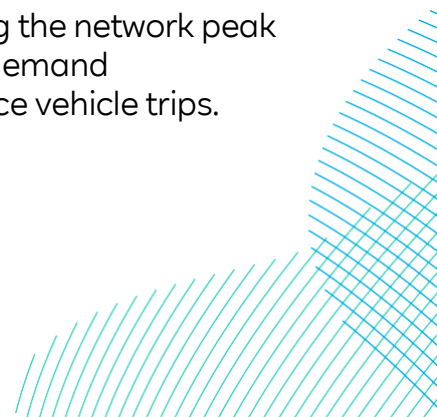
(e) activity necessary in the instance of an emergency or where there is an immediate risk to persons, the environment, delivery of electricity, or property.

(3) 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 under subparagraph (2) and undertaken outside of the hours specified in subparagraph (1) must be approved by the relevant planning authority in writing in advance, and must be carried out within the agreed time.

(4) In the event of an emergency, notification of that emergency must be given to the relevant planning authority and the relevant highway authority as soon as reasonably practicable.

(5) For the purposes of this requirement “emergency” means a situation where, if the relevant action is not taken, there will be adverse health, safety, security or environmental consequences that in the reasonable opinion of the undertaker would outweigh the adverse effects to the public (whether individuals, classes or generally as the case may be) of taking that action.

54. With the exception of the clauses above, LV construction traffic movements would not be permitted outside of the hours referred to in Requirement 20. This does not preclude LV travel to and from the site of the relevant work via the wider highway network which may occur during the mobilisation / demobilisation hours.
55. The assessment of driver delay (capacity) presented within **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** established that the addition of construction employee trips during the morning and evening network peaks (07:15 to 09:00 and 16:00 to 17:45) could have an adverse effect upon junction performance within the administration area of the East Riding of Yorkshire Council.
56. **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** therefore outlined that these adverse effects could be mitigated either by the avoidance of peak hours, demand management, or a combination of both.
57. Noting that the working hours for the Projects are 07:00 to 19:00, **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** established that if the majority of employee trips were scheduled to avoid network peak hours (e.g. arrive before 07:45 in the morning and depart after 17:30) that the combined traffic flows (background plus Projects’ peak employee traffic demand) would be less than the background flows in the network peak hours.
58. Alternatively if arrivals and departures are required during the network peak hours, this could potentially be accommodated through demand management measures e.g. the use of minibuses to reduce vehicle trips.



59. It is proposed that the TMCo would discuss and agree the final form of mitigation with East Riding of Yorkshire Council prior to the commencement of the relevant phase.
60. In addition to the managing employee trips within the administration area of East Riding of Yorkshire Council, should future junction capacity assessment (as detailed in section 4.6) identify potentially significant driver delay (capacity) effects mitigation measures would be proposed by the TMCo and discussed and agreed with Hull City Council and/or National Highways prior to the commencement of the relevant phase.
61. It is proposed that mitigation for any significant driver delay (capacity) effects would replicate those proposed for the East Riding of Yorkshire Council administration area, i.e. avoidance of sensitive hours or demand management measures.



4 Traffic Management

4.1 Introduction

62. 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

63. 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 would be submitted to and agreed with East Riding of Yorkshire Council as part of the final CTMP.

64. 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.

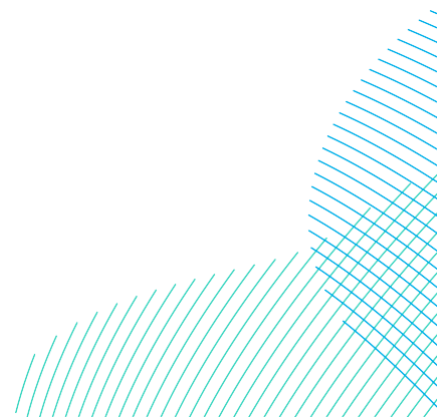
65. Where deliveries are likely to be more intense, such as at compounds, further measures such as wheel washing facilities and dust suppression measures may also be provided.

66. 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

67. A suite of outline access and road crossing designs have been developed for the Projects and are detailed within **Annex 2** of this OCTMP.

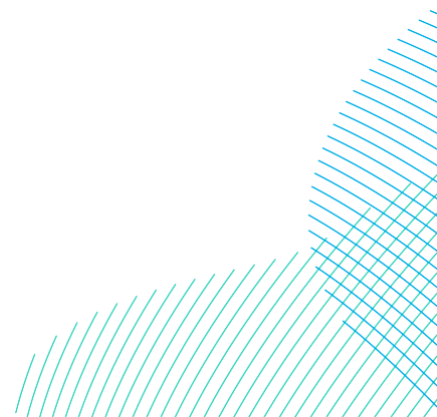
68. It has been agreed with East Riding of Yorkshire Council that these outline access and crossing designs would be refined post consent, to be included in the final CTMP.



69. Prior to the commencement of construction for the relevant phase, the technical approvals for the access and crossing designs would be submitted to and agreed with East Riding of Yorkshire Council under Section 62 and 278 of the Highways Act 1980 or equivalent provisions under the DCO or other relevant powers (e.g. New Road and Street Works).
70. 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.
71. The technical approval documentation would also include Stage 1 and 2 Road Safety Audits and a Road Safety Audit Response Report (on behalf of the designers).
72. 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.
73. All accesses and crossings identified for construction are temporary and following completion of construction works would be reinstated to their former state unless otherwise agreed with East Riding of Yorkshire Council and the relevant landowner. The exception to this would be the access to the Onshore Converter Station(s) which would remain permanently in-situ for operation and maintenance purposes.
74. To construct each of the accesses and crossings, temporary traffic management would be implemented to maintain highway safety and to ensure minimal delays to existing road users. Prior to the commencement of construction of the relevant phase, details of traffic management at accesses and crossings would be developed by the TMCo in liaison with East Riding of Yorkshire Council.

4.4 Access Management Measures

75. Section 24.6.1.7 of **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** assessed the effect of increases in construction traffic upon Driver Delay - Highway Geometry.
76. The assessment identified five links within the TTSA of constrained width which would prevent two vehicles from passing, potentially effecting driver delay.
77. Section 24.6.1.7 of **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** sets out a range of mitigation measures that could be adopted including:
 - Road / junction widening;



- Extending existing passing places;
 - Providing new and / or formalising existing informal passing places; or
 - Using mobile traffic management, such as:
 - An escort / pilot vehicle to guide HGVs along roads and past oncoming traffic;
 - 'Stop-works' signage to hold traffic back (for up to two minutes in any 15 minutes) whilst HGVs travel along routes; or
 - 'Temporary obstruction' signage to hold traffic (for up to 15 minutes with a subsequent gap of at least one hour) whilst HGVs travel along routes.
78. A graphical depiction of how an escort / pilot vehicle would work is provided as **Annex 3**.
79. Prior to the commencement of construction of the relevant phase, the TMCo would formalise and agree the measures to be adopted for each road. The final choice of measures would be agreed in liaison with East Riding of Yorkshire Council.
80. Where road / junction widening or new / improved passing places are proposed, they would be contained within the public highway and the technical approvals for the designs would be submitted to and agreed with East Riding of Yorkshire Council under Section 62 or 278 of the Highways Act 1980 or equivalent provisions under the DCO or other relevant powers (e.g. New Road and Street Works).
81. The technical approval process would include submission of finalised drawings, showing full details of the improvements, including drainage, lighting, signing, and standard construction details.
82. All road / junction widening would be temporary and following completion of construction would be reinstated to their former state unless otherwise agreed with East Riding of Yorkshire Council.
83. The technical approval documentation would also include a Stage 1 and 2 Road Safety Audit and a Road Safety Audit Response Report (on behalf of the designers).



4.5 Cable Crossings

84. **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** of the ES outlines that cable installation works, within the Onshore Cable Corridor(s) would need to be installed across nine minor public roads using open-cut trenching techniques. All other roads would be crossed using trenchless techniques, such as Horizontal Directional Drilling (HDD). The location of all roads to be crossed by the Projects Onshore Export Cables and the form of crossing (i.e. open cut or trenchless techniques) are shown on Figure 24-3 of **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** of the ES.
85. Due to the width of seven of these roads, it is proposed that they would be closed whilst the cables are installed for a period of up to two weeks (per crossing). These seven roads include:
- Bewholme Lane;
 - Dunnington Lane;
 - Billings Lane;
 - Harsell Lane;
 - Catwick Heads Lane;
 - Rise Lane; and
 - Riston Road.
86. To minimise the effect to existing road users of these seven 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 and provide advanced warning of the closure;
 - 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 to provide advanced notification and identify if there may be periods which could be avoided.
87. The exception to the road closure strategy is at Park Lane and Catfoss Road where it is proposed access is maintained either through the use of trenchless technologies (subject to further site investigation works) or shuttle working (e.g. the use of traffic signals to alternate flows on a one-way section of road).

88. If trenchless techniques cannot be used at any of these locations, in addition to the use of shuttle working, the following additional mitigation measures are also proposed:
- Working with East Riding of Yorkshire Council and local stakeholders to agree an appropriate time to undertake the works (e.g. during school holidays);
 - Implementation of advanced signing to assist drivers in finding alternative routes; and
 - Ensuring all road closure works are staggered to minimise any cumulative effects within close geographical areas.

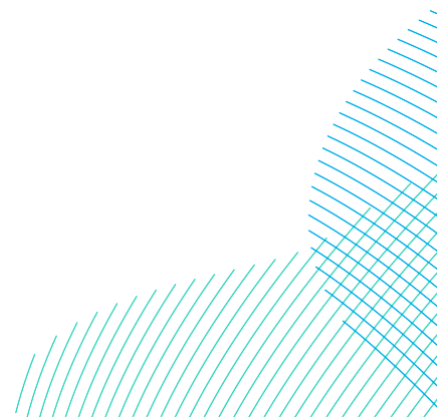
4.6 Junction Assessments

89. Section 24.6.1.6 of **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** identified 17 junctions as being potentially sensitive to changes in traffic.
90. It has been agreed with Hull City Council and National Highways that, for the junctions within the Council's administration area (junctions 1 to 13,) rather than undertaking detailed junction capacity modelling for the DCO application submission, it would be appropriate to defer any assessment until post determination when baseline conditions have consolidated following major highway improvements to the A63 Castle Street.
91. Detailed information regarding forecast traffic flows for each of these junctions (junction 1 to 13) would be provided to the respective highway authorities by the TMCo once a PC is appointed and greater certainty is available with regards to the following variables:
- Background traffic flows following completion of the A63 Castle Street improvement works by National Highways;
 - A construction programme providing details of monthly breakdown of HGV and employee demand throughout construction;
 - Details of the peak and average HGV movements;
 - Details of the peak and average employee movements;
 - The modes of travel to be used by employees, i.e. the anticipated proportion that would use public transport, car-share, etc;
 - Details of the origin and destination of employees and HGV traffic
 - Proposed HGV hourly profiles; and
 - Proposed employee shift patterns.

92. It is therefore proposed that prior to commencement, the TMCo would submit details (to the relevant highway authorities) of the revised forecast traffic flows that would pass through junctions 1 to 13 and the timing of these movements. The relevant highway authorities would then advise if they require further capacity assessment.
93. If the relevant highway authorities consider that more detailed assessment is required, the methodology for modelling would first be agreed with the relevant highway authorities. This would include:
- The approach to gathering baseline data (turning counts, queue length surveys, etc.);
 - Approach to factoring survey data to a future year, e.g. appropriate TEMPRo (Trip End Model Presentation Program) factors; and
 - Modelling software.
94. Should the modelling identify potentially significant effects, mitigation measures would be agreed with the relevant highway authorities to manage effects to reduce the significance to a level that is not significant.
95. It is proposed that any mitigation measures would focus upon 'traffic management' measures to reduce peak traffic movements, such as, car-sharing, reprofiling deliveries, etc.

4.7 Road Safety

96. Section 24.6.1.4 of **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** of the ES identified potentially significant road safety effects along links 17 and 76 associated with the construction of the Projects.
97. Noting the temporary nature of the Projects' construction phase **Volume 7, Chapter 24 Traffic and Transport (application ref: 7.24)** outlines that it is proposed that mitigation measures for links 17 and 76 would focus upon management measures, rather than physical highway improvements. Management measures would include:
- Limiting the numbers of peak HGV movements via these links. The process for controlling HGV trips is detailed in section 2); and
 - As part of the induction process (detailed in section 2.4) drivers who may have to travel via these links would be made aware of the potential risks.



4.8 Parking and Loading

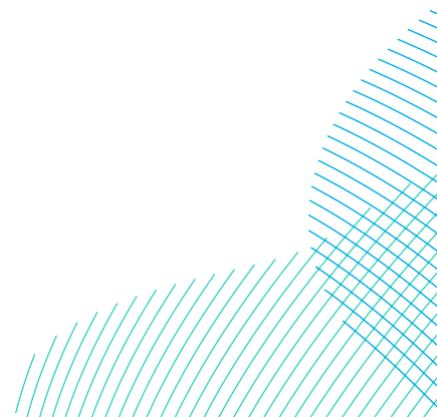
98. Appropriate loading / unloading and parking areas for construction vehicles would be designated within the construction sites to avoid the need for parking or waiting on the highway. The planning of deliveries via the booking system would assist the TMCo to allocate sufficient space to accommodate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

4.9 Traffic Incident Management

99. 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. bike races, parades, etc.) and around public holidays.	The CLO and TMCo would liaise with local stakeholders to understand when major events may occur. To ensure there are limited HGV trips during planned major events, the TMCo would undertake advanced planning to reschedule 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 PC would liaise directly with suppliers to suspend HGV deliveries along affected routes where required.



Measure	Rationale
<p>Managing traffic demand during road closures.</p>	<p>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 may not be possible the following approach is proposed:</p> <ul style="list-style-type: none"> • The TMCo would identify contingency diversion routes having regard for the road hierarchy (e.g. where possible 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 within the ES and request the relevant highway authorities to review the outputs and confirm acceptance or otherwise.
<p>Incidents involving PC HGV traffic blocking the highway, such as, breakdowns, accidents, etc.</p>	<p>The PC and their suppliers' fleets 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.</p>

4.10 Highway Condition Surveys

100. Highway condition surveys would be undertaken by the TMCo prior to the commencement of construction and after the substantial completion of construction works. 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.
101. Any damage to the existing highway network as a consequence of the Projects would be repaired by the PC or a financial contribution made to East Riding of Yorkshire Council to cover the cost of remedial works.
102. The survey would most likely comprise of a Coarse Visual Inspection survey (in accordance with the UK Pavement Management System standard). Prior to the commencement of construction, the extent and scope of surveys would be agreed between the TMCo and East Riding of Yorkshire Council and outlined within the final CTMP.

103. In addition to undertaking surveys prior to, and on completion of the construction works, the PC would also undertake regular inspections of the highway network 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.
104. Where emerging issues are identified as a result of the Projects' construction traffic, the PC would notify East Riding of Yorkshire Council and either repair the issue or ask East Riding of Yorkshire Council to undertake the repairs (with costs being recharged to the PC).



5 Monitoring, Enforcement and Action Plan

5.1 Introduction

105. 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

106. The Applicants 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.
107. 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 Projects' dedicated telephone number) clearly displayed for public enquiries.
108. 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

109. To ensure compliance with the assessed daily HGV trips (outlined in **Annex 1**), 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

110. The TMCo would implement a system to help the public distinguish HGV construction vehicles associated with the Projects 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 publicised telephone contact number.
111. 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

112. 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 and arrival / departure times and origin.

5.2.5 Road Safety

113. 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.
114. 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

115. 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 made available to the relevant highway authorities on request.
116. 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 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 include the work undertaken over the previous period with evidence and examples;
 - Specific Measures – this would detail how all measures from 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 and objectives of 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

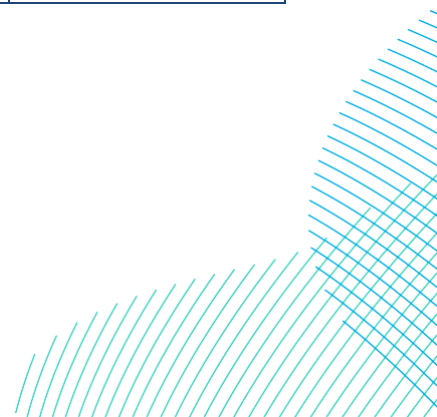
117. To ensure that the final CTMP is effectively enforced, it is important to define what would constitute a breach. The following actions would constitute a breach of the CTMP, whereby corrective measures would be required:
- Exceedance of target daily vehicle numbers;
 - Failure to display the unique identifier, or remove the unique identifier when not making deliveries to the Projects;
 - Construction workers overspill parking on the public highway;
 - Construction traffic operating outside of agreed hours; or
 - Construction traffic not adhering to the agreed routes / times.
118. On receipt of a report of a potential breach, 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.
119. If the breach 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.
120. Individual employee breaches 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

121. The action plan set out in **Table 5-1** summarises the commitments and measures that would be implemented by the Applicants, PC and TMCo.
122. **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
M001	Appoint an Applicant's representative	The Applicants	During mobilisation
M002	Appointment of a CLO.	The Applicants	Prior to commencement of construction.
M003	Appointment of a TCo.	PC	Prior to commencement of construction.
M004	Obtain technical approval for construction of accesses and crossings.	The Applicants	Prior to commencement of construction.
M005	Obtain technical approval for construction of road widening, passing places, etc (offsite highway works).	The Applicants	Prior to commencement of construction.
M006	Implement offsite highway works	TCo	Prior to commencement of construction.
M007	Implement direction signing.	TCo	Prior to commencement of construction.
M008	Agree timing, diversion routes and reinstatement details for cable crossings.	TCo	Prior to commencement of construction.
M009	Establish monitoring systems: <ul style="list-style-type: none"> • Delivery booking system; • Highway condition; • Unique vehicle identifier; and • Telephone reporting system. 	TCo	Prior to commencement of construction.



Measure ID	Measure	Responsibility	Indicative Timescales
M010	Agree scope of and undertake pre-commencement highway condition surveys.	TMCo	Prior to commencement of construction.
M011	Agree and implement measures for each access to control the deposition of detritus on the public highway.	TMCo	Prior to commencement of construction.
M012	Inspect the highway for detritus and request regular cleansing as required.	TMCo	Ongoing throughout construction.
M013	Undertake ongoing liaison with communities and stakeholders.	TMCo and CLO	Ongoing throughout construction.
M014	Monitoring of CTMP measures: <ul style="list-style-type: none"> • HGV trips; • Accidents and near misses; • Employee mode share; and • Complaints. 	TMCo	Ongoing throughout construction.
M015	Produce monthly monitoring reports	TMCo	Ongoing throughout construction.
M016	Update condition surveys and agree any remedial works.	TMCo	Following completion of construction.



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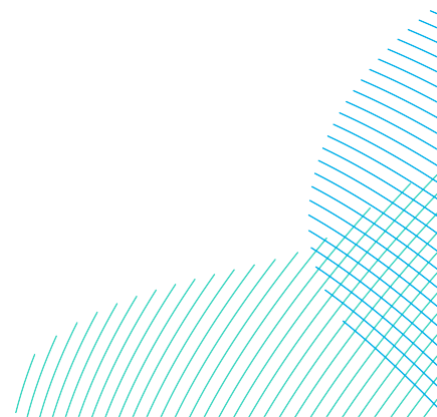
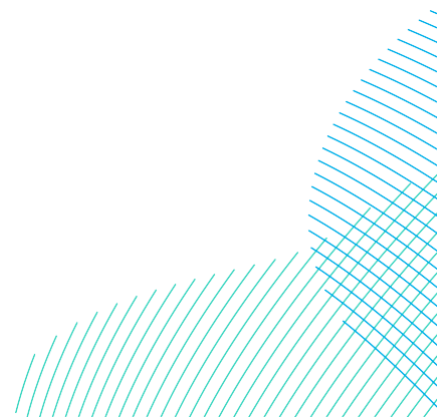
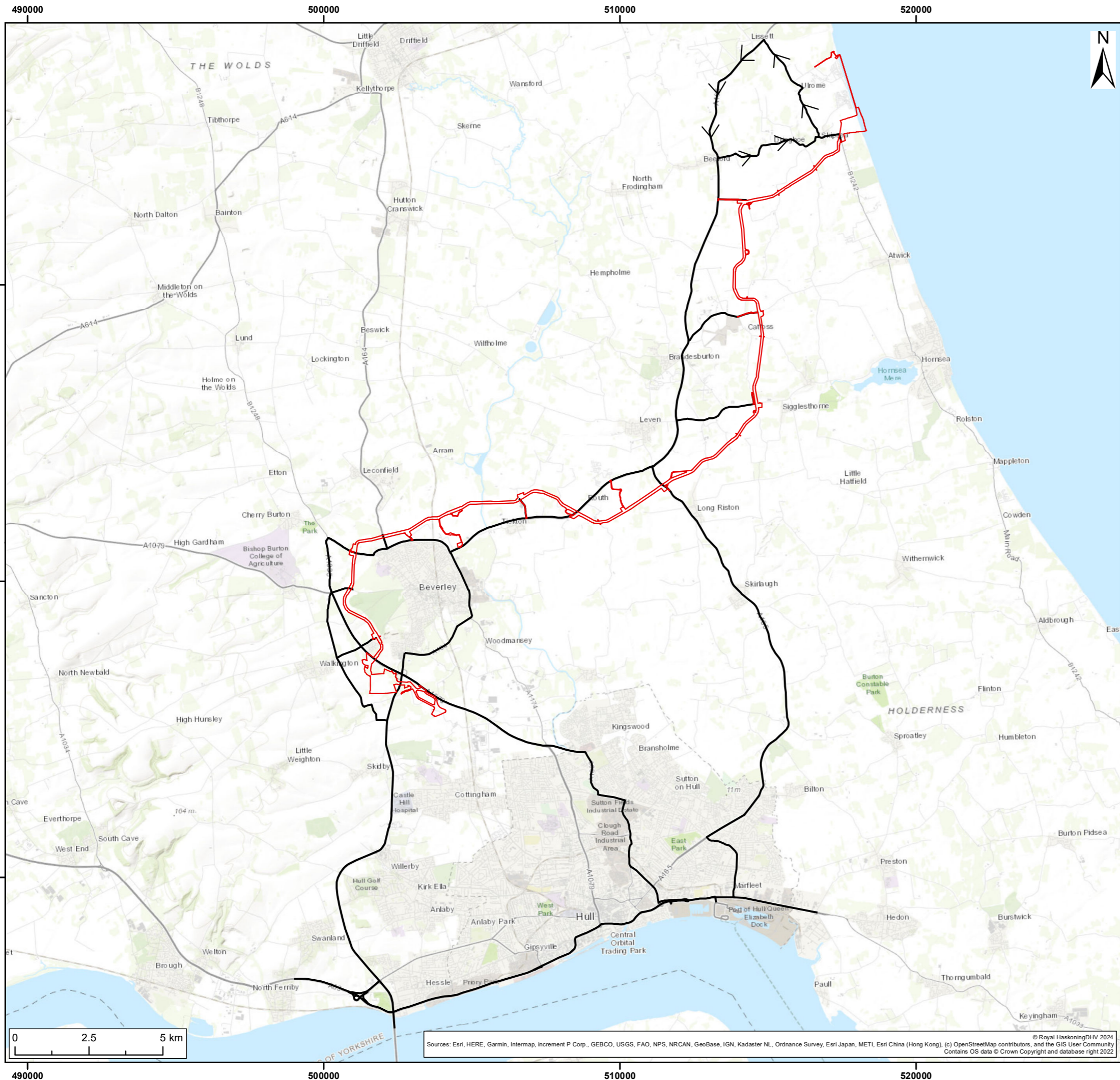


Figure 1 HGV Routes





Legend:

- Onshore Development Area
- HGV Construction Routes

SUI	REV	DATE	DESCRIPTION	DRW	CHK	APR
S3	P02	03/05/2024	Suitable for review & comment	JH	SB	CB
S2	P01	23/01/2024	Suitable for information	JH	SB	CB

Title:
HGV Construction Routes

Figure: 1 Drawing No: PC2340-RHD-ON-ZZ-DR-Z-0700

Co-ordinate system: British National Grid Page Size: A3 Scale: 1:130,000

Project: **Dogger Bank South Offshore Wind Farms** Report: **Outline Construction Traffic Management Plan**



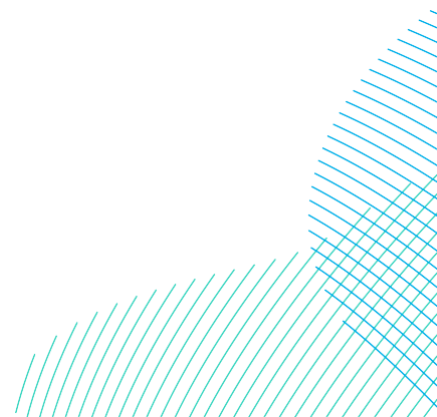
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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Dogger Bank South Offshore Wind Farms

Annex 1 Peak Vehicle Movements Per Link

Unrestricted
004775362



Link ID	Link Description	Maximum Daily Vehicle Trips			
		DBS East or West In Isolation		DBS East and West Concurrently	
		All Vehicles	HGVs	All Vehicles	HGVs
1	A165 Carnaby to Lissett	19	0	20	0
2	A165 Lissett to Beeford	207	59	217	67
3	A165 Beeford to Brandesburton	382	115	418	145
4	B1242 Lissett to Skipsea	31	30	35	34
5	Beeford Road	160	16	164	24
6	B1242 Skipsea to End	191	32	199	47
7	Dunnington Lane	177	56	204	78
8	Catfoss Road	125	43	159	49
9	A165 Brandesburton to Leven	505	158	575	194
10	A1035 Level to Catwick	205	73	221	84
11	Unnamed road north of A1035	55	30	68	41
12	A1035 Leven to A165	706	231	791	278
13	A165 from A1035 to Skirlaugh	649	462	761	563
14	A165 through Skirlaugh	491	370	594	370
15	A165 from Skirlaugh to Coniston	491	462	594	563
16	A165 from Coniston to Holderness Road	491	370	594	370
17	A165/Holderness Road	479	370	581	370

Unrestricted

004775362

Link ID	Link Description	Maximum Daily Vehicle Trips			
		DBS East or West In Isolation		DBS East and West Concurrently	
		All Vehicles	HGVs	All Vehicles	HGVs
18	A165/Holderness Road	0	0	0	0
19	Mount Pleasant/A1033	481	469	655	642
20	A1033 Slip Road	481	469	655	642
21	A1033/Hedon Road	481	469	655	642
22	A1033/Hedon Road	498	469	673	642
23	A1033/Hedon Road	462	462	563	563
24	A63	469	469	642	642
25	A63	0	0	0	0
26	A63	0	0	0	0
27	A63	798	469	995	642
28	A15/Boothferry Road	798	469	995	642
29	Humberbridge	286	0	306	0
30	A164	1,133	469	1,354	642
31	A164	1,133	469	1,354	642
32	A164	1,346	469	1,583	642
33	A164	1,346	469	1,583	642
34	A164	1,570	469	1,821	642
35	A164	1548	469	1,798	642
36	Dunflat Road off A164	53	24	56	26

Unrestricted

004775362

Link ID	Link Description	Maximum Daily Vehicle Trips			
		DBS East or West In Isolation		DBS East and West Concurrently	
		All Vehicles	HGVs	All Vehicles	HGVs
37	Coppleflat Lane	53	24	56	26
38	A164	1,164	469	1,337	585
39	B1248	70	0	75	0
40	A1033/Thomas Clarkson Way	542	469	720	642
45	A1033	686	469	874	642
46	A1174	117	0	126	0
49	A1174	117	0	126	0
50	A164/ Woodmansey	1,124	469	1,296	585
51	A164/Woodmansey	1,124	469	1,296	585
52	A1174/A164	1,241	469	1,422	585
53	A1174/A164/Swinemoor Lane	1,241	409	1,422	409
54	A1035	1,189	469	1,377	588
55	A1035	1,284	469	1,474	588
56	A1035	1,455	469	1,658	588
57	A1035/A164	264	56	288	75
58	Ings Road	125	39	148	39
59	Driffield Road	33	17	45	31
60	A1035	501	143	542	168

Unrestricted

004775362

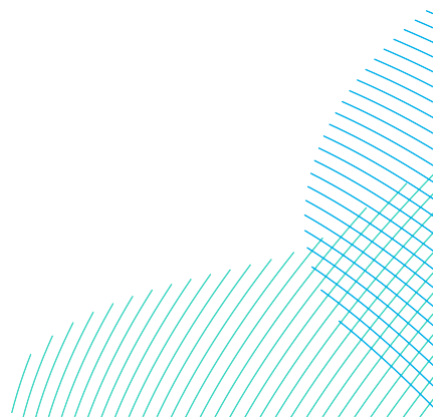
Link ID	Link Description	Maximum Daily Vehicle Trips			
		DBS East or West In Isolation		DBS East and West Concurrently	
		All Vehicles	HGVs	All Vehicles	HGVs
61	A1035/Dog Kennel Lane	443	126	480	149
62	A1174	119	50	156	69
63	A1079	1,027	382	1,159	475
64	Killingwoldgraves Lane	113	47	120	51
65	A1079/Bishop Burton	70	0	150	0
66	A1079	876	469	1,073	642
68	Coppleflat Lane	113	47	120	51
71	Broadgate/B1230	142	47	151	51
73	Eske Lane	124	38	141	53
74	Mount Pleasant/A1033 and Stoneferry Road/A1165	514	469	691	469
75	Sutton Road/A1033	542	469	720	642
76	Marfleet Lane and Maybury Road	479	370	581	370
Notes:					
	Links where mitigation has been applied to reduce forecast construction traffic flows				



Dogger Bank South Offshore Wind Farms

Annex 2 Outline Access Designs

Unrestricted
004775362



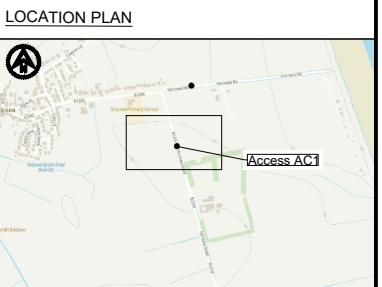
DRAWING No.
PC2340-RHD-ZZ-ZZ-DR-R-0101



SCALE IN METRES
1:1250

- 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 CABLE CORRIDOR
 - HIGHWAY BOUNDARY
 - PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
 - VISIBILITY SPYLA FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
 - ◊ PROPOSED GATE
 - ⊙ EXISTING TRAFFIC SIGN
 - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE



REV	DATE	DESCRIPTION	BY	CHK	APP
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT



PROJECT
DOGGER BANK SOUTH
OFFSHORE WIND FARMS

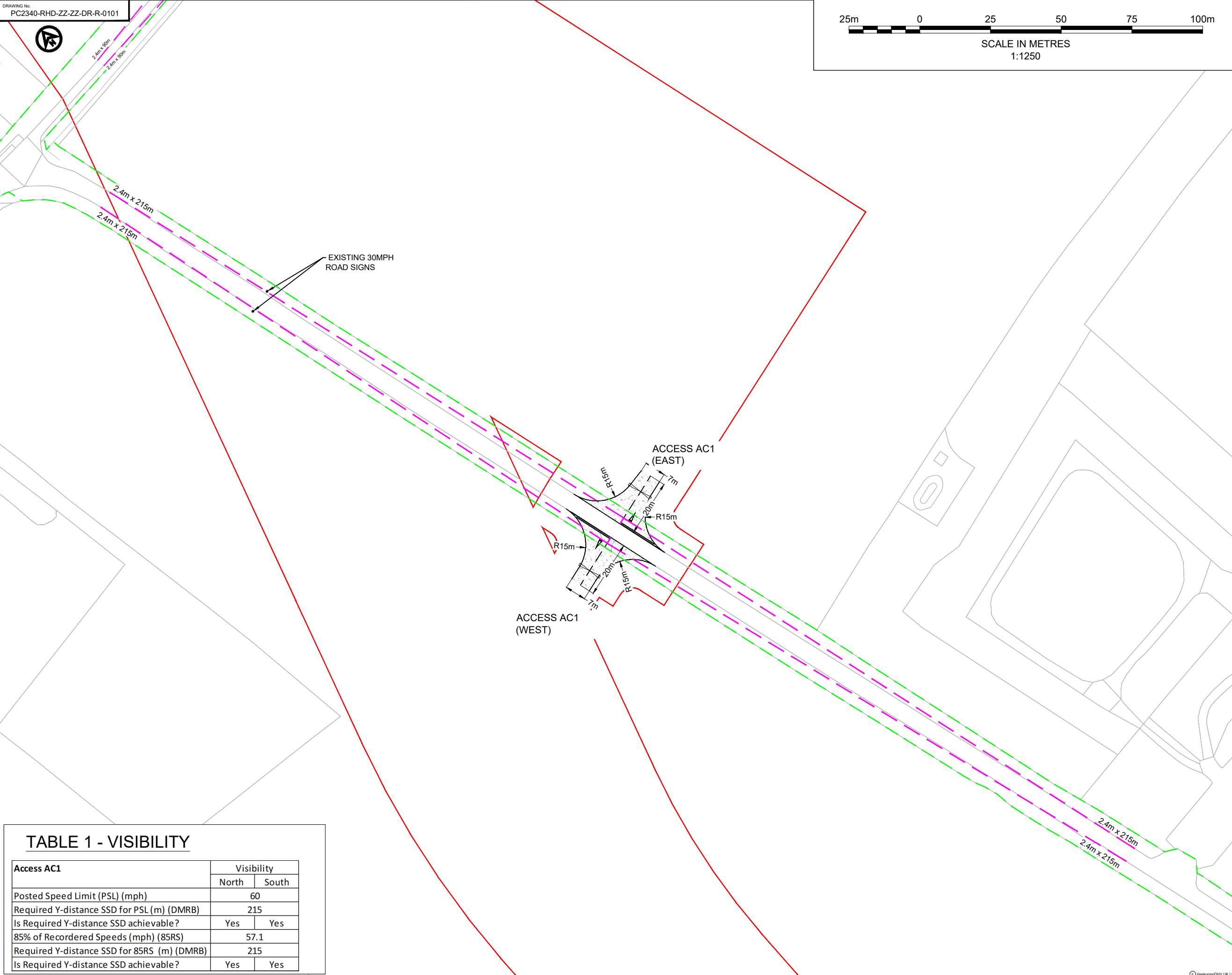
TITLE
ACCESS AC1 (WEST & EAST)
GENERAL ARRANGEMENT



DRAWN	AA	CHECKED	SKT	APPROVED	SKT
DATE	19.06.23	SCALE	1:1250	AUTOCAD REF.	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0101			REVISION	
CLIENT DWG No.					P01

TABLE 1 - VISIBILITY

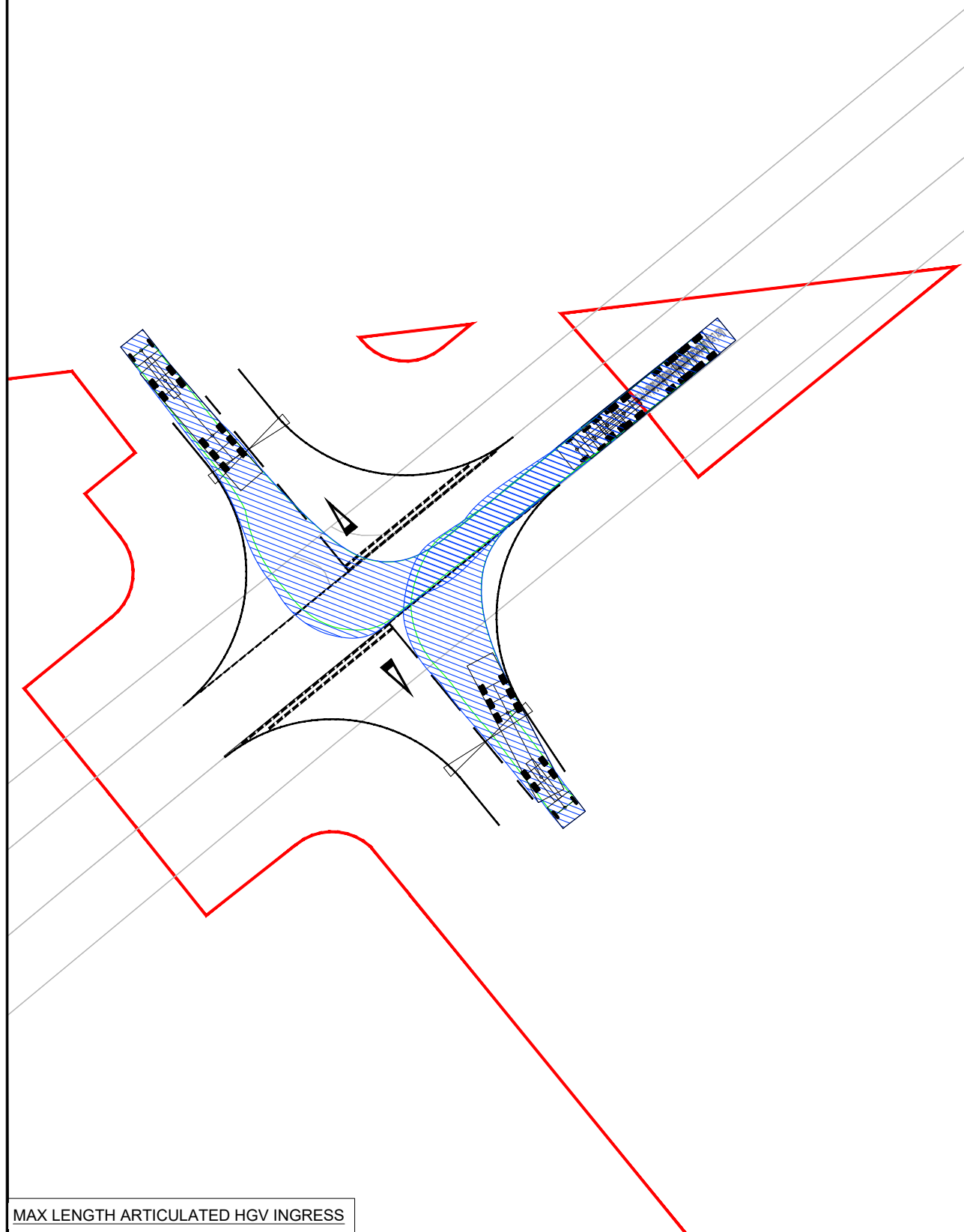
Access AC1	Visibility	
	North	South
Posted Speed Limit (PSL) (mph)	60	
Required Y-distance SSD for PSL (m) (DMRB)	215	
Is Required Y-distance SSD achievable?	Yes	Yes
85% of Recorded Speeds (mph) (85RS)	57.1	
Required Y-distance SSD for 85RS (m) (DMRB)	215	
Is Required Y-distance SSD achievable?	Yes	Yes





25m 20 15 10 5 0 10 20 30m

SCALE IN METRES
1:500

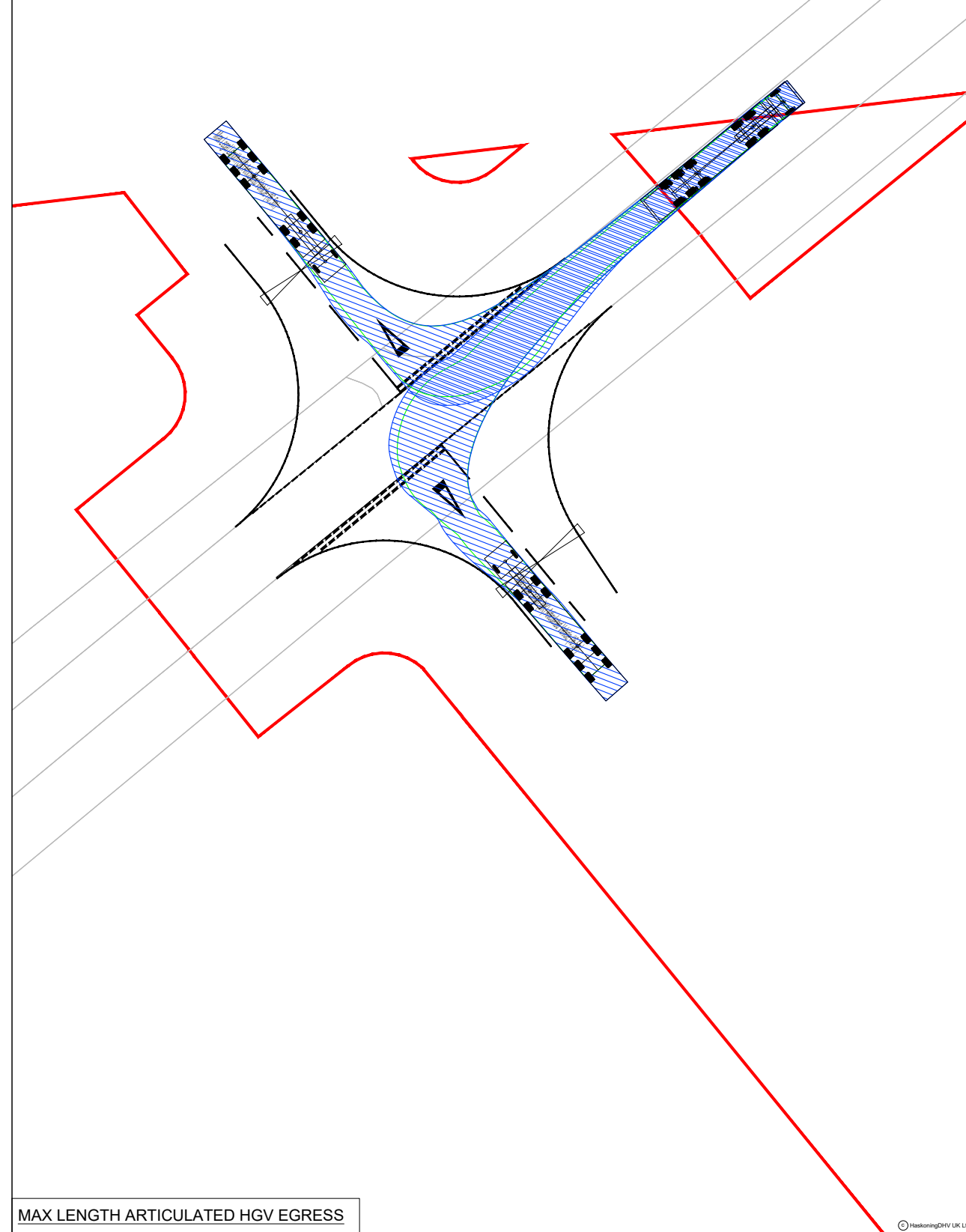


MAX LENGTH ARTICULATED HGV INGRESS



25m 20 15 10 5 0 10 20 30m

SCALE IN METRES
1:500



MAX LENGTH ARTICULATED HGV EGRESS

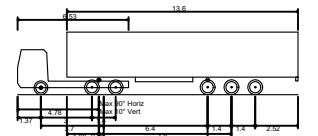
NOTES

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2. This drawing has been based upon Ordnance Survey Maps and Royal HaskoningDHV can not guarantee the accuracy of data.

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 3.691m
 Min Body Ground Clearance 0.411m
 Max Track Width 2.500m
 Lock to lock time 6.00s
 Kerb to Kerb Turning Radius 6.530m

P01	30.06.23	FIRST ISSUE	AA	SKT	SKT
REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

CLIENT



PROJECT

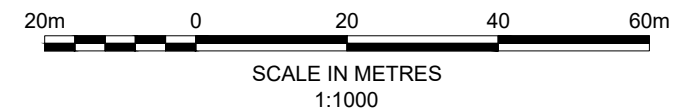
DOGGER BANK SOUTH
OFFSHORE WIND FARMS

TITLE

ACCESS AC1
SWEEP PATH ANALYSIS



DRAWN	CHECKED	APPROVED
AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
30.06.23	1:500	
DRAWING No	PC2340-RHD-ZZ-ZZ-DR-R-0135	REVISION
CLIENT DWG No.		P01



- 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 CABLE CORRIDOR
 - HIGHWAY BOUNDARY
 - ⊘ PROPOSED GATE
 - PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
 - - - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
 - ▨ FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE

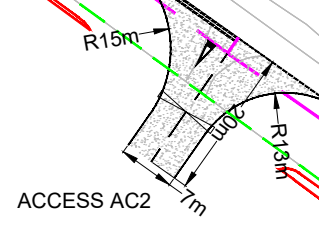
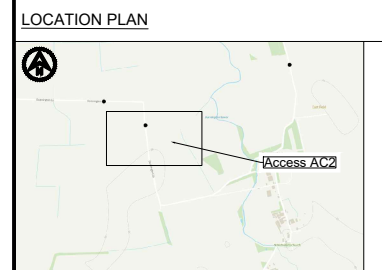


TABLE 1 - VISIBILITY

Access AC2	Visibility	
	East	West
Posted Speed Limit (PSL) (mph)	60	
Required Y-distance SSD for PSL (m) (DMRB)	215	
Is Required Y-distance SSD achievable?	No	No
85% of Recorded Speeds (mph) (85RS)	47.5	
Required Y-distance SSD for 85RS (m) (DMRB)	160	
Is Required Y-distance SSD achievable?	Yes	Yes

REV	DATE	DESCRIPTION	BY	CHK	APP
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT



PROJECT
DOGGER BANK SOUTH OFFSHORE WIND FARMS

TITLE
ACCESS AC2
GENERAL ARRANGEMENT



DRAWN	CHECKED	APPROVED
AA	SKT	SKT

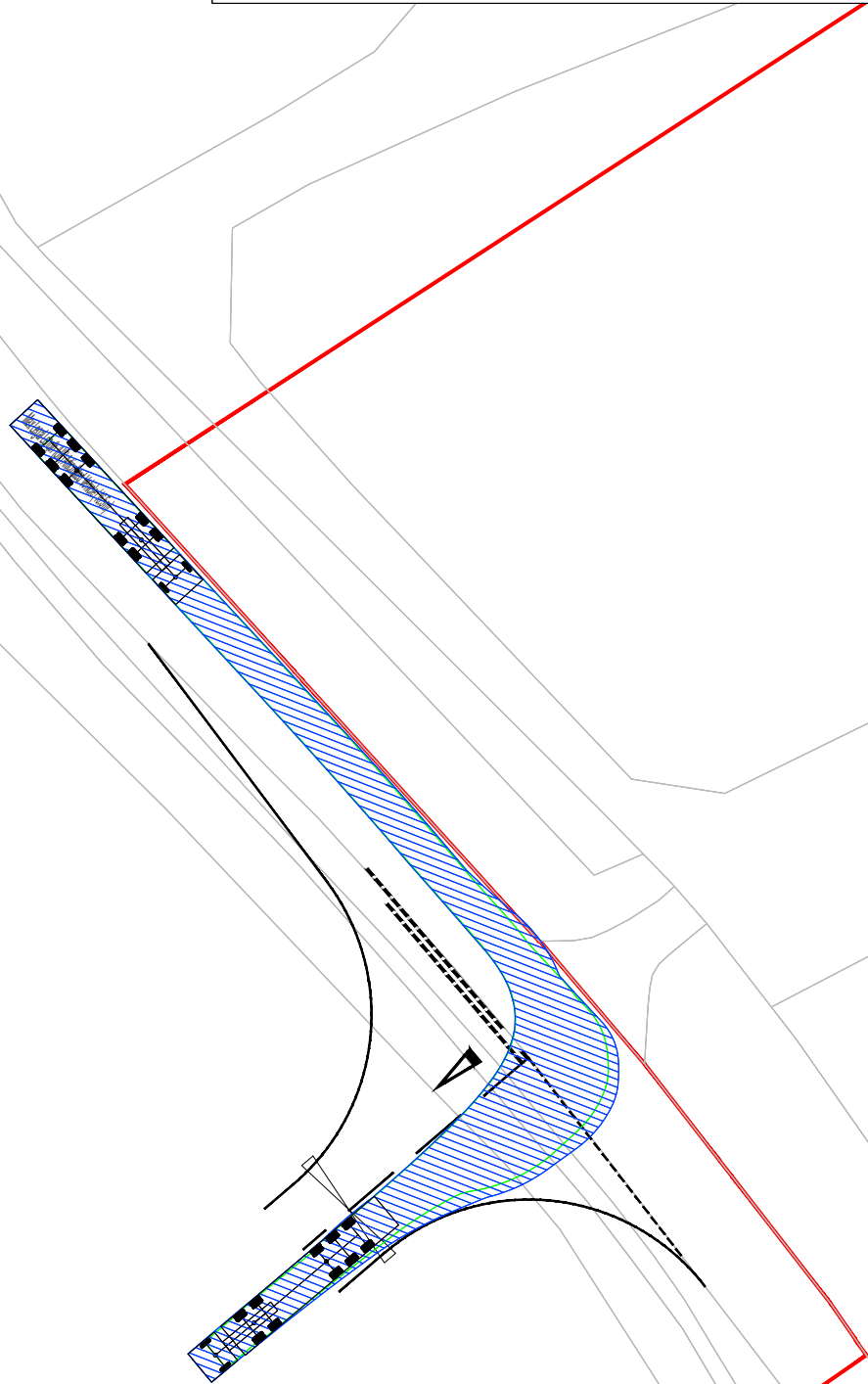
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DRAWING No: PC2340-RHD-ZZ-ZZ-DR-R-0103 REVISION: P01

CLIENT DWG No:



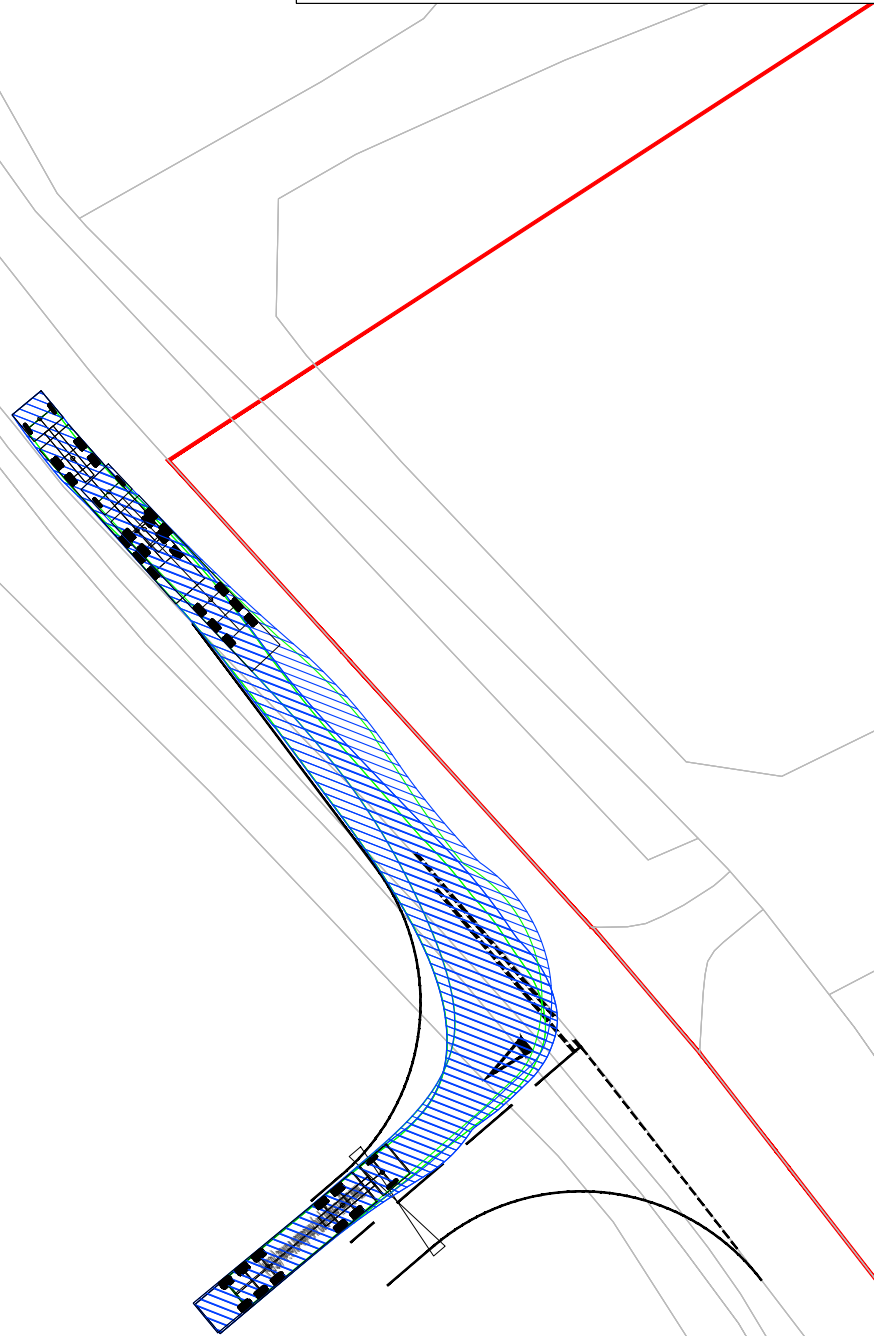
SCALE IN METRES
1:500



MAX LENGTH ARTICULATED HGV INGRESS



SCALE IN METRES
1:500



MAX LENGTH ARTICULATED HGV EGRESS

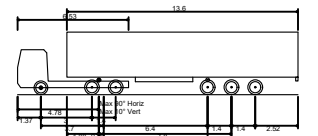
NOTES

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KEY

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

VEHICLE TRACKING



Max Legal Length (UK) Articulated Vehicle (16.5m) 16.500m
 Overall Length 19.500m
 Overall Width 2.550m
 Overall Body Height 3.691m
 Min Body Ground Clearance 0.411m
 Max Track Width 2.500m
 Lock to lock time 6.00s
 Kerb to Kerb Turning Radius 6.530m

P01	30.06.23	FIRST ISSUE	AA	SKT	SKT
REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

CLIENT



PROJECT

DOGGER BANK SOUTH
OFFSHORE WIND FARMS

TITLE

ACCESS AC2
SWEEP PATH ANALYSIS



DRAWN	CHECKED	APPROVED
AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
30.06.23	1:500	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0136	REVISION
CLIENT DWG No.		P01



SCALE IN METRES
1:1000

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 - Y-Distance - the SSD measured along the nearest edge of the carriageway to its intersection with the centreline of the access.
 - 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
 - HIGHWAY BOUNDARY
 - PROPOSED GATE
 - PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
 - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
 - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE

LOCATION PLAN



REV	DATE	DESCRIPTION	BY	CHK	APP
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT



PROJECT
DOGGER BANK SOUTH
OFFSHORE WIND FARMS

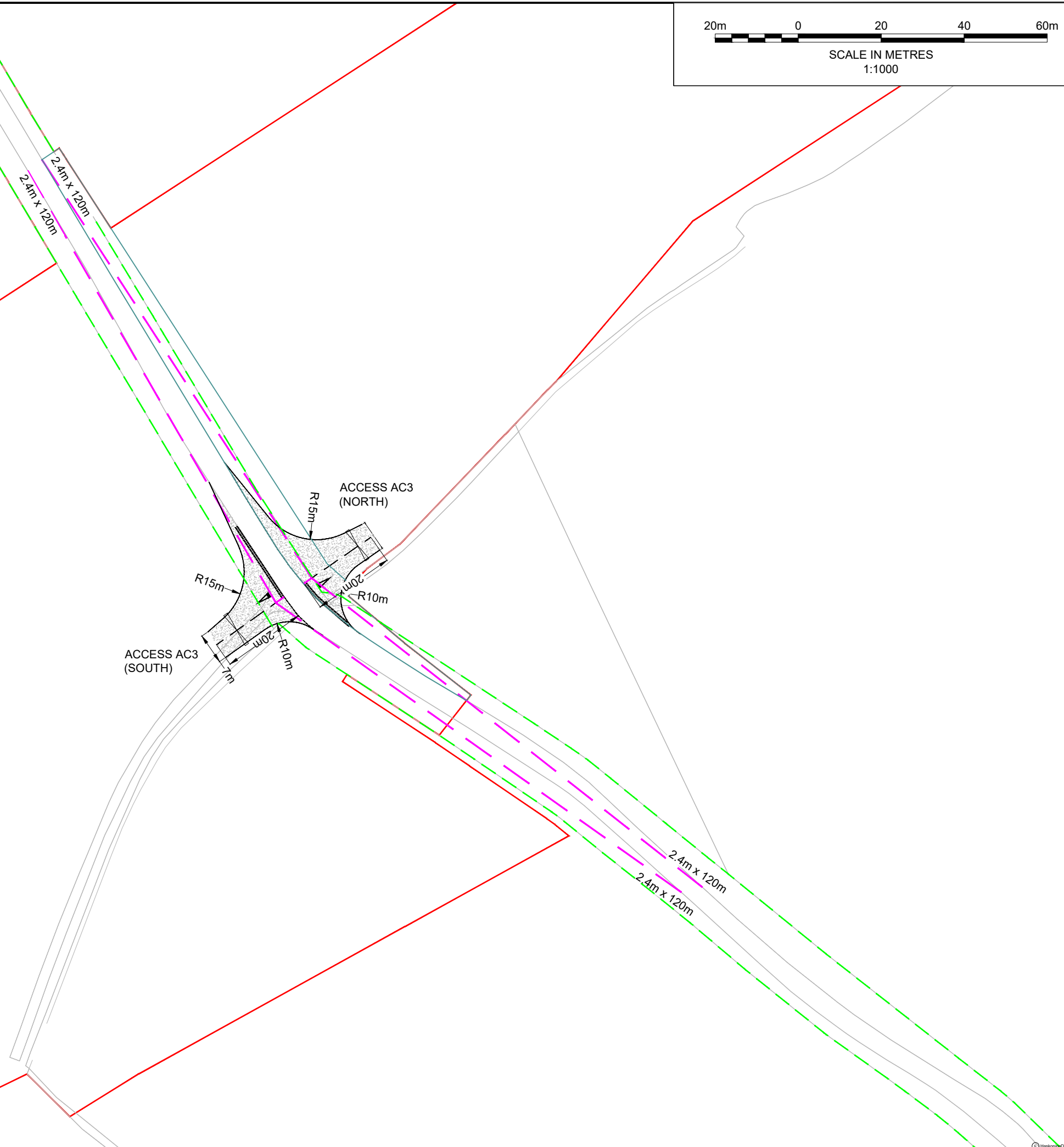
TITLE
ACCESS AC3 (NORTH & SOUTH)
GENERAL ARRANGEMENT

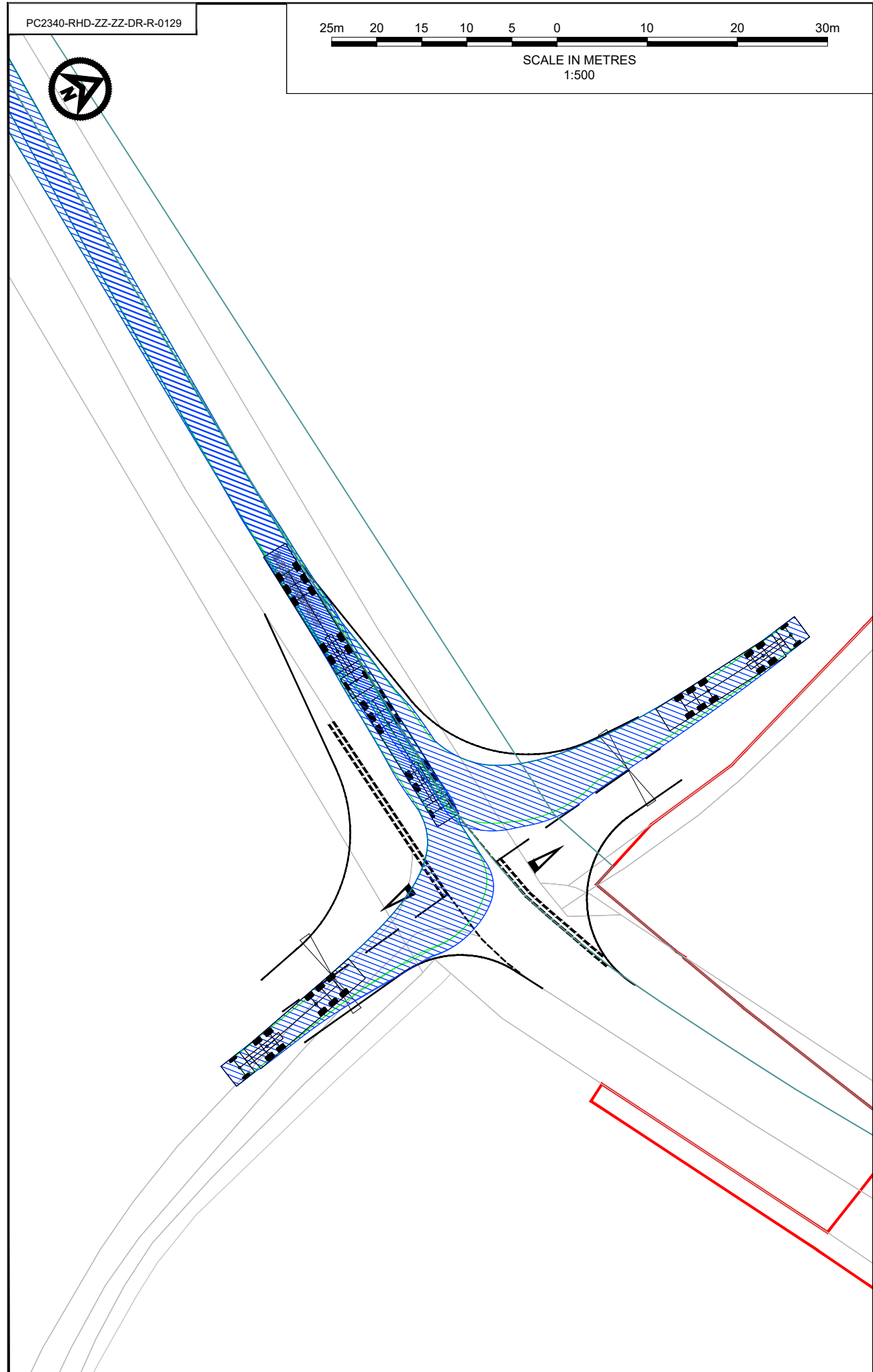
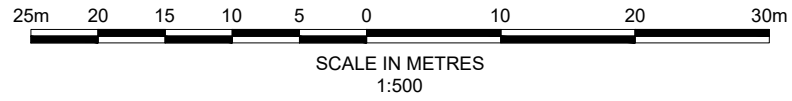


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AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
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DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0105	REVISION
CLIENT DWG No.		P01

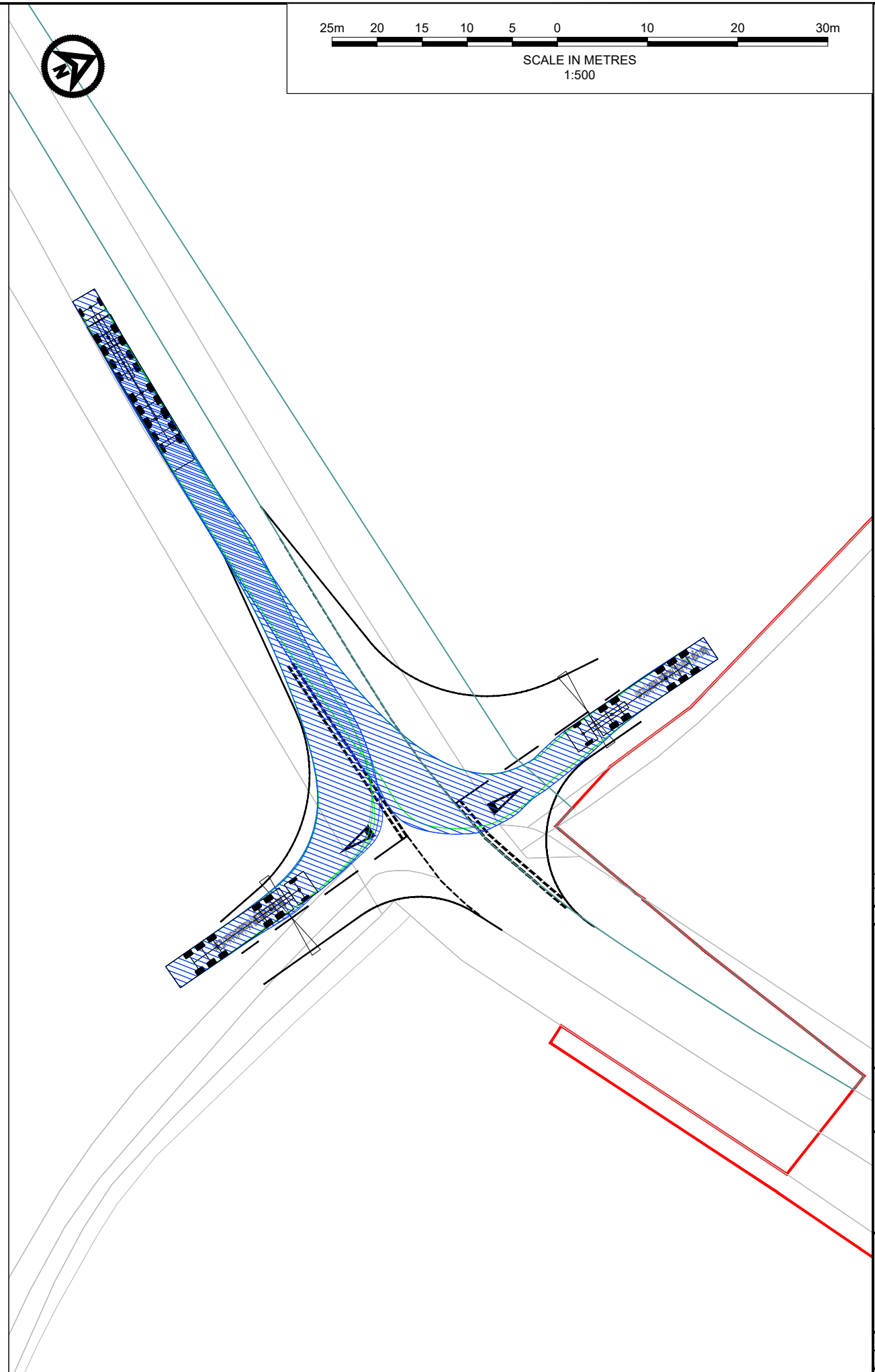
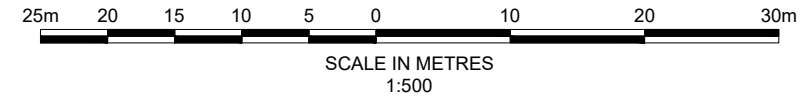
TABLE 1 - VISIBILITY

Access AC3	Visibility	
	East	West
Posted Speed Limit (PSL) (mph)	60	
Required Y-distance SSD for PSL (m) (DMRB)	215	
Is Required Y-distance SSD achievable?	No	No
85% of Recordered Speeds (mph) (85RS)	36.7	
Required Y-distance SSD for 85RS (m) (DMRB)	90	
Is Required Y-distance SSD achievable?	Yes	Yes





MAX LENGTH ARTICULATED HGV INGRESS



MAX LENGTH ARTICULATED HGV EGRESS

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

VEHICLE TRACKING

Max Legal Length (UK) Articulated Vehicle (16.5m)	16.500m
Overall Length	2.550m
Overall Width	3.691m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

REV	DATE	DESCRIPTION	BY	CHK	APP
P01	18.07.23	FIRST ISSUE	AA	SKT	SKT



PROJECT
DOGGER BANK SOUTH OFFSHORE WIND FARMS

TITLE
ACCESS AC3
SWEEP PATH ANALYSIS



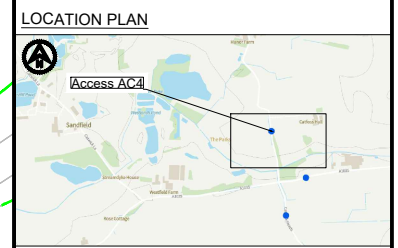
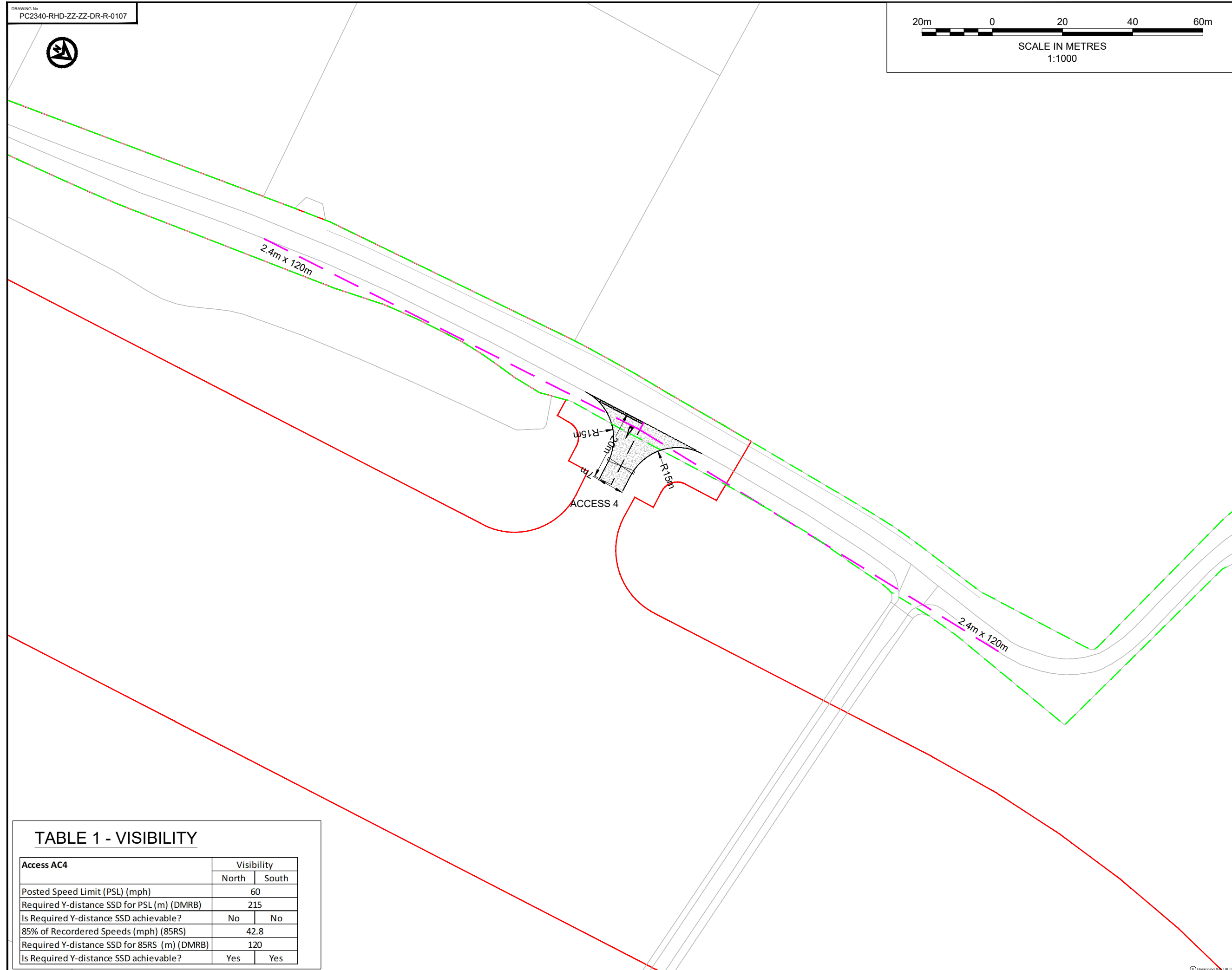
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AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
18.07.23	1:500	
DRAWING No	PC2340-RHD-ZZ-ZZ-DR-R-0129	REVISION
CLIENT DWG No.		P01



SCALE IN METRES
1:1000

- NOTES**
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 - Y-Distance - the SSD measured along the nearest edge of the carriageway to its intersection with the centreline of the access.
 - 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
 - HIGHWAY BOUNDARY
 - PROPOSED GATE
 - PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
 - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
 - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE



REV	DATE	DESCRIPTION	BY	CHK	APP
P02	12.07.23	UPDATED TO ADDRESS ERCC COMMENTS	AA	SKT	SKT
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT



PROJECT
DOGGER BANK SOUTH
OFFSHORE WIND FARMS

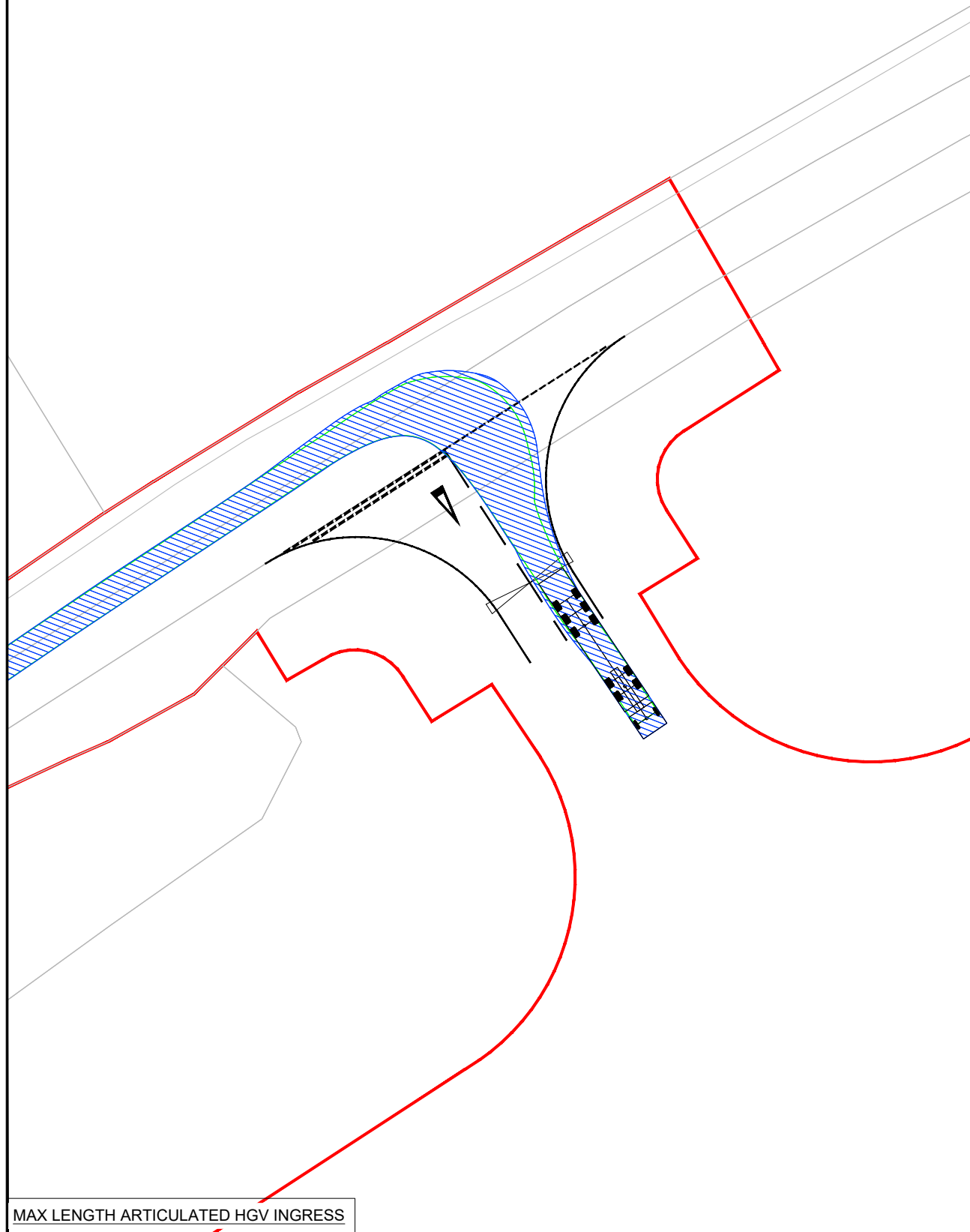
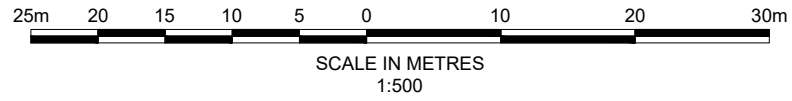
TITLE
ACCESS AC4
GENERAL ARRANGEMENT



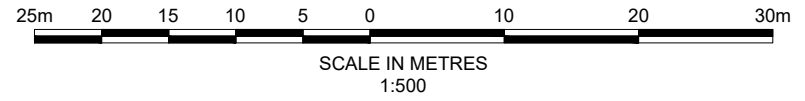
DRAWN	AA	CHECKED	SKT	APPROVED	SKT
DATE	19.06.23	SCALE	1:1000	AUTOCAD REF.	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0107			REVISION	
CLIENT DWG No.				REVISION	P02

TABLE 1 - VISIBILITY

Access AC4	Visibility	
	North	South
Posted Speed Limit (PSL) (mph)	60	
Required Y-distance SSD for PSL (m) (DMRB)	215	
Is Required Y-distance SSD achievable?	No	No
85% of Recorded Speeds (mph) (85RS)	42.8	
Required Y-distance SSD for 85RS (m) (DMRB)	120	
Is Required Y-distance SSD achievable?	Yes	Yes



MAX LENGTH ARTICULATED HGV INGRESS



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 3.691m
 Min Body Ground Clearance 0.411m
 Max Track Width 2.500m
 Lock to lock time 6.00s
 Kerb to Kerb Turning Radius 6.530m

P01	18.07.23	FIRST ISSUE	AA	SKT	SKT
REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

CLIENT

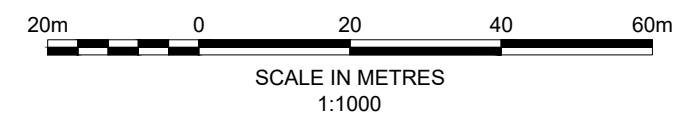


PROJECT
 DOGGER BANK SOUTH
 OFFSHORE WIND FARMS

TITLE
 ACCESS AC4
 SWEEP PATH ANALYSIS



DRAWN	AA	CHECKED	SKT	APPROVED	SKT
DATE	18.07.23	SCALE	1:500	AUTOCAD REF.	
DRAWING No	PC2340-RHD-ZZ-ZZ-DR-R-0130				REVISION
CLIENT DWG No.					P01

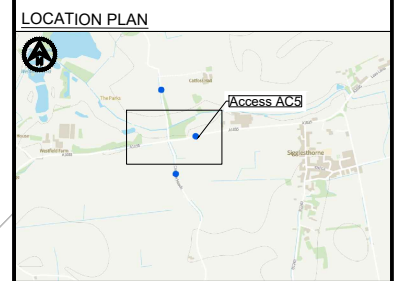


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 4. Y-Distance - the SSD measured along the nearest edge of the carriageway to its intersection with the centreline of the access.
 5. All vegetation to be cleared/trimmed within identified visibility envelope and thereafter maintained in accordance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

THE '40MPH SPEED LIMIT' SIGNS ARE SCHEDULED TO BE RELOCATED TO THIS AREA.



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



REV	DATE	DESCRIPTION	BY	CHK	APP
P02	12.07.23	UPDATED TO ADDRESS ERCC COMMENTS	AA	SKT	SKT
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT

REVISIONS



PROJECT
DOGGER BANK SOUTH OFFSHORE WIND FARMS

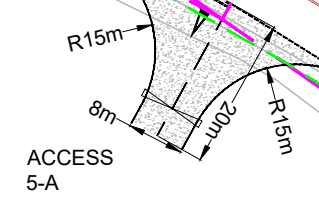
TITLE
ACCESS AC5 GENERAL ARRANGEMENT



DRAWN	CHECKED	APPROVED
AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
19.06.23	1:1000	
DRAWING No. PC2340-RHD-ZZ-ZZ-DR-R-0109	REVISION	
CLIENT DWG No.		P02

TABLE 1 - VISIBILITY

Access AC5	Visibility	
	East	West
Posted Speed Limit (PSL) (mph)	60	
Required Y-distance SSD for PSL (m) (DMRB)	215	
Is Required Y-distance SSD achievable?	No	No
85% of Recorded Speeds (mph) (85RS)	48.3	
Required Y-distance SSD for 85RS (m) (DMRB)	160	
Is Required Y-distance SSD achievable?	Yes	Yes

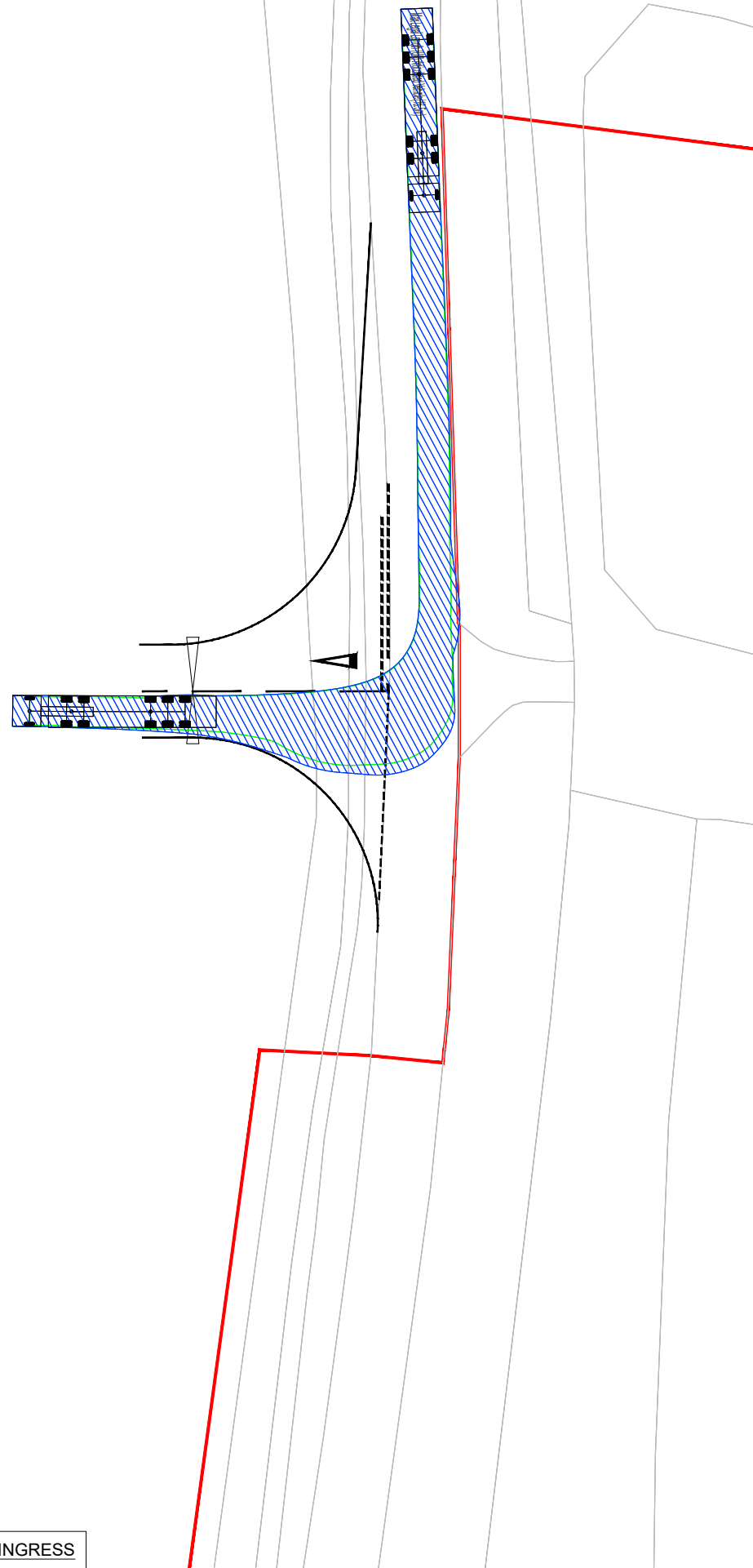
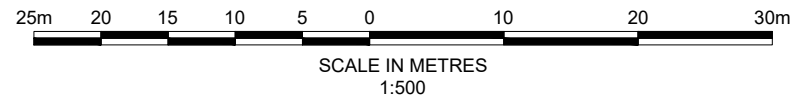


THE EXISTING '40MPH SPEED LIMIT' SIGNS ARE TO BE REMOVED FROM THIS AREA.

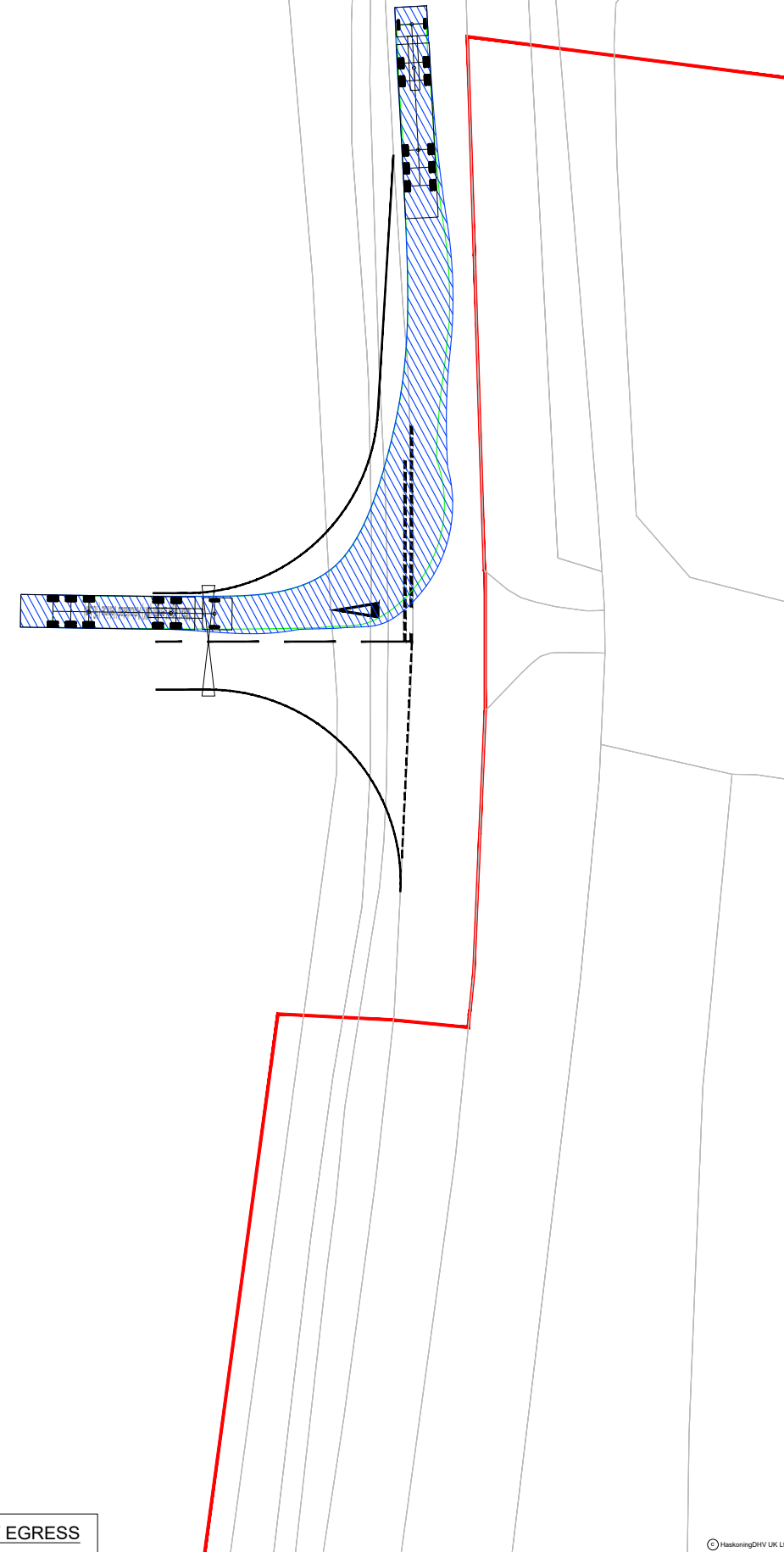
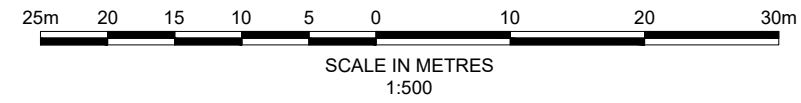


2.4m x 160m

2.4m x 160m



MAX LENGTH ARTICULATED HGV INGRESS



MAX LENGTH ARTICULATED HGV EGRESS

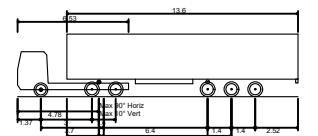
NOTES

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KEY

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

VEHICLE TRACKING



Max Legal Length (UK) Articulated Vehicle (16.5m)	16.500m
Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.691m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

P01	18.07.23	FIRST ISSUE	AA	SKT	SKT
REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

CLIENT



PROJECT

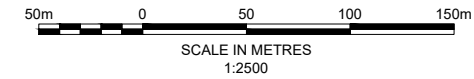
DOGGER BANK SOUTH
OFFSHORE WIND FARMS

TITLE

ACCESS AC5
SWEEP PATH ANALYSIS



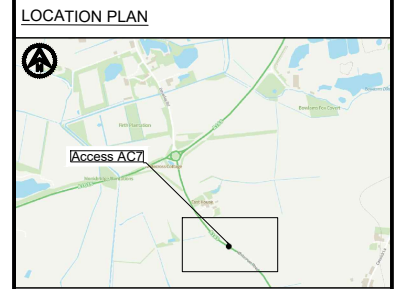
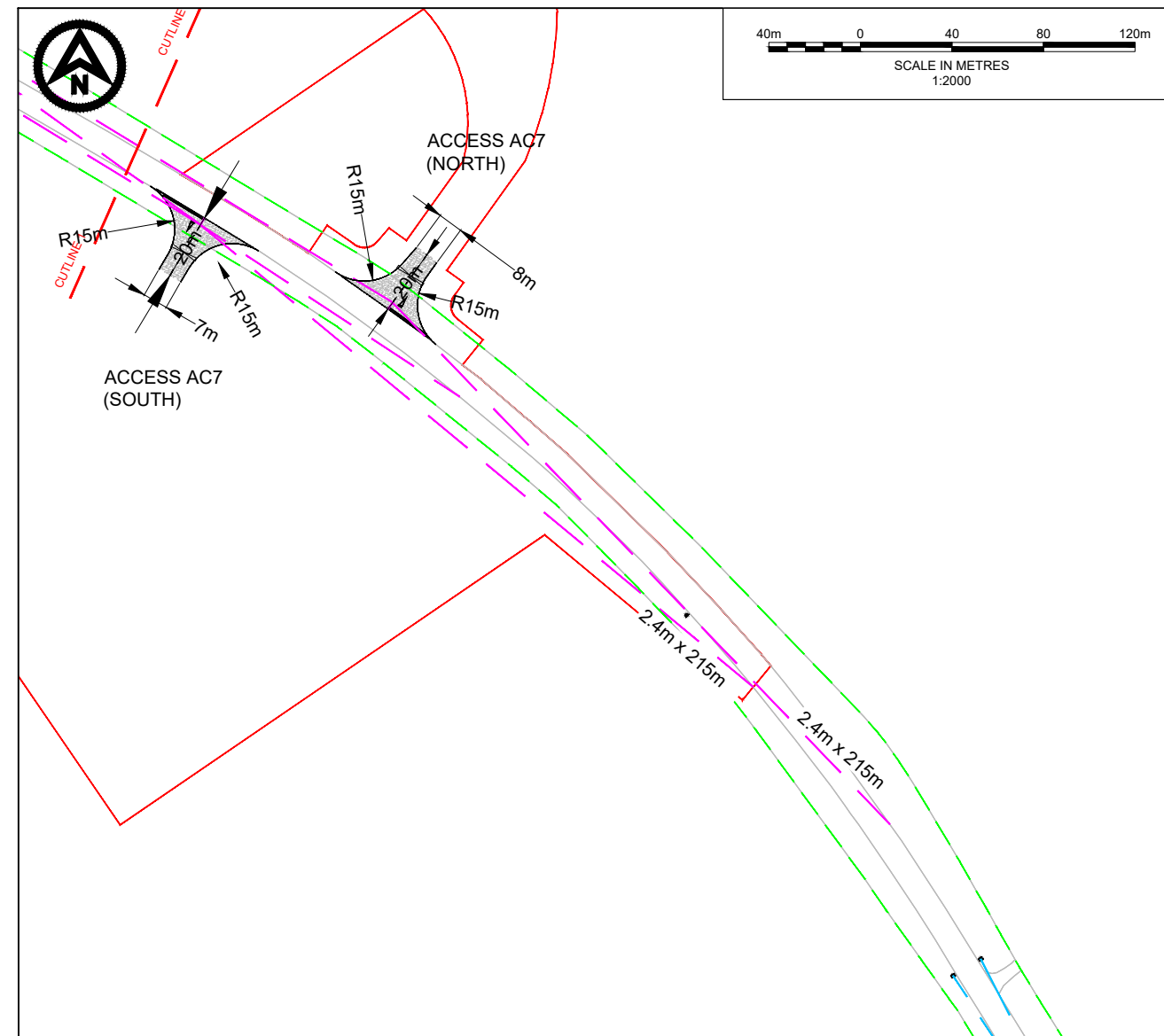
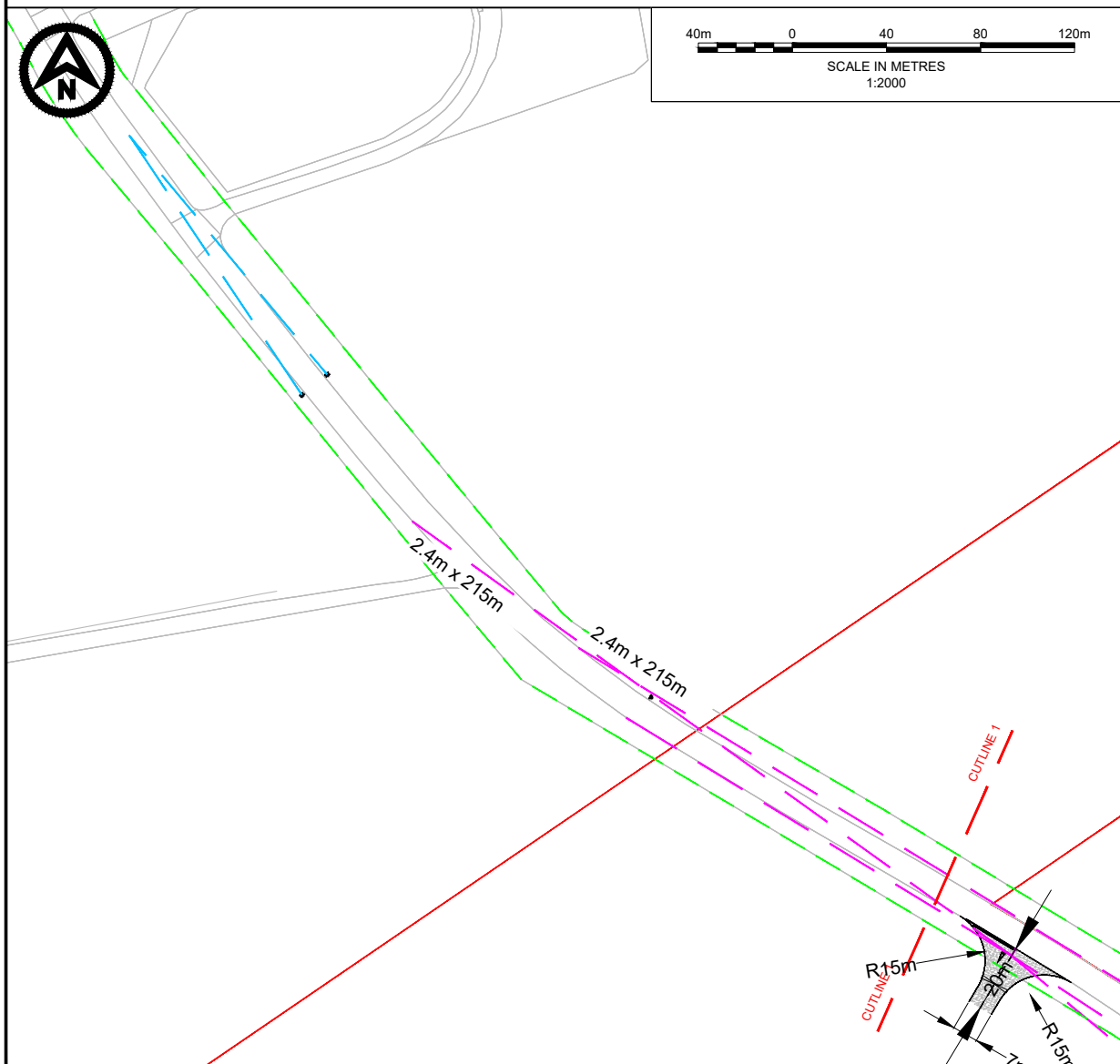
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DATE	18.07.23	SCALE	1:500	AUTOCAD REF.	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0164			REVISION	
CLIENT DWG No.				REVISION	P01



- NOTES**
- Do not scale from this drawing. all dimensions are in metres unless noted otherwise.
 - This drawing has been based upon Ordnance Survey Maps and Royal HaskoningDHV can not guarantee the accuracy of data.
 - X-distance - the set back from the nearest edge of the carriageway from which the access will be taken
 - Y-Distance - the SSD measured along the nearest edge of the carriageway to its intersection with the centreline of the access.
 - The siting details and minimum clear visibility distance of the warning signs are in accordance with the guidelines outlined in 'Appendix - A, Traffic Signs Manual - Chapter 4'.
 - 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
 - HIGHWAY BOUNDARY
 - PROPOSED GATE
 - PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
 - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
 - MINIMUM CLEAR VISIBILITY SPLAY OF THE WARNING SIGN - 90m (SEE NOTE 5)
 - EXISTING TRAFFIC SIGN
 - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE

LOCATION PLAN
SCALE 1:2500



REV	DATE	DESCRIPTION	BY	CHK	APP
P02	10.07.23	ADDED SPEED LIMITS	AA	SKT	SKT
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT



PROJECT
DOGGER BANK SOUTH
OFFSHORE WIND FARMS

TITLE
ACCESS AC7 (NORTH & SOUTH)
GENERAL ARRANGEMENT



DRAWN	AA	CHECKED	SKT	APPROVED	SKT
DATE	19.06.23	SCALE	AS SHOWN	AUTOCAD REF.	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0111	REVISION			
CLIENT DWG No.					P01

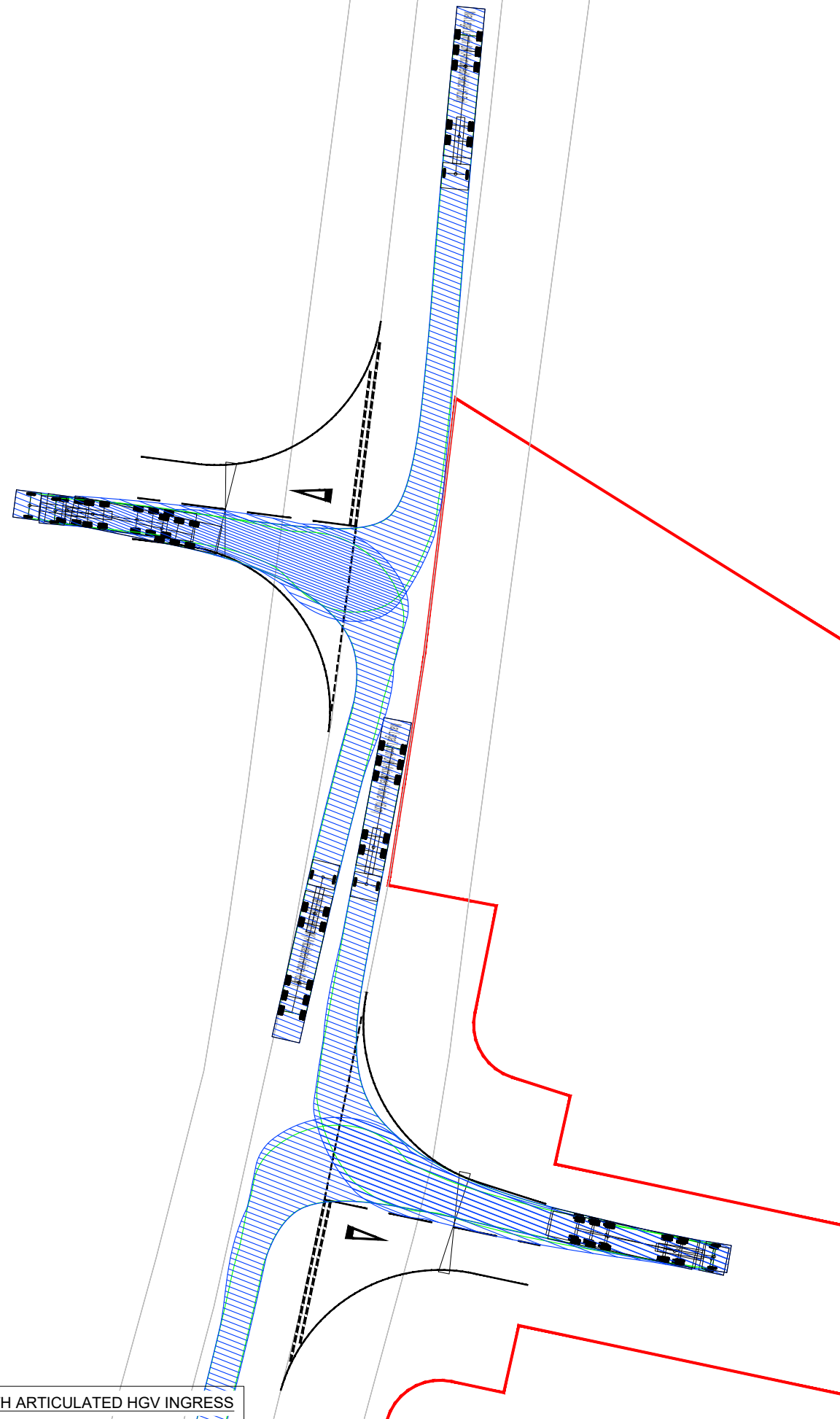
TABLE 1 - VISIBILITY

Access AC7	Visibility	
	North	South
Posted Speed Limit (PSL) (mph)	60	
Required Y-distance SSD for PSL (m) (DMRB)	215	
Is Required Y-distance SSD achievable?	Yes	Yes



25m 20 15 10 5 0 10 20 30m

SCALE IN METRES
1:500

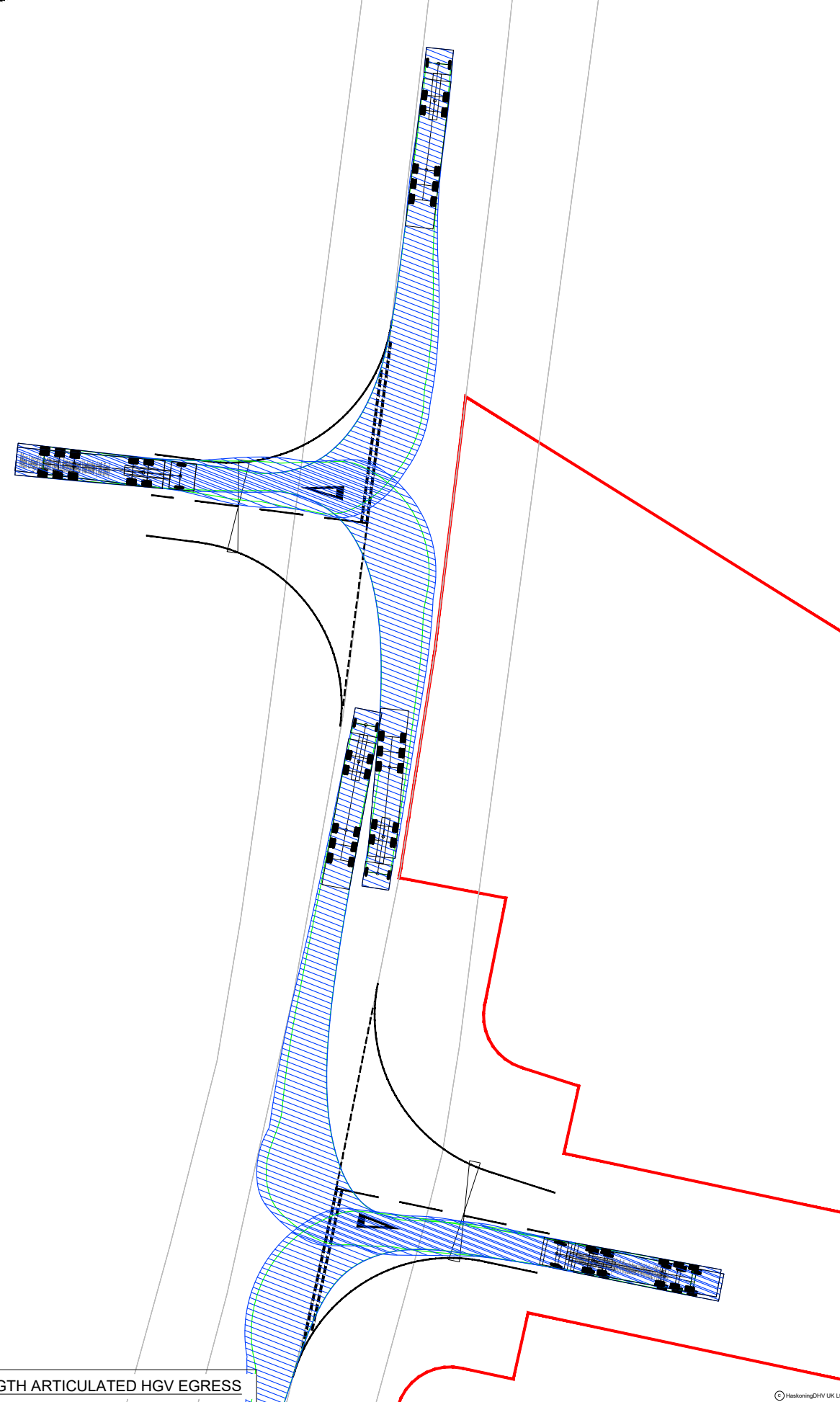


MAX LENGTH ARTICULATED HGV INGRESS



25m 20 15 10 5 0 10 20 30m

SCALE IN METRES
1:500



MAX LENGTH ARTICULATED HGV EGRESS

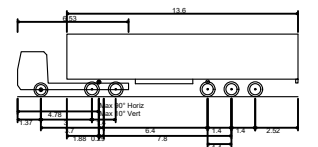
NOTES

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2. This drawing has been based upon Ordnance Survey Maps and Royal HaskoningDHV can not guarantee the accuracy of data.

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 3.691m
 Min Body Ground Clearance 0.411m
 Max Track Width 2.500m
 Lock to lock time 6.00s
 Kerb to Kerb Turning Radius 6.530m

P01	18.07.23	FIRST ISSUE	AA	SKT	SKT
REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

CLIENT



PROJECT

DOGGER BANK SOUTH
OFFSHORE WIND FARMS

TITLE

ACCESS AC7
SWEEP PATH ANALYSIS



DRAWN	CHECKED	APPROVED
AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
18.07.23	1:500	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0163	REVISION
CLIENT DWG No.		P01



20m 0 20 40 60m

SCALE IN METRES
1:1000

NOTES

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2. This drawing has been based upon Ordnance Survey Maps and Royal HaskoningDHV can not guarantee 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 CABLE CORRIDOR
- INDICATIVE HIGHWAY BOUNDARY
- ◁ PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- ▨ FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE

LOCATION PLAN



P01	19.06.23	FIRST ISSUE	AA	SKT	SKT
REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

CLIENT



PROJECT

DOGGER BANK SOUTH
OFFSHORE WIND FARMS

TITLE

ACCESS AC8
GENERAL ARRANGEMENT

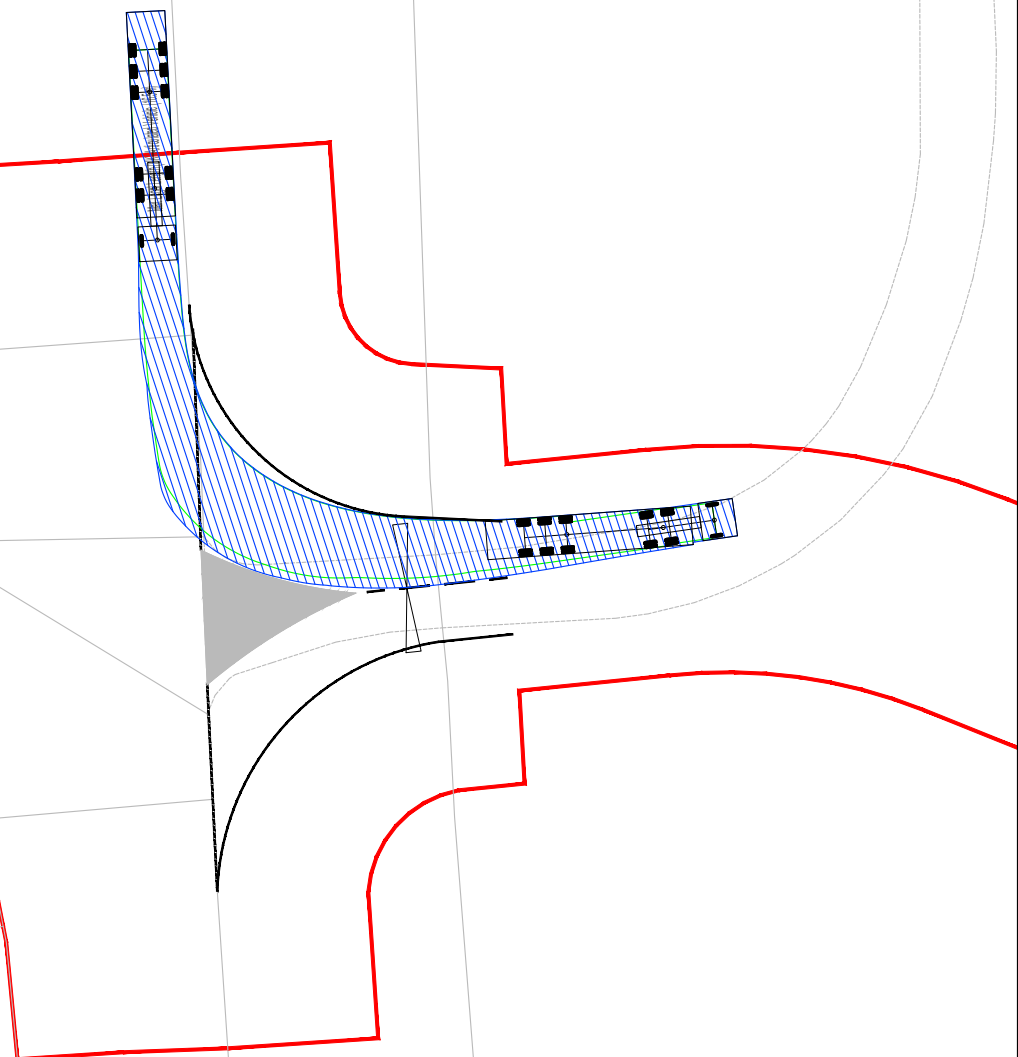


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DATE	19.06.23	SCALE	1:1000	AUTOCAD REF.	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0113				REVISION
CLIENT DWG No.					P01

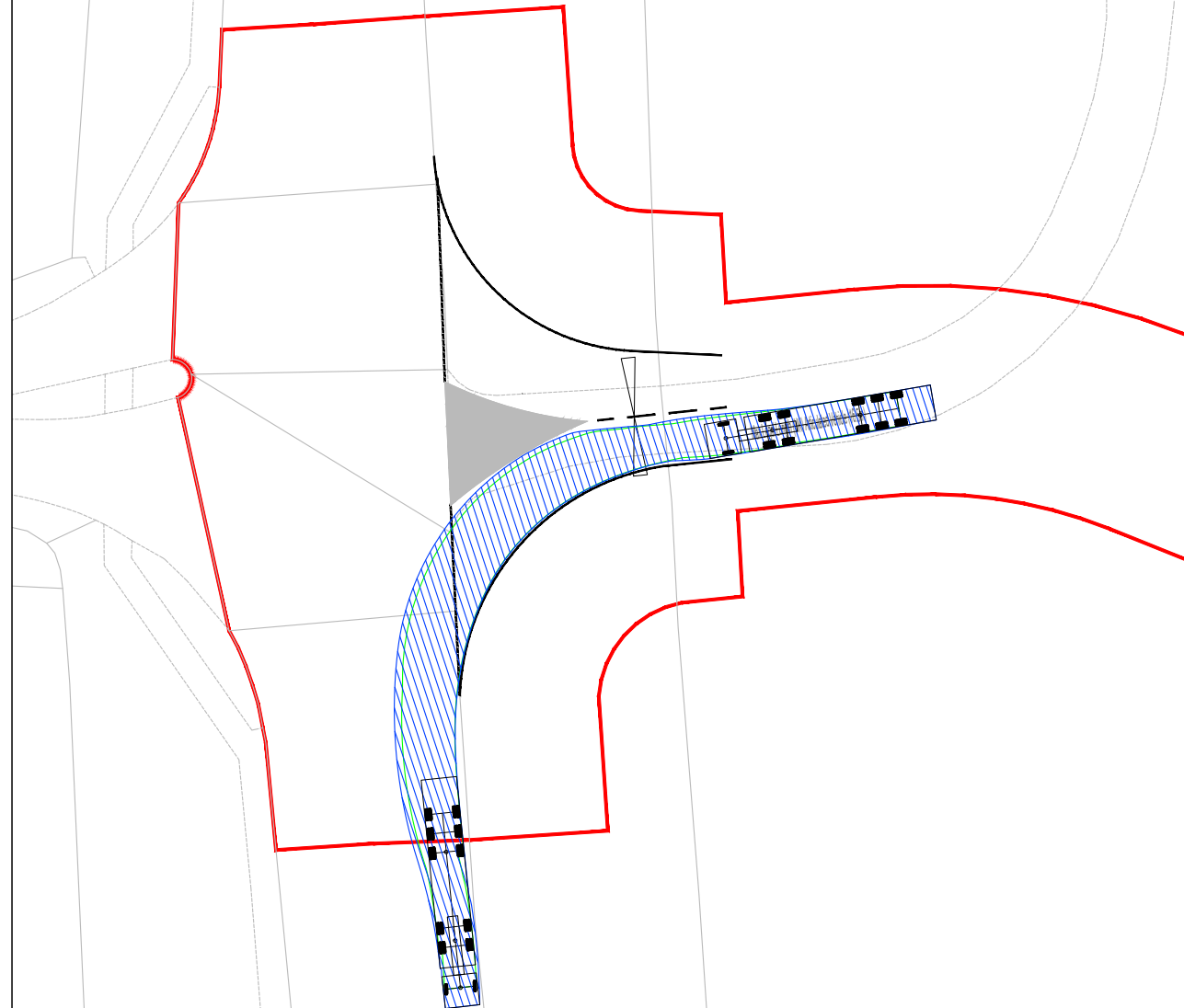


TABLE 1 - VISIBILITY

Access 8	Visibility	
	East	West
Posted Speed Limit (PSL) (mph)	50	
Required Y-distance SSD for PSL (m) (DMRB)	160	
Is Required Y-distance SSD achievable?	Yes	Yes



MAX LENGTH ARTICULATED HGV INGRESS



MAX LENGTH ARTICULATED HGV EGRESS

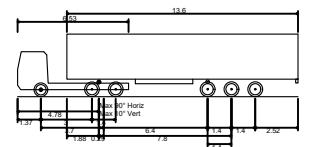
NOTES

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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 3.691m
 Min Body Ground Clearance 0.41m
 Max Track Width 2.500m
 Lock to lock time 6.00s
 Kerb to Kerb Turning Radius 6.530m

P01	18.07.23	FIRST ISSUE	AA	SKT	SKT
REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

CLIENT



PROJECT

DOGGER BANK SOUTH
OFFSHORE WIND FARMS

TITLE

ACCESS AC8
SWEEP PATH ANALYSIS



DRAWN	AA	CHECKED	SKT	APPROVED	SKT
DATE	18.07.23	SCALE	1:500	AUTOCAD REF.	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0163				REVISION
CLIENT DWG No.					P01



20m 0 20 40 60m

SCALE IN METRES
1:1000

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 CABLE CORRIDOR
- HIGHWAY BOUNDARY
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- SHARED CYCLE/FOOTWAY WITH TACTILE PAVING TO BE INSTALLED AT CROSSINGS
- CARRIAGEWAY WIDENING - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE

LOCATION PLAN



P01	19.06.23	FIRST ISSUE	AA	SKT	SKT
REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

CLIENT



PROJECT

DOGGER BANK SOUTH
OFFSHORE WIND FARMS

TITLE

ACCESS AC9 (NORTH & SOUTH)
GENERAL ARRANGEMENT



DRAWN	AA	CHECKED	SKT	APPROVED	SKT
DATE	19.06.23	SCALE	1:1000	AUTOCAD REF.	

DRAWING No: PC2340-RHD-ZZ-ZZ-DR-R-0115

CLIENT DWG No. P01

TABLE 1 - VISIBILITY

Access AC9	Visibility	
	East	West
Posted Speed Limit (PSL) (mph)	50	
Required Y-distance SSD for PSL (m) (DMRB)	160	
Is Required Y-distance SSD achievable?	Yes	Yes

ACCESS AC9
(SOUTH)

ACCESS AC9
(NORTH)

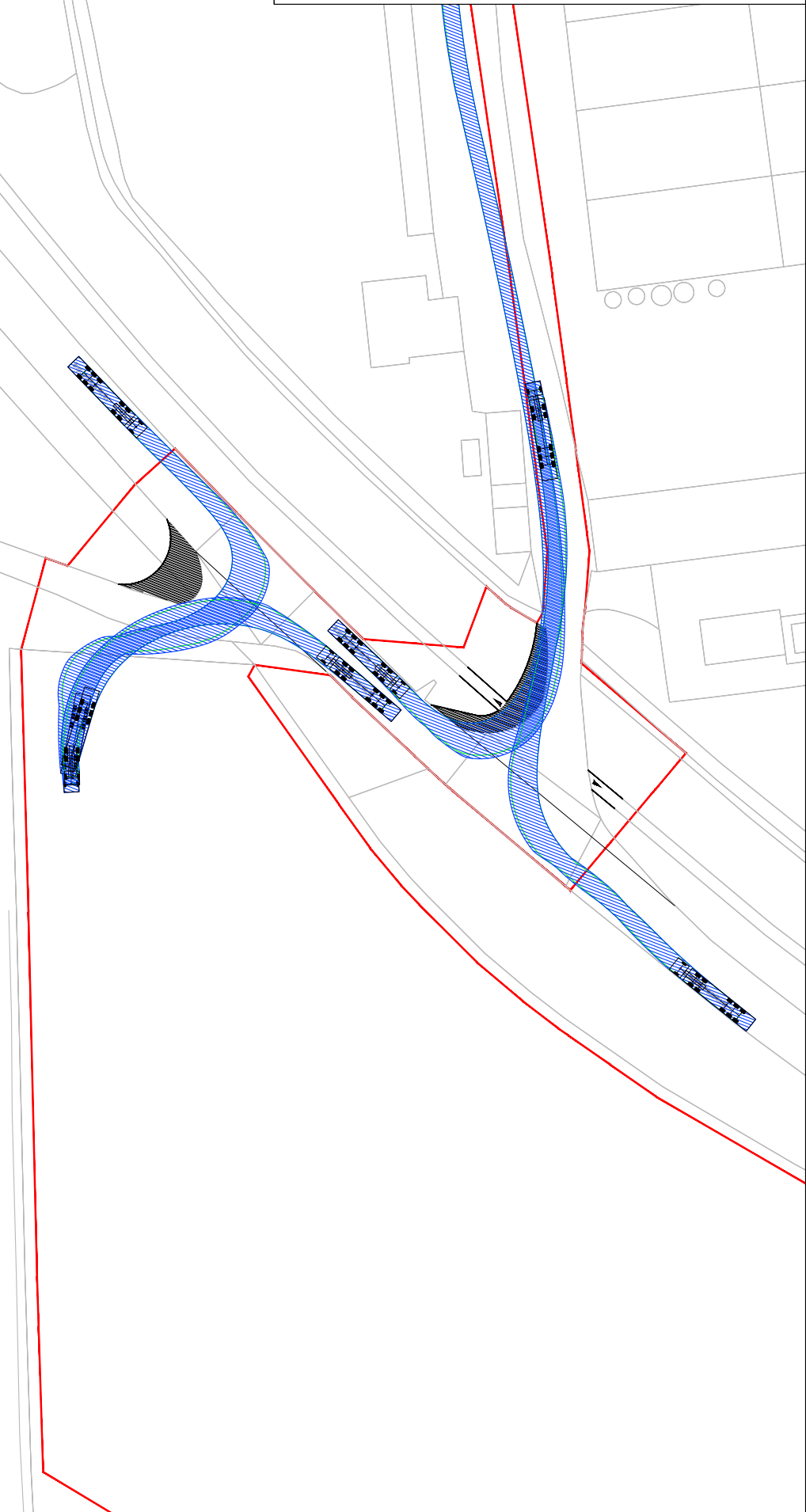
2.4m x 160m

2.4m x 160m



20m 0 20 40 60m

SCALE IN METRES
1:1000

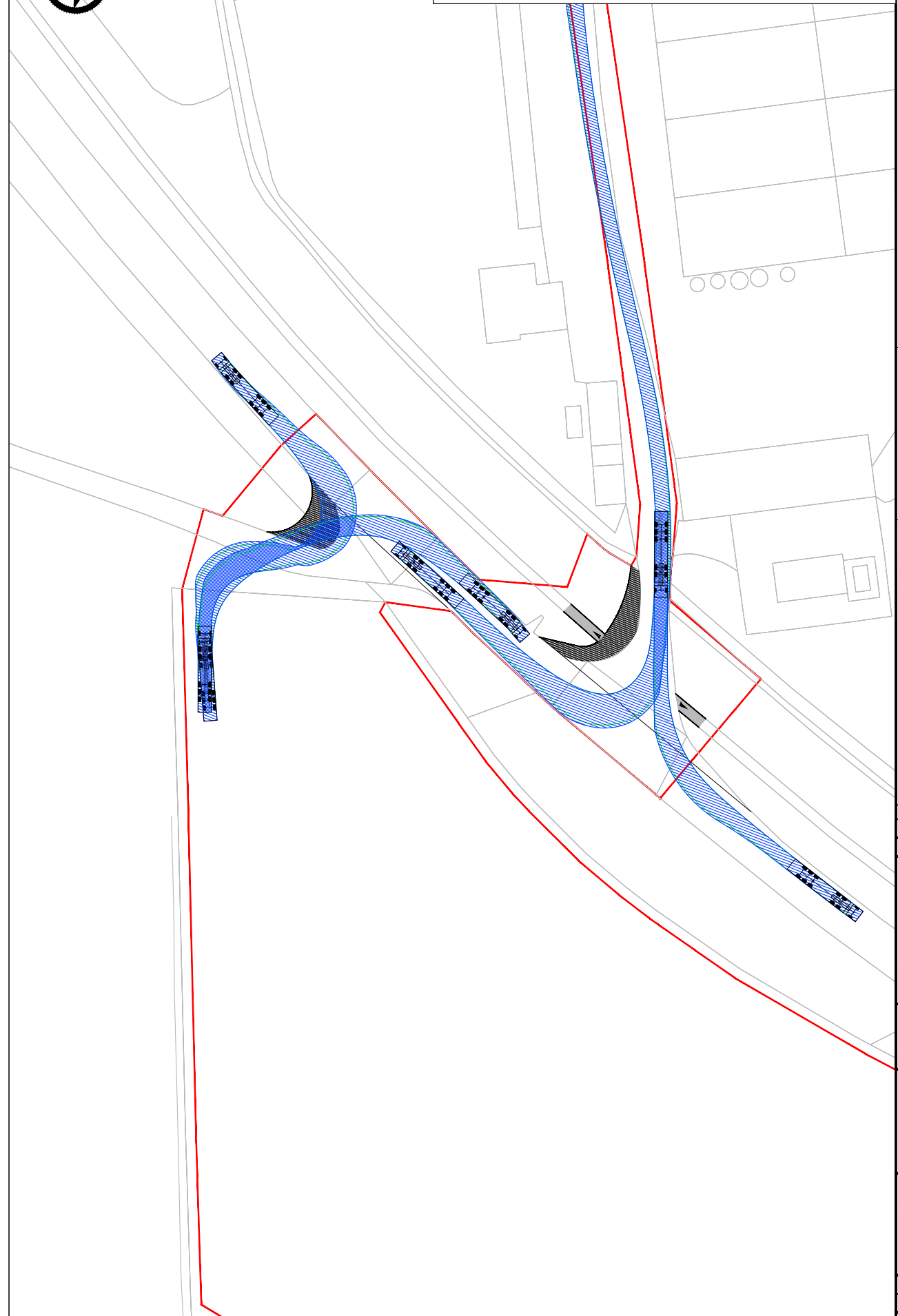


MAX LENGTH ARTICULATED HGV INGRESS



20m 0 20 40 60m

SCALE IN METRES
1:1000



MAX LENGTH ARTICULATED HGV EGRESS

NOTES
 1. Do not scale from this drawing. All dimensions are in metres unless noted otherwise.
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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 3.691m
 Min Body Ground Clearance 0.411m
 Max Track Width 2.500m
 Lock to lock time 6.00s
 Kerb to Kerb Turning Radius 6.530m

REV	DATE	DESCRIPTION	BY	CHK	APP
P01	18.07.23	FIRST ISSUE	AA	SKT	SKT



PROJECT
**DOGGER BANK SOUTH
 OFFSHORE WIND FARMS**

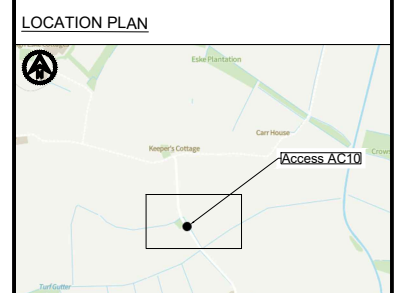
TITLE
**ACCESS AC9
 SWEEP PATH ANALYSIS**



DRAWN	CHECKED	APPROVED
AA	SKT	SKT
DATE: 18.07.23	SCALE: 1:500	AUTOCAD REF:
DRAWING No: PC2340-RHD-ZZ-ZZ-DR-R-0138	REVISION	
CLIENT DWG No:		P01

- 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 guarantee 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 CABLE CORRIDOR
 - HIGHWAY BOUNDARY
 - PROPOSED GATE
 - PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
 - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
 - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE



P01	19.06.23	FIRST ISSUE	AA	SKT	SKT
REV	DATE	DESCRIPTION	BY	CHK	APP



PROJECT
DOGGER BANK SOUTH OFFSHORE WIND FARMS

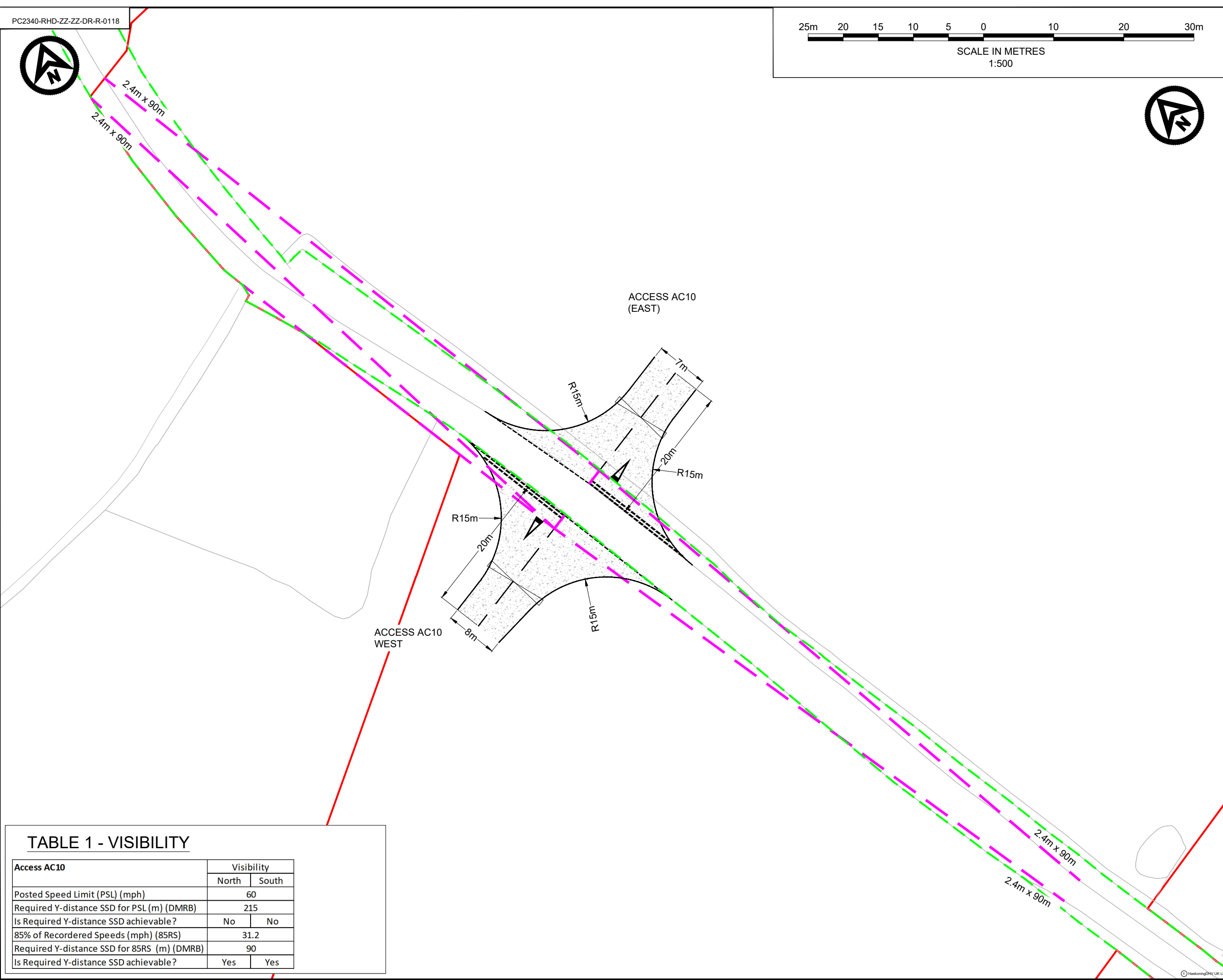
TITLE
ACCESS AC10 (EAST & WEST)
GENERAL ARRANGEMENT

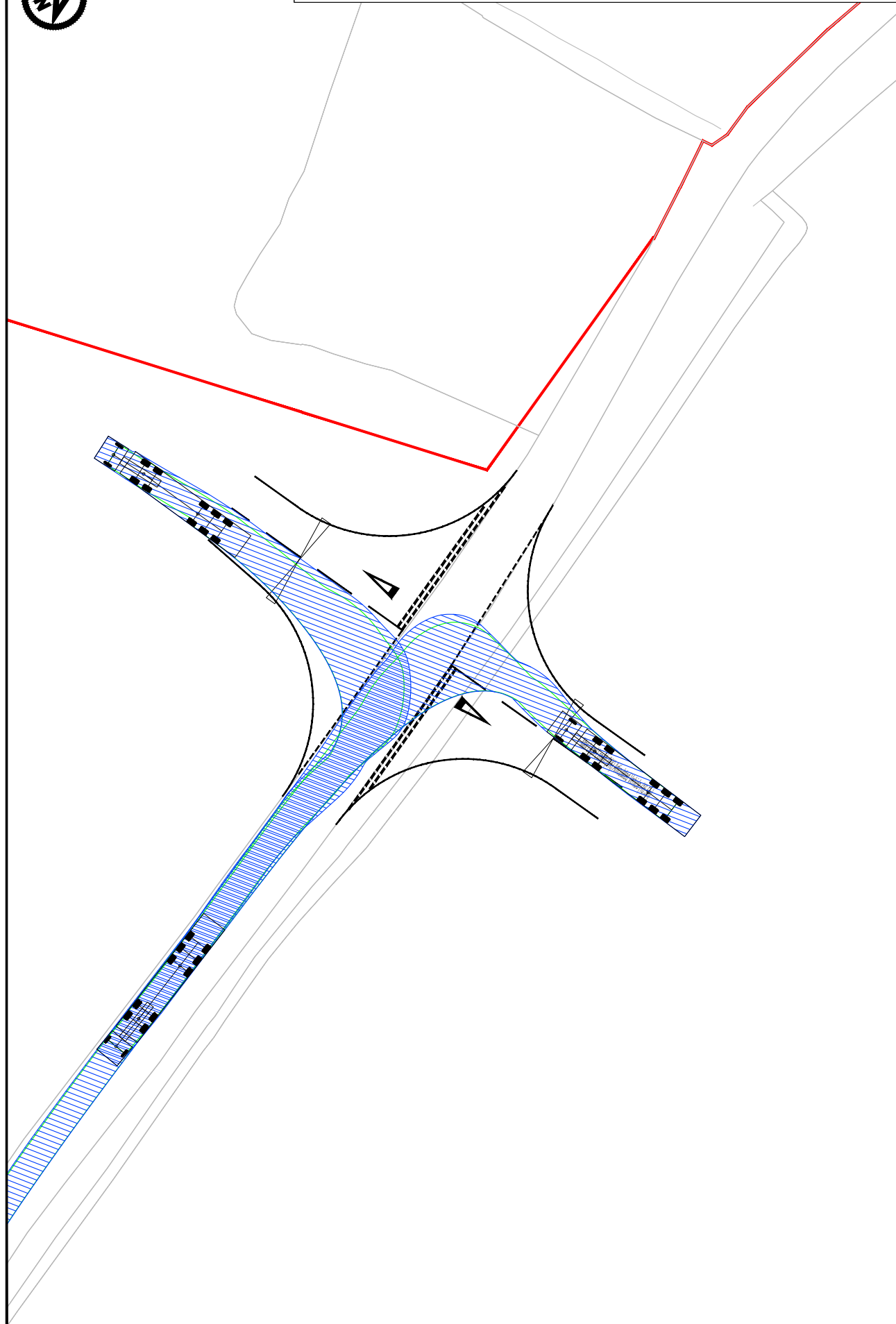
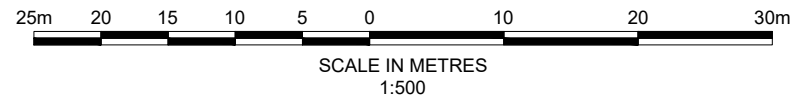


DRAWN	AA	CHECKED	SKT	APPROVED	SKT
DATE	19.06.23	SCALE	1:500	AUTOCAD REF.	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0118			REVISION	
CLIENT DWG No.					P01

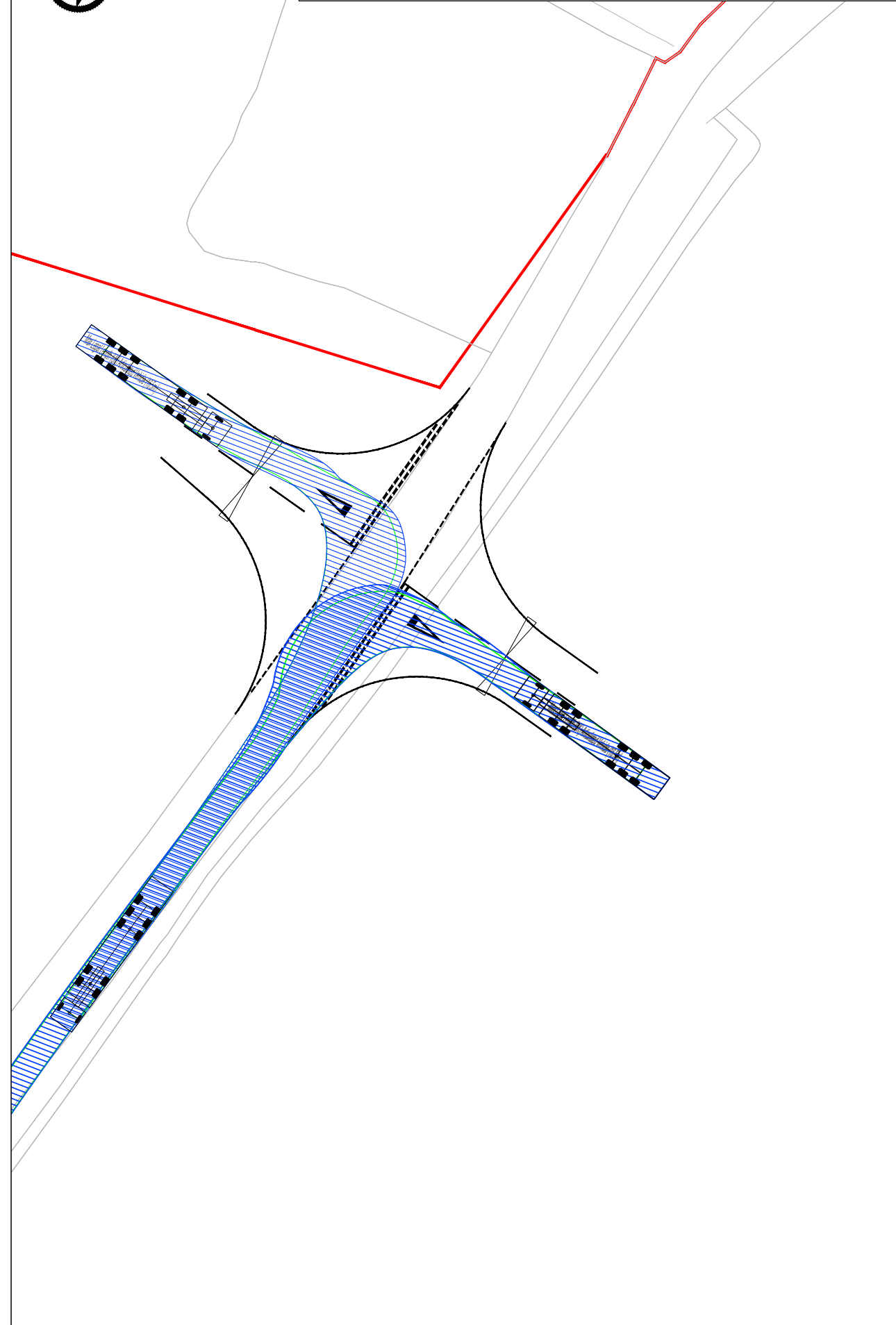
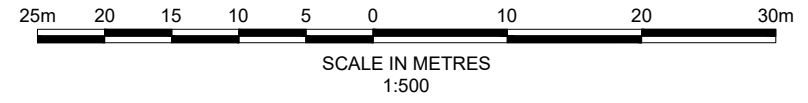
TABLE 1 - VISIBILITY

Access AC10	Visibility	
	North	South
Posted Speed Limit (PSL) (mph)	60	
Required Y-distance SSD for PSL (m) (DMRB)	215	
Is Required Y-distance SSD achievable?	No	No
85% of Recorded Speeds (mph) (85RS)	31.2	
Required Y-distance SSD for 85RS (m) (DMRB)	90	
Is Required Y-distance SSD achievable?	Yes	Yes





MAX LENGTH ARTICULATED HGV INGRESS



MAX LENGTH ARTICULATED HGV EGRESS

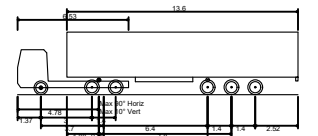
NOTES

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KEY

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

VEHICLE TRACKING



Max Legal Length (UK) Articulated Vehicle (16.5m) 16.500m
 Overall Length 19.500m
 Overall Width 2.550m
 Overall Body Height 3.691m
 Min Body Ground Clearance 0.411m
 Max Track Width 2.500m
 Lock to lock time 6.00s
 Kerb to Kerb Turning Radius 6.530m

P01	23.07.23	FIRST ISSUE	AA	SKT	SKT
REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

CLIENT



PROJECT

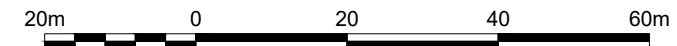
DOGGER BANK SOUTH
OFFSHORE WIND FARMS

TITLE

ACCESS AC10
SWEEP PATH ANALYSIS



DRAWN	CHECKED	APPROVED
AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
23.07.23	1:500	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0140	REVISION
CLIENT DWG No.		P01



SCALE IN METRES
1:1000

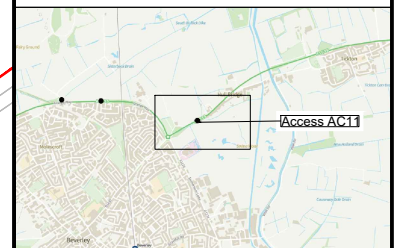
NOTES

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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 CABLE CORRIDOR
- HIGHWAY BOUNDARY
- ⊘ PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- - - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- ▭ FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE

LOCATION PLAN



REV	DATE	DESCRIPTION	BY	CHK	APP
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT

REVISIONS

CLIENT



PROJECT

DOGGER BANK SOUTH OFFSHORE WIND FARMS

TITLE

ACCESS AC11
GENERAL ARRANGEMENT



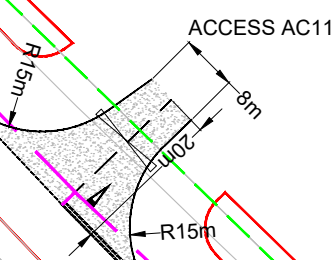
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AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
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DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0120	REVISION
CLIENT DWG No.		P01

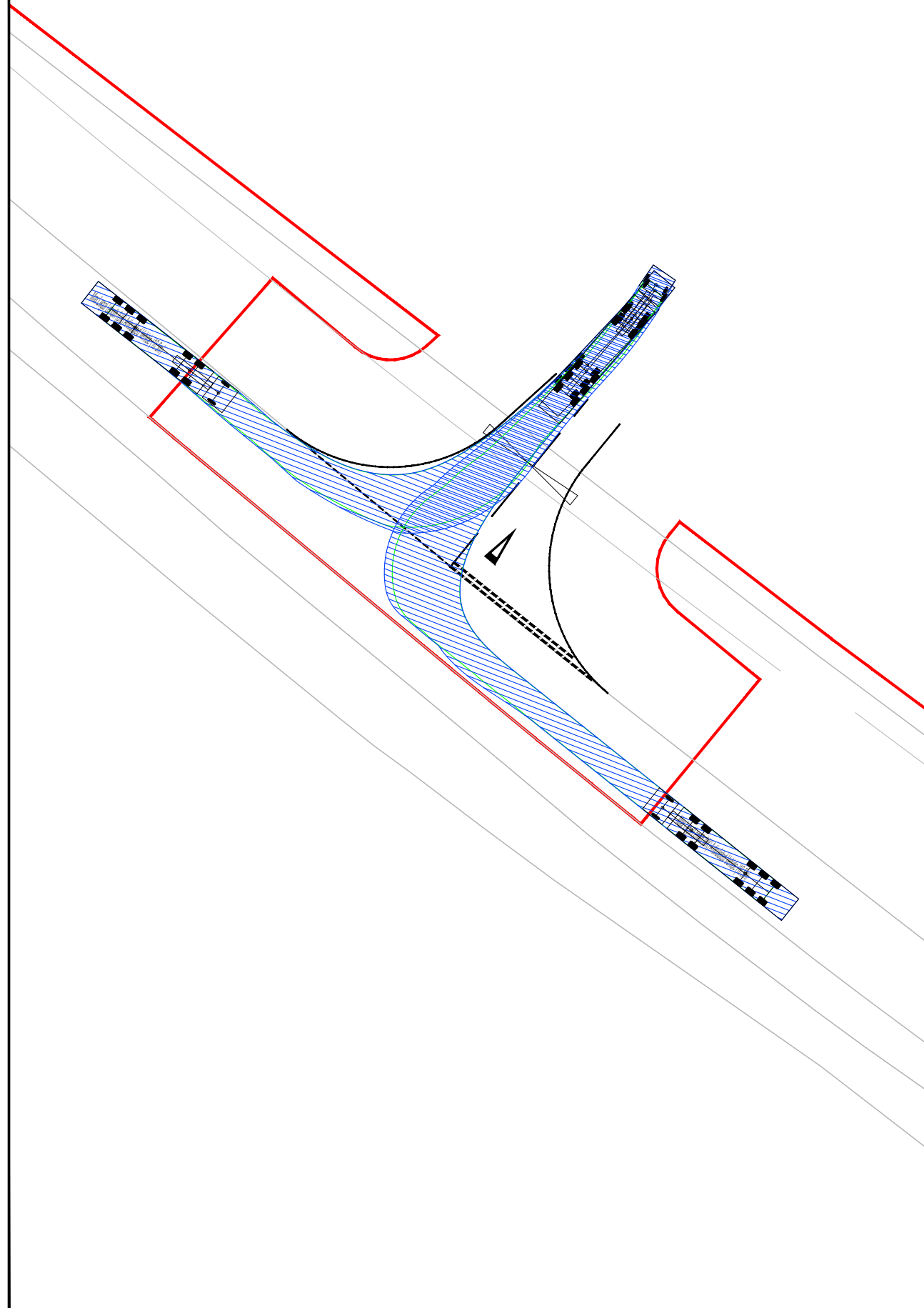
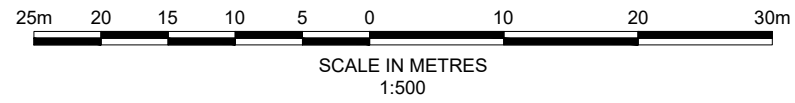
TABLE 1 - VISIBILITY

Access AC11	Visibility	
	East	West
Posted Speed Limit (PSL) (mph)	40	
Required Y-distance SSD for PSL (m) (DMRB)	120	
Is Required Y-distance SSD achievable?	Yes	Yes

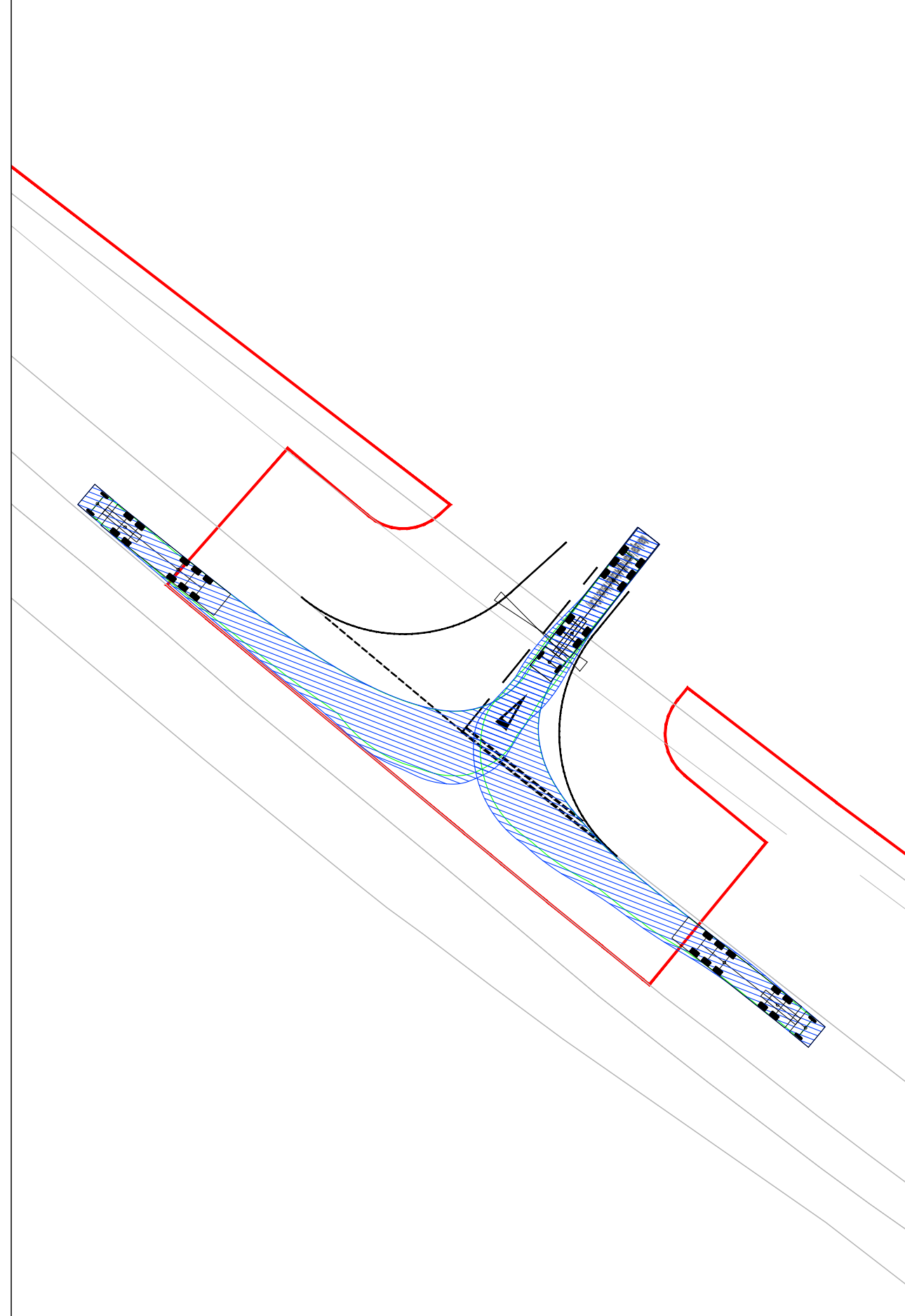
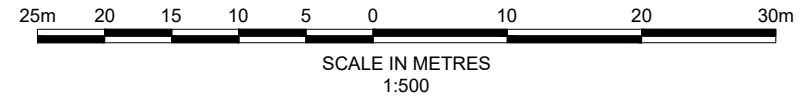
2.4m x 120m

2.4m x 120m





MAX LENGTH ARTICULATED HGV INGRESS



MAX LENGTH ARTICULATED HGV EGRESS

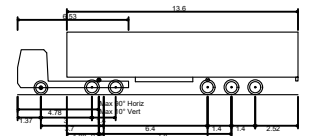
NOTES

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2. This drawing has been based upon Ordnance Survey Maps and Royal HaskoningDHV can not guarantee the accuracy of data.

KEY

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

VEHICLE TRACKING



Max Legal Length (UK) Articulated Vehicle (16.5m) 16.500m
 Overall Length 16.500m
 Overall Width 2.550m
 Overall Body Height 3.691m
 Min Body Ground Clearance 0.411m
 Max Track Width 2.500m
 Lock to lock time 6.00s
 Kerb to Kerb Turning Radius 6.530m

REV	DATE	DESCRIPTION	BY	CHK	APP
P01	23.07.23	FIRST ISSUE	AA	SKT	SKT

REVISIONS

CLIENT



PROJECT

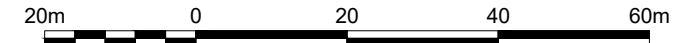
DOGGER BANK SOUTH OFFSHORE WIND FARMS

TITLE

ACCESS AC11 SWEPT PATH ANALYSIS



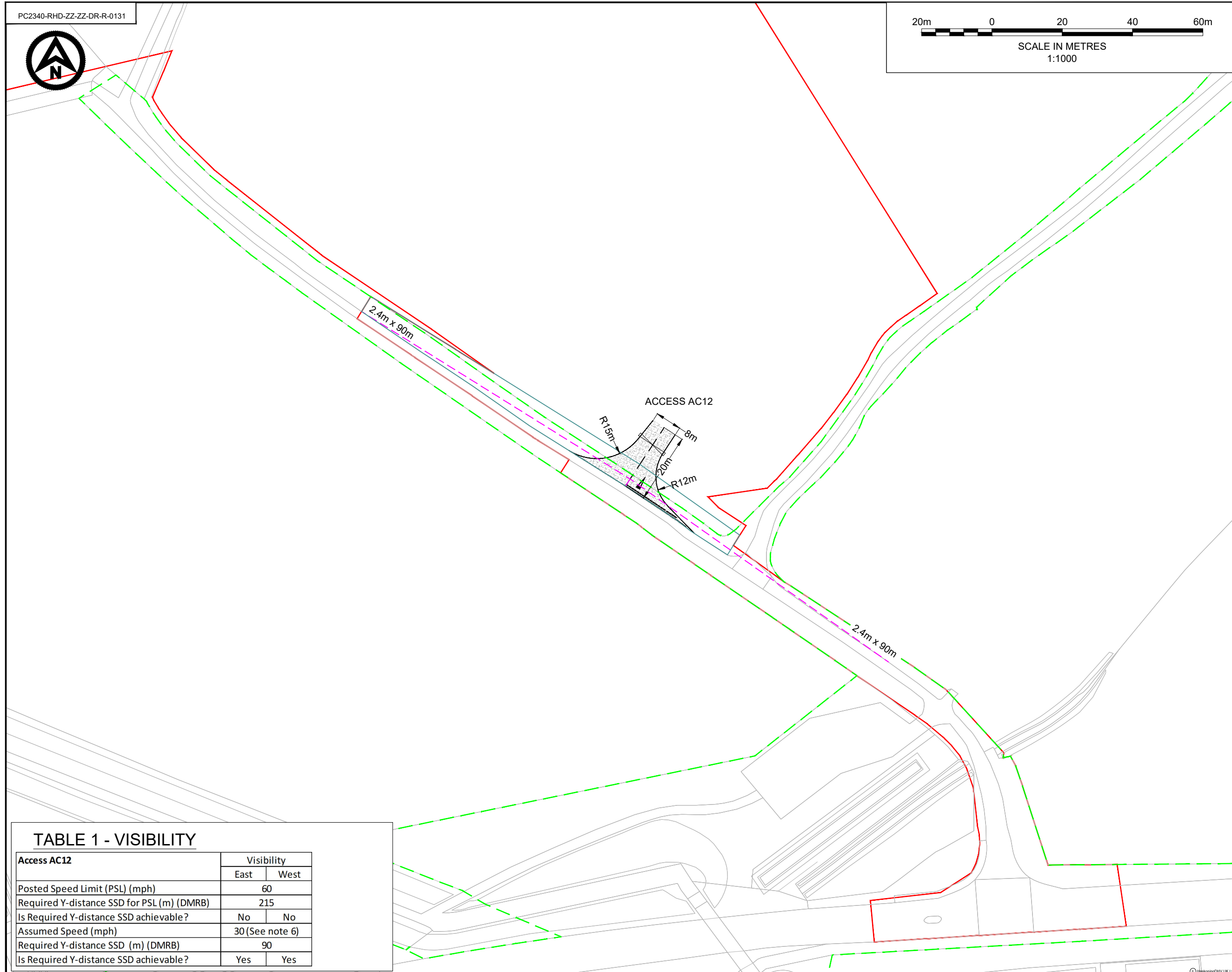
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DATE	23.07.23	SCALE	1:500	AUTOCAD REF.	
DRAWING No	PC2340-RHD-ZZ-ZZ-DR-R-0141			REVISION	
CLIENT DWG No.				REVISION	P01



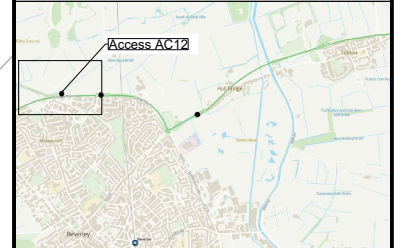
SCALE IN METRES
1:1000

- 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 guarantee 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.
 6. Reduced speed limit has been taken into account considering the geometry of the existing road.

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



LOCATION PLAN



REV	DATE	DESCRIPTION	BY	CHK	APP
P01	04.07.23	FIRST ISSUE	AA	SKT	SKT

REVISIONS

CLIENT



PROJECT
DOGGER BANK SOUTH
OFFSHORE WIND FARMS

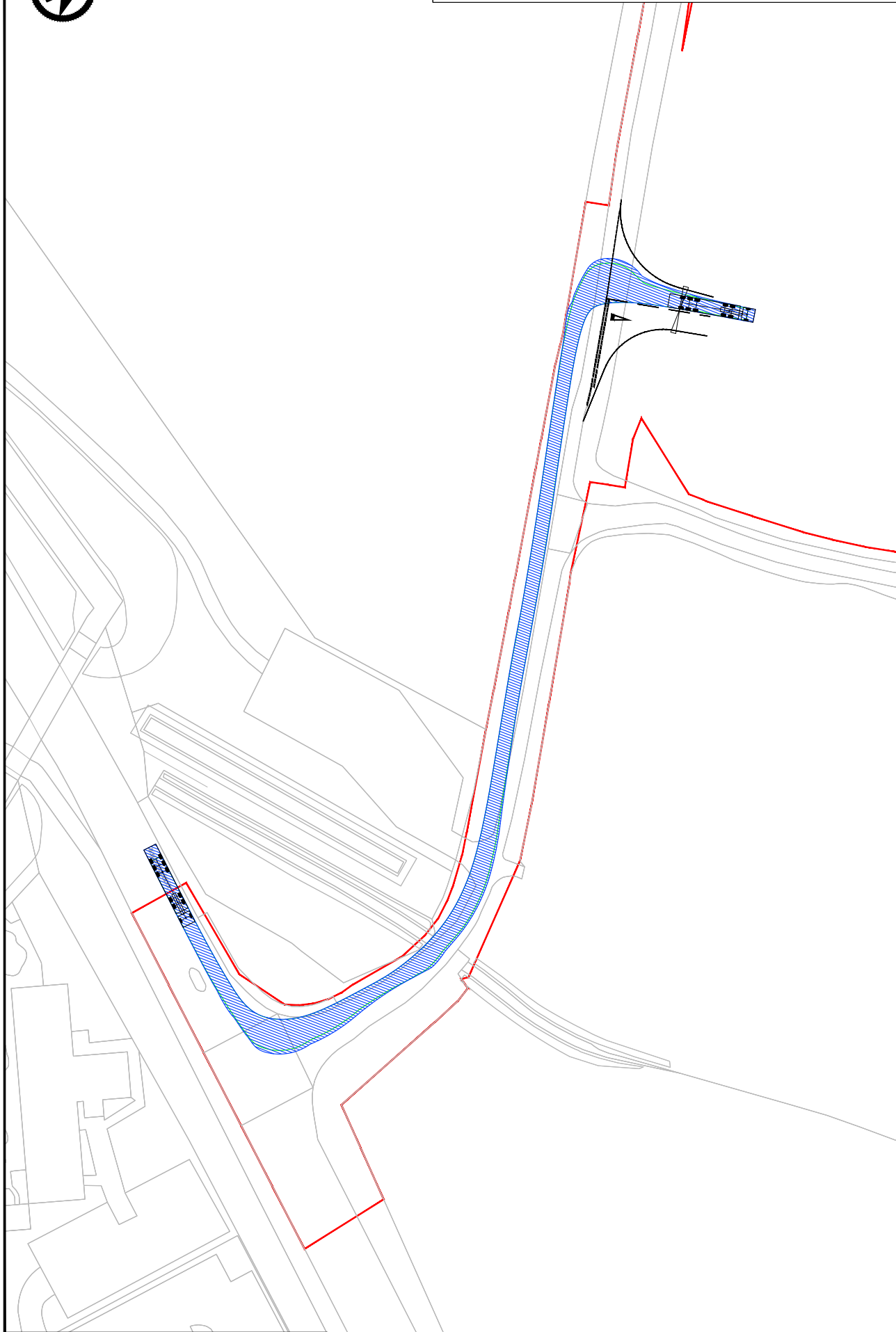
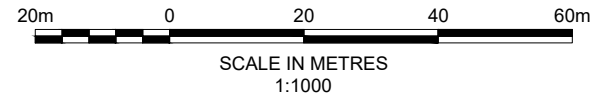
TITLE
ACCESS AC12
GENERAL ARRANGEMENT



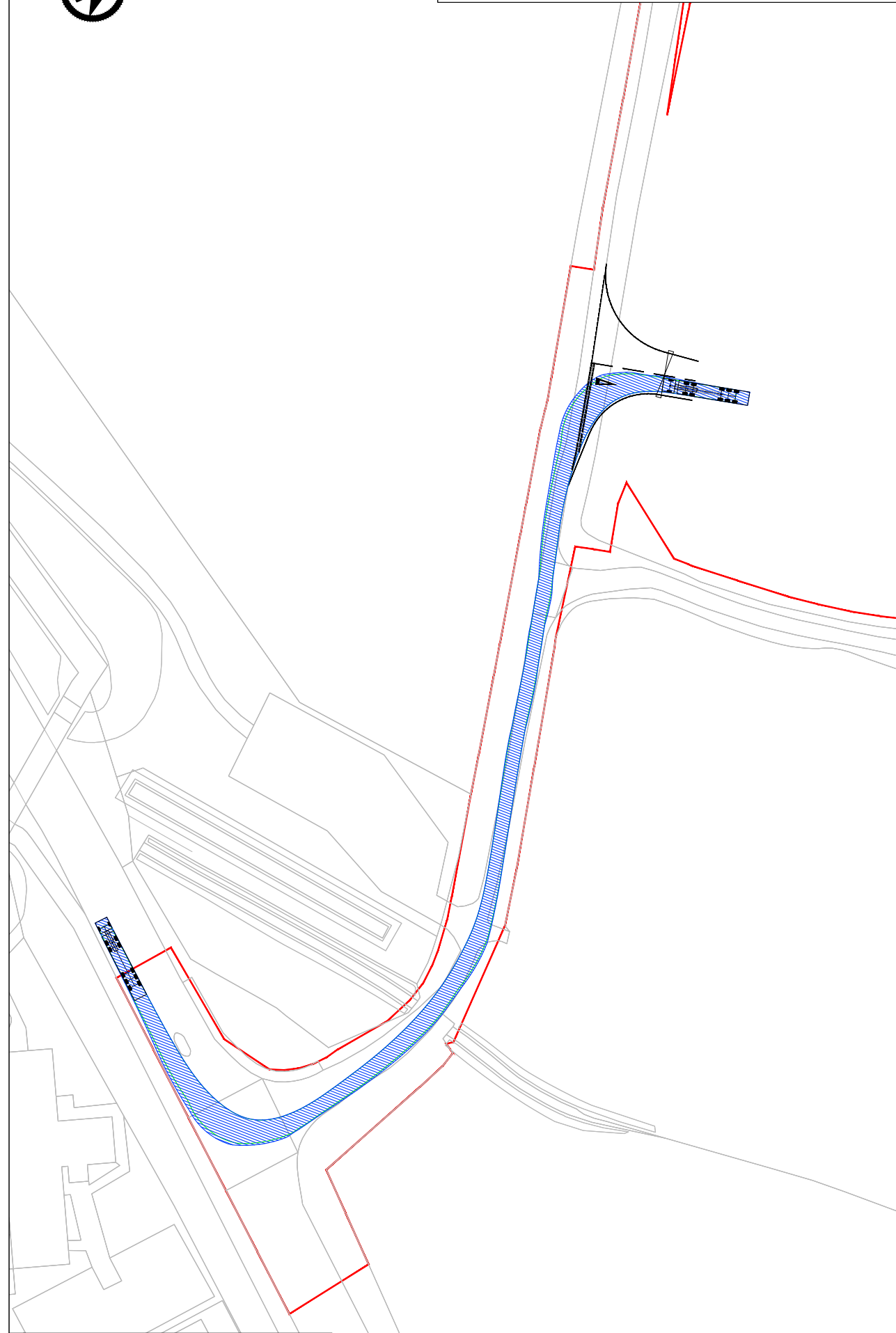
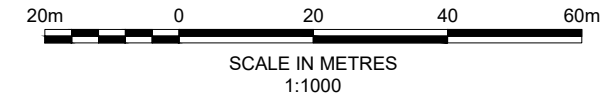
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AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
04.07.23	1:1000	
DRAWING No.	REVISION	
PC2340-RHD-ZZ-ZZ-DR-R-0131	P01	
CLIENT DWG No.		

TABLE 1 - VISIBILITY

Access AC12	Visibility	
	East	West
Posted Speed Limit (PSL) (mph)	60	
Required Y-distance SSD for PSL (m) (DMRB)	215	
Is Required Y-distance SSD achievable?	No	No
Assumed Speed (mph)	30 (See note 6)	
Required Y-distance SSD (m) (DMRB)	90	
Is Required Y-distance SSD achievable?	Yes	Yes



MAX LENGTH ARTICULATED HGV INGRESS



MAX LENGTH ARTICULATED HGV EGRESS

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 guarantee the accuracy of data.

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 3.891m
Min Body Ground Clearance 0.41m
Max Track Width 2.500m
Lock to lock time 6.00s
Kerb to Kerb Turning Radius 6.530m

REV	DATE	DESCRIPTION	BY	CHK	APP
P01	04.07.23	FIRST ISSUE	AA	SKT	SKT



PROJECT
DOGGER BANK SOUTH
OFFSHORE WIND FARMS

TITLE
ACCESS AC12
SHEET 1 OF 2
SWEEP PATH ANALYSIS

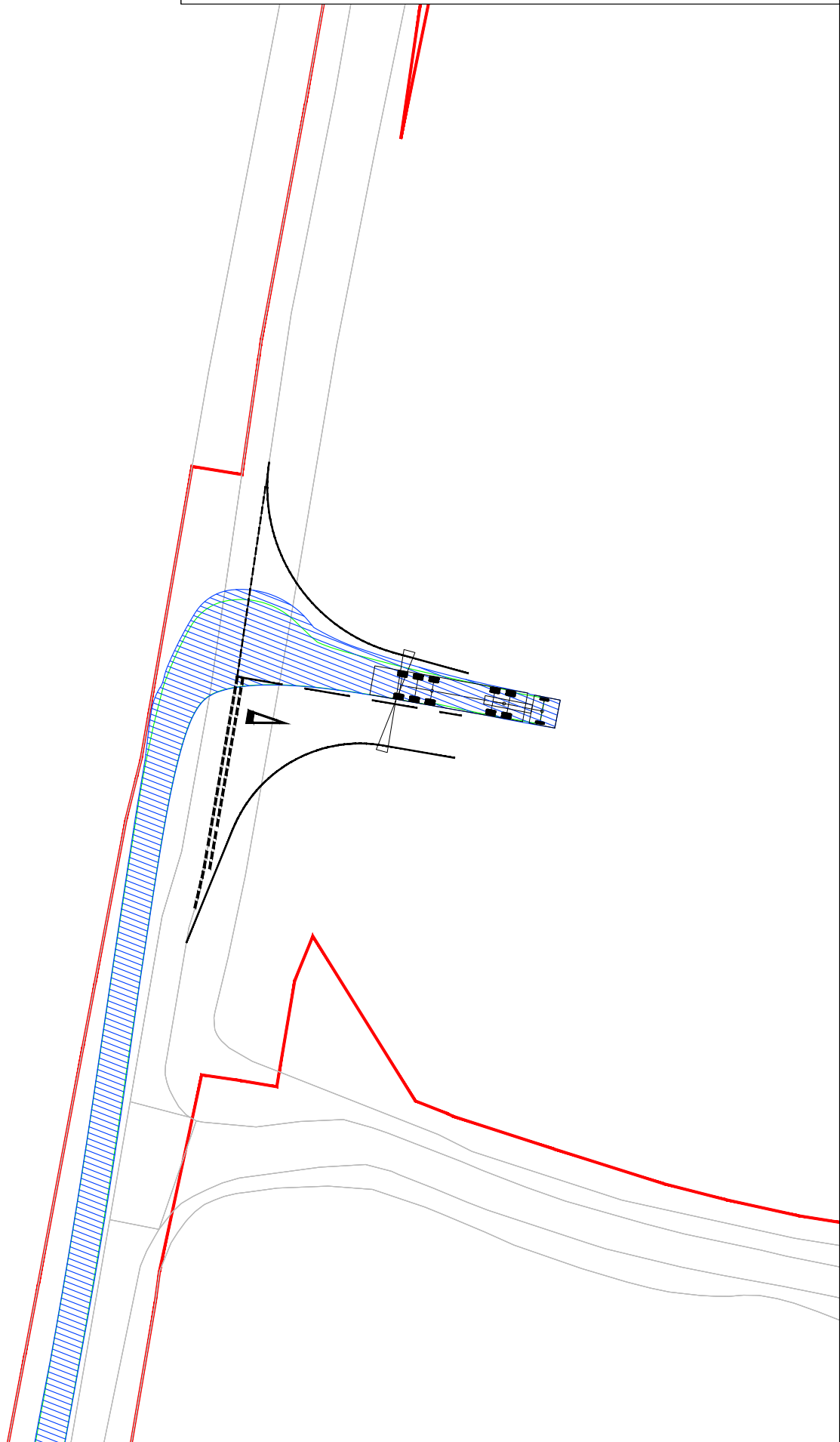


DRAWN	CHECKED	APPROVED
AA	SKT	SKT

DATE: 04.07.23 SCALE: 1:1000 AUTOCAD REF:
DRAWING No: PC2340-RHD-ZZ-ZZ-DR-R-0132 REVISION:
CLIENT DWG No: P01



SCALE IN METRES
1:500



MAX LENGTH ARTICULATED HGV INGRESS



SCALE IN METRES
1:500



MAX LENGTH ARTICULATED HGV EGRESS

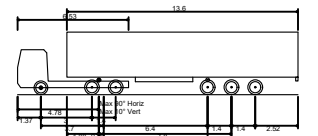
NOTES

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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 19.500m
 Overall Width 2.550m
 Overall Body Height 3.691m
 Min Body Ground Clearance 0.411m
 Max Track Width 2.500m
 Lock to lock time 6.00s
 Kerb to Kerb Turning Radius 6.530m

REV	DATE	DESCRIPTION	BY	CHK	APP
P01	23.07.23	FIRST ISSUE	AA	SKT	SKT

REVISIONS

CLIENT



PROJECT

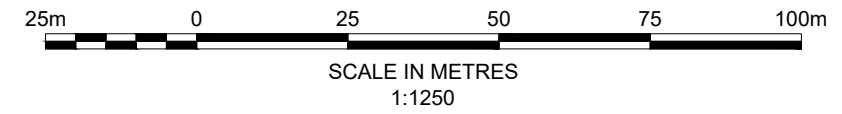
DOGGER BANK SOUTH
OFFSHORE WIND FARMS

TITLE

ACCESS AC12
SHEET 2 OF 2
SWEEP PATH ANALYSIS

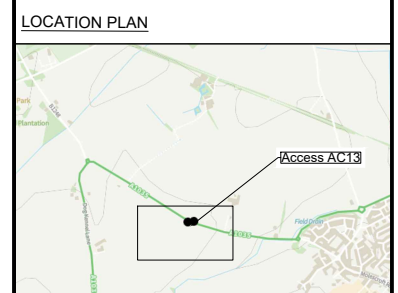


DRAWN	CHECKED	APPROVED
AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
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DRAWING No	PC2340-RHD-ZZ-ZZ-DR-R-0142	REVISION
CLIENT DWG No.		P01



- NOTES**
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 - X-distance - the set back from the nearest edge of the carriageway from which the access will be taken
 - Y-Distance - the SSD measured along the nearest edge of the carriageway to its intersection with the centreline of the access.
 - 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
 - INDICATIVE HIGHWAY BOUNDARY
 - PROPOSED GATE
 - PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
 - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
 - SHARED CYCLE/FOOTWAY WITH TACTILE PAVING TO BE INSTALLED AT CROSSINGS
 - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
 - SPLITTER ISLAND TO BE INSTALLED



REV	DATE	DESCRIPTION	BY	CHK	APP
P02	08.09.23	UPDATED ACCESS LOCATION	AA	SKT	SKT
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT



PROJECT
 DOGGER BANK SOUTH OFFSHORE WIND FARMS

TITLE
 ACCESS AC13 (NORTH & SOUTH) GENERAL ARRANGEMENT



DRAWN	CHECKED	APPROVED
AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
19.06.23	1:1250	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0123	REVISION
CLIENT DWG No.		P02

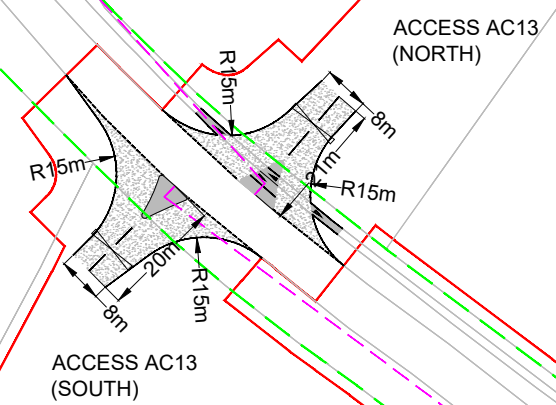


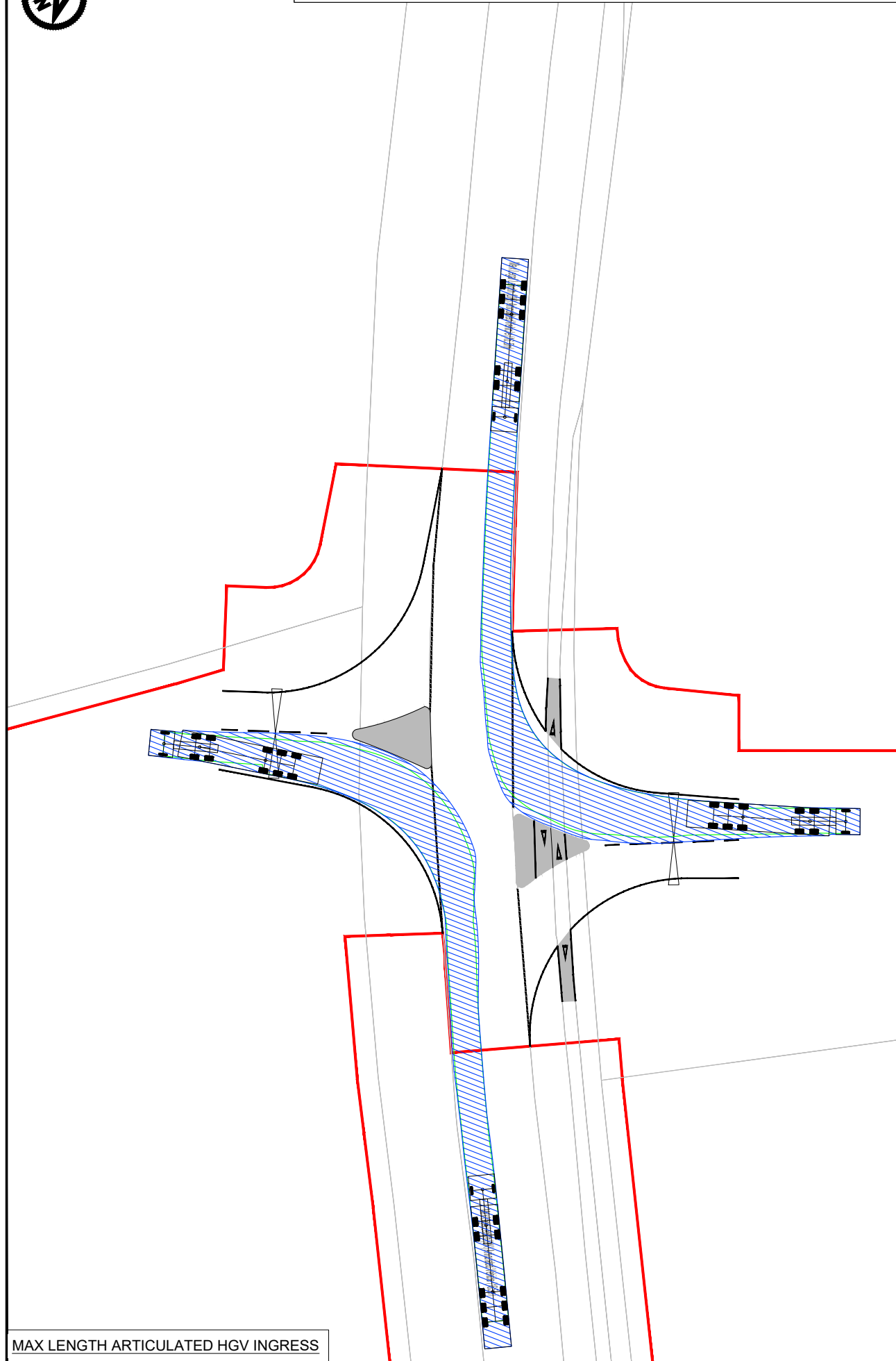
TABLE 1 - VISIBILITY

Access AC13	Visibility	
	East	West
Posted Speed Limit (PSL) (mph)	60	
Required Y-distance SSD for PSL (m) (DMRB)	215	
Is Required Y-distance SSD achievable?	Yes	Yes



25m 20 15 10 5 0 10 20 30m

SCALE IN METRES
1:500

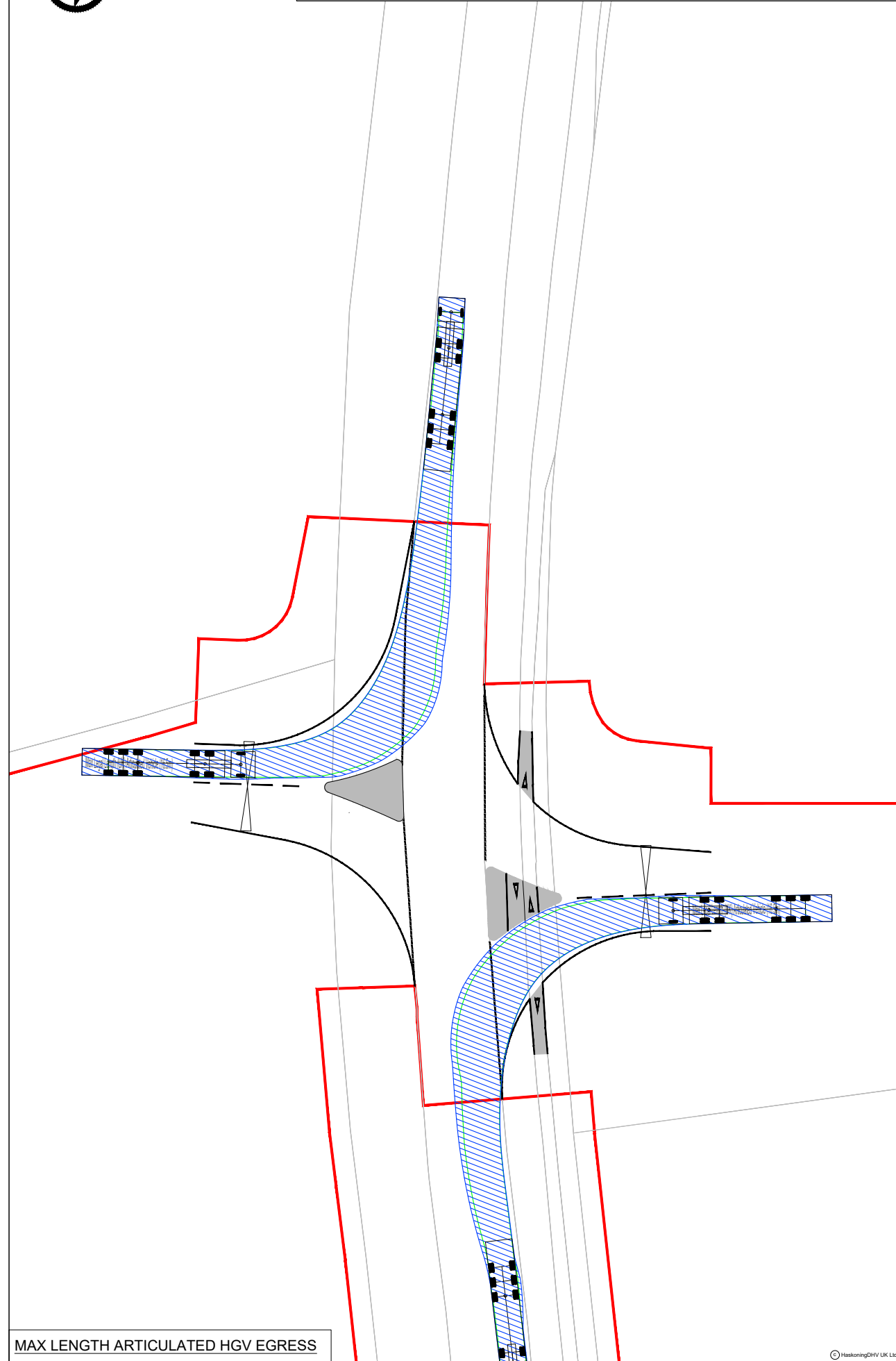


MAX LENGTH ARTICULATED HGV INGRESS



25m 20 15 10 5 0 10 20 30m

SCALE IN METRES
1:500



MAX LENGTH ARTICULATED HGV EGRESS

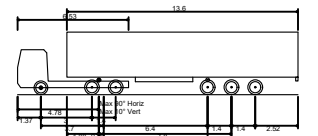
NOTES

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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 19.500m
 Overall Width 2.550m
 Overall Body Height 3.691m
 Min Body Ground Clearance 0.411m
 Max Track Width 2.500m
 Lock to lock time 6.00s
 Kerb to Kerb Turning Radius 6.530m

P01	23.07.23	FIRST ISSUE	AA	SKT	SKT
REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

CLIENT



PROJECT

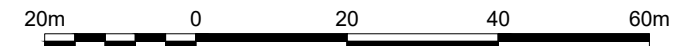
DOGGER BANK SOUTH
OFFSHORE WIND FARMS

TITLE

ACCESS AC13
SWEEP PATH ANALYSIS



DRAWN	AA	CHECKED	SKT	APPROVED	SKT
DATE	23.07.23	SCALE	1:500	AUTOCAD REF.	
DRAWING No	PC2340-RHD-ZZ-ZZ-DR-R-0144			REVISION	
CLIENT DWG No.				REVISION	P01



SCALE IN METRES
1:1000

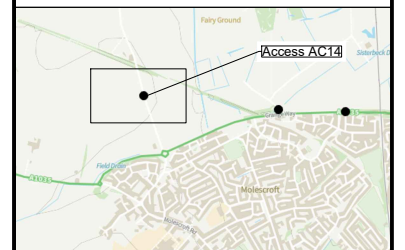
NOTES

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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 CABLE CORRIDOR
- HIGHWAY BOUNDARY
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- SHARED CYCLE/FOOTWAY WITH TACTILE PAVING TO BE INSTALLED AT CROSSINGS
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE

LOCATION PLAN



REV	DATE	DESCRIPTION	BY	CHK	APP
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT

REVISIONS

CLIENT



PROJECT

DOGGER BANK SOUTH OFFSHORE WIND FARMS

TITLE

ACCESS AC14 (EAST & WEST)
GENERAL ARRANGEMENT



DRAWN	AA	CHECKED	SKT	APPROVED	SKT
DATE	19.06.23	SCALE	1:1000	AUTOCAD REF.	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0124			REVISION	
CLIENT DWG No.				REVISION	P01

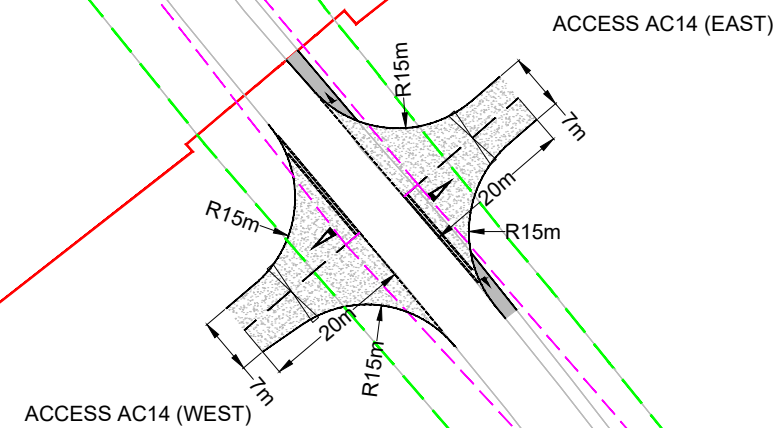


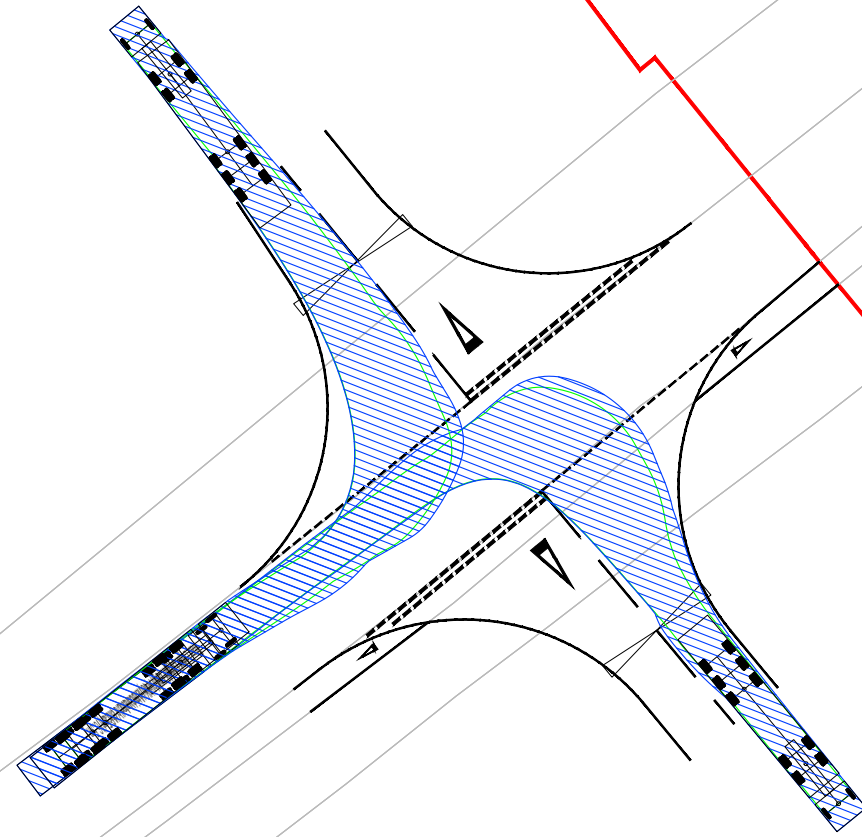
TABLE 1 - VISIBILITY

Access AC14	Visibility	
	North	South
Posted Speed Limit (PSL) (mph)	50	
Required Y-distance SSD for PSL (m) (DMRB)	160	
Is Required Y-distance SSD achievable?	Yes	Yes
85% of Recorded Speeds (mph) (85RS)	50.6	
Required Y-distance SSD for 85RS (m) (DMRB)	160	
Is Required Y-distance SSD achievable?	Yes	Yes



25m 20 15 10 5 0 10 20 30m

SCALE IN METRES
1:500

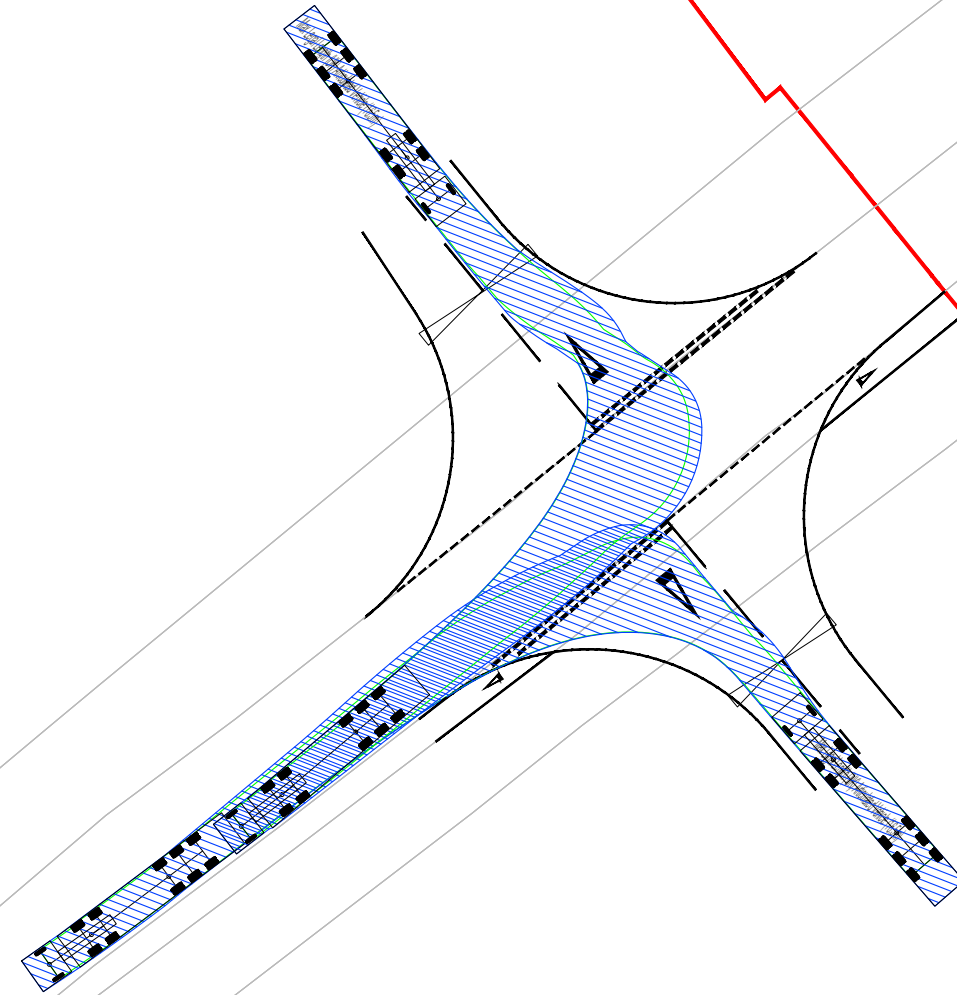


MAX LENGTH ARTICULATED HGV INGRESS



25m 20 15 10 5 0 10 20 30m

SCALE IN METRES
1:500



MAX LENGTH ARTICULATED HGV EGRESS

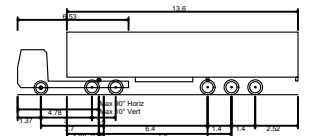
NOTES

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KEY

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

VEHICLE TRACKING



Max Legal Length (UK) Articulated Vehicle (16.5m) 16.500m
 Overall Length 19.500m
 Overall Width 2.550m
 Overall Body Height 3.691m
 Min Body Ground Clearance 0.411m
 Max Track Width 2.500m
 Lock to lock time 6.00s
 Kerb to Kerb Turning Radius 6.530m

P01	23.07.23	FIRST ISSUE	AA	SKT	SKT
REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

CLIENT



PROJECT

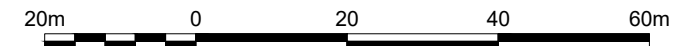
DOGGER BANK SOUTH
OFFSHORE WIND FARMS

TITLE

ACCESS AC14
SWEEP PATH ANALYSIS



DRAWN	AA	CHECKED	SKT	APPROVED	SKT
DATE	23.07.23	SCALE	1:500	AUTOCAD REF.	
DRAWING No	PC2340-RHD-ZZ-ZZ-DR-R-0143			REVISION	
CLIENT DWG No.					P01



SCALE IN METRES
1:1000

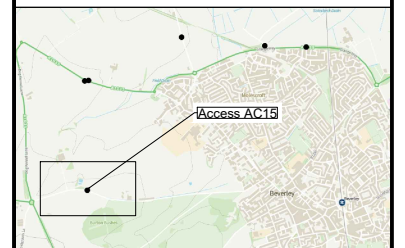
NOTES

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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 CABLE CORRIDOR
- HIGHWAY BOUNDARY
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- SHARED CYCLE/FOOTWAY WITH TACTILE PAVING TO BE INSTALLED AT CROSSINGS
- CARRIAGEWAY WIDENING - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE

LOCATION PLAN



P01	19.06.23	FIRST ISSUE	AA	SKT	SKT
REV	DATE	DESCRIPTION	BY	CHK	APP



PROJECT
DOGGER BANK SOUTH OFFSHORE WIND FARMS

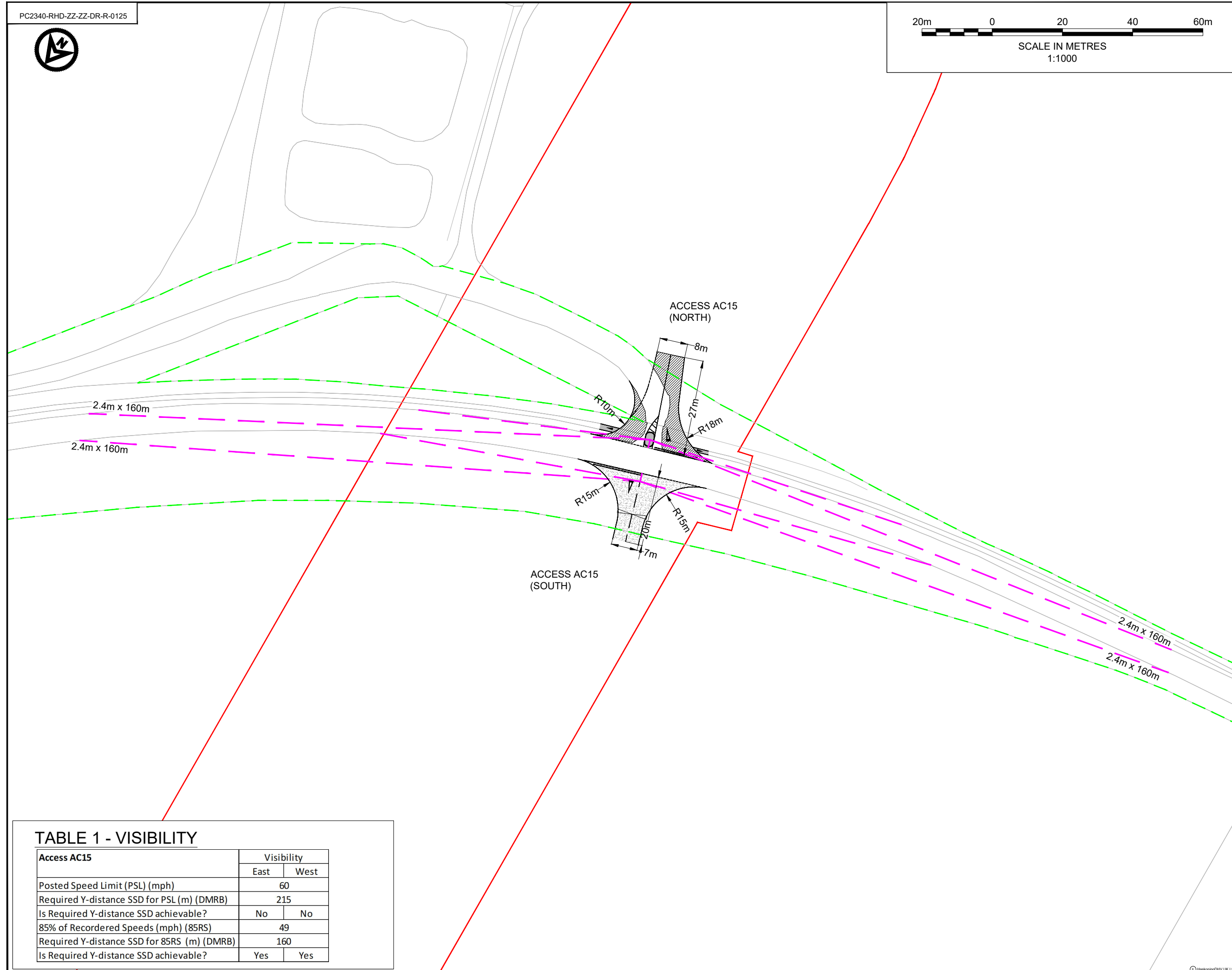
TITLE
ACCESS AC15 (NORTH & SOUTH) GENERAL ARRANGEMENT



DRAWN	AA	CHECKED	SKT	APPROVED	SKT
DATE	19.06.23	SCALE	1:1000	AUTOCAD REF.	
DRAWING No	PC2340-RHD-ZZ-ZZ-DR-R-0125			REVISION	
CLIENT DWG No.				REVISION	P01

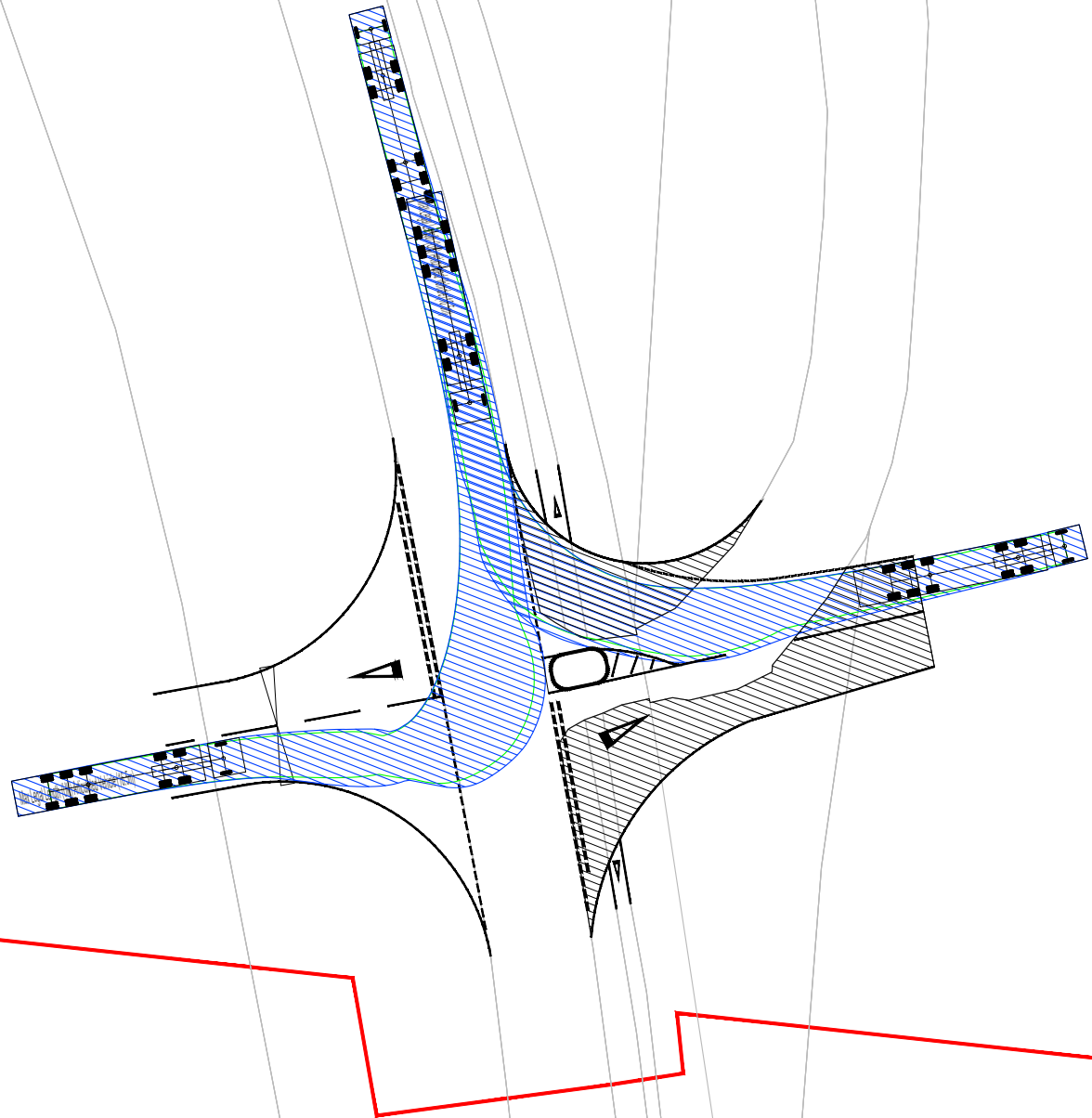
TABLE 1 - VISIBILITY

Access AC15	Visibility	
	East	West
Posted Speed Limit (PSL) (mph)	60	
Required Y-distance SSD for PSL (m) (DMRB)	215	
Is Required Y-distance SSD achievable?	No	No
85% of Recorded Speeds (mph) (85RS)	49	
Required Y-distance SSD for 85RS (m) (DMRB)	160	
Is Required Y-distance SSD achievable?	Yes	Yes





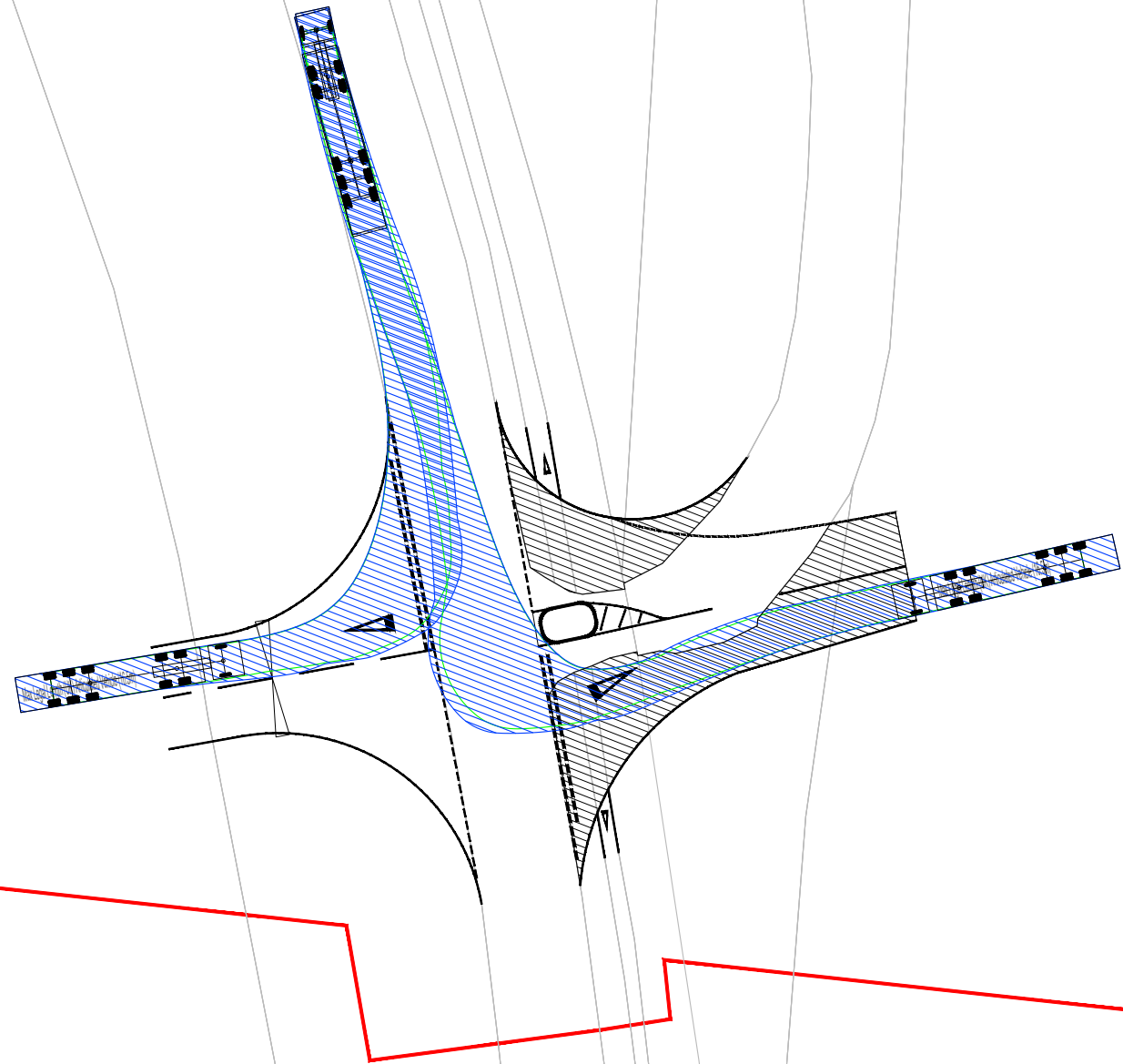
SCALE IN METRES
1:500



MAX LENGTH ARTICULATED HGV INGRESS



SCALE IN METRES
1:500



MAX LENGTH ARTICULATED HGV EGRESS

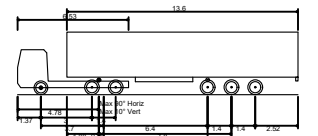
NOTES

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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 19.500m
 Overall Width 2.550m
 Overall Body Height 3.691m
 Min Body Ground Clearance 0.411m
 Max Track Width 2.500m
 Lock to lock time 6.00s
 Kerb to Kerb Turning Radius 6.530m

REV	DATE	DESCRIPTION	BY	CHK	APP
P01	23.07.23	FIRST ISSUE	AA	SKT	SKT

REVISIONS

CLIENT



PROJECT

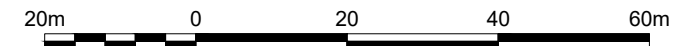
DOGGER BANK SOUTH
OFFSHORE WIND FARMS

TITLE

ACCESS AC15
SWEEP PATH ANALYSIS



DRAWN	CHECKED	APPROVED
AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
23.07.23	1:500	
DRAWING No	PC2340-RHD-ZZ-ZZ-DR-R-0145	REVISION
CLIENT DWG No.		P01



SCALE IN METRES
1:1000

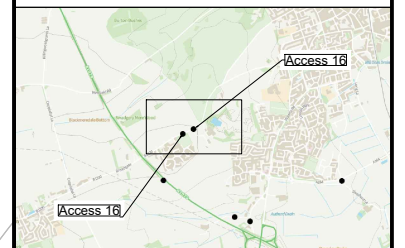
NOTES

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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 CABLE CORRIDOR
- HIGHWAY BOUNDARY
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- SHARED CYCLE/FOOTWAY WITH TACTILE PAVING TO BE INSTALLED AT CROSSINGS
- CARRIAGEWAY WIDENING - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE

LOCATION PLAN



REV	DATE	DESCRIPTION	BY	CHK	APP
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT



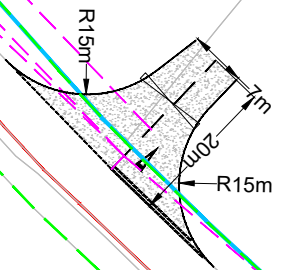
PROJECT
DOGGER BANK SOUTH OFFSHORE WIND FARMS

TITLE
ACCESS AC16 (NORTH & SOUTH)
GENERAL ARRANGEMENT



DRAWN	AA	CHECKED	SKT	APPROVED	SKT
DATE	19.06.23	SCALE	1:1000	AUTOCAD REF.	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0126			REVISION	
CLIENT DWG No.				REVISION	P01

ACCESS AC16 (NORTH)



ACCESS AC16 (SOUTH)

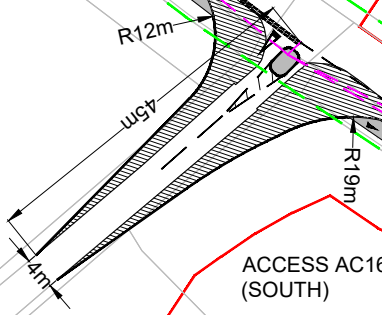


TABLE 1 - VISIBILITY

Access AC16	Visibility	
	East	West
Posted Speed Limit (PSL) (mph)	40	
Required Y-distance SSD for PSL (m) (DMRB)	120	
Is Required Y-distance SSD achievable?	Yes	Yes
85% of Recorded Speeds (mph) (85RS)	40.7	
Required Y-distance SSD for 85RS (m) (DMRB)	120	
Is Required Y-distance SSD achievable?	Yes	Yes



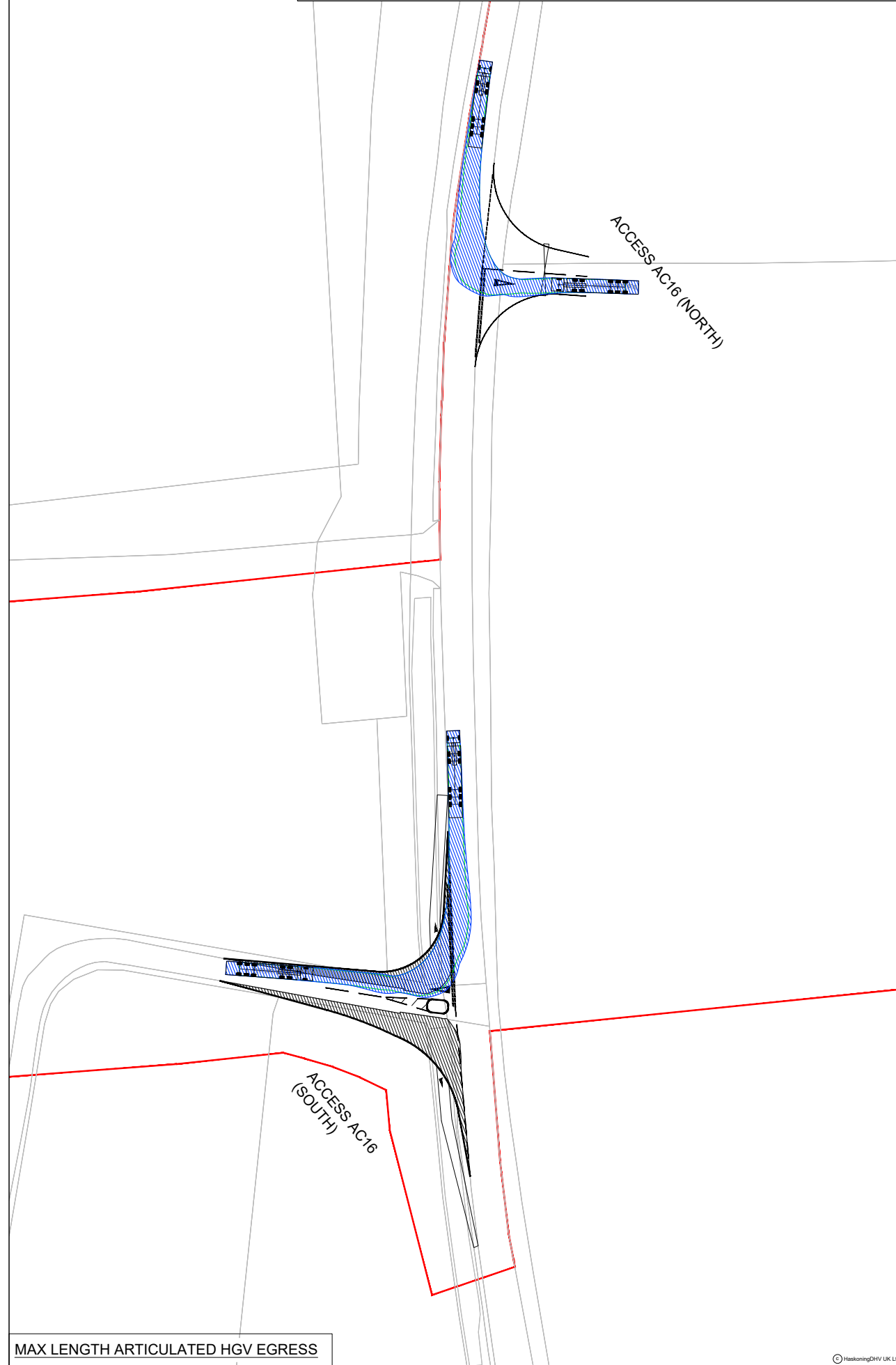
SCALE IN METRES
1:500



MAX LENGTH ARTICULATED HGV INGRESS



SCALE IN METRES
1:500



MAX LENGTH ARTICULATED HGV EGRESS

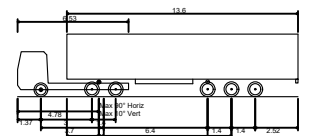
NOTES

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KEY

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

VEHICLE TRACKING



Max Legal Length (UK) Articulated Vehicle (16.5m)	16.500m
Overall Length	19.500m
Overall Width	2.550m
Overall Body Height	3.691m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

P01	23.07.23	FIRST ISSUE	AA	SKT	SKT
REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

CLIENT



PROJECT

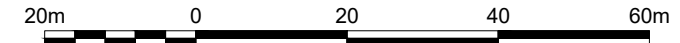
DOGGER BANK SOUTH
OFFSHORE WIND FARMS

TITLE

ACCESS AC16
SWEEP PATH ANALYSIS



DRAWN	AA	CHECKED	SKT	APPROVED	SKT
DATE	23.07.23	SCALE	1:500	AUTOCAD REF.	
DRAWING No	PC2340-RHD-ZZ-ZZ-DR-R-0146			REVISION	
CLIENT DWG No.				REVISION	P01

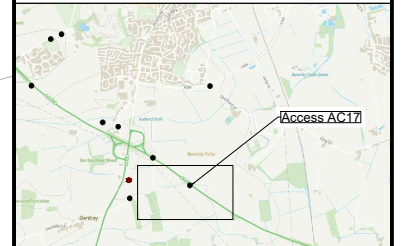


SCALE IN METRES
1:1000

- 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 CABLE CORRIDOR
 - HIGHWAY BOUNDARY
 - PROPOSED GATE
 - PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
 - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
 - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE

LOCATION PLAN



REV	DATE	DESCRIPTION	BY	CHK	APP
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT

REVISIONS

CLIENT



PROJECT
DOGGER BANK SOUTH
OFFSHORE WIND FARMS

TITLE
ACCESS AC17 (SOUTH)
GENERAL ARRANGEMENT



DRAWN	CHECKED	APPROVED
AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
19.06.23	1:1000	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0127	REVISION
CLIENT DWG No.		P01

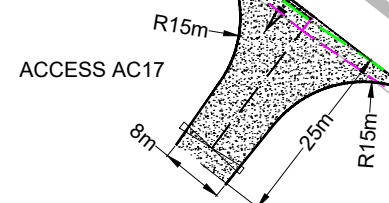


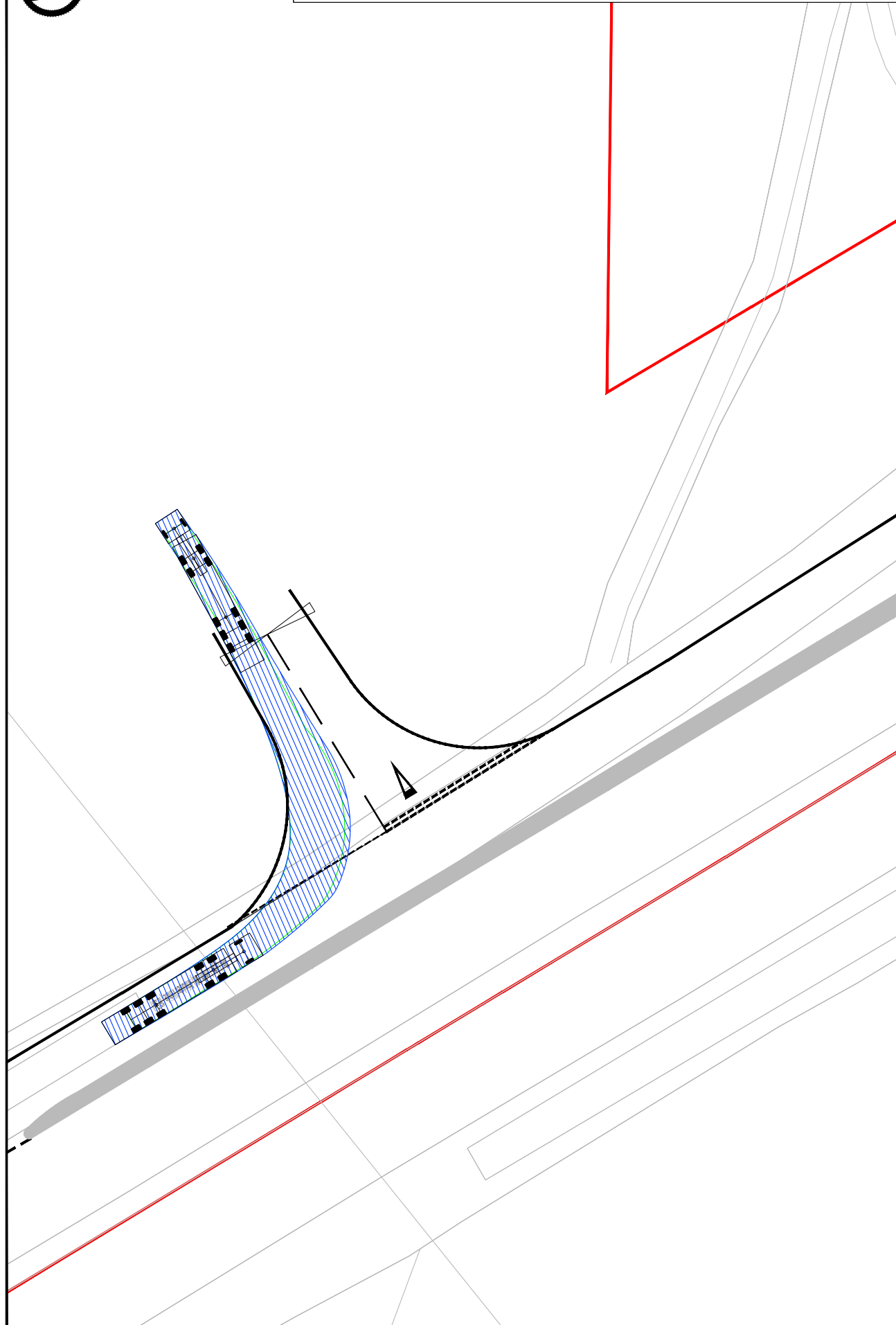
TABLE 1 - VISIBILITY

Access AC17	Visibility	
	East	West
Posted Speed Limit (PSL) (mph)	60	
Required Y-distance SSD for PSL (m) (DMRB)	215	
Is Required Y-distance SSD achievable?	Yes	Yes



25m 20 15 10 5 0 10 20 30m

SCALE IN METRES
1:500

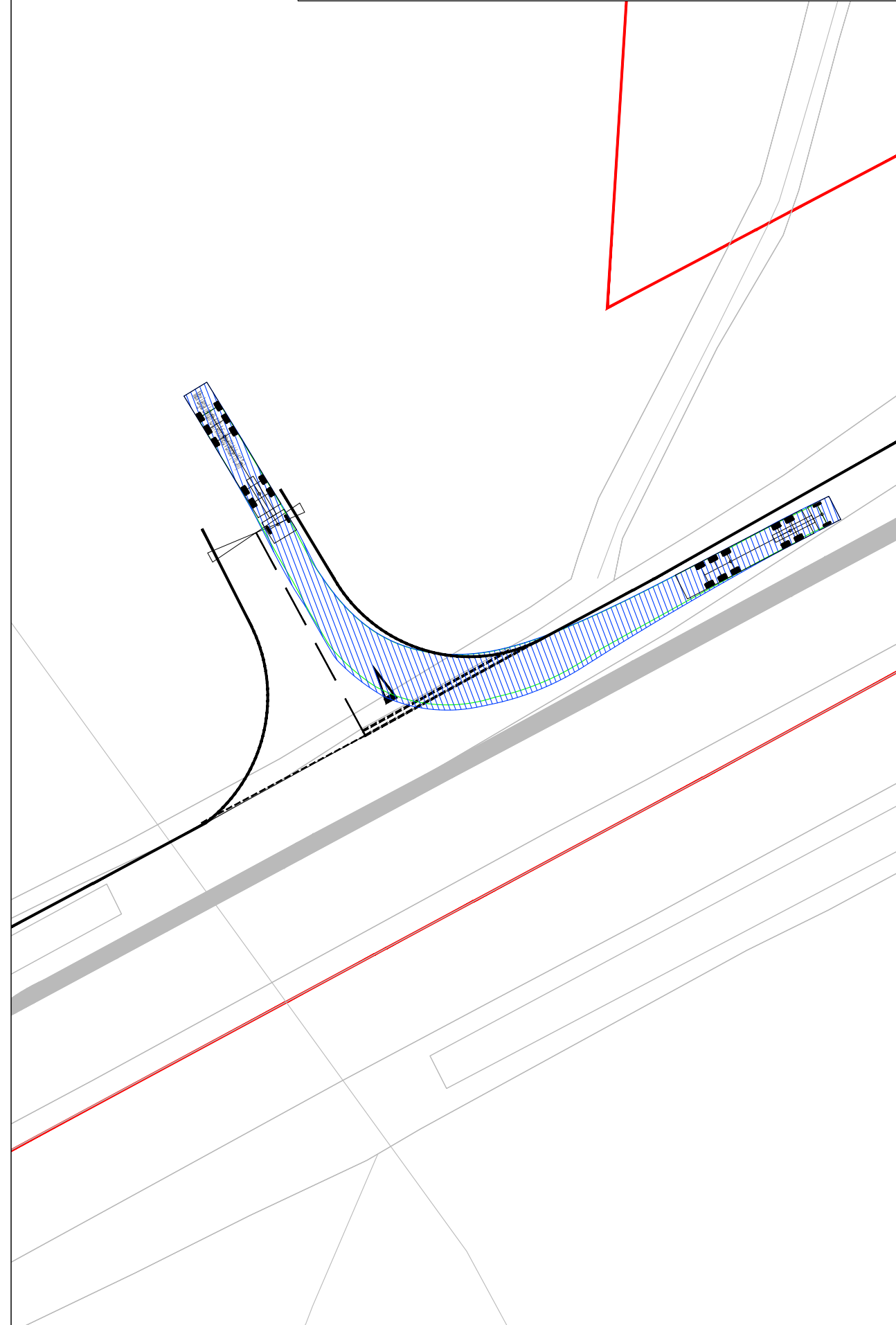


MAX LENGTH ARTICULATED HGV INGRESS



25m 20 15 10 5 0 10 20 30m

SCALE IN METRES
1:500



MAX LENGTH ARTICULATED HGV EGRESS

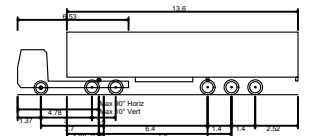
NOTES

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 guarantee the accuracy of data.

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 3.691m
 Min Body Ground Clearance 0.411m
 Max Track Width 2.500m
 Lock to lock time 6.00s
 Kerb to Kerb Turning Radius 6.530m

P01	23.07.23	FIRST ISSUE	AA	SKT	SKT
REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

CLIENT



PROJECT

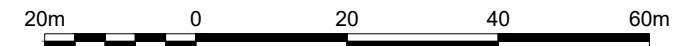
DOGGER BANK SOUTH
OFFSHORE WIND FARMS

TITLE

ACCESS AC17
SWEEP PATH ANALYSIS



DRAWN	AA	CHECKED	SKT	APPROVED	SKT
DATE	23.07.23	SCALE	1:500	AUTOCAD REF.	
DRAWING No	PC2340-RHD-ZZ-ZZ-DR-R-0149			REVISION	
CLIENT DWG No.				REVISION	P01



SCALE IN METRES
1:1000

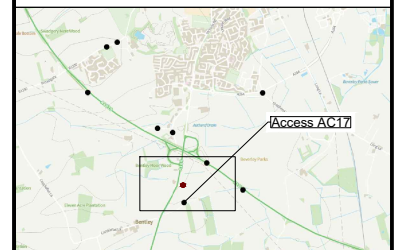
NOTES

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 guarantee the accuracy of data.
3. 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
- HIGHWAY BOUNDARY
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- ▨ CARRIAGEWAY WIDENING - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE

LOCATION PLAN



REV	DATE	DESCRIPTION	BY	CHK	APP
P01	04.07.23	FIRST ISSUE	AA	SKT	SKT

REVISIONS

CLIENT



PROJECT

DOGGER BANK SOUTH OFFSHORE WIND FARMS

TITLE

ACCESS AC17 (WEST)
GENERAL ARRANGEMENT

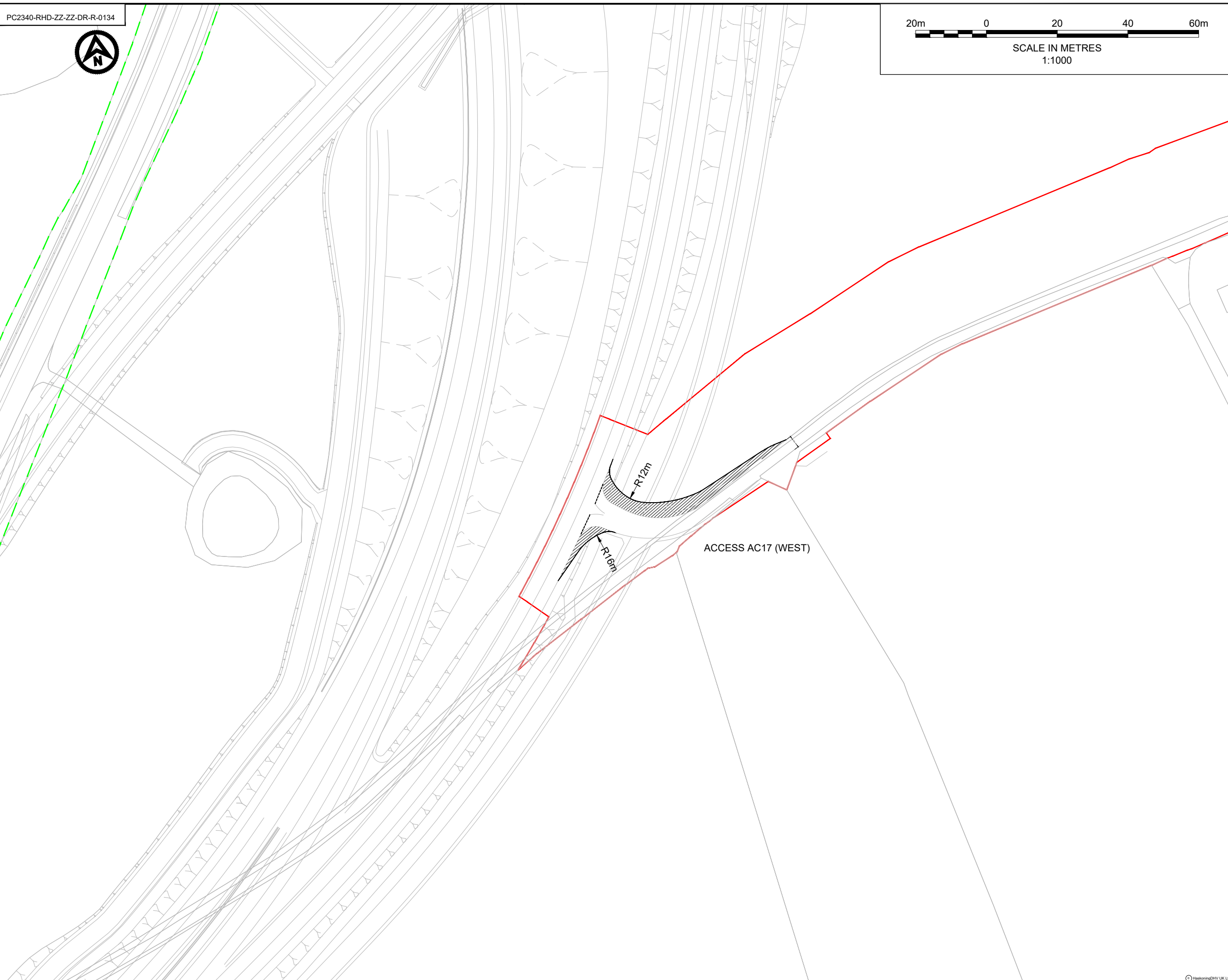


DRAWN	CHECKED	APPROVED
AA	SKT	SKT

DATE	SCALE	AUTOCAD REF.
04.07.23	1:1000	

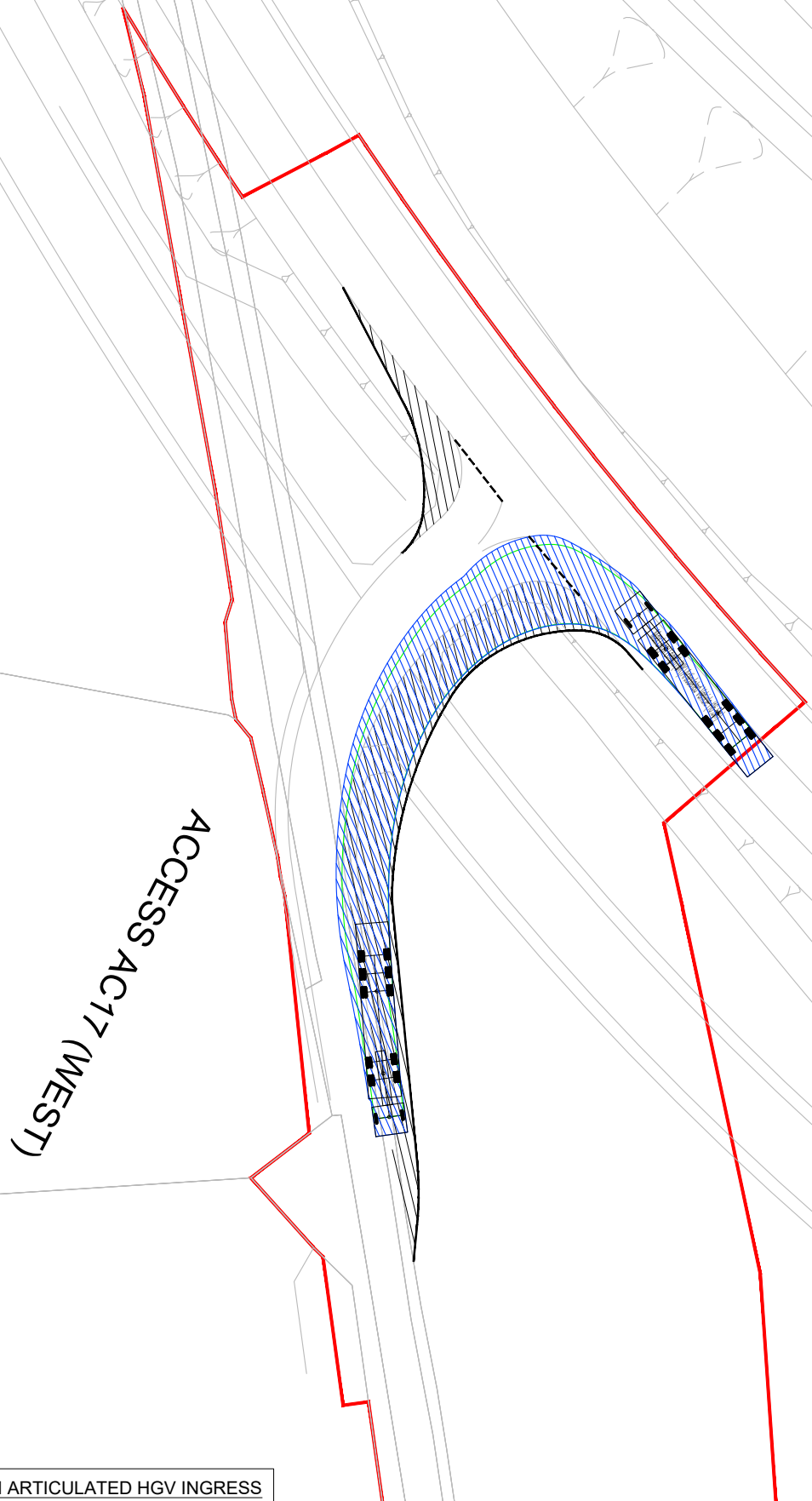
DRAWING No.	REVISION
PC2340-RHD-ZZ-ZZ-DR-R-0134	

CLIENT DWG No.	REVISION
	P01





SCALE IN METRES
1:500

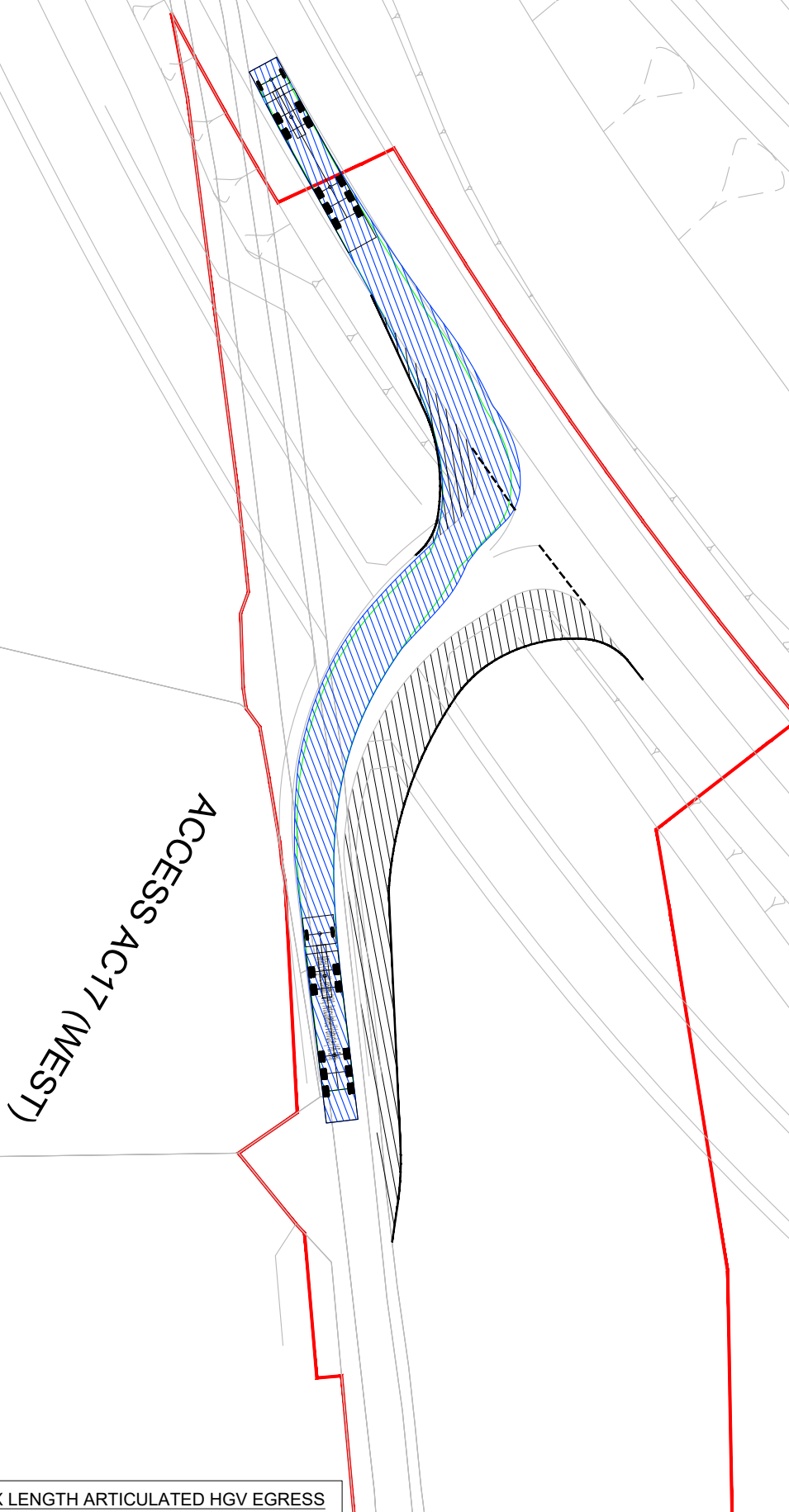


ACCESS AC17 (WEST)

MAX LENGTH ARTICULATED HGV INGRESS



SCALE IN METRES
1:500



ACCESS AC17 (WEST)

MAX LENGTH ARTICULATED HGV EGRESS

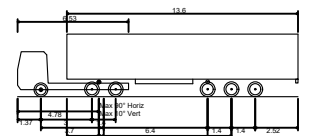
NOTES

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 guarantee the accuracy of data.

KEY

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

VEHICLE TRACKING



Max Legal Length (UK) Articulated Vehicle (16.5m)
 Overall Length 19.500m
 Overall Width 2.550m
 Overall Body Height 3.691m
 Min Body Ground Clearance 0.411m
 Max Track Width 2.500m
 Lock to lock time 6.00s
 Kerb to Kerb Turning Radius 6.530m

P01	23.07.23	FIRST ISSUE	AA	SKT	SKT
REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

CLIENT



PROJECT

DOGGER BANK SOUTH
OFFSHORE WIND FARMS

TITLE

ACCESS AC17 (WEST)
SWEEP PATH ANALYSIS



DRAWN	AA	CHECKED	SKT	APPROVED	SKT
DATE	23.07.23	SCALE	1:500	AUTOCAD REF.	
DRAWING No	PC2340-RHD-ZZ-ZZ-DR-R-0150			REVISION	
CLIENT DWG No.					P01



25m 20 15 10 5 0 10 20 30m

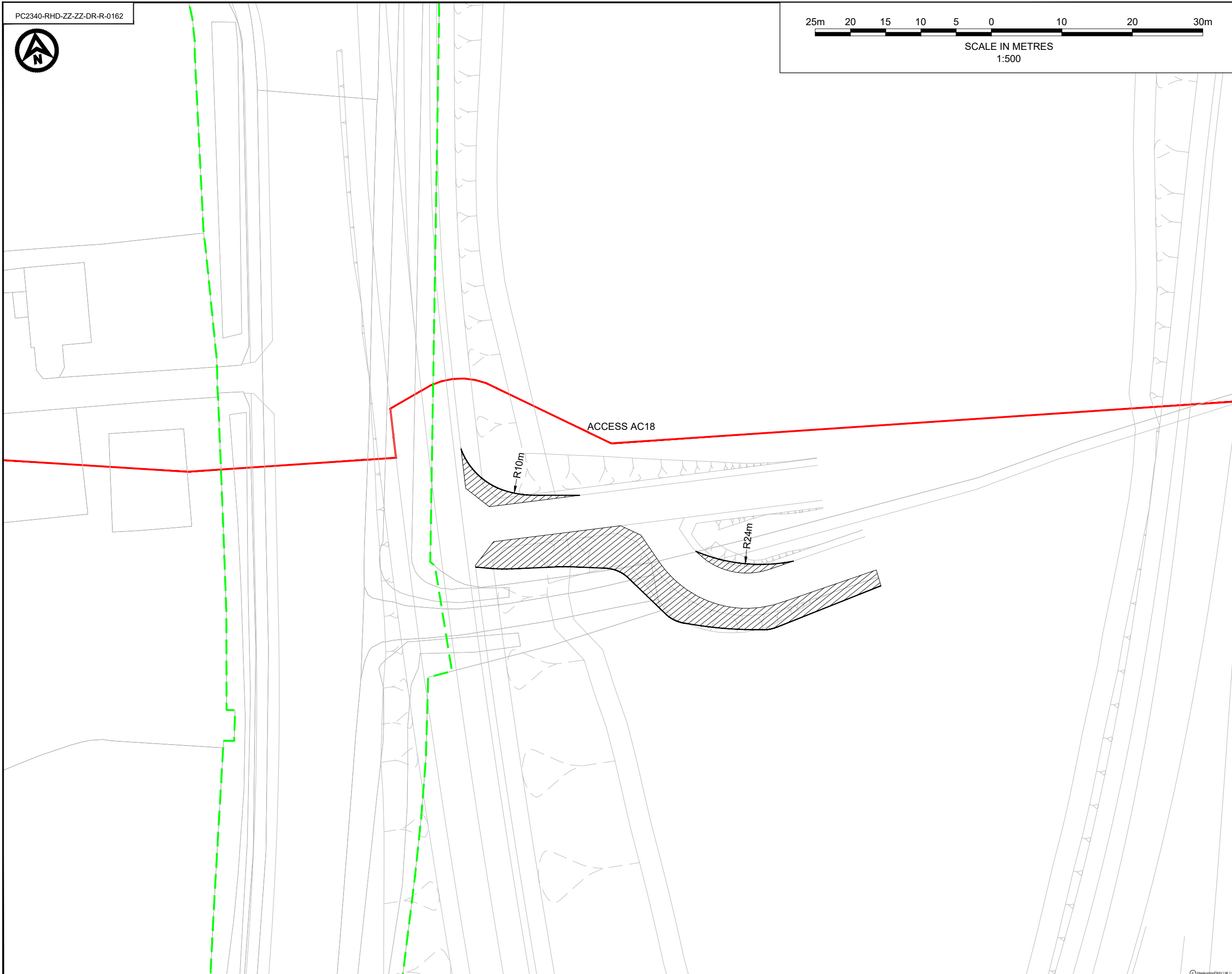
SCALE IN METRES
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NOTES

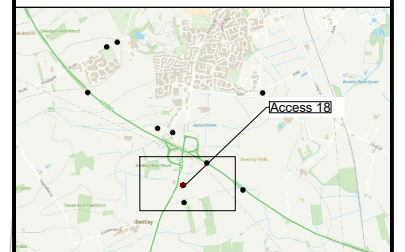
1. Do not scale from this drawing. all dimensions are in metres unless noted otherwise.
2. This drawing has been based upon Ordnance Survey Maps and Royal HaskoningDHV can not guarantee the accuracy of data.
3. All vegetation to be cleared/trimmed within identified visibility envelope and thereafter maintained in accordance with Local Highway Authority maintenance practices.

KEY

- EXISTING ARRANGEMENT
- HIGHWAY BOUNDARY
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- CARRIAGEWAY WIDENING - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE



LOCATION PLAN



P01	08.09.23	FIRST ISSUE	AA	SKT	SKT
REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

CLIENT



PROJECT

DOGGER BANK SOUTH OFFSHORE WIND FARMS

TITLE

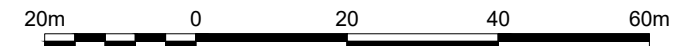
ACCESS AC18
GENERAL ARRANGEMENT

DRAWN	AA	CHECKED	SKT	APPROVED	SKT
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DATE	08.09.23	SCALE	1:500	AUTOCAD REF.	
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DRAWING No	PC2340-RHD-ZZ-ZZ-DR-R-0162	REVISION	
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CLIENT DWG No.	P01
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SCALE IN METRES
1:1000

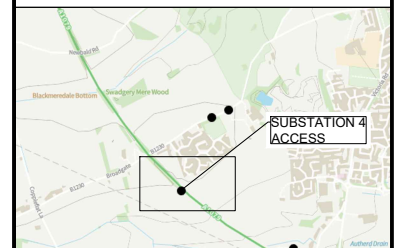
NOTES

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2. This drawing has been based upon Ordnance Survey Maps and Royal HaskoningDHV can not guarantee 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
- HIGHWAY BOUNDARY
- ONSHORE CABLE CORRIDOR
- SUBSTATION ZONE C
- PROPOSED GATE
- PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
- VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
- FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE

LOCATION PLAN



REV	DATE	DESCRIPTION	BY	CHK	APP
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT

REVISIONS

CLIENT



PROJECT

DOGGER BANK SOUTH OFFSHORE WIND FARMS

TITLE

SUB STATION 4 ACCESS GENERAL ARRANGEMENT

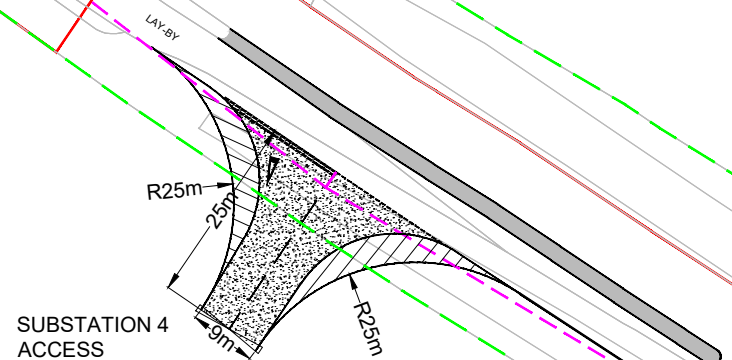


DRAWN	CHECKED	APPROVED
AA	SKT	SKT

DATE	SCALE	AUTOCAD REF.
19.06.23	1:1000	

DRAWING No	REVISION
PC2340-RHD-ZZ-ZZ-DR-R-0133	

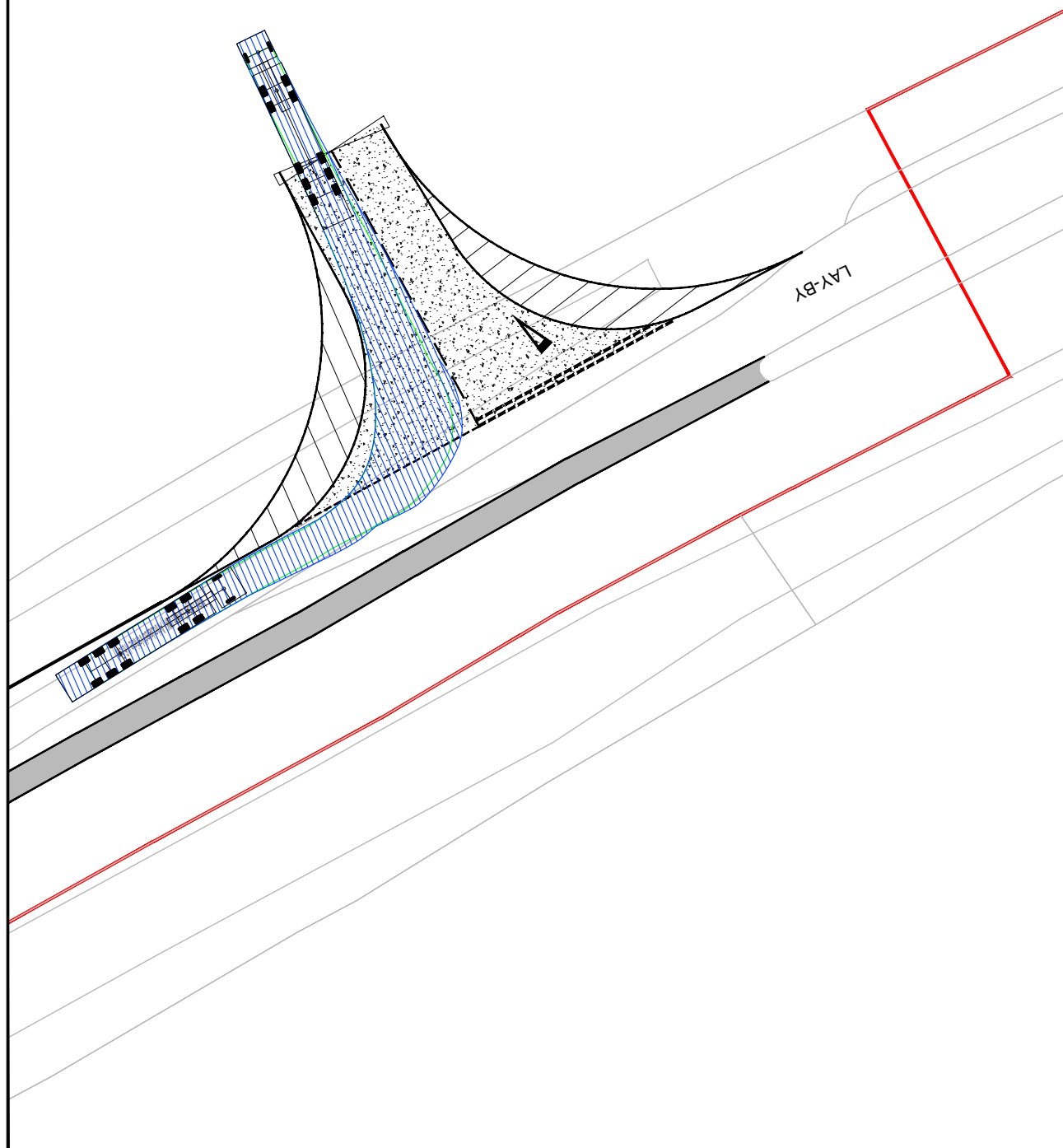
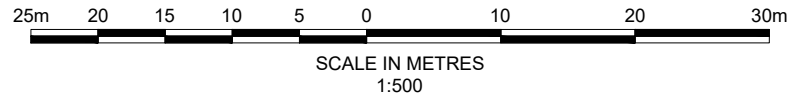
CLIENT DWG No.	REVISION
	P01



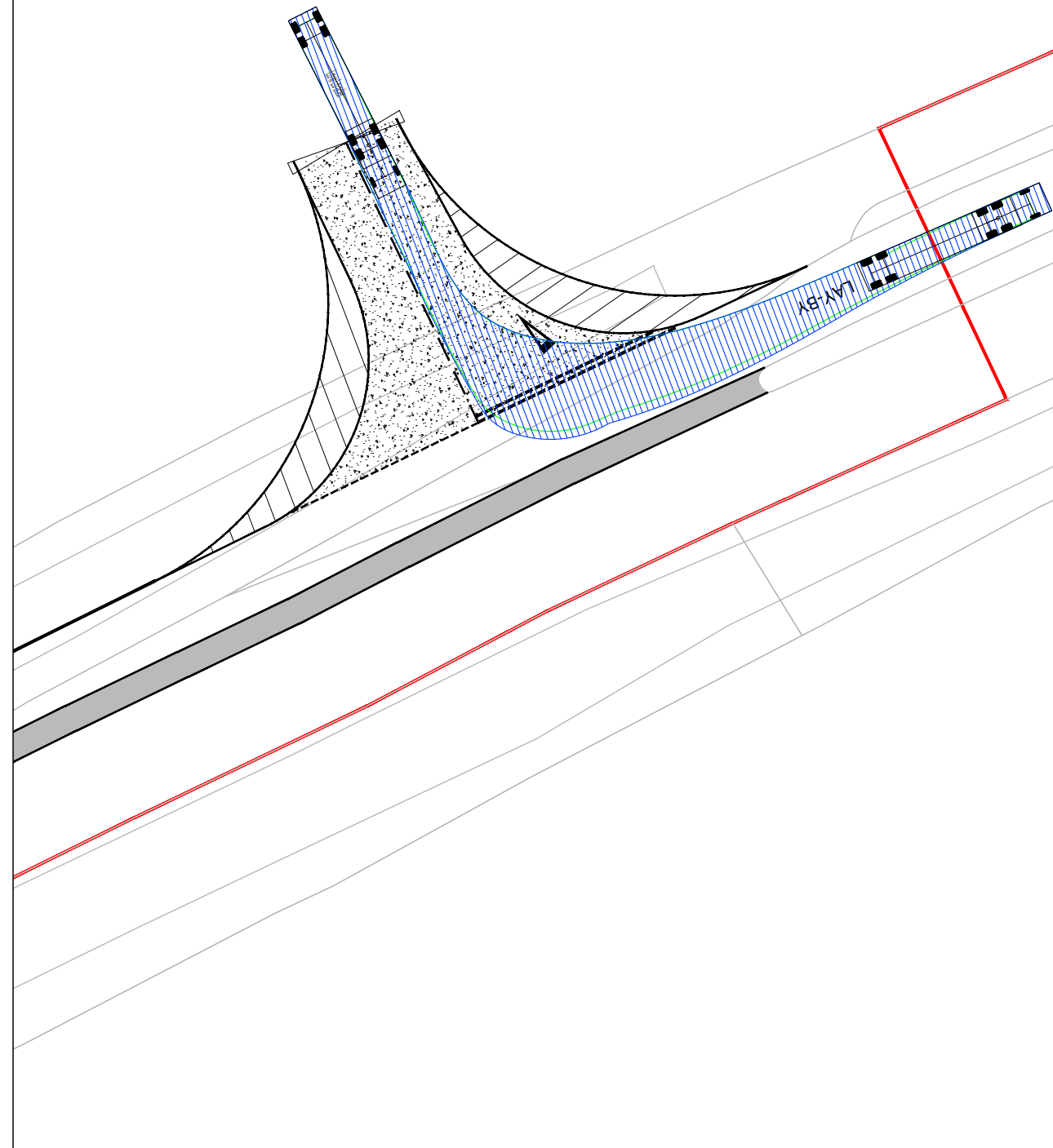
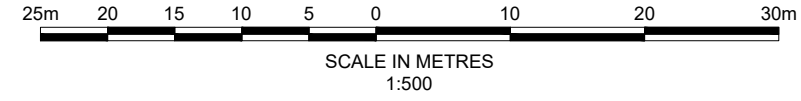
SUBSTATION 4 ACCESS

TABLE 1 - VISIBILITY

Sub Station 4 Access	VISIBILITY	
	EAST	WEST
Posted Speed Limit (PSL) (mph)	60	
Required Y-distance SSD for PSL (m) (DMRB)	215	
Is required Y-distance SSD achievable?	Yes	Yes



MAX LENGTH ARTICULATED HGV INGRESS



MAX LENGTH ARTICULATED HGV EGRESS

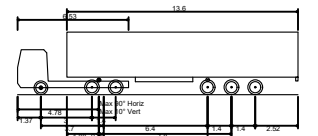
NOTES

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KEY

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

VEHICLE TRACKING



Max Legal Length (UK) Articulated Vehicle (16.5m)	16.500m
Overall Length	19.500m
Overall Width	2.550m
Overall Body Height	3.891m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

P01	23.07.23	FIRST ISSUE	AA	SKT	SKT
REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

CLIENT



PROJECT

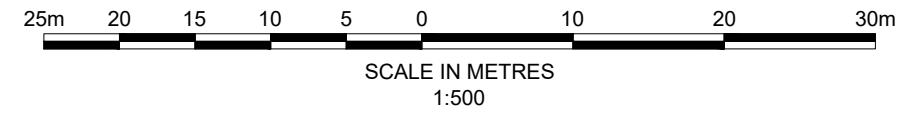
DOGGER BANK SOUTH
OFFSHORE WIND FARMS

TITLE

SUBSTATION 4 ACCESS
SWEEP PATH ANALYSIS



DRAWN	CHECKED	APPROVED
AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
23.07.23	1:500	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0147	REVISION
CLIENT DWG No.		P01



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

- KEY**
- EXISTING ARRANGEMENT
 - ONSHORE CABLE CORRIDOR
 - HIGHWAY BOUNDARY
 - PROPOSED GATE
 - PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
 - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
 - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
 - PROPOSED YELLOW DEMARCATION BOLLARD



REV	DATE	DESCRIPTION	BY	CHK	APP
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT



PROJECT
DOGGER BANK SOUTH OFFSHORE WIND FARMS

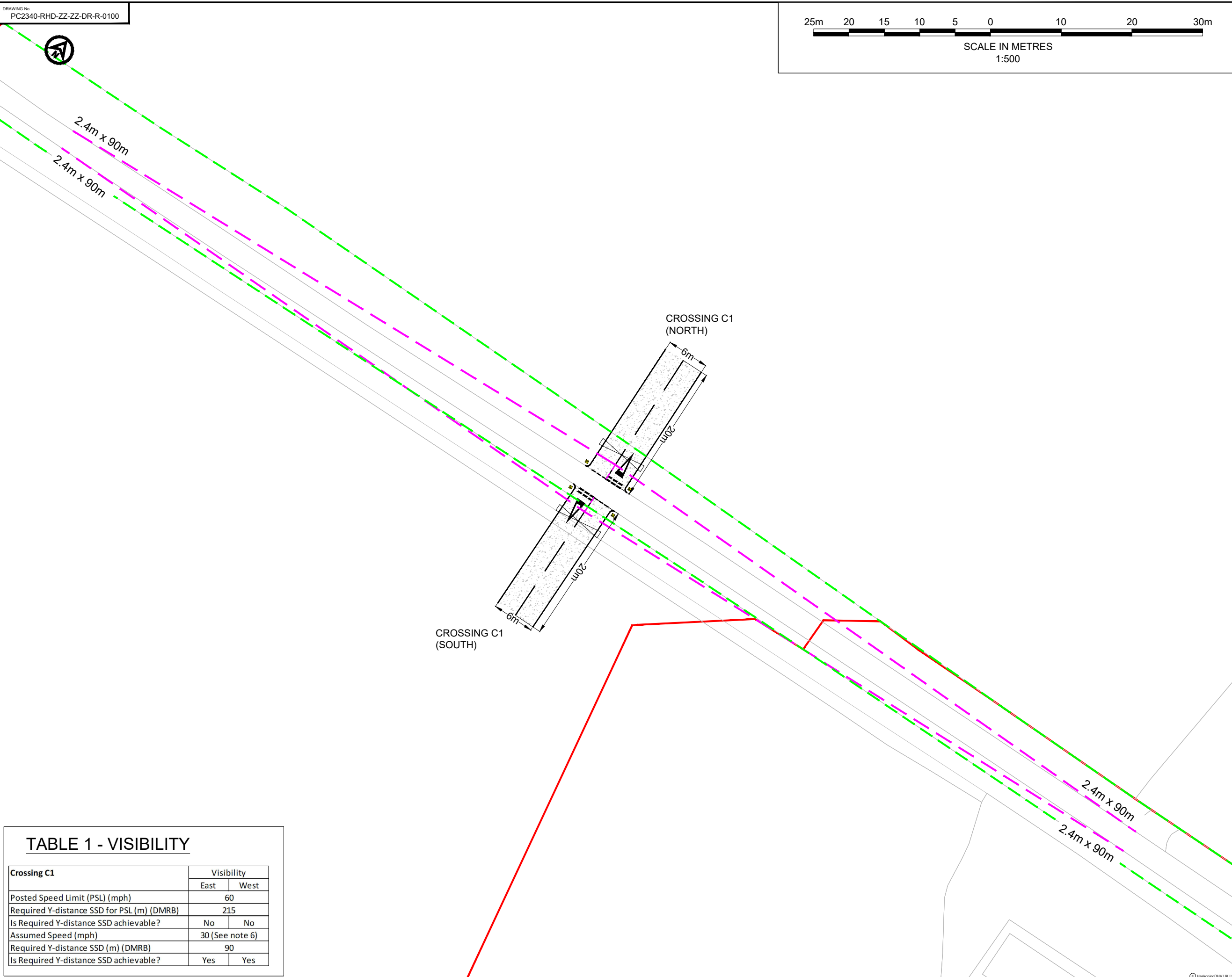
TITLE
CROSSING C1 (NORTH & SOUTH) GENERAL ARRANGEMENT

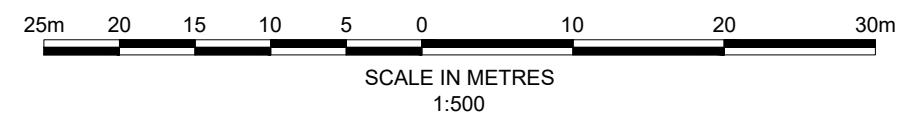


DRAWN	CHECKED	APPROVED
AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
19.06.23	1:500	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0100	REVISION
CLIENT DWG No.		P01

TABLE 1 - VISIBILITY

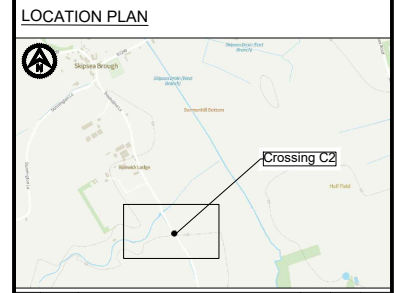
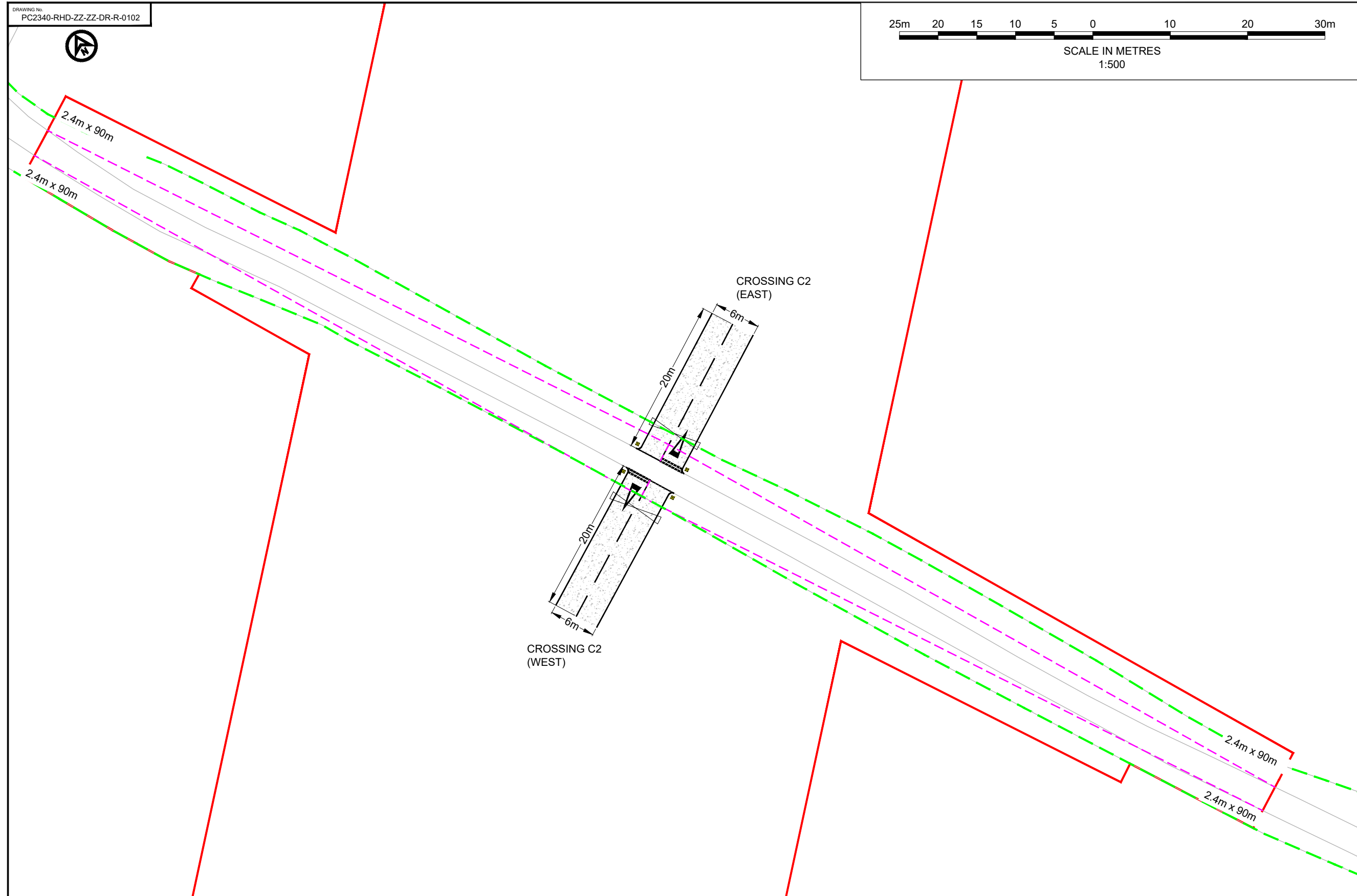
Crossing C1	Visibility	
	East	West
Posted Speed Limit (PSL) (mph)	60	
Required Y-distance SSD for PSL (m) (DMRB)	215	
Is Required Y-distance SSD achievable?	No	No
Assumed Speed (mph)	30 (See note 6)	
Required Y-distance SSD (m) (DMRB)	90	
Is Required Y-distance SSD achievable?	Yes	Yes





- 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.
 6. Reduced speed limit has been taken into account considering the geometry of the existing road.

- KEY**
- EXISTING ARRANGEMENT
 - ONSHORE CABLE CORRIDOR
 - HIGHWAY BOUNDARY
 - ∠ PROPOSED GATE
 - PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
 - - - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
 - ▨ FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
 - ▣ PROPOSED YELLOW DEMARCATION BOLLARD



REV	DATE	DESCRIPTION	BY	CHK	APP
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT



PROJECT
DOGGER BANK SOUTH OFFSHORE WIND FARMS

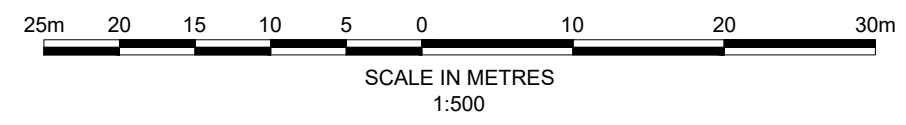
TITLE
CROSSING C2 (EAST & WEST) GENERAL ARRANGEMENT



DRAWN	CHECKED	APPROVED
AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
19.06.23	1:500	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0102	REVISION
CLIENT DWG No.		P01

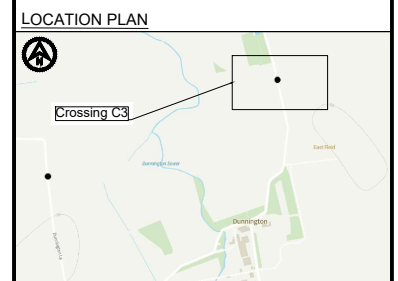
TABLE 1 - VISIBILITY

Crossing C2	Visibility	
	North	South
Posted Speed Limit (PSL) (mph)	60	
Required Y-distance SSD for PSL (m) (DMRB)	215	
Is Required Y-distance SSD achievable?	No	No
Assumed Speed (mph)	30 (See note 6)	
Required Y-distance SSD (m) (DMRB)	90	
Is Required Y-distance SSD achievable?	Yes	Yes



- 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 guarantee 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.
 6. Reduced speed limit has been taken into account considering the geometry of the existing road.

- KEY**
- EXISTING ARRANGEMENT
 - ONSHORE CABLE CORRIDOR
 - HIGHWAY BOUNDARY
 - ⊘ PROPOSED GATE
 - PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
 - - - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
 - ▣ FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
 - ⊠ PROPOSED YELLOW DEMARCATION BOLLARD



REV	DATE	DESCRIPTION	BY	CHK	APP
P02	08.06.23	UPDATED ACCESS LOCATION	AA	SKT	SKT
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT

REVISIONS



PROJECT
DOGGER BANK SOUTH OFFSHORE WIND FARMS

TITLE
CROSSING C3 (EAST & WEST)
GENERAL ARRANGEMENT



DRAWN	CHECKED	APPROVED
AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
19.06.23	1:500	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0104	REVISION
CLIENT DWG No.		P02

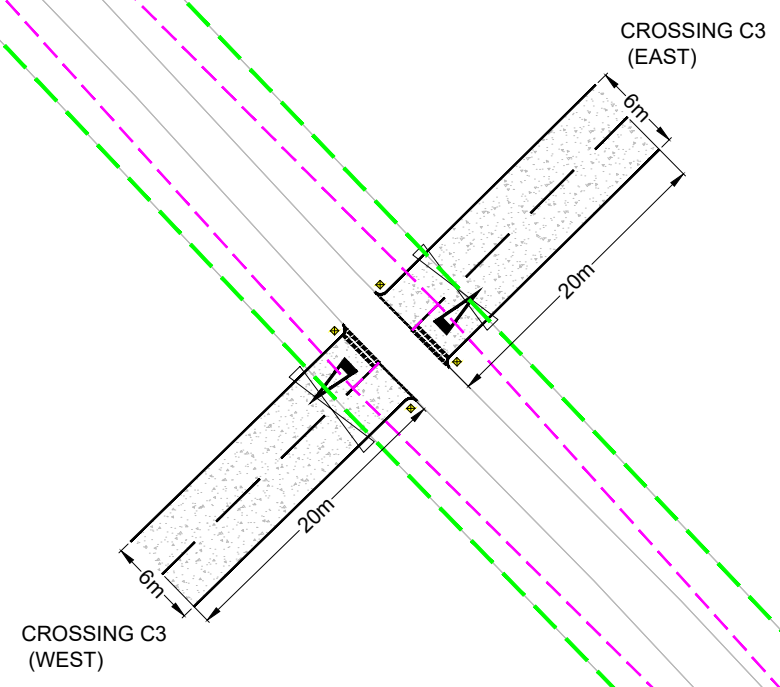
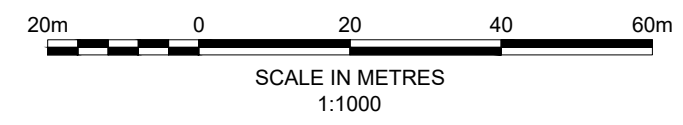


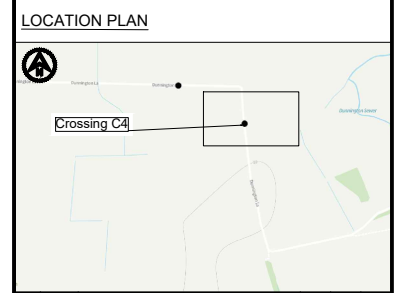
TABLE 1 - VISIBILITY

Crossing C3	Visibility	
	North	South
Posted Speed Limit (PSL) (mph)	60	
Required Y-distance SSD for PSL (m) (DMRB)	215	
Is Required Y-distance SSD achievable?	No	No
Assumed Speed (mph)	30 (See note 6)	
Required Y-distance SSD (m) (DMRB)	90	
Is Required Y-distance SSD achievable?	Yes	Yes



- NOTES**
- Do not scale from this drawing. all dimensions are in metres unless noted otherwise.
 - This drawing has been based upon Ordnance Survey Maps and Royal HaskoningDHV can not guarantee the accuracy of data.
 - X-distance - the set back from the nearest edge of the carriageway from which the access will be taken
 - Y-Distance - the SSD measured along the nearest edge of the carriageway to its intersection with the centreline of the access.
 - 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
 - HIGHWAY BOUNDARY
 - PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
 - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
 - PROPOSED GATE
 - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
 - PROPOSED YELLOW DEMARCATION BOLLARD



REV	DATE	DESCRIPTION	BY	CHK	APP
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT



PROJECT
DOGGER BANK SOUTH OFFSHORE WIND FARMS

TITLE
CROSSING C4 (EAST & WEST)
GENERAL ARRANGEMENT



DRAWN	CHECKED	APPROVED
AA	SKT	SKT
DATE: 19.06.23	SCALE: 1:1000	AUTOCAD REF:
DRAWING No: PC2340-RHD-ZZ-ZZ-DR-R-0106	REVISION	
CLIENT DWG No:		P01

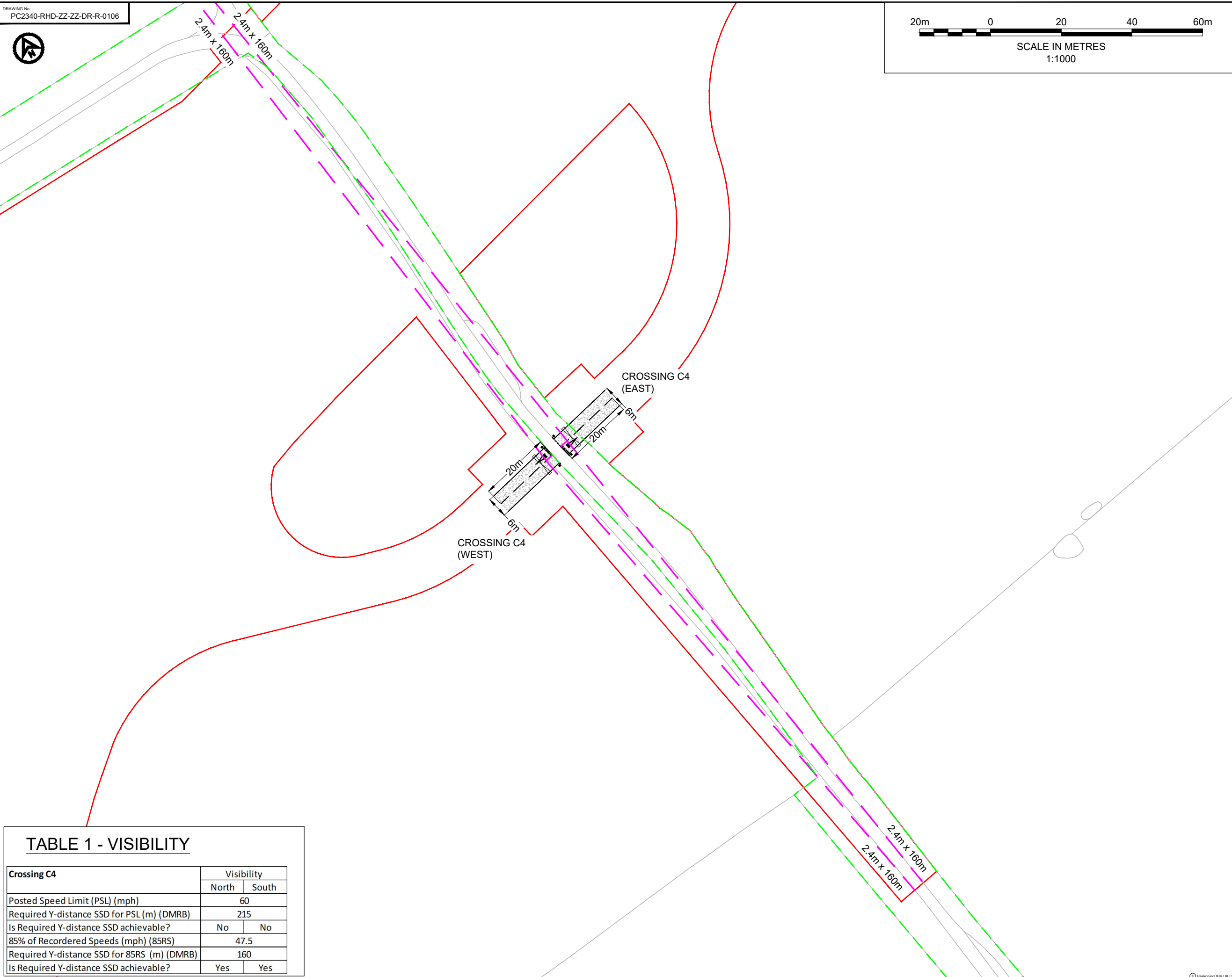
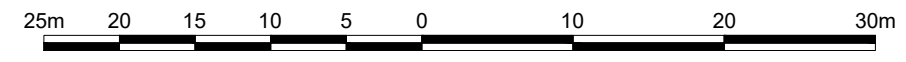


TABLE 1 - VISIBILITY

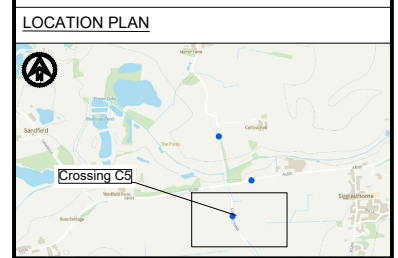
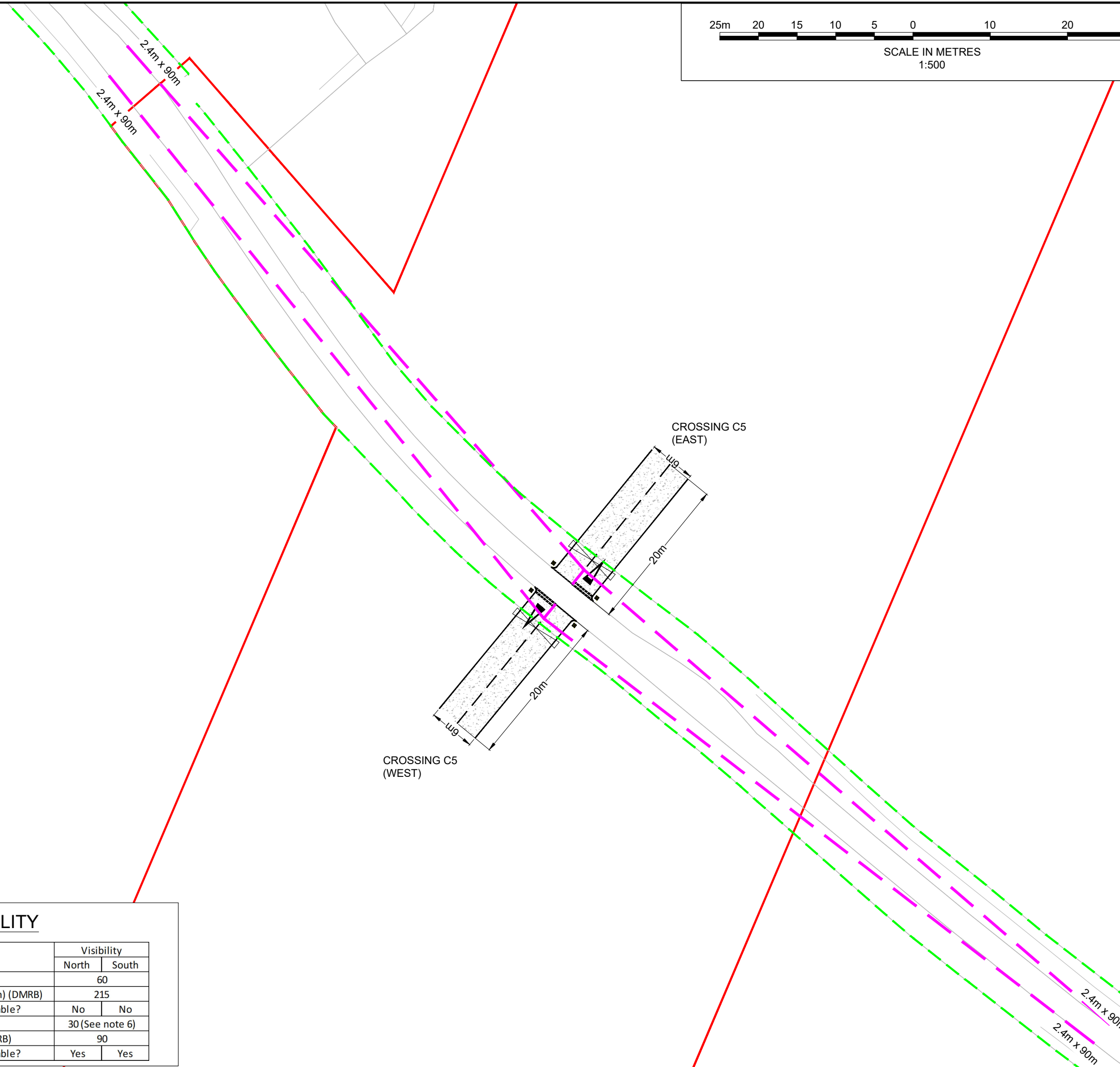
Crossing C4	Visibility	
	North	South
Posted Speed Limit (PSL) (mph)	60	
Required Y-distance SSD for PSL (m) (DMRB)	215	
Is Required Y-distance SSD achievable?	No	No
85% of Recorded Speeds (mph) (85RS)	47.5	
Required Y-distance SSD for 85RS (m) (DMRB)	160	
Is Required Y-distance SSD achievable?	Yes	Yes



SCALE IN METRES
1:500

- NOTES**
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 2. This drawing has been based upon Ordnance Survey Maps and Royal HaskoningDHV can not guarantee 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.
 6. Reduced speed limit has been taken into account considering the geometry of the existing road.

- KEY**
- EXISTING ARRANGEMENT
 - ONSHORE CABLE CORRIDOR
 - HIGHWAY BOUNDARY
 - PROPOSED GATE
 - PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
 - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
 - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
 - PROPOSED YELLOW DEMARCATION BOLLARD



REV	DATE	DESCRIPTION	BY	CHK	APP
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT



PROJECT
DOGGER BANK SOUTH OFFSHORE WIND FARMS

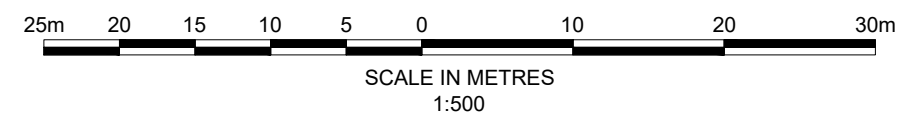
TITLE
CROSSING C5 (EAST & WEST)
GENERAL ARRANGEMENT



DRAWN	CHECKED	APPROVED
AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
19.06.23	1:500	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0108	REVISION
CLIENT DWG No.		P01

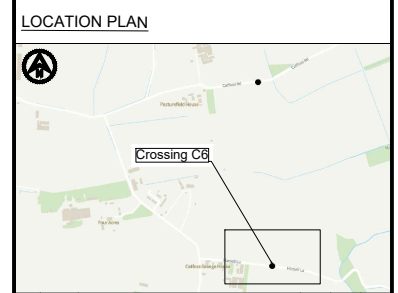
TABLE 1 - VISIBILITY

Crossing C5	Visibility	
	North	South
Posted Speed Limit (PSL) (mph)	60	
Required Y-distance SSD for PSL (m) (DMRB)	215	
Is Required Y-distance SSD achievable?	No	No
Assumed Speed (mph)	30 (See note 6)	
Required Y-distance SSD (m) (DMRB)	90	
Is Required Y-distance SSD achievable?	Yes	Yes



- 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 guarantee 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.
 6. Reduced speed limit has been taken into account considering the geometry of the existing road.

- KEY**
- EXISTING ARRANGEMENT
 - ONSHORE CABLE CORRIDOR
 - HIGHWAY BOUNDARY
 - PROPOSED GATE
 - PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
 - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
 - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
 - PROPOSED YELLOW DEMARCATION BOLLARD



REV	DATE	DESCRIPTION	BY	CHK	APP
P02	08.09.23	UPDATED ACCESS LOCATION	AA	SKT	SKT
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT



PROJECT
DOGGER BANK SOUTH OFFSHORE WIND FARMS

TITLE
CROSSING C6 (NORTH & SOUTH)
GENERAL ARRANGEMENT



DRAWN	AA	CHECKED	SKT	APPROVED	SKT
DATE	19.06.23	SCALE	1:500	AUTOCAD REF.	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0110			REVISION	
CLIENT DWG No.				REVISION	P02

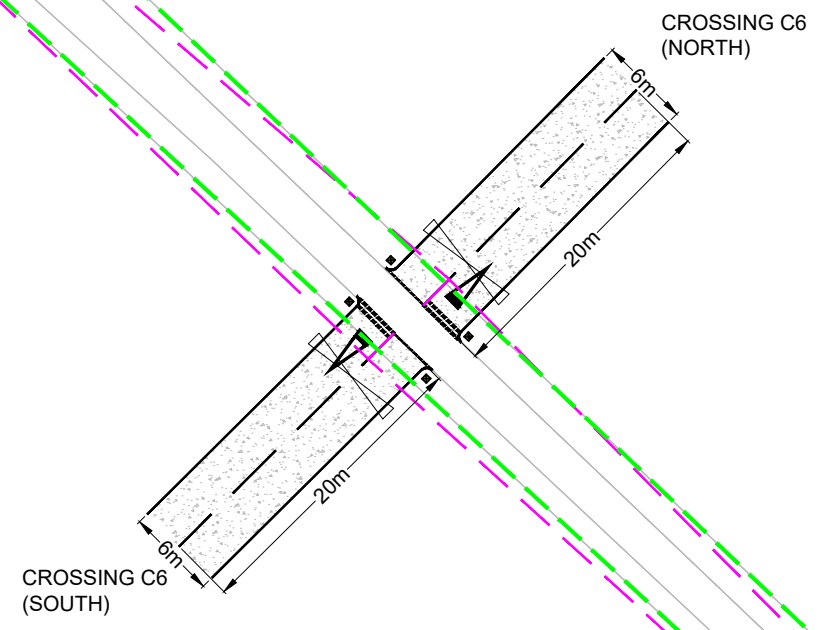
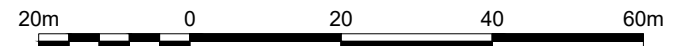


TABLE 1 - VISIBILITY

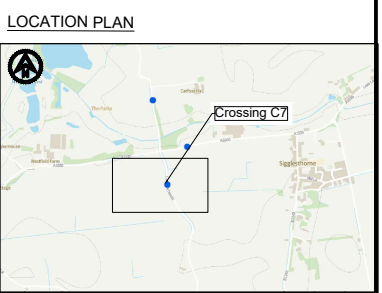
Crossing C6	Visibility	
	East	West
Posted Speed Limit (PSL) (mph)	60	
Required Y-distance SSD for PSL (m) (DMRB)	215	
Is Required Y-distance SSD achievable?	No	No
Assumed Speed (mph)	30 (See note 6)	
Required Y-distance SSD (m) (DMRB)	90	
Is Required Y-distance SSD achievable?	Yes	Yes



SCALE IN METRES
1:1000

- NOTES**
- Do not scale from this drawing. all dimensions are in metres unless noted otherwise.
 - This drawing has been based upon Ordnance Survey Maps and Royal HaskoningDHV can not guarantee the accuracy of data.
 - X-distance - the set back from the nearest edge of the carriageway from which the access will be taken
 - Y-Distance - the SSD measured along the nearest edge of the carriageway to its intersection with the centreline of the access.
 - 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
 - HIGHWAY BOUNDARY
 - PROPOSED GATE
 - PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
 - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
 - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
 - PROPOSED YELLOW DEMARCATION BOLLARD



REV	DATE	DESCRIPTION	BY	CHK	APP
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT



PROJECT
DOGGER BANK SOUTH OFFSHORE WIND FARMS

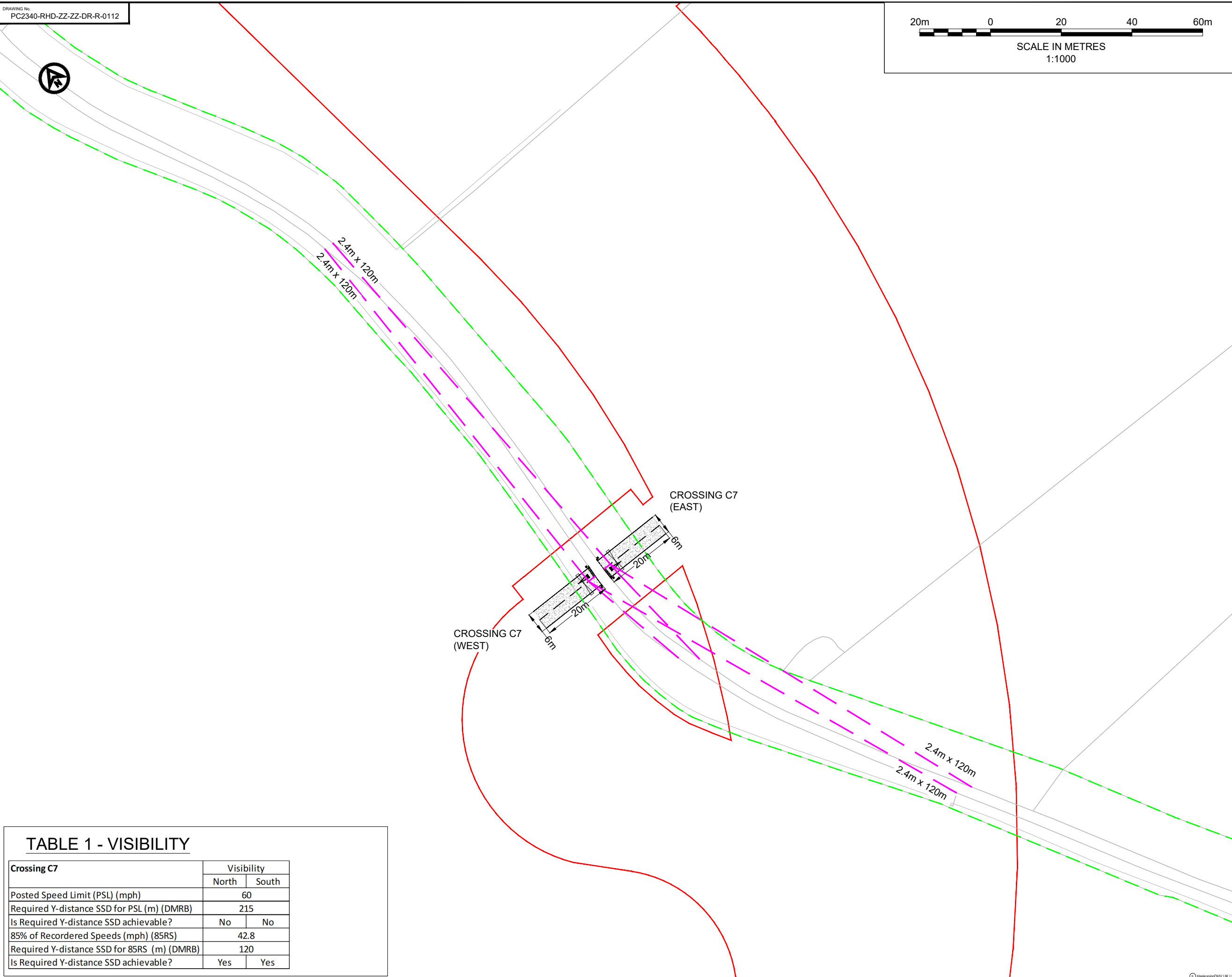
TITLE
CROSSING C7 (EAST & WEST)
GENERAL ARRANGEMENT

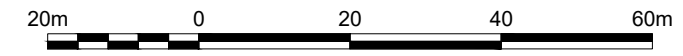


DRAWN	CHECKED	APPROVED
AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
19.06.23	1:1000	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0112	REVISION
CLIENT DWG No.		P01

TABLE 1 - VISIBILITY

Crossing C7	Visibility	
	North	South
Posted Speed Limit (PSL) (mph)	60	
Required Y-distance SSD for PSL (m) (DMRB)	215	
Is Required Y-distance SSD achievable?	No	No
85% of Recorded Speeds (mph) (85RS)	42.8	
Required Y-distance SSD for 85RS (m) (DMRB)	120	
Is Required Y-distance SSD achievable?	Yes	Yes

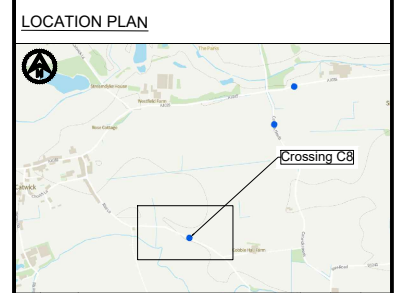




SCALE IN METRES
1:1000

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

- KEY**
- EXISTING ARRANGEMENT
 - ONSHORE CABLE CORRIDOR
 - HIGHWAY BOUNDARY
 - PROPOSED GATE
 - PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
 - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
 - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
 - PROPOSED YELLOW DEMARCATION BOLLARD



PO2	08.09.23	UPDATED ACCESS LOCATION	AA	SKT	SKT
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT
REV	DATE	DESCRIPTION	BY	CHK	APP



PROJECT
DOGGER BANK SOUTH OFFSHORE WIND FARMS

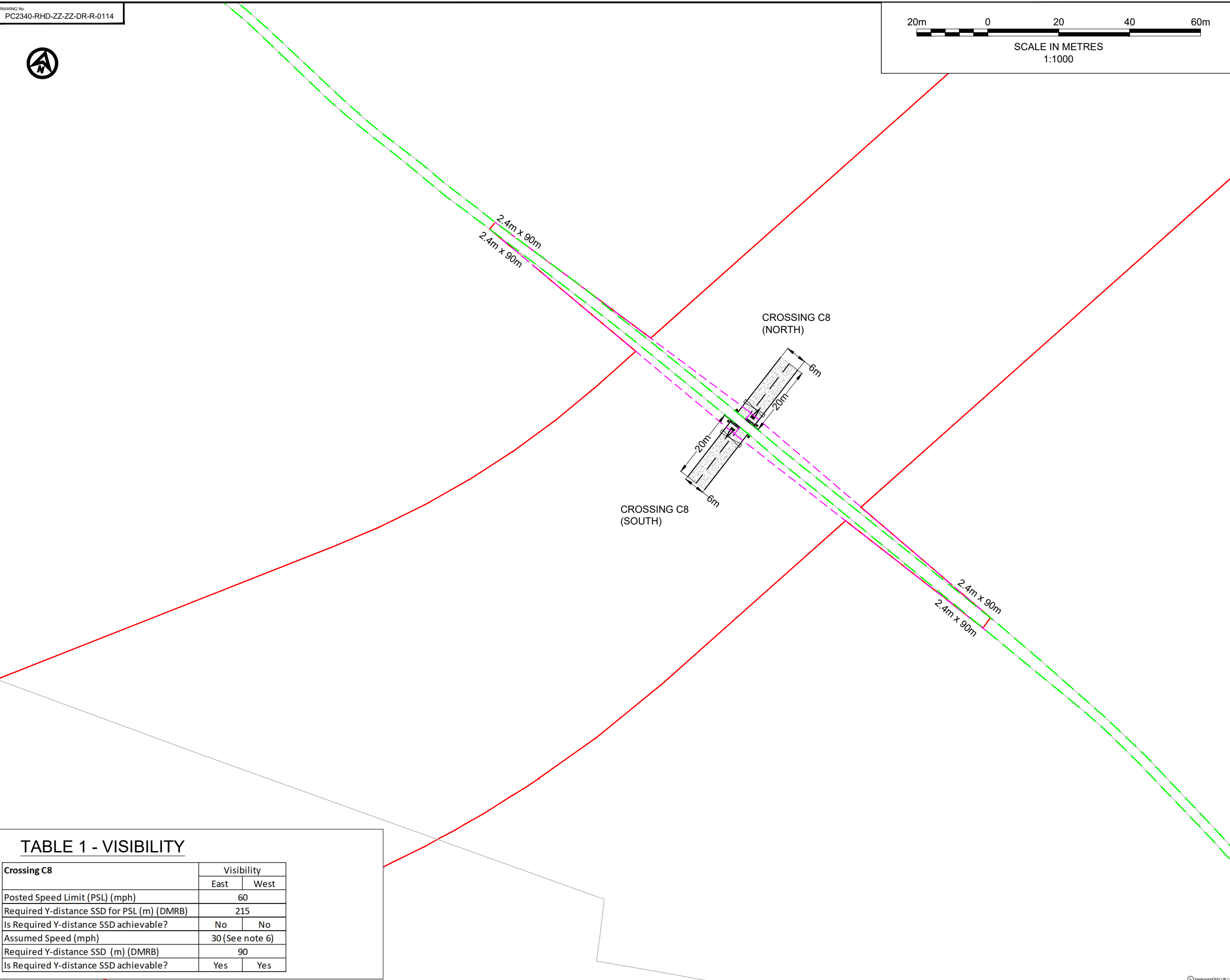
TITLE
CROSSING C8 (NORTH & SOUTH) GENERAL ARRANGEMENT

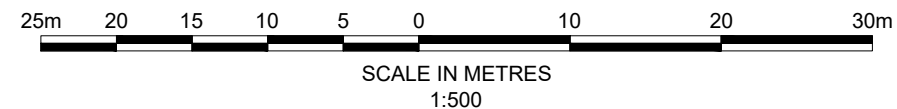


DRAWN	AA	CHECKED	SKT	APPROVED	SKT
DATE	19.06.23	SCALE	1:1000	AUTOCAD REF.	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0114			REVISION	
CLIENT DWG No.				REVISION	P02

TABLE 1 - VISIBILITY

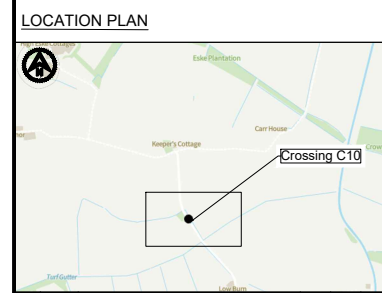
Crossing C8	Visibility	
	East	West
Posted Speed Limit (PSL) (mph)	60	
Required Y-distance SSD for PSL (m) (DMRB)	215	
Is Required Y-distance SSD achievable?	No	No
Assumed Speed (mph)	30 (See note 6)	
Required Y-distance SSD (m) (DMRB)	90	
Is Required Y-distance SSD achievable?	Yes	Yes





- 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 guarantee 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.
 6. Reduced speed limit has been taken into account considering the geometry of the existing road.

- KEY**
- EXISTING ARRANGEMENT
 - ONSHORE CABLE CORRIDOR
 - HIGHWAY BOUNDARY
 - ⊘ PROPOSED GATE
 - PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
 - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
 - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
 - ⊠ PROPOSED YELLOW DEMARCATON BOLLARD



REV	DATE	DESCRIPTION	BY	CHK	APP
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT



PROJECT
DOGGER BANK SOUTH OFFSHORE WIND FARMS

TITLE
CROSSING C10 (EAST & WEST)
GENERAL ARRANGEMENT



DRAWN	AA	CHECKED	SKT	APPROVED	SKT
DATE	19.06.23	SCALE	1:500	AUTOCAD REF.	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0119			REVISION	
CLIENT DWG No.					P01

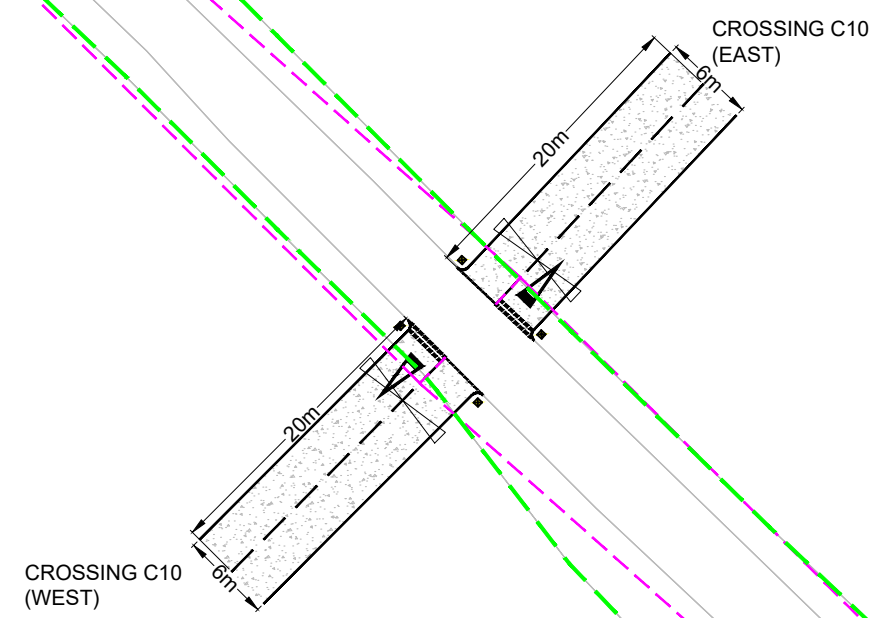
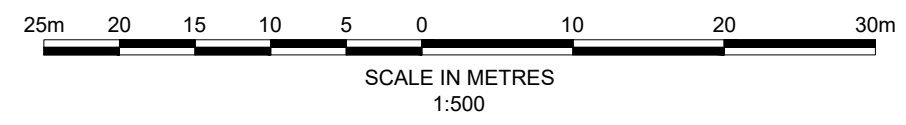


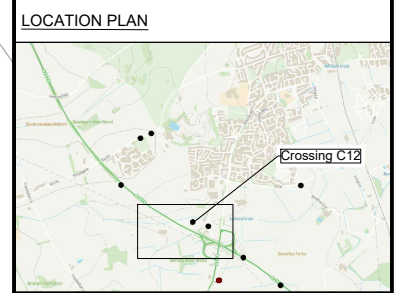
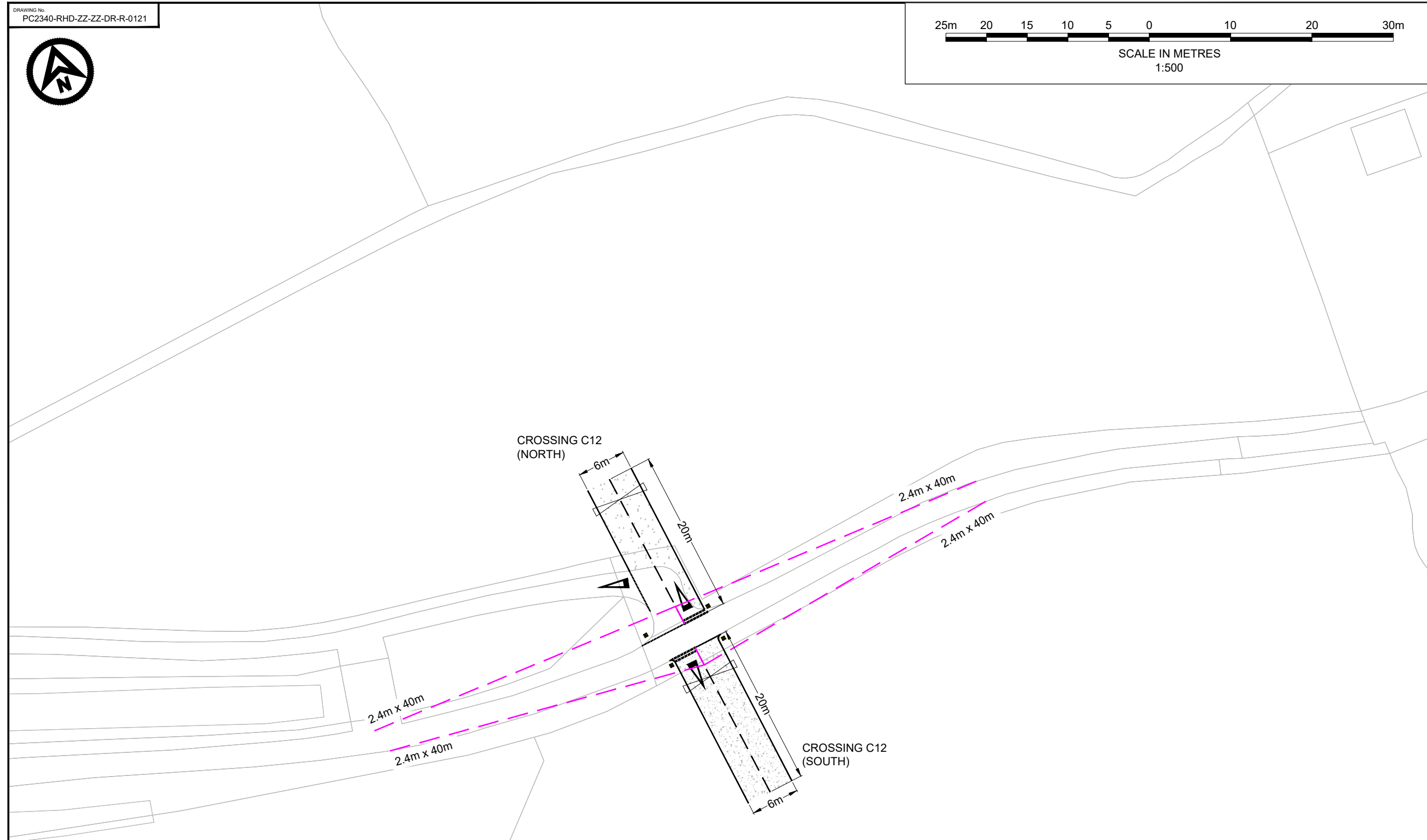
TABLE 1 - VISIBILITY

Crossing C10	Visibility	
	East	West
Posted Speed Limit (PSL) (mph)	40	
Required Y-distance SSD for PSL (m) (DMRB)	120	
Is Required Y-distance SSD achievable?	No	No
Assumed Speed (mph)	30 (See note 6)	
Required Y-distance SSD (m) (DMRB)	90	
Is Required Y-distance SSD achievable?	Yes	Yes



- NOTES**
- Do not scale from this drawing. all dimensions are in metres unless noted otherwise.
 - This drawing has been based upon Ordnance Survey Maps and Royal HaskoningDHV can not guarantee the accuracy of data.
 - X-distance - the set back from the nearest edge of the carriageway from which the access will be taken
 - Y-Distance - the SSD measured along the nearest edge of the carriageway to its intersection with the centreline of the access.
 - All vegetation to be cleared/trimmed within identified visibility envelope and thereafter maintained in accordance with Local Highway Authority maintenance practices.
 - 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 CABLE CORRIDOR
 - ⊗ PROPOSED GATE
 - PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
 - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
 - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
 - ⊗ PROPOSED YELLOW DEMARCATION BOLLARD



REV	DATE	DESCRIPTION	BY	CHK	APP
P01	19.06.23	FIRST ISSUE	AA	SKT	SKT



PROJECT
DOGGER BANK SOUTH OFFSHORE WIND FARMS

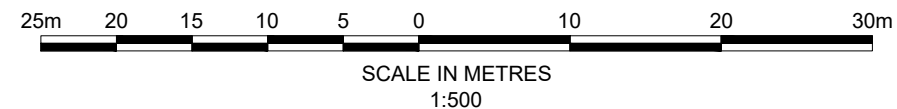
TITLE
CROSSING C12 (NORTH & SOUTH) GENERAL ARRANGEMENT



DRAWN	CHECKED	APPROVED
AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
19.06.23	1:500	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0121	REVISION
CLIENT DWG No.		P01

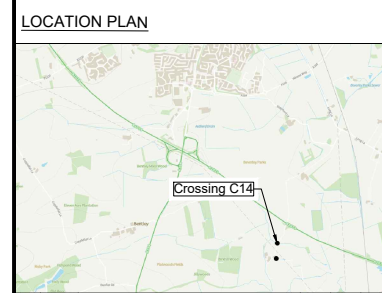
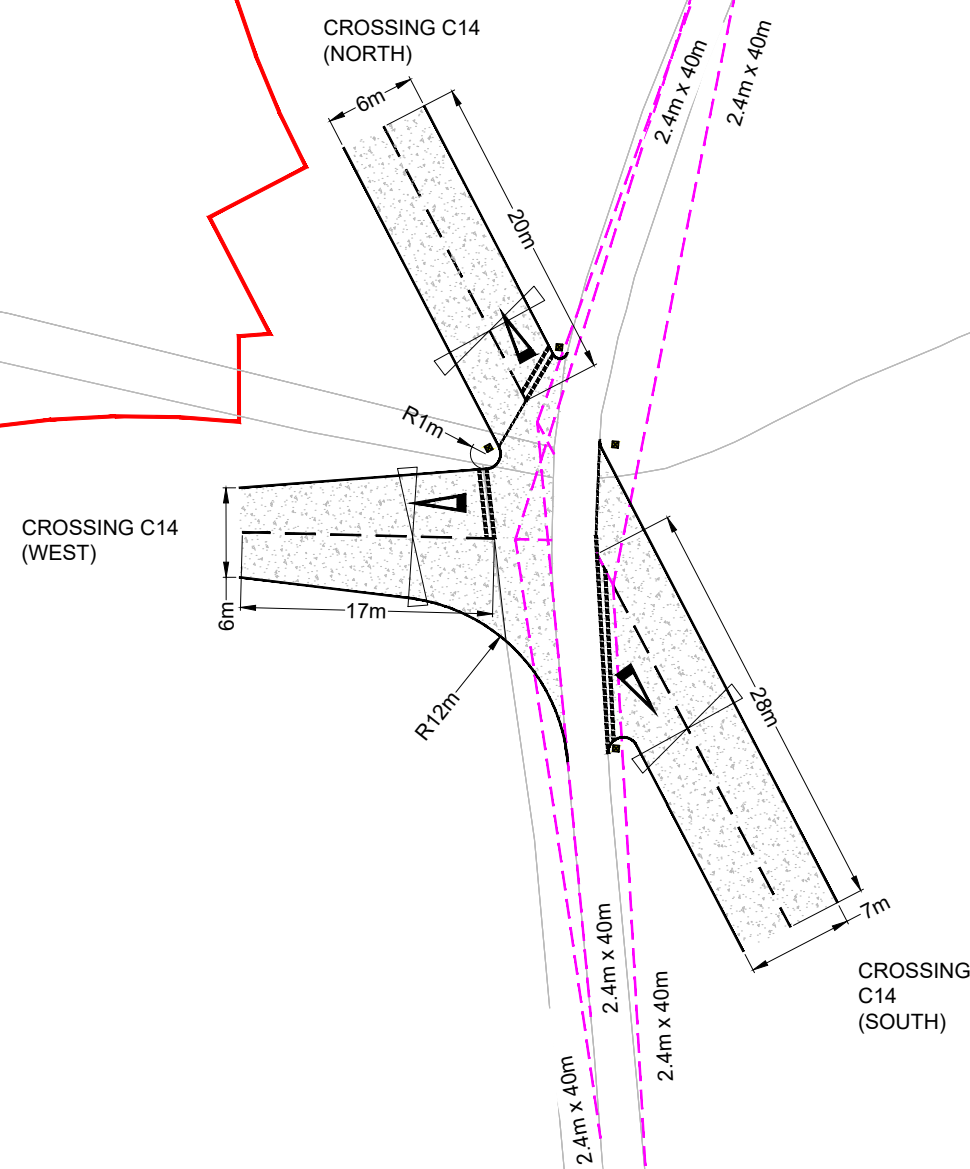
TABLE 1 - VISIBILITY

Crossing C12 (Private Road)	Visibility	
	East	West
Assumed Speed (mph) (MfS)	30 (See note 6)	
Required Y-distance SSD (m) (MfS)	40	
Is Required Y-distance SSD achievable?	Yes	Yes



- NOTES**
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 - X-distance - the set back from the nearest edge of the carriageway from which the access will be taken
 - Y-Distance - the SSD measured along the nearest edge of the carriageway to its intersection with the centreline of the access.
 - All vegetation to be cleared/trimmed within identified visibility envelope and thereafter maintained in accordance with Local Highway Authority maintenance practices.
 - 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 CABLE CORRIDOR
 - PROPOSED GATE
 - PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
 - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
 - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
 - PROPOSED YELLOW DEMARCATON BOLLARD



REV	DATE	DESCRIPTION	BY	CHK	APP
P02	08.09.23	UPDATED ACCESS LOCATION	AA	SKT	SKT
P01	18.07.23	FIRST ISSUE	AA	SKT	SKT

REVISIONS



PROJECT
DOGGER BANK SOUTH OFFSHORE WIND FARMS

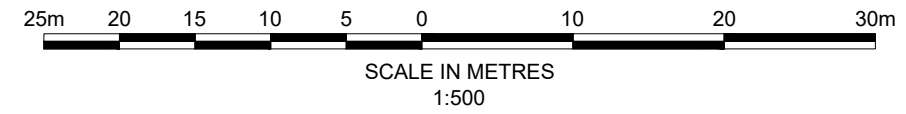
TITLE
CROSSING C14 (NORTH, SOUTH & WEST)
GENERAL ARRANGEMENT



DRAWN	CHECKED	APPROVED
AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
18.07.23	1:500	
DRAWING No.	PC2340-RHD-ZZ-ZZ-DR-R-0160	REVISION
CLIENT DWG No.		P02

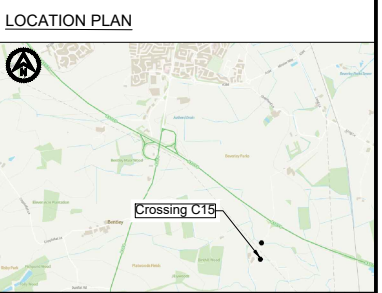
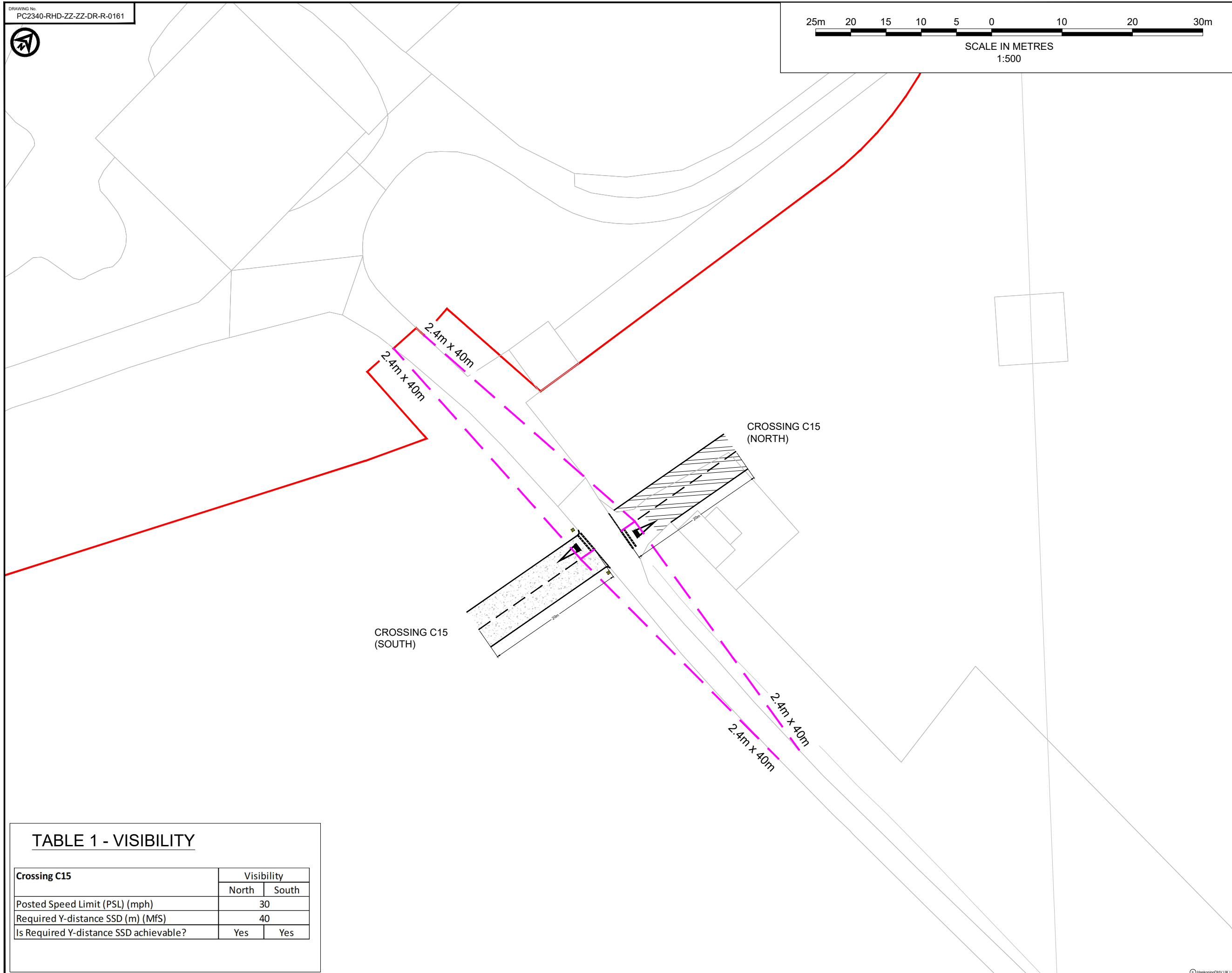
TABLE 1 - VISIBILITY

Crossing C14	Visibility	
	North	South
Posted Speed Limit (PSL) (mph)	30	
Required Y-distance SSD (m) (MfS)	40	
Is Required Y-distance SSD achievable?	Yes	Yes



- 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 guarantee 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.
 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 CABLE CORRIDOR
 - PROPOSED GATE
 - PROPOSED ACCESS BOUNDARY/ROAD MARKINGS
 - VISIBILITY SPLAY FOR ASSUMED JUNCTION LOCATION (SEE TABLE 1)
 - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
 - CARRIAGEWAY WIDENING - FULL DEPTH CARRIAGEWAY CONSTRUCTION WITH BOUND SURFACE
 - PROPOSED YELLOW DEMARCATION BOLLARD



REV	DATE	DESCRIPTION	BY	CHK	APP
P01	02.08.23	FIRST ISSUE	AA	SKT	SKT

REVISIONS



PROJECT
DOGGER BANK SOUTH OFFSHORE WIND FARMS

TITLE
CROSSING C15 (NORTH & SOUTH) GENERAL ARRANGEMENT



DRAWN	CHECKED	APPROVED
AA	SKT	SKT
DATE	SCALE	AUTOCAD REF.
02.08.23	1:500	
DRAWING No. PC2340-RHD-ZZ-ZZ-DR-R-0161	REVISION	
CLIENT DWG No.		P01

TABLE 1 - VISIBILITY

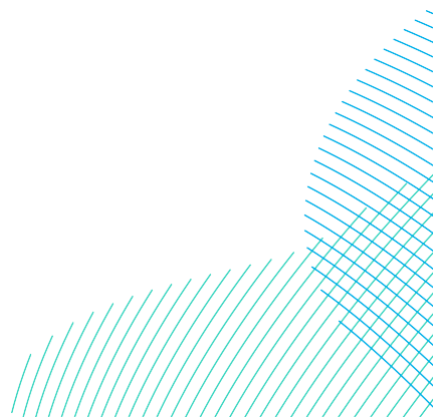
Crossing C15	Visibility	
	North	South
Posted Speed Limit (PSL) (mph)	30	
Required Y-distance SSD (m) (MfS)	40	
Is Required Y-distance SSD achievable?	Yes	Yes

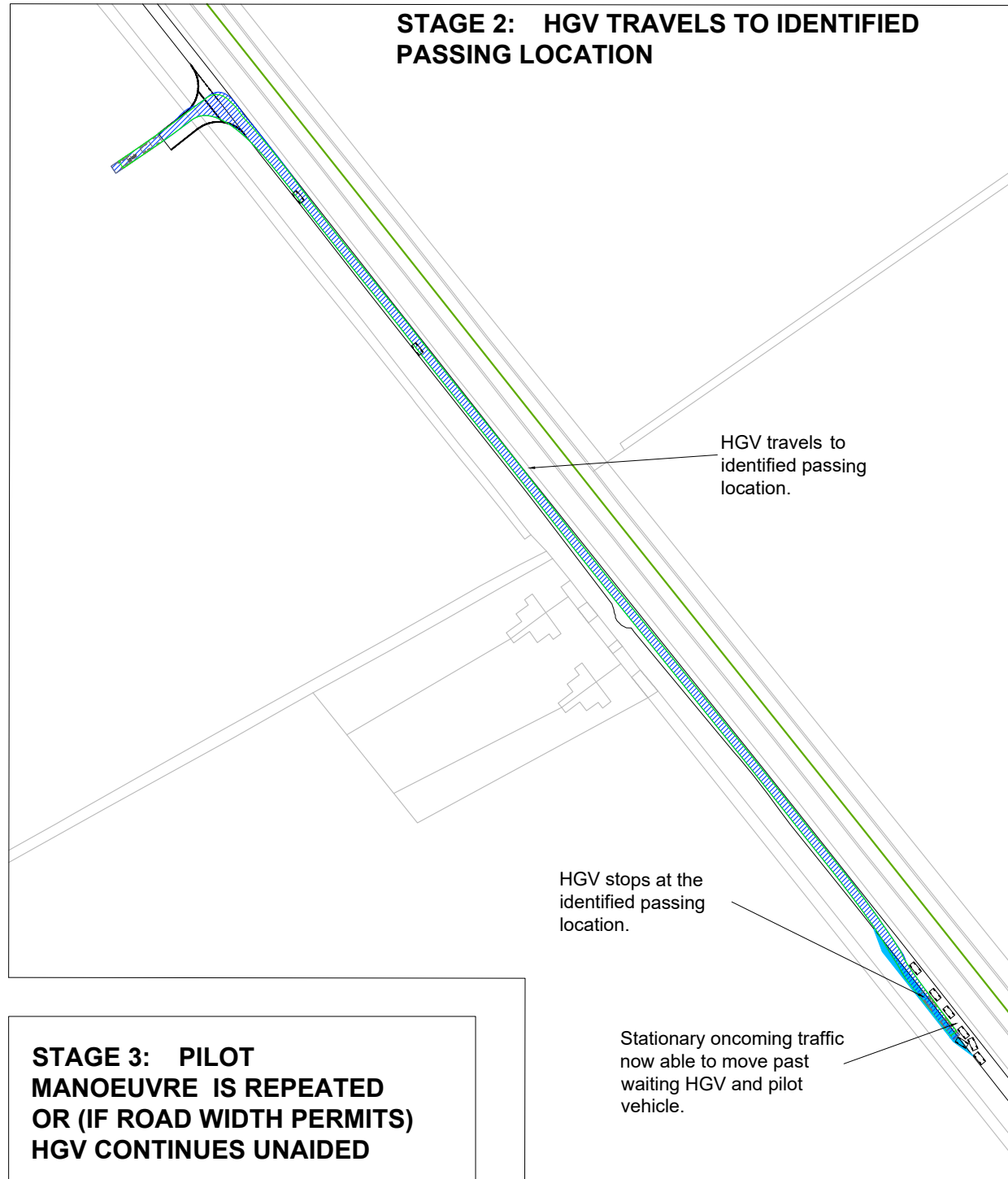
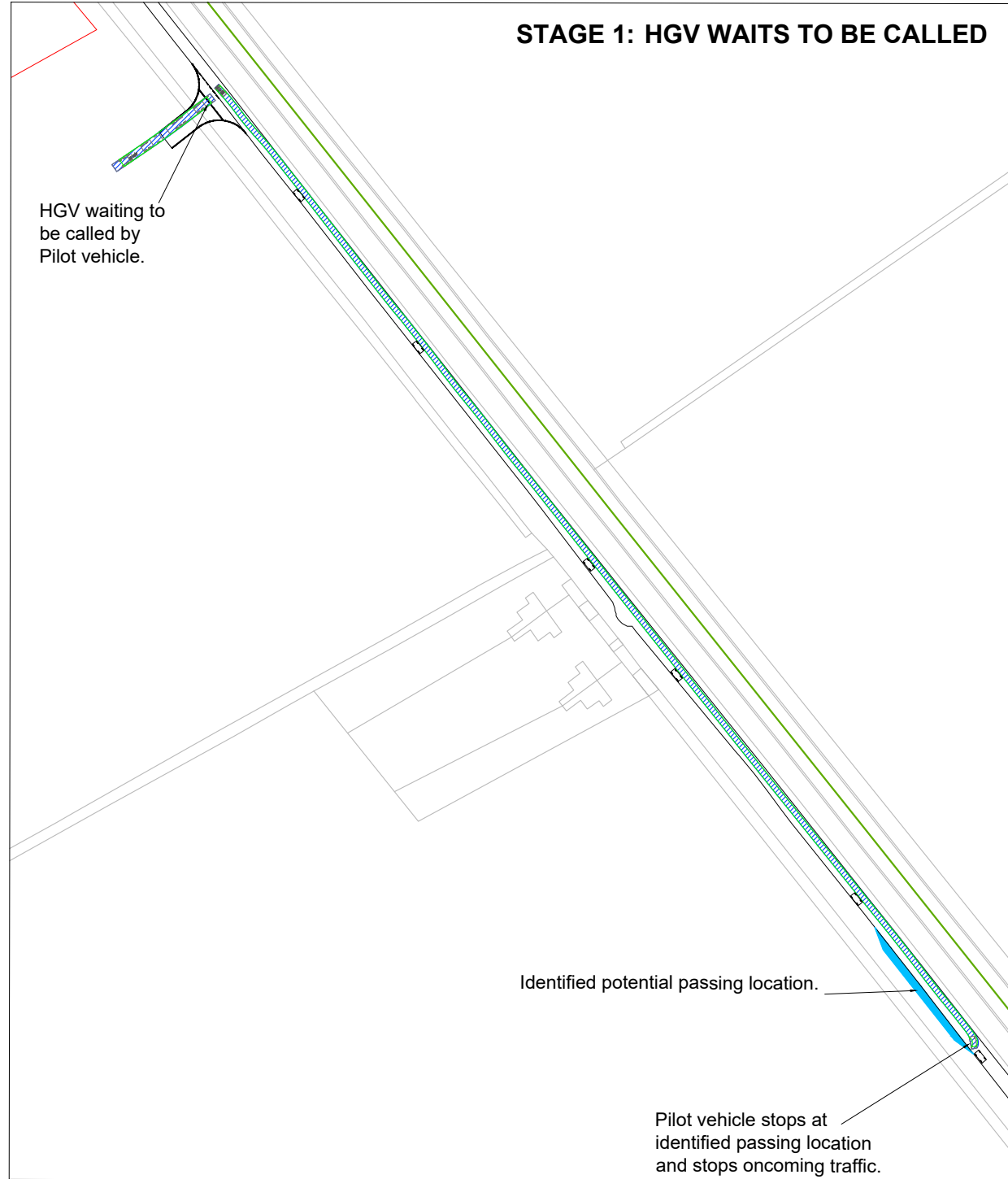


Dogger Bank South Offshore Wind Farms

Annex 3 Escort / Pilot Vehicle Example

Unrestricted
004775362





STAGE 3: PILOT MANOEUVRE IS REPEATED OR (IF ROAD WIDTH PERMITS) HGV CONTINUES UNAIDED

REV	DATE	DESCRIPTION	BY	CHK	APP
P01	22.01.24	FIRST ISSUE	CB	SKT	SKT

REVISIONS

CLIENT



PROJECT
DOGGER BANK SOUTH OFFSHORE WIND FARMS

TITLE
PILOT/ESCORT VEHICLE EXAMPLE



DRAWN	CHECKED	APPROVED
CB	SKT	SKT
DATE	SCALE	CLIENTS REF.
22.01.24	AT 1: NTS	
DRAWING No.	REVISION	
PC2340-RHD-ZZ-ZZ-DR-R-0300	P01	
CLIENT DWG No.		

**RWE Renewables UK Dogger
Bank South (West) Limited**

**RWE Renewables UK Dogger
Bank South (East) Limited**

**Windmill Hill Business Park
Whitehill Way
Swindon
Wiltshire, SN5 6PB**

