

# Norfolk Boreas Offshore Wind Farm Outline Travel Plan

## DCO Document 8.9

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*Photo: Ormonde Offshore Wind Farm*

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## Glossary of Acronyms

CIHT	Chartered Institution of Highways and Transportation
DCO	Development Consent Order
EIA	Environmental Impact Assessment
ES	Environmental Statement
FTP	Final Travel Plan
HE	Highways England
HGV	Heavy Goods Vehicle
LTP	Local Transport Plan
MA	Mobilisation Area
NCC	Norfolk County Council
NPS	National Policy Statement
NSIP	Nationally Significant Infrastructure Projects
OTMP	Outline Traffic Management Plan
OTP	Outline Travel Plan
PEIR	Preliminary Environmental Information Report
SoS	Secretary of State
TPC	Travel Plan Coordinator

## Glossary of Terminology

Delivery	A delivery is the process of transporting goods from a source location to a predefined destination. A delivery will generate two vehicle movements (an arrival and departure)
Joining pit	Underground structures constructed at regular intervals along the onshore cable route to join sections of cable and facilitate installation of the cables into the buried ducts
Landfall	Where the offshore cables come ashore at Happisburgh South
Mobilisation area	Areas approx. 100 x 100m used as access points to the running track for duct installation. Required to store equipment and provide welfare facilities. Located adjacent to the onshore cable route, accessible from local highways network suitable for the delivery of heavy and oversized materials and equipment.
National Grid new / replacement overhead line tower	New overhead line towers to be installed at the National Grid substation.
National Grid overhead line modifications	The works to be undertaken to complete the necessary modification to the existing 400kV overhead lines.
National Grid substation extension	The permanent footprint of the National Grid substation extension.
National Grid temporary works area	Land adjacent to the Necton National Grid substation which would be temporarily required during construction of the National Grid substation extension.
Necton National Grid substation	The grid connection location for Norfolk Boreas and Norfolk Vanguard
Onshore cable route	The up to 35m working width within a 45m wide corridor which will contain the buried export cables as well as the temporary running track, topsoil storage and excavated material during construction.
Onshore cables	The cables which take power and communications from landfall to the onshore project substation
Onshore infrastructure	The combined name for all onshore infrastructure associated with the project from landfall to grid connection.
Onshore project area	The area of the onshore infrastructure (landfall, onshore cable route, accesses, trenchless crossing zones and mobilisation areas; onshore project substation and extension to the Necton National Grid substation and overhead line modifications).
Onshore project substation	A compound containing electrical equipment to enable connection to the National Grid. The substation will convert the exported power from HVDC to HVAC, to 400kV (grid voltage). This also contains equipment to help maintain stable grid voltage.
Running track	The track along the onshore cable route which the construction traffic would use to access work areas.
The Applicant	Norfolk Boreas Limited
The project	Norfolk Boreas Wind Farm including the onshore and offshore infrastructure.
Trenchless crossing zone	Areas within the onshore cable route which will house trenchless crossing entry and exit points.
Vehicle movement	Areas within the onshore cable route which will house trenchless crossing entry and exit points.
Workfront	A length of onshore cable route within which duct installation works will occur, approximately 150m.

## 1 INTRODUCTION

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### 1.1 Background

1. This document forms part of the Development Consent Order (DCO) application for the onshore project area for the Norfolk Boreas Offshore Wind Farm (herein ‘the project’).
2. A traffic and transport impact assessment has been undertaken for the project and is detailed in Chapter 24 Traffic and Transport of the Environmental Statement (ES) (document reference 6.1.24).
3. In respect of traffic and transport, the certified plans referred to in the draft DCO are outlined below:
  - Outline Traffic Management Plan (OTMP) (document reference 8.8): the OTMP sets out the standards and procedures for managing the impact of Heavy Goods Vehicle (HGV) traffic during the onshore construction period, including localised road improvements necessary to facilitate the safe use of the existing road network;
  - Outline Travel Plan (OTP) (document reference 8.9): the OTP sets out how onshore construction employee traffic would be managed and controlled; and
  - Outline Access Management Plan (OAMP) (document reference 8.10): the OAMP sets out detail on the location, frontage, general layout, visibility and embedded mitigation measures for access for the onshore project substation, landfall and points of access to the onshore cable route. It presents the requirements and standards that will be incorporated into the final access design.
4. Final plans which accord with these outline documents must be submitted to and approved by the relevant local planning authority (in consultation with Norfolk County Council and Highways England) prior to commencement of any relevant works, as per Requirements 21 and 22 of the draft DCO.

### 1.2 Development Scenarios

5. Vattenfall Wind Power Limited (VWPL), the parent company of Norfolk Boreas Limited, is also developing Norfolk Vanguard, a ‘sister project’ to Norfolk Boreas. The Norfolk Vanguard project is approximately one year ahead of Norfolk Boreas in its development programme having submitted its DCO application in June 2018. In order to minimise impacts associated with onshore construction works for the two projects, Norfolk Vanguard are seeking consent to undertake the duct installation and some enabling works for both projects at the same time. This is the preferred

option and considered to be the most likely however, Norfolk Boreas needs to consider the possibility that Norfolk Vanguard may not proceed to construction.

6. Therefore, it is necessary for this OTP to consider the following two alternative scenarios:
  - **Scenario 1** – Norfolk Vanguard proceeds to construction and installs ducts and other shared enabling works for Norfolk Boreas.
  - **Scenario 2** – Norfolk Vanguard does not proceed to construction and Norfolk Boreas proceeds alone. Norfolk Boreas undertakes all works required as an independent project.

### 1.3 OTP Approach to Development Scenarios

7. This OTP is an outline strategy and takes account of both potential development scenarios for the project as discussed in section 1.2.
8. Where proposed mitigation measures would differ under Scenario 1 or Scenario 2, this is explicitly stated, and discrete mitigation measures are provided for the respective scenarios. Otherwise, the mitigation detailed is applicable to both scenarios.
9. The final OTP for the project would be drafted post consent based on the final adopted scenario which would be taken forward to construction.

### 1.4 Purpose of OTP

10. In accordance with Requirement 21 of the draft DCO, this OTP sets out a comprehensive strategy for encouraging more sustainable methods of travel for construction employees and promoting travel alternatives to single occupancy car trips during the construction phase of the project.
11. This OTP has been given the status of 'Outline' recognising that 2021 (Scenario 2) and 2022 (Scenario 1) is the earliest realistic date for commencement of pre-construction works for the project, by which time the key assumptions and estimations that have informed the EIA (e.g. workforce origins) will have been substantiated and refined by the appointed contractor.
12. The OTP strategy defines the controls to ensure the project is within the bounds of the employee generated traffic impacts assessed in Chapter 24 Traffic and Transport of the ES.
13. The purpose of this OTP is to limit employee traffic movements associated with the project and reduce traffic impact on local communities and commuters in Norfolk.
14. The specific objectives of this OTP are to:



- Minimise, where practicable, the level of vehicular trip making associated with construction staff movements;
  - Provide a framework of measures that promote sustainable travel to be developed in detail by the appointed contractor; and
  - Outline the protocols and processes for the ongoing management of the Travel Plan (TP).
15. Norfolk Boreas Limited would require defined performance standards to be observed as part of the contractor's obligations to comply with and observe the Requirements of the DCO.
16. The OTP presents an outline of measures that could be employed to meet these targets but does not seek to be too prescriptive, so as to ensure that innovation by the appointed contractor in bringing forward the final TP is not constrained.
17. Norfolk Boreas Limited will work with the relevant local authorities to ensure that the provisions set out in the OTP are adhered to.

### 1.5 OTP Exclusions

18. The OTP covers onshore construction activities only.
19. The pre-construction stage of the project represents minor activities (e.g. access construction) with limited demand for employees and therefore is not subject to the OTP.
20. There is limited operational traffic associated with the project and, as such, it has been agreed with stakeholders (NCC and HE) that the Travel Plan does not need to cover the operational period of the project.

### 1.6 Context of the Travel Plan

21. From a Transport Planning perspective, the onshore project area requires a specialist workforce, likely to be widely disbursed and travelling to remote locations. Without intervention, the construction workforce would have the propensity to use private cars to travel to site and many of those journeys would be single occupancy. This in turn could lead to significant environmental impacts on the local highway network and the surrounding communities in the vicinity of the onshore cable route.
22. The key features of the OTP strategy are:
- Intercepting employees at journey origin, with proposed crew vans or car share schemes; and
  - The provision of site transfer vehicles for onward transfer between Mobilisation Areas (Mas) and onshore cable route sections.

23. In contrast to a more typical workplace travel plan, construction employees would be in a contractually controlled environment, ensuring that monitoring and enforcement regimes are more readily accepted.

## 1.7 Project Description

24. A comprehensive project description of the onshore project area is contained within Chapter 5 Project Description of the ES (document reference 6.1.5), this includes a detailed comparison of the scenarios provided in Appendix 5.1 (document reference 6.3.5.1).
25. The onshore cable route is approximately 60km in length and travels west from landfall at Happisburgh South towards the northern edge of North Walsham before bearing southwest to the onshore project substation near Necton as shown in Figure 1.

### 1.7.1 Scenario 1

26. Under Scenario 1 Norfolk Vanguard proceeds to construction and would have undertaken the following to benefit Norfolk Boreas:
- Installation of ducts to house Norfolk Boreas cables along the entirety of the onshore cable route from the landfall zone to the onshore project substation;
  - A47 junction works for both projects and installation of a shared access road up to the Norfolk Vanguard substation; and
  - Overhead line modifications at the Necton National Grid substation, which will accommodate both projects.
27. Under Scenario 1 the following onshore elements of the project will be constructed by Norfolk Boreas:
- Installation of ducts and cable at the landfall;
  - Cable pulling through pre-installed ducts, including retaining or reinstalling up to approximately 12km of temporary running track;
  - Construction of onshore project substation, including extension of the access road from the A47 (installed by Norfolk Vanguard);
  - Extension of the Necton National Grid Substation in an easterly direction, with a footprint of approximately 135m by 150m; and
  - Landscape mitigation planting.

## 1.7.2 Scenario 2

28. Under Scenario 2, the onshore elements of the project will be constructed by Norfolk Boreas:
- Installation of ducts and cable at the landfall;
  - Duct installation via open trenching and trenchless crossings, including installation of 60km of temporary running track;
  - Installation of mobilisation areas and trenchless crossing compounds;
  - Cable pulling through pre-installed ducts, including retaining or reinstalling up to approximately 12km of temporary running track;
  - Construction of onshore project substation, including installation of new permanent access road from A47 and associated junction improvement works;
  - Extension of the Necton National Grid Substation in a westerly direction, with a footprint of approximately 200m by 150m;
  - Modifications to the existing National Grid overhead lines; and
  - Landscape mitigation planting.
29. The onshore cable route comprises trenches (within which ducts would be installed to house the cable circuits), a running track to deliver equipment to the installation site from Mobilisation Areas (MA) and separate storage areas for topsoil and subsoil.
30. The main installation method would be through the use of open cut trenching. Ducts would be installed within the trenches and the soil backfilled. Cables would then be pulled through the pre-laid ducts at a later stage in the construction programme.

## 1.8 Construction Programme and Employee Demand

31. Table 1.1 details the indicative onshore project construction programme for Scenario 1. It is estimated that a total of 16 work gangs will construct 96 joint pits over 16 equidistant onshore cable route sections. Peak employee demand for this scenario is estimated at 170 employees. It is worth noting that the employee demand for Scenario 1 will also be required for the cable pulling works of Scenario 2 during 2025 and 2026.

**Table 1.1 Indicative Project Construction Programme Under Scenario 1**

Activity	Year					
	2022	2023	2024	2025	2026	2027
<b>Landfall</b>						
Duct Installation Option A*						
Duct Installation Option B*						
Cable pulling, jointing and commission						

Activity	Year					
	2022	2023	2024	2025	2026	2027
<i>Phase 1</i>						
<i>Phase 2</i>						
<b>Onshore Cable Route</b>						
Cable pulling, jointing and commission						
<i>Phase 1</i>						
<i>Phase 2</i>						
<b>Onshore Project Substation</b>						
Preconstruction works						
Primary works						
Electrical plant installation and commission						
<i>Phase 1</i>						
<i>Phase 2</i>						

\*Two potential options for landfall duct installation: Option A install ducts prior to cable pulling; and Option B install ducts at the same time as Norfolk Vanguard (see Chapter 5 Project Description of the ES for further information).

32. Table 1.2 details the indicative onshore project construction programme for Scenario 2. It can be noted that a sequential approach has been adopted for construction stages with the duct installation/primary works period representing the maximum construction intensity period in terms of employee demand. It is forecast that the workforce would peak at 550 employees.

**Table 1.2 Indicative Project Construction Programme Under Scenario 2**

Activity	Year					
	2021	2022	2023	2024	2025	2026
<b>Landfall</b>						
Duct Installation						
Cable Pulling, jointing and Commissioning						
<i>Phase 1</i>						
<i>Phase 2</i>						
<b>Onshore cable corridor</b>						
Preconstruction works						
Duct installation works						
Cable pulling, jointing and commissioning						
<i>Phase 1</i>						
<i>Phase 2</i>						

Activity	Year					
	2021	2022	2023	2024	2025	2026
<b>Onshore project substation</b>						
Preconstruction works						
Primary works						
Electrical plant installation and commissioning						
<i>Phase 1</i>						
<i>Phase 2</i>						

33. The details of peak employee traffic demand for both Scenario 2 and Scenario 1 are summarised in Table 1.3.

**Table 1.3 Employee Summary**

Infrastructure component	ES assessed employees	Notes
<b>Scenario 1</b>		
<i>Cable Pulling, Jointing and Commissioning</i>		
Cable pulling	160	16 concurrent cable route sections
Onshore project substation – Electrical Installation	10	Lower intensity, latter stages of the onshore project substation programme
<b>Total</b>	170	
<b>Scenario 2</b>		
<i>Duct Installation and Primary Works</i>		
Pre-construction	N/A	Negligible demand anticipated.
Duct installation	400	N/A
Landfall	20	N/A
Trenchless crossings	30	3 gangs of 10 employees each.
Onshore project substation – Primary Works	50	N/A
National Grid Substation Extension	50	N/A
<b>Total</b>	550	N/A
<i>Cable Pulling, Jointing and Commissioning</i>		
Cable pulling	160	16 concurrent cable route sections
Onshore project substation – Electrical Installation	10	Lower intensity, latter stages of the onshore project substation programme

Infrastructure component	ES assessed employees	Notes
<b>Scenario 1</b>		
<i>Cable Pulling, Jointing and Commissioning</i>		
Cable pulling	160	16 concurrent cable route sections
Onshore project substation – Electrical Installation	10	Lower intensity, latter stages of the onshore project substation programme
<b>Total</b>	170	
<b>Scenario 2</b>		
<b>Total</b>	170	

34. The nature of construction works typically requires that employees work longer hours in the summer and shorter hours in the winter to take advantage of the available daylight. It is envisaged that construction employees would work a single shift up to 12hours (7am to 7pm) during summer and potentially shorter shifts in the winter.
35. Onshore construction activities would normally be conducted during working hours of 7am to 7pm Monday to Friday and 7am to 1pm Saturdays. Onshore working hours (and exceptions to these) are specified in Requirement 26 of the DCO. Evening or Saturday pm / Sunday working may be required to maintain programme progress and for specific time critical activities.

## 2 POLICY AND GUIDANCE FRAMEWORK

36. The following sections provide detail on key documents which are relevant to employee travel planning for the project.

### 2.1 National Policy

37. The assessment of potential traffic and transport impacts has been made with specific reference to the National Policy Statements (NPS). The NPS set out policies or circumstances that the UK Government consider should be taken into account when making decisions on Nationally Significant Infrastructure Projects (NSIP).
38. With specific regard to Travel Plans, the Overarching NPS for Energy (EN-1) (DECC 2011a) is applicable and is summarised in Table 2.1.

**Table 2.1 NPS EN-1 Requirements**

NPS requirement	NPS reference
Where appropriate, the applicant should prepare a Travel Plan including demand management measures to mitigate transport impacts. The applicant should also provide details of proposed measures to improve access by public transport, walking and cycling, to reduce the need for car parking associated with the proposal and to mitigate transport impacts.	Section 5.13.4

### 2.2 Local Policy

39. The traffic and transport study area defined for the EIA falls under the jurisdiction of Norfolk County Council and Suffolk County Council, and would include the following local planning authorities:
- North Norfolk District Council;
  - South Norfolk District Council;
  - Breckland Council;
  - Broadland District Council;
  - Waveney District Council; and
  - Norwich City Council.
40. Table 2.2 provides details of the local planning policy documents and the relevant policies.

**Table 2.2 Relevant Local Planning Policies**

Document	Policy/guidance	Policy/guidance purpose
<b>North Norfolk District Council</b>		
Local Development Framework – Core Strategy adopted September 2008.	CT5: The Transport Impact of New Development	Development will be designed to reduce the need to travel and to maximise the use of sustainable forms of transport appropriate to its particular location. Development proposals will be considered against the following criteria; <ul style="list-style-type: none"> <li>If the proposal would have significant transport implications, it is accompanied by a transport assessment, the coverage and detail of which reflects the scale of development and the extent of the transport implications, and also, for non-residential schemes, a travel plan.</li> </ul>
<b>South Norfolk District Council</b>		
Development Management Policies Document. (South Norfolk District Council, 2015)	Policy DM 3.11 Road Safety and the Free Flow of Traffic	On all sites development will not be permitted that endangers highway safety or the satisfactory functioning of the highway network. Planning permission will be granted for development involving the formation or intensified use of a direct access onto a Corridor of Movement providing it would not: <ul style="list-style-type: none"> <li>Prejudice the safe and free flow of traffic or planned proposals for sustainable transport initiatives along the Corridor of Movement;</li> </ul>
<b>Breckland Council</b>		
Breckland Local Plan - Core Strategy and Development Control Policies Development Plan Document adopted December 2009	Policy CP13: Accessibility	Travel Plans should be submitted for major schemes or those schemes where there are significant transport implications, such as those where a Transport Assessment is required.
Emerging Single Local Plan Pre-Submission Publication August 2017	Policy TR01: Sustainable Transport Network	Major development proposals should include an assessment of the impacts of new development on the existing transport network. Where potential transport impacts are identified, developers will be expected to produce Transport Assessments to assess the impacts and identify appropriate mitigation, together with Travel Plans where appropriate.
<b>Broadland District Council</b>		
Development Management Policies Document. (Broadland District Council, 2015)	Policy TS2 – Travel Plans and Transport Assessments	In the case of major development, or where a particular need is identified, a Transport Assessment and/or Travel Plan will be required. Developers will need to include proposals to deal with any consequences of their development in terms of maximising access by foot, cycle and public transport and the means by which this will be secured in perpetuity.
<b>Waveney District Council</b>		
Waveney Local Plan – adopted March 2019	Policy WLP8.21: Sustainable Transport	Development proposals should be designed from the outset to incorporate measures that will encourage people to travel using non-car modes to access home, school, employment, services and facilities.  In consultation with the Highway Authority, the scale, location and nature of development will be considered in determining how the



Document	Policy/guidance	Policy/guidance purpose
		transport impacts of development should be assessed. Non-residential development will be considered on a case by case basis
Joint Core Strategy (Broadland District Council, Norwich City Council and South Norfolk District Council)		
Joint Core Strategy (Broadland, Norwich and South Norfolk) adopted January 2014.	Policy 6: Access and Transportation.	The Transportation system will be enhanced to develop the role of Norwich as a Regional Transport Node. This will be achieved by a number of factors including; <ul style="list-style-type: none"> <li>Continuing to recognise that in the most rural areas the private car will remain an important means of travel.</li> </ul>

### 3 LOCAL TRANSPORT CONTEXT

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#### 3.1 Introduction

41. This section examines the forecast employee demographic (informed by the socio-economic study contained in ES Chapter 31 Socio-economics, document reference 6.1.31) and evaluates the travel options available for access to the cable route.

#### 3.2 Employee Distribution

42. The types of specialist skills required for the project means that construction employees often have to be drawn from across the country since contractors are unable to rely wholly on local labour sources. Socio economic data has informed worst case forecasts that 30% of the workforce would be drawn from the local area (resident) and 70% would be drawn from beyond a daily commute (in-migrant).
43. Figures 2 shows the distribution of local rented accommodation (in-migrant workers) per postcode cluster. The distribution of bed spaces per postcode cluster has been factored using a gravity model approach, whereby the number of bed spaces is divided by the journey time.
44. Figures 3 shows the resulting workforce origin for local employees who potentially could be drawn from the local area (defined as a 90 minute drive to the onshore infrastructure sites) with the relevant skill sets.

#### 3.3 Existing Sustainable Travel Options

45. The Chartered Institution of Highways and Transportation (CIHT) (2000) document entitled 'Guidelines for Providing for Journeys on Foot', considers 2km as a 'preferred maximum' distance for commuting on foot.
46. By this benchmark, it is envisaged that negligible numbers of employees would consider walking as a primary mode of commuting to the sites. The CIHT (1996) guidance 'Cycle Friendly Infrastructure, Guidelines for Planning and Design' states that three quarters of journeys by all modes are less than five miles (8km) and that this distance can be cycled comfortably by a fit person. It is concluded therefore that 8km represents a maximum realistic range for commuting by bike.
47. Although an 8km distance means a few settlements are within cycling distance of the MAs, the lack of safe routes and nature/duration of the work suggests that cycling is unlikely to be a feasible mode choice for most construction staff.
48. The MAs are located in remote rural areas, the distance of the nearest bus stop or railway station from an MA, as well as the service frequency and hours of operation

are considered to be a significant deterrent in the choice of public transport by construction employees.

49. The evaluation of sustainable transport options demonstrates that there is a low level of accessibility to the MAs by a large proportion of the local workforce. This is unsurprising as the cable route is established away from built up areas which would typically benefit from higher levels of accessibility.
50. Recognising that sustainable modes of transport will have a limited share of workforce travel, the OTP strategy seeks to achieve sustainable transport use primarily through private transport solutions that encourage multi-occupancy vehicle travel.
51. The OTP places a focus on a controlled environment in which employees are not discouraged from travelling via walking, cycling or public transport but would be actively encouraged to make best use of the multi-occupancy vehicle measures in place.

### **3.4 Preliminary Targets**

52. Chapter 24 Traffic and Transport of the ES (document reference 6.1.24) contained an assessment of the forecast level of traffic that would be generated during peak construction, assuming workforce single occupancy vehicles as a worst case.
53. For the OTP, specific targets relating to workforce trip rates or mode share have not been proposed as it is considered that the contractor will better inform this evaluation. For example, the split of local to in-migrant employees will have a significant impact on the effective travel planning measures that can be put in place and this will only become known post consent.
54. It is proposed that workforce demographics would be validated by the contractor, to enable targets to be established and set out in a final TP. In the interim, the OTP establishes a framework of measures to be adopted, supported by robust monitoring, enforcement and governance.

## 4 TRAVEL PLAN MEASURES

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### 4.1 Introduction

55. This OTP comprises a framework of a number of initiatives and measures to seek to reduce travel by single occupancy vehicle and to develop awareness of travel choice to construction workers.
56. The contractor would optimise the application of the framework measures when establishing the workforce. A final 'feasible' package of measures would be presented in the final TP to be agreed with the relevant authorities (identified in section 2.2) prior to commencement on site.

### 4.2 Multi Occupancy Vehicle Measures

57. For larger employee 'clusters', mini-buses could be utilised; for smaller employee clusters crew vans are a more versatile alternative. These are vehicles which could potentially seat five or six people with room for tools, small materials and equipment. The crew vans/mini-buses would pick up employees at local accommodation where a cluster of employees can be established and pre-defined pick up points.
58. Pick up points would be carefully located so as to not induce trips through the sensitive junctions identified in the ES, namely:
  - Junction 1: Junction of the A12 and Gapton Hall 'Gapton Roundabout' (Great Yarmouth);
  - Junction 2: Junction of the A47 'Vauxhall Roundabout' (Great Yarmouth);
  - Junction 3: Junction of the B1141 and A149 'Fuller's Hill Roundabout' (Great Yarmouth); and
  - Junction 4: Junction of the A47 and A1064.
59. Private car share is an option that could potentially supplement company supplied transport to maximise multi-occupancy travel. A car share database would be established to encourage the take up of car sharing by allowing employees to find other employees who may be located near to them and are interested in car sharing.
60. Those employees that expressed an interest in car sharing would be matched to car share syndicates to optimise the number of occupants in a vehicle.

### 4.3 Site Transfer Vehicles (Scenario 2)

61. During duct installation having reported to their designated MA, employees would be transferred to the appropriate cable section by a site transfer vehicle via the running track. These vehicles would be available throughout the day to enable transfer between cable sections and return trips to MAs and welfare facilities.

#### 4.4 Restricted Parking/Access (Scenario 2)

62. Limited car parking spaces will be provided at each MA during duct installation. Preferential spaces would be provided for company provided transport and designated car share vehicles. A permit system could also be adopted to allocate these spaces.
63. Security protocol for the MAs would require all employees and visitors to sign in and identify their mode of transport.

#### 4.5 Supporting Measures

64. A package of supporting measures has been developed as part of this OTP to augment the multi-occupancy vehicle strategy as set out in Table 4.1.

**Table 4.1 Supporting measures**

Measures	Comments
Monitoring of overspill parking	The contractor will ensure that employees only park in designated areas and on-street parking close to site will be closely monitored.
Guaranteed lift home	To ensure that anyone who did not travel in their own car has the security of knowing they can return home quickly in an emergency.
Provide Travel Information Packs to employees	To be provided during the induction of a new employee. The packs would include information specific to the respective MAs such as: <ul style="list-style-type: none"> <li>• Details of private transport options and pick up points;</li> <li>• Details of bus and rail services;</li> <li>• Details and maps of local cycle and walking routes;</li> <li>• Rules for car parking; and</li> <li>• Details of car share initiatives and the 'lift home' scheme.</li> </ul>
Provide a staff notice board	The notice board would provide employees with a useful source of information regarding travel choice and include information such as details of the car share scheme, cycle routes, and private transport or bus times, as relevant to the individual MAs.
Secure cycle parking area, changing area and locked storage (Scenario 2)	To provide a safe and secure parking environment for cyclists.
Welfare and catering facilities	To avoid the need for employees to drive off site during the working day for lunch, the contractor will provide welfare facilities. These will include an area for employees to prepare and eat lunch. In addition, the contractor will also seek to encourage local suppliers (e.g. a sandwich van) to deliver food to the site compound.

## 5 MANAGEMENT STRUCTURE AND GOVERNANCE

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### 5.1 Travel Plan Co-ordinator

65. A Travel Plan Co-Ordinator (TPC) would be appointed by the contractor and their contact details would be provided to the relevant local authorities prior to commencement of the construction period.
66. The TPC would be responsible for responding to any concerns raised by the relevant authorities and issues raised by local community liaison.
67. In general, the role of the TPC would involve the following:
  - To give advice on the development of measures for the final TP and secure agreement from the relevant authorities;
  - To set up and maintain a filing system for all correspondence relating to the final TP;
  - To oversee the development and implementation of the final TP including the monitoring programme, reporting and any corrective measures required to meet the targets, which will be identified through discussion with relevant local authorities;
  - To oversee the necessary data collection exercises and monitoring programme and report to the relevant authorities;
  - To identify potential breaches and ensure corrective procedure is followed; and
  - To give advice on alternative or corrective measures required to meet targets.

### 5.2 Local Community Liaison

68. Norfolk Boreas Limited will ensure effective and open communication with local residents and businesses that may be affected by noise or other amenity aspects caused by the construction works. Communications will be co-ordinated on site by a designated member of the construction management team. The local community liaison officer will be a single point of contact for the public and local communities with respect to transport and travel issues and will be identified in relevant communications. A proactive public relations campaign will be maintained, keeping local residents informed of the type and timing of works involved, the transport routes associated with the works, the hours of likely construction traffic movements and key traffic management measures that would be provided. A combination of communication mechanisms such as posters and parish meetings will be employed to keep local residents informed.
69. A designated Norfolk Boreas Limited local community liaison officer will respond to any public concerns, queries or complaints in a professional and diligent manner as

set out by a project community and public relations procedure which will be submitted for comment to the local authorities.

70. Parish Councils in the relevant area will be contacted (in writing) in advance of the proposed works and ahead of key milestones. This information will include as far as possible an indicative timetable of works, a schedule of working hours, the extent of the works, and a contact name, address and telephone number in case of complaint or query. Enquiries will be dealt with in an expedient and courteous manner. Any complaints will be logged, investigated and, where appropriate, rectifying action will be taken.
71. The above will be captured in a communications plan as part of the final CoCP (DCO Requirement 20).

### 5.3 Monitoring and Review

72. It is proposed that for the duration of the onshore construction phase, the benchmark targets set in the final TP will be monitored.
73. Security 'sign-in logs' will provide the primary source of information as to how employees have travelled to site. In addition, feedback would be sought from the workforce during site briefings to gain an understanding of travel habits and to seek suggestions for improving the final TP.
74. The local highway network adjoining the site access points would regularly be observed by the TPC to check for evidence of overspill parking. Pick up points would also be periodically checked to ensure employees are using appropriate parking areas.
75. It proposed that the main focus of the final TP monitoring strategy is the timely introduction of the appropriate OTP measures through the production and review of an action plan.
76. The TPC would collate monitoring data and share this with relevant stakeholders as appropriate. This would include:
  - MA employee sign-in data (in accordance with UK Data Protection Law);
  - Details of any identified breaches and corrective action; and
  - Details of complaints and follow up actions.
77. The protocol for review and discussion of these data would be agreed with the relevant local authorities during the development of the final TP.

## 6 ENFORCEMENT

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### 6.1 Introduction

78. This section provides a summary of the mechanisms that would ensure that the final TP is effectively enforced.

### 6.2 Potential Breaches

79. To ensure that the aims of the OTP can be effectively enforced it is important to define what would constitute a breach. The following general project ‘themes’ have been established, and would constitute a breach whereby corrective measures would be required:

- Construction workers driving direct to unauthorised access points; and
- Construction workers overspill parking on the public highway.

### 6.3 Corrective Process

80. On receipt of a reported potential breach the TPC would investigate the circumstances and compile a report for the relevant authorities as soon as reasonably practicable. The report would outline the outcome of the investigation and what corrective action (if necessary) had been implemented.
81. If a breach is found to be material, appropriate action will be undertaken by the TPC and relevant stakeholders notified of the course of action.
82. Individual employee breaches would be addressed through UK employment law whereby the process outlined above would form the basis for disciplinary proceedings.
83. The OTP will be a contractually binding document. Failure to follow the performance standards (including the corrective process) or continued breaches would likely be addressed by formal discussion between Norfolk Boreas Limited and the contractor in terms of its contractual obligations.

### 6.4 Action Plan

84. Upon appointment by Norfolk Boreas Limited, the TPC would be provided with a copy of the OTP and an Outline Action Plan which is detailed in Table 6.1. The Outline Action Plan details the broad timescales for final TP implementation. The TPC would be required to produce a detailed Action Plan in consultation with relevant stakeholders.



**Table 6.1 Action Plan**

Measures	Scenario 1	Scenario 2	Timescale	Responsible
<b>Pre-commencement actions</b>				
Appoint a TPC	✓	✓	Prior to commencement of duct installation stage	Norfolk Boreas Limited
Finalise TP including targets, measures and action plan. Agree with relevant authorities	✓	✓	Prior to commencement of duct installation stage	Norfolk Boreas Limited
Issue employees with a Travel Pack	✓	✓	On commencement of employment	Contractor
Ensure sufficient cycle parking and associated facilities are available at each site.	✗	✓	Prior to commencement of duct installation stage	Contractor
Produce a staff notice board specific to each site with useful information regarding travel choice and include information such as details of car share schemes, cycle routes, bus and train times, etc.	✓	✓	Prior to commencement of duct installation stage	Contractor
Implement mechanisms for providing guaranteed lift home	✓	✓	Prior to commencement of duct installation stage	Contractor
Establish and populate car share database with employee details. Establish car share syndicates	✓	✓	Prior to commencement of duct installation stage	Contractor
Establish employee clusters, company transport solutions and pick up points	✓	✓	Prior to commencement of duct installation stage	Contractor
<b>On-going actions</b>				
Issue a Travel Pack and undertake site induction for new starters	✓	✓	On-going during construction.	Contractor
Maintain and update the information stored	✓	✓		

Measures	Scenario 1	Scenario 2	Timescale	Responsible
<b>Pre-commencement actions</b>				
in the car share database				
Monitor cycling provision	x	✓		
Review company transport solutions and pick up points.	✓	✓		
<b>Periodic actions</b>				
Car park utilisation surveys at each site/employee feedback/overspill parking survey	✓	✓	Regular surveys during construction period.	Contractor
Produce monitoring report	✓	✓	On request from stakeholders	Contractor
Corrective process (investigate, report, implement action and liaise with relevant authorities)	✓	✓	If required	Contractor

## 7 REFERENCES

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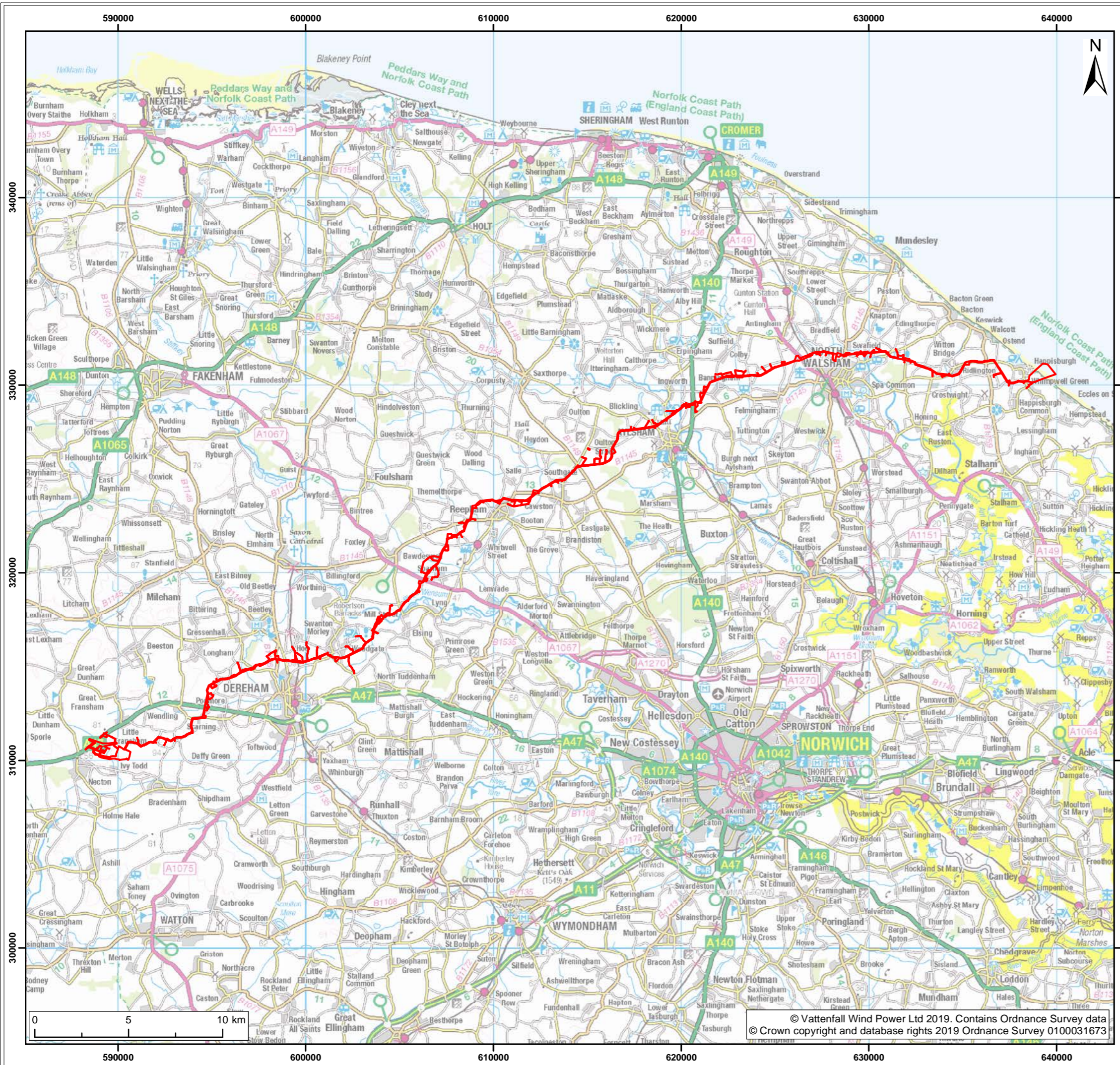
The Chartered Institution of Highways and Transportation (CIHT) (1996). Cycle-friendly Infrastructure: Guidelines for Planning and Design. 1st ed. The Institution of Highways and Transportation.

Chartered Institution of Highways and Transportation (CIHT) (2000). Guidelines for Providing for Journeys on Foot. [online] The Institution of Highways and Transportation. Available at: <http://www.ciht.org.uk/download.cfm/docid/082BEF1B-0FD2-44F4-90A0B31EB937899A> [Accessed 25 Apr. 2018].

## 8 FIGURES

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Legend:  
 Norfolk Boreas onshore red line boundary

Project: Norfolk Boreas	Report: Outline Travel Plan
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Title:  
Onshore project study area

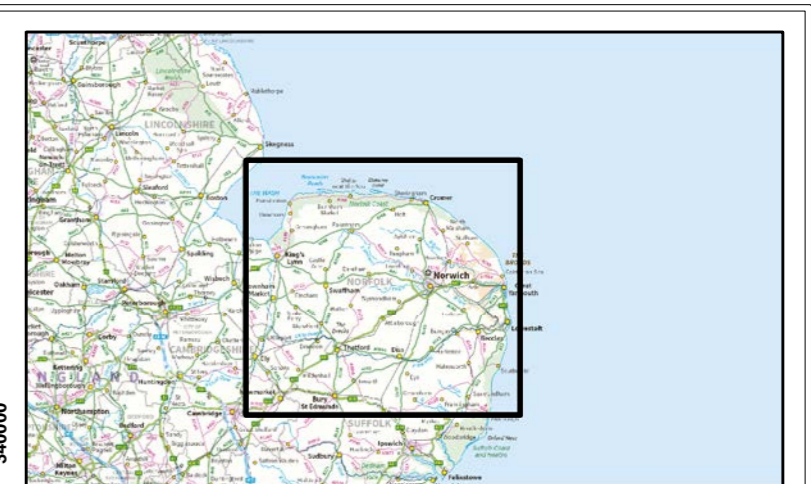
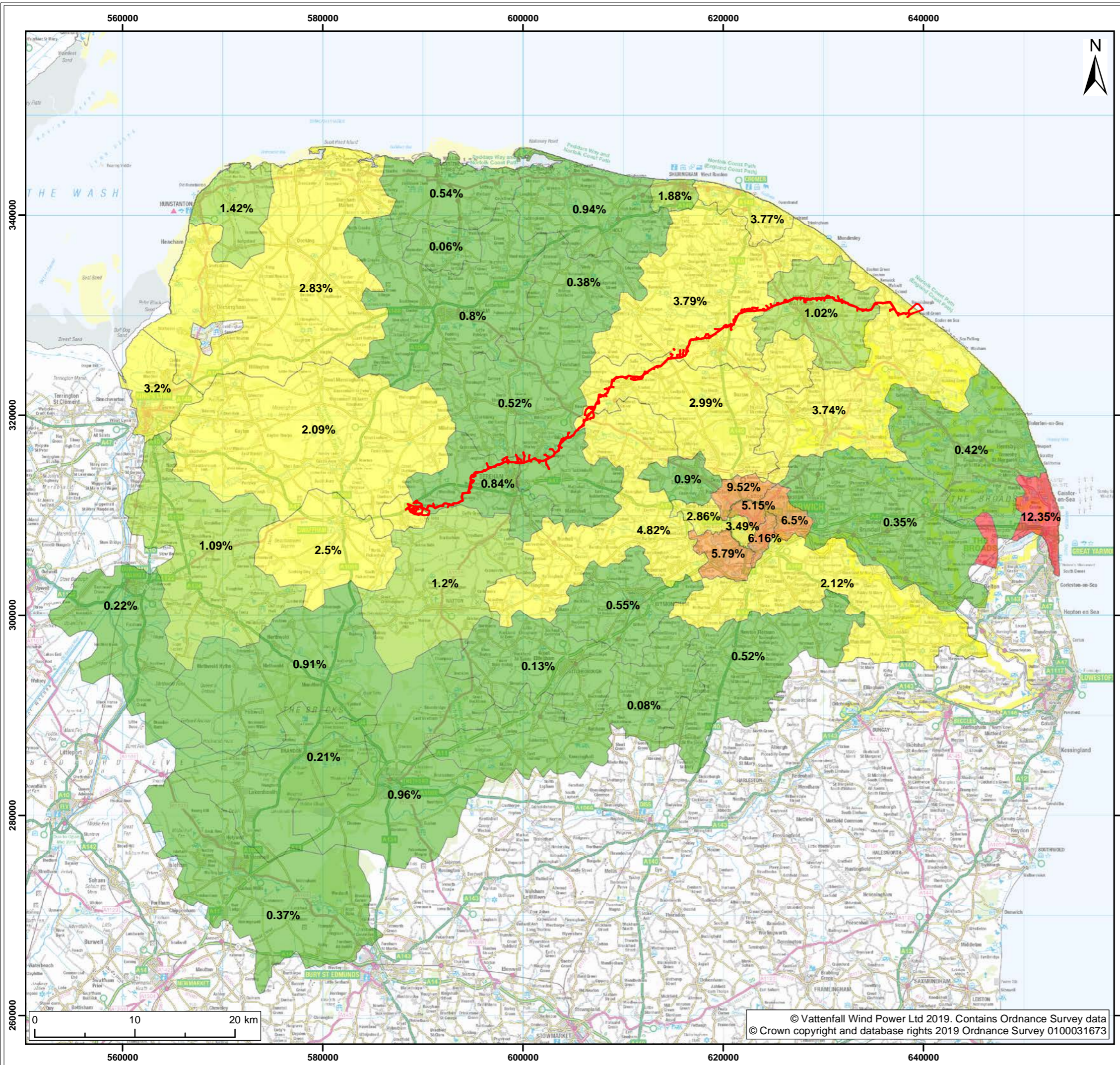
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02	22/05/2019	LB	RE	A3	1:200,000
01	18/04/2019	JT	RE	A3	1:200,000

Co-ordinate system: British National Grid EPSG: 27700



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Legend:

Norfolk Boreas onshore red line boundary

**Total bed spaces factored by journey time (%)**

- 0 - 1
- 1-2
- 2 - 5
- 5 - 10
- 10+

Project: Norfolk Boreas	Report: Outline Travel Plan
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Title:  
Location of available bed spaces (in-migrant) 45 min journey time

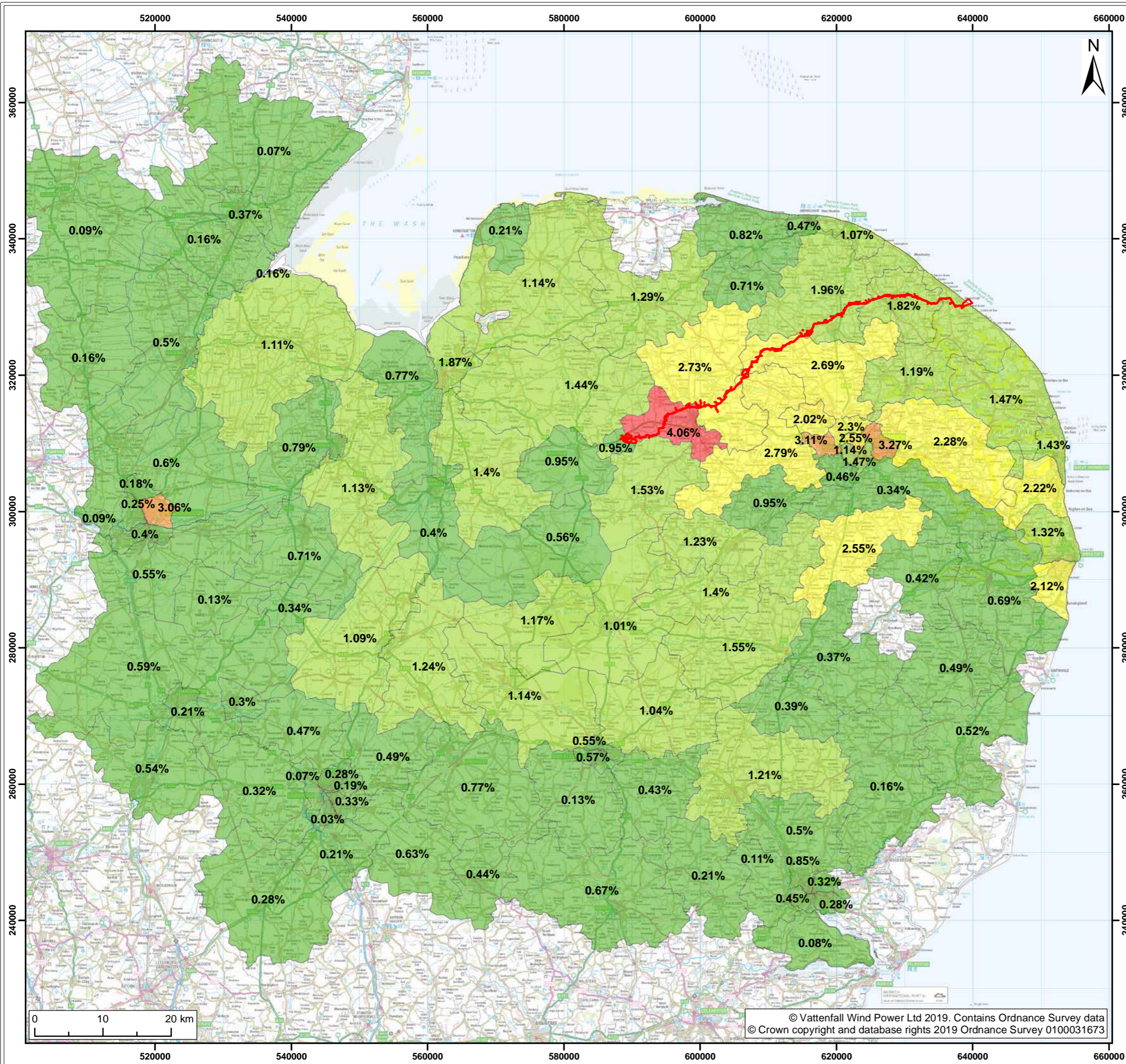
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Co-ordinate system: British National Grid EPSG: 27700

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Legend:

Norfolk Boreas onshore red line boundary

**Available construction workers (%)**

- 0 - 1
- 1 - 2
- 2 - 3
- 3 - 4
- 4+

Project: Norfolk Boreas	Report: Outline Travel Plan
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Title:  
Location of available construction workers (resident) 90 min journey time

Figure: 3	Drawing No: PB5640-007-010-003				
Revision:	Date:	Drawn:	Checked:	Size:	Scale:
01	18/04/2019	JT	RE	A3	1:550,000

Co-ordinate system: British National Grid EPSG: 27700

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