PROPOSED NAVITUS BAY WIND PARK

PRELIMINARY ENVIRONMENTAL INFORMATION 3

CHAPTER 31
TRAFFIC AND TRANSPORTATION

SEPTEMBER 2013

NAVITUSBAY

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31.TRAFFIC AND TRANSPORTATION

31.1. Introduction

31.1. This chapter provides details of the assessment undertaken to date in relation to potential traffic and transport impacts arising from the construction, operation and decommissioning phases of the onshore components of the Navitus Bay Wind Park ('The Project'). For the purpose of this assessment, the Onshore Development Area comprises the following project elements: the cable Landfall, a 35 km Onshore Cable and associated accesses, temporary compounds and an Onshore Substation. For details of the Project description used within this chapter, refer to Chapter 2, 'Navitus Bay Wind Park Project'.

31.2. It is important to note that the identification and assessment of environmental impacts relating to traffic and transport remains on-going at the time of publication of this PEI3 document. Therefore, this chapter provides details of the work completed to date. It includes details of consultation feedback, sets out the traffic and transport baseline and provides an overview of the likely traffic and transport effects of the Project. Potential mitigation is also set out to manage traffic, and this will be consulted on with statutory bodies and affected parties prior to the assessment being completed.

31.3. The full assessment will be provided in the Environmental Statement (ES) to be submitted with the application for the Development Consent and NBDL will continue to consult with statutory bodies and affected parties throughout the period leading up to submission.

31.4. The assessment submitted with the application will consider traffic and transportation during the construction and decommissioning phase for all onshore components, and those impacts arising during the implications associated with the operation of the Onshore Substation and maintenance of the underground cables through the 25 year design live period.

31.5. The traffic levels relating to land based facilities for servicing the offshore construction and operation of Project have not yet been identified. Port facility options are currently still being developed in consultation with the port operators and other stakeholders. Such facilities will be provided, or brought into use, either as port operations utilising permitted development rights under the Planning Acts, or could be subject to one or more separate planning applications, if required.

31.6. The methodology under which the use will be predicted in the ES has not been finalised but will be agreed with statutory consultees in the near future. As it is not yet agreed the findings and the attributions of sensitivity and magnitude of change have not been included in this PEI.

31.2. Legislation, Policy and Guidance

31.7. This section describes the legislation, policy and guidance that are relevant to the potential impacts of or on traffic and transportation associated with the Project.

31.8. There is no international legislation relevant to this assessment.

31.9. The Overarching National Policy Statement (NPS) for Energy (EN-1) (DECC 2011a), in-conjunction with the NPS for Renewable Energy Infrastructure (EN-3) (DECC 2011b), provide the primary policy framework within which the Project should be considered. Other national, regional and local policies are considered within this assessment and a professional judgement has been applied on their relevance and importance to the assessment of the Project.

31.2.1. National policy and legislation

31.10. National Policy Statements EN-1 and EN-3 provide specific guidance on traffic and transport impacts. The relevant policies are outlined in Table 31.1.

Table 31.1 Compliance with National Policy Statements	
Summary of NPS provision	Consideration within Project
NPS EN-1: Part 5.13	
Paragraph 5.13.3 recommends that if a project is likely to have significant transport implications, then the ES should include a Transport Assessment using NATA/WebTAG methodology stipulated in the Department for Transport Guidance.	The ES will provide an assessment which considers traffic and transportation. This will be in accordance with an approach agreed with the Highways Agency ('HA') and the relevant Highway Authorities. The matters arising from stakeholder consultation are summarised in Table 31.7.
Paragraph 5.13.3 recommends applicants should consult the HA and Highway Authorities as appropriate on the assessment and mitigation.	There is currently on-going consultation with the HA and Highways Authorities. The findings of stakeholder consultation to date are summarised in Table 31.7.
Paragraph 5.13.4 recommends, where appropriate, that the applicant should prepare a travel plan.	Given the temporary nature of the construction works and low levels of operational traffic, a formal travel plan is not considered appropriate for this project (as agreed with the local planning authorities – see Table 31.7). Construction workforce traffic movements are to be managed by the contractor in accordance with the measures outlined in a Code of Construction Practice ('CoCP').
Paragraph 5.13.5 notes that if additional transport infrastructure is proposed, the applicant should discuss the possibility of co-funding by Government for any third-party benefits.	No additional transport or highways infrastructure would be required to support the onshore elements of this Project.

Table 31.1 Compliance with National Policy Statements	
Summary of NPS provision	Consideration within Project
NPS EN-1: Part 5.13	
Paragraph 5.13.6 outlines the requirement to provide mitigation measures for any transport impacts associated with the project, including during the construction phase.	Examples of mitigation for the project are outlined in Table 31.11, 13, 15, 17, 19, 22 and 23.
Paragraph 5.13.11 states that a requirement(s) maybe attached to consent where there is substantial Heavy Good Vehicle ('HGV') traffic. These may relate to control of HGV movements and routing, provision for HGV parking or to make provision for abnormal disruption.	Construction traffic would be controlled through a CoCP which will be submitted as part of the application for the DCO.
NPS EN-3, Section 2.6	
Paragraph 2.6.4 states that "The extent to which generic impacts set out in EN-1 are relevant, may depend upon the phase of the proposed development being considered. For example, land-based traffic and transport and noise issues may be relevant during the construction and decommissioning periods only, depending upon the specific proposal."	The impact assessment as part of the ES will identify the potential impacts relating to traffic and transportation that may occur at the different phases of the Project.

31.11. The National Planning Policy Framework ('NPPF') (DCLG 2012) is primarily concerned with new developments but does not make specific provisions associated with the temporary construction phase. The relevant policies are outlined in Table 31.2.

Table 31.2 Summary of National Planning Policy Framework	
Summary of NPPF provision	Consideration within Project
The principal section of the NPPF with respect to traffic and transportation states that "development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe."	The ES will set out the assessment of potential impacts and identify potential mitigation measures where appropriate.
Two of the core planning principles held in the NPPF, as set out in paragraph 17, include actively managing "patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable" and to "take account of and support local strategies to improve health, social and cultural wellbeing for all, and deliver sufficient community and cultural facilities and services to meet local needs."	Modes of transport associated with workforce travel through the onshore construction phases will be assessed and included in the ES. Examples of measures to manage the traffic due to the workforce commuting during construction are presented in the Potential Mitigation section in this chapter.
NPPF states that plans and decisions should take account of whether "safe and suitable access to the site can be achieved for all people".	The selection and design of the temporary construction accesses and access routes take account of safety considerations and measures, and ensure the safe use of these accesses during construction. The operational access for the substation has been designed to provide safe and suitable access during the operation phase.

31.12. Legislation outlined in the Highways Act 1980, (DfT 1980) Road Traffic (Temporary Restrictions) Procedure Regulations 1992 (DfT 1992) and New Roads and Street Works Act 1991 ('NRSWA') (DfT 1991) is relevant to the traffic and transportation assessment associated with the construction, operation and decommissioning of the Project given that licences and applications will need to be obtained in accordance with the provisions of these acts. Table 31.3 provides an outline of the key aspects of the Acts and Regulations considered.

Table 31.3 Summary of National Legislation	
Summary of Legislation	Consideration within Project
Highways Act 1980	
The Highways Act 1980 deals with the management and operation of the road network in England and Wales. The Highways Act is concerned with, amongst other items, the creation, maintenance and improvement of highways, stopping up of highways and the powers of statutory authorities and third parties to complete works on the highway.	It is necessary for consent to be obtained under the Highways Act to construct crossings over carriageways, footways or verges and to allow completion of works within public highways. Requirements in respect of consents associated with the Highways Act will be presented in the ES.
Road Traffic (Temporary Restrictions) Procedure Regulations 1992	
A Temporary Traffic Regulation Order ('TTRO') is the legal instrument by which traffic authorities implement most traffic management controls on their roads. Under the provisions of the Road Traffic Regulation Act 1984, local authorities can implement TTROs designed to regulate, restrict or prohibit the use of a road, or any part of the width of a road, by vehicular traffic or pedestrians.	TTROs would be required where it is necessary to temporarily control vehicular or pedestrian activities by way of road closures, temporary speed limits or restriction of certain vehicle movements. The application and use of TTROs are included in the Potential Mitigation section of the chapter and further detail will be presented in the ES.

Table 31.3 Summary of National Legislation	
Summary of Legislation	Consideration within Project
New Roads and Street Works Act 1991 (NRSWA)	
NRSWA is the legislation that governs the completion of works in the public highway.	It will be necessary for Road Space bookings and Road Opening licences to be obtained for any works within the public highway. Requirements in respect of consents associated with the NRSWA will be considered in the ES.

31.13. Guidance in relation to the design and implementation of works in the public highway is provided in the Design Manual for Roads and Bridges ('DMRB') (DfT 2008), Manual for Streets (MfS) (DfT 2007) and Manual for Streets 2 (MfS2) (DfT 2010) and the Traffic Signs Manual (DfT 2009). Table 31.4 provides an outline of the keys aspects of this guidance relevant to the proposals.

Table 31.4 Summary of National Guidance	
Summary of Guidance	Consideration within Project
Design Manual for Roads and Bridges (DMRB)	
The DMRB provides official standards, advice notes and other documents relating to the design, assessment and operation of trunk roads. The DMRB is concerned with, amongst other items, road geometry, the design of new accesses and the environmental assessment of road schemes.	The assessment within the ES chapter will be prepared using relevant guidance provided in the DMRB.

Table 31.4 Summary of National Guidance	
Summary of Guidance	Consideration within Project
Manual for Streets (MfS)	
The MfS provides guidance for the planning, provision and approval of new residential streets and modifications of existing ones. The manual aims to reduce the impact of vehicles on residential streets through design, and gives a high priority to the needs of pedestrians, cyclists and users of public transport.	The assessment within the ES chapter will be prepared using relevant guidance provided in the MfS.
Manual for Streets 2 (MfS2)	
MfS2 builds on the MFS by providing guidance relevant to both urban and rural situations regarding the planning, provision and approval of new residential streets and modifications of existing ones.	The assessment within the ES chapter will be prepared using relevant guidance provided in the MfS2.
Traffic Signs Manual	
The traffic signs manual gives guidance on the use of traffic signs and road markings prescribed by the Traffic Signs Regulations. Of particular relevance to the project is chapter 8 (part 1 and part 2) which provides guidance for the design, planning and management of temporary traffic management arrangements which should be implemented to facilitate maintenance activities or in response to temporary situations.	The assessment within the ES will be prepared using guidance provided in the Traffic Signs Manual. Measures to implement temporary traffic management during construction, in accordance with the Traffic Signs Manual, will be included in the overall assessment within the ES.

31.2.2. Regional and local policy

31.14. There are policies provided within the local Authorities Core Strategy Documents and Local Transport Plans that are relevant to the traffic and transportation assessment associated with the construction, O&M and decommissioning phases of the Project. The key aspects of these Core Strategies and Local Transport Plans are considered in Tables 31.5 and 31.6.

31.15. The Christchurch and East Dorset Draft Core Strategy dated April 2012 was submitted to the Secretary of State for approval in March 2013 and as such is referred to below as a draft document.

31.16. New Forest District (outside the National Park) Core Strategy was adopted on the 26 October 2009 and covers an area of land between Dorset and the National Park. This Core Strategy document forms part of the New Forest District Council Local Development Scheme, a revised version of which came into effect in December 2012.

31.17. In addition to the New Forest District Core Strategy, there is the Core Strategy for the New Forest National Park area which was adopted by the National Park Authority on 9 December 2010.

Table 31.5 Summary of Local Authorities Core Strategy

Summary of Core Strategy	Consideration within Project
Christchurch and East Dorset Draft Core Strategy (pre-submission Version 2012)	
Policy KS 11 states that "Development will be permitted where mitigation against the negative transport impacts which may arise from that development or cumulatively with other proposals is provided."	The ES will assess the potential impacts of the Project and identify potential mitigation measures against the potential transport impacts. Cumulative impacts will be included within the ES.

Table 31.5 Summary of Local Authorities Core Strategy

Summary of Core Strategy	Consideration within Project
New Forest National Park Core Strategy	
31.18. A strategic objective for the area is to reduce the impacts of traffic on the special qualities of the National Park, and support a range of sustainable transport alternatives within the Park.	The ES will assess construction traffic routes through the borders of the National Park. The assessment to be completed in the ES will include any identified routes relevant to the Park.
New Forest District (outside the National Park) Core Strategy	
Policy CS24 outlines transport considerations. The spatial strategy seeks to promote improvements in the quality and sustainability of transport infrastructure to minimise the impact of new developments. Where appropriate, development proposals will be required to: ➢ include a range of appropriate mitigating transport measures, particularly aimed at improving accessibility by non-car modes and reducing the adverse impact of traffic; ➢ ensure necessary transport improvements are addressed prior to development.	Modes of transport associated with workforce travel through the construction phase of the onshore works have been presented in this chapter and will be assessed with the ES. Examples of measures to manage the traffic due to workforce commuting during the onshore construction are included in this chapter.

Table 31.5 Summary of Local Authorities Core Strategy	
Summary of Core Strategy	Consideration within Project
➢ Policy CS24 requests that where appropriate development proposals will be required to ensure that adequate lorry access routes are available and suitable.	The ES will identify and assess lorry access routes to be used during the onshore construction. Any access required by lorries during operation and maintenance will also utilise these defined routes.
➢ Policy CS24 also requests that development proposals produce and implement Transport Assessments and Site Travel Plans, as appropriate.	Workforce traffic movements are to be managed by the contractor.

31.19. The Bournemouth, Poole and Dorset Local Transport Plan was adopted in April 2011 and sets out the long term vision, goals and policies that will guide transport improvements in Bournemouth, Poole and Dorset for the period 2011 – 2026.

31.20. Hampshire County Council's Local Transport Plan was formally approved in February 2011. This document sets out the 20-year transport strategy for the period 2011-2031. The relevant aspects of these Plans are outlined in Table 31.6.

Table 31.6 Summary of local transport plans	
Summary of Local Transport Plan Guidance	Consideration within Project
Hampshire County Council Local Transport Plan	
Policy Objective 1 of the Local Transport Plan is to "continue to work to improve road safety through targeted measures that deliver reductions in casualties, including applying a speed management approach that aims to reduce the impact of traffic on community life and promote considerate driver behaviour."	The identification and design of the temporary construction accesses and access routes take account of safety considerations and measures to ensure the safe use of these accesses during construction. The operational access for the substation has been designed to provide safe and suitable access during the operation phase. The Baseline Environment section of this chapter is based upon these identified routes and access locations.
Policy Objective 14 of the Local Transport Plan is "to outline and implement a long-term transport strategy to enable sustainable development in major growth areas".	Although the Project has the potential to affect the implementation of the transport strategy, measures to manage the temporary impact of construction traffic are proposed in this chapter. These measures will form the basis on which this assessment will be completed in the ES.
Bournemouth, Poole and Dorset Local Transport Plan	
31.21. A key issue identified by the Local Transport Plan is that "Natural and built environments are under threat from the volume and speed of traffic, vehicle emissions and noise, and the inappropriate routing of freight traffic."	The Baseline Environment section identifies construction traffic routes to manage the impact of HGV traffic. This chapter also identifies suitable diversion routes for use during the completion of road crossings. The assessment as part of the ES will likely be based upon these identified routes.

31.3. Assessment Methodology

31.3.1. Study Area

31.22. The study area covers parts of both Dorset and Hampshire and includes the urban area along the coast between Milford-on-Sea and West Bournemouth, and extends north to include Ferndown, Ringwood and the larger villages at Three Legged Cross, West Moors and Bransgore.

31.23. The study area includes the proposed working area, the access routes to be used by construction traffic entering the area and the proposed temporary diversion routes to be used by non-works traffic during certain periods of the construction programme.

31.24. The study area identified for construction activities also covers the area for the operation, maintenance and decommissioning phases for the onshore elements of the Project. A description of the proposed construction traffic and diversion routes is provided in the Baseline Environment section of this chapter.

31.25. The highway network is considered to have two components, the principal highway routes, and second tier highway routes. The principal highway routes encompass all sections of the highway network which will be used by construction traffic to gain access to the study area. In addition, a number of principal routes are also defined within the study area. The extents of the principal highway routes considered by this chapter are shown on Figure 31.1.

31.26. The principal highway routes include a number of A and B classified roads which provide strategic primary routes throughout the area. The A classified roads include the:

- A31;
- A338;
- A35;
- A337;
- A348.

31.27. Second tier highway routes are other roads which provide access to specific work areas from the principal highway routes.

31.28. These second tier highway routes are described in the context of individual sub-areas. The sub-areas encompass all sections of the highway network which will be used by construction traffic or diversions of local traffic, required to permit the construction of road crossings within each area. There are six sub-areas identified, each of these are served by a temporary construction compound as identified below:

- Sub-Area A – Landfall Compound;
- Sub-Area B – Sway Road Compound;
- Sub-Area C – Dark Lane Compound;
- Sub-Area D – Avon Compound
- Sub-Area E – Hurn Forest Compound; and
- Sub-Area F – Substation Compound.

31.29. All traffic movements associated with the construction of the landfall will occur in Sub-Area A, and all traffic movements associated with construction of the substation will occur along a defined access route within Sub-Area F.

31.30. The extent of each of these sub-areas is shown on Figure 31.1. Figures showing the proposed construction traffic routes and diversion routes, along with the temporary construction access locations and temporary construction compound locations for each of the identified sub-areas are shown on Figures 31.2 to 31.8.

404000 407000 410000 413000 416000 419000 422000 425000 428000

104000 101000 98000 95000 92000

A338 A31(T) A347 A3049 A3049 A35

Mannington Three Legged Cross Ashley Heath Holt Heath Hangersley Ringwood Burley Lodge Burley Street Burley Bisterne Close Kingston Bisterne Ferndown Hampreston Canford Magna Bearwood Kinson Throop Wimborne Minster Burton Moordown Winton Thorney Hill Ripley Wootton Tiptoe Sway New Milton Hinton Hordle Downton CHRISTCHURCH

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

0 2.5 5 km

Legend

- Onshore Development Area
- Proposed Construction Traffic Routes
- Assessed Locations

Scale @A3 1:70,000	**Coordinate System:** British National Grid
Date: 16/08/2013	**Datum:** OSGB 1936
Ref. No.: 0107130717321/01	**Data Source** OS PBA
Fig. No.: Figure 31.1	
Author: CG	
Rv.No.: 01 **Checked:** JD **Approved:** MB	

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Study Area and Traffic Routes

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31.3.2. Consultations

31.31. This section details the consultation which has helped inform the design of traffic routes and the proposed temporary diversion routes to be used by non-works traffic during certain periods of the construction programme.

31.32. Advice and information provided by the consultees to date as well as future consultation will help to shape both the assessment methodology and the scope of the assessment within the ES. The organisations consulted and the subject of each communication to date is provided in Table 31.7.

31.33. The Highway Authorities, Hampshire County Council (HCC), Dorset County Council (DCC) and Enterprise Mouchel acting as representatives of the HA, were consulted throughout 2011 and 2012 to obtain baseline data, identify constraints and discuss proposals with regard to operational and temporary access points, construction traffic routing and traffic management proposals.

31.34. The conclusions of these consultations were used to identify the proposed temporary construction access points, road crossing installation methods, construction traffic routes and the operational substation access location assessed within this chapter. These design elements are incorporated into the Project to avoid or minimise traffic effects from the scheme, as far as is feasible. Consultation with these organisations is currently on-going as part of informing the assessment process and defining appropriate mitigation measures.

Table 31.7 Consultation		
Organisation and Date	Summary of Response	Where addressed in PEI
Planning Inspectorate (November 2011)	Consideration to be given to sourcing of construction materials and potential impacts on the wider network.	The assessment of the potential impact of traffic delivering construction materials within the study area will be presented in the ES.
	All construction access routes and any road improvements required or new access roads should be identified.	The chapter identifies appropriate construction traffic routes to manage the impact of HGV traffic. These routes will be taken into account in the preparation of the ES chapter.
	Details of road closures during the construction phase should be identified and assessed.	The ES chapter will identify and assess road closures required during construction. These closures will be taken in to account in the preparation of the assessment as part of the ES.
	Details of the anticipated number of vehicle movements at all phases of the project should be identified and assessed.	The construction phase traffic for the project along with operational traffic associated with the substation are presented in this chapter.
	Agreement should be reached on the assessment methodology with the highways authority.	Consultation with Hampshire County Council, Dorset County Council and the HA is on-going and will inform the assessment methodology used as part of the ES chapter.
	An assessment should consider the on-shore transport associated with the offshore development. An assessment should be made of the impacts associated with transporting offshore construction materials to the point at which they will be loaded onto construction vehicles.	Land-based facilities for servicing the construction, decommissioning and operation of the Offshore Wind Park have not yet been identified. Such facilities will be provided, or brought into use, either as port operations utilising permitted development rights under the Planning Acts, or will be subject to one or more separate planning applications.
	The ES should identify where railways will be crossed.	The PEI identifies all locations where the railway would be crossed and describes potential mitigation measures proposed to manage the effect of the crossing.
	Consideration should be given to potential use of the rail network for the delivery of on-shore construction materials	For the ES assessment, all materials would be assumed to be transported by road. The movement of materials beyond the study area lie outside the scope of this assessment. This does not preclude the use of rail as a potential means of transport.
	Assessment should be made of the temporary impacts on local residents, including rerouting of traffic and public transport, as a result of road closures and diversions on all users.	The ES chapter will assesses construction traffic routes and all road closures and diversions. Measures to mitigate potential temporary impacts are included in the Potential Mitigation section of this chapter.
	Impacts of the operation and maintenance phase have not been requested to be scoped out. The number of vehicle movements anticipated in the maintenance phase should be detailed and assessed.	The ES will include an assessment of the potential impacts arising during the O&M phase of the Project with regard to traffic and transportation matters.

Table 31.7 Consultation		
Organisation and Date	Summary of Response	Where addressed in PEI
	Appropriate mitigation, such as a Travel Plan, should be included in the ES.	Given the temporary nature of the construction works and low levels of operational traffic, a formal travel plan is not considered necessary. Workforce traffic movements are to be managed by the contractor**.**
Dorset County Council Highways (Meeting 18 September 2012)	DCC confirmed that the temporary construction accesses should be designed to meet the requirements laid out in the MfS. The use of appropriate traffic management techniques such as provision of temporary traffic signal controls or employment of a 'banksman' to control vehicle movements could be utilised where these standards cannot be met.	The proposed temporary construction access designs for accesses located in Dorset are either in accordance with MfS, or where the MfS standard cannot be achieved, measures to manage construction traffic would be identified.
	DCC suggest a construction management plan is developed to manage construction impacts.	A CoCP is proposed to manage construction impacts and would be included in the DCO.
	Any changes to the physical layout of the network junctions will need to incorporate traffic management measures, details of which should be provided for DCC approval.	Measures to manage the potential impact of any physical changes to the highway network and the approval of these changes will be through consultation with DCC.
	DCC requested that the assessment considers the potential impact of concurrent construction. DCC highlighted particular concerns regarding the construction of the substation and installation of cables in the vicinity of the substation site.	The impact assessment included in the ES will consider the potential impact of concurrent construction.
	DCC confirmed traffic movements through Hurn village may be an issue, due to existing heavy traffic associated with this junction at peak hours. In addition, the importance of this route was highlighted with regard to responses to accidents on the A338. DCC also highlighted their aim of minimising construction traffic through West Moors Village.	The Baseline Environment section of this chapter identifies appropriate construction traffic routes to manage the impact of HGV traffic. This routing strategy takes account of the issues raised by DCC. Proposed traffic mitigation measures are also presented in the Potential Mitigation section of this chapter.
	DCC confirmed that an impact assessment based on estimated traffic movements only, is acceptable. DCC also confirmed that a comparison against baseline or modelled traffic flows was not required, given that the construction traffic numbers would be low and are temporary in nature.	The impact assessment presented in the ES will be completed using methodology that has been agreed with the statutory consultees. The Predicted Traffic Movements section is included in this chapter.

Table 31.7 Consultation		
Organisation and Date	Summary of Response	Where addressed in PEI
	DCC confirmed that a detailed assessment of any structures located along the routes proposed to be taken by oversize vehicles is to be completed once details of the proposed load configuration are known.	The Baseline Environment section of this chapter identifies appropriate construction traffic routes to manage the impact of oversize vehicles associated with the construction of the substation. These routes were identified using the information provided by DCC. An abnormal load report will also be produced and included in the DCO.
New Milton Town Council (Scoping Consultation Response 24 July 2012)	Disruption to the local highway network due to cabling should be clearly advertised in the local press and by signage.	Measures to manage construction traffic are identified in the Potential Mitigation section of this chapter and includes assessment details of signage to be used, and advertisements to be made.
Hampshire County Council (Scoping Consultation Response 30 July 2012)	Details of traffic movements during the construction process will be required to enable an assessment to be made. Any intended road closures will need to be discussed at an early phase of the project to ensure any impacts to the road network are appropriately managed.	Measures to manage construction traffic are highlighted in the Potential Mitigation section of this chapter.
Hampshire County Council Highways (Consultation meeting 27 July 2012)	HCC raised the issue of annual events occurring on their road network which would need to be considered. These include triathlons and marathons which utilise some of the roads north of Christchurch.	Mitigation measures to reduce the impacts of construction traffic are presented in the Potential Mitigation section of this chapter.
	HCC confirmed that a full Transport Assessment would not be required due to the nature of the project and likely impacts.	The assessment included in the ES will identify and assess the likely impacts of the Project for traffic but the DCO application will not include a separate Transport Assessment.

Table 31.7 Consultation		
Organisation and Date	Summary of Response	Where addressed in PEI
	HCC confirmed that an impact assessment based on estimated traffic movements only, is acceptable. HCC also confirmed that a comparison against baseline or modelled traffic flows was not required given that the construction traffic numbers would be low and are temporary in nature. HCC requested that anticipated workforce numbers/vehicle numbers and traffic movements for construction locations and site compounds be determined and assessed as part of the EIA.	The assessment as part of the ES chapter will consider anticipated workforce numbers/vehicle numbers and traffic movements for construction locations and site compounds, in accordance with the requirements of HCC. The ES will also consider decommissioning and operational phases, although these phases have less potential traffic and transportation effects.
	HCC highlighted that the road crossings which are crossed using open trenching techniques have the potential to create a rumble strip affect and have requested that the entire area is resurfaced.	Measures to manage matters arising from the completion of the road crossing will be considered within the ES chapter.
	HCC requested that an indicative construction programme for the works is provided.	Information on the indicative construction programme is identified in Chapter 2, Navitus Bay Wind Park Project.
	HCC confirmed that the temporary construction accesses should be designed to meet the requirements laid out in Design Manual for Roads and Bridges (DMRB).	The assessment included in the ES will be based upon the temporary construction access designs. The proposed temporary construction access designs for accesses located in Hampshire are either in accordance with DMRB, or where the DMRB standard cannot be achieved, measures to manage construction traffic are identified.
	Due to the potential for complaints from members of the public, measures to manage and prevent mud being spread on the road during construction should be identified.	Measures to manage the construction traffic and prevent mud being spread on the road are presented in the Potential Mitigation section of this chapter.
HA (scoping consultation response 27 June 2012)	The HA suggest a construction management plan is developed to manage construction impacts.	Measures to manage the construction traffic are outlined in the Potential Mitigation section of this chapter.
HA (consultation meeting 18 September 2012)	The HA confirmed measures should be put in place to ensure mud is not trafficked onto the A31 from any nearby temporary construction accesses.	Measures to manage operation and use of temporary construction accesses to prevent mud being spread on the road are presented in the Potential Mitigation section of this chapter.

Table 31.7 Consultation		
Organisation and Date	Summary of Response	Where addressed in PEI
	HA confirmed there is no issue with the use of the A31 for construction traffic entering the area as it is designed for major traffic movements; construction traffic entering the area via the A31 is anticipated to be insignificant against the overall traffic flows.	Noted.
	Abnormal loads associated with the substation will be required to go through the HA's abnormal loads assessment process.	An Abnormal Loads Assessment report will be included within the DCO.
	The details of the A31 road crossing and formal approval process can be completed post–consent, although an Approval in Principle can be agreed prior to DCO submission.	The approval and consent for the road crossing will be agreed through on-going consultation with the HA.
	HA commented that as the project impacts on the A31 will be minimal, the HA will have no requirements which need to be considered in determining the assessment methodology for the EIA.	Noted. Consultation with Hampshire County Council and Dorset County Council are on-going, and this consultation will be used to agree the assessment methodology for the ES.

31.3.3. Scope of assessment

31.35. It is important to note that the environmental impact assessment relating to traffic and transport remains on-going at the time of publication of this PEI3 document. Therefore, this chapter provides details of the work completed to date, and includes details of consultation feedback, sets out the traffic and transport baseline and provides an overview of the likely traffic and transport effects of the Project. Potential mitigation is also set out, to manage traffic, and this will be consulted on prior to the assessment being completed.

31.36. The scope of the assessment as part of the ES will consider the potential effects, relating to onshore traffic and transportation, associated with the construction, operation and decommissioning phases of the infrastructure associated with the Project.

31.37. The assessment of environmental impacts will be completed for the three principal onshore components of the Project:

- Landfall site;
- Onshore Cable Corridor;
- Onshore Substation.

31.38. Consultations with the HA and the highways authorities have confirmed that, given the temporary nature of the onshore activities, the associated traffic numbers generated would be low. Therefore, the methodology for the assessment will be based on estimated traffic movements and a full Transport Assessment is not required to support the DCO application. The methodology for the assessment has been subject to consultation and will be confirmed with the consultees prior to completing the traffic and transport assessment. This methodology will be set out within the ES.

31.39. The ES will also consider decommissioning and operational phases, although these phases have less potential traffic and transportation effects. Within this PEI chapter traffic estimates are based on the construction traffic elements.

Estimation of construction traffic movements

31.40. Key elements of the construction methods to be adopted and the construction programme have been identified in Chapter 2, Navitus Bay Wind Park Project. Construction traffic will use the construction traffic routes identified in the Baseline Environment section of this chapter to access the landfall, cable corridor, temporary construction compounds and substation during construction.

31.41. The Predicted Construction Traffic sets out in this chapter is based on the worst-case as the maximum extent of potential traffic movements, the peak daily traffic movement for any given construction activity, at any given temporary construction access location, access route or junction has been determined.

Road and Rail crossings during construction

31.42. This chapter identifies all locations where the road and rail networks will be crossed by the cable corridor. For each crossing, this chapter describes potential mitigation measures proposed to manage the effect of the crossing in that location.

Criteria for defining sensitivity of receptor

31.43. The IEMA Guidelines identify groups and special interests which should be considered during the assessment. These are the receptors that may be affected by environmental aspects identified in section above (severance, driver delay, pedestrian delay, pedestrian amenity, fear and intimidation, accidents and road safety and abnormal loads) resulting from increased traffic. These receptors include:

- People at home;
- People in work places;
- Sensitive groups including children, the elderly and disabled;
- Sensitive locations e.g. hospitals, churches, schools, historical buildings;
- People walking;
- People cycling;
- Open spaces, recreational sites, shopping areas;

- Sites of ecological/nature conservation value;
- Sites of tourist/visitor attraction.

31.44. Categories of receptor sensitivity have been defined from the principles set out in the IEMA guidelines and include the:

- Particular groups or locations which may be sensitive to changes in traffic conditions;
- Affected groups and special interests set out in the guidance;
- Links or locations where it is felt that specific environmental problems may occur. Such locations would include conservation areas and hospitals, links used by pedestrians.

31.3.4. Potential Traffic and Transport Effects

31.45. The assessment will consider the full range of potential effects on these sensitive receptors and also other road users. The methodology within the ES chapter will set out the approach to identifying likely effects. A summary of some of the key potential effects from construction traffic which will be included within the assessment are provided below:

- Severance – Due to the short term nature of the works and low traffic flows, the perceived division that could occur within a community is generally expected to be low.
- Driver delay – Due to the short term nature of the works and low traffic flows, the effect of construction traffic in relation to driver delay and relationship with sensitive receptors is generally expected to be low.
- Pedestrian delay – The potential changes in the volume, composition or speed of traffic is expected to be low and short term in nature at any given location. In addition there is an absence of pedestrian footways throughout much of the study area, so current pedestrian use is likely to be low. The Project is unlikely to affect the ability of people to cross roads.
- Pedestrian amenity – The potential changes in the volume, composition or speed of traffic is expected to be low and short term in nature at any given location. The relative pleasantness of a journey is unlikely to be affected.
- Fear and intimidation – Due to the short term nature of the works and low estimated traffic movements, and the absence of pedestrians throughout much of the study area, the impact on fear and intimidation is generally expected to be Low.
- Accidents and safety – Due to the short term nature of the works and low estimated traffic movements, along with the proposed construction traffic routing strategy which seeks to minimise conflicts between construction vehicles and existing road users, the anticipated impact of the project on the risks of accidents occurring is expected to be low.
- Abnormal loads – Abnormal loads are proposed only in relation to the construction of the substation and are to be limited in number. An Abnormal Load Assessment will be carried out prior to construction to agree the proposed construction route. The potential impact of abnormal loads is expected to be not substantial.

31.3.5. Proposed embedded mitigation

31.46. Where the potential for likely effects were identified early in the route design process, consideration has been given to avoiding or reducing impacts through an iterative design process. On this basis, the proposed construction traffic routes, temporary access locations and other potential mitigation measures are identified as embedded mitigation that would be considered for the Project. A schedule of the embedded mitigation measures to be considered are set out in Table 31.8.

31.47. In some instances, embedded mitigation is sufficient to prevent any significant impacts from occurring. Where this is not the case the consultation and assessment process would then set out additional mitigation, as appropriate to minimise or avoid potential traffic and transport effects. Table 31.9 provides examples of potential additional mitigation which could be used within the Project to avoid or minimise traffic and transport effects.

Table 31.8 Embedded mitigation		
Phase	Mitigation measures embedded into the project design	Means of delivery
General		
Project Design	The landfall location, cable route, temporary construction compounds and substation site proposals have been determined with due regard taken of traffic and transportation to mitigate potential impacts, and seek to avoid sensitive receptors or other potential areas where there could be any adverse impacts.	Through initial project design
Landfall		
Project Design	In order to mitigate the impact of construction traffic on sensitive receptors, an onsite landfall construction compound is to be constructed for construction vehicles to park and manoeuvre to avoid impact on the public highway.	Through initial project design
Cable corridor – embedded mitigation relating to construction traffic		
Project Design	In order to mitigate the impact of construction traffic on sensitive receptors and other road users, the location of the proposed construction traffic routes, temporary construction access locations and temporary construction compound locations have been determined with due regard taken of traffic and transportation matters. This includes consideration of such matters as the location of sensitive receptors, nature of the routes for construction traffic, weight and height restrictions on highway structures.	Through initial Project design

Table 31.8 Embedded mitigation		
Phase	Mitigation measures embedded into the project design	Means of delivery
Cable corridor – Proposed embedded mitigation relating to construction of cable crossings		
Project Design	The use of trenchless cable installation techniques has been identified as a design mitigation measure to cross the railway line at Hordle, the A338, A31, A35, Ringwood Road at Hinton Admiral and Hare Lane, Lavender Lane at Hordle.	Through initial Project design

31.48. In addition, all works would look to comply with relevant legislation and that industry standard or best practice measures are implemented. These measures and standards will be controlled in the Project through a Code of Construction Practice ('CoCP'). The construction workforce traffic movements and construction activities will be managed by the contractor in accordance with the CoCP.

31.49. Table 31.9 provides examples of measures that are currently being considered as best practice. Selection of the most appropriate mitigation measures for each sub-area are being identified in discussion with relevant statutory consultees which will seek to minimise predicted impacts.

Table 31.9 Potential mitigation		
Phase	Potential mitigation measure	Means of delivery
Project Design	In order to mitigate the impact of construction traffic on sensitive receptors, construction traffic will use the proposed identified construction traffic route to access the landfall site at the identified temporary construction access location detailed in this chapter.	Design and layout of working areas and through CoCP

Table 31.9 Potential mitigation		
Phase	Potential mitigation measure	Means of delivery
	Construction traffic will use the identified temporary construction access location to access the landfall, cable corridor working area, temporary site compounds and substation areas. To minimise the use of the public highway and number of temporary construction access locations, haul roads will be used across private land where possible to allow construction traffic to traverse along the working area.	
Construction	Construction access to working areas is to be under traffic management at all times in order to manage interactions between construction traffic and other road users. The proposed measures to be implemented at the temporary construction access location to mitigate the impact on other road users may include, but are not limited to: Implementation of a TTRO to reduce the speed limit of the road appropriate to the design standards being adopted; Construction access signage; Use of traffic management, such as temporary traffic signals or stop/go boards, to control traffic flows; Provision of off road parking and turning areas for delivery vehicles and contractor's vehicles to ensure vehicles exiting the construction site do so in a forward gear; Oversize vehicles to be escorted or marshalled; Restriction on the timing of construction traffic	CoCP

Table 31.9 Potential mitigation		
Phase	Potential mitigation measure	Means of delivery
	movements past sensitive receptors.	
Construction of cable crossings	In order to manage the impact on road users, any road crossings completed by open cut techniques are to be completed under traffic management or a road closure. Any road crossings to be completed under a road closure are to use diversion routes. In order to mitigate the impact on road users and any sensitive receptors located along these diversion routes, these are to be implemented in accordance with requirements agreed with the relevant stakeholder. Proposed measures to be implemented to mitigate the impact on other road users may include, but are not limited to: Implementation of a TTRO to reduce the speed limit of the road appropriate to the traffic management design standards being adopted; Temporary widening of the existing carriageway to enable safe passage of vehicles through the section of road under traffic management; and The provision of appropriate traffic management and signage to direct traffic to use the proposed diversion routes, where diversions are proposed.	CoCP

31.4. Baseline Environment

31.50. The following section details the baseline data gathering methodology, data sources used and survey methodology undertaken.

31.51. The baseline environment is described separately for the principal highway routes, and for each of the six individual sub-areas listed in the Study Area section. Figure 31.1 provides details of the baseline environment along the principal highway routes, and Figures 31.2 to 31.8 provide details of the proposed construction traffic routes and baseline environment in each separate sub-area and substation area.

31.4.1. Data sources

31.52. The information gathered was used to determine the tasks undertaken to inform the site-specific baseline.

Publicly Available Information Sources

31.53. The principal information sources that have been used are Ordnance Survey mapping and publically available information regarding bus routes and cycle routes. Available satellite and aerial imaging has also been used to validate mapping information and site observations.

Third Party Data Acquisition

31.54. The organisations consulted in relation to design guidance and the acquisition of data were:

- Dorset County Council;
- Hampshire County Council;
- Enterprise Mouchel acting as agents on behalf of the HA.

31.55. The baseline data and design guidance sourced from these organisations were as follows:

- Highway boundary data;
- Information relating to the structural condition and physical constraints associated with existing highway structures;
- Design guidance relating to the construction of temporary and operational accesses;
- Design guidance relating to the installation of new utility infrastructure below the public highway.

31.56. Specific details of the information provided and accompanying comments made by the organisation consulted are provided in Table 31.7.

31.4.2. Site walkover

31.57. Site walkover surveys were undertaken between 11 May 2011 and 15 August 2011 to inform the selection of the cable route. The purpose of the site walkover surveys was to gather information relating to the highway network and temporary access locations on or close to the cable route.

31.58. Subsequent site visits were conducted during 2011, 2012 and 2013. A site visit undertaken between the 9 and 13 July 2012 was specifically conducted to survey all potential temporary construction access points from the public highways and cable route road crossing locations. In addition, all potential construction traffic routes were driven in order to confirm the general condition and geometry of the routes to be used by construction traffic, and identify any sensitive receptors along the routes.

31.59. The findings of the site walkover and subsequent site visits have been used to inform the descriptions of the baseline environment.

31.4.3. Transport routes within the study area

Highway network

31.60. The principal highway routes include a number of A and B classified roads which provide strategic primary routes throughout the area. Many of these roads are located with the urban areas of Christchurch, Bournemouth and Ferndown. The extent of the principal highway routes being considered are shown on Figure 31.1.

31.61. Within the study area, the only strategic road is the A31 dual carriageway which is a trunk road maintained by the Highways Agency. To the east, the A31 connects to the motorway network at the M27 near Cadnam. The approach route from the east along the A31 is part of Hampshire County Council's Abnormal Load Route 5. The approach from the west along the A31 is part of the HAs Heavy Load Grid Route 65 from Bridgwater. There are no other trunk roads located in the study area.

31.62. The A338 is the only other section of dual carriageway in the assessment area and is a north-south route connecting the A31 near Ringwood with Bournemouth. There are several other A classified roads within this area, these are:

- The A35 which connects Lyndhurst with Poole via Christchurch and Bournemouth;
- The A337 which connects Lymington with Christchurch, via the coastal settlements at Barton on Sea, New Milton and Highcliffe;
- The A348 which provides access from the A31 to Bournemouth.

31.63. Along with the routes mentioned above, there are a number of other classified roads throughout the study area which form part of the principal highway routes being considered. These are:

- B3072 West Moors Road/Ringwood Road;
- B3347 Ringwood Road;
- B3055 Bashley Cross Road/Sway Road;
- B3073 Horn Road/Parley Lane;
- B3060 Castle Lane;
- B3058 Minford Road.

31.64. These routes will be used by construction traffic travelling to/from the individual sub-areas (A – F) when entering the study area from further afield.

31.65. There are two cable crossings of the principal highway network to be completed which are not located within one of the identified sub-areas - the A31 crossing near St Leonards and the A338 crossing near Hurn Forest. The location of these cable crossings are shown on Figure 31.1. The locations of all other cable crossings are identified within the relevant sub-areas and are shown on Figures 31.2 to 31.8.

31.66. Details of any diversion routes which will utilise sections of the principal highway network are considered within the description of the individual sub-areas.

Bus routes

31.67. There are a number of bus routes within the wider area, connecting the smaller towns and villages up to larger towns such as Bournemouth and Christchurch on the southern coast, as well as Ringwood, New Milton and Lyndhurst.

31.68. There are a number of bus services along the southern coast providing services to the villages between Christchurch and Milford-on-Sea.

31.69. Villages within the study area such as Sopley, Winkton and Bransgore, have bus services serving them offering links to the larger nearby towns of Ringwood and Burley.

31.70. Further details of the bus routes considered by this assessment are provided in the individual sub-area baseline environment sections and are identified on Figures 31.2 to 31.8.

Train routes

31.71. There is one train line located in the study area. This is the South West Train service between London Waterloo and Weymouth. The onshore cable route interacts with this railway line at one location to the west of Vaggs Lane, north of Hordle.

Cycle routes

31.72. There are two main cycle routes located in the study area:

- National Route 2 which runs in a north-east south-west alignment between Christchurch and Brockenhurst and is predominantly an 'on-road' route;
- National Route 256 and Regional Route 69 partially run along the same route and are predominantly 'traffic free' routes between Colehill and Ringwood.

31.73. The cable route crosses the National Cycle Route 2 at one location, south of Bransgore; the Regional Route 69 is crossed north of Ferndown.

31.74. The National Route 256 connects with National Route 2 at Ringwood.

31.75. The Hurn Link Greenway is located within the Hurn Forest and follows the cable route within Hurn Forest. There are also several local routes within the study area.

31.76. The locations of the cycle routes are identified on Figures 31.2 to 31.8.

Pedestrians

31.77. The principal highway routes under consideration, which run through urban areas, generally have pedestrian footways. Pedestrian footways are also provided along some rural sections of the A31 and A35. No pedestrian access is provided along any part of the A338, and there are very limited sections of pedestrian footways provided along the other sections of classified road through rural areas.

31.78. Further details of the facilities and infrastructure provided for pedestrians are provided in the individual sub-area baseline environment sections.

Sensitive receptors

31.79. There are a number of sensitive receptors located along the principal road network under consideration. These include but not limited to:

- Ambulance Station;
- Surgeries;
- Schools;
- Churches;
- Shopping Centres;
- Pedestrian footways.

31.80. Further details of the sensitive receptors considered by this assessment are provided in the sub-area baseline environment sections and their locations are identified on Figures 31.2 to 31.8.

31.4.4. Sub-Area A – landfall compound

31.81. Sub-Area A is a predominately rural area, located to the east and south of existing urban areas at Barton-on-Sea, New Milton and Ashley. In addition, the village of Milford-on-Sea is located to the east of the area. Given the coastal location, there are a number of car parks in the area providing access to the nearby coastal footpaths and beaches; this includes a car park at the landfall site. The baseline conditions and proposed access routes are shown on Figure 31.2.

Highway network

31.82. The public highway to be used by construction traffic through Sub-Area A comprises of classified roads only. These are the B3058 Milford Road to the south of the area and the A337 Christchurch Road which runs to the north of the area. The A337 is the main route into the area from the west through Barton-on-Sea and Highcliffe. The public highway in this area is the responsibility of Hampshire County Council in their role as local Highway Authority.

31.83. The baseline environmental character along much of the identified routes within this area is predominantly rural. There are very few residential dwellings located along either route and there are limited alternative routes in the area suitable for use by construction traffic.

31.84. There are no diversion routes identified within this area for the purposes of constructing cable road crossings.

Bus routes

31.85. The bus service X1 routes along the B3058 Milford Road. This is a bus route between Lymington and Bournemouth. There are also bus services along A337 Lymington Road between the junction with Station Road and the junction with Caird Avenue.

Cycle routes

31.86. There are no cycle routes located within this area.

Pedestrians

31.87. There are no pedestrian footways provided along either the B3058 Milford Road or A337 Christchurch Road at the location of temporary construction site access or the sections of the public highway that will be used by construction traffic.

Sensitive receptors

31.88. There are no sensitive receptors located within this area.

426000

428500

93500

A1 A2 A3 A4 A5

1 2 7 8

Hordle

Ashley

Golden Hill

Cemy

Hooper's Hill

Ashley Manor Fm

Yeatton Ho

Manor Ho

Durston Court

Ashley Clinton Ho

Leagreen

Downton

Newlands Ma

Taddiford Fm

Danes Stream

Hordle Ho (Sch)

Hordle Cliff

Groynes

on on Sea

H B A Y

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Sub-area A – Landfall Compounds and Construction Traffic Routes

Legend

- Onshore Development Area
- Proposed Construction Traffic Routes
- Temporary Construction Access Locations
- Route Assessment Locations
- Bus Routes

Fig. No.: Figure 31.2		**Date:** 16/08/2013
Author: CG	**Checked:** JD	**Approved:** MB
Scale@A3: 1:17,000		**Revision No.:** 01
Coordinate System: British National Grid		**Data Sources:** OS,PBA
Datum: OSGB 1936	**Ref. No.:** 0107130725320/01	

0 0.5 1 km

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31.4.5. Sub-Area B – Sway Road compound

31.89. Sub-Area B is a predominately rural area, located to the east and north of existing urban areas at New Milton, Ashley and Hordle. The village of Bashley is located to the north of the area. The baseline environment and proposed access routes are shown on Figure 31.3.

Highway network

31.90. The main sections of public highway to be used by construction traffic comprise the B3055 Sway Road/Bashley Cross Road running from east to west and the unclassified Vaggs Lane running from north to south. In addition to these roads Stem Lane, Ashley Lane and Hare Lane will also be used by construction traffic to access sections of the cable route. The B3055 is the main route into the area from the A35 to the west. The public highway in this area is the responsibility of Hampshire County Council in their role as local Highway Authority.

31.91. The existing routes within this area are predominantly rural in character, although there are residential dwellings located along both the B3055 and Vaggs Lane at regular intervals.

31.92. There are no diversion routes identified within this area for the purposes of constructing cable road crossings.

Bus routes

31.93. The bus services in the area include:

- The X2 which routes along Gore Lane and through Ashley, and along Ashley Lane. The X2 is a bus route between Lymington and Bournemouth;
- The 191 which routes between New Milton and Chatsworth Park along the B3058 Fernhill Road, B3055 Bashley Cross Road, Stem Lane and then along the residential roads back to Fernhill Road;
- The 118 service which routes along the B3055 Bashley Cross Road connecting Lymington to Ringwood.

31.94. The location of the identified bus routes is shown on Figure 31.3.

Train

31.95. The South West Trains train line travels through this area. The onshore cable route intersects with this railway line to the west of Vaggs Lane, north of Hordle.

Cycle routes

31.96. There are no cycle routes located within this area.

Pedestrians

31.97. There are no pedestrian footways provided along Bashley Cross Road, Sway Road or Vaggs Lane. There are pedestrian footways provided along Ashley Lane where the construction traffic routes run through the village of Hordle.

Sensitive receptors

31.98. Sensitive receptors in the area comprise:

- Pre-school located on the corner of Vaggs Lane and the B3055;
- Pre-school located on the corner between Ashley Lane and Vaggs Lane;
- Church located on the corner of Vaggs Lane and the B3055;
- Shops and amenity facilities located at Hordle near the junction of Ashley Lane with Vaggs Lane.

31.99. The location of the identified receptors is shown on Figure 31.3.

423500

426000

98500

96000

Wootton

Manor Fm

PH

Mead End

Ossemsley

Bashley

Tiptoe

Broadley Ho

Bashley Park

Little Arnewood

Ossemsley Manor

Hordle Grange

Bashley Manor Fm

New Milton

Ashley

Golden Hill

Cemy

Sch

Walkford Brook

B1

B2

B3

B4

B5

B6

B7

B8

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Sub-area B – Sway Road Compound and Construction Traffic Routes

Legend

- Onshore Development Area
- Proposed Construction Traffic Routes
- Temporary Construction Access Locations
- Route Assessment Locations
- Bus Routes

Fig. No.: Figure 31.3		**Date:** 16/08/2013
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0 0.5 1 km

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31.4.6. Sub-Area C – Dark Lane compound

31.101. Sub-Area C is a predominately rural area, located to the north of Highcliffe. The village of Bransgore is located to the north of the area, along with a number of small hamlets at Neacroft, Waterditch and Hinton. The baseline environment and proposed access routes are shown on Figure 31.4.

Highway network

31.102. The main sections of public highway to be used by construction traffic comprise the A35 and B3055 Bashley Cross Road running from east to west and the unclassified Ringwood Road running from north to south.

31.103. In addition, a number of unclassified roads to the north-west of the area will be used to access sections of the cable route around Waterditch and Neacroft. These roads include Lyndhurst Road, Bockhampton Road and Burely Road. The A35 is the main route into the area from the west.

31.104. The existing character of the majority of the identified roads is predominantly rural, although there are dispersed residential dwellings located along many of the smaller unclassified rural roads. The public highway in the majority of this area is the responsibility of Hampshire County Council in their role as local Highway Authority, although there are some sections to the north-east which are within Dorset County Council's responsibility.

31.105. In order to install the cables across the minor rural roads to the north-west of this area, a number of road closures and diversions would be needed during the construction phase. The proposed diversions in this area comprise of:

- Lyndhurst Road, Hawthorne Road and Waterditch Road for completion of the Waterditch Road crossing;
- Bockhampton Road, Harrow Road, Ringwood Road, Hawthorne Road and Lyndhurst Road for the Lyndhurst Road and Hawthorne Road crossings;
- Bockhampton Road and Burley Road for the Bockhampton Road crossing.
-

Bus routes

31.106. The bus services in the area include:

- The 118 which routes between New Milton and Ringwood, running along Ringwood Road;
- The 175 is a circular route between Ringwood, Burley, Bransgore and Sopley and uses Burley Road between Winkton and Bransgore.

31.107. The location of the identified bus routes is shown on Figure 31.4.

Cycle routes

31.108. National Cycle Route 2 routes along Lyndhurst Road to the south of Bransgore. The location of the identified cycle route is shown on Figure 31.4.

Pedestrians

31.109. With the exception of a section of the A35 near the Cat and Fiddle Pub, there are no pedestrian footways provided along the construction traffic routes within this area.

Sensitive receptors

31.110. The sensitive receptors in the area comprise of a:

- Primary school and Church located on Ringwood Road to the south of Bransgore;
- Church located on the A35 adjacent to the junction with Bashley Cross Road.

31.111. The location of the identified receptors is shown on Figure 31.4.

416000 418500 421000

98500

96000

93500

C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11 C12 C13

27 27A 29 30 32 33 35 36 38 39 40 41

Bransgore Shirley Purlieu Plain Heath Forest Lodge Heathfield Bransgore Ho Poors Common North Hinton Beech Ho Harrow Lodge Neacroft Middle Bockhampton Godwinscroft Hinton Park Hinton Admiral Hinton Ho Beckley Ossemsley Manor Ossemsley Waterditch Fm Burton Common Burton Purewell Somerford Friars Cliff Highcliffe HINTON ADMIRAL Parsonage Fm Martin's Copse Hill Farm Lr Clockhouse Fm Sopley Park

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Sub-area C – Dark Lane Compound and Construction Traffic Routes

Legend

- Onshore Development Area
- Proposed Construction Traffic Routes
- Temporary Construction Access Locations
- Route Assessment Locations
- Bus Routes
- Cycle Routes

Fig. No.: Figure 31.4		**Date:** 16/08/2013
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Datum: OSGB 1936	**Ref. No.:** 0107130725320/01	

0 0.75 1.5 km

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31.4.7. Sub-Area D – Avon compound

31.112. Sub-Area D is predominately rural in character, although the villages of Avon, Sopley, Winkton and Bransgore are located within this area along with a number of small hamlets at North and Middle Brockhampton. The baseline environment and proposed access routes are shown on Figure 31.5.

Highway network

31.113. The B3347 Salisbury Road/Ringwood Road is the main route through this area. The B3347 runs from north to south and provides access to the A31 to the north at Ringwood and the A35 to the south at Christchurch.

31.114. Along with the B3347, there are a number of unclassified roads to the west of the area which will be used to access sections of the cable route at Middle Brockhampton, North Brockhampton and to the east of Avon. These roads include Burley Road, Derrit Lane, Court Lane, London Lane and Harpway Lane.

31.115. The Avon Causeway provides access from the B3347 to proposed construction works to the west of the River Avon, but east of the A338. This road crosses the River Avon and its associated floodplain.

31.116. The existing character along the majority of the identified roads is considered to be predominantly rural, although there is some development at Sopley. This development is predominantly residential, although there are a number of commercial premises including public houses and farms. The public highway in the majority of this area is the responsibility of Hampshire County Council in their role as local Highway Authority, although there are some sections to the south east and west which are within Dorset County Council's responsibility.

31.117. In order to install the cables across the minor rural roads to the east of this area, a number of road closures and diversions will be put in place. The proposed road diversions in this section comprise of:

- Deritt Lane, Ringwood Road, Salisbury Road and Burley Road for the Burley Road and Derrit Lane crossings;
- Deritt Lane, Harpway, Lane, Court Lane and B3347 Ringwood Road for the Harpway Lane crossing; and
- Deritt Lane, Harpway Lane, London Lane and B3347 Ringwood Road for the Court Lane and London Lane crossings.

Bus routes

31.118. The bus services in the area include:

- The 118 bus service which routes along the B3347 Ringwood Road and Derrit Lane;
- The 175 service which is a circular route between Ringwood, Burley, Bransgore and Sopley and uses Derrit Lane, Burley Road, Salisbury Road and Ringwood Road.

31.119. The location of the identified bus routes is shown on Figure 31.5.

Cycle routes

31.120. National Cycle Route 2 runs along Lyndhurst Road to the south of Bransgore. The location of this cycle route is shown on Figure 31.5.

Pedestrians

31.121. With the exception of the roads through Sopley, there are no pedestrian footways provided along the construction traffic routes within this area.

Sensitive receptors

31.122. The only sensitive receptor in this area is a church located on the B3347 at Sopley.

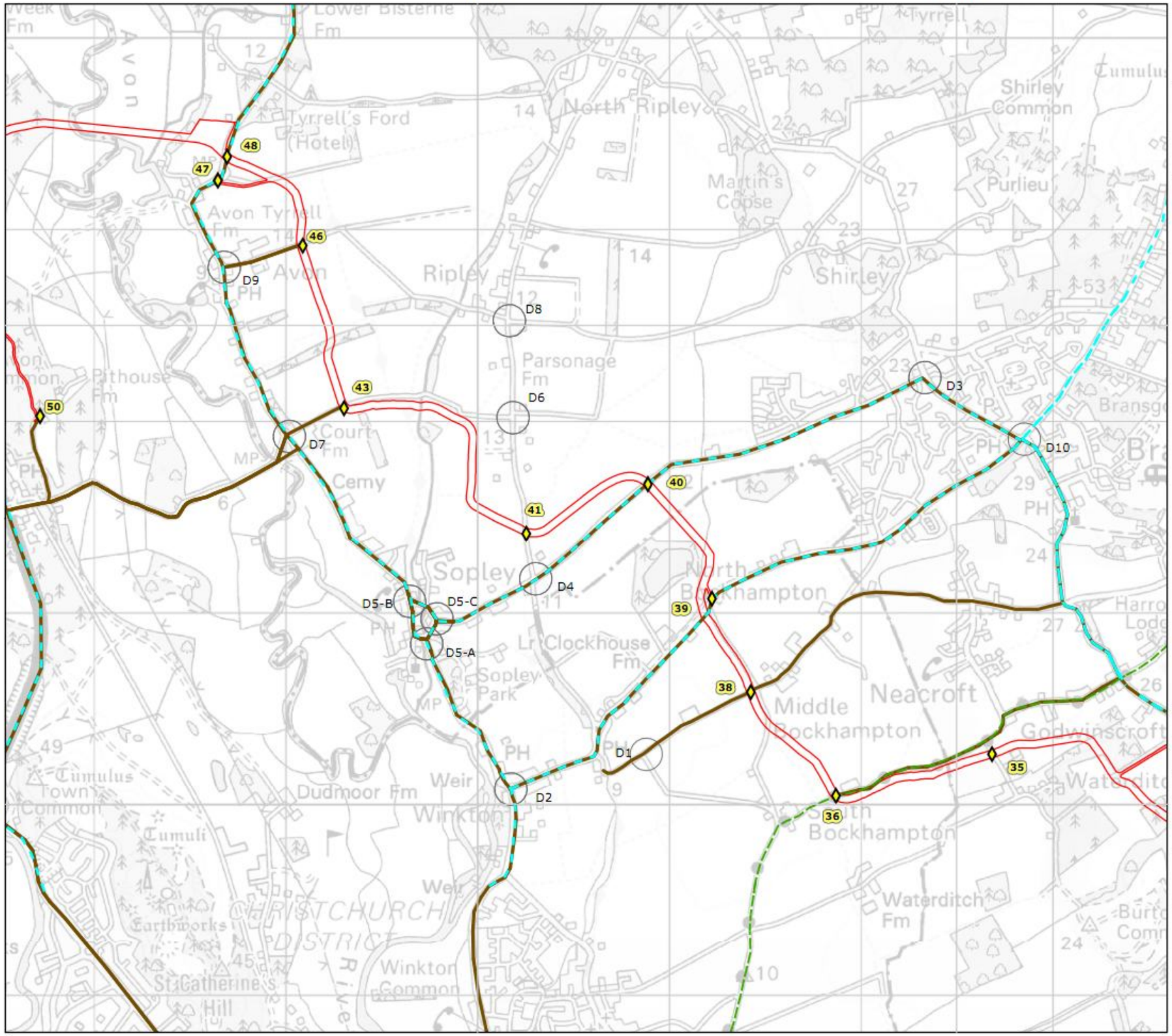
31.123. The location of the identified receptor is shown on Figure 31.5.

416000

418500

98500

96000



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Sub-area D – Avon Compound and Construction Traffic Routes

Legend

- Onshore Development Area
- Proposed Construction Traffic Routes
- Temporary Construction Access Locations
- Route Assessment Locations
- Bus Routes
- Cycle Routes

Fig. No.: Figure 31.5		**Date:** 16/08/2013
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Datum: OSGB 1936	**Ref. No.:** 0107130725320/01	

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31.4.8. Sub-Area E – Hurn Forest compound

31.124. Sub-Area E predominately consists of Forestry Commission Land through Hurn Forest and West Moors Plantation. To the north of the area is the large village of West Moors and to the south-west of the area is located the urban area of Ferndown. In addition, there is existing residential development along the A31 and Boundary Lane at St Leonards along with some commercial development along the A31. The baseline environment and proposed access routes are shown on Figure 31.6.

Highway network

31.125. The A31 bisects the sub-area from north-east to south-west. The A31 is a Highways Agency Trunk Road providing access to the M27 to the north-east. Construction traffic movements within this sub-area would use a section of the A31 between St Leonards and West Moors.

31.126. The area is bound to the east by the A338 dual carriageway. This is the main north south route from the A31 to Christchurch and east Bournemouth, although it would not be used by construction traffic within sub-area E.

31.127. Along with the main roads in the area there are the unclassified Boundary Lane and Matchmans Lane, which would provide access for construction traffic around Hurn Forest.

31.128. In addition, construction traffic would use roads running through the part of West Moors Village. These roads include Pinehurst Road and Elmhurst Road.

31.129. The public highway in this sub-area is the responsibility of Dorset County Council in their role as local Highway Authority.

31.130. There are no diversion routes identified within this sub-area for the purposes of constructing cable road crossings.

Bus routes

31.131. The bus services in this area include:

- The 324 bus services, which routes along the A31, and A348;
- The 38, 321 and 315 bus services which route along the A31.

31.132. The location of the identified bus routes is shown on Figure 31.6.

Cycle routes

31.133. National Cycle Route 2 runs along Lyndhurst Road to the south of Bransgore. The location of this cycle route is shown on Figure 31.6.

Pedestrians

31.134. The roads through West Moors village and the A31 all have pedestrian footways. There are no pedestrian footways along Boundary Lane, Matchams Lane or the A338.

Sensitive receptors

31.135. Sensitive receptors in the area comprise:

- Chapel located on Pinehurst Road;
- Secondary school located on Heathfield Way off of Pinehurst Road;
- Primary school located on Shaftsbury Road off of Pinehurst Road;
- Ambulance station located adjacent to the A31.

31.136. The location of the identified receptors is shown on Figure 31.6.

408500 411000 413500

101000 98500 96000

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Sub Area E – Hurn Forest and Construction Traffic Routes

Legend

- Onshore Development Area
- Proposed Construction Traffic Routes
- Temporary Construction Access Locations
- Route Assessment Locations
- Bus Routes
- Cycle Routes

Fig. No.: Figure 31.6		**Date:** 16/08/2013
Author: CG	**Checked:** JD	**Approved:** MB
Scale@A3: 1:26,000		**Revision No.:** 01
Coordinate System: British National Grid		**Data Sources:** OS,PBA
Datum: OSGB 1936	**Ref. No.:** 0107130725320/01	

0 0.75 1.5 km

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31.4.9. Sub-Area F – West Moors

31.137. Sub-Area F is a predominately urban area and includes West Moors village and Three Legged Cross, along with the West Moors MOD Fuels depot. The baseline environment and proposed access routes are shown on Figure 31.7.

Highway network

31.138. There are two main routes through this area: these are the B3072 Ringwood Road through Three Legged Cross to the north of the area and B3072 West Moors Road which runs from north to south between Three Legged Cross and West Moors village. Access to the area is from the A31, either through West Moors Village to the south or along the B3072 Ringwood Road from the east. Holt Road provides access from the B3072 to the existing National Grid substation at Mannington. The public highway in this area is the responsibility of Dorset County Council in their role as local Highway Authority.

31.139. There are no diversion routes identified within this sub-area.

Bus routes

31.140. The bus services in this area include:

- The 324, 302, and X6 services which route along the B3072 West Moors Road, through Three Legged Cross and then along the B3072 Verwood Road;
- The 327 service which routes along B3072 West Moors Road and then along Ringwood Road;
- The 38 bus service which routes along Ringwood Road from Lions Lane to the A31.

31.141. The location of the identified bus routes is shown on Figure 31.7.

Cycle routes

31.142. National Route 256 and Regional Route 69 run along the disused railway line to the north of West Moors Plantation before routing westwards. These run along a short section of the B3072 through West Moors Village. The location of the identified cycle routes is shown on Figure 31.7.

Pedestrians

31.143. The roads through West Moors village and Three Legged Cross have pedestrian footways. There are no pedestrian footways along the section of the B3072 north of the MOD Fuels depot.

Sensitive receptors

31.144. There are no sensitive receptors located within this sub-area.

406000 408500 411000

106000

103500

F3 F1 F2

64 62 58 59 60 57 55 53

Horton Heath · Horton Common · Lower Common · Three Legged Cross · Mannington · Lower Mannington · Wooldsbridge · Holt Heath · Summerlug Hill · Tumulus · Newman Fm · Depot · Gulliver's Fm · West Moors · West Moors Plantation · East Moors Fm · Ameysford · Uddens Water · Cemy · Clump Hill · Enclosure Holt Heath · Lions Hill

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Sub Area F – West Moors and Construction Traffic Routes

Legend

- Onshore Development Area
- Proposed Construction Traffic Routes
- Temporary Construction Access Locations
- Route Assessment Locations
- Bus Routes
- Cycle Routes

Fig. No.: Figure 31.7		**Date:** 16/08/2013
Author: CG	**Checked:** JD	**Approved:** MB
Scale@A3: 1:20,000		**Revision No.:** 01
Coordinate System: British National Grid		**Data Sources:** OS,PBA
Datum: OSGB 1936	**Ref. No.:** 0107130725320/01	

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31.4.10. Sub-Area F - Substation compound

31.145. The substation site is located in a predominately urban area and includes West Moors village and Three Legged Cross, along with the West Moors MOD Fuels depot. The baseline environment and proposed access routes are shown on Figure 31.8.

31.146. There would be five phases of construction, these are:

- Site preparation works;
- Civil construction;
- Electrical Installation;
- Cold Commissioning;
- Energisation.

31.147. The proposed civil construction time period for the Onshore Substation would be up to a maximum of 24 months. Each stage would have different volumes of vehicle movements, the periods with the requirement for the highest peak volumes of vehicles movements would be during the civil construction and electrical Installations.

Highway network

31.148. There are two main routes through this area: these are the B3072 Ringwood Road through Three Legged Cross to the north of the area and B3072 West Moors Road which runs from north to south between Three Legged Cross and West Moors village. Access to the area is from the A31, either through West Moors Village to the south or along the B3072 Ringwood Road from the east. The public highway in this area is the responsibility of Dorset County Council in their role as local Highway Authority.

31.149. There are no diversion routes identified along the proposed substation delivery route.

Bus routes

31.150. The bus services in this area include:

- The 324, 302, and X6 services which route along the B3072 West Moors Road, through Three Legged Cross and then along the B3072 Verwood Road;
- The 327 service which routes along B3072 West Moors Road and then along Ringwood Road;
- The 38 bus service which routes along Ringwood Road from Lions Lane to the A31.

Cycle routes

31.151. There are no cycle routes affected by the proposed substation construction access route.

Pedestrians

31.152. There are no pedestrian pavements along West Moors Road, from which access would be taken to the substation site. There are good pavements along Ringwood Road.

Sensitive receptors

31.153. The receptors identified related along the substation delivery route are:

- Local highway network users;
- Church on Ringwood Road;
- Waterloo Care Home on Ringwood Road;
- Roads with footways used by pedestrians at Ringwood Road and West Moors Road.

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413000

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F1

F2

62

Horton Road

West Moors Road

Ringwood Road

Verwood Road

Verwood Rd

E3081 Verwood Rd

Ringwood Rd

Ringwood

Ferndown

A338

A35

Christchurch

Bournemouth

Contains Ordnance Survey data © Crown copyright and database right 2013

Bungalow

Kimberley Farm

Horton Common

Silverwood

Crab Orchard

Lower Common

Three Legged Cross

Moors Valley Country Park

Duncombe Lodge

Ashley Lodge

Woolsbridge

Westwood

r Mannington

Sturt's Farm

Little Lions Farm

St Ives

Ashley Heath

St Leonards

Racecourse Heath

Oakhill Farm

West Moors

South

Station Rd

B3072

A31

Slop Bog

Oaktree Park

Grange Estate

South Park

Matchams

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Sub-Area F – Substation Compound and Construction Traffic Routes

Legend

- Onshore Substation Site
- Substation Access Route
- Route Assessment Locations
- Proposed Substation Construction Traffic Routes
- Temporary Construction Access Location

Fig. No.: Figure 31.8		**Date:** 16/08/2013
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Coordinate System: British National Grid		**Data Sources:** OS PBA
Datum: OSGB 1936	**Ref. No.:** 0107130716314/01	

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31.4.11. Road Crossings and Predicted Traffic Movements

Introduction

31.154. This section describes the identified road crossings and potential traffic and transportation movements that may arise during the lifetime of the Project, and describes the embedded mitigation measures that have been identified to manage traffic levels.

31.155. The principal traffic movements associated with the Project would be associated with the construction phase. The peak HGV and peak light vehicle movements would occur during this period.

31.156. The consultees have agreed that the principal traffic movements associated with the Project would be associated with the construction phase. However, the ES would also consider the O&M and decommissioning phases of the Project. A summary is provided below.

Operation and maintenance

31.157. Remote monitoring of the cable route and of the cables at the landfall would be undertaken throughout the operating period although an annual inspection of all joints bays is anticipated. In the event of a fault, there is the potential for faulty sections to be excavated, removed and replaced. These works would be completed in much the same manner as the construction works considered above.

31.158. Therefore, once the construction of the cable route and the landfall is completed and the cables have been installed, it is expected that maintenance traffic would be kept to a minimum.

Decommissioning

31.159. Decommissioning activities would comprise:

- All the cable route and landfall joint bays would be removed and the remaining voids backfilled;
- The cables and cable ducts will remain in-situ on the cable route;
- The substation and access road would be disassembled and the land reinstated to former grazing use.

31.160. These works at the landfall site, along the export cable and at the substation would be completed in much the same manner as the construction works.

Construction methods

Cable duct installation by open cut techniques

31.161. The majority of the underground cable route would be installed by open cut techniques with the cables installed within ducts. The ducts would be installed with imported engineered bed and surround material. Warning tape or tiles would be provided above the cable duct surround and the remaining void backfilled with as-dug material.

31.162. The typical construction methodology to be used for installation of ducts by open cut techniques is outlined below:

- Site preparation including topsoil and vegetation removal and erection of temporary fencing;
- Excavation of trenches using mechanical excavators and installation of temporary trench support;
- Installation of cable ducts with imported engineered bedding and surround, installation of warning tapes or tiles and backfill of the trench with as-dug material;
- Reinstatement of the working width to the existing condition including replacement of topsoil, removal of all temporary fencing and replanting as appropriate.

31.163. Joint bays would be provided at approximately every 750 – 1000m along the cable route to allow for jointing of individual lengths of cable. These joint bays would provide access for maintenance and inspection works and would comprise below ground cast in-situ reinforced concrete structures.

Cable duct installation by trenchless techniques

31.164. Trenchless installation techniques would be used where there are significant increases in traffic associated with open cut methods. These techniques include Horizontal Directional Drilling (HDD), auger bore or pipe jacking.

31.165. All trenchless installation techniques would require the use of specialist equipment and the general methodology for the duct installation by trenchless techniques is outlined below:

- Site preparation including set up of a secure compound to accommodate the specialist equipment at the launch and reception areas;

- Preparation of the ducts for installation;
- Installation of the ducts using the selected method;
- Demobilisation of the specialist equipment and associated reinstatement.

Potential construction activities

31.166. In order to understand the traffic movements associated with the Project, this section describes the key activities to be undertaken during construction, along with relevant access and vehicle requirements.

31.167. Based on the construction methodology outlined in Chapter 2, Navitus Bay Wind Park Project for cable installation works, the activities which would generate construction traffic are:

- Construction of temporary construction accesses;
- Site preparation works (site clearance, topsoil strip and temporary fencing);
- Installation of cable ducts (for both open cut and trenchless techniques);
- Construction of joint bays;
- Temporary and operational site reinstatement works; and
- Construction compound preparation (and removal) works (for both temporary site compounds and trenchless installation works compounds).

31.168. The assessment will consider a range of potential effects, but there are two key activities during the construction phase that may have the potential to impact sensitive receptors. These are:

- Construction traffic using the existing highway network to access active construction sites; and
- Changes in the operation of the existing highway network due to the installation of the export cable across the highway.

31.169. Receptors that may be affected by the construction traffic impacts will primarily be located near to a temporary construction traffic access or alongside one of the construction traffic routes. The assessment will therefore consider in detail both of these two key activities.

31.4.12. Potential road crossing installation impacts

31.170. During the construction phase, 27 road crossings would be completed to install the cables across the public highway. A road crossing can either be installed by open cut or trenchless installation techniques. Some of the mitigation measures listed in Tables 31.8 and 31.9 would prevent any significant impact from occurring.

31.171. Any road closures and diversions or traffic management measures implemented to permit completion of the road crossings have the potential to affect existing road users. The effect would be due to potential delays associated with traffic management measures and increased traffic flows on diversion routes.

31.172. It is anticipated that where possible the road crossings would be completed at the same time as work to provide temporary construction access locations. Therefore, these works would occur in advance of the main construction works along the cable corridor, and would have no impact on the routing of construction traffic and estimated construction traffic movements associated with these construction works.

31.173. The road crossing locations identified for completion under a road closure are all minor rural roads, and the identified diversion routes utilise similar roads to provide the shortest appropriate diversion route. The potential diversion routes have been identified as part of this chapter.

31.4.13. Methodology for Estimating Traffic Movements

31.174. The construction traffic movements would be temporary in nature and would be distributed throughout the study area over the total anticipated construction period of 5 years. Light vehicle movements would predominantly be associated with construction staff travelling to and from the active construction sites and would comprise vans and cars. Most of these movements would occur at the beginning and end of the working day (i.e. before 7.30am and after 5.30pm Monday to Friday and before 7.30am and after 1.00pm Saturday). HGV movements would be spread throughout the working day to suit the on-going construction works, and would comprise delivery of material and removal of waste along with construction plant delivery and removal.

31.175. A review of the study area, construction programme and construction methodology indicated that the majority of the construction activities can be

considered as individual work packages of 1km. This is because subdivision of the cable route by roads, watercourses and other features result in separate sections of the cable of between 500m and 1000m. The calculated construction traffic movements for open trench installation of the cable are therefore based upon 1 km section of the cable corridor.

31.176. In addition, seven temporary site compounds would be set up within the study area to support construction activities. The location of these compounds is identified within the Baseline Environment section of this chapter and shown on Figures 31.2 to 31.8.

31.177. The temporary construction compounds would house the site office and welfare facilities, visitor and workforce parking, as well as temporary storage of some of the construction materials that would be delivered in bulk to the compound, before being deployed out to the cable route. Each compound is expected to be used to service approximately 5 km of the cable route, and construction works served from a single compound are expected to be completed within a single year of the programme.

31.178. A review of the cable route confirms the length of cable installed by trenchless techniques at any one location is typically less that 750m in length. The calculated construction traffic movements for trenchless installation of the cable are therefore based upon 750m sections of the cable corridor.

31.179. The traffic movements have been considered for:

- typical cable installation by open cut techniques (1km);
- typical cable installation by trenchless techniques (750m);
- typical construction compounds.

31.4.14. Predicted construction traffic movements

Temporary construction access traffic movements

31.180. Based on the construction traffic movements in accordance with the methodology above, the daily peak construction traffic movements at temporary site access locations have been estimated.

31.181. Table 31.10 summarises the estimated traffic movements at temporary construction access locations throughout the cable route being used for the installation of the cable ducts by open cut techniques or trenchless installation techniques.

Table 31.10 Summary of traffic movements at temporary construction access points

Installation technique	Works serviced	Peak traffic movements per day (hgv's)	Peak traffic movements per day (light vehicles)	Total duration of traffic movements (weeks)
Open Cut Installation works	Up to 1km	9	21	22 Weeks
Trenchless Installation works	up to 750m	11	10	16 Weeks

Construction compound traffic movements

31.182. This table above identifies the peak light vehicle and HGV movements to any given construction compound that would occur during construction.

31.183. The light vehicle movements are associated with project management staff travelling to and from the construction compound and are considered to be approximately 15 movements. These movements would occur at the beginning and end of the working day (*i.e.* before 7.30am and after 5.30pm Monday to Friday and before 7.30am and after 1.00pm Saturday). It is currently expected that most of the construction workforce would travel directly to areas where there is active construction.

31.184. The HGV movements are associated with the bulk delivery of construction material to the compound which would be stored at the construction compound prior to distribution to individual construction sites using smaller vehicles. The material expected to be delivered in bulk to the construction compound includes:

- cable ducts;
- cable tiles;
- bed and surround material;
- reinforcement and timber supplies for the construction of the joint bays.

31.185. The peak HGV movements for the delivery of material to the construction compounds are expected to be approximately 1 per day.

31.186. In addition to the HGV movements direct to the compound, there would be a number of daily HGV movements from the compound to individual construction sites. It is assumed there would be no movement of large items of plant between the construction compound and the active construction sites.

Construction traffic movements on the public highway

31.187. The traffic movements identified above have been applied across the highway network on the basis of the construction traffic routes identified in the Baseline Environment section of this chapter.

31.188. A summary of the calculated peak traffic movements on the public highway network to be used by construction traffic is provided for each of the identified sub-areas of the study area. The peak traffic movement at all junctions and links along which construction traffic may be routed have been considered. Route locations showing the location of each junction and the extent of individual links are shown in Figures 31.2 to 31.8.

31.189. The vehicle movements associated with the delivery of plant to and from active construction sites are included in the traffic numbers.

31.190. Given that the peak traffic movements for trenchless installation works are effectively the same as the traffic movements for open trench activities, calculations are based on the traffic movements for open cut construction activities only.

31.4.15. Predicted traffic movements for Sub-Area A – landfall compound

Predicted construction traffic using the existing highway network

31.191. Table 31.11 summarises the traffic movements at locations on the public highway network likely to be used by construction traffic associated with the construction works within Sub-Area A. This includes potential traffic movements for the Landfall site.

31.192. The construction traffic routes are defined in the Baseline Environment section of this chapter and the locations of the points at which peak traffic movements are considered are shown on Figure 31.2.

Table 31.11 Peak traffic movement across Sub-Area A

Ref	Location	Work Serviced	Peak Traffic Movements Per day (hgv's)	Peak traffic movements per day (light vehicles)	Total duration of traffic movements (weeks)
A1	Junction of Lymington Road with Milford Road	Up to 4km	26	49	36
A1 to A5	Milford Road (B3058)	Up to 1km	9	17	21
A1 to A2	Lymington Road (A337)	Up to 4km	26	49	36
A2	Junction of Lymington Road (A337) with Caird Avenue	Up to 4km	26	49	36
A2 to A3	Lymington Road (A337)	Up to 4km	26	49	36
A3	Junction of Lymington Road (A337) with Lower Ashley Road	Up to 4km	26	49	36
A3 to A4	Lymington Road (A337)	Up to 4km	26	49	36

31.193. The receptors identified within Sub-Area A are:

- Road users.

31.194. In order to reduce the effects on the receptors identified, construction traffic would be managed and restricted to specific routes (as shown on Figure 31.2). Other embedded mitigation measures and potential mitigation measures to be implemented (see Table 31.8 and table 31.9) in Sub-Area A include traffic management measures and site access operation procedures, such as signage, speed restrictions and wheel washing.

Road crossings and proposed installation approach

31.195. There are 2 locations within Sub-Area A where a road crossing would be undertaken. These are identified in the Table 31.12 along with the proposed method of installation and any embedded mitigation measures identified or potential mitigation to mitigate the potential impact of the crossings.

31.196.

Table 31.12 Road crossings and proposed installation approach within Sub-Area A

Location	Road	Proposed installation method
1	Milford Road	Open cut under traffic management.
2	Christchurch Road	Open cut under traffic management with a TTRO to reduce the speed limit to 40mph.

31.4.16. Predicted traffic movements for Sub-Area B – Sway Road compound

Predicted construction traffic using the existing highway network

31.197. Table 31.13 summarises the traffic movements at locations on the public highway network to be used by construction traffic associated with the construction works within Sub-Area B.

31.198. The construction traffic routes are defined in the Baseline Environment section of this chapter and the locations of the points at which peak traffic movements are considered are shown on Figure 31.3.

Table 31.13 Peak traffic movement across Sub-Area B

Ref	Location	Works Serviced	Peak traffic movements per day (hgv's)	Peak traffic movements per day (light vehicles)	Total duration of traffic movements (weeks)
B1	Junction of Ashley Road with Hare Lane	Up to 1km	9	17	21
B1-AP7	Hare Lane	Up to 1km	9	17	21
B1 - AP8	Ashley Lane	Up to 1km	9	17	21
B1-B2	Ashley Lane	Up to 1km	9	17	21
B2	Junction of Vaggs Lane, Ashley Road and Silver Street	Up to 1km	9	17	21
B2-B3	Vaggs Lane	Up to 2km	18	30	26
B3	Junction of Vaggs Lane with Sway Road B3055	Up to 2km	18	30	26
B3-B4	Sway Road (B3055)	Up to 3km	24	43	36
B4	Junction of Sway Road with Brockhills Lane	Up to 3km	24	43	36

Table 31.13 Peak traffic movement across Sub-Area B					
Ref	Location	Works Serviced	Peak traffic movements per day (hgv's)	Peak traffic movements per day (light vehicles)	Total duration of traffic movements (weeks)
B4-B5	Sway Road (B3055)	Up to 4km	26	49	36
B5	Junction of Sway Road (B3055) with Fernhill Lane and Bashley Cross Road	Up to 4km	26	49	36
B5-B6	Bashley Cross Road (B3055)	Up to 5km	27	52	41
B6	Junction of Bashley Cross Road with Stem Lane	Up to 5km	27	52	41
B6-B7	Stem Lane	Up to 1km	9	17	21

31.199. The receptors identified within Sub-Area B are:

- Road users;
- Church at junction of Vaggs Lane with Sway Road;
- Parks and recreation area near the junction of Vaggs Lane, Ashley Lane and Silver Street;
- Shopping area near the junction of Vaggs Lane, Ashley Lane and Silver Street;
- Roads used by pedestrians with footways at the junction of Vaggs Lane, Ashley Lane and Silver Street;
- Pre-School on Ashley Lane;
- Pre-School at the junction of Vaggs Lane and Sway Road.

31.200. In order to reduce effects on the receptors identified, construction traffic would be managed and restricted to specific routes (as shown on Figure 31.3). Other embedded mitigation measures to be implemented or potential mitigation (see Table 31.8 and Table 31.9) in Sub-Area B include traffic management measures and site access operation procedures, such as signage, speed restrictions and wheel washing.

Road crossings and proposed installation approach

31.201. There are 7 locations within Sub-Area B where a road crossing would be undertaken. These are identified in Table 31.14 along with the proposed method of installation and any embedded mitigation or potential mitigation measures identified to mitigate the potential impact of the crossings.

Table 31.14 Road crossings and proposed installation approach within Sub-Area B		
Location	Road	Proposed installation method
7	Lavender Road/Hare Road	Trenchless crossing.
8	Ashley Lane	Trenchless crossing.
13	Sway Road	Open cut under traffic management with temporary widening of the existing carriageway.
17	Marks Lane	Open cut under a road closure. No diversion route required. Access to be retained for residents only.
18	Bashley Road	Open cut under traffic management with temporary widening of the existing carriageway.
20	Bashley Cross Road	Open cut under traffic management with temporary widening of the existing carriageway.
25	Stem Lane	Open cut under traffic management with a TTRO to reduce the speed limit to 40mph.

31.202. The receptors identified within Sub-Area B are:

- Road users.

31.203. In order to reduce potential effects on the receptors identified, the crossings would be completed as set out in Table 31.8 and 31.9.

31.4.17. Predicted traffic movements for Sub-Area C – Dark Lane compound

Predicted construction traffic using the existing highway network

31.204. Table 31.15 summarises the traffic movements at locations on the public highway network to be used by construction traffic associated with the construction works within Sub-Area C.

31.205. The construction traffic routes are defined in the Baseline Environment section of this chapter and the locations of the points at which peak traffic movements are considered are shown on Figure 31.4.

Table 31.15 Peak traffic movement across Sub-Area C

Ref	Location	Works Serviced	Peak traffic movements per day (hgv's)	Peak traffic movements per day (light vehicles)	Total duration of traffic movements (weeks)
C1	Junction of Bashley Cross Road (B3055) with A35	Up to 2km	18	30	26
C1 to AP27	Basley Cross Road (B3055)	Up to 2km	18	30	26
C1-C2	A35	Up to 2km	18	30	26
C2	Junction of Ringwood Road with A35	Up to 5km	27	52	41
C2-C3	Ringwood Road	Up to 5km	27	52	41

Table 31.15 Peak traffic movement across Sub-Area C

Ref	Location	Works Serviced	Peak traffic movements per day (hgv's)	Peak traffic movements per day (light vehicles)	Total duration of traffic movements (weeks)
C3	Junction of Ringwood Road with Lyndhurst Road	Up to 4km	26	49	36
C3-C4	Lyndhurst Road	Up to 2km	18	30	26
C4-AP36	Lyndhurst Road	Up to 2km	18	30	26
C3-C5	Ringwood Road	Up to 2km	18	30	26
C5	Junction of Ringwood Road with Harrow Road	Up to 2km	18	30	26
C5-C6	Harrow Road	Up to 2km	18	30	26
C6	Junction of Harrow Road with Croft Road	Up to 2km	18	30	26
C6-C10	Harrow Road	Up to 2km	18	30	26
C10	Junction of Harrow Road with Bockhampton Road	Up to 2km	18	30	26
C10-C8	Bockhampton Road	Up to 2km	18	30	26

Table 31.15 Peak traffic movement across Sub-Area C

Ref	Location	Works Serviced	Peak traffic movements per day (hgv's)	Peak traffic movements per day (light vehicles)	Total duration of traffic movements (weeks)
C8	Junction of Bockhampton Road with Hawthorne Road	Up to 2km	18	30	26
C8-C9	Bockhampton Road	Up to 2km	18	30	26

31.206. The receptors identified within Sub-Area C are:

- Road users;
- Roads with footways used by pedestrians at Ringwood Road and the junction of Ringwood Road with A35;
- Roads used by cyclists as part of a designated cycle route along Lyndhurst Road;
- Church at junction of A35 and Bashley Cross Road.

31.207. In order to reduce potential effects on the receptors identified, construction traffic would be managed and restricted to specific routes (as shown on Figure 31.4). Other embedded mitigation measures to be implemented or potential mitigation measures (see Table 31.8 or Table 31.9) in Sub-Area C include traffic management measures and site access operation procedures, such as signage, speed restrictions and wheel washing.

Road crossings and proposed installation approach

31.208. There are 7 locations within Sub-Area C where a road crossing would be undertaken. These are identified in the Table 31.16 along with the proposed method of installation and any embedded or potential mitigation measures identified to mitigate the potential impact of the crossings.

Table 31.16 Road crossings and proposed installation approach within Sub-Area C

Location	Road	Proposed installation method
28	Dark Lane	Open cut under a road closure. No diversion route required. Access to be taken from other end of Dark Lane.
31	Lyndhurst Road (A35)	Trenchless crossing.
30	Ringwood Road, North	Trenchless crossing.
35	Waterditch Road	Open cut under a road closure and diversion. Diversion route to use Lyndhurst Road, Hawthorne Road and Waterditch Road.
36	Lyndhurst Road	Open cut under a road closure and diversion. Diversion route to use Bockhampton Road, Harrow Road, Ringwood Road, Hawthorne Road and Lyndhurst Road.
37	Hawthorn Road	Open cut under a road closure and diversion. Diversion route to use Bockhampton Road, Harrow Road, Ringwood Road, Hawthorne Road and Lyndhurst Road.
38	Brockhampton Road	Open cut under a road closure and diversion. Diversion route to use Bockhampton Road and Burley Road.

31.209. The receptors identified within Sub-Area C are:

- Road users;
- Roads used by cyclists as part of a designated cycle route along Lyndhurst Road;
- Church at junction of A35 and Bashley Cross Road.

31.210. In order to reduce potential effects on the receptors identified, the crossings would be completed as set out in Tables 31.8 and 31.9.

31.4.18. Predicted traffic movements for Sub-Area D –Avon compound

Predicted construction traffic using the existing highway network

31.211. Table 31.17 summarises the traffic movements at locations on the public highway network to be used by construction traffic associated with the construction works within Sub-Area D.

31.212. The construction traffic routes are defined in the Baseline Environment section of this chapter and the locations of the points at which peak traffic movements are considered are shown on Figure 31.5.

Table 31.17 Peak traffic movement across Sub-Area D

Ref	Location	Works Serviced	Peak traffic movements per day (hgv's)	Peak traffic movements per day (light vehicles)	Total duration of traffic movements (weeks)
D1 – AP39	Burley Road	Up to 1km	9	17	21
D1	Junction of Burley and Bockhampton Road	Up to 1km	9	17	21
D1-D2	Burley Road	Up to 1km	9	17	21
D2	Junction of Salisbury Road with Burley Road	Up to 5km	27	52	41
D2-D5-A	Salisbury Road	Up to 5km	27	52	41
D5-A	Junction of Salisbury Road in Sopley	Up to 5km	27	52	41

Table 31.17 Peak traffic movement across Sub-Area D

Ref	Location	Works Serviced	Peak traffic movements per day (hgv's)	Peak traffic movements per day (light vehicles)	Total duration of traffic movements (weeks)
D5-C	Junction of Derrit Lane in Sopley	Up to 5km	27	52	41
D5-B	Junction of Ringwood Road in Sopley	Up to 5km	27	52	41
D5-C-D4	Derrit Lane	Up to 3km	24	43	31
D4	Junction of Derrit lane with Harpway Lane	Up to 3km	24	43	31
D4-D3	Derrit Lane	Up to 3km	24	43	31
D4 - AP41	Harpway Lane	Up to 3km	24	43	31
D5-B-D7	Ringwood Road	Up to 4km	26	49	36
D7-AP43	Court Lane	Up to 2km	18	30	26
D7	Junction with Ringwood Road and Avon Causeway	Up to 4km.	26	49	36
D7-AP50	Avon Causeway	Trenchless Installation only	11	10	16

Table 31.17 Peak traffic movement across Sub-Area D

Ref	Location	Works Serviced	Peak traffic movements per day (hgv's)	Peak traffic movements per day (light vehicles)	Total duration of traffic movements (weeks)
D7-D9	Ringwood Road	Up to 2km	18	30	26
D9	Junction with Ringwood Road and London Lane	Up to 2km	18	30	26
D9-AP46	London Lane	Up to 2km	18	30	26
D9-AP48	Ringwood Road	Up to 1km	9	17	21

1.1. The receptors identified within Sub-Area D are:

- Road users;
- Church on Salisbury Road in Sopley.

1.2. In order to reduce potential effects on the receptors, construction traffic would be managed and restricted to specific routes (as shown on Figure 31.5). Other embedded or potential mitigation measures to be implemented (see Table 31.8 and Table 31.9) in Sub-Area D include traffic management measures and site access operation procedures, such as signage, speed restrictions and wheel washing.

Road crossings and proposed installation approach

31.213. There are two locations within Sub-Area D where a road crossing would be undertaken. These are identified in the Table 31.18 along with the proposed method of installation and any embedded or potential mitigation measures identified to mitigate the potential impact of the crossings.

Table 31.18 Road crossings and proposed installation approach within Sub-Area D

Location	Road	Proposed installation method
39	Burley Road	Open cut under a road closure and diversion. Diversion route to use Deritt Lane, Ringwood Road, Salisbury Road and Burley Road.
40	Deritt Lane	Open cut under a road closure and diversion. Diversion route to use Deritt Lane, Ringwood Road, Salisbury Road and Burley Road.
41	Harpway Lane	Open cut under a road closure and diversion. Diversion route to use Deritt Lane, Harpway Lane, Court Lane and B3347 Ringwood Road
43	Court Lane	Open cut under a road closure and diversion. Diversion route to use Deritt Lane, Harpway Lane, London Lane and B3347 Ringwood Road.
46	London Lane	Open cut under a road closure and diversion. Diversion route to use Deritt Lane, Harpway Lane, London Lane and B3347 Ringwood Road.
48	Ringwood Road	Open cut under traffic management with a TTRO to reduce the speed limit to 40mph.

31.214. The receptors identified within Sub-Area D are:

- Road users;
- Church on Salisbury Road in Sopley.

31.215. In order to reduce effects on the receptors identified, the crossings will be completed as set out in Tables 31.8 and 31.9

31.4.19. Predicted traffic movements for Sub-Area E –Hurn Forest compound

Predicted construction traffic using the existing highway network

31.216. Table 31.19 summarises the traffic movements at locations on the public highway network to be used by construction traffic associated with the construction works within Sub-Area E.

31.217. The construction traffic routes are defined in the Baseline Environment section of this chapter and the locations of the points at which peak traffic movements are considered are shown on Figure 13.6.

Table 31.19 Peak traffic movement across Sub-Area E

Ref	Location	Works Serviced	Peak traffic movements per day (hgv's)	Peak traffic movements per day (light vehicles)	Total duration of traffic movements (weeks)
E5	Junction of A31 with Boundary Lane	Up to 5km	27	52	41
E5 to E4	Boundary Lane	Up to 5km	27	52	41
E4	Junction of Boundary Lane with Matchams Road	Up to 5km	27	52	41
E4 to AP 52	Matchams Lane	Up to 5km	27	52	41
E5 to E1	A31	Up to 2km	18	30	26

Table 31.19 Peak traffic movement across Sub-Area E

Ref	Location	Works Serviced	Peak traffic movements per day (hgv's)	Peak traffic movements per day (light vehicles)	Total duration of traffic movements (weeks)
E1	Junction of A31 with Pinehurst Road	Up to 2km	18	30	26
E1 to E2	Pinehurst Drive	Up to 2km	18	30	26
E2	Junction of Pinehurst Road with Elmhurst Road	Up to 2km	18	30	26
E2 to AP57	Elmhurst Drive	Up to 2km	18	30	26

31.218. The receptors identified within Sub-Area E are:

- Road users;
- Church at the junction of Pinehurst Road and Elmhurst Road;
- Roads with footways used by pedestrians at Elmhurst Road, Pinehurst Road and the junction of A31 with Boundary Lane;
- Ambulance station at St Leonards Cross;
- School on Elmhurst Road.

31.219. In order to reduce potential effects on the receptors identified, construction traffic would be managed and restricted to specific routes (as shown on Figure 31.6). Other embedded or potential mitigation measures to be implemented (see Table 31.8 and Table 31.9) in Sub-Area E include traffic management measures and site access operation procedures, such as signage, speed restrictions and wheel washing.

Road crossings and proposed installation approach

31.220. There is one location within Sub-Area E where a road crossing would be undertaken. This is identified in the Table 31.19 along with the proposed method of installation and any embedded or potential mitigation measures identified to mitigate the potential impact of the crossing.

Table 31.20 Road crossings and proposed installation approach within Sub-Area E

Location	Road	Proposed installation method
52	Matchams Lane	Open Cut under Traffic Management with a TTRO to reduce the speed limit to 40mph.

31.221. The receptors identified within Sub-Area E are:

- Road users.

31.222. In order to reduce effects on the receptors identified, the crossing would be completed as set out in Tables 31.8 and 31.9.

31.4.20. Predicted construction traffic for Sub-Area F –West Moors

Predicted construction traffic using the existing highway network

31.223. Table 31.20 summarises the traffic movements at locations on the public highway network to be used by construction traffic associated with the construction works within Sub-Area F.

31.224. The construction traffic routes are defined in the Baseline Environment section of this chapter and the locations of the points at which peak traffic movements are considered are shown on Figure 31.7.

Table 31.21 Peak traffic movement across Sub-Area F

Ref	Location	Works Serviced	Peak traffic movements per day (hgv's)	Peak traffic movements per day (light vehicles)	Total duration of traffic movements (weeks)
F1-AP60	West Moors Road	Up to 4km.	26	49	36
F1	Junction of Ringwood Road with Three Legged Cross Road	Up to 4km.	26	49	36
F1-F2	Ringwood Road	Up to 4km.	26	49	36
F2	Ringwood Road	Up to 4km.	26	49	36
F2 – Junction with the A31	Ringwood Road	Up to 4km.	26	49	36
F1-AP 64	Holt Road	Up to 1km	9	17	21

31.225. The receptors identified within Sub-Area F are:

- Road users;
- Church on Ringwood Road;
- Roads with footways used by pedestrians at Ringwood Road, Verwood Road and West Moors Road.

31.226. In order to reduce potential effects on the receptors identified, construction traffic would be managed and restricted to specific routes (as shown on Figure 31.7). Other embedded or potential mitigation measures to be implemented (see Tables 31.8 and 31.9) in Sub-Area F include traffic

management measures and site access operation procedures, such as signage, speed restrictions and wheel washing.

31.4.21. Predicted traffic movements for Sub-Area F –substation construction

Predicted construction traffic using the existing highway network

31.227. Table 31.22 summarises the traffic movements at locations on the public highway network to be used by construction traffic associated with the works for the onshore substation and associated infrastructure.

31.228. The construction traffic routes are defined in the Baseline Environment section of this chapter and the locations of the points at which peak traffic movements are considered are shown on Figure 31.8.

Table 31.22 Peak traffic movement across the substation delivery route (civils engineering period)

Ref	Location	Works Serviced	Peak traffic movements per day (hgv's)	Peak traffic movements per day (light vehicles)	Total duration of traffic movements (months)
F1-AP60	West Moors Road	Substation site	46	52	24
F1	Junction of Ringwood Road with West Moors Road	Substation site	46	52	24
F1-F2	Ringwood Road	Substation site	46	52	24
F2	Ringwood Road	Substation site	46	52	24
F2 – Junction with the A31	Ringwood Road	Substation site	46	52	24

31.229. In order to reduce effects on the receptors identified, construction HGV traffic would be managed and restricted to a specific route (as shown on Figure 31.8). Other embedded or potential mitigation measures to be implemented (see Table 31.8 and Table 31.9) during the substation construction period include traffic management measures and site access operation procedures, such as signage, speed restrictions and wheel washing. The extent of the traffic impacts would be site specific as all the traffic movements would be associated with the substation site.

Changes in the operation of the existing highway network due to the installation of the export cable

31.230. There are 3 locations within Sub-Area F where a road crossing will be undertaken. These are identified in Table 31.23 below along with the proposed method of installation and any embedded or potential mitigation measures identified to mitigate the potential impact of the crossings.

Table 31.23 Road crossings and proposed installation approach within Sub-Area F – Substation

Location	Road	Proposed installation method
60	West Moors Road	Open cut under traffic management with a TTRO to reduce the speed limit to 40mph and temporary widening of the existing carriageway.
61	Newmans Lane	Open cut under traffic management and temporary widening of the existing carriageway.

Table 31.23 Road crossings and proposed installation approach within Sub-Area F – Substation		
Location	Road	Proposed installation method
62	West Moors Road	Open cut under traffic management with a TTRO to reduce the speed limit to 40mph and temporary widening of the existing carriageway.

31.231. The receptors identified within Sub-Area F are:

- Road users.

31.232. In order to reduce effects from traffic on the receptors identified, the crossings would be completed as set out in Table 31.9.

31.5. Next Steps

31.233. The traffic and transport assessment is on-going and therefore there will be further consultation with key stakeholders to discuss the findings to date. Therefore in this chapter, the baseline conditions are established together with the proposed construction approach.

31.234. The ES chapter will include the following sections:

- an introduction which details the scope of the assessment for that topic;
- details of the legislative, policy and guidance context within which the assessment is undertaken (as relevant);
- an overview of the methodology applied to the assessment, which includes details of: the study area; consultation undertaken to date; the scope of the assessment; methods used in connection with gathering of baseline information, modelling (as relevant), and the issued scoped out of the assessment and undertaking the impact assessment; any limitations and embedded mitigation assumed;
- an overview of the baseline environment within which the assessment will be undertaken;
- an assessment of the potential impacts that would arise as a result of the Project ;
- any proposed mitigation.

31.235. Mitigation measures are being identified in discussion with relevant statutory consultees which will seek to avoid or minimise predicted impacts. Further details of the mitigation to be adopted (such as associated with the construction techniques and approach) will be included within the ES. It is anticipated that with this agreed mitigation the potential traffic and transport effects identified for the Project could be minimised or avoided within the ES.

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31.241.

Glossary

Term	Definition
Abnormal Load	An 'abnormal load' is a vehicle that has any of the following: • a weight of more than 44,000 kilograms • an axle load of more than 10,000 kilograms for a single non-driving axle and 11,500 kilograms for a single driving axle • a width of more than 2.9 metres • a length of more than 18.65 metres
Accident black-spot	An accident black-spot is a term used to denote a place where road traffic accidents have historically been concentrated.
Articulated lowloaders	A lowloader with two or more sections connected by a flexible joint.
Classified road	Classified roads have a M, A or B number.
Driver Delay	To make motorists late or slow.
Flatbed	An open truck bed or trailer with no sides, used to carry large objects such as heavy machinery, cars, or houses
HGV	Heavy Goods Vehicles – all motorised vehicles in excess of 7.5t
Highways Agency	The Highways Agency is an Executive Agency of the Department for Transport and is responsible for England's strategic road network - managing traffic, tackling congestion, informing road users, improving safety, minimising adverse impact on the environment and more
Light vehicle	A vehicle designed to carry loads or a small number of passengers up to an officially determined weight
Local Transport Plan	All transport authorities are required to produce a Local Transport Plan in which they set out their objectives and plans for developing transport in their area over a stipulated period.

Term	Definition
NATA	New Approach To Appraisal – It is the governments guidance on the approach to appraisal and is the basis for the appraisal of Highways Agency road schemes and Local Transport Plans major road and public transport schemes.
Pedestrian amenity	Pleasantness of a journey for pedestrians. This can be affected by traffic flow, traffic composition and pavement width/separation from traffic.
Pedestrian Delay	To make pedestrians late or slow.
Public highway	Any highway and any other road to which the public has access and includes bridges over which a road passes
Severance	The state of being separated or cut off.
Strategic Highway	The strategic highway comprises of trunk roads maintained by the Highways Agency, such as the A31.
Temporary Traffic Regulation Order (TTRO)	A Temporary Traffic Regulation Order (TTRO) is the legal process that is used to introduce temporary restrictions e.g. a road closure, suspension of a one way street or a suspension of parking.
Tipper truck	A truck or lorry the rear platform of which can be raised at the front end to enable the load to be discharged by gravity
Traffic management (TM)	Traffic management is the term used to describe how councils and highway authorities control use of the road network in order to achieve improvements in road safety and efficiency.
Transport Assessment	A Transport Assessment is a comprehensive and systematic process that sets out the transport issues relating to a proposed development. It identifies what measures will be taken to deal with the anticipated transport impacts of the scheme and to improve accessibility and safety for all modes of travel, particularly for alternatives to the car such as walking, cycling and public transport.

Term	Definition
Travel Plan	A travel plan is a package of site-specific initiatives aimed at improving the availability and choice of travel modes to and from a development. It may also practices or policies that reduce the need for travel.
Trunk road	A main road, especially one that is suitable for heavy vehicles which is the responsibility of the Highways Agency
Unclassified road	Unclassified roads are roads that don't have an M, A or B number.
WebTAG	Website for Transport Analysis Guidance – Department for Transport website for guidance on the conduct of transport studies

Abbreviations

Term	Definition
CoCP	Code of Construction Practice
DCC	Dorset County Council
DCLG	Department of Communities and Local Government
DCO	Development Consent Order
DMRB	Design Manual for Roads and Bridges
EDDC	East Dorset Draft Core
HA	Highways Agency
HCC	Hampshire County Council
HDD	Horizontal Directional Drilling
HGV	Heavy Goods Vehicle
IEMA	Institute of Environmental Management and Assessment
LTP	Local Transport Plan
NFDC	New Forest District Council
NPPF	National Planning Policy Framework
NPSs	National Policy Statements
NRSWA	New Roads and Street Works Act 1991
PBA	Peter Brett Associates
PDS	Project Design Statement
TTRO	Temporary Traffic Regulation Order