

Clappits Works

Code of Construction Practice Requirement 22 (1) to (2)

(Applicable to Work Numbers 21 to 24)

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TABLE OF CONTENTS

1. INTRODUCTION AND SCOPE.....	6
1.1. Project Overview	6
1.2. Scope and Purpose.....	6
1.3. Structure of the CoCP	7
2. ABBREVIATIONS	10
3. COCP GOVERNANCE.....	11
4. GENERAL PRINCIPLES.....	12
4.1. Environmental Management Principles	12
4.2. Health and Safety Principles	13
5. GENERAL SITE OPERATIONS	13
5.1. Construction Details	13
5.1.1. Cable Works – Overview.....	13
5.2. Clappits Works	14
5.2.1. Accesses AP-H and AP-I, the Crossing Point, Access Tracks and Haul Roads	15
5.2.2. Secondary Construction Consolidation Site (Work No. 22)	15
5.2.3. Jointing Bays 20 to 21 (Work No. 21)	16
5.2.4. Cable Installation	16
5.2.5. Reinstatement	16
5.3. General Control Measures	17
5.4. Working Hours and Timing of Works.....	17
5.5. Construction Site Layout and Housekeeping	18
5.6. Site Induction.....	19
5.7. Screening and Fencing	19
5.8. Site Security	20
5.9. Welfare	20
5.10. Reinstatement	20
6. TRAFFIC AND TRANSPORT MANAGEMENT.....	21
6.1. Introduction.....	21
7. PUBLIC RIGHTS OF WAY	22
7.1. Introduction.....	22
7.2. Control Measures	22
8. NOISE AND VIBRATION	23
8.1. Introduction.....	23
8.2. Control Measures	23
8.3. Monitoring.....	24
9. AIR QUALITY	25
9.1. Introduction.....	25
9.2. Characterisation and Assessment.....	25

9.3.	Control Measures	25
9.4.	Monitoring.....	28
10.	ARTIFICIAL LIGHTING.....	28
10.1.	Introduction.....	28
10.2.	Objectives.....	28
10.3.	Control Measures	29
10.4.	Monitoring.....	30
11.	GROUND CONDITIONS	30
11.1.	Land Shrinkage	30
11.2.	Contaminated Land.....	31
11.2.1.	Introduction	31
11.2.2.	Encountering Unexpected Contamination.....	31
11.2.3.	Measures for Working in Areas of Suspected or Unexpectedly Found Contamination	31
12.	STORAGE AND USE OF OILS AND CHEMICALS.....	32
12.1.	Introduction.....	32
12.2.	Control Measures	32
12.3.	Monitoring.....	33
13.	WASTE MANAGEMENT.....	33
13.1.	Introduction.....	33
13.2.	Objectives.....	34
13.3.	Control Measures	34
13.4.	Monitoring.....	35
14.	PROTECTION OF SURFACE AND GROUNDWATER RESOURCES	35
14.1.	Introduction.....	35
14.2.	Objectives.....	36
14.3.	Control Measures	36
14.4.	Water Framework Directive	38
14.5.	Licences	38
14.6.	Protection of Private Water Supplies.....	38
14.6.1.	Sampling Interval	38
14.6.2.	Reporting	39
14.6.3.	Personnel.....	39
14.6.4.	Other Actions	39
14.6.5.	Monitoring	39
15.	ENVIRONMENTAL INCIDENT RESPONSE AND CONTINGENCY	39
15.1.	Introduction.....	39
15.2.	Pollution Prevention and Emergency Incident Response.....	39
15.3.	Flood Plan	40
16.	LANDSCAPE AND ECOLOGICAL MANAGEMENT	42

16.1.	Introduction.....	42
16.2.	Summary of Landscape Management Plan	43
16.3.	Summary of Ecological Management Plan.....	43
17.	ARCHAEOLOGY AND HERITAGE.....	43
17.1.	Introduction.....	43
17.2.	Summary of Archaeological Written Scheme of Investigation	44
18.	CONTINGENCY PLANNING	44
19.	MONITORING AND SITE INSPECTIONS	45
19.1.	Introduction.....	45
19.2.	Site Inspections.....	45
19.3.	Environmental Audits	45
20.	COMMUNITY LIAISON AND PUBLIC RELATIONS.....	45
20.1.	Introduction.....	45
20.2.	Objectives.....	46
20.3.	Communication Processes.....	46
20.4.	Enquiries	47
21.	UTILITY PROVIDERS	47
22.	REFERENCES	47
	APPENDIX 1 SURFACE WATER AND FOUL DRAINAGE MANAGEMENT PLAN	49
	APPENDIX 2 FLOOD PLAN	50
	APPENDIX 3 CONSTRUCTION NOISE & VIBRATION MANAGEMENT PLAN	51
	APPENDIX 4 AIR QUALITY MONITORING PLAN	52
	APPENDIX 5 CONSTRUCTION ARTIFICIAL LIGHTING EMISSIONS PLAN	53
	APPENDIX 6 SITE WASTE MANAGEMENT PLAN	54
	APPENDIX 7 POLLUTION PREVENTION AND EMERGENCY INCIDENT RESPONSE PLAN.....	55
	APPENDIX 8 PROJECT COMMUNITY LIAISON AND PUBLIC RELATIONS PROCEDURE	56
	APPENDIX 9 PUBLIC RIGHTS OF WAY MANAGEMENT PLAN.....	57
	APPENDIX 10 PROJECT ENVIRONMENTAL MANAGEMENT PLAN	58
	APPENDIX 11 TEMPLATE APPLICATION FOR CONSTRUCTION WORKS TO BE UNDERTAKEN OUTSIDE THE CONSENTED HOURS.....	59

FIGURES

Figure 1 Overview Plan

Figure 2 Site Context Plan

Figure 3 CCS Layout

Figure 4 Jointing Bay Compound Layout

1. INTRODUCTION AND SCOPE

1.1. Project Overview

1. East Anglia Three Limited (EATL) was awarded a Development Consent Order (DCO) by the Secretary of State, Department of Business, Energy and Industrial Strategy (DBEIS) on 7 August 2017 for the East Anglia THREE Offshore Windfarm (EA THREE). The DCO granted consent for the development of a 1,200MW offshore windfarm and associated infrastructure and is live until 28 August 2022. The DCO has now been subject to two non-material variations:
 - In March 2019 EATL submitted a non-material change application to DBEIS to amend the consent to increase the maximum generating capacity from 1,200MW to 1,400MW and to limit the maximum number of gravity base foundations to 100. In June 2019 DBEIS authorised the proposed change application and issued an Amendments Order.
 - In July 2020 EATL submitted a second non-material change application to DBEIS to amend the parameters of its offshore substations (reducing the number of these to one) and wind turbines (a decrease in the number of turbines and an increase in their hub height and rotor radius). On 15 April 2021 DBEIS authorised this proposed change application and issued an Amendments Order.
 - In August 2021 EATL submitted a third non-material change application to DBEIS to amend the consent to remove the maximum generating capacity of 1,400MW and to amend the parameters of its wind turbines (a decrease in the number of turbines and an increase in their hub height and rotor radius). The application is currently in the consultation phase.
2. The onshore construction works associated with EA THREE will have a capacity of 1,400MW and transmission connection of 1,320MW. The construction works will be spread across a 37km corridor between the Suffolk coast at Bawdsey and the Converter Station at Bramford, passing the northern side of Ipswich. As a result of the strategic approach taken, the cables will be pulled through pre-installed ducts laid during the onshore works for East Anglia ONE Offshore Windfarm (EA ONE), thereby substantially reducing the impacts of connecting to the National Grid (NG) at the same location. The infrastructure to be installed for EA THREE, therefore, comprises:
 - The landfall site with one associated transition bay location with two transition bays containing the connection between the offshore and onshore cables;
 - Two onshore electrical cables (single core);
 - Up to 62 jointing bay locations each with up to two jointing bays;
 - One onshore Converter Station, adjacent to the EA ONE Substation;
 - Three cables to link the Converter Station to the National Grid Bramford Substation;
 - Up to three onshore fibre optic cables; and
 - Landscaping and tree planting around the onshore Converter Station location.
3. Since the granting of the DCO, the decision has been made that the electrical connection for EA THREE will comprise a high voltage direct current (HVDC) cable rather than a high voltage alternating current cable and, therefore, the type of substation that will be required is a HVDC Converter Station. The substation will, therefore, be referred to here as a 'converter station' and this amended terminology has been agreed with the relevant authorities on 15 October 2020. It has also been determined that only one converter station will be constructed rather than two and that the Converter Station will be installed in a single construction phase.

1.2. Scope and Purpose

4. This document has been produced to discharge DCO Requirement 22 parts (1) and (2) which state:

22- (1) No stage of the connection works may commence until for that stage a code of construction practice (which must accord with the outline code of construction practice) has been submitted to and approved by the relevant local planning authority, in consultation with the relevant highway authority.

(2) The code of construction practice must include—

 - (a) a surface water and drainage management plan;**
 - (b) watercourse crossing method statements;**
 - (c) a flood plan;**
 - (d) a written scheme for noise and vibration management during construction;**
 - (e) an air quality monitoring plan;**

- (f) artificial light emissions plan;*
- (g) a site waste management plan;*
- (h) a pollution prevention and emergency incident response plan;*
- (i) a project community and public relations procedure;*
- (j) a public rights of way management plan; and*
- (k) a project environmental management plan.*

5. The scope of this document is the Code of Construction Practice (CoCP) associated with the Clappits Works Stage of the EA THREE construction works, as part of the onshore cable route that runs from the landfall location at Bawdsey to the Converter Station works located near Bramford, Suffolk. The works in this stage comprise Work No.s 21 to 24 in the DCO (see Figure 1 Over view Plan and Figure 2 Site Context Plan). CoCPs have been produced for each stage of the onshore connection works and are provided under separate cover.
6. The Clappits Works will be some of the first works to be undertaken along the cable route. These works have been designated as a stage in their own right to allow the works to commence at this location prior to works commencing along the cable route as a whole (i.e. the main cable works construction phase). The CCS and the access to it will be constructed in Summer 2022 and the remaining works (jointing bay installation, cable installation and reinstatement) will be undertaken as part of the main cable works construction phase.
7. The CoCP provides a key mechanism, enforceable by Requirement 22 of the DCO, through which the regulatory authorities can be assured that environmental impacts associated with the construction of EA THREE onshore works will be appropriately controlled and mitigated. The information contained herein shall be adhered to by the appointed Principal Contractor and subcontractors and implementation and compliance will be monitored by the Construction Management Team. These measures will only be revised with the agreement of East Suffolk Council (ESC).
8. This CoCP reinforces commitments made in the EA THREE Environmental Statement, November 2015 (ES) and associated documents and complements other requirements set out in Schedule 1, Part 3 of the DCO, issued in accordance with the Planning Act 2008.
9. Works within the scope of this document include enabling works, material delivery, excavated material disposal, waste removal, construction, and commissioning phases of the Clappits Works. Further detail is provided in Section 5.1.
10. The term 'construction' in the CoCP refers to all related engineering and construction activities and reinstatement and mitigation works carried out during the construction phase of the onshore cable works. The CoCP sets out the general objectives and measures for the construction activities and provides a summary of the various relevant environmental management plans produced for the cable route.
11. The practical implementation and compliance arrangements associated with the CoCP commitments will primarily be delivered via the Project Environmental Management Plan (PEMP) (Appendix 10 of this document), the Construction Environmental Management Plans (CEMPs) and through the other associated and topic specific plans produced (including for air quality, surface water, noise, waste management, landscape and ecology). These plans will be developed and updated as work proceeds and will be audited and enforced both by EATL and their appointed Principal Contractor.

1.3. Structure of the CoCP

12. In accordance with Requirement 22 of the DCO, a series of topic specific environmental plans and strategies for construction management have been prepared as part of this CoCP and each of the plans are attached as appendices, see Table 1-1.

Table 1-1 - DCO Requirements

DCO Requirement 22 (2)	Appendix
(a) a surface water and drainage management plan;	Appendix 1
(b) watercourse crossing method statement;	Not required
(c) a flood plan;	Appendix 2
(d) a written scheme for noise and vibration management during construction;	Appendix 3
(e) an air quality monitoring plan;	Appendix 4
(f) artificial light emissions plan;	Appendix 5
(g) a site waste management plan;	Appendix 6
(h) a pollution prevention and emergency incident response plan;	Appendix 7
(i) a project community and public relations procedure;	Appendix 8
(j) a public rights of way management plan;	Appendix 9
(k) a project environmental management plan	Appendix 10

13. As well as fulfilling Requirement 22 of the DCO, a number of these plans and strategies are submitted as standalone documents to also fulfil individual DCO Requirements. In addition, certain topics including archaeology, ecology, landscape and traffic management are covered by individual DCO Requirements. Detailed plans have been prepared to fulfil these Requirements and are provided under separate cover. As such, this document provides a summary of these plans, where relevant, however the detailed information does not form part of this document. Table 1-2 provides a brief overview of the structure of this CoCP and reference to the relevant DCO Requirements.

Table 1-2 - Structure of CoCP

Section Reference	Section Name	Description	DCO Requirement No.
4	General Principles	<p>This section includes details of how EATL will identify and manage significant risks associated with the Clappits Works and how environmental policy commitments are to be delivered. This covers the following topics:</p> <ul style="list-style-type: none"> • Environmental Management Principles; and • Health and Safety Principles. 	Requirement 22
5	General Operation Site	<p>This section outlines the main construction activities and includes details as to how the Principal Contractor will conduct the general operation of the site, throughout the construction phase of the project, including, construction details, working hours and timing of work, housekeeping, site induction, screening and fencing, site security, welfare and reinstatement.</p>	Requirement 22, Requirement 25 and Requirement 17

Section Reference	Section Name	Description	DCO Requirement No.
6	Traffic and Transport Management	This section provides a brief summary of the traffic plans produced as per DCO Requirements 16 and 27. Detailed information is presented in the Traffic Management, Travel and Access Management Plans, provided under separate cover (EA3-LDC-CNS-REP-IBR-000063, EA3-LDC-CNS-REP-IBR-000052, EA3-LDC-CNS-REP-IBR-000050), and so detailed information on these does not form part of the CoCP.	Requirement 16 and Requirement 27
7	Public Rights of Way (PRoW)	A separate PRoW Management Plan has been produced for Clappits Works and is attached as Appendix 9. This section provides a summary of this plan and describes how EATL will deal with the PRoW that may be affected by the installation of the cable.	Requirement 22
8	Noise and Vibration	A Construction Noise & Vibration Management Plan has been produced, attached as Appendix 3. This section summarises the best practice noise control measures which will be implemented and managed and also describes the proposed noise monitoring scheme.	Requirement 22 (2) (d) and Requirement 24
9	Air Quality	An Air Quality Monitoring Plan has been produced, attached as Appendix 4. This section provides a summary of the dust control measures, summarises the monitoring requirements, and provides an outline of best practice guidance and procedures that will be in place.	Requirement 22 (2) (e)
10	Artificial Lighting	A Construction Artificial Lighting Emissions Plan has been produced and is attached as Appendix 5. This section provides a summary of the light emission control measures to be implemented.	Requirement 22 (2) (f) and Requirement 23
11	Contaminated Land	There is no known contamination at the Clappits Works site. This section of the CoCP, therefore, provides procedures to follow in the unlikely event of encountering unexpected contamination.	Requirement 22
12	Storage and Use of Oils and Chemicals	This section provides a summary of the control measures and monitoring procedure to be adopted to ensure the safe storage and use of oils and chemicals during the cable construction works.	Requirement 22
13	Waste Management	A Project Site Waste Management Plan has been produced and is attached as Appendix 6. This section sets objectives for EATL in relation to waste management and provides a brief description of the control measures to be adopted by the project, and the appointed contractors, to ensure waste is eliminated where possible and minimised where it is unavoidable.	Requirement 22 (2) (g)
14	Protection of Surface and Groundwater Resources	A Surface Water and Drainage Management Plan for construction has been produced and is attached as Appendix 1. This section includes a summary of this plan and the general provisions and control measure to be implemented during the Clappits Works.	Requirement 22 (2) (a), and Requirement 18
15	Environmental Incident Response and Contingency	A Pollution Prevention and Emergency Incident Response Plan and a Flood Plan have been produced and are attached as Appendix 7 and Appendix 2, respectively. This section provides a brief summary of these two documents.	Requirement 22 (2) (h) Requirement 22 (2) (c)

Section Reference	Section Name	Description	DCO Requirement No.
16	Landscape and Ecological Management	Separate Landscape Management and Ecological Management Plans have been produced to fulfil DCO Requirements 14 and 21 and are provided under separate cover (EA3-LDC-CNS-REP-IBR-000056, and EA3-OND-ENV-PLN-IBR-000004). This section provides a brief summary of these documents, however, detailed information does not form part of the CoCP.	Requirement 14 and Requirement 21
17	Archaeology and Heritage	A separate Written Scheme of Archaeological Investigation has been produced for the Clappits Works, to fulfil DCO Requirement 20 and is provided under separate cover (EA3-LDC-CNS-REP-IBR-000062). This section provides a brief summary of the document and gives an overview of the controls, however, detailed information does not form part of the CoCP.	Requirement 20
18	Monitoring and Inspections	The separate Project Environmental Management Plan (Appendix 10) provides a more detailed account of the environmental management activities proposed across the project. This section provides a summary of the monitoring which is provided in more detail in the associated environmental management plans.	Requirement 22
19	Community Liaison and Public Relations	A Community Liaison and Public Relations procedure has been produced and is attached as Appendix 8. This section provides a brief summary of this document, with respect to how EATL will manage public relations with local residents and businesses that may be affected by noise or other amenity aspects resulting from the construction works.	Requirement 22 (2) (i)

2. ABBREVIATIONS

ALMP	Artificial Lighting Emissions Plan
ALO	Agricultural Liaison Officer
AQMP	Air Quality Monitoring Plan
COSHH	Control of Substances Hazardous to Health
CEMP	Construction Environmental Management Plan
CLO	Community Liaison Officer
CoCP	Code of Construction Practice
DBEIS	Department of Business, Energy and Industrial Strategy
DC	Direct Current
DCO	Development Consent Order
DEFRA	Department for Environment, Food and Rural Affairs
EA	Environment Agency
EA THREE	East Anglia THREE
EATL	East Anglia THREE Limited
EA ONE	East Anglia ONE
EcoMP	Ecological Management Plan
ECow	Ecological Clerk of Works

EMFP	Environmental Management Framework Plan
EMP	Environmental Management Plan
EMS	Environmental Management System
EnvCoW	Environmental Clerk of Works
ES	Environmental Statement
ESC	East Suffolk Council
FRA	Flood Risk Assessment
HGV	Heavy Goods Vehicle
HVDC	High Voltage Direct Current
HWCN	Hazardous Waste Consignment Notes
Km	Kilometre
GW	Gigawatt
MLWS	Mean Low Water Springs
MW	Megawatt
NG	National Grid
PEMP	Project Environmental Management Plan
PPE	Personal Protective Equipment
PPERP	Pollution Prevention and Emergency Response Plan
PRoW	Public Right of Way
RAMS	Risk Assessment and Method Statement
SCC	Suffolk County Council
SME	Strip Map Excavation
SPE	Set Piece Excavation
SPP	Species Protection Plan
SPR	ScottishPower Renewables
SuDS	Suitable Drainage System
SWDMP	Site Waste Drainage Management Plan
SWMP	Site Waste Management Plan
WB	Watching Brief
WFD	Water Framework Directive
WTN	Waste Transfer Note

3. COCP GOVERNANCE

14. EATL and its Principal Contractor (and subcontractors) are required to comply fully with the terms of this CoCP. The appointed Onshore Construction Manager, and associated Construction Management Team, will be responsible for implementation and monitoring of the provisions of this CoCP and for ensuring that the Principal Contractor remains in compliance with these requirements. The practical implementation arrangements and responsibilities conferred to the Principal Contractor are set out in the environmental management protocols of the PEMP (Appendix 10) and will be further detailed in the Principal Contractor's CEMP.
15. The CoCP includes information on mitigation of nuisance to the public and the measures adopted to safeguard the environment during construction. Construction activities will be monitored and environmental performance enforced by an Environmental Clerk of Works (EnvCoW), supported by other specialists as necessary (including Ecological, Arboriculturist, Archaeological and Environmental Auditing specialists). In addition, a pre-construction land survey would be undertaken by a qualified Agricultural

Liaison Officer (ALO) to record details of crop regimes, position and condition of field boundaries, existing drainage and access arrangements, and private water supplies. A comprehensive list of these positions along with those relating to the governance of the other management plans required by the DCO is set out in Section 4.3 of the PEMP.

16. In addition to the arrangements under this CoCP, the appointed Principal Contractor will also be encouraged to register with the Considerate Constructors Scheme. The Scheme requires constructors to adhere to the Scheme's Code of Considerate Practice (Considerate Constructors Scheme undated) which is a voluntary code of practice that seeks to:

- Enhance the appearance of the site; Constructors ensure sites appear professional and well managed.
- Secure everyone's safety; Constructors attain the highest levels of safety performance.
- Respect the community; Constructors give utmost consideration to their impact on neighbours and the public.
- Care for the workforce; Constructors provide a supportive and caring working environment.
- Protect the environment; Constructors protect and enhance the environment.

4. GENERAL PRINCIPLES

4.1. Environmental Management Principles

17. EATL, the developer of the EA THREE windfarm, is a wholly owned subsidiary of ScottishPower Renewables (SPR). SPR operates an Environmental Management System (EMS), based on the requirements of ISO 14001:2015, that describes the processes and procedures by which they identify and manage significant environmental risks associated with its operations. The EMS is a primary mechanism by which SPR Environmental Policy commitments, including compliance with relevant legislation and standards, pollution prevention and continual improvement in environmental performance, are delivered.
18. The EMS includes an Environmental Management Framework Plan (EMFP), which provides internal guidance to managers on the approach and framework of controls that will be adopted to manage the environmental risks associated with all phases of project activities. The EMFP includes reference to the preparation of environmental management documents at an organisational and project level, including the PEMP (Appendix 10), CEMPs and the CoCP.
19. The PEMP, produced by EATL, sets out how EATL intends to manage environmental risks associated with the onshore development as a whole, including the Clappits Works and sets out specific control measures necessary to deliver the requirements of this CoCP and any other mitigation measures that have been committed to by EATL that relate specifically to the construction phase of the project. The PEMP also includes the EATL minimum requirements for inclusion within the CEMP to be produced by Principal Contractor and sets out guidance and best practice for their implementation at EA THREE construction sites.
20. Through the EMS, contractors undertaking work on behalf of EATL are screened and selected, using a variety of criteria that include environmental credentials. Where works have the potential to impact the environment, contractors are required to prepare a CEMP, reflecting their identified environmental risks. A CEMP will therefore be prepared for the Works and also the onshore cable route by the cable route Principal Contractor. The CEMP will identify the specific construction work process/aspects, the environmental impact of each process/aspect, the mitigation measure/best practice to be used and the relevant procedure or method of work to be followed. Site specific sensitivities and requirements of the DCO, along with updates in legal requirements and construction best practice, will all be addressed in the production of the CEMP.
21. A number of topic specific environmental plans and strategies for construction management have been prepared, (see Table 1-1 for details) and will be implemented. These plans will be developed and updated as work proceeds and will be, audited and enforced both by EATL, and by their appointed Contractor(s).
22. The PEMP and CEMPs will provide for the preparation and implementation of a programme of suitable environmental monitoring and auditing, to ensure that EATL's environmental standards are adhered to and will be implemented by EATL and their appointed Principal Contractors. A number of environmental roles are referred to within the CoCP, and in the other plans attached as appendices. The PEMP and CEMPs will contain a more comprehensive description of the environmental roles and responsibilities.
23. EATL will publish this CoCP and provide a copy to Statutory Bodies and the Local Authorities. The measures and standards identified in the CoCP will then be implemented by the appointed Principal Contractor.

4.2. Health and Safety Principles

24. EATL recognises that its decisions and activities may have a direct impact on the health, safety and welfare of those working for us and on our behalf. All construction works will be undertaken in accordance with the Construction (Design and Management) Regulations 2015. EATL will set project specific health and safety goals and monitor performance in relation to the construction, operation and maintenance of our renewable energy generating projects. By our commitments EATL will:

- Demonstrate commitment to health and safety, by our actions and behaviours.
- Ensure that Health and Safety issues are fully considered, as an integral part of project management, throughout the project life; from design, through to construction, operation and maintenance and future decommissioning.
- Require all designers to consider and include the control measures necessary to minimise the risks to the health and safety of all those engaged in construction, maintenance (and demolition) of the project or to others who may otherwise be affected.
- Ensure that suitably competent employees and other designers, engineers, supervisors and contractors from other organisations are engaged to undertake the responsibilities associated with the project.
- Ensure that all products, materials and processes used in construction, operation and maintenance present no significant risk to the health and safety of persons carrying out those duties or to others who may be affected by that activity.
- Ensure that suitable and sufficient resources, (including labour, materials, time and finances), are made available to effectively manage the health and safety requirements.
- Require that all those parties involved in the construction or operation and maintenance or decommissioning of our renewable energy generating projects (Principal Designer, Principal Contractor and Operator), fulfil their roles and responsibilities, both legal and organisational, to health, safety and welfare.
- Require that parties involved in our renewable energy generating projects have, where appropriate, a readily available, valid, suitable and sufficient Pre-Construction Information document and Health and Safety Plan as defined in the Construction (Design and Management) Regulations 2015.
- Ensure that, upon completion of construction activity, a suitable and sufficient Health and Safety File is completed and transferred, where appropriate, to the ultimate owner.
- A separate Project Health and Safety Plan has been prepared for the East Anglia projects.
- Site access for members of the public shall be restricted during the construction phase of the development, to ensure public safety. The Site Construction Phase Plan(s) detailing all site access control measures and measures to prevent unauthorised access will be developed prior to commencement of construction. Site access for all parties involved in construction will also be managed through a number of actions, including signing in procedures, exclusion zones and induction certificates. A method statement detailing the safety measures to be imposed on site will be prepared prior to the commencement of the development.
- Where the construction of the Project interacts with Public Rights of Way, measures will be implemented as set out within the final Public Rights of Way Management Plan (Appendix 9). In addition, measures to prevent public access to the site are addressed in the Fencing and Enclosures Plan (EA3-LDC-CNS-REP-IBR-000049) and also Section 5.7 of this document with respect to site security.

5. GENERAL SITE OPERATIONS

5.1. Construction Details

5.1.1. Cable Works – Overview

25. The construction works will be spread across a 37km corridor between the Suffolk coast at Bawdsey and the Converter Station at Bramford, passing the northern side of Ipswich. The cables will be pulled through pre-installed ducts laid during the onshore works for East Anglia ONE. The construction activity within each section along the onshore cable route will be as follows:

- Any minor temporary modifications to the public road network;
- Establish the Construction Consolidation Sites (CCSs);
- Establish accesses to, and temporary haul road to, the jointing bay locations;
- Establish temporary jointing bay compounds;
- Excavate jointing bay pit to locate the existing ducts at each of the compounds;
- Construct jointing bay;
- Transport of cables to site, pull cables through ducts and undertake jointing;
- Topsoil replacement and seeding;

- Remove temporary compounds (jointing bays and CCS); and
- Reinstatement all disturbed land and permanent fences and hedges.

26. Some temporary modification of the existing road networks may be required such as localised widening, temporary widening or socketing of street signs and temporary moving of street furniture in order to allow larger vehicles than normal to access the jointing bays. This will be completed prior to the start of the main construction works within relevant sections of the cable corridor route.
27. EATL will require up to seven temporary construction compounds to aid in the construction of the proposed East Anglia THREE project. These have been designated as 'Primary Construction Consolidation Site' (PCCS) and 'Secondary Construction Consolidation Site' (SCCS) depending on their uses. Two PCCS and up to five SCCS will be installed, which will all be temporary and will be removed once construction is complete.

Table 5-1 – Construction Consolidation Site Locations

CCS Type	ID	Address
Secondary	A	Bullen Lane, Bramford, Ipswich, Suffolk IP8
Primary	B	Paper Mill Lane, Claydon, Ipswich, Suffolk IP6 0AP
Secondary	C	Witnesham Road, Ipswich, Suffolk IP6
Secondary	D	Playford Corner, Playford Mount, Ipswich, Suffolk IP6 9DS
Primary	E	Top Street, Martlesham, Suffolk IP12
Secondary	F	Clappits, Woodbridge Road, Newbourne, Woodbridge, Suffolk IP12 4PA
Secondary	G	Park Lane, Ipswich, Suffolk IP10

28. The PCCSs will:
- Form the main point of access onto the linear construction site;
 - Provide areas for the storage of materials and equipment;
 - House site administration and welfare facilities for the labour resources;
 - Form an interchange hub for deliveries of material, equipment and resources; and
 - Allow HGVs to park prior to entering the local road network during peak hours.
29. The SCCSs will act as hubs for the delivery of materials, equipment and resources along the route and will enable access to the cable route for construction. They will be of sufficient size to accommodate limited storage of materials, equipment and labour welfare facilities.
30. It is anticipated that 29 jointing bays will be required along the 37km cable route, in addition to a transition bay at the landfall. Each jointing bay will comprise a concrete box 10m long by 3m wide by 1.5m high buried so that the base is 2.5m below ground level. A jointing bay construction compound will be required adjacent to each jointing bay and will have hardstanding areas of up to 900m² within the compound which would typically measure 24m x 115m i.e. 2,760m². (in accordance with Requirement 12(11) which stipulates that the footprint must not exceed 3,740m²). The compounds will have hardstanding and accommodate containers, drum trailer movement, parking, and welfare. A typical layout is shown in Figure 2 of the Code of Construction Practice (EA3-LDC-CNS-REP-IBR-000061).
31. Existing accesses and farm tracks will be upgraded and used where possible to access the jointing bay locations. Once these accesses reach the cable corridor, the routes to connect to the jointing bays are referred to as 'haul road'. The length of haul road for the cable route is limited by Requirement 12(12) of the DCO to 18.05km.
32. In addition, the ducts to be used for EA THREE, which were installed during the EA ONE project construction works, will require to be 'proved' to ensure that they are intact and free of debris. This will be undertaken by the use of foam pigs which will be driven under pressure from jointing bay to jointing bay. Each stretch of duct that was installed using Horizontal Direct Drilling (HDD) will, however, require duct-proving excavations at each end of the HDD, to allow the use of different size foam pigs, due to a difference in the diameter of these compared to the ducting installed using open trench techniques.

5.2. Clappits Works

33. Clappits Works comprise a stage of the onshore connection works and cover Work No.s 21 to 24. The infrastructure within these Work No.s comprises:

- The Clappits SCCS (CCS F) in Work No. 22;
- Three Jointing Bays (20 to 22) in Work No. 21;
- Two improved accesses with the public roads as follows:
 - Access AP-H (Work No. 23) eastwards from Woodbridge Road, to access the Clappits SCCS and Jointing Bays 21 and 22 in Work No. 21; and
 - Access AP-I (Work No. 24) eastwards from Newbourne Road, to access Jointing Bay 20 in Work No. 21; and
- A crossing of The Street (CR01 and CR02); and
- The access tracks/haul roads required to access Clappits SCCS and jointing bays 20 to 22.

34. These are shown on Figure 2.

5.2.1. Accesses AP-H and AP-I, the Crossing Point, Access Tracks and Haul Roads

35. Clappits SCCS will be accessed from Woodbridge Road using Access AP-H. This junction was used for the EA ONE project (Access AX-14) but was fully reinstated following the EA ONE works and will need to be constructed under the EA THREE DCO. The vehicular access track from the access to the Clappits SCCS that was installed as part of the EA ONE construction works remains in situ as it was agreed with ESC that restoration would be environmentally more damaging than leaving the improved track in place. A new temporary vehicular access track of 160m length and 5.5m width will be used to link this existing track and the Clappits SCCS to reach the edge of the cable corridor (Work No. 21), where 610m of 5.5m wide haul road will link to road crossing CR02, and a further 1,520m from road crossing CR01 to Jointing Bays 20 and 21. The amount of temporary haul road required to access these jointing bays will be 2.13km.

36. Access AP-I will be constructed from Newbourne Road, along with 400m of 5.5m wide access track to link to the edge of the cable corridor which will access directly onto the compound of Jointing Bay 20. This access was not used as part of the EA ONE construction works.

37. A crossing of The Street (CR01 and CR02) will be required. This will be in the same location as that used for EA ONE.

38. No watercourse crossings will be required for the Clappits Works.

39. The construction methodologies associated with the accesses, access track and haul roads are typically as follows:

- Set out the access and track/haul road with the use of Global Positioning Systems (GPS) Real Time Kinematic (RTK) equipment;
- Locate, divert and cap any existing field drains;
- Set out and install drainage features the length of track to be constructed;
- Remove vegetation, then remove and locally store topsoil material over the working width; seeding topsoil if it is to be stored for longer than 6 months;
- Excavate to formation level and store any excess material;
- Under-track drainage will be installed where necessary and in accordance with drainage requirements;
- Place a geotextile onto existing subsoil to improve the bearing capacity of the sub-soil, depending on ground conditions, programme and landowner requirements; and
- Place imported stone in accordance with the design to form the track structure.

5.2.2. Secondary Construction Consolidation Site (Work No. 22)

40. The Clappits SCCS will be a hub for the delivery of materials, equipment and resources. The dimensions of the Clappits SCCS will be 60m long by 20m wide covering a surface area of 1,200m², this is in accordance with Requirement 12(9)(a) of the DCO which limits the size of each SCCS to 1,200m². The Clappits SCCS will also be within the area previously used for the EA ONE SCCS in this location.

41. The construction of the SCCSs involves stripping of topsoil, importing and laying stone for the compound base and installing cabins and welfare facilities. Construction of the Clappits SCCS will take approximately 3 weeks and the methodology will be as follows:

- The extent of SCCS will be marked out with the use of GPS RTK equipment;
- Any existing field drains will be located, diverted and capped;
- Drainage features will be set out and installed as required;
- Security fencing will be erected around the perimeter of the SCCS;

- Once vegetation has been removed, topsoil material over the SCCS area will be removed and locally stored and seeded if it is to be stored for longer than 6 months;
- Any excess material will be excavated to formation level and stored; and
- Imported stone will be placed in accordance with the design of the SCCS base structure.

42. The SCCS will be constructed first, with the duct proving, jointing bays and cable pull through occurring at a later date (anticipated in 2024). It is intended that the SCCS will provide an early onsite presence for the onshore cable construction works and will be used as a base for mitigation and survey works being undertaken as well as for the construction team to visit site during the later stages of the planning and design process. It may also be used for stakeholder and other site meetings.

43. The Clappits SCCS will remain in situ for the duration of the onshore cable works, prior to being restored as described in Section 5.2.5.

5.2.3. Jointing Bays 20 to 21 (Work No. 21)

44. The three jointing bays in Work No. 21 will be located as follows:

- Jointing Bay 20 – 340m to the east of Newbourne Road and to the southwest of Waldringfield (Grid Ref 627520 244187);
- Jointing Bay 21 – 45m to the west of Mill Road, to the east of Newbourne (Grid Ref 627881 243040); and
- Jointing Bay 22 – 240m to the north of Kirton Creek and 190m to the southeast of White Horse Wood, to the southeast of Newbourne (Grid Ref 628065 241862).

45. Once the location of each jointing bay compound has been established (using GPS RTK equipment), creation of the compound will commence with erection of temporary security fencing, removal of topsoil layer and installation of hardstanding areas.

46. The jointing bay will then be excavated to a depth of up to 2.5m with adequate slope batter or shoring on all sides of the excavation to prevent the soil from collapse. The existing ducts will be uncovered and concrete slabs constructed to provide a level working area. Two sump pits will be included to facilitate drainage and dewatering and water will be treated, where necessary, before being discharged. Installation and jointing of the cables will then take place, along with installation of earthing link boxes and fibre optic cable chambers, before the area is back filled with subsoil.

47. The creation of each jointing bay compound and excavation of each jointing bay will take a week each.

5.2.4. Cable Installation

48. The electrical transmission cables will be delivered to the Clappits SCCS where they will be transferred to the jointing bay compounds when needed. The cable drums will comprise abnormal loads and their delivery will be managed as set out in the Traffic Management Plan (EA3-LDC-CNS-REP-IBR-000053). Two cable lengths of approximately 1,260m will be required to pull through between each pair of jointing bays. The cable ducts will be proved before the cable is pulled through. Once the cables are received at the jointing bay compound, they will be temporarily stored on the hardstanding area prior to installation in the pre-installed ducts.

49. Installation of the cables into the ducts between the jointing bays will begin with a cable pulling system being installed into the bay. A steel bond and winching system with free spinning rollers will be installed along the bottom of the bay. Hydraulic jacks will raise the cable drum off the ground and a winch will be used to pull in cable using a pulling rope. A dynamometer will ensure the maximum pulling tension is not exceeded. Tension on the cable will be reduced using a biodegradable water-based lubricant. This process will be repeated for the second cable being installed in the duct. The cables will then be jointed once 2 cable sections (4 cables) have been installed.

50. It is expected that pulling and jointing operations at each location would take approximately 2.5 weeks typically spread over a three to four week period, with approximately five workers for each jointing bay. These works will then be repeated to install the cables between all the jointing bays.

5.2.5. Reinstatement

51. Following installation and jointing of the cables, the jointing bays, compound, accesses and haul roads will be reinstated with the stored topsoil and subsoil following trenching. If necessary, the subsoil will be 'ripped' prior to placement if compaction had occurred. Topsoil will be spread in such a way as to ensure that it does not become compacted. The topsoil will then be cultivated and reseeded (if required) and suitable hedgerow species replanted during the first appropriate planting season, in accordance with the Landscape

Management Plan (EA3-LDC-CNS-REP-IBR-000056). Temporary fencing around any new planting would be removed once reinstatement was established.

52. The Clappits SCCS will remain in situ for the duration of the cable works and will then be removed and reinstated.

5.3. General Control Measures

53. Procedures and contingency plans will be in place to deal with the clean-up of small spillages and dealing with any emergency incident. A spill response procedure has been set up and project staff will be suitably trained to deal with spillages, including the use of spill kits and other practical measures, to retain any pollution on site. The used spill kits or absorbents will be disposed of off-site at a suitably licenced waste facility. Section 15 summarises the proposed measures and the Pollution Prevention and Emergency Incident Response Plan (Appendix 7) documents these procedures in more detail.
54. Mitigation measures to prevent pollution, flooding and erosion during construction are summarised as follows:
- Fuels, lubricants, chemicals etc. will be stored in appropriately bunded areas, with any additional appropriate pollution prevention measures in place (such as covered bunds to prevent ingress of rainwater).
 - All soils will be stored at least 10m from the top of the bank of any watercourse and any potentially contaminated soil will be stored on an impermeable surface and covered to reduce leachate generation and potential migration to surface waters; Procedures for dealing with unexpected contaminated materials are described in Section 11.
 - Limited numbers of jointing bays will be excavated and remain open at any one time; any localised dewatering will have appropriate treatment and disposal applied before being discharged.
55. The phasing and programming of the works will ideally be timed to limit exposure of the subsoil to inclement weather, reducing the likelihood of excessive erosion and the generation of suspended solids in the runoff. It will not be possible to prevent this impact at all times, so appropriate mitigation measures will also be put in place, as and where appropriate (further information is included in Section 14 in summary and in more detail in the Surface and Foul Water Drainage Management Plan - Appendix 1).

5.4. Working Hours and Timing of Works

56. The working hours for the onshore construction works are defined within DCO Requirement 25 which states:

25.—(1) Construction work for the connection works must only take place between 0700 hours and 1900 hours Monday to Saturday, with no activity on Sundays or bank holidays, except as specified in paragraph (2).

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

- (a) continuous periods of operation that are required as assessed in the environmental statement, such as concrete pouring;*
- (b) fitting out works associated with the onshore substation(s) comprised within Work No. 67 [the Converter Station];*
- (c) delivery to the connection works of abnormal loads that may cause congestion on the local road network;*
- (d) connection works carried out on the foreshore;*
- (e) daily start up or shut down;*
- (f) electrical installation; and*
- (g) non-destructive testing.*

(3) All construction work undertaken in accordance with paragraph (2)(a) to (d) must be agreed with the relevant planning authority in writing in advance and must be carried out within the agreed time.

57. Construction works shall be undertaken in accordance with the hours set out above, except under those circumstances set out in paragraph (2). The term 'essential activities' relates to such works that, if not completed within a particular sequence or within a particular time frame, would be of detriment to the safety or construction of the cable and may include such activities as those that require continuous periods of operation and which have been assessed in the Environmental Statement such as those activities set out in paragraph (2) (a) to (g) dewatering; the testing or commissioning of the cables; and activity necessary in the instance of an emergency where there is a risk to persons, delivery of electricity or property. This would be particularly relevant for the completion of continuous processes predicted to last more than 12 hours.

58. Where construction works are to be undertaken outside the consented hours, the relevant local planning authority will be advised, as soon as practical, prior to the works commencing, through the use of a formal application template, which will outline the nature and circumstances for the works, the likely timing and duration and any mitigation measures to be implemented. This template is included as Appendix 11. The relevant local planning authority will, thereby, retain control over the activities that can be undertaken outside the standard construction hours. Where ESC is to be notified in advance of out of hours works, it is proposed that as much notice as possible is provided to allow for further discussion, if required, prior to agreement, with the minimum being 3 working days' notice (with the exception of the emergency works).
59. Stakeholders (including residential and leisure) will be notified of the proposals, where relevant.
60. Where works are undertaken outside consented hours in response to emergency situations, the relevant local planning authority will be advised as soon as practical, outlining the circumstances for the works, the likely duration and the management and mitigation measures implemented.
61. It has been agreed with the relevant local planning authority, that for the purposes of Requirement 25, that the following activities do not comprise 'construction works' and can therefore be undertaken outside of the above working hours without prior notification to ESC:
- Fuelling of generator servicing pumping equipment etc, where the need for this was not known during normal working hours and fuelling is required to enable the continued operation of the equipment
 - Response to failure of the following to enable return of service:
 - Electrical Generator to Welfare Facilities
 - Site LAN/WAN
 - Utility Power Supply
 - Security patrols and response to unauthorised access
 - Response to incident on site e.g inclement weather damage
 - Non scheduled maintenance of fencing¹ and access points, where the need for this was not known during normal working hours and immediate attention is required
62. EATL will use best endeavours to minimise the duration of, and sensitively time, construction activities. ESC will be advised of the likely timetable of works. This timetable will also be shared with affected communities through the local community liaison officer. Details of the way in which this would be done are set out in Appendix 8.

5.5. Construction Site Layout and Housekeeping

63. The layout of the Clappits CCS which will include locations of welfare, offices, storage, access and waste management and also the jointing bay compound are shown in Figure 3 and Figure 4 respectively. Any changes to these site layouts or designs will be issued to ESC.
64. A good housekeeping policy will apply throughout the construction period, which will include the following requirements, as a minimum:
- All working areas will be kept in a clean and tidy condition.
 - All site compound areas shall be non-smoking. Specific areas within the worksites will be designated as smoking areas and will be equipped with containers for smoking waste. These will not be located at the boundary of working areas or adjacent to areas deemed sensitive to local residents, workers or visitors.
 - Open fires and burning of rubbish are prohibited at all times.
 - Radios (other than two-way radios used for the purposes of communication related to the works) and other forms of audio equipment (other than associated with safety mechanisms (such as reversing beepers) will not be operated during construction activities.
 - Site waste facilities will be suitable for the waste streams to be handled and the containers will be in good condition and well signed to identify contents.

¹ Where out of hours work associated with maintenance of fencing and access points has been required, ESC will be notified of these works the following working day

- Site waste susceptible to spreading by wind will be stored in enclosed or covered suitable containers and waste will be removed at frequent intervals.
- Any weeds will be appropriately managed;
- Regular litter picks will be undertaken around the site boundary;
- Static plant will have suitable drip tray or plant nappy protection;
- Boundary fences will be frequently inspected, repaired and repainted as necessary.
- Stockpiles will be covered, seeded or fenced to prevent wind whipping as appropriate; and
- Adequate welfare facilities will be provided for all site staff and visitors.

65. Prior to any intrusive works, all existing service plans would be consulted and a comprehensive service line location survey carried out in order to ensure that existing services are not disrupted. This would include radio detection, ground penetration radar and vacuum excavation where necessary.

66. Additional housekeeping measures will be taken to minimise pollution risk during periods of extreme weather (i.e. flooding) by including the following:

- Staff toolbox talks on pollution prevention and spill procedures.
- The Principal Contractor will be required to sign up to the Environment Agency's flood warning service.
- Fuels, oils and chemicals will be surrounded by an impervious bund wall. The volume of the bunded compound shall be at least equivalent to the capacity of the tank or tanks plus 10%. This would constitute general site practice for the prevention of spills. In addition, the bunded installation will be installed in the remotest location possible at least risk from rising water and the walls will be of sufficient height and structural soundness to withstand any potential for flood water ingress.
- Debris or wastes will be safely contained, reducing the risk of large items entering the flood flow.
- Machinery will be stored or returned to areas of hard standing, remote from flood waters.

67. As the Clappits Works are not located in either Flood Zone 2 or 3, no additional measures are considered necessary with respect to periods of extreme weather (i.e. flooding). A Surface Water and Foul Drainage Management Plan has been developed to outline the requirements for surface water management and is included here as Appendix 1 and a Flood Plan is included as Appendix 12.

68. Wherever practicable, appropriate planning and timing of works will be agreed with landowners and occupiers, subject to individual agreements.

5.6. Site Induction

69. All personnel working on site will be required to have a site induction that includes an environmental protection and good practice component. Prior to commencing work on site, personnel must attend the site induction. EA THREE PEMP guidance requires site inductions to include reference to compliance with relevant DCO Requirements, license conditions, EATL environmental requirements (including the CoCP), environmental management roles, responsibilities and contacts, Health and Safety, Construction (Design and Management) Regulations, relevant Personal Protective Equipment (PPE) requirements, pollution prevention, site specific environmental sensitivities, the management of waste, water and wastewater, hazardous material, fuel, oil and chemicals; to include spill contingency and environmental emergency response and the reporting of all incidents and complaints. More specific information will be provided to staff according to their role.

5.7. Screening and Fencing

70. Details of permanent and temporary fencing and any other means of enclosure to be installed during the Clappits Works are detailed in the Fencing and Enclosure Plan (EA3-LDC-CNS-REP-IBR-000049) which is provided under separate cover. As such, detailed information does not form part of the CoCP, however a summary of fencing requirements is provided in Table 5-2 (taken from the Fencing and Enclosures Plan).

Table 5-2 - Summary of Fencing and Enclosure Requirements

Category	Fencing and Gateway Types
Secondary CCS	Heras fencing with double gateways; Chapter 8 Signing, Lighting and Guarding.
Accesses and Haul Roads	Post and wire fencing
Jointing Bay Compounds	Heras fencing with double gateways; Chapter 8 Signing, Lighting and Guarding
Landscaping	Stock proof timber post and rail fencing and/or timber post and wire fencing
Public Rights of Way	Crowd control fencing Post and rail (where required for a longer duration)
Trees and Hedgerows Protection	Heras fencing Crowd control fencing
Ecological Protection	Badger exclusion fencing

5.8. Site Security

71. Adequate security will be provided by the Principal Contractor, working on behalf of EATL, to protect the public and staff, prevent theft from or damage to the works and to prevent unauthorised entry to or exit from the site. Site gates shall be closed and locked when there is no site activity and appropriate security measures shall be implemented and maintained throughout the project work.
72. Security guards will be present at all access points used during active construction works. Any access points not planned to be used for that day/week will be locked with suitable padlock/keycode. CCS will have 24/7 security guards, as necessary and out of hours security guards will be in place at all locations where the cable is exposed.

5.9. Welfare

73. The construction areas will be provided with temporary construction offices and necessary welfare facilities, including mess rooms, locker rooms drying rooms, showers and toilet facilities, plus additional facilities for the mobile construction teams. These shall be installed subject to contractual agreements and will be in compliance with relevant legislation and codes of practice.
74. The potential for noise disturbance due to *inter alia* generators providing electricity to these facilities will be in accordance with the measures set out in the Construction Noise and Vibration Management Scheme (EA3-LDC-CSN-REP-IBR-000055).

5.10. Reinstatement

75. The reinstatement of land affected by the onshore construction activities is controlled under DCO Requirement 30, which states:

30. Any land landward of mean low water within the Order limits which is used temporarily for construction of the connection works and not ultimately incorporated in permanent works or approved landscaping, must be reinstated in accordance with such details the relevant planning authority in consultation with the relevant highway authority may approve, as soon as reasonably practicable and in any event within twelve months of completion of the relevant stage of the connection works, save that if approved by the relevant local planning authority Work No. 65 may be retained between any phases of construction works for Work No.67.

76. Topsoil and subsoil will be stored separately in bunds as per Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Defra 2009). This guidance will be used as a reference and will be assessed against current legislation and controls. Once excavations are complete and back-filled, the stored topsoil will be re-distributed over the area of the relevant work section.

77. Long-term storage of topsoil in bunds or heaps will be avoided where possible. However, some topsoil will have to be reserved for re-covering the final area when the CCS, jointing bay compound, access and haul road are removed at the end of construction.
78. Reinstatement as far as practicable of fences, and re-planting sections of hedgerows, hedge banks, and reseeded of fields or field margins where required would be undertaken.
79. In addition, landscaping works must be carried out in accordance with the Landscape Management Plan approved under DCO Requirement 14 (see Section 16 for further information).

6. TRAFFIC AND TRANSPORT MANAGEMENT

6.1. Introduction

80. To ensure that construction traffic does not have an unacceptable impact either on other road users or on the local environment, three traffic related management plans have been completed to fulfil DCO Requirement 16 and Requirement 27, which state:

16.—(1) No stage of the connection works may commence until for that stage written details (which accord with the outline access management plan) of the siting, design, layout and any access management measures for any new, permanent or temporary means of access to a highway to be used by vehicular traffic, or any alteration to an existing means of access to a highway used by vehicular traffic, has, after consultation with the highway authority, been submitted to and approved by the relevant planning authority.

(2) The highway accesses for that stage must be constructed or altered and the works described in paragraph (1) above in relation to access management measures must be carried out, as the case may be, in accordance with the approved details before they are brought into use for the purposes of the authorised project.

(3) No stage of the connection works may commence until for that stage, a scheme of traffic management measures (in accordance with table 2 of the outline traffic management plan) has been submitted to, and approved by the relevant planning authority in consultation with the relevant highway authority. The scheme must describe whether the proposed measures are to be temporary or permanent.

(4) The traffic management measures must be carried out in accordance with the approved details.

27.—(1) No stage of the connection works may commence until for that stage the following have been submitted to and approved by the relevant local planning authority in consultation with the relevant highway authority—

(a) a traffic management plan which must be in accordance with the outline traffic management plan;

(b) a travel plan which must be in accordance with the outline travel plan; and

(c) an access management plan which must be in accordance with the outline access management plan.

(2) The plans approved under paragraph (1) must be implemented upon commencement of the relevant stage of the connection works.

81. These documents are provided under separate cover, so detailed information on these does not form part of this CoCP. A brief summary of these plans is as follows:

- Clappits Works Access Management Plan (EA3-LDC-CNS-REP-IBR-000050): This plan sets out the details of the agreed access point onto the existing road network and the localised road improvements necessary to facilitate the safe use of the existing road network.
- Clappits Works Traffic Management Plan (EA3-LDC-CNS-REP-IBR-000053): This plan sets out the standards and procedures for managing the impact of Heavy Goods Vehicle traffic and abnormal loads during the construction period. It identifies and controls the numbers, types and timing of vehicles expected on the various parts of the highway network, based on compliance with those parameters assessed and described in the ES.
- Clappits Works Travel Plan (EA3-LDC-CNS-REP-IBR-000052): This plan sets out how construction personnel traffic will be managed and controlled during the construction period. It details measures which will be taken to encourage sustainable transport of construction personnel, again within the parameters assessed in the ES.

7. PUBLIC RIGHTS OF WAY

7.1. Introduction

82. This section provides an overview of how EATL will work with the Principal Contractor to ensure that all PRoW are effectively managed during the Clappits Works. Further details on the management of the interactions of the project with the PRoW are provided in the Clappits Works Public Rights of Way Management Plan (Appendix 9 of this CocP).
83. A pre and post-construction survey of the PRoW affected will be undertaken by an experienced surveyor, including identification and assessment of the surface condition and with a scope of coverage and methodology to be agreed with SCC. An ALO will be employed to ensure that corresponding information on existing land conditions is obtained, recorded and verified during the PRoW surveys.
84. Where they will be impacted by the works, the surveyed PRoW will be restored to original condition or to a condition as agreed with SCC. The ALO will act as the point of contact for the restoration of the rights of way.

7.2. Control Measures

85. Any PRoW to be affected by the works will be closed for the minimum time practical, commensurate with the work requirements and degree of restoration proposed.
86. Table 7-1 indicates the management measures proposed for the PRoW that will be impacted by the construction of the Clappits Works.

Table 7-1 - PRoW Management Measures

PRoW	Infrastructure Interaction
PRoW required to be Temporarily Stopped Up	
Public Footpath E-537/031/0 – from the north side of Woodbridge Road, the footpath leads east towards Mill Road via Bridleway E-410/006/0	<p>Approximately 240m between point R and S to be used to access CCS F (Clappits) and Jointing Bays 21 and 22 via Access H</p> <p>Duration of interaction:</p> <ul style="list-style-type: none"> temporary 1 to 2 week closure for upgrade and 1 to 2 week close for removal of access track intermittent use of access track/PRoW by CCS and jointing bay traffic over 18 month construction period
PRoW Interactions where PROW Crosses Haul Road	
Public Footpath E-410/008/0 - Part of the path that leads north east from The Street in Newbourne, connecting to Mill Road	<p>PRoW crossed by haul road within cable corridor (5.5m between point P and T)</p> <p>Duration of interaction –</p> <ul style="list-style-type: none"> Less than 1 week during installation of the haul road Less than 7 weeks activity spread over a 10 month period for jointing bay and duct proving works
Public Bridleway E-410/006/0- links Mill Road to E-537/031/0	<p>PRoW crossed by haul road within cable corridor (5.5m between point S and T)</p> <p>Duration of interaction –</p> <ul style="list-style-type: none"> Less than 1 weeks activity during installation of the haul road Less than 7 weeks activity spread over a 10 month period for jointing bay and duct proving works
Public Footpath E-305/001/0 - runs east west linking Hemley with Ranglins Wood and onto Newbourne	<p>PRoW crossed by haul road within cable corridor (5.5m between point AAA and BBB).</p> <p>Duration of interaction</p> <ul style="list-style-type: none"> Less than 1 week during installation of the haul road Less than 6 weeks activity spread over an 8 month period for jointing bay and duct proving works

PRow	Infrastructure Interaction
PRow interactions where PRow abuts Cable Construction Works	
Public Footpath E-537/025/0 – links Newbourn Road, north eastwards to Bridleways E-537/029/0 and E537/24/0	Start/end of footpath abuts access track linking Access I to Jointing Bay 20 Duration of interaction <ul style="list-style-type: none"> Less than 8 weeks activity spread over an 8 month period for jointing bay works

87. SCC and ESC will be notified 12 weeks in advance and the local parish councils will be notified approximately 4 – 6 weeks in advance of the temporary closures/diversion. Consultation with the parish councils will include:

- Notices be published in the press; and
- Advanced site notices (i.e. notices to members of the public warning of diversions ahead) including a map showing the extent of the closure and an alternative route, where relevant
- Confirmation that the alternative route across land in EATL control is safe and fit for public use.

88. In order to manage the interaction of PRow users and construction vehicles, the following safety measures shall be employed during operation of the access tracks/haul roads to enable the continued use of the PRow:

- Provision of warning signage to raise awareness of the PRow to approaching construction vehicles and informing PRow users approaching a construction interface of the associated hazards.
- Provision of a banksman to assist PRow users to safely cross the haul road during construction hours;
- A speed restriction on the haul road to 10 m/h within 30m of the PRow (haul road speed limit is 15 m/h generally);
- A short section of boundary fencing may be provided on each PRow as it approaches the haul road to ensure a clear point of entering/exiting the onshore development area is established; and
- Whilst there is a presumption in favour of not gating PRow where they cross a haul road, there may be occasions when a gate arrangement is necessary to be in place periodically for the protection of PRow users. Where this is the case, the Principal Contractor shall seek agreement from the PRow team at SCC, providing justification, in order to gain agreement on the specification of gate to be used. The least restrictive option suitable for all legal users will be used
- Toolbox talks will be a compulsory part of the induction training for drivers and will include information regarding the above measures and
- The surface of the PRow where it crosses the cable corridor will be kept in a safe and fit condition at all times for all legal users, particularly bridleway crossings where the aggregate surface must be suitable for horse riders.

8. NOISE AND VIBRATION

8.1. Introduction

89. There is the potential for noise and vibration to be generated during the construction process, especially from the movement and operation of heavy plant and machinery. Measures will be implemented on site to minimise any effects and a programme of monitoring may be required.

90. A Construction Noise and Vibration Management Plan has been produced for the Clappits Works in fulfilment of Requirement 24 of the DCO and in accordance with DCO Requirement 22 (2) (d), attached as Appendix 3. The Clappits Works Construction Noise and Vibration Management Plan (EA3-LDC-CNS-REP-IBR-000055) sets out the mitigation and control measures to be applied to minimise potential noise and vibration impacts on nearby residents and other sensitive receptors to acceptable levels in accordance with BS5228:2009+A1:2014. A brief summary of the noise control measures is provided below; however, please refer to Appendix 3 for full details.

8.2. Control Measures

91. Best practice noise mitigation measures, implemented and controlled through the Construction Noise and Vibration Management Plan, will include:

- Consideration of noise levels when selecting construction methods and equipment used.
- Management of construction operating hours (in accordance with those specified within the DCO).
- Training of construction workers on site to ensure noise is considered through all stages.
- Implementation of traffic management measures such as agreed routes for construction traffic.
- Use of modern, fit for purpose, well maintained plant equipment to minimise noise generation. Plant and vehicles will be fitted with mufflers / silencers maintained in good working order. Use of silenced equipment, as far as possible and low impact type compressors and generators fitted with lined and sealed acoustic covers. Doors and covers housing noise emitting plant will be kept closed when machines are in use. The positioning and specification of any generators used close to residential properties shall be positioned so as to ensure compliance with the assessed noise guidance thresholds and shall be agreed with ESC, as required.
- Where reasonably practicable, vibrating and noisy equipment should be located as far from sensitive premises as possible, and, if on a structure, not on one which is continuous with that of the sensitive premises; contractors and subcontractors should be trained to employ appropriate techniques to keep site noise to a minimum, and should be effectively supervised to ensure that best working practice in respect of noise and vibration reduction are followed.
- Minimise drop height of materials.
- Construction site layout to minimise or avoid reversing with use of banksmen where appropriate. Output noise from reversing alarms set at levels for health and safety compliance.
- Start-up plant, equipment and vehicles sequentially rather than all together.
- No working during night hours except for specific activities which have been agreed with ESC and should be discouraged as much as possible.
- Radios (other than two-way radios used for the purposes of communication related to the works) and other forms of audio equipment (other than associated with safety mechanisms (such as reversing beepers) shall not be operated during construction activities.
- Construction activities with the potential for significant impacts should be discouraged if possible, during night hours.
- Avoid shouting and minimise talking loudly and slamming vehicle doors.
- Ensuring engines are switched off when machines are idle.
- Noise and vibration should be controlled at source and the spread of noise and vibration should be limited.
- Use screens and noise barriers / acoustics screens where deemed necessary.
- Regular communication with site neighbours to inform them of the construction schedule, and when noisy activities are likely to occur. All residents who are likely to be affected by constructional noise that exceeds 64dB(A) expressed as a 1 hour L(A)_{eq} value shall be notified at least 24 Hours in advance of the works and given an estimate of how long the elevated noise levels will continue.
- If it is deemed by ESC that during construction, monitoring of noise is necessary, then the locations for such monitoring will be agreed in advance with ESC.
- To ensure that excessive vibration levels on the road network are not caused by HGVs travelling over discontinuities in the road, visual checks should be made of roads adjacent to the buildings listed (identified in the Construction Noise and Vibration Management Plan) by the Principal Contractor, the construction management team and EnvCoW. Access and haul road condition will also be monitored.

8.3. Monitoring

92. A scheme of noise monitoring will be implemented and maintained during construction in order to ensure compliance with the noise limits and to verify the effectiveness of the best practice and mitigation measures identified in Section 10. The frequency will be flexible (weekly during initial stages and monthly once compliance with levels established) and should cover all construction activities and stages. Monitoring will also be undertaken, as required, when working near sensitive receptors.
93. The purpose of the noise monitoring is to facilitate data acquisition to demonstrate that the EA THREE cable is being installed within the noise criteria set out in accordance with the BS 5228-1 and in such a manner to minimise the noise impacts at nearby sensitive receptors, and if required in response to complaints.
94. The monitoring locations selected to be used in the 2021 baseline survey set out in Section 7 of the Clappits Works Construction Noise and Vibration Management Plan would be utilised, unless agreed otherwise with ESC.

9. AIR QUALITY

9.1. Introduction

95. There is the potential for construction works to have an adverse impact on air quality. Measures will be implemented on site to facilitate the avoidance, remediation and mitigation of any adverse effects of emissions generated from the construction activities of the project.

96. An Air Quality Monitoring Plan (AQMP) has been produced for the Clappits Works, in fulfilment of DCO Requirement 22 2 (e), attached as Appendix 2. As the main pollutant potentially released during construction works will be particulate matter (PM₁₀), the AQMP focusses on this parameter as a pollutant. The AQMP contains a characterisation of the air quality in the construction area and an identification of the air quality impacts and risks from the construction activities. It then describes the implementation of the control measures and mitigation to minimise any adverse effects and finally includes a monitoring plan to evaluate the efficiency of the control measures and mitigation. A brief summary is provided below; however, please refer to Appendix 2 for full details.

9.2. Characterisation and Assessment

97. A construction dust assessment was undertaken as part of the ES using guidance documents and associated methodologies that are still considered relevant and up to date. A separate dust assessment has now been undertaken on behalf of EATL (in accordance with IAQM guidance (Guidance on the Assessment of Dust from Demolition and Construction, 2014)) which focuses solely on construction activities proposed at the Clappits Works, with the use of updated information from the Principal Contractor.

9.3. Control Measures

98. Table 9-1 (taken from AQMP) includes the recommended measures to be implemented in order to avoid the potential impacts to air quality associated with the construction works. The mitigation measures described will be monitored by the Principal Contractor's construction management team and EnvCoW throughout the construction phase, as set out in the PEMP and CEMP. If non-conformity with any of the control and mitigation measures is identified, it will be recorded during a site inspection or audit and appropriate remedial actions will be implemented.

Table 9-1 – Air Quality Control Measures

Mitigation Measure - Category	Description	Timing	Responsibility
Sustainable Travel and Machinery	Ensure all vehicles switch off engines when stationary - no idling vehicles.	Ongoing	All personnel
	Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable.	Ongoing	Principal Contractor
	Impose and signpost a maximum-speed-limit of 15mph on surfaced and 10mph on unsurfaced haul roads and work areas	Ongoing	Site Manager/Principal Contractor
Operations	Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.	As needed	Principal Contractor
	Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.	As needed	Principal Contractor
	Use enclosed chutes and conveyors and covered skips.	Ongoing	Principal Contractor
	Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.	Ongoing	All personnel
	Monitor weather forecasts for prolonged dry or windy conditions and modify (or delay) potentially dusty site activities until the risk has reduced.	Ongoing	Principal Contractor/Site Manager
	Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods .	Ongoing	Principal Contractor

Mitigation Measure - Category	Description	Timing	Responsibility
Preparing and Maintaining the Site	Plan the site layout so that machinery and dust causing activities are located away from receptors, unless required for works.	As needed	Principal Contractor
	Erect effective solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.	As needed	Principal Contractor
	Enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.	As needed	Principal Contractor/all personnel
	Keep site fencing, barriers and scaffolding clean using wet methods e.g. fine water spray.	Ongoing	Principal Contractor
	Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.	As needed	Principal Contractor/all personnel
	Cover, seed or fence stockpiles to prevent wind whipping.	Ongoing	Site Manager/Principal Contractor
Site Management	Monitoring of haul road surface condition.	Ongoing	Principal Contractor
	Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.	Ongoing	Principal Contractor/Site Manager
	Make the complaints log available to the local authority when asked.	As needed	Principal Contractor/Site Manager
	Record any exceptional incidents that cause dust and/or air emissions, either on- or off-site, and the action taken to resolve the situation in the logbook.	As needed	Principal Contractor/Site Manager
	If any high-risk construction sites are identified within 500m of the site boundary, liaison will be undertaken to ensure plans are co-ordinated and dust and particulate matter emissions are minimised, including with respect to interactions of the off-site transport/deliveries which might be using the same strategic road network routes.	One off	Principal Contractor
	Temporary cover, screen or revegetate earthworks/stockpiles, if possible, as soon as is practicable. A low maintenance grass mix will be sown as soon as possible after creation of any soil storage mounds which are intended to remain in situ for more than 6 months or over the winter period. The optimum months for sowing grass seed are April or September to October.	As needed	Principal Contractor
	Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.	As needed	Site Manager/Principal Contractor
	Wetting/dampening of dust generating stockpiles	As needed	Principal Contractor
	Avoid scabbling (roughening of concrete surfaces) if possible.	Ongoing	Site Manager/Principal Contractor
	Stockpiles would be kept in place for the shortest possible time.	Ongoing	Principal Contractor
	Dust-generating activities will be minimised.	Ongoing	All personnel
	Where diesel- or petrol-powered generators are used, best practice measures will be implemented including regular inspections with respect to black smoke, siting away from pedestrian areas and if required, raising above ground to further reduce potential for contact with fumes.	Ongoing	Principal Contractor

Mitigation Measure - Category	Description	Timing	Responsibility
	Fine powder material (e.g. bulk cement/ grouts) to be delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.	Ongoing	Principal Contractor
	For smaller supplies of fine powder materials, ensure bags are sealed after use and stored appropriately to prevent dust release.	Ongoing	Principal Contractor
	Inspections and monitoring to be undertaken as set out in Section 9 of the AQMP.	Ongoing	Principal Contractor
	Runoff of mud and water will be prevented.	As needed	Principal Contractor
Trackout	Use water-assisted dust sweeper(s) on the access roads, Newbourne Road and Woodbridge Road, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.	As needed	Principal Contractor
	Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable and regularly dampen down with fixed or mobile sprinkler systems, where necessary.	Ongoing	Principal Contractor/Site Manager
	Avoid dry sweeping of large areas.	As needed	Principal Contractor
	Ensure all vehicles entering and the leaving the site which are carrying loads are covered to prevent escape of materials during transport	Ongoing	Site Manager/Principal Contractor
	Record all inspections of haul routes and any subsequent action in a site logbook.	Ongoing	Principal Contractor/all personnel
	Implement a wheel washing system to dislodge accumulated dust and mud prior to leaving the site.	As needed	Principal Contractor
	Vehicles leaving site will be washed if necessary.	Ongoing	Principal Contractor
	Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits. Locate site access gates at least 10m from receptors where practicable.	As needed	Principal Contractor
Waste Management	Bonfires and burning of waste will not be allowed on Site.	Ongoing	Principal Contractor/all personnel
NRMM	All NRMM should be well maintained. If any emissions of dark smoke occur, then the relevant machinery should stop immediately, and any problem rectified.	Ongoing	Principal Contractor
	All NRMM will use ultralow sulphur diesel (fuel meeting the specification within EN590:2004), where available.	Ongoing	Principal Contractor
	All NRMM to comply with either the current or previous EU Directive Staged Emission Standards.	Ongoing	Principal Contractor
	All NRMM will be fitted with Diesel Particulate Filters (DPF) conforming to defined and demonstrated filtration efficiency (load/duty cycle permitting).	Ongoing	Principal Contractor
	The on-going conformity of plant retrofitted with DPF, to a defined performance standard will be ensured through a programme of onsite checks.	Ongoing	Principal Contractor
	Implementation of fuel conservation measures including instructions to throttle down or switch off idle construction equipment; switch off the engines of trucks while they are waiting to access the site and while they are being loaded or unloaded, ensure equipment is properly maintained to ensure efficient fuel consumption	Ongoing	Principal Contractor
	Regular servicing and checks of all plant/equipment e.g. black smoke from exhausts	Ongoing	Principal Contractor

9.4. Monitoring

99. If the control and mitigation measures in Table 9-1 are implemented correctly, then dust production and other emissions from the construction site will be minimised. However, site inspections and visual monitoring will be undertaken as an effective way to verify that air pollution control measures have been properly designed and implemented.
100. Generally, visual monitoring and sites inspections will include, but not be limited to:
- Visual inspections for clouds of dust generated from haul trucks, vehicle traffic, earthworks, etc will be undertaken every morning and afternoon whilst undertaking the pre-works checks and observations recorded after each inspection.
 - The frequency of site inspections to be increased when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
 - Check the weather forecast and if it indicates dry weather and strong winds are likely, this will be a trigger for preventive dust management action to be taken.
 - Verify if vehicle traffic emissions are consistently black. This is a signal that an engine is not operating optimally.
 - Check for the presence of deposited dust on access tracks and haul roads, cars, residences or vegetation within 100m of the project site, if site inspections indicate off-site deposition is a possibility and subject to landowner approval.
101. The implementation and effectiveness of the control measures will be monitored by the Principal Contractor's construction management team and EnvCoW.

10. ARTIFICIAL LIGHTING

10.1. Introduction

102. During the construction works, the activities which may require temporary external artificial lighting at night are:
- Continuous works, such as concrete pouring or testing and commissioning;
 - Security purposes at the CCS and jointing bay;
 - Delivery of abnormal loads;
 - Potential emergency works; and
 - Equipment such as stockpiles and emplacement areas, which will be carefully sited to ensure no light spillage.
103. Lighting from these sources has the potential to have the following impacts:
- Intrusive lighting impacting nearby residents causing disturbance and annoyance, particularly with regard to sleep patterns;
 - Impact on ecological sensitive receptors from light spill;
 - Impact on visual amenity due to the illumination of the night sky; and
 - Lighting on surrounding roads distracting passing motorists.
104. A Construction Artificial Lighting Emissions Plan (ALMP) (EA3-LDC-CNS-REP-IBR-000054) has been prepared for the Clappits Works in fulfilment of DCO Requirement 23 (1) and 22 (2) (f), and is attached as Appendix 5. The plan sets out mitigation measures to be applied to the construction activities to reduce the potential for significant impacts from light emissions. A brief summary is provided below; however, please refer to Appendix 3 for full details.

10.2. Objectives

105. The main objectives for managing artificial lighting emissions are:
- To ensure temporary lighting installations are positioned so as to avoid light spill directly towards roads, residences and other potential viewing locations or ecological receptors.
 - To ensure the potential impacts from light emissions on access/haul road for mobile equipment are reduced so far as practicable.
 - To utilise existing vegetation screens to minimise the impact of any light spill in the direction of roads, residences and other viewing locations or ecological receptors.
 - To use directional lighting to reduce light spill and minimise light emissions from night-time construction works to retain dark night skies.
 - To ensure procedures are in place to record and effectively respond to any complaint in respect to lighting.

- To record and report the effectiveness of lighting emission controls.
- To utilize appropriate mitigation measures to reduce glare.

10.3. Control Measures

106. The onshore cable route, including the location of the infrastructure within the Clappits Works, has been carefully designed to reduce the potential for significant impacts and to minimise impacts on the environment by the implementation of mitigation measures. Using the ducts already installed during the EA ONE project will minimise the need for additional constructions works and associated artificial lighting. Light spill from artificial lighting sources will be controlled to avoid or minimise impacts on sensitive receptors, in particular for nocturnal species. This includes the use of directional lighting, non-reflective surfaces and introduction of barriers and screens to avoid light spill nuisance whilst maintaining safety and security obligations.
107. A summary of the control measures to be adopted during construction to minimise potential impacts are listed below:
- Periods of 24-hour lighting will be minimised where possible during construction.
 - Site lighting will be positioned and directed to minimise nuisance to public rights of way users and residents, to minimise distractions to drivers on adjacent public highways and to minimise sky glow, so far as reasonably practicable. At the CCS, external lighting will be limited to internal access roads and walkways, security lighting and task related flood lighting. At the jointing bay, lighting will only be required for security purposes once the cable has been pulled through but prior to backfilling of the excavation. Lighting will be selected and positioned in accordance with guidance and standards.
 - Light spill will be reduced by directing the light to where it is needed and away from the identified potentially sensitive receptors, where possible. The design of the luminaire and accessories such as hoods, cowls, louvres will be used achieve this. Where possible asymmetric optics will be used such that the front glazing is kept at or near parallel to the surface being lit. In addition, where possible glare will be minimised by ensuring that the main beam angle directed towards any potential observer is no greater than 70°, in accordance with ILP guidance (ILP, 2021). Higher mounting heights allow lower main beam angles, which can assist in reducing glare.
 - So far as is practicable, all power to temporary lighting will be taken from mains supplies rather than from portable generators. Where portable generators are used, industry best practice will be followed to minimise noise and pollution from such generators.
 - Non-reflective surfaces and barriers and screens will be used as required to minimise light nuisance.
 - All lighting relating to the onshore construction works are temporary and will be removed as soon as possible on completion of the relevant element of works
108. Mitigation specific to ecology, in accordance with the Bat Conservation Trust (2018) guidelines will be included as follows:
- LED luminaires will be used where possible;
 - Metal halide, fluorescent sources will not be used;
 - Column heights will be carefully considered to minimise light spill;
 - Narrow spectrum light sources will be used to lower the range of species affected by lighting;
 - Light sources that emit minimal ultra-violet light will be selected;
 - Lights will peak in wavelength higher than 550nm;
 - White and blue wavelengths of the light spectrum will be avoided to reduce insect attraction and where white light sources are required in order to manage the blue short-wave length content, they will be of a warm / neutral colour temperature, ideally <2700Kelvin;
 - Only luminaires with an upward light ratio of 0% and with good optical control will be used; and
 - External security lighting will be set on motion-sensors with short (1 minute) timers
 - Directional beams and non-reflective surfaces will be used to ensure light spill and nuisance does not encroach onto adjacent areas including:
 - Woodland and water edge, so as not to disturb emerging or foraging bats, badgers or other nocturnal species (birds, hedgehogs). Flood lighting will be directed away from any potential roost identified and 30m disturbance zone around badger setts.
 - Other high value foraging habitats and potential flight paths, such as connecting hedgerows and standalone trees.
 - Pre-construction surveys for protected species and Schedule 1 birds will be undertaken in the vicinity of the Work sites. Survey works have an expiry of approximately 18-24 months and, therefore, if works are to take place 18-24 months after the most recent surveys, a re-survey will be undertaken in order to confirm that the status of the habitats has not changed and to ensure that mitigation is based on up to date survey data.

- External lighting at night will be avoided as far as feasible, particularly during the months of higher bat activity (August – October). When lighting at night is required, it will comply with the Bat Conservation Trust (2018) recommendations on external lighting (as set out above) as agreed with Natural England, as required. This will be designed to avoid light spill to both woodland and water edge, potential roosts and other high value foraging habitats and potential flight paths as outlined above.
- Should any Schedule 1 or other species of bird be found to be nesting within the vicinity of the Clappits Works, an exclusion zone will be implemented specific to that species in accordance with the Ecological Mitigation Plan (EA3-LDC-CNS-PLN-IBR-000004).

10.4. Monitoring

109. Regular inspections of lighting mitigation measures will be undertaken by the Principal Contractor's construction management team, the EnvCoW and ecological specialists where required, to ensure effective implementation and report any non-compliances. If non-conformity with any control and mitigation measures is identified, it will be recorded and appropriate remedial action will be implemented.
110. The frequency and the location inspections will be determined by the EnvCoW and will be included in the Project Environmental Management Plan (included as Appendix 10) and the Construction Environmental Management Plan (prepared by Principal Contractor).
111. Any complaint regarding lighting of the construction works will be directed to the EnvCoW who will in turn notify ESC. The EnvCoW will investigate the complaint and provide a response to the complainant and ESC within 48 hours. Investigation will include checking that luminaires remain directional and suitable for the application. If the complaint is justified a solution will be found to prevent reoccurrence, such as use of hoardings or other barriers to contain light spill. This may include investigation of alternatives, such as the use of lower wattage lighting, or re-direction of lighting or re-positioning shielding.

11. GROUND CONDITIONS

11.1. Land Shrinkage

112. A complex pattern of ground conditions is present along the onshore cable route. At a simplistic level the surface deposits range from Alluvial, comprising soft clays, silt and sand to the south east of the route adjacent to the River Deben, to Glacial sand and gravel to the north and Glacial Till to the north east.
113. Cohesive soils (clays) are susceptible to shrinkage/swelling due to changes in moisture content, whereas granular soils (sands and gravels) are not. The magnitude of shrinkage of cohesive soils will depend on the degree to which their moisture content is modified and their specific mineral composition. In general the more clay mineral present, the more shrinkable the clay.
114. By adopting appropriate construction methods that will facilitate continuity of land drainage at all times both during and after construction, the risk of affecting current drainage patterns and therefore shrinkage / swelling of soils, will be avoided. This will prevent significant change in soil moisture content developing. Such measures are to:
- Ensure that drainage patterns are only interrupted for the shortest possible duration construction; and
 - Ensure complete and effective restoration of drains and ditches.
115. These methods are set out in Section 8.2 of the SFWDMP (Appendix 1).
116. Construction works will be completed in line with details provided in Chapter 5 Description of the Development of the ES. Note that as the ducts will already be in place, relevant works are only the jointing bay. There are no temporary water crossings. The mitigation measures set out in Sections 8.2 and 8.3 of the SFWDMP will ensure that there is minimal change to surface water flow or to any associated groundwater drainage patterns during and after construction.
117. Wherever possible, the jointing bay will be backfilled with arisings, in the order they were originally present. This will ensure that there are no significant changes to the drainage pattern of the land once construction has been completed.
118. Drainage systems put in place in working areas and the CCS will ensure that existing drainage patterns are only minimally affected. Separators will be provided where the drainage water may be impacted by oil contamination.

11.2. Contaminated Land

11.2.1. Introduction

119. There are no known areas of contaminated land within the Clappits Works, therefore, this section of the CoCP provides procedures to follow in the unlikely event of encountering unexpected contamination.

11.2.2. Encountering Unexpected Contamination

120. Site Managers will be instructed on the potential for encountering unexpected gross contamination and made aware of the procedure should such an event occur. The Site Manager will be provided with contact details of the EnvCoW who will contact an appropriate environmental specialist who can provide telephone advice as to whether construction needs to be halted to allow a site inspection to be undertaken.
121. In the event that unexpected gross contamination i.e. visual and olfactory evidence of hydrocarbons, spent oxide, tars or other unusual discolorations or odours) is encountered, work in the area will cease on instruction by the Site Manager or delegate and the affected area will be contained and made as safe as reasonably practical pending assessment. A suitably trained geo-environmental engineer will assess the visual and olfactory observations of the ground and the extent of the unexpected contamination. Consultation with EAONL, SCC, ESC (Environmental Health Department) and the Environment Agency will be undertaken as a matter of urgency, and agreement reached on plans for further investigation and remediation measures where necessary.
122. The suspected contaminated material will be investigated and tested appropriately in accordance with assessed risks. The investigation works will be carried out in the presence of a suitably qualified geo-environmental engineer. The investigation works will involve the collection of solid samples for testing and, using visual and olfactory observations of the ground, delineate the area over which contaminated materials are present. This should provide sufficient data and resource to devise a risk-based remediation strategy that breaks relevant pollutant linkages, minimises disruption to the programme and can be verified by soil or groundwater sampling during the works.
123. Any areas where unexpected visual or olfactory ground contamination is identified will be surveyed and testing results incorporated into a Verification Report. A photographic record will be made of relevant observations.
124. Where necessary, laboratory analysis will be completed (on an expedited turnaround, where possible), allowing conclusions to be reached as to whether material needs to be removed from the construction area. The testing suite will be determined by the independent geoenvironmental specialist based on visual and olfactory observations and the test results compared against current assessment criteria suitable for the future use of the area of the site affected. Note this may also need to include Waste Acceptance Criteria analysis for waste classification purposes if excavation and off-site disposal are a possible outcome.
125. The unexpected, contaminated material will either be left in situ or be stockpiled (except if suspected to be asbestos) whilst testing is carried out and suitable assessments completed to determine whether the material can be re-used on site or requires disposal as appropriate. Temporary storage stockpiles of any unexpected contamination will be appropriately located and designed to contain contaminants and will be isolated from any nearby surface water drains or similar receptors. Temporary stockpiles will be placed either on a prepared surface of clay, or on 2000-gauge Visqueen sheeting (or other impermeable surface) and covered to prevent dust and odour emissions. Where the material is left in situ awaiting results, it will either be reburied or covered with plastic sheeting.
126. The results of the investigation and testing of any suspect unexpected contamination will be used to determine the relevant actions. ESC will be consulted with respect to the nature and extend of any remedial work, before it commences. After consultation with ESC, materials should either be:
- re-used in areas where test results indicate that it meets compliance targets so it can be re-used without treatment; or
 - treated on site to meet compliance targets so it can be re-used; or
 - removal from site to a suitably licensed landfill or permitted treatment facility.
127. A Verification Report will be produced.

11.2.3. Measures for Working in Areas of Suspected or Unexpectedly Found Contamination

128. Risk of exposure of site workers or the public to contaminants at locations where contamination is unexpectedly found will be minimised through the adoption of good practice procedures as described in guidance documents such as the Protection of Workers

and the General Public during the Development of Contaminated Land. HSE, 1991; A Guide for Safe Working on Contaminated Sites, R132, CIRIA 1996 and Control of Asbestos Regulations 2012. Interpretation for Managing and Working with Asbestos in Soil and Construction and Demolition Materials. Industry Guidance. CL:AIRE 2016. The following measures will be in place at areas of suspected or unexpectedly found contamination:

- Construction workers should minimise direct contact with the contaminated materials, including inhalation of dust. Appropriate PPE would include overalls and gloves.
- If unexpected contamination includes Asbestos then it is particularly important that the CL:AIRE guidance is applied in full, to ensure that workers and others are not exposed to asbestos as a result of work in, on or with such materials. It is important that persons designing, directing and undertaking work in areas of suspected or unexpectedly found Asbestos contamination are competent persons who are able to demonstrate that they have received adequate information, instruction and training relevant to the type of project being undertaken and be able to demonstrate that they have sufficient practical experience to apply this knowledge effectively. All works which are likely to disturb asbestos contaminated soils should be carried out in accordance with a dedicated asbestos risk assessment and plan of works.
- Prior to work being undertaken that may have an effect on workers, the public or the environment, an approved site specific Risk Assessment and Method Statement (RAMS) must be completed. The RAMS will identify risks associated with the proposed work at the site together with mitigation measures to adequately address the risks and embed these in the work Method Statement.
- Implementation of controls such as defining, demarcating and isolating the working area, use of designated access and egress routes, provision of hygiene facilities and maintenance of high hygiene standards, provision of first aid facilities and provision and use of appropriate PPE, together with any specific measures required and relating to the particular site environment.
- Where required, provision will be made for the safe storage of contaminated materials at designated locations. Where disposal of contaminated material is required, it is proposed that advice will be sought from suitably qualified environmental specialist who will advise on the best method of disposal (e.g. licensed landfill, tanker for liquids). Time will be allowed for suitable laboratory analysis of unexpected contamination so that classification of the waste for disposal purposes may be completed. Transfers will be undertaken by registered waste carriers to authorised disposal sites in accordance with Duty of Care requirements, under the Waste (England and Wales) Regulations 2011.
- Where material is to be removed from site due to contamination it will be undertaken by a suitably licensed contractor in a manner to prevent the generation of pathways and the egress of pollutants from the site. Appropriate and clean replacement fill material will be imported to site and where necessary, fill material will be analysed prior to import to site to ensure that it is suitable for use.
- Detailed diary logs, plans and photographic records of the nature and extent of the unexpected contamination, verification sampling and laboratory analyses will be retained and compiled to confirm residual contaminant conditions. Transfer notes and waste returns and imported fill records will also be compiled and retained as part of the documentation of the discovery, management and disposal (if required) of any unexpected contamination.

12. STORAGE AND USE OF OILS AND CHEMICALS

12.1. Introduction

129. The main objectives with regard to managing potential hazardous materials including oils and chemicals are:

- To ensure that appropriate measures are in place to prevent hazardous materials being released into the environment:
- Complying with relevant legislation and good practice associated with the storage and use of hazardous materials.

130. A Pollution Prevention and Emergency Incident Response Plan (PP&EIRP) has been produced for the Clappits works, in fulfilment of DCO Requirement 22 (2) (h), attached as Appendix 7. The PP&EIRP details the requirements for pollution prevention that the Principal Contractor will need to comply with, with regards to the delivery, storage and handling of hazardous materials and in particular oils and fuels. A brief summary of the control measures for appropriate storage of use of oils and chemicals is provided below however please refer to Appendix 7 for full details.

12.2. Control Measures

131. The following best practice will be implemented:

- Selection of chemicals that have the lowest impact to the environment where practicable and volumes of hazardous substances stored to be limited to be fit for purpose and minimise risk;
- All contractors shall detail within their CEMP specific controls necessary for the delivery, storage and handling of hazardous materials relevant to their works, and in particular oils and fuels, taking into account the requirements of the Control of Pollution (Oil Storage) (England) Regulations 2001 and best practice guidelines (such as Pollution Prevention for Business).
- Ensure that fuels, oils and chemicals are only ordered in manageable quantities and stored responsibly, i.e. in a bunded area able to contain 110% of the volume of the largest container or 25% of the combined capacity of all the containers or in a suitable container/storage area within designated areas and in accordance with relevant legislation. Storage shall be located in designated areas taking into account security, the location of sensitive receptors and pathways such as drains and watercourses, and safe access and egress for plant and manual handling. Spill response materials shall be provided nearby and be readily accessible, with local project personnel trained in spill response. Damaged containers will be removed from site.
- Facilities storing oils, fuels and chemical shall be locked and made secure when not in use.
- The storage of incompatible hazardous materials shall be appropriately segregated and stored a minimum of 30m from any watercourse or drain. If hazardous materials are stored in a confined space, the space must be properly ventilated.
- Oils and chemicals shall be clearly labelled and the contractor will retain an up-to-date Control of Substances Hazardous to Health (COSHH) inventory, including Material Safety Data Sheet (MSDS). Spillage kits or portable bund kits must be available at or near the delivery point for emergencies.
- Oil, fuel and chemical storage areas shall be inspected, at least weekly for signs of spillage, leaks and damage. Rainwater, materials and general debris will be stored in bunds and drip trays that compromise contingency storage shall be removed as part of the maintenance programme and in accordance with regulatory protocols. Spill kits of sufficient capacity to deal with volumes stored to be fully stocked and readily available.
- Activities involving the handling of large quantities of hazardous materials, such as deliveries and refuelling will be undertaken by designated and trained personnel.
- Where portable storage is required at active working areas these shall be sited at appropriate distances from watercourses, possible routes to watercourses and drains. Storage areas shall be located in areas free from vehicle movements to minimise the risk of collision damage.
- Use of portable bowsters with built-in bunds for any refuelling activities required in the active working area, with the return of bowsters to the main construction compounds overnight.
- Inspection of all construction plant for fuel leaks before being delivered to the working area.
- Static plant shall have suitable drip tray or plant nappy protection.

132. A Hydrogeological Risk Assessment has been undertaken for this stage and is appended to the Surface and Foul Water Drainage Management Plan.

12.3. Monitoring

133. The control measures described above will be monitored by the Principal Contractor's construction management team and the EnvCoW, throughout the construction phase, as set out in the PEMP. If non-conformity with any of the mitigation measures is identified, it will be recorded during a site audit and appropriate remedial actions will be implemented.

13. WASTE MANAGEMENT

13.1. Introduction

134. A Project Site Waste Management Plan (SWMP) has been produced for the project and is included as Appendix 6 to fulfil DCO Requirement 22 (2) (g). The SWMP outlines the procedures that will be implemented during the construction works in order to optimise the sustainable management of waste in accordance with the Waste Hierarchy by avoiding waste generation and promoting waste minimisation in the first instance. Where waste is produced, reuse or recycle or recovery should be considered where practical and economically feasible prior to considering disposal. Best Practice in waste minimisation and management is also encouraged. This section provides a summary of the SWMP and summarises the objectives, control measures to be employed and monitoring that will be put in place. Please refer to Appendix 6 for full details.

135. The SWMP is a working document and as such information will continue to be added as the document remains live throughout the works.

13.2. Objectives

136. EATL aims to manage waste in accordance with the Waste Hierarchy, the Employer's EMS (as set out in the PEMP) and also the following objectives:

- Environmental Protection: The SWMPs help to manage and reduce the amount of waste produced, and therefore to be disposed of at landfill. Additional environmental benefits include: less harm to the local environment, avoidance of fly tipping, reduced energy consumption and greater opportunities for reusing and recycling materials.
- Cost Saving: Managing materials more efficiently will immediately cut costs. Better storage and handling of materials will reduce waste and enable better recovery. Reusing and recycling materials cuts disposal costs.
- Legal Requirements: Compliance with the SWMP will ensure compliance with relevant waste legislation, including all Duty of Care obligations. The Duty of Care also requires all parties (operator, contractor, subcontractors, waste management companies etc.) to ensure that waste is only transported and received by those licenced to do so. In addition, the written record of all waste movements will be retained for 2 years (where non-hazardous) and 3 years (where waste is hazardous). The Duty of Care obligations also extend to ensuring that waste is stored and contained appropriately at all times.
- The SWMP will be updated to reference the Principal Contractor (i.e. the Cable Contractor) once appointed.
- EATL and the Principal Contractor will take all reasonable steps to ensure that—
 - (a) all waste from the site is dealt with in accordance with the waste duty of care in section 34 of the Environmental Protection Act 1990(1) and the Environmental Protection (Duty of Care) Regulations 1991(2); and
 - (b) materials will be handled efficiently and waste managed appropriately.

13.3. Control Measures

137. The Waste Hierarchy (Elimination, Reduction, Re-use, Recycle, Recovery and Disposal) actions will be identified and recorded throughout the onshore construction works. The key elements of waste management to be implemented are:

- The appointed contractors will identify appropriate staff that are responsible for waste management; and ensure that all contractor staff are aware of the appropriate reuse, recovery or disposal routes for each waste.
- A person responsible for producing, implementing and maintaining the Project and individual Contractor SWMPs will be identified. This person will also be responsible for ensuring compliance with Duty of Care regulations.
- Target recovery rates for key waste type, along with some formal measurement will be identified.
- All waste streams (for example, soils and stones, plastics and metals etc.), to be produced during construction and excavation, will be considered for their potential for reuse (on or off site) or for recycling.
- The most significant opportunities to increase reuse and recycling rates (termed Waste Recovery Quick Wins) and the realistic recovery rates will be identified.
- Ensure that those who remove waste from site have the appropriate authorisation (i.e. are registered waste carriers); and those facilities that receive waste from the site hold a valid environmental permit or authorised exemption;
- Waste Transfer Notes (WTNs) and Hazardous Waste Consignment Notes (HWCNs) will be recorded and retained to track the movement of the waste to the specified disposal or recovery facility.
- Appropriate site practices, such as identifying how waste materials will be segregated and measures that will be used to raise site operatives' awareness of waste reduction, reuse and recycling (e.g. toolbox talks) will be implemented.
- The method for measuring and auditing construction and excavation waste will be set out.
- All personnel will be fully trained in these matters to ensure compliance. Site waste management will feature as a topic in the site environmental induction, which all staff working on site must attend, which will be supplemented by toolbox talks;
- No waste will be deposited outside the boundary of the site, unless it is at a facility that holds a valid environmental permit or suitable authorised exemption. Off-site waste management facilities are legally obliged to operate under an environmental permit (or an authorised exemption), which is in place to ensure that the site is operated in a manner to prevent emissions causing harm to human health or the environment.
- Monitor the actual quantities of wastes produced during construction and update the SWMP to allow comparison with waste arisings estimated prior to construction. Record the proposed waste management option (e.g. reuse on site, recycle off-site, or dispose off-site) for each waste produced.

138. All contractors will identify and appoint waste carriers and appropriate waste management facilities prior to the construction activities commencing, ensuring first that they are fully licenced.

139. Site waste will be segregated, as far as practical, (and as a minimum to separate hazardous wastes) and will be stored in in line with the following:

- Skips and containers used for waste must be secure, in good condition and suitable for use.
- The area to be used for waste storage shall be clearly signed and segregated.
- Clear signage/labelling shall be used to identify the contents of any waste container, so that site workers know which wastes should be put there.
- Separate containers for dry recyclables, such as paper and cardboard, plastic, glass, wood and metal will be provided. This would encourage recycling and increase the potential value of the recyclable items by avoiding contamination;
- Materials stored on site will be protected, by whatever means necessary, to prevent any deterioration or contamination prior to use.
- The waste storage facilities provided will be located on a suitable hard surface (e.g. paved or impermeable surfaces) to prevent spillage and to prevent surface run-off discharging onto the surrounding ground.
- Hazardous waste will be stored separately from non-hazardous wastes to avoid contamination. The Hazardous Waste Regulations make it illegal to mix hazardous waste with non-hazardous waste;
- Any spilt or lost material will be immediately dealt with by the Contractor to prevent seepage into the ground.
- The location and details of the proposed material handling and storage facilities to be installed will be agreed in advance for acceptance.
- Site waste management and environmental, health and safety plans will be prepared in advance of all construction or other disruptive site works.
- Waste to be scheduled to be regularly collected to ensure manageable volumes of waste on site.

140. EATL and appointed contractors will provide suitable on-site instruction on the appropriate segregation, handling, recycling, reuse, and return methods which will be used by all parties, during all stages of the onshore construction works. The SWMP will also be outlined in the site induction process. In addition to the site environmental inductions, targeted toolbox talks will be carried out, which will inform contractors and sub-contractors as to how they should be involved with the waste, reuse and recycling requirements of their works.

141. Alternative end destinations will also be sought for materials that can be recovered off site such as haul road stone and fence posts. Under a U1 exemption (under the Environmental Permitting (England and Wales) Regulations 2016), stone used for the haul road, once no longer required on site, is permitted to be used for the same/similar use elsewhere. EA ONE primarily recovered large volumes of stone for landowner's use such as track improvements/hard standing areas. Exemptions permitting the use of waste offsite will be sought where possible as another means of recycling, ensuring adherence to the relevant legislation requirements and conditions.

13.4. Monitoring

142. Waste arisings, transfers and disposals will be monitored by each appointed Contractor(s), through the SWMP, with this information being input by them into an online document management system to consolidate the waste figures for the onshore project works. Day to day monitoring of waste management and the storage facilities will be undertaken by both the Contractor's environmental management representative and EnvCoW throughout the construction phase.

14. PROTECTION OF SURFACE AND GROUNDWATER RESOURCES

14.1. Introduction

143. A Surface and Foul Water Drainage Management Plan (SFWDMP) (EA3-LDC-CNS-REP-IBR-000051) has been prepared for the Clappits Works in fulfilment of DCO Requirement 18 and 22 (2) (a) and is attached as Appendix 1. The SFWDMP sets out the methods for the collection, treatment and storage of surface and foul water associated with the construction works to prevent any adverse impact on water quality. A summary of the objectives and control measures is provided below; however, please refer to Appendix 1 for full details.

144. A Flood Plan is included in Appendix 2. The Clappits Works will not require any watercourse crossings and, therefore, it has been agreed with ESC/SCC that a Watercourse Crossing Method Statement is not required to accompany the CoCP.

145. In accordance with the Land Drainage Act 1991 and local byelaws, where required the Principal Contractor will seek written consent from the East Suffolk Internal Drainage Board (IDB) on the final methodology for any temporary or permanent works (such as surface water discharge) associated with Ordinary watercourses within the East Suffolk Internal Drainage District. Written consent from the Lead Local Flood Authority will be obtained for the final methodology for any temporary or permanent works associated with Ordinary watercourse crossings outside of the East Suffolk Internal Drainage District (pursuant the Land Drainage Act 1991).

14.2. Objectives

146. The main objectives with regards to managing potential surface water and foul water drainage are as follows:

- To protect surface and groundwater by ensuring that appropriate measures are in place to prevent contaminants from entering the surrounding environment and in particular pathways that might lead to water receptors. An overview of proposed controls for hazardous or contaminated materials is provided in Section 11 and 12 of this CoCP.
- To comply with relevant legislation and good practice in terms of managing surface and foul water abstractions and discharges.
- To maintain and protect private water supplies during construction.

14.3. Control Measures

147. Contamination of surface water runoff is the highest potential risk of pollution during the construction work. The construction work will minimise the production of runoff containing elevated levels of suspended solids using a combination of the following to achieve the required water quality for discharge back to local watercourses:

- On-site retention of sediment will be maximised by routing all drainage through the site drainage systems. Additionally, where required, soil bunds will be created along the edge of the working area to contain any overland flow paths and prevent sediment from being washed outside the working area.
- Containment of heavily silt laden water as near as possible to the source (e.g. silt fencing along toe of soil storage piles or other affected points, addition of filter bags on pump outlets). Additional silt fences will be included in parts of the working area that are in proximity to surface drainage channels to manage water flow and encourage silt settlement.
- Diversion of clean water away from working areas to reduce volumes of dirty water generation. Where significant surface flows are considered possible this will involve the installation of drainage ditches (to divert flows around construction) upgradient of the soil storage areas, running parallel to the trenches and bunds to intercept water that otherwise may flow either into work areas from off-site.
- Appropriate silt traps would be proactively installed where their use is deemed effective to minimise sediment build up within basins or ditches.
- Temporary haul road/access tracks constructed with clean road stone material preventing excessive ground damage from vehicles. Haul road/access tracks to have drainage ditches on either side and also under-track drainage, where necessary and in accordance with the drainage requirements.
- Avoidance of excessive vehicle or plant tracking directly over topsoil stripped areas and the setting of vehicular speeds to minimise soil dispersal. Use of trackmat, or similar, where temporary off road access is required for excavator or other plant.
- Soil stored locally to excavation to minimise handling and exposure. Soil to be bunded and sealed when stored for prolonged periods in order to shed rainfall and reduce silt laden runoff.
- Covering or seeding of stored topsoil bunds at first opportunity, to reduce surface erosion.
- Strips of undisturbed vegetation will be retained on the edge of the working area where possible.
- Once the topsoil strip has occurred the construction material will be installed as soon as possible to reduce the area and duration of the exposure to rainfall scour and also ensure the existing drainage patterns are interrupted for the shortest duration possible.
- CCS will generally comprise a permeable crushed stone or aggregate surface laid on a geotextile membrane which will allow direct infiltration of rainfall run-off at the same time as trapping and filtering any sediment and contaminants. Where hard surfacing is considered for utilisation in potentially high risk areas of the construction compound, positive surface water collection systems for the management of rainfall-run-off to prevent the pollution of ground water will be considered where appropriate.
- Early consideration will be given to the types of activities undertaken and materials stored in the laydown area. Any high pollution risk areas will be considered at the outset of the strategy and activities and storage of material in these areas would be restricted.
- All excavated soils will be stored at least 10m from the top of the bank of any watercourse and any potentially contaminated soil will be stored on an impermeable surface and covered to reduce leachate generation and potential migration to surface waters. Procedures for dealing with unexpected contaminated materials are included in Section 11 of the CoCP.
- Traffic movement would be restricted to minimise the potential for surface disturbance.
- Where systems require a discharge, these will be subject to consultation and in accordance with Environment Agency requirements. Waste silts and sludges will be removed in accordance with Duty of Care requirements

- The minimisation of excavation volumes and disturbance to the surrounding areas, together with the replacement and reseeded, as required, of any soils inadvertently disturbed during excavations in general accordance with their original structure and location.
- Construction materials and excavation arisings from trenching activities will not be stored within areas identified as Flood Zone 2 or Flood Zone 3 unless otherwise agreed with the Environment Agency.
- The length of time excavations are kept open will be minimised to reduce the requirement for dewatering; any localised dewatering will have appropriate treatment and disposal applied before being discharged.
- The CCS Access and any access, where there is the potential for depositing dust on the highway (that could then be washed into surface water drains and local watercourses), will have a wheel wash facility installed to prevent construction vehicles and plant carrying mud off site onto public roads. This will be a closed loop recycled so will not discharge facility with self-contained water and silt collection systems. Its use, operation and maintenance will be monitored on site. Regular road-sweeping on the highway will also be undertaken to prevent sediment being washed into nearby watercourses.

148. In addition to sediment, the use of cement, concrete and grouts (which are highly alkaline and corrosive) can cause serious pollution to the ground and watercourses. Concrete and cementitious products will, therefore, be prevented from entering the water at source. The construction works will require the delivery of ready mixed concrete to various locations for use, for example for use in the jointing bays. Cement polluted water will be generated from concrete washout, concreting operations and any cement grouting. The extent and location of the treatment facilities to be provided will depend on the frequency and volume of washout and the availability on site.

149. Concrete and cement mixing and washing areas will be situated at least 10m away from the nearest watercourse. These will incorporate settlement and recirculation systems to allow water to be re-used. All washing out of equipment will be undertaken in a contained area.

150. Where a suitable sewer exists, and subject to an appropriate trade effluent consent from the sewerage undertaker, any excess water contaminated with cement would be treated and discharged to sewer. The treatment provided will remove suspended solids in the effluent, using lined settlement basins, enclosed skips or proprietary treatment equipment (Siltbuster® or similar) and will include pH adjustment to an acceptable range. In accordance with, Regulatory Position Statement 235, water that contains concrete will not be discharged to a watercourse or soakaway, even after treatment. If no suitable sewer exists such excess water would be tankered from the site for treatment and disposal at an appropriately licenced facility. Any accumulated solid cement wastes would be removed, in accordance with the Contractor's waste Duty of Care and the requirements of the Site Waste Management Plan (included as Appendix 6 of the CoCP), if necessary, to an appropriately licenced facility for disposal.

151. Cement bound sand (CBS) was installed directly around the underground cable ducts and jointing bays during the EA ONE works. Groundwater is likely to travel along the CBS, with potential ingress into the cable ducts. Water from the ducts/CBS will then discharge into the jointing bay during excavation and this is likely to continue throughout the period of time that the jointing bays remain open. When water comes in contact with CBS, the pH can rise to pH 12 or greater because of the release of alkaline hydroxide (OH-) ions and this water will therefore require treatment before discharge. This water will be treated (Siltbuster® or similar) on site before disposal or will be removed to an appropriately licenced offsite treatment facility.

152. Dry mix concrete will not be laid in saturated conditions to minimise the potential for leaching of alkaline water. If required in saturated areas the excavation will be dewatered for a sufficient time to lay and set all concrete.

153. Wet mix pouring will be subject to rigorous controls (shuttering, stand offs, bunding etc) to prevent discharge of cementitious material into drainage features and watercourses. Where practicable and design allows, the Principal Contractor may utilise a pre cast solution during construction to mitigate any of the concerns with pouring wet concrete.

154. Once set (i.e. in situ) the presence of the concrete will be inert and will have no impact on water quality

155. Discharge of treated concrete wash water and also treated water from jointing bay excavations will require an Environmental Permit from the Environment Agency.

156. Additional measures are included in Section 12 Storage and Use of Oils and Chemicals. Details on the management of each of the common pollutants (sediment; cement/concrete products; hydrocarbons; contamination land and organic waste) are provided in the SFWDM (Appendix 1).

157. The SFWDMP also provides control measures relating to abstractions, discharge, protection of water supplies and licensing requirements. Please see Appendix 1 for further details.

14.4. Water Framework Directive

158. It has been agreed with the Environment Agency that a Water Framework Directive (WFD) Assessment is not necessary for the Clappits Works due to the mitigation measures outlined in the Surface Water and Drainage Management Plan and also this Code of Construction Practice.

14.5. Licences

159. Table 14-1 sets out the additional licences or permits necessary prior to construction in relation to water resources and flood risk.

Table 14-1 Licences or Permits Necessary prior to Construction in relation to Water Resources and Flood Risk

Issuing Body	Name of Consent	Applicable to
Environment Agency	Water Abstraction Licence (if needed)	Abstractions of more than 20 cubic metres / day from main and ordinary watercourses, and groundwater and certain dewatering activities.
	Environmental Permit for water discharge or waste operations / registration of exempt waste operations and water discharges (as necessary or registered exemption from such)	Discharge to surface water (main river or ordinary watercourse) or groundwater of anything other than clean, uncontaminated surface water run-off (e.g. treated concrete wash water)
East Suffolk Internal Drainage Board/SCC	Ordinary Watercourse Consent	Discharge to ordinary watercourse.

14.6. Protection of Private Water Supplies

160. Two private water supplies have been identified within the vicinity of this stage and a Hydrogeological Risk Assessment has been prepared as an appendix to the SFWDMP. This concludes that as the works will be undertaken in accordance with relevant management plans which will have been agreed with the EA, SCC and ESC and with appropriate best practice, this embedded mitigation will ensure that there is no adverse impact on local groundwater quality and thereby these private water supplies.
161. Nevertheless, baseline water quality sampling will be undertaken with the permission of the landowner and may be undertaken throughout the works to ensure no negative impacts occur.
162. During the construction phase, measures will be adopted by the Principal Contractor in order to prevent silt and other contaminants from being washed into existing watercourses as set out in the SFWDMP.
163. An Emergency Plan shall be put in place to ensure prompt response to any complaint of perceived impact on private water supplies, including monitoring of the water supply in question and the immediate cessation of associated water-sensitive construction activities.
164. Where the ESC is responsible for monitoring private water supplies (i.e. for those boreholes which provide water to more than one residential property), ESC will be consulted with regards to the proposed sampling and will be provided with the sampling results.

14.6.1. Sampling Interval

165. Site sensitivity will be taken into account when deciding on the need for and level and periodicity of sampling. The proposed monitoring plan would be discussed and agreed with the Environment Agency prior to commencement.

14.6.2. Reporting

166. A baseline report would be prepared following the baseline water quality monitoring programme. This report will provide details of any contamination concentrations recorded and will be used to depict “uncontaminated background pollution levels” for the site. The results will be compared to the most relevant Environmental Quality Standards appropriate.
167. Any environmental deterioration illustrated by the results would be highlighted. In the event of a potential pollution incident, all relevant monitoring points would be visited and re-sampled to determine any changes relative to baseline data. A report detailing the findings would be prepared for each incident and recommendations provided for further monitoring and / or requisite mitigation measures.
168. Following completion of the construction of the development, all sample points would be revisited, re-sampled and analysed for the full suite of analytical parameters and a further report prepared, assessing and discussing any impacts upon water quality throughout the construction process.
169. All information recovered during the monitoring process would be collated and an assessment made regarding the impact on the surface and groundwater of the construction activities.

14.6.3. Personnel

170. All personnel taking samples, analysing and reporting shall be suitably qualified.

14.6.4. Other Actions

171. Residents will be provided with a suitable point of contact through establishment of a Communications Protocol, should they experience any problems with their Private Water Supply.
172. Regular progress updates will be provided to inform residents when works are likely to be undertaken in their Private Water Supply catchment area.
173. In the unlikely event that construction works lead to the temporary deterioration of a Private Water Supply, an alternative temporary supply of water will be provided (e.g. water tankered to property and provision of temporary drinking water storage tanks). Damaged filters will be replaced in the unlikely event that a Private Water Supply becomes contaminated with sediments.

14.6.5. Monitoring

174. The mitigation measures described above will be monitored by the EnvCoW throughout the construction phase as set out in the CEMP. If non-conformity with any of the mitigation measures is identified, it will be recorded during a site audit and appropriate remedial actions will be implemented.
175. Mitigation measures will be maintained and monitored on a regular basis. A record of inspections of mitigation measures and any required maintenance will be maintained.

15. ENVIRONMENTAL INCIDENT RESPONSE AND CONTINGENCY

15.1. Introduction

176. It is important to identify and document the controls and procedures that will be in place to respond to an environmental incident during the construction works. A PP&EIRP has been produced for the Clappits Works to fulfil DCO Requirement 22 (2) (h) and is attached as Appendix 7. This details the procedures for emergency incident response. In addition, a Flood Plan (Appendix 2) has been produced to fulfil DCO Requirement 22 (2) (c) which sets out the procedures to be followed in the unlikely event of a flood emergency. This section provides a brief summary of these documents, for further details see Appendix 7 and 2.

15.2. Pollution Prevention and Emergency Incident Response

177. The Clappits Works PP&EIR (Appendix 6) summarises the controls and procedures that will be put in place to respond to an environmental incident during the construction phase of the project and contains information on:
- Pollution Prevention Management
 - Pollution Prevention Risks and Controls

- Key Site and Emergency Contacts
- Emergency Incident Response Procedure
- Staff Training

178. In addition to the measures set out in the CoCP with respect to Contaminated Land (Section 11) Storage and Use of Oils and Chemicals (Section 12), Protection of Surface and Groundwater Resources (Section 14), the PP&EIR contains the following control measures:

- A Stop Contain Notify Matrix and details how to report and deal with an environmental incident, including the measures available to contain/clean up an incident.
- A contact list for notifying relevant stakeholders.
- Personnel working on site, including any subcontractors, will be trained in the environmental emergency response procedures, so that they are prepared and able to respond to an incident promptly and effectively.
- Where appropriate, the environmental emergency response plans will be tested on-site in consultation with ESC and the Environment Agency.

15.3. Flood Plan

179. While the Clappits Works are located in Flood Zone 1 and therefore at low risk of flooding, the access/egress to the site (i.e. Clappits itself) is at risk of fluvial flooding. The Flood Plan (Appendix 2) sets out the procedures to be followed in the unlikely event of a flood event blocking Clappits. The aim of the plan is to provide contractors during the onshore construction works clear indicators confirming when the construction works area should be evacuated in the unlikely event of a flood emergency. The plan also provides the key information for planning and responding to an evacuation.

180. The Flood Plan has been informed by the findings of the Flood Risk Assessment (FRA) (Royal HaskoningDHV, 2015), along with Ordnance Survey LiDAR data and EA flood maps. The Flood Plan will be stored in an accessible location and be revisited on a regular basis. During the construction phase of the project, the contractors will be responsible for reviewing the Flood Plan, to ensure suitable preparation and protection of construction site personnel in the event of a flood.

181. A number of pre-occupation actions have been outlined within the Plan, including requiring the Principal Contractor to sign up to the Environment Agency's flood warning service and the Met Office's weather warning system so that when a warning is issued, an automated warning message will be sent to the nominated person/persons. The Plan also provides contact details for key contacts and emergency services and the relevant instances for contacting each service. Such information will be utilised in the training of construction site personnel to ensure a flood-safe working environment during the construction works.

182. The Plan sets out the Flood Warning and Evacuation Procedures which shall be implemented and are outlined in Table 15-1 (taken from the Flood Plan). Please see Appendix 2 for further details.

Table 15-1 Flood Evacuation Procedures

Warning Triggers	General Procedures	Specific Actions
Trigger Level 1	<p>General actions include:</p> <ul style="list-style-type: none"> • Communicate risk to all staff • Make sure you know who is on site • Take basic measures to prepare for flooding • Stay in a safe place with a means of escape. • Be ready should you need to evacuate. 	<ul style="list-style-type: none"> • Place Staff on Green Alert • Check access and availability to, and condition of equipment: closed road signs, torches (check battery life/spares), high visibility jackets for all staff • Allow for handover should shift change occur before the warning is lowered • Check staff registers are complete and available to ensure all staff are accounted for post- evacuation <p>Where trigger relates to rainfall, in addition to the actions above the Principal Contractor will:</p> <ul style="list-style-type: none"> • Speak to construction teams and request implementation of active measures to reduce the mobilisation of sediment and other pollutants in storm water runoff. This is likely to take the form of bringing forward basic house

Warning Triggers	General Procedures	Specific Actions
		<p>keeping measures such a road sweeping and clearance of intercept ditches.</p> <ul style="list-style-type: none"> Reschedule (if reasonably possible and will not make situation worse) all engineering works which are liable to generate turbid runoff. This should include all earthworks. Review active work programme and associated temporary drainage arrangements and confirm that these are all in place and functional. Undertake survey of all active storm water drainage arrangements to check for damage, blockages or other problems which could impair their correct function and, in the event that deficiencies are identified, action urgent remedial works.
Trigger Level 2	<ul style="list-style-type: none"> Stay away from high risk areas Turn off gas, electricity and water supplies if safe to do so. Put flood protection equipment in place if safe to do so. Cooperate with the emergency services. Call 999 if you are in immediate danger. Evacuate site in an orderly and controlled way. 	<ul style="list-style-type: none"> Stop active work on the site and communicate change in flood status to all staff. If reasonably possible within a short timeframe (1hr) remove plant and equipment and relocate to elevated area that is away from potential flooding. Place staff on Red Alert and begin evacuation of jointing bay compound/CCS (Trigger Fire Alarm) Operate the emergency electrical shut off switches terminating the electricity supply and all power supplies to construction works sites/compounds, but only if safe to do so. Use allocated evacuation route to facilitate / direct the safe evacuation of all personnel to the agreed refuge location. Take register to ensure all staff are accounted for. Contact the Emergency Services and EA to confirm that the work sites are being closed due to the risk of flooding
Trigger Level 3	<ul style="list-style-type: none"> Evacuate site as quickly as can be safely achieved. Account for all personnel Leave the area 	<ul style="list-style-type: none"> Immediately start evacuation of jointing bay compound and CCS if not actioned on receipt of the Flood Warning (Trigger Fire Alarm at compounds) Use allocated evacuation route to facilitate / direct the safe evacuation of all personnel. Take register to ensure all staff are accounted for Contact the Emergency Services and EA to confirm that the jointing bay compound and/or CCS is being closed due to the risk of flooding.
All Clear	<ul style="list-style-type: none"> Be careful. Flood water may still be around for several days. If you've been flooded, ring your insurance company as soon as possible. 	<p>Where the preceding event related to rainfall or resulted in flood water entering or passing through the site storm water management systems, the Principal Contractor will:</p> <ul style="list-style-type: none"> Undertake a survey of all active storm water drainage arrangements to check for damage, blockages or other problems resulting from the storm / flood. Remedial works should be urgently undertaken on deficient drainage equipment.

Warning Triggers	General Procedures	Specific Actions
		<ul style="list-style-type: none"> Significant pollution of any surface waterbody should be reported to the Environment Agency.

16. LANDSCAPE AND ECOLOGICAL MANAGEMENT

16.1. Introduction

183. The Clappits Works have been carefully designed to reduce the potential for significant impacts on ecological receptors and to minimise impacts on landscape features such as trees and hedgerows.

184. To ensure that construction works do not have an unacceptable impact on landscape features, a Landscape Management Scheme (EA3-LDC-CNS-REP-IBR-000056) has been produced for the Clappits Works to fulfil DCO Requirement 14, which states:

Provision of landscaping

14.—(1) No stage of the connection works may commence until for that stage a written landscaping management scheme and associated work programme (which accords with the outline landscape and ecological management strategy) has been submitted to and approved by the relevant planning authority in consultation with Natural England.

(2) The landscaping management scheme must include details of all proposed hard and soft landscaping works, including—

(a) location, number, species, size and planting density of any proposed planting, including any trees;

(b) cultivation, importing of materials and other operations to ensure plant establishment;

(c) proposed finished ground levels;

(d) hard surfacing materials;

(e) vehicular and pedestrian access, parking and circulation areas;

(f) minor structures, such as furniture, refuse or other storage units, signs and lighting;

(g) proposed and existing functional services above and below, ground, including drainage, power and communications cables and pipelines, manholes and supports;

(h) details of existing trees to be retained with measures for their protection during the construction period;

(i) retained historic landscape features and proposals for restoration, where relevant;

(j) implementation timetables for all landscaping works;

(k) proposed finished heights, form and gradient of earthworks in relation to Work No. 64,

Work No. 68 and/or Work No 69;

(l) maintenance of the landscaping, including irrigation arrangements in relation to Work No. 64, Work No. 65, Work No. 68 and/or Work No. 69; and

(m) soil retention, handling and protection.

185. To detail how, when and by whom the measures to be implemented to minimise and avoid any adverse impacts to wildlife an Ecological Management Plan (EA3-LDC-CNS-PLN-IBR-000004) has been produced for the Clappits Works to fulfil DCO Requirements 21 and 29, which state:

21.—(1) No stage of the connection works may commence until for that stage a written ecological management plan (which accords with the outline landscape and ecological management strategy) reflecting the survey results and ecological mitigation and enhancement measures included in the environmental statement has been submitted to and approved by the relevant planning authority in consultation with Natural England.

(2) The ecological management plan must include an implementation timetable and must be carried out as approved.

29. —(2) Where a European protected species is shown to be present, the relevant part(s) of the connection works must not begin until, after consultation with Natural England and the relevant planning authority, a scheme of protection and mitigation measures has been submitted to and approved by the relevant planning authority. The connection works must be carried out in accordance with the approved scheme.

186. These documents are provided under separate cover, detailed information does not form part of this CoCP but this section provides a brief summary of these documents.

16.2. Summary of Landscape Management Plan

187. The Clappits Works Landscape Management Scheme (EA3-LDC-CNS-REP-IBR-000056) describes the landscape proposals and the general maintenance requirements for the landscape works for the mitigation proposals related to the Clappits Works. The plan provides information on the design process undertaken (with respect to the landscape) and the corresponding proposed mitigation landscape works and their required maintenance to ensure successful plant establishment.

188. The Landscape Management Plan provides details of the planting strategy, based on the following key elements:

- Felling of trees and removal of hedgerows has been minimised by the use of the pre-installed ducts laid during the onshore works for EA ONE,
- Felling of trees and removal of hedgerows has also been minimised during the design of the jointing bay locations and the corresponding accesses and haul roads; and
- CCS locations include a 5m buffer around the site to minimise the impact upon sensitive hedgerows and trees, and a 10m buffer to minimise the impact upon watercourses.

189. As a result, there will be no trees removed for the Clappits Works. Short stretches of EA ONE hedgerow planting will be removed and reinstated on completion of the works.

190. The plan provides details of the proposed landscaping scheme for both hard and soft landscaping, including species mix, and implementation and maintenance of the scheme. It also provides details on tree protection and the topsoil storage strategy during construction. Planting will be undertaken on the basis of the following:

- Reinstatement of hedgerows will be undertaken using the planting mix to replicate the EA ONE planting which in turn aimed to enhance baseline conditions;
- Grass re-seeding will be undertaken, to reinstate disturbed areas, using either a species rich mix, wetland meadow mix or general purpose amenity mix for verges and embankments, depending upon the location.

16.3. Summary of Ecological Management Plan

191. The Clappits Works Ecological Management Plan (EcoMP) (EA3-LDC-CNS-PLN-IBR-000004) sets out the ecological mitigation methods to be implemented during works that are reflective of the ecological surveys and impact assessment.

192. The EcoMP provides details of the legal requirements, responsibilities of the contractor and Ecological Clerk of Works (ECoW), baseline conditions, pre-construction, construction and post-construction mitigation measures, and an implementation timetable.

193. A Species Protection Plan (SPP) will be implemented during construction, in compliance with DCO Requirement 29 (2). The SPP will act as a live document, to be referenced throughout construction works on the site, to ensure the protection of the identified species.

194. No European Protected Species have been identified within the vicinity of the Clappits Works.

195. The EcoMP also provides baseline conditions and mitigation measures for habitats and details of general mitigation measures.

17. ARCHAEOLOGY AND HERITAGE

17.1. Introduction

196. It is important to ensure that the EA THREE construction works are designed and executed to avoid unnecessary impacts upon cultural heritage assets (known and yet to be discovered) within and adjacent to all working areas, and to mitigate those impacts upon assets that cannot be avoided.

197. An Archaeological Written Scheme of Investigation (WSI) (EA3-LDC-CNS-REP-IBR-000062) has been prepared for the Clappits Works to fulfil DCO Requirement 20 which states:

20.—(1) No stage of the connection works may commence until for that stage a written scheme of archaeological investigation (which accords with the outline written scheme of investigation (onshore)) has, after consultation with Historic England and Suffolk County Council, been submitted to and approved by the relevant planning authority.

(2) In the event that site investigation is required, the scheme must include details of the following—

(a) an assessment of significance and research questions; and

(b) the programme and methodology of site investigation and recording;

(c) the programme for post investigation assessment;

(d) provision to be made for analysis of the site investigation and recording;

(e) provision to be made for publication and dissemination of the analysis and records of the site investigation;

(f) provision to be made for archive deposition of the analysis and records of the site investigation; and

(g) nomination of a competent person or persons/organisation to undertake the works set out within the written scheme of investigation.

198. The Clappits Works WSI (EA3-LDC-CNS-REP-IBR-000062) is provided under separate cover, thus detailed information does not form part of this CoCP but this section provides a brief summary.

17.2. Summary of Archaeological Written Scheme of Investigation

199. The potential archaeological sensitivity of the onshore construction works was recognised at an early stage and it has been evaluated through a variety of non-invasive and invasive techniques. The WSI builds on the previous archaeological surveys and reports for EA ONE.

200. The Clappits Works have been designed to take place in the footprint of areas previously disturbed or signed off during EA ONE and should require no further archaeological mitigation, with the exception of Access I and the access track to Jointing Bay 20 (Figure 2), which sit outside the previously disturbed area. In this case archaeological mitigation will be required in the form of Strip, Map and Sample Excavation, a detailed methodology of which is outlined in Section 6.3 of the WSI.

201. If areas of additional disturbance for the Clappits Works are identified, beyond those subject to significant disturbance during the construction of EA ONE and/or already investigated and cleared of archaeology via archaeological excavation (as detailed within Section 4, above), an archaeological Strip, Map and Sample excavation is likely to provide the most suitable form of archaeological mitigation allowing any exposed remains to be recorded.

18. CONTINGENCY PLANNING

202. A PP&EIRP detailing how to report and deal with an environmental incident, is included as Appendix 7. In addition, a number of potential scenarios have been considered and will be addressed as follows:

- If, during construction, remains are found unexpectedly on a site not known to be a burial ground, they will not be removed. In such circumstances, the local environmental health officer and the EATL Archaeologist will be consulted to assess the remains and the police will be consulted. If the police conclude that the remains are of no investigative significance and it is necessary to exhume the remains, then an application for a licence will be made to the Ministry of Justice. Should any animal remains be discovered during the construction phase that indicate a potential burial site, the main works contractor would cease all work in the vicinity and immediately advise the Animal Health Regional Office accordingly.
- Unforeseen existing contaminated ground is addressed in Section 11 Contaminated Land.
- Extreme weather conditions: excessive rainfall which goes above what the site mitigation can handle leading to excessive run off from construction site. Such flows, which are extremely unlikely to occur within the limited lifetime of construction works, would drain following existing flow pathways away from the construction area. As the capacity of the mitigation would have been exceeded some mobilisation of sediment and other pollutants could occur, albeit would be restricted through, source control measures, good housekeeping and careful storage and handling of potential pollutants on the site. Following the event the areas downgradient of would be surveyed and, as necessary clear up and remedial works would be undertaken to restore obvious damage where this is reasonably possible;

- Fire causing release of contaminated firefighting water runoff - In the unlikely event of a major fire, contaminated firewater would drain into the systems designed to receive and control storm water runoff from the site. Measures would be implemented (i.e. blocking outfalls) to hold water back on the site within settlement / balancing lagoons and testing would be undertaken to determine the chemical nature of pollution. Once this had been confirmed, in consultation with the Environment Agency, a decision would be made concerning whether the water could be released, as per storm water, or whether tankers would need to be mobilised to site to remove the contaminated flows. If prior to obtaining permission for the discharge of this water prevailing condition mean that water levels are approaching the storage limit of the settlement / balancing lagoons, tankers would be mobilised to remove water from the site. All water removed by tanker from the site would be directed to an appropriate licenced facility to treat and dispose of flows.
- Vandalism resulting in the release of a COSHH defined substances - – any release of such substances will be managed in accordance with Section 6 of the Pollution Prevention and Emergency Incident Response Plan. In addition, security measures will be reviewed to establish measures to prevent such vandalism recurring.

19. MONITORING AND SITE INSPECTIONS

19.1. Introduction

203. To ensure compliance, a programme of monitoring shall be established for the Clappits Works. This is documented within the PEMP and will be included in more detail in the CEMP. The general monitoring requirements are set out below. Detailed monitoring requirements are also identified with the topic specific plans attached as appendices, including the Air Quality Monitoring Plan (Appendix 4) and Construction Artificial Lighting Plan (Appendix 5).

19.2. Site Inspections

204. EATL and the Principal Contractor will undertake site inspections on a periodic basis. These site inspections shall include an environmental component which shall, as a minimum and where relevant, cover waste management, water management, management of hazardous materials, wastewater management, emergency response, incidents and complaints, nuisance, air quality visual monitoring, inspection of light mitigation measures and other issues arising.
205. An environmental inspection program will be agreed with the Principal Contractor prior to commencing work.
206. A responsible person will be allocated to each raised action to manage its close out. Records of the inspections carried out and any non-conformities will be retained onsite and any remedial actions required must also be recorded and implemented.

19.3. Environmental Audits

207. EATL's EMS and associated audit programme includes a requirement for an environmental audit of their construction sites on a periodic basis; included in the audit scope will be the appointed Principal Contractor's monitoring and inspection regime.
208. Environmental audits will be completed by qualified members of the EATL management team and the EnvCoW. A programme of Environmental Audits will developed and these audits will be agreed and arranged with the contractor at least 2 weeks in advance. The programme will include a quarterly consent compliance audit undertaken by SPR's Consents Compliance Team, against the commitments in the RDDs using the RDD Consent Compliance Register. The results of these audits will be reported to ESC, including any identified failings, and measures to address these. This will ensure the Principal Contractors' compliance with the commitments made in the RDDs.
209. A responsible person will be allocated to each raised action to manage its close out. The Principal Contractor's monitoring and inspection regime will be included in the audit scope. Records of the audits carried out will be retained onsite and any remedial actions required must also be recorded and implemented.
210. Environmental audits will also be carried out by the Principal Contractor.

20. COMMUNITY LIAISON AND PUBLIC RELATIONS

20.1. Introduction

211. Effective and consistent communication with the local community is essential for the successful delivery of our works. EATL will manage public relations with local residents and businesses that may be affected by the construction works in any way. A proactive

public relations campaign will be maintained, keeping residents informed of the type and timing of works involved, paying particular attention to potential evening and night-time works (where permitted) and activities which may occur in close proximity to receptors.

212. A Project Community Liaison and Public Relations Procedure has been produced and is attached as Appendix 8. It sets out communication processes to be applied during the construction phase of the East Anglia THREE onshore works as a whole and aims to ensure that the construction works are fully communicated to interested parties. A brief summary of the processes is provided below; however, please refer to Appendix 8 for full details.

20.2. Objectives

213. The Project Community Liaison and Public Relations Procedure sets out the communication processes which EATL and contractors will be required to adopt and implement. The purpose of the plan is to:
- Maintain a good working relationship with the local community;
 - Ensure a clear understanding and consistent approach across the project and by all Principal Contractors (ie Converter Station Principal Contractor and Cable Principal Contractor);
 - Ensure that the local community and stakeholders are informed in a timely manner of any works being undertaken.
 - To reduce the likelihood that conflicts will occur between aspects of the project in terms of external relationships and internal resource;
 - Maximise and take advantage of potential synergies in consultation/communication;
 - Ensure a clear understanding and consistent approach across all ScottishPower Renewables' East Anglia projects (i.e EA THREE and the East Anglia ONE NORTH and East Anglia TWO Offshore Windfarms, should these be consented); and
 - Provide a record of communication activity for EATL onshore construction works.

20.3. Communication Processes

214. A combination of communication mechanisms will be employed to keep communities informed, including:
- Direct communication from the Stakeholder Team via phone and email;
 - Use of the ScottishPower Renewables' website;
 - Emails to the EATL subscribed database;
 - Distribution of Notices on and off-line;
 - Adverts/articles in Parish magazines and websites;
 - Letters;
 - Exhibitions/public information days with presentations and information display boards;
 - Parish council meetings (as requested); and
 - Scottish Power Renewable's local community newsletter, the East Angle.
215. A Community Liaison Officer (CLO) will be in post at least 2 months prior to the start of the main construction works. The CLO will manage and respond to any public concerns, queries or complaints and will maintain a record of all correspondence. The name and contact details of the CLO and any subsequent change shall be provided to the local planning and highway authorities within 4 weeks of appointment.
216. The CLO will review the contractors' programmes to identify potential community concerns, ensure that the appropriate notices/information is provided, identify solutions and work with the project/construction team to ensure these are in place. In addition, they will be mindful of activities taking place on other proposed ScottishPower Renewables' projects in the area, to ensure consistency of messaging and that synergies between projects can be maximised.
217. Internally, the CLO will work closely with the:
- Stakeholder Manager;
 - Community Liaison Officers (on other projects);
 - Construction Management Team;
 - Land Manager;
 - EA THREE Consent Compliance Team;
 - Converter Station Contractor and sub-contractors;
 - Cable Contractor and sub-contractors;

- Agricultural, Arboricultural and Ecological Clerk of Works etc.;
- Environmental team; and
- Health & Safety team.

218. Externally, the CLO will work closely with the:

- Emergency Services;
- SCC Highways Authority;
- The local planning authorities (Babergh and Mid Suffolk District Councils (BDC and MSDC) and East Suffolk Council (ESC); and
- Local communities, interest groups and organisations.
- Parish Councils, residents and businesses within the parishes around the converter station at Burstall and along the cable route and other interested parties as relevant.

219. Note: Events will be organised in line with Government guidance on the Coronavirus pandemic (Covid-19) and will be held virtually if required.

20.4. Enquiries

220. The CLO will be accessible directly via a personal email and mobile phone number. The CLO's name the contact details will be displayed at the accesses to the CCS jointing bays. It is advised that all enquiries relating to the construction of the onshore works to be directed to the CLO and to the Project mailbox, where it can be managed by a colleague should the CLO be unable to respond due to holiday, sickness or other commitments. The CLO will ensure that there is a record of all issues raised for management and reporting purposes.

221. In the event of an emergency outside of normal office hours, the CLO's telephone number will be directed through to an on-duty member of the construction team for resolution.

222. The CLO will aim to acknowledge emails within three working days and endeavour to provide a response to emails/phone calls within one working week. However, there may be instances when the response takes longer because information is required from other parties.

223. The CLO will aim to notify the LPAs and SCC of any matters requiring action or consideration within 48 hours. In addition, a report on the occurrence will be raised with MSDC, ESC, BDC and/or SCC as relevant, at the steering group/Implementation meetings.

224. Contact details for the CLO will be made available on the website and in any communications nearer to the start of the works, once the CLO is in place.

225. It is advisable to copy/send queries to the Project mailbox (eastangliathree@scottishpower.com), so that they can be picked up should the CLO be unavailable.

226. Queries relating to the other East Anglia projects can be sent/copied to the following mailboxes: eastangliaonenorth@scottishpower.com; eastangliatwo@scottishpower.com and eastangliaone@scottishpower.com.

227. Additional support and wider East Anglia project knowledge, queries can also be directed to the Stakeholder Manager, Joanna Young. Tel: 01502 509 236; Mob: 07738 063 259; jyoung@scottishpower.com.

21. UTILITY PROVIDERS

228. Utility providers potentially affected by construction works would be contacted prior to construction works commencing. Methodology for utility crossings would be agreed with asset owners in line with best practice.

229. The continuity of utilities during the construction works would be ensured. Prior to construction, the team on the ground would be made aware of the precise locations of existing services.

22. REFERENCES

BCT, ILP, 2018, Guidance Note 08/18 Bats and artificial lighting in the UK, Bats and the Built Environment series, London,

<https://cdn.bats.org.uk/pdf/Resources/ilp-guidance-note-8-bats-and-artificial-lighting-compressed.pdf?mtime=20181113114229>;

Considerate Constructors Scheme, (undated) *Code of Considerate Practice*, <https://www.ccscheme.org.uk/wp-content/uploads/2012/11/2020CodeofConsideratePractice-v3.2.pdf>

DEFRA, 2009, Construction Code of Practice for the Sustainable Use of Soils on Construction Sites, DEFRA, London
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/716510/pb13298-code-of-practice-090910.pdf

RSK (2020) Desk Based Archaeological Risk Assessment and Mitigation Strategy, P20-060.

FOR DISCHARGE

APPENDIX 1 SURFACE WATER AND FOUL DRAINAGE MANAGEMENT PLAN

FOR DISCHARGE

APPENDIX 2 FLOOD PLAN

FOR DISCHARGE

APPENDIX 3 CONSTRUCTION NOISE & VIBRATION MANAGEMENT PLAN

FOR DISCHARGE

APPENDIX 4 AIR QUALITY MONITORING PLAN

FOR DISCHARGE

APPENDIX 5 CONSTRUCTION ARTIFICIAL LIGHTING EMISSIONS PLAN

FOR DISCHARGE

APPENDIX 6 SITE WASTE MANAGEMENT PLAN

FOR DISCHARGE

APPENDIX 7 POLLUTION PREVENTION AND EMERGENCY INCIDENT RESPONSE PLAN

FOR DISCHARGE

APPENDIX 8 PROJECT COMMUNITY LIAISON AND PUBLIC RELATIONS PROCEDURE

FOR DISCHARGE

APPENDIX 9 PUBLIC RIGHTS OF WAY MANAGEMENT PLAN

FOR DISCHARGE

APPENDIX 10 PROJECT ENVIRONMENTAL MANAGEMENT PLAN

FOR DISCHARGE

APPENDIX 11 TEMPLATE APPLICATION FOR CONSTRUCTION WORKS TO BE UNDERTAKEN OUTSIDE THE CONSENTED HOURS

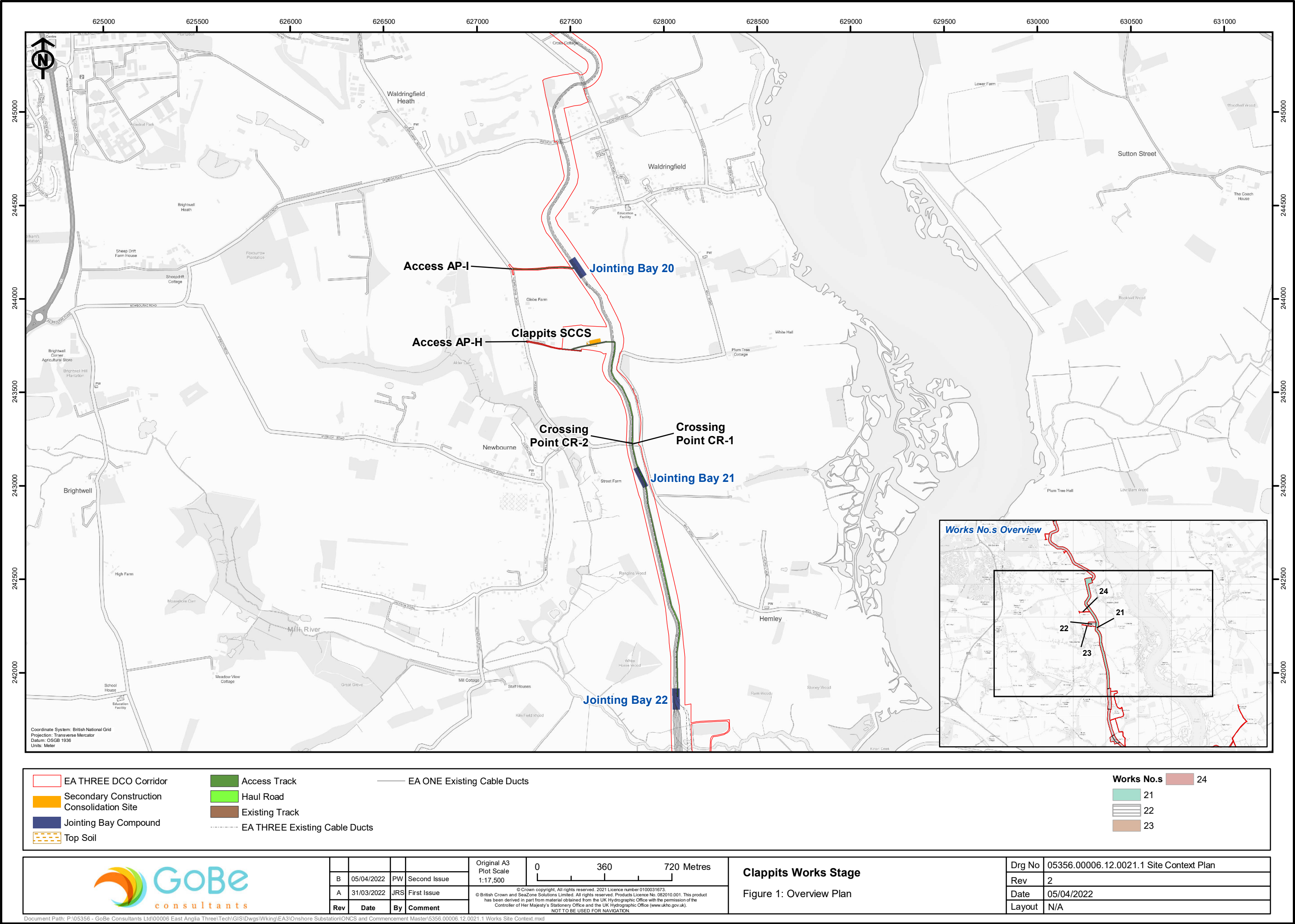
ONSHORE OUT OF HOURS WORK FORM	
Works to be undertaken (short name)	
Contractor	
Site Name:	
Location-Address	
Location – Works No.	
Access ID	
Landowner	
Local Planning Authority	
Date of Out of Hours Work to be completed:	
Time and Duration of Out of Hours Work to be completed:	
Community Notification	Relevant Parish Council: Confirmation that Stakeholder Team have been informed:

Description of and justification for the Out of Hours Work to be completed:

Environmental Risk	Initial Risk Rating 1 to 5	Existing Control Measures	Additional Control Measures (if required)	Final Risk Rating 1 to 5
Task or Activity: <i>Example</i>				
<i>Delivery of abnormal loads</i>	<i>4</i>	<i>As set out in the Access Management Plan</i>	<i>None needed</i>	<i>2</i>
Task or Activity:				
Name of Personnel to be on site		Contact Details		
Name of Site Manager/Supervisor		Contact Details		
Completed by	Position	Date	Sign Off	

Checked and approved by EATL	Position	Date	Sign Off
Checked and approved by Local Planning Authority	Position	Date	Sign Off

FOR DISCHARGE

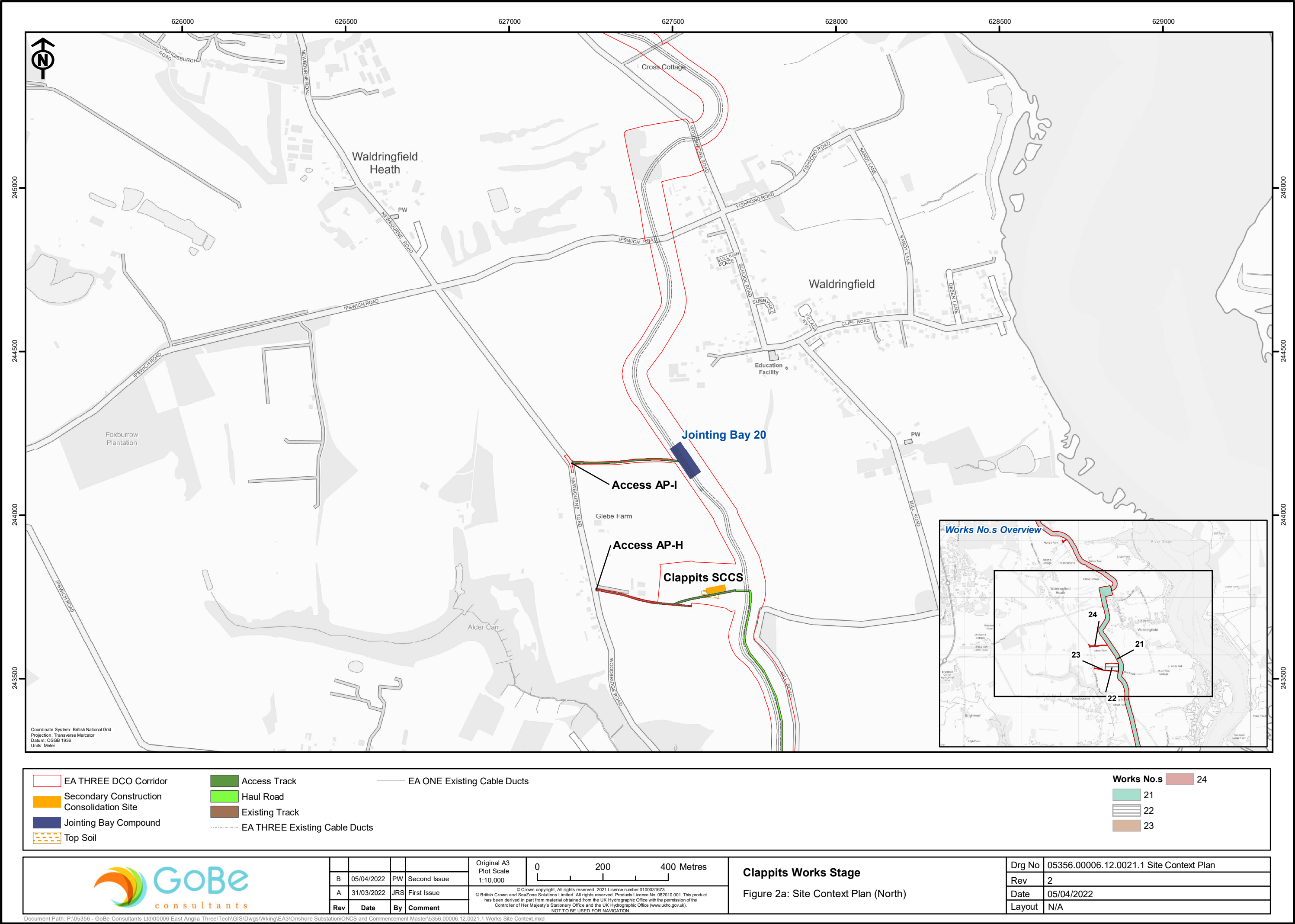


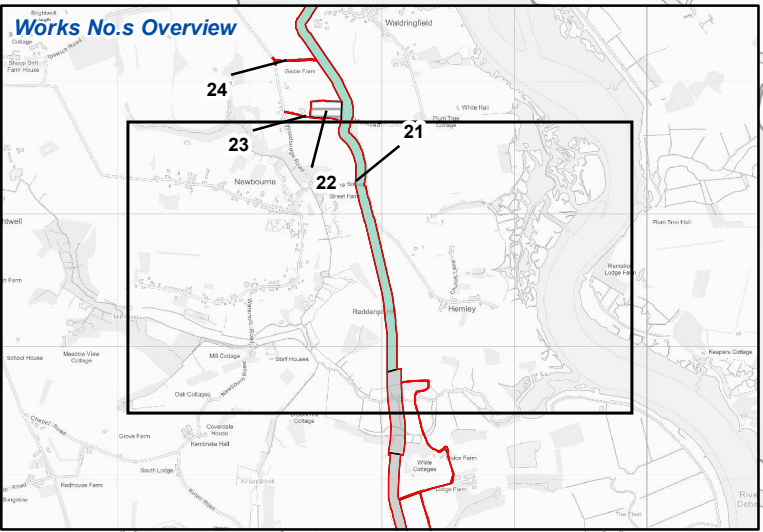
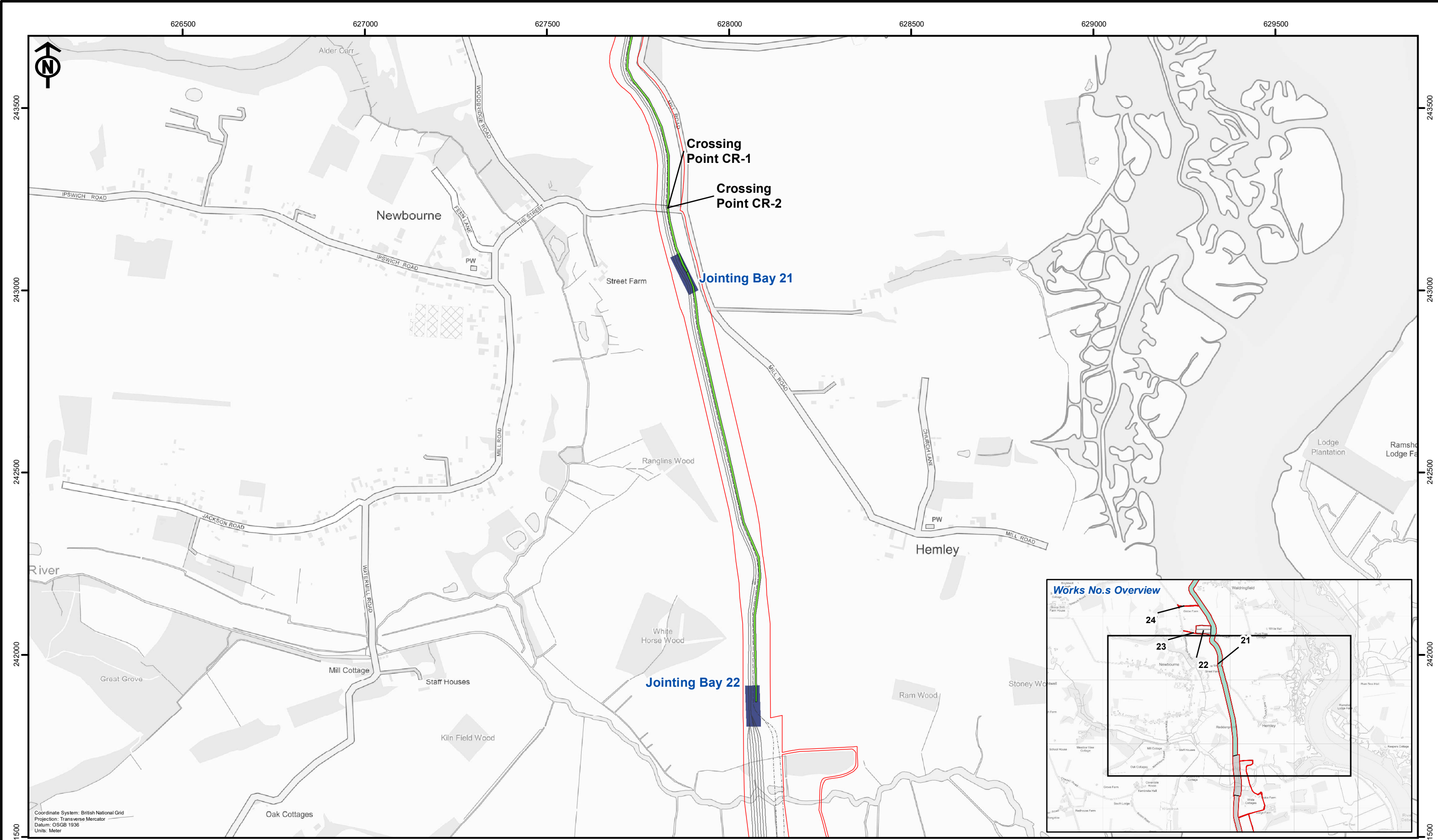
B	05/04/2022	PW	Second Issue
A	31/03/2022	JRS	First Issue
Rev	Date	By	Comment

Original A3 Plot Scale 1:17,500	0 360 720 Metres
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Clappits Works Stage
Figure 1: Overview Plan

Drg No	05356.00006.12.0021.1 Site Context Plan
Rev	2
Date	05/04/2022
Layout	N/A





EA THREE DCO Corridor

Jointing Bay Compound

Haul Road

EA THREE Existing Cable Ducts

EA ONE Existing Cable Ducts

Works No.s

21

22

23

24

B	05/04/2022	PW	Second Issue
A	31/03/2022	JRS	First Issue
Rev	Date	By	Comment

Original A3 Plot Scale 1:10,000

0

200

400 Metres

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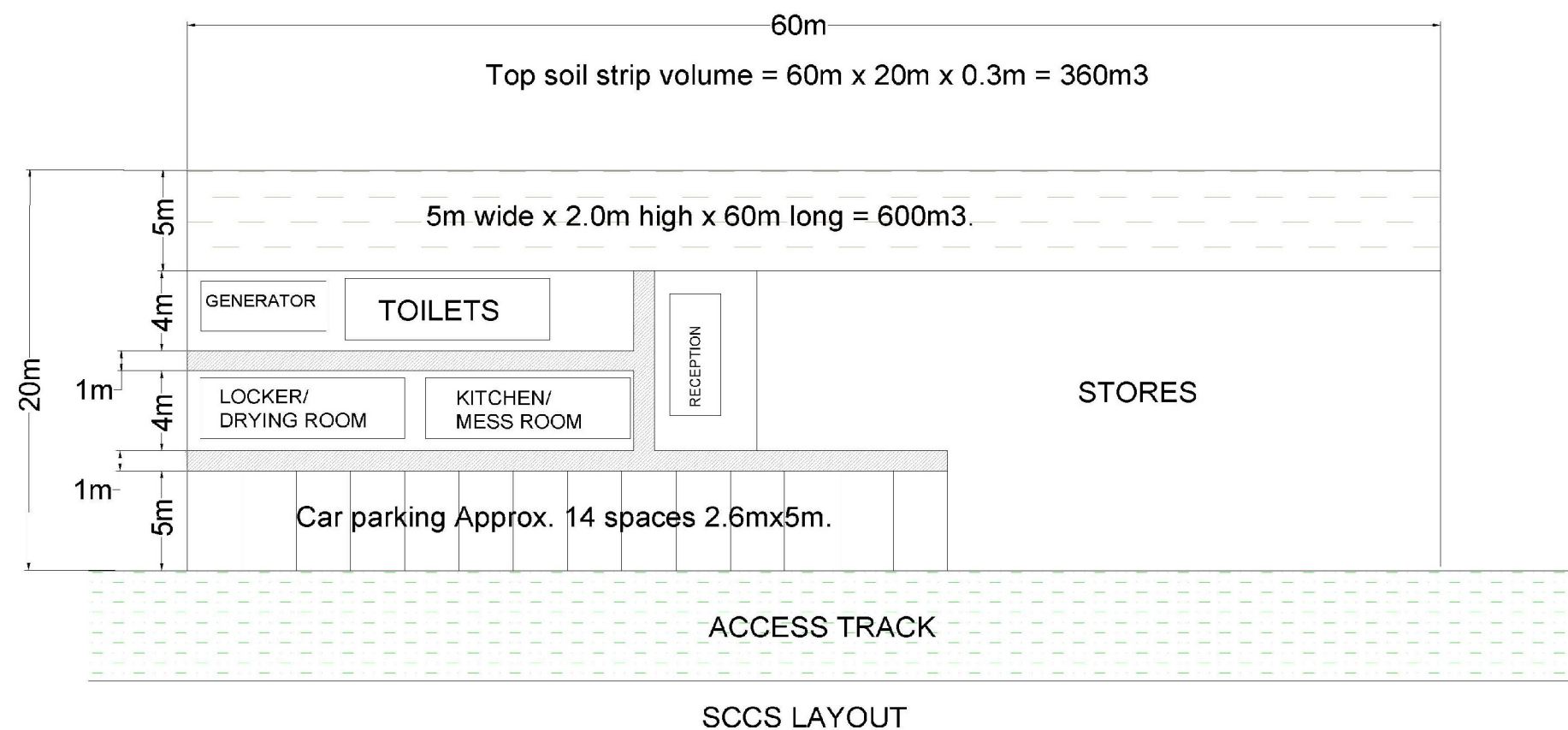
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Clappits Works Stage




Figure 2b: Site Context Plan (South)

Drg No	05356.00006.12.0021.1 Site Context Plan
Rev	2
Date	05/04/2022
Layout	N/A

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NOT TO SCALE

-  Sub Soil
-  Haul Road
-  Top Soil



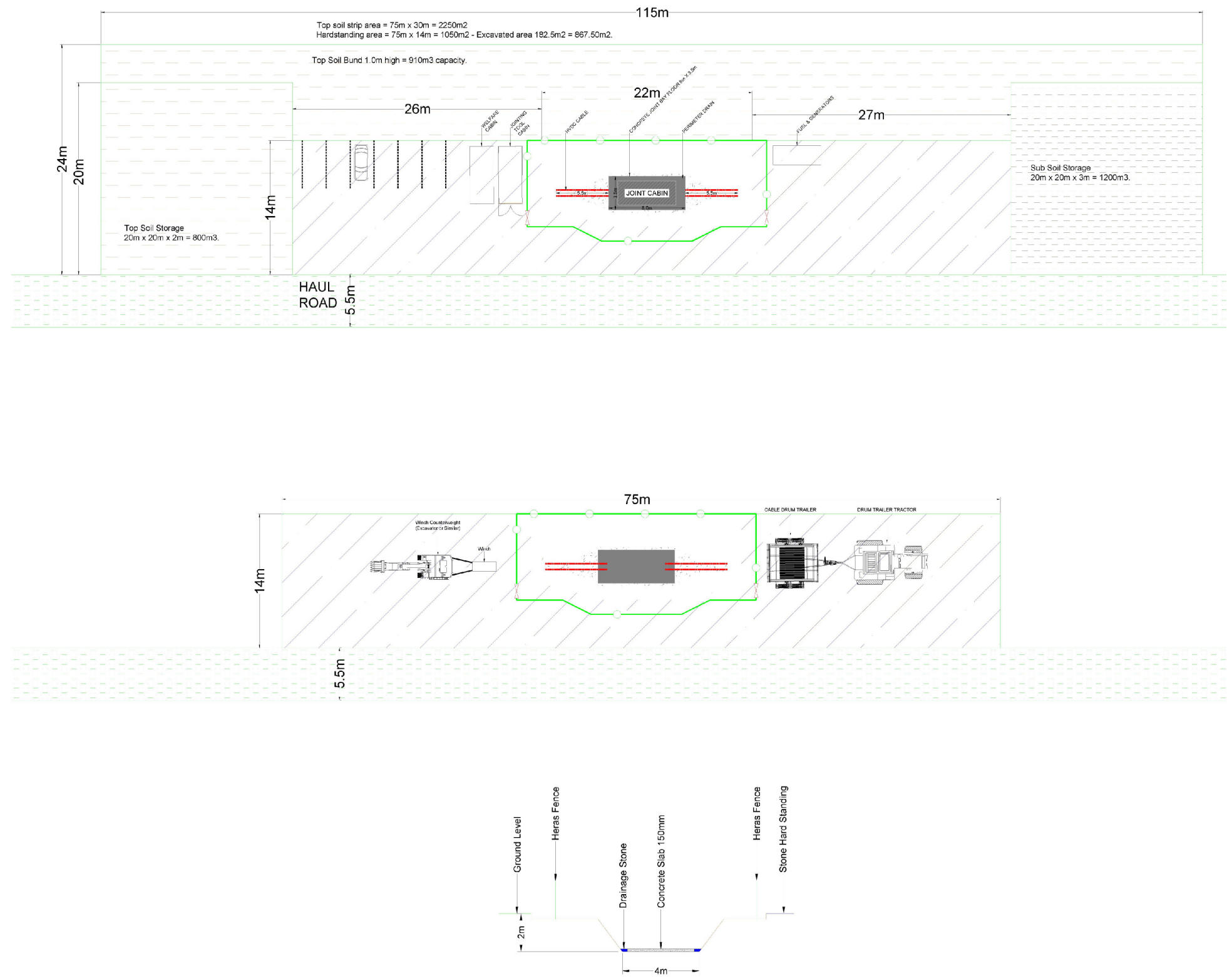
A	13/04/2022	PW	First Issue
Rev	Date	By	Comment

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Figure 3: Secondary CCS Layout

Drg No	05356.00006.12.0033.0 Secondary CCS Layout
Rev	1
Date	13/04/2022
Layout	N/A



NOT TO SCALE

- Sub Soil
- Jointing Bay Working Area
- Haul Road
- Top Soil

					NOT TO SCALE	Works Stage Figure 4: Indicative Jointing Bay Layout	Drg No	05356.00006.12.0034.0 5 Jointing Bay Layout	
							Rev	1	
	A	12/04/2022	PW	First Issue			© Crown copyright. All rights reserved. 2021 Licence number 0100031673. © British Crown and SeaZone Solutions Limited. All rights reserved. Products Licence No. 082010.001. This product has been derived in part from material obtained from the UK Hydrographic Office with the permission of the Controller of Her Majesty's Stationery Office and the UK Hydrographic Office (www.ukho.gov.uk).	Date	12/04/2022
	Rev	Date	By	Comment			NOT TO BE USED FOR NAVIGATION.	Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\DWgs\Wking\EA3\Onshore Substation\Doc Ref EA3-DND-CNS-REP-IBR-000005\5356 00006 12.0034.0 5 Jointing Bay Layout.mxd