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Viking Link

Construction Traffic Management Plan

Balfour Beatty

June 2020

CTMP

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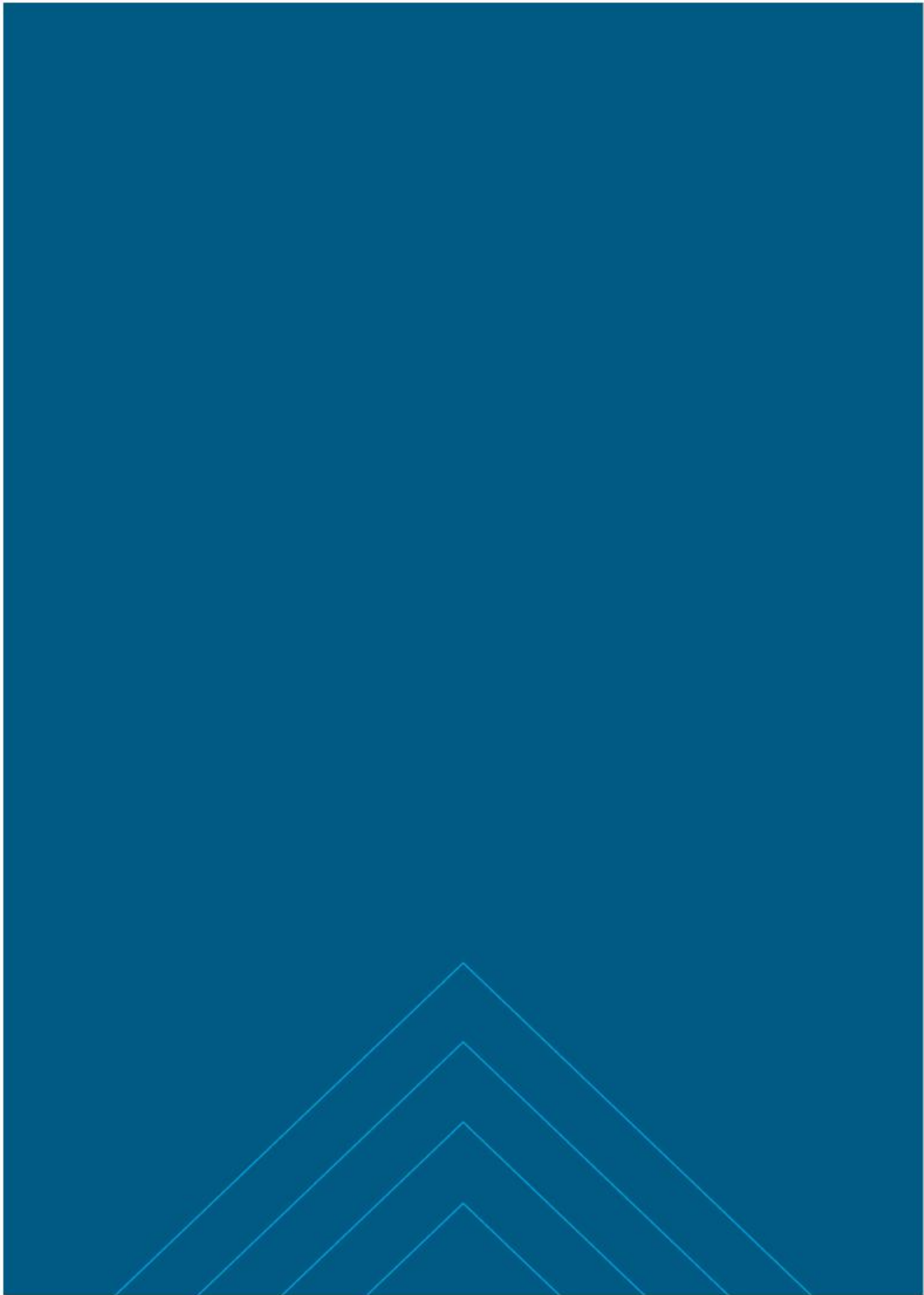
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Glossary

Term	Description
AMP	Access Management Plan
BBC	Boston Borough Council
CBS	Concrete Batching System
CLOCS	Construction Logistics and Community Safety is an accreditation scheme
CPC	Certificate of Professional Competence
CSCS	Construction Skills Certification Scheme
CTMP	Construction Traffic Management Plan
DC	Direct Current
ELDC	East Lindsey District Council
FORS	Fleet Operator Recognition Scheme
HA	Highway Authority
HGV	Heavy Goods Vehicles
LANTRA	National Training Organisation for the Land Based Industries
LCC	Lincolnshire County Council
LGV	Light Goods Vehicle
LRN	Local Road Network
MW	Megawatt
NKDC	North Kesteven District Council
NMU	Non-motorised users
NRSWA	New Roads and Street Works Act
PVM	Plant & Vehicle Movement Marshal
PPE	Personal Protective Equipment
The Project	Viking Link Interconnector Project
PRoW	Public Right of Way
RAMS	Risk Assessment Method Statements
SHDC	South Holland District Council
TCC	Temporary Construction Compound
TJB	Transition Joint Bay



1. Introduction

1.1. Overview

The Viking Link Interconnector Project received approval in December 2018. It is proposed to construct a 1400 megawatt (MW) high voltage DC electricity interconnector between the British and Danish electricity transmission networks.

This document covering the DC underground cable route comprises the Construction Traffic Management Plan (CTMP) as required by East Lindsey District Council (ELDC), Boston Borough Council (BBC), North Kesteven District Council (NKDC) and South Holland District Council (SHDC).

Each Local Authority has planning conditions relating to the CTMP requirements, as listed below. This document will be submitted for approval to ELDC, BBC, NKDC and SHDC as the relevant planning authorities for the discharge of the planning conditions.

Management and processes outlined in this document will be adhered to throughout the life of the project. This document addresses the systems and procedures that will be followed to warn, inform and guide road users and members of the public, through or around all works related to The Viking Link Interconnector Project.

The CTMP covers all aspects of Viking Link working practices that fall within the scope of Balfour Beatty's role as Principle Contractor for the DC underground cable element of the project.

This CTMP establishes a framework within which Balfour Beatty will plan, mitigate and monitor the construction traffic management requirements during the construction phase, in accordance with relevant legislation and Approved Codes of Practice.

This document has been submitted to fulfil the requirements of the following planning condition(s):

Table 1-1 - Planning Conditions

Local Planning Authority (LPA)	Planning Permission Reference	Condition Number	Requirement
East Lindsey District Council	N/110/01549/17 (APP/D2510/W/18/3208088)	7	Construction Traffic Management Plan and Access Management Plan
Boston Borough Council	B/17/0340	7	Construction Traffic Management Plan (CTMP) and Access Route
North Kesteven District Council	17/1200/FUL	6	Construction Traffic Management Plan (CTMP) and Access Route
South Holland District Council	H04-0823-17	9	Construction Traffic Management Plan (CTMP) and Access Route (for the DC underground cable)

East Lindsey District Council (7)

No phase of the development (other than survey work) shall commence until a Construction Traffic Management Plan and Access Management Plan for that phase have been submitted to and approved in writing by the Local Planning Authority. Thereafter, the development shall be carried out in accordance with these approved details.

Boston Borough Council (7)

Except for Permitted Preliminary Works, the commencement of the underground cable installation will not take place until there has been submitted to, approved in writing by and deposited with the Council, a Construction Traffic Management Plan (CTMP) and Access Route which incorporates adequate provision for addressing any abnormal wear and tear to the highway. The Construction Traffic Management Plan will include proposals to control and manage construction traffic using the 'Construction Traffic Access Route' and ensure that no other local roads are used by construction traffic. The underground cable installation shall be completed in accordance with the approved Plan unless otherwise agreed in writing by the Council.

North Kesteven District Council (6)

Except for Permitted Preliminary Works the commencement of the underground cable installation will not take place until there has been submitted to, approved in writing by, and deposited with the District Planning Authority, a Construction Traffic Management Plan and Access Route. Construction Traffic Management Plan shall include proposals to control and manage construction traffic using the 'Construction Traffic Access Route' and to ensure that no other local roads are used by construction traffic. The underground cable installation shall be completed in accordance with the approved Plan unless otherwise agreed in writing by the District Planning Authority.

South Holland District Council (9)

Except for Permitted Preliminary Works the commencement of the underground cable installation will not take place until there has been submitted to, approved in writing by, and deposited with the Council, a Construction Traffic Management Plan and Access Route which incorporates adequate provision for addressing any abnormal wear and tear to the highway. The Construction Traffic Management Plan shall include proposals to control and manage construction traffic using the 'Construction Traffic Access Route' and to ensure that no other local roads are used by construction traffic. The underground cable installation shall be completed in accordance with the approved Plan unless otherwise agreed in writing by the Council.

1.2. Scope of CTMP

This CTMP encompasses the requirements of a Construction Traffic Management Plan and is applicable to all construction traffic associated with the construction of the Viking Link DC cable route, it does not however extend to the Converter Station or the AC sections of the Interconnector Project.

1.3. Project Overview

1.3.1. Overview of the Project

The Viking Link Interconnector (hereafter referred to as 'The Project') is a proposed 1400 megawatt (MW) high voltage direct current (DC) electricity link between the British and Danish transmission systems connecting at Bicker Fen substation in Lincolnshire and Revsing substation in southern Jutland, Denmark. The project will involve the construction of a converter station in each country and the installation of submarine and underground cables between each converter station and underground cables between the converter station and substation in each country.

Viking Link will be approximately 760km long and will allow electricity to be exchanged between Great Britain and Denmark. It will comprise the following components:

The North Sea

A pair of high voltage direct current (DC) submarine cables extending approximately 620km between Great Britain and Denmark crossing Dutch and German waters. The cables will be buried in the seabed.

Great Britain

- A pair of onshore underground high voltage DC cables from a landfall site at Boygriff, East Lindsey, to a converter station at North Ing Drove, South Holland;
- The converter station will convert the electricity from direct current (DC) to alternating current (AC);
- High voltage alternating current (AC) underground cables from the converter station to the existing National Grid 400kV substation at Bicker Fen, Lincolnshire; and

- New equipment within the existing National Grid substation.

Denmark

- A pair of onshore underground high voltage DC cables from the west coast of Jutland to the existing 400 Kilo Volt (kV) substation at Revsing near Vejen;
- Converter station to convert electricity between DC and AC; and
- New equipment within the existing 400kV substation at Revsing.

The onshore cable route will, for the UK part of the project, be approximately 68km in length. The onshore DC and associated fibre optic (FO) cables will be buried in one cable trench, 1400mm wide.

Converter Stations

The Viking Link Interconnector will involve the construction of two converter stations, sited in Great Britain and Denmark. Both converter stations will occupy a footprint of approximately 4 to 5 hectares. Additional land is required for access and environmental mitigation. There will also be some additional temporary land requirements during the construction period for laydown and contractor facilities. A typical converter station includes a range of technical equipment, some of which must be located inside a series of large buildings, up to 24m tall. A typical converter station includes:

- Control room;
- Converter power electronics and associated DC equipment;
- Alternating Current (AC) switchgear;
- Transformers and any other associated AC equipment; and
- Ancillary equipment and spares buildings.

Underground Cables

The converter stations are connected by a pair of high voltage DC underground and submarine cables. Typically, the cables are around 150mm in diameter and will operate at a voltage of 500kV. In Great Britain, buried AC cables will connect the converter station to the existing high voltage electricity transmission system substation.

The UK onshore elements have been granted planning permission under the Town and Country Planning Act 1990 from:

- East Lindsey District Council (ref: N/110/01549/17; Appeal ref: APP/D2510/W/18/3208088);
- North Kesteven District Council (ref: 17/1200/FUL);
- Boston Borough Council (ref: B/17/0340); and
- South Holland District Council (ref: H04-0823-17).

1.3.2. Proposed Route – Onshore Works

The proposed onshore route begins at Mean Low Water Springs at Boygriff in East Lindsey, where it overlaps with the Offshore Scheme. From this point, the proposed DC route heads in a generally western direction for approximately 9km, through a predominantly low-lying coastal area, until it reaches the A1104. At this location the proposed DC route bears mainly south west for approximately 20 km through more elevated land, including crossing the Lincolnshire Wolds Area of Outstanding Natural Beauty (AONB) and continuing south west, before reaching the A16. From here the proposed DC route crosses the low-lying fens in a mainly south westerly direction for 37km. At South Forty Foot Drain the cable route turns east to cross the drain before continuing south / south east and entering the proposed converter station site. at its south western corner.

The Project passes through the following local authority areas:

- East Lindsey District Council (ELDC);
- Boston Borough Council (BBC);

- North Kesteven District Council (NKDC); and
- South Holland District Council (SHDC).

The proposed DC cable route extends across the administrative areas of East Lindsey District Council (ELDC) (51.60km), Boston Borough Council (BBC) (9.78km), North Kesteven District Council (NKDC) (4.80km) and South Holland District Council (SHDC) (0.98km). The planning application boundary includes all the land required during construction, including land at various locations along the proposed DC cable route, areas that have been identified for temporary construction compounds (TCCs), temporary works areas (TWAs), land drainage and water management.

1.4. Stakeholder Engagement

As Highway Authority for the district and borough councils affected by The Project, Lincolnshire County Council have been engaged in scoping discussions, providing advice on site access junction requirements and mitigation measures. Meetings were held with Lincolnshire County Council on 13 February 2020 and 17 March 2020.

1.5. Purpose of CTMP

This CTMP addresses the systems and procedures that will be followed to warn, inform and guide road users and members of the public, through or around all works related to The Project.

All employees, contractors, management staff and third parties with any involvement in the construction of The Project, regardless of employer (from this point forward referred to as construction personnel) must adhere to this CTMP.

As principal contractor, Balfour Beatty, will implement all elements of this CTMP. Balfour Beatty will risk assess all work activities and, where necessary, apply measures to eliminate /control risks to staff or visitors.

This CTMP provides practical guidance on control measures that will be implemented and highlights the points for consideration and necessary actions.

Risk Assessing hazards and adequately implementing control measures to eliminate or reduce the risks associated with People and Plant Interface (Fatal Risk), is paramount to the management of construction traffic. Therefore, this CTMP will obligate and promote the following:

- Planning and management for construction access across all Development Stages;
- Periodic monitoring of all control measures and 3rd parties working on this project, by the project leadership team.
- Safe driving and working practices;
- Protection of the public;
- Adequate vision and line of sight;
- The provision of signs and barriers;
- Adequate parking and offloading/storage areas;
- Segregated parking for office staff;
- Restricted access fuelling areas;
- Traffic Management to be included in daily risk assessments and personnel briefed at the daily briefing;
- Toolbox talks;
- Traffic Management targeted inspections;
- The use of Balfour Beatty's Observation Application; and
- Flash cards providing site rules for delivery drivers.

In addition to the above, everyone has a duty to take reasonable steps to ensure the safety of:

- Themselves;
- People working under their supervision or command;
- People working nearby and others who may be affected by their work activities;
- Property belonging either to themselves or to another person or organisation;
- The general public; and
- Visitors, including visiting delivery drivers, and other 3rd parties working for The Project.

This CTMP is a live document and will be reviewed annually or sooner if required. For example, if there are significant adjustments to The Project for the DC underground cable, changes to relevant legislation, Approved Codes of Practice and industry guidance. It will also be reviewed immediately after any transport related accidents/near miss associated with Balfour Beatty's area of responsibility. Such reviews will be undertaken by the Project Manager.

1.6. Structure of CTMP

The structure of the CTMP is as follows:

- Section 1 – Introduction
- Section 2 – General CTMP principles, governance and communication, roles and responsibilities of key staff.
- Section 3 – Construction parameters and management measures to control construction traffic movements.
- Section 4 – Proposed measures to control Abnormal Indivisible Loads.
- Section 5 - Construction parameters and management measures to control employee vehicle movements.
- Section 6 - Process for managing the interaction between construction traffic and existing highway users during the construction phases of The Project, whilst also detailing proposed site access arrangements.
- Section 7 – How the CTMP will be monitored and Action Plan for its implementation;
- Section 8 – Management approach to any disruptions to Public Rights of Way (PRoW).
- Section 9 – Signage principles which will be applied throughout construction.
- Section 10 – Proposed DC cable route and the details of the associated construction compounds.

2. General Principles

2.1. Overview

This CTMP is consistent with the methodology and principles of the Outline CTMP submitted for the planning application but provides further detail and specific information to reflect Balfour Beatty's construction programme and methodology.

The discharging of the associated planning conditions will be the responsibility of National Grid Viking Link (NGVL). The production, implementation and day-to-day management of the CTMP will be the responsibility of Balfour Beatty.

2.1.1. Implementation

The implementation of this CTMP will be mandatory and applies to the DC underground cable works as part of The Project. To implement this plan effectively, Balfour Beatty will:

- Communicate the details of this plan to all construction personnel on site during a mandatory site induction, which will be recorded with details provided to the Health and Safety Team;
- Reiterate aspects of the CTMP as required during regular pre-start meetings, and other necessary occasions;
- Develop a Vehicle Movement Plan, where required, for specific areas of the construction site;
- Ensure that all plant operatives are provided with a copy of the Vehicle Movement Plan related to their role in the Work Area; and
- Ensure CTMP's are reviewed regularly and updated if required.

The minimum standards for implementation include:

- Vehicles that Balfour Beatty use will have membership and certification within the FORS (Fleet Operator Recognition Scheme)/CLOCS (Construction Logistics and Community Safety) scheme. Currently Balfour Beatty are CLOCS champions, and hold FORS accreditation;
- Through the CTMP, The Project shall adopt and promote the requirements of the CLOCS scheme;
- Construction personnel, accessing the works area (not including the compound), shall hold an appropriate CSCS certification or equivalent Balfour Beatty approved card certification. Appendix A provides full details of HSES-RM-0026b Approved Card Schemes;
- Haulage drivers will have an up to date CPC qualification;
- All Traffic Management personnel shall be LANTRA qualified, and/or hold the relevant street works qualification; and
- All HGV and LGV construction vehicles associated with The Project will be clearly identifiable using a vehicle marking scheme.

2.1.2. Supply Chain Engagement

The CTMP and any future amended CTMPs will be distributed to organisations / personnel in the supply chain, to ensure that Construction Access Routes and traffic management schemes are adhered to. These documents will be provided to the suppliers on the placement of Purchase Orders and be contained within the restrictions laid out in that contract or order agreement.

2.1.3. Near Miss Reporting

Balfour Beatty will operate a 'Near Miss' reporting system for all highways incidents. Balfour Beatty will ensure that all accidents and near misses are recorded within this system and that drivers are instructed to report all issues through daily briefings. Any accidents or near misses involving vehicles travelling to / from the site will be recorded, investigated, and reported internally and to the client NGVL, referring specific incidents to the Highway Authority, as deemed necessary.

This system will be extended to cover incidents relating to deliveries to the construction compounds, allowing formal recording, investigation and trend analysis of incidents to be undertaken.

2.2. Key Personnel, Roles and Responsibilities

Key personnel hold a duty of care for the planning and delivery of site activities. These positions include:

Management Team

- Senior Project Manager;
- Project Engineer;
- Health and Safety Specialists;
- Project Planner; and
- Project Manager.

Site Team

- Site Engineers;
- Site Supervisor/Foreman;
- PVM (Plant Vehicle Movement Marshal); and
- Compound Security.

2.2.1. Works Supervisor/Foreman

The Works Supervisor/Foremen have responsibilities for general construction traffic management, the general works area and the construction personnel under their control. They are responsible for ensuring that the following minimum standards and requirements are delivered.

General Construction Traffic Management

A documented daily risk assessment is completed by the Works Foreman and the procedures and control measures are implemented on site.

All highways-related works do not commence until all signage is in place. Even in an emergency, it is essential that safety is observed for construction personnel and all other road users.

Permissions will be obtained from the Highway Authority in line with New Roads and Street Works Act (NRSWA 1991) prior to any works commencing on the highway.

General Works Area

- All road users and construction personnel can proceed with their respective undertakings safely and with minimum inconvenience to the general public;
- All site related works are correctly fenced and sign-posted using the relevant approved signs;
- All signs and devices used are in good condition;
- All signs are removed at the completion of the work;
- Where necessary, timed reduced output lights should be switched off during daylight hours and checked to confirm they are working as well as correctly aligned (if required); and
- If any person is injured, the incident is reported to the Site Supervisor and the relevant authorities. Please see the accident and incident reporting and investigation procedure below for additional details.

Construction Personnel

- Workers are skilled, knowledgeable, experienced and trained appropriately to work on or near highways;
- Workers have a high awareness of traffic safety issues;

- Workers are informed of the public relations aspect of their work and instructed to not allow themselves to be provoked by members of the public;
- All workers accessing the construction site will have access to and use the following safety equipment and PPE:
 - High visibility Class 3 EN ISO 20471 workwear;
 - UV protection eyewear and sunscreen (SPF 30 as a minimum standard or better).
 - Safety helmet;
 - Steel cap safety footwear;
 - Hearing protection (as deemed by the RAMS); and
 - Eye protection (as deemed by the RAMS).
- The designated person at remote sites will be responsible for ensuring that the condition of the access track and public road is not affected by either increased use or deposits of mud or debris from the work site. They will also be responsible for contacting the supervisor should the means to prevent this become insufficient.
- All construction personnel carrying out work activities, on or immediately adjacent to the site, shall:
 - Always take reasonable care for their own safety and that of others;
 - Follow the applicable requirements of this CTMP;
 - Prior to proceeding with any work, contact their supervisor or another team member, for clarification of any requirement applicable under this CTMP, if they are uncertain of what is required or how it is implemented;
 - Always obey the applicable highway rules for pedestrians and drivers, on and off site;
 - Always follow safe driving practices, including using the correct thoroughfare in accordance with any posted speed limits and safety requirements, in a manner that does not put at risk their or any other person's (e.g. passengers, fellow construction personnel or members of the public) safety at risk;
 - Conduct daily vehicle checks and ensure their vehicles are fit for purpose; and
 - Refer to the site supervisors daily risk assessment and attend the daily briefing.

Accident and Incident Reporting and Investigation Procedure

The requirements set out in Balfour Beatty's Incident Reporting and Investigation Procedure (VKL-BB-HSF-00-PC-HS-20068) will be adopted, as part of a safe system of work. See Appendix B for further details.

Responsibilities within this procedure will be implemented and monitored by the Balfour Beatty Viking Link Management Team, who will ensure all relevant parties are made aware of their own obligations and duties, as stated within the procedure.

3. Construction Traffic

3.1. Introduction

This section outlines several key parameters to be considered within this CTMP, in relation to controlling construction traffic associated with this project. These key parameters focus on routing, timing and traffic generation.

All measures outlined will be an absolute requirement and will be adopted by Balfour Beatty and only revised with the agreement of the relevant authorities.

3.2. Construction Access Routes

Construction traffic will be limited to pre-defined routes when travelling on the Local Road Network (LRN) as shown in Appendix C.

All HGVs and LGVs travelling to construction compounds will use the designated Construction Access Routes and will be required to coordinate directly with the Site Supervisor to manage vehicle movements. The routing strategy used to define these routes is outlined below.

3.2.1. Routing Strategy

Construction Access Routes have been selected (in liaison with highway stakeholders) to minimise the potential for adverse impacts. Several restrictions have been agreed with the Highway Authority in order to avoid congested, sensitive locations or potentially dangerous manoeuvres. The planned access route restrictions are detailed in Section 10.4.

Heavy Good Vehicles (HGVs) and Light Good Vehicles (LGVs) will be limited to these predefined routes, which have been agreed with the Highway Authority. The primary considerations for each route are:

- To use the shortest approved construction traffic route from the location of bell mouths to the primary distribution network;
- To avoid settlements and any other sensitive receptors to reduce congestion and minimise effects in cities, towns and villages; and
- To minimise travel on the local road network and use haul roads where possible.

Outside of these primary considerations, the following factors were also considered:

- Height, width and weight restrictions;
- Road layout, where possible to avoid sensitive receptors (schools, churches, equestrian areas and areas of high pedestrian movements);
- Visibility constraints;
- Restricted access;
- Junctions at or near capacity during peak periods;
- Road gradients;
- Feedback from the local communities and the Highway Authority was taken into consideration; and
- No-go areas (including certain villages, junctions and other sensitive receptors).

Where possible, all deliveries will be planned to avoid peak hour traffic (morning and afternoon). All traffic controllers shall be suitably accredited and wear the mandatory PPE for this project.

During works on each of the four cable route sections, Primary and Secondary compounds will be constructed with haul roads that will continue along the cable corridor to the next TCC. These Primary & Secondary compounds will also act as strategic store locations for holding bulk stock of materials and CBS (Concrete Batching System) batching plants. This approach will limit the number of deliveries required to the TCCs and subsequently the number of traffic movements required on public and private roads. By implementing this strategy, traffic movements will be reduced on and off site

3.3. Construction Traffic Flows

3.3.1. Baseline Assessment

Construction traffic movements were originally estimated during the outline planning stage of the application. This outline assessment provided construction traffic flows for each of the TCCs based on average weekly traffic movements, which then enabled an average daily total to be calculated.

The peak period for traffic during construction at each TCC was assumed to ensure a robust assessment of traffic was undertaken. The daily two-way trips to and from the TCCs were considered in terms of their overall percentage impact on the roads within the local highway network. As part of the assessment, a sensitivity test was also included whereby all construction traffic flows were uplifted by 20%, allowing for variations in construction traffic flows and adding to the robustness of the assessment.

Construction trips generated by each TCC were split into Car/Light Goods Vehicle (LGV) trips and Heavy Goods Vehicle (HGV) trips (assuming 1 HGV = 16 tonne Max Articulated vehicle). Some of the assumed generated HGV trips were larger vehicles such as cranes and cable delivery vehicles, which were also included as part of the assessment.

The breakdown of total two-way consented vehicle movements from the Outline CTMP assessed for the construction activities at each TCC, is summarised in Table 3.1 below.

Table 3-1 - Proposed TCC Construction Traffic

Route Section	TCC	Peak Daily Vehicle Flow – Two-Way Movements (22 Week Duration)		
		Cars/LGVs	HGVs	Total
1	TCC (S1)	9	32	41
	TWA (T2)	10	34	44
	TWA (T3)	10	36	46
	TCC (P1)	10	36	46
	TWA (T4)	10	36	46
2	TWA (T5)	10	35	46
	TWA (T6)	11	36	47
	TWA (T7)	10	36	46
	TWA (T7A)	10	34	44
	TWA (T8)	10	33	43
	TWA (T9)	10	35	45
3	TCC (P2)	10	36	46
	TCC (S3)	11	36	47
	TCC (S4)	11	37	47

4	TWA (T10)	10	36	46
	TCC (S5)	10	35	44
	TWA (T11)	10	34	44
	TWA (T12)	10	35	45
	TCC (P3)	10	35	45
	TWA (T13)	10	36	46
	TCC (S6)	10	36	46
	TWA (T14)	10	35	45
	TWA (T15)	10	35	45
	TWA (T16)	10	34	44
Total		242	843	1085

3.3.2. Actual Forecast Flows

The actual forecast construction traffic flows for each TCC will be lower than the consented estimates with the exception of P2. However, the total number of actual forecast construction traffic flows will be lower than the total consented estimates. When the traffic flows from each TCC are distributed onto the local highway network the combined traffic flows will not exceed the total consented traffic flows.

3.4. Control of Construction Traffic

3.4.1. Construction Hours and Delivery Times

The number of HGVs associated with construction traffic during the construction period is likely to have an adverse, but temporary effect on the local highway network. Consideration will be given to the programming of HGV movements and the timing of deliveries, thus minimising disruption to traffic on the public highways. Typical working hours will be during daylight periods, although some deliveries may be programmed when the public roads are at their quietest.

During the summer holiday season, the east coast road network (A16, A52, A158 and A1104) is busier than normal. Therefore, consideration will be given regarding the timing of peak deliveries to the compounds. Where possible, deliveries and pick-ups will be scheduled to occur outside the main holiday season, subject to agreement with LCC.

All construction works will be carried out during the working hours of:

- 07.00 to 19.00 Monday to Fridays; and
- 07.00 to 17.00 Saturdays, with HGV Deliveries limited to 08:00 – 16:00 on Saturdays.

No works are to be undertaken out of hours, on a Sunday or Bank Holiday, without prior consultation with NGVL and the Local Authority. Works associated with cable jointing, cable testing and horizontal directional drilling may be required out of hours, if this is the case site-specific mitigations will be considered at these locations.

In some instances, out of hours working may be required that would generate negligible traffic demand.

3.4.2. Construction Traffic Volume

To ensure compliance with the agreed construction traffic flows, full delivery coordination through the site team will be undertaken by Balfour Beatty.

As works are phased and will predominately be conducted one task at a time, teams will be working in isolation at each compound undertaking separate packages sequentially. This will limit the deliveries to each TCC and ensure the LRN is not significantly impacted by the works.

3.4.3. Construction Routes

To ensure that HGVs use the designated construction traffic routes, appropriate road signage will be erected prior to the commencement of construction. This will direct construction traffic along the agreed routes to TCC sites and agreed delivery points. Details behind the guiding principles of the signage schedule can be found in Section 9.

To support the signage strategy, construction access routes will be communicated to the supply chain through the issue of information packs. The packs will be a convenient size for ease of storage in vehicle cabs and will include:

- A delivery plan detailing the delivery routes, with TCC locations, what3words address, coordinates and map;
- Loading and unloading plan;
- Contact details for Balfour Beatty;
- Details of procedures for dealing with emergencies; and
- Details of disciplinary measures for non-compliance.

To assist with measuring the movement of deliveries, a biometric M-Site fingerprint recognition system will be in use for individuals arriving on site. For the more remote TCCs, the M-Site system will be used via an app on a mobile device, which the Site Supervisor / Foreman will have responsibility for.

Where vehicles are not project dedicated e.g. one-off deliveries, at each TCC, the deliveries will be logged and reviewed on a weekly basis. If it is identified that there are more deliveries to individual TCCs than the delivery schedule, the process will be reviewed and where possible, improvements made. Such as, utilising alternative approved routes and accesses or reducing/rescheduling work activities with traffic management will be improved. It will be reviewed to see how the vehicle movements can be better managed by utilising alternative approved routes and accesses or reducing / rescheduling the work activities that are taking place.

All material and plant suppliers engaged by Balfour Beatty, shall be provided with route access maps to the TCCs and a briefing document detailing the restricted routes and site rules. These documents will be provided to the suppliers on the placement of Purchase Orders and the restriction laid out within the documents will form part of that contract or order agreement. In order to ensure that Balfour Beatty can monitor the movements of suppliers and subcontractor vehicles, they shall be required to operate a telematics system in all delivery vehicles.

Any communication that may be required with local stakeholders will be logged in Balfour Beatty's Communications, Enquiry and Complaints Procedure (Document No. VKL-BB-COM-00-CD-PA-20432) but may take the form of face to face meetings, newsletters or door-to-door engagement.

All commercial vehicles operated by Balfour Beatty will utilise the Masternaut Telematics System. Dashboard reports from these trackers will then be reviewed regularly by the Site Engineer to identify speeding vehicles or the using of non-designated roads. Detailed fleet information will be available upon request by the Highway Authority. Persistent offenders will be reported to the Project Manager and may be removed from The Project.

3.4.4. Control of Dust and Dirt

Mud and debris on the local highway network will be kept to a minimum. The surface at the access point will be treated appropriately, where necessary this will involve track stoning (or equivalent), repairing potholes and / or reinstating any worn areas.

To prevent dust and dirt being tracked on to the highway the following measures will be adopted:

- Bellmouths at all compounds will be tarmacked;
- A wheel wash will be made available as necessary where works are taking place However, this will be dependent on weather conditions for vehicles leaving site;

- A road sweeper will be used as required; and
- The hauliers will maintain their vehicles and mud flaps will be inspected before leaving site.

All parking areas will be constructed with hard surfacing. This will ensure that vehicles entering and exiting site are not required to use worn surfaces whereby mud and debris can accumulate and be transported off site and onto the public highway.

All vehicles working within the site that accumulate mud and debris will not exit the site until they have been sufficiently washed down beforehand. Wheel washing and inspection facilities will be provided to ensure the wheels and wheel arches are clean and clear of debris before the vehicle exits onto the public highway. In addition, there will always be a road sweeper on call should cleaning of the public highway be required.

The above measures are consistent and will be in accordance with the Project's Construction Environment Management Plan (CEMP) (Document No. VKL-BB-ENV-00-PL-EN-20528).

3.4.5. Parking & Loading Measures

Appropriate loading / unloading and parking areas for construction vehicles will be designated to avoid the need for parking or waiting on the highway. Any clashed deliveries will be sent away to avoid waiting on the highway. Upon arrival to each compound, all deliveries will report to the coordinated delivery contact. This will be communicated to all suppliers and subcontractors at their pre-start meetings.

Whilst on-site, the delivery operation will be controlled by a trained Plant & Vehicle Marshal (PVM), from the point of guiding a vehicle to its designated off-loading area to guiding the vehicle back onto the public highway. Both the PVM and drivers will follow relevant safety procedures and operate the same-signalling systems.

Adequate parking will be provided at the TCCs to ensure that the safety and efficient operation of the public highway is not reduced. At no time will construction personnel, including contractors and suppliers, be authorised to park outside of the site boundaries, including on the public highway, unless prior permission has been granted by either the relevant landowner or the Highway Authority.

On-site parking will be managed to ensure safety of all personnel. Parking terms and regulations will be clearly displayed using signage displayed in the immediate vicinity of the parking provision.

Loading and unloading will be via a self-contained lorry lifting device where available (e.g. Hiab or Moffet). If a self-contained lifting device is not available, then appropriate equipment and space for handling individual loads will be provided at each compound. No materials or deliveries will be managed in an unsafe manner. Unloading and loading of materials will be undertaken in accordance with the risk assessment completed by the Site Supervisor. No loading or unloading will take place on the public highway unless pre-agreement with the Highway Authority.

All delivery drivers will require to wear the mandatory PPE (personal protective equipment) when on site and will be provided with a summary of site rules issued / advised at sign in.

No person will climb onto a trailer without fall prevention in place. All drivers will access and egress their cabs by using three points of contact. Drivers will only leave their cabs if it is safe to do so.

3.4.6. Road Safety

The TCC access points will be designed to ensure that no vehicle entering the site is restricted (other than abnormal loads, if required). Suitable space within the works site will be provided for all vehicles to park, unload and manoeuvre, therefore enabling all egressing vehicles to exit onto the access road in a forward-facing direction. Reversing onto any public highway will not be permitted.

For construction traffic:

- No delivery vehicles are to reverse without the direction of a PVM on the construction site;
- Delivery drivers to site will abide by highway laws;

- Special consideration should be taken to avoid U-turns and three-point turns in the highway;
- Flashing beacons or Hazard lights must always be in use;
- Where fitted and appropriate, audible reversing alarms to be used;
- Seat belts must always be worn on and off site; and
- The mandatory PPE must be worn when alighting the vehicle.

All HGV drivers will be required to attend an induction that will establish a clear set of responsibilities that drivers will be required to follow including:

- No right turn into the site at specific locations;
- Delivery timings and coordination;
- Identification of approved HGV routes;
- Highway safety concerns;
- Adherence to speed limits;
- Instructions on how to pull over safely to alleviate long traffic platoons;
- Details of reporting accidents and 'near misses'; and
- Site rules.

3.4.7. Network Resilience

To reduce the potential for any construction traffic to have an adverse impact upon the LRN during any planned or unplanned work and events, the measures set out in Table 3-2 will be adopted.

Table 3-2 - Measures Adopted During Events

Potential Event	Mitigation Measure
Managing traffic demand during major events on the highway (e.g. motorcycle and bicycle events and meetings races, parades, village shows etc) and around public holidays.	The Contractor will establish a line of communication with the Highway Authority to coordinate effectively. The Contractor will ensure that a suitable stockpile of materials is maintained to allow construction traffic movements to be reduced during any disruptive events, whilst minimising the impact to the construction programme.
Managing traffic demand during major incidents such as accidents on the highway.	The Contractor will continuously monitor traffic conditions and liaise with local stakeholders to establish a line of communication with regard to road traffic incidents. Should the Balfour Beatty be notified of any incidents, Balfour Beatty will liaise directly with suppliers to suspend or adjust HGV deliveries along impacted routes.
Incidents involving HGV traffic blocking the highway, such as, breakdowns, accidents, load sheds etc.	Balfour Beatty and their suppliers' fleets will have arrangements with recovery companies to allow breakdowns and accidents to be cleared as quickly as possible, to minimise any disruptions on the LRN. For extended delays emergency traffic management will be coordinated with the Highway Authority's approval to mitigate disruption.

3.4.8. Highway Condition Surveys

Prior to the commencement of any construction activities all minor access routes to the TCC locations will be surveyed from major A roads to determine the condition of the existing highway condition. The survey will be conducted by Balfour Beatty in agreement with the Highway Authority.

The survey will also be repeated upon completion of the project. Any provable damage to the highway caused by Balfour Beatty traffic or construction activities will be repaired by Balfour Beatty, or a financial contribution will be agreed with the Highway Authority to cover the remedial works.

3.4.9. Road Crossing

At any point whereby haul or access roads utilised during the construction phase of The Project cross the existing public highway, measures will be implemented to ensure suitability for Balfour Beatty and public usage.

In order to manage the interaction between construction traffic and existing highway users, construction traffic will be required to give way. Details of the crossing treatment and associated signage strategies are detailed in Section 9.

3.5. Vehicle Identification

All HGV and LGV construction vehicles associated with The Project will be clearly identifiable using a vehicle marking scheme. The purpose of this is to assist with the monitoring process of the construction vehicles within the LRN.

It is envisaged that this will be achieved by placing suitable signs in or onto all HGVs and LGVs entering and exiting the working areas onto the LRN. This signage would be passed to appointed contractors prior to the start of construction. The exact form of identification is still to be determined; however, wording stating “Working with Viking Link” or similar will be used. Vehicles dedicated to The Project long term, i.e. staff cars, Site Supervisor commercial LGV’s, will also be inducted onto The Project and their registrations stored on record.

The attachment method may differ from one supplier or contractor to another. Where a vehicle is based full time on The Project the signage will be secure. However, for others (for example stone haulage vehicles that may have other clients from one day to the next) detachable signs will be used. As a minimum this would be displayed in the cab for temporary vehicles making sporadic deliveries.

3.6. Vehicle Types

HGVs

Any vehicle over 3.5t is considered an HGV. HGVs will be used for the movement of bulky or large materials and are likely to be wagons but may also include other vehicles; such as lorries as low loaders delivering plant materials.

LGVs

Any vehicle up to 3.5t, excluding cars, is considered an LGV. These vehicles will predominantly be used to move small plant and materials. Other LGVs will include long and short wheelbase vans and any minibuses (with no more than 9 seats including the driver) used to transport construction personnel between construction compounds and public transport hubs (at certain sites).

Other Vehicles

Other vehicles such as cars and small trucks will be used for monitoring and survey works alongside transporting construction personnel. The movement of larger indivisible or abnormal loads are considered in Section 4.

4. Abnormal and Indivisible Loads

4.1. Overview

An Abnormal Indivisible Load (AIL) will be carried out to inform the most suitable route for the delivery of abnormal and indivisible loads. The route will consider sensitive locations such as schools and hospitals and avoid them where possible or minimise impact by avoiding school arrival and departure times etc. The route will also take into consideration the need to minimise disruption to local infrastructure i.e. street furniture and overhead lines. These loads are likely to consist of cable drums and plant machinery required for construction.

The CTMP will identify the specific routes for each delivery and the constraints which may be imposed for each route by the Highway Authority, along with any other stakeholders or asset owners who may be affected. Other tools such as the Department for Transport data base; Electronic Service Delivery for Abnormal Loads (ESDAL) will also be utilised.

Hauliers selected for the transportation of loads, will adhere to relevant Balfour Beatty procedures. Such procedures will be forwarded to each haulier for them to comply with the necessary requirements.

Balfour Beatty will validate the hauliers:

- Health and safety practices, policy and safe systems of work (including the evaluation of accident and incident statistics);
- RAMS relevant to the work activity;
- Working plans, including, where relevant, lifting plans, loading and unloading plans, delivery and pick up plans;
- Management and drivers' competencies. This will extend to a drivers' competencies in securing loads, working at height, unloading, loading and sheeting of loads, weight, height and width limits, load shift etc.;
- Drivers' CPC's;
- Relevant insurances;
- Relevant maintenance, servicing and statutory inspections on vehicles and equipment to be used; and
- Operators' Licence.

Cable drums will enter through the Port of Boston, Lincolnshire. Balfour Beatty will work, in partnership, with the Port of Boston, to ensure a safe and smooth ship discharge. The Port of Boston's competencies, together with their health and safety standards, will be evaluated beforehand, as well as throughout the discharging process.

Once the transportation routes have been identified, Balfour Beatty will carry out AIL surveys for each route. In advance of the movement of any loads, Balfour Beatty will send details of the proposed delivery route, including a supporting AIL study to the Highway Authority and police for approval.

5. Control of Personnel Movements

5.1. Introduction

The following section sets out measures to control the number of employee vehicle movements associated with the construction of The Project.

During the development of the application, the accessibility of sustainable transport options such as walking, cycling and public transport was assessed. However, whilst there is some potential for construction personnel to use these sustainable methods, there is limited coverage and opportunity in rural areas, making the use of these methods largely impractical.

5.2. Measures

Construction personnel will be encouraged to travel using sustainable modes of transport where viable. The following measures will be implemented:

Table 5-1 - Construction Personnel Travel Measures

Measure	Rationale
Walking / cycle facilities	It is recognised that the nature of the travelling workforce and remote site locations reduces the potential opportunities for utilising sustainable transport methods such as walking and cycling. However, Balfour Beatty will seek to encourage construction personnel who can walk and cycle (where practical) to do so.
Staff noticeboard	A staff notice board will be positioned in communal areas at major sites. Parking requirements and other measures, in addition to local sustainable transport options will be displayed.
Welfare and catering facilities	To avoid the need for construction personnel to drive off site during the working day for lunch, Balfour Beatty will provide welfare facilities (where practical). These will include an area for employees to prepare and eat their lunch and drink refreshments.

However, construction personnel will not have any restrictions on routes to the compounds / welfare locations. Wherever appropriate, staff traveling via any other modes of transport will also be encouraged to use the agreed Construction Access Routes.

6. Traffic Management and Site Access

6.1. Introduction

This section sets out the process for managing the interaction between construction traffic and existing highway users during the construction phase of The Project. Details of proposed site access arrangements are also provided.

6.2. Traffic Management Principles

Access points and haul roads will use wide bell mouth entryways designed through Swept Path Analysis. However, this will necessitate traffic management for both normal users of the highway and construction traffic accessing and egressing the access point.

Suitable traffic management will enhance safety conditions on the LRN and help mitigate any potential impacts of the construction of the bell mouths and haul roads. Consideration has been given to each bell mouth design and liaison with the LHAs has ensured that the design reflects the predicted traffic volumes and the conditions and operation of the LRN within the vicinity of each bell mouth. Typical bellmouth arrangement is provided in Appendix D.

The guiding principles for traffic management activities focus on the health and safety of all construction personnel and the minimisation of inconvenience to the general public.

Basic communication requirements of all CTMPs will be to provide:

- Advanced warning of changes to the public highway to enable drivers to adjust their driving accordingly; and
- Clear information and guidance as to how to safely negotiate the work site; this includes the delineation of travel paths and their separation from the work site with barricading as required.

6.2.1. Post Completion

Upon completion of the construction works, all temporary construction direction signing will be removed.

6.3. Site Access Control and Security Measures

6.3.1. Site Access Control

A typical Highway Access Arrangement is set out within Appendix D. A PVM will be appointed to control access to and from each site where required. It will be the responsibility of the PVM to guide incoming traffic and be aware of any egressing vehicles. Construction vehicles delivering to the site will be under continuous control of the PVM.

No staff will enter the live carriageway as compound entrances are offset from the main carriageway. The PVM will be required to wear highway-compliant high-visibility clothing. If deemed necessary, more than one PVM will be allocated. All deliveries of plant, materials and structures to the compound will be booked. Vehicles will enter and exit site in a forward direction; hence avoiding the need for reversing outside of the site boundary.

6.3.2. Security Measures

Appropriate security fencing will be established around the construction site including compounds, works areas and areas used for the storage of plant and machinery, hazardous substances. Demarcation fencing will be erected along the length of the proposed DC cable route, consisting mostly of wooden stakes and wire. The condition and effectiveness of these boundaries will be subject to regular inspection.

Where determined necessary by Balfour Beatty, Closed Circuit Television (CCTV) will be installed within construction areas. Remote cameras will be installed at compounds for security purposes when items of value are left, with permanent CCTV being installed at the primary compounds. Access to working areas will be restricted to approved personnel only, with the Site Supervisor to monitor and manage traffic and site visitors.

Lighting of TCCs and Temporary Working Areas (TWAs) will be implemented for the safety of staff. Lighting will be directional and will be designed to prevent light pollution and glare as much as possible.

6.3.3. Personnel Access

Security gates will be used to ensure that only authorised personnel and deliveries can enter and will remain closed at all other times.

Personnel requiring access to the site for reasons other than carrying out physical construction work will be treated as a site visitor. All visitors will be granted access by appointment only and must in all cases be authorised by a senior manager at each site.

All visitors, except for authorised collection or delivery drivers, shall always be the responsibility of the permanent pass holder whilst on site and must sign in at security.

Visitors must always use the pedestrian walkways and access gates provided for safe and easy access to site office.

Compounds will be segregated into non-PPE and PPE areas. Personnel will not be allowed access into PPE areas without the appropriate equipment as per construction standards.

Balfour Beatty will provide a robust system of inductions, safety briefings, task briefing statements and work package plans for any works.

Visitors will always be inducted and escorted on site.

Gates will be padlocked, and site supervisors will be on duty to control the site access and ensure no members of the public can enter the site without authorisation from the relevant personnel (where appropriate).

6.3.4. Pedestrian Access Routes

Safe pedestrian access routes between car parking locations, access points, work areas, site offices and welfare facilities will be provided within all TCCs where possible. Where pedestrian and vehicle routes interact, appropriate crossing points and segregation will be provided.

Pedestrians accessing the construction compounds and other work areas are always required to wear the mandatory PPE.

7. Monitoring and Enforcement

7.1. Introduction

Section 7 outlines how the targets and measures contained within this CTMP will be monitored to ensure compliance.

7.2. Monitoring

7.2.1. Construction Trips/HGV Numbers

To ensure compliance with the target daily HGV movements, Balfour Beatty will record all deliveries. This will be continuously monitored to ensure the thresholds set out are adhered to.

7.2.2. HGV Routing

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

Signs will be erected at all traffic management locations with the relevant contact number clearly displayed for public enquiries.

Balfour Beatty will also ensure that their vehicle fleet, where appropriate, are fitted with a telematics system. This system together with delivery records will serve to augment the unique identifier to allow Balfour Beatty to respond to any complaints and provide a complete evidence base.

Further details relating to Construction Traffic monitoring measures are provided in Section 3.

7.2.3. Road Safety

Balfour Beatty will operate a 'Near Miss' reporting system for all highways incidents. Balfour Beatty will ensure that all accidents and near misses are recorded within this system and that drivers are instructed to report all issues recorded through the system. Any accidents or near misses involving vehicles travelling to / from the site will be recorded, investigated, and reported internally and to the client NGVL referring specific incidents to the Highway Authority as deemed necessary.

Balfour Beatty will retain records of all incidents (e.g. speeding and driver hours) and submit to the relevant authorities upon request. If emerging issues are identified, Balfour Beatty and the Highway Authority will initiate discussions with relevant stakeholders.

7.3. Enforcement

This section provides a summary of the mechanisms that would ensure that the control measures are effectively implemented.

To ensure that the aims of the CTMP can be effectively enforced, it is important to define what will constitute a breach. The following actions will constitute a breach of the CTMP, whereby corrective measures will be required (this list is not exhaustive):

- Vehicles using prohibited routes;
- Construction workers not parking in designated areas or overspill parking on the public highway;
- Construction HGVs not adhering to the agreed routes/times; or
- Construction traffic being driven inappropriately, e.g. speeding.

On receipt of a report of a potential breach, Balfour Beatty will investigate the circumstances accordingly using the monitoring tools available and compile a report outlining the breach and ramifications. These reports will be available upon request to the client and the Highway Authority.

Individual employee breaches would be addressed through UK employment law whereby the three-stage process outlined above may form the basis for disciplinary proceedings.

8. Public Rights of Way

8.1. Overview

As part of the wider project submission, a Public Access Management Statement (Document No. VKL-BB-ENV-00-PL-EN-20475) has been prepared. This document describes the proposals for the management of Public Rights of Way (PRoW) along the proposed DC cable route, and in the vicinity of the proposed converter station during construction and operation, demonstrating a planned approach to the management of PRoW. The overarching objective of the strategy is to ensure that PRoWs are managed safely and that disruption to the public is minimised.

The document surmises:

- The methodology used to identify PRoW and surveys that have been undertaken;
- Crossing options and planned construction methods; and
- Proposed management strategies for PRoW potentially affected by The Project.

9. Signage Principles

9.1. Overview

This section outlines the principles of the signage strategy to be implemented.

9.2. Principles of Signage

Temporary signage will be erected around the site access points and at other locations on the LRN to provide warning to other road users of the likely presence of construction vehicles undertaking manoeuvres. Signage will be in accordance with Chapter 8 of the Traffic Signs Regulations and General Directives (TSRGD).

The Contractor shall ensure the following principles are applied regarding signage:

- Signs and devices will be erected and displayed before work commences;
- On approaches to the Work Area signs are erected in the following sequence and then removed in the reverse order.
 - Advance warning signs;
 - Other warning signs; and
 - Instruction signs.
- Signs are placed within the driver's line of sight and at the same time not obscuring other traffic devices from the driver's line of sight;
- All signs and devices are placed in the most advantageous positions, considering the location and nature of hazard and the warning being conveyed, to provide the maximum visual impact for approaching traffic. Such signs and devices shall have an adequate clear view in advance of them (e.g. a minimum of 50m for 60km/h and a minimum of 100m for 100km/h);
- Signs and devices are placed in a manner and position, so they are not obscured from view by vegetation, parked vehicles or any other visual obstruction;
- Signs and devices are placed in a manner and position so as not to become a possible hazard to construction personnel, pedestrians or vehicles (e.g. diverting traffic into an undesirable path);
- Signs and devices shall be regularly checked for effectiveness and maintained in a satisfactory condition.
- Signs and devices are selected and placed in a manner so as not to require a driver to disobey a law unless so directed by an authorised officer, such as a police officer;
- Permanent signs which conflict with the signs required for the temporary work situation are covered or removed;
- Signs and devices are removed from the site when practical and once the hazard ceases to exist, restoring the road / footway to previous condition; and
- Original signage is uncovered or reinstalled returning the signs to their original state as a minimum.

Balfour Beatty will ensure careful consideration is given to signage of the site to:

- Provide advance warnings to drivers of changes in the surface of the roadway, and / or any changes in the traffic conditions, and that personnel are engaged in work;
- Adequately instruct and guide traffic safely through, past or around the work site if required; and
- Provide separation of the travel path and the works area if required.

Examples of construction signage that would be introduced are shown in Figure 9-1:



Figure 9-1 - Examples of Construction Signage

9.3. Erection and Location of Signs

Balfour Beatty will ensure that all road signs are used with approved stands or erected on posts set into the ground (where permitted by the relevant authorities). Appendix D shows the typical signs that will be used on The Project.

Where signs are erected on posts set into the ground the following will apply:

- On un-kerbed roads in both rural and urban areas the sign should be at least 600mm clear of the outer edge of the road shoulder, line of guideposts or face of the guard measured towards the property boundary. The clearance should not be less than 1m nor more than 5m from the edge of the running lane and the height of the sign should be 1.5m above the nearest edge of the running lane;
- On kerbed roads, signs should be located back from the face of the kerb, no less than 300mm and no more than 1.0m. The height of the sign should be approximately 2.2m above the kerb or footway to reduce the interference from parked cars; and
- Where the signs are erected on temporary stands for short term work, they should be erected on the road shoulder in un-kerbed areas no closer than 600mm to the running lane. In kerbed areas the provisions outlined above for post-mounted signs shall be followed.

9.4. Advance and Intermediate Advance Warning Signs

Advance and intermediate advance warning signs will alert approaching vehicles of changes to road conditions, enabling road users to negotiate any travel path at an acceptable level of risk.

9.4.1. Advance Warning Signs

For the purposed of The Project, the advance warning signs are limited to:

- Workers Ahead;
- Roadwork Ahead; and

- Site Access Ahead.

Intermediate advance warning signs are used where, in addition to a general warning at the onset of the roadworks, another warning is required for a specific action or change of road condition.

9.4.2. Intermediate Warning Signs

The intermediate advance warning signs for the purposes of The Project are:

- Diversion Ahead; and
- Prepare to Stop.

9.4.3. Advance Warning Signs

Advance warning signs for vehicular traffic are not required in the following situations:

- Whereby works are sufficiently remote from the roadway, meaning that no action or extra vigilance is required of a driver other than would be normally required on that section of road; and
- Where approach speeds are so low that no devices are needed to provide advance warning; i.e. signs and devices can be seen in plenty of time for drivers to take necessary action.

9.5. Site Access Signage

Advanced temporary signage will be erected warning motorists and other highway users of site access points. All temporary signing strategies will be agreed with the Highway Authority prior to implementation.

9.6. Access Route and Point Signing

Temporary signage will be erected along construction access routes on the LRN to provide access (directional) routing information. These will be placed to ensure that construction vehicles and staff are able to travel directly to site. Locations of the temporary signage will be drafted in plan format and approved by the Highway Authority ahead of installation.

This temporary signage will also be provided in the vicinity of each bell mouth and will provide warning to other road users of the likely presence of construction vehicles. Temporary signage will be produced and agreed with the Highway Authority.

9.7. Haul Road Signing

Temporary signage will be erected along proposed construction haul roads where necessary. The signage will provide drivers with key information and warning (hazard) information relating to potential vehicle conflict areas (cross over points).

Locations of the temporary signage will be drafted in plan format and approved by the Highway Authority ahead of installation.

10. Proposed DC Route and Compound Details

10.1. Proposed Route – Onshore Works

The route is outlined in section 1.3.2.

10.2. Development Stages

The proposed DC cable route has been split into four route sections. These are described from the proposed landfall to the proposed converter station as follows:

Section 1

Proposed landfall to Well High Lane (approximately 13.04km, entirely within ELDC). This route section extends from the proposed landfall site where the UK Offshore Scheme comes ashore at Boygrift, to Well High Lane between South Thoresby and Rigsby. It passes through predominantly flat, low-lying agricultural land.

Section 2

Well High Lane to A16/Keal Road (approximately 16.8km, entirely within ELDC). This route section extends down to Keal Road immediately to the west of East Keal. It extends through the Lincolnshire Wolds Area of Outstanding Natural Beauty (AONB) and is in an area of more undulating topography with some steeper slopes present.

Section 3

A16/Keal Road to the River Witham (approximately 22.06km, within ELDC and BBC). This route section extends from East Keal to the west of the River Witham northwest of Boston at Langrick. It extends through flat agricultural land crossing many drains, including West Fen Drain.

Section 4

River Witham to the proposed converter station (approximately 15.21km, within BBC, NKDC and SHDC). This route section extends from west of the River Witham and enters the proposed converter station site at its south west corner. It passes through an area of low-lying agricultural land and requires numerous drain crossings.

The route is summarised in Table 10-1 below.

Table 10-1 - Overview of Development Stages

Development Stage	Compound
1. TJB at Boygrift to Well High Lane	T1 – Accessed from S1
	S1 - TCC
	T2 – No longer required
	T3 - TWA
	P1 - TCC
	T4 - TWA
2. Well High Lane to Primary Compound No. 2 at West Keal	T5 - TWA
	T6 - TWA
	T7 - TWA
	T7A - TWA
	T8 - TWA
	T9 - TWA
3. Primary Compound No. 2 to the River Witham	P2 - TCC
	S3 - TCC
	S4 - TCC
	T10 - TWA
	S5 - TCC
	T11 - TWA
4. River Witham to the new Converter Station	T12 - TWA
	P3 - TCC
	T13 - TWA
	S6 - TCC
	T14 – TWA
	T15 - TWA

10.3. Overview of Temporary Construction Compounds

To facilitate the different elements of construction of the proposed DC cable route, 25 TCCs would be required. The TCCs have been distributed along the proposed DC cable route, as shown in Appendix E.

10.3.1. Temporary Construction Compounds

Temporary Construction Compounds (TCCs) are typically larger areas utilised for the storage of plant and machinery and stockpiling materials, as well as the provision of site management offices, welfare facilities for staff (kitchen facilities, storerooms, toilet facilities), parking, and plant and material storage. There are three types of TCC proposed; primary, secondary and tertiary. Their functions are similar, however there are minor variances in the size and potential duration of operation.

Primary

TCCs will be larger in size (approximately 1.5ha) and will be in place for the duration or most of the cable laying. The Primary TCCs shall be the first to be constructed; from these Primary TCCs the haul roads will be constructed along the cable corridor to the next TCC. The Primary TCCs will also act as strategic store locations for holding bulk stock of materials and possibly CBS batching plants. By implementing this planning strategy, the haul road can be utilised to deliver the majority of materials and CBS to the point of works without having to use public and private roads, this will subsequently limit the number of deliveries required to the Secondary & Temporary TCCs and ultimately limit the number of traffic movements required on public and private roads.

Secondary

TCCs will be approximately 1.1ha and will likely be in place for most of the construction, but not the full duration.

Tertiary

TCC will be approximately 0.5ha and likely to be in place for shorter periods across the cable route throughout the duration of the construction works. Temporary Working Areas (TWAs) are required at various locations along the proposed DC cable route. These are typically located at areas where works require a larger area than the typical working width such as at locations where trenchless construction methods are proposed. These are smaller than the TCCs and will cover an area of approximately 0.43ha. They will be utilised for laydown of construction plant and equipment and storage whilst works are being undertaken in the vicinity. It is therefore unlikely that the TWAs will be in place for the construction programme.

10.4. Compound Restrictions

The planning consent provides various restrictions regarding construction traffic, these will be confirmed at induction and reiterated to delivery drivers when materials orders are placed.

Table 10-2 below provides an overview of the all restrictions. A more comprehensive list and map are provided in Appendix F.

Table 10-2 - Construction Access Route Restrictions

Route Section	TCC	General Restrictions	Access Restrictions
1	TCC (S1)	No construction traffic to enter into Sandilands village.	Unrestricted junction. Access to working width, from both directions of A52.
	TWA (T2)	Accessed via other compounds.	Accessed via other compounds.

	TWA (T3)	No construction traffic to enter into surrounding villages.	Unrestricted junction. Access from both directions of A1111 to working width and T3.
	TCC (P1)	No construction traffic to enter the centre of Alford village where possible. Main roads around village only to be used.	Unrestricted junction. Access from both directions of A1104 Alford Road.
	TWA (T4)	No construction traffic to enter the centre of Alford village where possible. Main roads around village only to be used.	Restricted junction. Access to working width and T4 via unnamed road off A1104 from south only.
2	TWA (T5)	No construction traffic to enter into surrounding villages.	Restricted junction. Access to working width and T5 from both directions off A16. No right turn permitted - left in and left out only.
	TWA (T6)	No construction traffic to enter into surrounding villages.	Restricted junction. Access to working width and T6 via haul road off A16. No right turn permitted - left in and left out only
	TWA (T7)	No construction traffic to enter into surrounding villages.	Unrestricted junction. Access to working width and T7 from both directions of A158.
	TWA (T7A)	Accessed via other compounds.	Accessed via other compounds.
	TWA (T8)	Only main roads through Hundley & Spilsby to be used by construction traffic. No construction traffic to enter into surrounding villages.	Unrestricted junction. Access to working width and T8 from both directions of B1195.
	TWA (T9)	No construction traffic to enter into surrounding villages.	Access to working width and T9. HGV/AIL access from north only.
3	TCC (P2)	No construction traffic to enter into surrounding Villages.	Unrestricted junction. Access to Working width and P2 from both directions of A16.
	TCC (S3)	HGV / AIL access from south only. No construction traffic to enter into surrounding villages.	Access to working width and S3 via temporary Haul road from south only.
	TCC (S4)	No construction traffic to enter into surrounding Villages and must avoid bridge on Stickney Lane.	Restricted junction. Access to working width and S4 off Stickney Lane from west only.
	TWA (T10)	No construction traffic to enter into surrounding villages.	Unrestricted junction. Access to working width and T10 from both directions of B1183.
	TCC (S5)	HGV/AIL access from Westville Road only. No construction traffic to enter into surrounding villages.	Restricted movement junction. Access off Westville Road to North only.
	TWA (T11)	Main roads only to be used. No construction traffic to enter into surrounding Villages.	Unrestricted junction. Access to Working width and T11 from both directions of Leagate Road. HGV traffic would be routed north only from the site along Leagate Road, to avoid travelling through the village of Gipse Bridge.
	TWA (T12)	Accessed via other compounds.	Accessed via other compounds.

4

TCC (P3)	No construction traffic to enter into surrounding villages.	Restricted junction. Access to working width and P3 off Kirton Drove from South only.
TWA (T13)	No construction traffic to enter into surrounding villages.	Restricted junction. U-turn is required to gain access to temporary bridge. Access of Claydike Bank from south only.
TCC (S6)	No construction traffic to enter into surrounding villages.	Unrestricted junction. Access to working width and S6 from both directions of A17.
TWA (T14)	No construction traffic to enter into surrounding villages.	Access to T14 and working width via Private Road, Great Hale Drove and Carter Plot Lane. Off A17.
TWA (T15)	Access via T14.	Access via T14.
TWA (T16)	Access via convertor station.	Access via convertor station.

10.5. Detailed Compound Access Arrangements

Detailed Compound Access Arrangements are provided in Appendix G.

Appendices

Appendix A. Balfour Beatty Safety Standards

INTRODUCTION

The CSCS and CPCS workforce registration schemes are administered by the CITB. All skill cards administered by the scheme or affiliated to the scheme display the CSCS or CPCS logo. These are a requirement for working on a Company site.

ASSOCIATED DOCUMENTATION

- HSES-PR-0026 Training & Competences

The “Recognised Card Schemes” table, included at the end of this document, gives contact details to check the authenticity of an individual’s card.

The list is not exhaustive. Relevant skill requirements should be identified during the monthly HSE meetings

CSCS-CPCS Variations			
Card Category	Notes	Operations	Contact
Steel Erector Slinger/Signaller	Steel Erectors Slinger/Signaller competence appears as a CSCS not CPCS card.	Holders of this card are limited to Slinger/Signaller operations for Steel Erection ONLY.	http://www.cscs.uk.com/

Non CSCS-CPCS Trade Association Skills Cards			
Trade Association	Notes	Operations	Contact
ASLEC Association of Street lighting Electrical Engineers	Currently covers installation and maintenance of streetlights, traffic signs and traffic signals. It is affiliated to CSCS and newer cards have the CSCS logo. Existing cards with the ESLEC logo are valid, and when renewed will come under the CSCS scheme.	Installation and maintenance of street lights, traffic signals and traffic sings	www.streetlighting.uk.com
ECITB Engineering Construction Industry Training Board	CCNSG Safety Passport Scheme; The aim of the CCNSG Safety Passport Scheme is to ensure a basic knowledge of health and safety for all site personnel to enable them, after appropriate site induction, to work on site more safely with lower risk to themselves and others	All Engineering Construction operatives.	http://www.ecitb.org.uk

CSCS-CPCS Variations			
Card Category	Notes	Operations	Contact
NPORS (National Plant Operation Scheme)	Traditional plant operators card (non CSCS) where no NVQ is available. Only acceptable at the discretion of the Regional HSE Manager	For plant operations	http://www.npors.com
ACE: ACE- Assuring Competence in Engineering Construction:	The ACE scheme validates a range of skills against National Occupational Standards ensuring people working in the engineering construction industry are competent both in Health & Safety and their discipline. ACE delivers on key government and HSE requirements and recognises the importance of continuous training/assessment through the ACE renewal process.	Engineering Construction	www.ecitb.org.uk/Training-Services/Safety-Training/Contact-Us
IPAF International Powered Access Federation	For operators of mobile elevated working platforms.	Mobile elevated working platforms	www.ipaf.org
PASMA/CITB Prefabricated access Suppliers manufacturers association	Mobile towers	Erection of Mobile Towers	www.pasma.co.uk/public

CSCS-CPCS Variations			
Card Category	Notes	Operations	Contact
IRATA Industrial rope access trade association	Specialist training in rope access	Specialist rope access	www.irata.org
EPIC /MPQC	Mainly associated with training for quarry. Accepted for road surfacing operations.	Only used where CPCS category does not exist link to CPCS categories	www.epicltd.com
SWQR Street Works Qualification Register	Highway construction and maintenance.		www.streetworks.fsnet.co.uk

CSCS-CPCS Variations			
Card Category	Notes	Operations	Contact
LANTRA	Highways	2A General Fencing 2B Vehicle Restraint Systems 12A Traffic Management for long term contra-flows and/or where studding is required on high speed roads and dual carriageways 12B Traffic Management for overnight contra-flows required on high speed roads and dual carriageways 12C Mobile Traffic Management 12D Temporary Traffic Management on Rural and Urban Roads	www.lantra.co.uk
LANTRA	Agricultural: For chain saws and aerial tree work and pesticides		www.lantra.co.uk
NPTC	For chain saws and aerial tree work and pesticides		http://www.nptc.org.uk

CSCS-CPCS Variations			
Card Category	Notes	Operations	Contact
NPORS (CSCS)	New CSCS recognized cards which are subject to the same requirements as regular CSCS card holders	For plant operations	http://www.npors.com
RTITB The Road Transport Industry Training Board	Any training organisation accredited to RTITB. Recognised by the HSC as being a competent training provider. Ensure the training has been carried out to this standard. Some cards have RTITB approved trainer identified on them but the training may have been carried out to a lesser standard.	NOT FOR CONSTRUCTION ACTIVITIES Lift truck operator – in Factories and Depots	www.rtitb.co.uk
GWINTO Gas and water industries national training organisation	Public utilities gas mains and service layer		www.euskills.co.uk
RSMA Road Safety Marking Association	Current recognised industry standard for road marking.	Road marking operatives	www.rsma.org.uk
ALLMI	Take note of the category on the operator's competency card. Distinction is made between different types of attachment, capacity of the loader, remote controlled loaders and various specialist applications.	All types of lorry loaders dependent on category identified on the card.	www.allmitraining.co.uk

CSCS-CPCS Variations			
Card Category	Notes	Operations	Contact
Sentinel	The Sentinel card scheme is a recognised safety system that is integrated with Network Rail's Lifesaving Rules which state you should "never undertake any job unless you have been trained and assessed as competent" The scheme provides automatic alerts when cards have expired, or the individual is suspended The scheme prevents unqualified individuals from working and causing danger on the railway infrastructure	Provide rail workers with a passport to work on rail infrastructure operations across the United Kingdom.	www.railsentinel.co.uk

Further information and authenticity checks can be made at the following:

Section	Abbreviation	Full Name	Telephone	Website
General	CSCS	Construction Skills Certification Scheme	0844 576 8777	www.cscs.uk.com
	CSR	Construction Skills Register	028 9087 7150	www.constructionskillsregister.co.uk
	CISRS	Construction Industry Scaffolders Record Scheme	0844 815 7223	www.cisrs.org.com
	NRSA	New Roads & Streetworks Act (Supervisors & Operatives)	0141 242 2239	www.swgr.org.uk
	NPORS	National Plant Operators Registration Scheme	01606 351240	http://www.npors.com
	CCDO	Certification of Competence of Demolition Workers	0870 417 3366	www.ndtg.org
	FASET	Fall Arrest Safety Equipment Training	01948 780652	www.faset.ork.uk
	IRATA	Industrial Rope Access Trade Association	01252 357839	www.irata.org
	SENTINEL	Rail	0870 164 2244	www.railsentinel.co.uk
	ACE	ECITB – Engineering construction Workers	01923 260000	www.ecitb.org.uk
	EUSR	Energy & Utility Skills – Utility Industries	0845 077 9922	www.eusr.co.uk
	RSMA	Road Safety Markings Association	01427610101	www.rsma.co.uk/
	ALLMI	Association of Lorry Loaders, Manufacturers and Importers (for all types of lorry loaders dependent on category identified on the card)	0844 858 4334	www.allmitraining.co.uk/
Mechanical & Electrical	SKILL	Engineering Services Skillcard	01768 860406	www.skillcard.org.uk
	ASLEC	Association of Streetlighting & Electrical Engineers	01273 491145	www.highwayelectrical.org.uk/ASLEC/

Section	Abbreviation	Full Name	Telephone	Website
	JIB	JIB Electrotechnical Certification Scheme (England & Wales)	020 8302 0031	www.jib.org.uk
	JIB	JIB Electrotechnical Certification Scheme (Scotland)	0131 445 5577	www.jib.org.uk
	JIB - PMES	JIB Plumbers, Mechanical Engineering Services	01480 476925	www.jib-pmes.org.uk
	SNIJIB	Scottish & Northern Ireland Joint Industrial Board	0131 225 2255	www.snijib.org
	BES	Building Engineering Services	01485 577877	www.cskills.org/bes
	GAS SAFE	Gas Workers	0800 4085577	www.gassaferegister.co.uk
	GWINTO	Gas and Water Industry Training Organisation, (Utility operations)	0845 077 9922	www.euskills.co.uk
	CPCS	Construction Plant Competence Scheme	0844 815 7274	www.cskills.org/cpcs
	IPAF	International Powered Access Federation	01539 562444	www.ipaf.org
	RTITB	Road Transport Industry Training Board (certificate only)	01952 520204	www.rtitb.co.uk
	LANTRA	Lantra National Training Organisation	0845 707 8007	www.lantra.co.uk
	AITT	Association of Industrial Truck Trainers	01530 277857	www.aitt.co.uk
	NPTC	National Proficiency Test Council (Chainsaws, aerial tree work and pesticides)	024 7685 7300	www.nptc.org.uk

Further information on occupational listing can be found at www.ceca.co.uk

Appendix B. Incident Reporting and Investigation Procedure

[illegible]

PURPOSE

This procedure applies to all Balfour Beatty staff and contractors on the Viking Link Onshore Civils works and has been developed in line with National Grid [Viking Link Incident Management and Investigation Procedure](#). The purpose of this procedure is to describe the process of initial response, reporting and investigating incidents and accidents on the Viking Link UK Onshore Civils works when the incident results in injury to a person, ill-health to a person, property and building damage, environmental damage, a service strike, or loss of production time, as well as those which, although not realised (near misses), are judged to have had the potential for these types of injury, damage, or loss.

The requirements in this procedure are our current standards and must be adopted as part of a safe system of work. However, the Balfour Beatty Viking Link project team are also encouraged to identify new methods of working as long as these are: developed through rigorous risk assessment, demonstrably improve on current standards, deliver legal compliance and are approved in accordance with the Control of HSES Derogation procedure ([HSES-PR-0004](#)).

PROCEDURAL REQUIREMENTS (see process map at end of document)

1. IMMEDIATE INCIDENT RESPONSE

- 1.1 Proportionate to type and scale of the incident, ensure that:
 - The site/area is made safe, if necessary, isolating and arranging for testing and examination of any plant involved
 - Any necessary first aid or emergency services have been arranged
 - Access is controlled and necessary steps are taken to preserve the scene and prevent contamination of evidence
 - Photographic evidence is taken of the scene where possible to preserve environmental factors where this has the potential to change, e.g. light & visibility, weather, wet ground etc.
 - The need for drugs and alcohol testing has been considered
- 1.2 If the incident is deemed to be Major, Balfour Beatty Group [Standard 101 - Major Incident Response](#) must be immediately followed.

2. WELFARE OF INJURED PERSON

- 2.1 If a person is injured in an incident the First Aid procedure ([HSF-PR-0008](#)) must be followed. If the injured person needs to attend hospital, suitable transportation must be provided, they should be escorted, supported in hospital and further arrangements made for their homeward journey. The escort must also confirm the injuries sustained.
- 2.2 Where appropriate, Human Resources must be consulted to inform the injured person's next of kin of the situation and, if the employee is detained in hospital, assistance will be offered by the Company.

3. NOTIFICATIONS

- 3.1 All incidents (including near misses) must be notified as soon as practicable and are categorised on a Balfour Beatty severity level between 1-5 with a corresponding NGVL severity level as shown in the table below. A table with description of severity levels between insignificant and catastrophic is at Table 1 in Section 6.
- 3.2 All incidents must be recorded on the Incident Report and Investigation Form ([HSES-SF-0005a-e](#))

Key to Severity Level

Balfour Beatty	NGVL
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Potential or Actual Severity	Report to-	Timescale-
Catastrophic (5)	BB PT&D HSES Manager NGVL SHEQ Manager	Immediate by quickest means but within 1 hr
Serious (4)	BB and NGVL Project Directors iSMS and Velocity	Follow up with IIN* within 24hrs Post incident teleconference within 24hrs iSMS and Velocity within 24hrs Draft Report within 7 days
Major (4)	BB PT&D HSES Manager NGVL SHEQ Manager	
Major (3)	BB & NGVL Project managers iSMS and Velocity	
Moderate (3)	BB Project Manager BB H&S Project Partner	Within 1 hr
Moderate (2)	NGVL SHEQ Manager NGVL site representative iSMS and Velocity	Follow up with IIN* within 24hrs iSMS and Velocity within 24hrs Draft Report within 21 days
Minor (2)		iSMS and Velocity within 24hrs Draft Report within 21 days
Minor (1)		
Insignificant (1)		In accordance with local ERP
Observations	Observations Portal	Monthly Statistical report or as requested

*IIN = 2 page Initial Incident Notification

Following a moderate severity or above incident an Initial Incident Notification (IIN) as reproduced below, must be completed and communicated to the client NGVL and throughout Power T&D within 24hrs by the SHEQS Department to communicate the initial facts surrounding the incident. The IIN will be completed by the site SHEQS Advisor, Environmental Advisor, PM or SE and sent into the central SHEQS team for final sign off before issue.

Initial Incident Notification (IIN) (Date Issued) (Title and Location) (Date and time of Incident) <u>What happened</u> <u>Immediate Actions Taken</u> <u>Incident Classification</u> (Actual and Potential Severity)  Page 1 of 2 	Initial Incident Notification (IIN) page 2 (Title) <u>Follow up Actions</u> <u>Incident Owner/Manager</u> <u>Key Learning Points</u> <u>Parties Informed</u> E.g. NGVL (Names) BB (Names) Page 2 of 2 
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- 3.3 For incidents of actual Level 3-5 or potential Level 4-5 the Site Lead must arrange a teleconference/meeting as soon as practicable with the BB project management team, H&S Project Partner, and NGVL to determine the level of investigation, the investigation team, application of legal privilege (see section 5), and client liaison. [HSES-TF-0005c](#) is available as a template to support this meeting
- 3.4 For actual Level 4-5 incidents a Notification Form for Major Incident must be completed and issued within 24 hours and the parties in the Major Incident Contact list must be contacted, including SafetyNet personnel ([HSES-RM-0005c](#)). See Balfour Beatty Group [Standard 101 - Major Incident Response](#) Appendix A.
- 3.5 All incidents must be recorded onto iSMS within 24 hours of the incident time.
- 3.6 All incidents must initially be given a potential severity rating and incident classification type when the incident is entered onto iSMS the incident should then be updated when the actual severity rating is determined.

4. NOTIFICATIONS TO REGULATORY AUTHORITIES

- 4.1 If the incident is deemed to be Major (level 4) or Catastrophic (level 5), then Balfour Beatty Group [Standard 101 - Major Incident Response](#) must be immediately followed.
- 4.2 The HSES SBU/BU Leads (Head or Manager) and the project HSES Advisor must be involved in the initial incident reporting to any regulatory body to ensure the reporting category is classified correctly

4.3 In the following events the HSES SBU/BU Lead (Head or Manager) must notify the regulator as follows:

- For a RIDDOR reportable injury, disease or dangerous occurrence, notify the Health and Safety Executive by the quickest practicable means without delay
- For a work-related death, a serious incident where there have been multiple casualties, and following an incident which has caused major disruption such as evacuation of people or closure of roads, via the Incident Contact Centre on 0345 300 9923 (opening hours Monday to Friday 8.30 am to 5 pm). Outside these times, call the HSE duty officer on 0151 922 9235
- For all other reportable incidents, online at www.riddor.gov.uk
- A full report must be made within ten days for a specified injury, fifteen days for an over seven-day lost time injury, or ten days for a dangerous occurrence
- Copies of any notification report must be uploaded onto the iSMS database along with the corresponding event and the notification recorded in the event data

4.3.1 In the event of an environmental incident please refer to [ENV-RM-0005a Environmental Incidents](#) and [ENV-RM-0005e Environmental Incident Severity Classification Table](#).

Any level 4 or above environmental incident occurring as a result of the Company's work activities the HSES Manager must ensure that the following action is taken:

- Notify the relevant Regulatory Authority, as soon as possible, by telephone (Environment Agency (EA)/Scottish Environmental Protection Agency (SEPA)/Northern Ireland Environment Agency (NIEA) Incident / Pollution hotline 0800 80 70 60)
- If the incident involves a suspected wildlife crime the Police should be called on 101. Other animal welfare issues should be reported to the Royal Society for the Prevention of Cruelty to Animals (RSPCA) 0300 1234 999, Scottish Society for the Prevention of Cruelty to Animals (SSPCA) 03000 999 999 or the Ulster Society Prevention Cruelty to Animals (USPCA)
- Reference material is available to assist with the completion of Level 4 environmental incidents (See [HSES-RM-0005e](#), [HSES-RM-0005f](#), [HSES-RM-0005g](#) and [HSES-RM-0005h](#))

5. LEGAL PRIVILEGE

5.1 The SBU/BU Managing Director supported by the Health, Safety, Environment and Sustainability (HSES) Function (or in the case of a joint venture, the most senior member of the JV Board) will consult with the in-house Legal Function to determine whether an investigation should be conducted in contemplation of prosecution or legal action.

5.2 If prosecution or legal action is possible, the in-house Legal Function will formally instruct the investigation to be conducted and reported to them under legal privilege. This action should preserve the ability to claim legal privilege for all information arising, to keep all investigation information confidential to the company, and to prevent uncontrolled disclosure of draft reports and advice. This means that only summary facts of the incident should be shared outside of legal privilege and all detailed information should only be shared under legal privilege within the communications heading, with the appointed legal-council representative copied in as a recipient of the communication.

5.3 Legal privilege may be released at any future date by the in-house Legal Function, if this protection is no longer required.

Note: Privileged information must not be loaded into iSMS - only summary facts must be recorded until privilege is released.

6. TYPE OF INVESTIGATION REQUIRED

6.1 The level of detail in the investigation, report and subsequent review are governed by the level of potential severity of the incident (including near misses).

6.2 Level of Severity

6.2.1 The levels of severity are detailed below in Table 1:

Table 1

Scale(level)	Health	Safety	Environment	Legal action
Catastrophic (5)	Multiple deaths e.g. asbestosis, cancers	Multiple deaths	Catastrophic environmental incident resulting in irreversible, long term or widespread damage	- High profile prosecution - Public Inquiry - Class action
Major (4)	- Single death - Life-shortening health effect - Health effect causing significant irreversible disability e.g. lung diseases	- Single death - Multiple major injuries (worker or third party) - Significant irreversible disability	Major environmental incident resulting in local damage that is reportable to authorities and requires high level of resource and time to ensure recovery	- Company or individuals facing prosecution - Citation - Major fine - Loss of licence/safety case
Moderate (3)	- Irreversible health effect e.g. loss of hearing, HAVS cases - Serious illness from which there is full recovery e.g. poisoning, Legionnaires disease, MRSA, serious dermatitis	- Single major injury (worker or third party) - Worker injury resulting in three days away from work	Moderate local impact requiring management action to enable recovery	- UK Prohibition Notice - Ban on operational activity by enforcing authority until stated requirements are met - Minor fines
Minor (2)	- Reversible health effect, e.g. minor dermatitis, asthma, tinnitus - Minor illness, e.g. slight poisoning - Restricted work - Medical treatment beyond first aid	- Minor injury (worker or third party) - Injuries resulting in one day away from work - Restricted work - Medical treatment beyond first aid	Minor local impact requiring management action that leads to immediate recovery	- UK Improvement Notice - Actions required by enforcing authorities for continued operations - Warning from enforcing authorities
Insignificant (1)	Mild health effect for short period with no lost time e.g. local skin irritation	- First aid case with no lost time - Negligible safety impact	Minimal local environmental impact	Recommendations by enforcing authorities

6.3 Investigation Level

6.3 Two levels of incident investigation and reporting have been determined and their applicability is detailed in Table 2 below:

Table 2

Severity Level	Type of Investigation	Investigation Lead	Investigation team members	Investigation team appointed by	Management Review
Actual 4/5	Integrated Incident Investigation	Independent Director or Senior Operational Manager	Independent Level 4-5 trained HSES or operational investigator Operations HSES Advisor Technical expert (as required)	SBU lead in conjunction with HSES Director	CEO & Group HSES Director
Potential 4/5	Integrated Incident Investigation	Director or Senior Operational Manager	Level 4-5 trained HSES or operational investigator Operations HSES Advisor Technical Expert (as required)	BU or Project Lead in conjunction with HSES Director	SBU or BU Director and HSES Director
3	Local or if deemed appropriate upgrading to an Integrated Investigation	Senior Operational Manager or HSES Advisor	Operations HSES Advisor Technical Expert (as required)	Site Lead i.e. Project Manager/Director in conjunction with HSES Lead	Senior Site Lead/Function Head & HSES Head
1/2	Local	Line Manager	Operations	Site Lead i.e. Project Manager/Director	Site Lead & HSES Advisor

6.3 All persons leading and managing an investigation team must be technically competent (SMSTS (or Company accepted equivalent)) and have knowledge of the incident investigation process and techniques ([HSES-RM-0005k](#) Incident Investigation Short Guide for Local Investigation).

6.3 All persons leading an integrated investigation team must either be drawn from the small expert team of level 4-5 trained skilled and experienced investigators or be supported in the investigation team by a level 4-5 trained colleague drawn from the expert team. When an integrated investigation team has been established, at least one person in an integrated investigation team must also have knowledge of the incident investigation process and techniques ([HSES-RM-0005k](#) Incident Investigation Short Guide for Local Investigation).

6.3 If there is doubt over the level of potential severity, and therefore whether to initiate an Integrated Incident Investigation, the Organisation's Senior Leader must consult with the relevant HSES Director whose decision will be final. In respect of any M&E incidents, the HSES Principal Engineer's decision will be final.

6.3 Local Investigations (level 1-3) must be recorded on the Incident Report and Investigation Form ([HSES-SF-0005a-e](#)). An initial report is required within 7 days and the final report must be ready for management review within 14 days of the incident notification.

- 6.3 Integrated Incident Investigations (level 4-5) will be recorded on the Principal Investigation Report ([HSES-SF-0005f](#)) using Human Factors Analysis and Classification System for reference ([HSES-RM-0005a](#) or appendix B of [Standard 102](#). An interim report must be produced and reviewed by SBU's Managing Director and Head of HSES within seven days of the event occurring and the final report must be issued within 21 days of the incident occurring ([HSES-TF-0005c](#))
- 6.3 Investigations into diagnosis of Hand Arm Vibration must be recorded on the HAVS Investigation Form ([HSF-SF-0060a](#)) and undertaken in accordance with the Hand Arm Vibration Procedure ([HSF-PR-0060](#)).
- 6.4 High Potential Incidents
- 6.4 An incident of potential level 4 or greater High Potential (Hipo) events must be notified to HSES Director and SBU Managing Director as soon as possible.
- 6.5 Work Related Health Condition
- 6.5 A low-level investigation must be carried out on all potential work-related health conditions. The Lead Investigator must contact the Occupational Health team for advice if the condition is caused by or worsened by the individuals work activities
- 6.6 Late Reporting and Non-Work-Related Injuries
- 6.6 Any injury incident that was reported after the injured person has left the site or where there is doubt that the injury was a result of a work-related incident must be investigated as described above.

7. INVESTIGATION PROCESS

- 7.1 Guidance on how to conduct a level 1-3 investigation is in [HSES-RM-0005k](#) Incident Investigation Short Guide for Local Investigation and level 4-5 investigation is in [HSES-RM-0005j](#) Principal Investigation Guide. The aim of the investigation is to establish all the factors surrounding the incident where improvement can be made to prevent recurrence. The effort and resource required by the investigation should be proportionate to the incident and it is stressed that there is no 'right' way to conduct analysis and the investigation team should avoid getting overwhelmed by the process. The important point is that some critical and logical analysis of the facts to establish the causal factors and identify preventive and corrective actions.
- 7.2 Once complete all investigations reports must be attached to the iSMS database (unless under Legal Privilege)
- 7.3 Where a work-related ill health or disease case has originated from a pre-claim disclosure or formal letter of claim, documents must be shared between the insurance team and the investigation team and attached to the iSMS incident as background evidence.
- 7.4 The outputs from the investigation reports must be subject to a management review before completion, which will confirm whether the injury must be included on Balfour Beatty statistics, and/or reported to the HSE (for RIDDOR reportable injuries).
- 7.5 The decision from this review must be endorsed by the Client and Business Unit Director.

8. CORRECTIVE ACTIONS

- 8.1 Corrective Actions will be developed and agreed for each incident.
- 8.2 Corrective Actions must:
- Directly address the causal factors identified
 - Restore any absent control measures that should have been in place
 - Implement any additional controls that could have prevented the incident
 - Eliminate or reduce the risk of recurrence

- Be specific, measurable, achievable, realistic and time bound (SMART)

8.3 Actions must be developed and agreed with the action owner prior to the investigation report being released. The action owner is then responsible for the closure of the action.

8.4 The closure of actions will be tracked within iSMS. Actions must only be closed when satisfactory evidence of completion of the action is made available to the Lead Investigator.

9. MANAGEMENT REVIEW

9.1 Investigation reports must be subject to a management review before being issued. The level of review is dependent on the potential severity of the incident. See Table 2. The purpose of the Management Review is to:

- Review the investigation report and agree any revisions
- Discuss the recommendations and agree the actions to be taken to prevent a recurrence

10. SERIOUS INCIDENT REVIEW (SIR) AND WIDER LEARNING

10. Principal investigation reports must be subject to management review and approved in accordance with HSES-PR-0005, before agreeing wider distribution to **share learning**.

10. A Serious Incident Review must be held for incidents that have resulted in a fatality or have been categorised with a potential severity of 5 or 4. A SIR may also be held for an incident or series of incidents that have been categorised as a 3 or below that due to their nature have been subject to in depth investigation and completion of a principal investigation report.

10. The SIR must be held 2 weeks from completion of the investigation report, but this may be changed at the discretion of the Senior Management Team due to the nature, or severity or complexity of the incident. The purpose of the SIR is to review a summary of the event(s) and the investigation findings and identify wider learning relevant across SBUs. [HSES-TF-0005c](#) is available as a template to support this review.

10. The key objectives from the SIR should be:

- To consider how effectiveness of the investigation findings and recommendations, their implementation for preventing a reoccurrence, and to ratify and agree the recommendations
- To consider the wider implications of the incident (or series of incidents) to business as a whole
- Whether any further improvements should be considered to improve health and safety performance

10. The SIR Chairperson must be a Director appointed by the Operational Director and will be supported by the Lead Investigator, Operational Senior Manager for the project, the investigation team, a senior member of the HSES function, the individuals directly involved in the incident, and subcontractors involved.

11. SUPPLY CHAIN INVESTIGATING AND REPORTING

11. The Supply Chain has a duty to report accidents/incidents to the Balfour Beatty representative and enforcing authority in the same way as the Company.

11. Supply Chain incidents must be investigated, reported and reviewed in an identical manner to those of Company employees. All level 4/5 Incidents will be investigated by Balfour Beatty, regardless of Supply Chain procedures. Supply chain partners can assist the Investigation team, but Balfour Beatty always leads. For Level 1-3 Incidents, Supply chain partners must carry out their own investigation alongside a Balfour Beatty investigation and according to Balfour Beatty timescales.

11. A copy of Supply Chain's regulatory authority report forms must be received and attached to the relevant Investigation report.

12. JOINT INVESTIGATIONS

12. Contractual requirements may require a joint investigation with the client or partner organisation. In these cases, an agreement must be made on the report format and timescales of the investigation
12. Where a client or partners report template is used, this report must be attached to the relevant incident within the iSMS database and information transferred from the report into the investigation and corrective action fields of the iSMS incident log.

13. RECOMMENDATIONS FOR IMPROVEMENTS

13. Where a Principal Investigation has identified or recommended improvements to the BMS, [HSES-SF-0005i](#) BMS Change Request (Investigation Learning) must be completed and forwarded to HSE@balfourbeatty.com for review. Agreed changes will be incorporated into the BMS on the next scheduled update, unless it is deemed to be safety critical, whereupon the change to the BMS will be incorporated as soon as practicable.

14. WORKS CARRIED OUT ON THE NETWORK RAIL MANAGED INFRASTRUCTURE

For the purposes of works carried out on the Network Rail Managed Infrastructure the following definitions must apply:

Close Call	A close call is an incident that has occurred due to an unsafe condition or act that in other circumstances could have resulted in personal injury or damage to plant, machinery, infrastructure or the environment.
Near Miss	A near miss is an incident involving a train or rail mounted plant that has occurred due to an unsafe condition or act and which in other circumstances could have resulted in personal injury.

Wherever a "Near Miss" is solely referred to in the Business Management System and whilst working on the Network Rail Managed Infrastructure, it should be interpreted as meaning either a "Close Call" or "Near Miss", as appropriate, in accordance with the above definitions.

14. The Site Lead must liaise with the Network Rail Site Lead and ascertain if they will accept the use of the Balfour Beatty Incident Investigation and Report form.
14. If the Balfour Beatty Incident Report and Investigation Form ([HSES-SF-0005a-e](#)) is not accepted, the following must apply:
14. The Network Rail document "Reporting and Investigation Manual – [NR/L3/INV/3001](#)" should be referred to. This document will signpost which form, either NR2072A – Initial Accident Report Form or NR2072B Detailed Accident Report Form is to be completed.
14. In the case of an assault involving an employee Network Rail Standard [NR/L3/INV/0103](#) – Reporting of Personal Accident and Assaults to Employees and Contractors should be referred to. The British Transport Police (or Civil Police if the accident did not occur on railway property) are to be advised by the Project Manager. In addition, a Supplementary Report – Assaults form, NR2072S must be completed and accompany the form NR2072A – Initial Accident Report.
14. In the case of an accident occurring on an escalator at a Network Rail Managed Station Supplementary Report – Escalators form, NR2072E must be completed and accompany the form NR2072A – Initial Accident Report.

14. Where an injured employee returns to work 1, 2 or 3 days after the accident occurred (not including the day of the accident), and regardless of the nature of the injury, the injured employee must advise the Site Lead whether the injury sustained prevents them from carrying out any part of their normal duties. The Project Manager must record this information on Part 2 of the Initial Accident Report form, NR2072A.
14. Where an incident involves a member of the public, Network Rail standard [NR/L3/INV/0105](#) – Reporting of Personal Accidents and Assaults to Members of the Public must be referred to. Network Rail for NR2072C Public Accident Report Form must be completed. In the case of an assault involving a member of the public form NR2072S – Assaults form must also be completed.
14. In accordance with the Network Rail Standard NR/L3/INV/0103 – Reporting of Personal Accidents and Assaults to Employees and Contractors, shock or traumatic stress affecting any person who has been involved in, or witness to, an event must be regarded as an injury and reported on the relevant form.
14. Investigations must be undertaken for all Network Rail classification “High” and “Medium” events as detailed in The Network Rail Accident/Incident Category ([HSES-RM-0005b](#)) reference material. A Principal Investigator will be nominated and must ensure that the correct investigation team is established.
14. The Accident/Investigation Report must be submitted to Network Rail within 5 working days. Where a longer time period is required to complete the investigation, an interim report must be issued. There may be the requirement to hold event reviews for significant and/or complex investigations. All investigations must be in accordance with iSMS and Balfour Beatty Requirements.
14. Network Rail’s Senior Programme Manager will contact the Chief Executive Officer within 24 hours of the event occurring, In the case of a:
 - Fatality
 - RIDDOR major injury
 - RIDDOR dangerous occurrence
 - RIDDOR lost time accident not classified as major
 - Possession/operational/construction irregularity resulting in greater than 1000 minutes delay or damage to equipment, trains or infrastructure with losses likely to occur over £10,000
14. The Chief Executive Officer will contact the B&C Director within 72 hours of the event to give details of the initial investigation and the immediate actions being implemented, the details of the full investigation to identify root causes and mitigating measures and timescales for sending a full report to Network Rail.

ABBREVIATIONS / DEFINITIONS

SITE LEAD	The person directly responsible for the Health and Safety of all employees, subcontractors and third parties, and for the care of the environment, affected by our works. i.e. Project Manager or Project Director.
MAJOR	Any level 4 or above Health, Safety or Environmental incident or High Potential Incident as per iSMS Incident Severity Classifications Matrix in Balfour Beatty Group Standard 101 – Major Incident Response
INCIDENT	Any unplanned event which result in harm or potential harm to people, property or the environment. In this context, incident includes both accident and near misses.
ACCIDENT	Any unplanned event which result in harm or potential harm to people, property or the environment.

ABBREVIATIONS / DEFINITIONS

NEAR MISS	An event which, in slightly different circumstances, could have resulted in harm to people, the environment or damage to property.
DISEASE	An illness caused by infection or a failure of health rather than by an accident.
WORK RELATED ILL HEALTH	Any abnormal condition or disorder, other than one resulting from a work-related injury, caused by repeated exposure to factors associated with employment. Examples include musculoskeletal disorders, stress, depression, skin disease, respiratory disease, hearing loss and vibration related disorders.
HIPO	High potential incidents requiring a potential severity rating of 4 or 5
ISMS	The Balfour Beatty Group database for recording, storing and retrieving: - Event details including safety, health and environmental incidents, injuries, ill health cases and near misses - Investigation details and course of events - Results of risk assessments, audits and safety observation tours - Actions arising from these and their subsequent closure.
DANGEROUS OCCURRENCES:	Defined dangerous occurrences as defined in RIDDOR Legislation/Regulations.
HFACS	Human Factors Analysis Classification System
LEGAL PRIVILEGE	It protects all communications between a professional legal adviser (a solicitor, barrister or attorney) and their clients from being disclosed without the permission of the client, in anticipation of legal proceedings.
LOCAL INVESTIGATION	A local investigation process to commence immediately into all incidents. The investigation provides details of the incident, identifies the assessed potential severity level, incident causations and the actions proposed to prevent a recurrence. In addition, HSE Advisers and Senior Operational Management will assist, if required.
INTEGRATED INCIDENT INVESTIGATION	A higher level and more detailed investigation which incorporates the Human Factors Analysis and Classification System (HFACS).

INPUTS

Reference	Type	Title
VKL-04-18-J400-004	Procedure	NGVL Incident Management and Investigation
	Template	NGVL Initial Incident Notification
HSES-PR-0004	Procedure	Control of HSES Derogation
HSF-PR-0008	Procedure	First Aid
INDG453	Legislation/Regulations	Reporting of injuries, diseases and dangerous occurrences regulations 2013
HIS Link	Network Rail Standards	NR/L3/INV/3001 NR/L3/INV/0103 NR/L3/INV/0105
Standard 101	Standard	Major Incident Response (Balfour Beatty Group)
Standard 102	Standard	Incident Investigation (Balfour Beatty Group)
HSES-RM-0005k	Guidance	Incident Investigation Short Guide

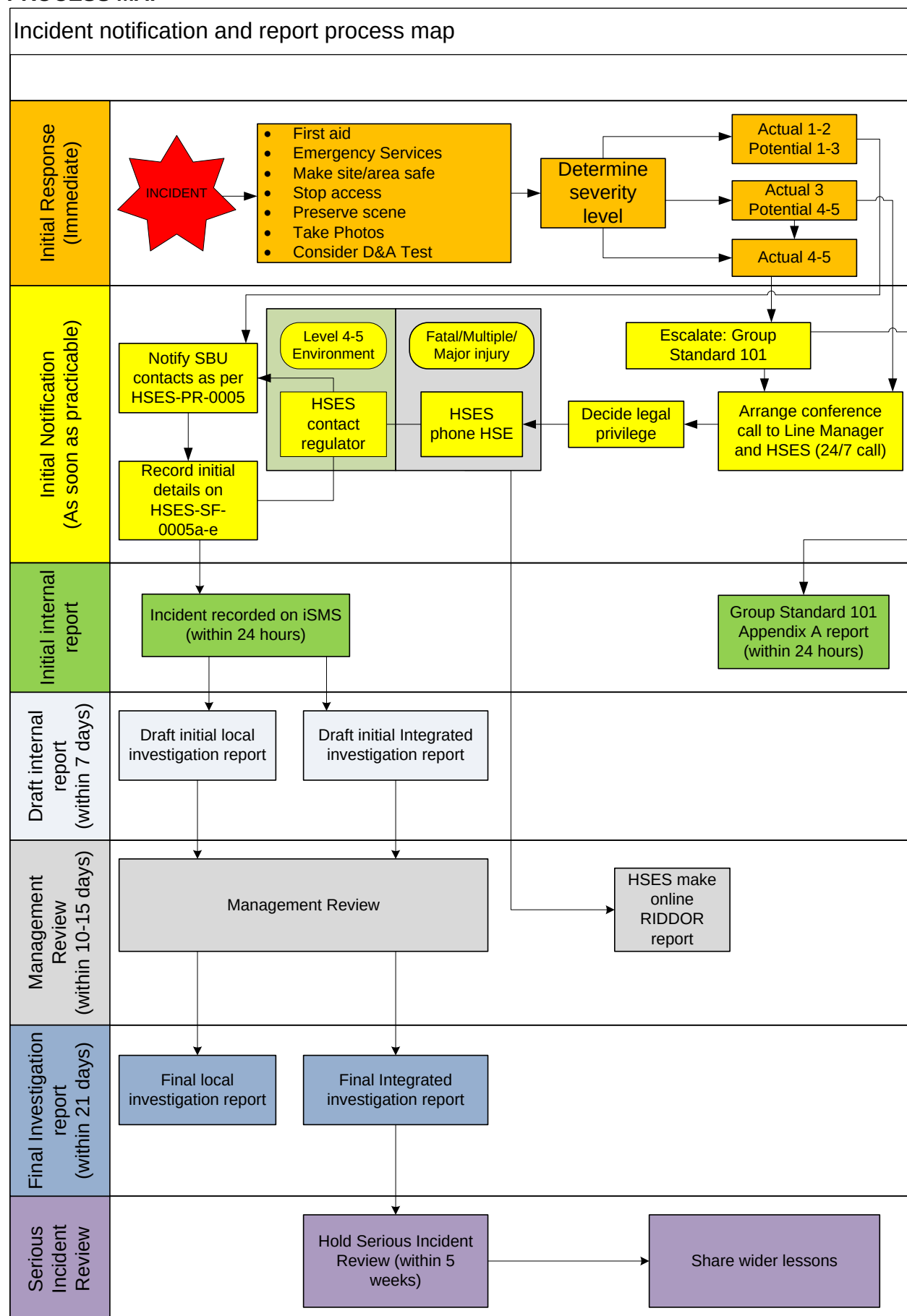
INPUTS

Reference	Type	Title
VKL-04-18-J400-004	Procedure	NGVL Incident Management and Investigation
	Template	NGVL Initial Incident Notification
HSES-RM-0005j	Guidance	Principal Investigation Guide
HSF-PR-0060	Procedure	Hand Arm Vibration
HSES-RM-0002a	Guidance	Powers of HSE Inspector and Interviews
GHO/HSEN/GL/032-A01	Guidance	Legal Privilege in the UK
HSES-RM-0005a	Reference Material	Human Factors Analysis and Classification System
HSES-RM-0005b	Reference Material	Network Rail Accident-Incident Category
HSES-RM-0005c	Reference Material	SafetyNet
HSES-RM-0005e	Reference Material	Level 4 – Desktop Study Guide for Environmental Investigations
HSES-RM-0005f	Reference Material	Level 4 – Guide to Environmental Factual Report Details
HSES-RM-0005g	Reference Material	Level 4 – Environmental Investigation Questions
HSES-RM-0005h	Reference Material	Level 4 – Immediate Response to a Potential Environmental Incident
HSES-RM-0005i	Reference Material	iSMS Category Selection Guidance

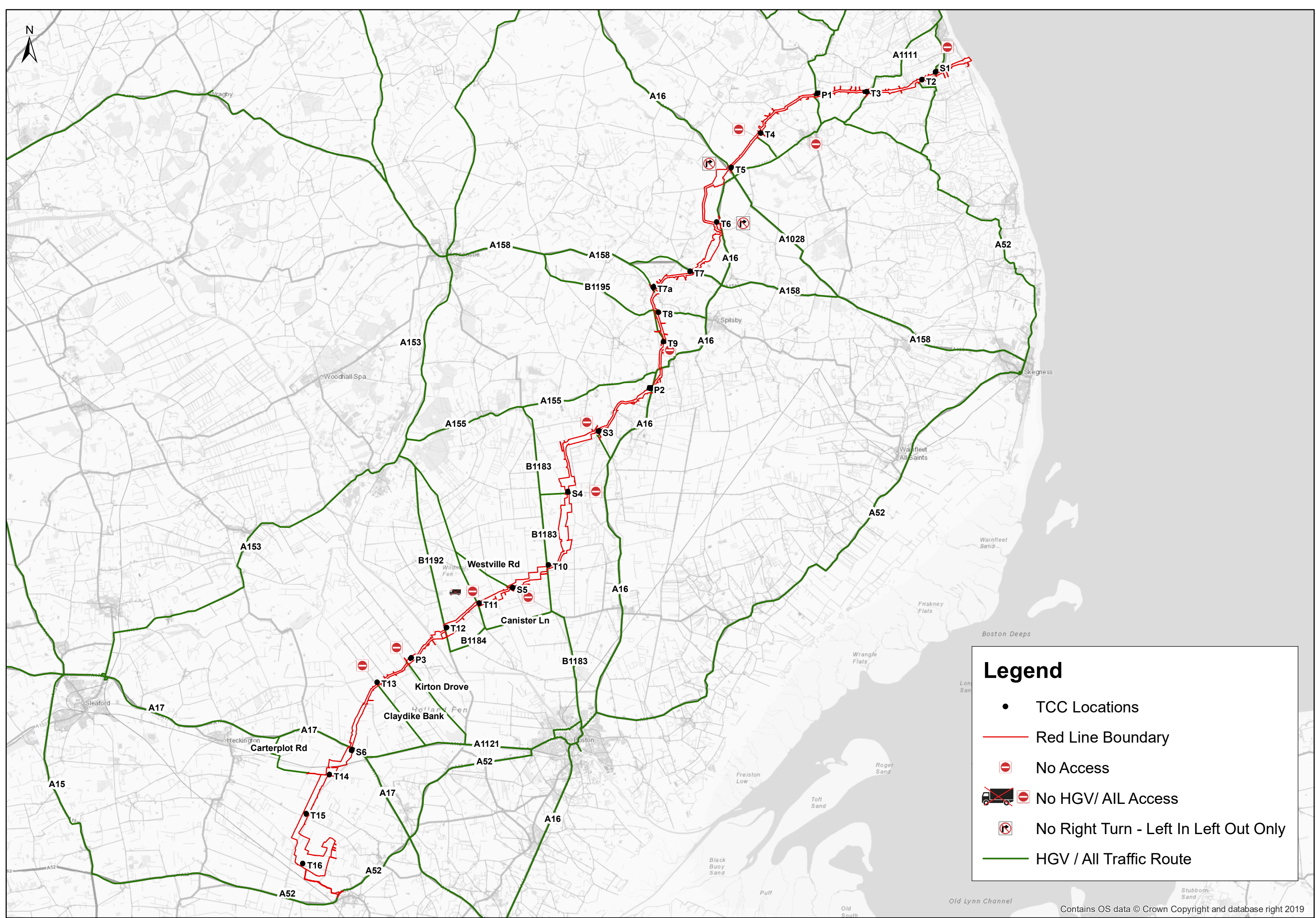
OUTPUTS

Reference No.	Document Title	Retention Period	Responsibility
HSES-SF-0005a-e	Incident Report and Investigation	3 years	Site Lead
HSES-SF-0005f	Principal Investigation Report	3 year injuries, 40 year health	Site Lead
HSF-SF-0060a	HAVS Investigation	40 year health	Occupational Health
HSF-SF-0005g	Witness Statement	3 year injuries, 40 year health	Site Lead
HSES-TF-0005c	Significant Incident Review	3 years	SIR Chairperson
HSES-SF-0005i	BMS Change Request (Investigation Learning)	3 Years	Site Lead
HSES-TF-0005d	Service Strike – Detailed Investigation	3 Years	Site Lead

PROCESS MAP



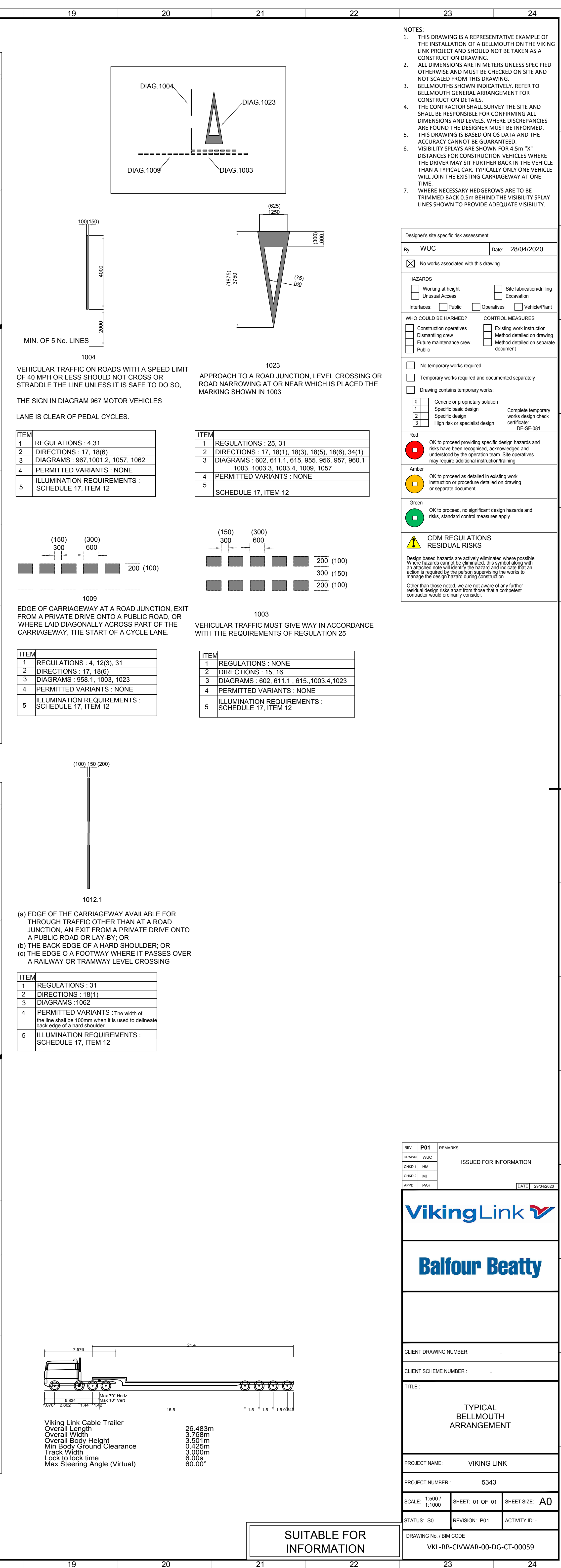
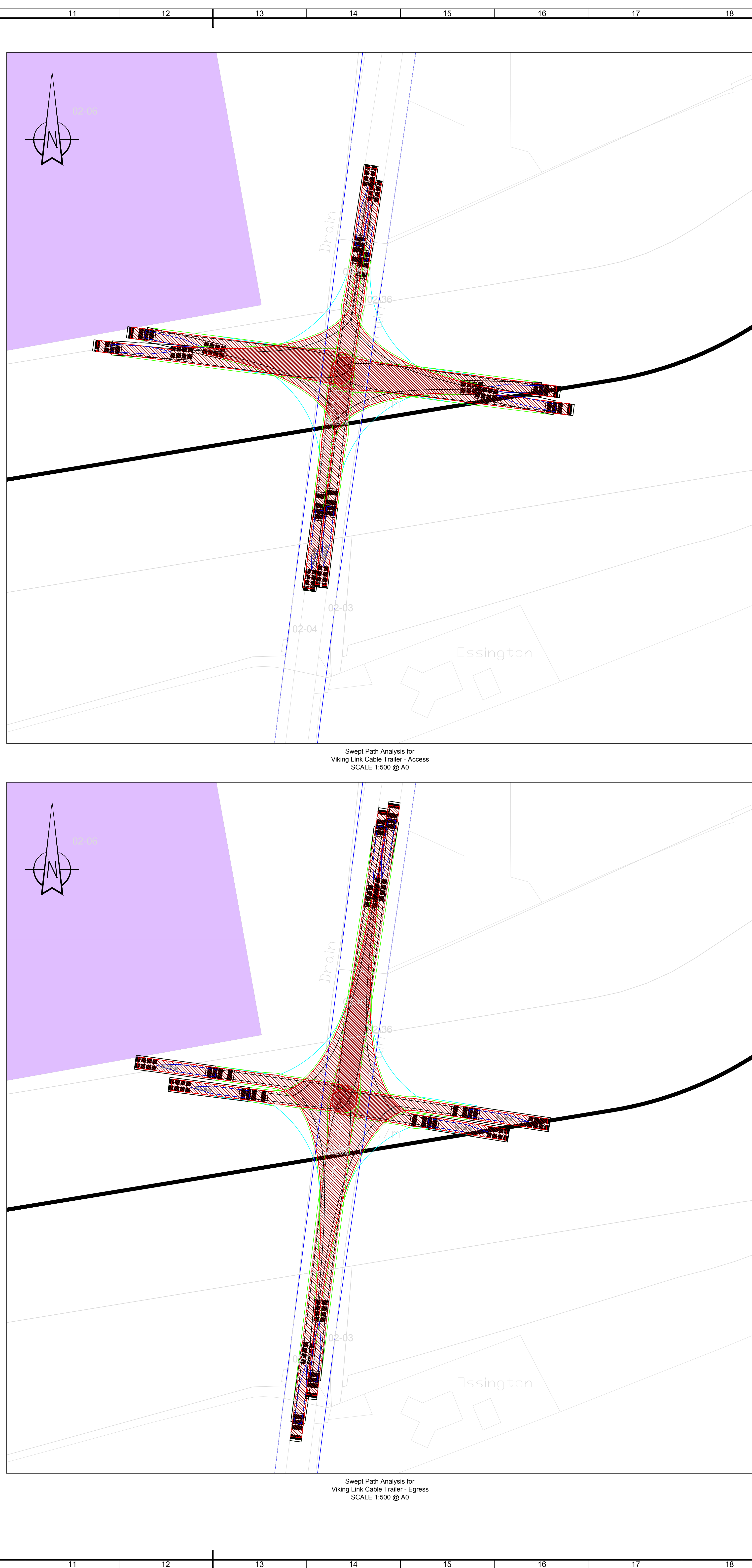
Appendix C. Proposed Construction Access Routes



Legend

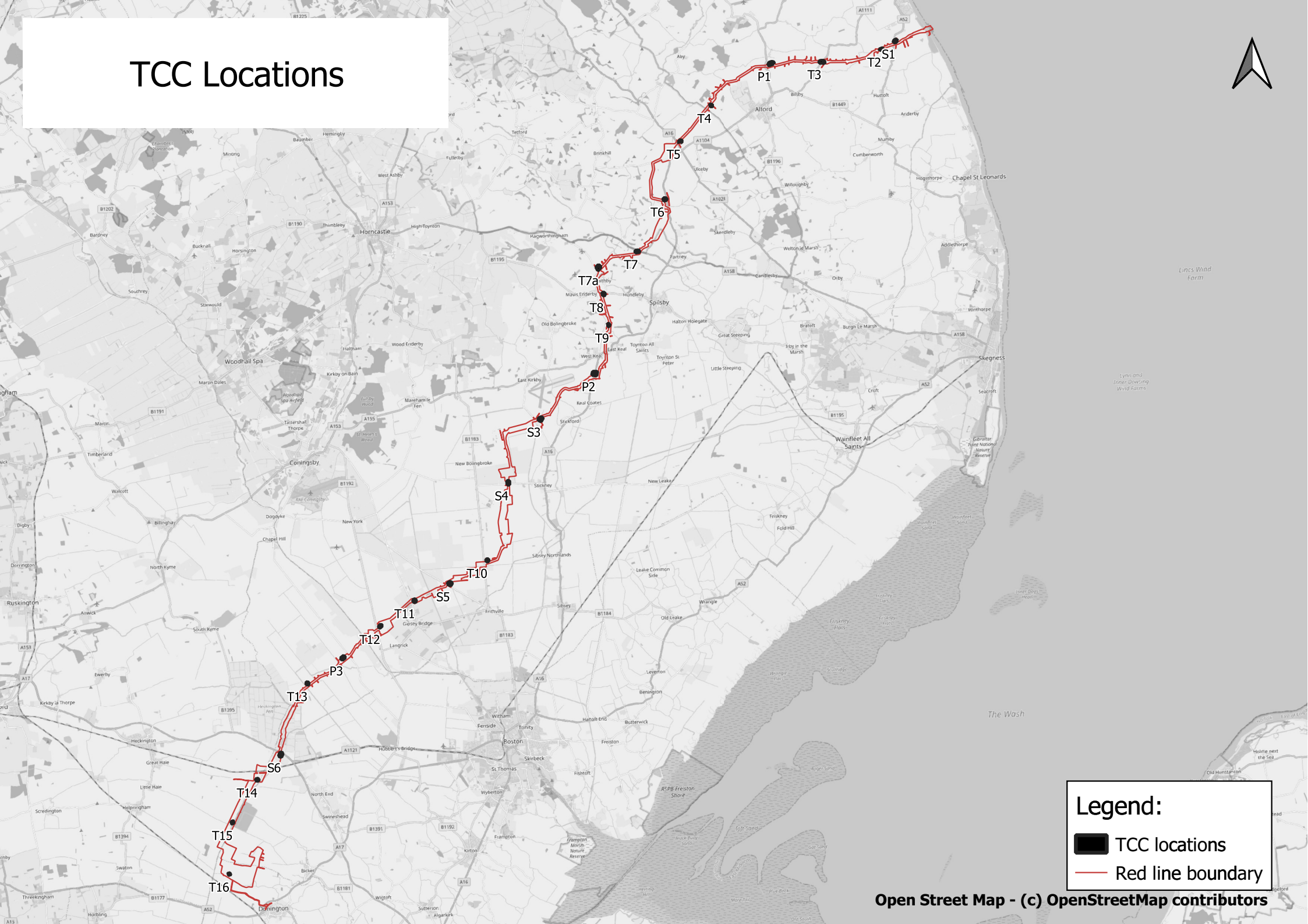
- TCC Locations
- Red Line Boundary
- ⊘ No Access
- ⊘  ⊘ No HGV/ AIL Access
- ⊘ No Right Turn - Left In Left Out Only
- HGV / All Traffic Route

Appendix D. Highway Access Arrangement Typical Bellmouth



Appendix E. TCC Locations

TCC Locations



Legend:

TCC locations

Red line boundary

Appendix F. Access Restrictions

Route Section	TCC	General Restrictions	Access Restrictions	Approach Roads To be Used	Summary of Improvements
1	TCC (S1)	No construction traffic to enter into Sandilands village.	Unrestricted junction. Access to working width, from both directions of A52.	A52 Sutton Road	Major/minor crossroads design including adequate bell-mouths, controlled under temporary traffic control.
	TWA (T2)	Accessed via other compounds.	Accessed via other compounds.	NA	NA
	TWA (T3)	No construction traffic to enter into surrounding villages.	Unrestricted junction. Access from both directions of A1111 to working width and T3.	A1111 Sutton Road	Major/minor crossroads design including adequate bell-mouths, controlled under temporary traffic control.
	TCC (P1)	No construction traffic to enter the centre of Alford village where possible. Main roads around village only to be used.	Unrestricted junction. Access from both directions of A1104 Alford Road.	A1104 Alford Road	Major/minor crossroads design including adequate bell-mouths, controlled under.
	TWA (T4)	No construction traffic to enter the centre of Alford village where possible. Main roads around village only to be used.	Restricted junction. Access to working width and T4 via unnamed road off A1104 from south only.	Well High Lane	Temporary traffic control. An additional major/minor junction into the TCC would also be provided.
2	TWA (T5)	No construction traffic to enter into surrounding villages.	Restricted junction. Access to working width and T5 from both directions off A16. No right turn permitted - left In and left out only.	A16 Bluestone Heath Road	Major/minor crossroads design including adequate bell-mouths, controlled under temporary traffic control.
	TWA (T6)	No construction traffic to enter into surrounding villages.	Restricted junction. Access to working width and T6 via haul road off A16. No right turn permitted - left In and left out only.	A16 near Dalby Bar	Major/minor crossroads design including adequate bell-mouths, controlled under temporary traffic control.
	TWA (T7)	No construction traffic to enter into surrounding villages.	Unrestricted junction. Access to working width and T7 from both directions of A158.	A158 Partney Road	Major/minor junction design including adequate bell-mouths, controlled under temporary traffic control.
	TWA (T7A)	Accessed via other compounds.	Accessed via other compounds.	NA	NA

	TWA (T8)	Only main roads through Hundley & Spilsby to be used by construction traffic. No construction traffic to enter into surrounding villages.	Unrestricted junction. Access to working width and T8 from both directions of B1195.	B1195 Raithby Hill	Major/minor crossroads design including adequate bell-mouths, controlled under temporary traffic control.
	TWA (T9)	No construction traffic to enter into surrounding villages.	Access to working width and T9. HGV/AIL access from north only.	Mardon Hill	Major/minor crossroads design including adequate bell-mouths, controlled under temporary traffic control.
3	TCC (P2)	No construction traffic to enter into surrounding Villages.	Unrestricted junction. Access to Working width and P2 from both directions of A16.	A16	Major/minor junction design including adequate bell-mouths, controlled under temporary traffic control.
	TCC (S3)	HGV / AIL access from south only. No construction traffic to enter into surrounding villages.	Access to working width and S3 via temporary Haul road from south only.	Drain Bank	Major/minor crossroads design including adequate bell-mouths, controlled under temporary traffic control. An additional major/minor junction into the TCC would also be provided.
	TCC (S4)	No construction traffic to enter into surrounding Villages and must avoid bridge on Stickney Lane.	Restricted junction. Access to working width and S4 off Stickney Lane from west only.	Stickney Lane	Major/minor staggered crossroads design including adequate bell-mouths, controlled under temporary traffic control. Two additional major/minor junctions linking a new access road would also be provided.
	TWA (T10)	No construction traffic to enter into surrounding villages.	Unrestricted junction. Access to working width and T10 from both directions of B1183.	B1183 Carrington Road	Major/minor crossroads design including adequate bell-mouths, controlled under temporary traffic control.
	TCC (S5)	HGV/AIL access from Westville Road only. No construction traffic to enter into surrounding villages.	Restricted movement junction. Access off Westville Road to North only.	Westville Road	Major/minor crossroads design including adequate bell-mouths, controlled under temporary traffic control.

	TWA (T11)	Main roads only to be used. No construction traffic to enter into surrounding Villages.	Unrestricted junction. Access to Working width and T11 from both directions of Leagate Road. HGV traffic would be routed north only from the site along Leagate Road, to avoid travelling through the village of Gipsev Bridge.	Leagate Road	Major/minor crossroads design including adequate bell-mouths, controlled under temporary traffic control.
	TWA (T12)	Accessed via other compounds.	Accessed via other compounds.	NA	NA
4	TCC (P3)	No construction traffic to enter into surrounding villages.	Restricted junction. Access to working width and P3 off Kirton Drove from south only.	Kirton Drove	Major/minor crossroads design including adequate bell-mouths, controlled under temporary traffic control.
	TWA (T13)	No construction traffic to enter into surrounding villages.	Restricted junction. U-turn is required to gain access to temporary bridge. Access of Claydike Bank from south only.	Claydike Bank	Major/minor crossroads design including adequate bell-mouths, controlled under temporary traffic control.
	TCC (S6)	No construction traffic to enter into surrounding villages.	Unrestricted junction. Access to working width and S6 from both directions of A17.	A17 near Swineshead Bridge	Major/minor staggered crossroads design including adequate bell-mouths, proposed right turn ghost island and carriageway widening.
	TWA (T14)	No construction traffic to enter into surrounding villages.	Access to T14 and working width via Private Road, Great Hale Drove and Carter Plot Lane. Off A17.	Great Hale Drove	New junction into TWA from private road, including adequate bell-mouth.
	TWA (T15)	Access via T14.	Access via T14.	NA	NA
	TWA (T16)	Access via convertor station.	Access via convertor station.	Via new access road to Converter Station site	Accessed via the proposed DC cable route working width.