Appendix 8B: Construction Traffic Management Plan

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8B. Construction Traffic Management Plan

8B.1 Introduction

Introduction and Scope

8B.1.1 AECOM has prepared this Construction Traffic Management Plan (CTMP) on behalf of VPI Immingham LLP (VPI) and Phillips 66 Limited (Phillips 66) to support the proposed post-combustion carbon capture (PCC) developments at VPI Immingham Combined Heat and Power (CHP) Plant and the Humber Refinery ('the Proposed Developments'). The CTMP covers both the Proposed Developments.

8B.1.2 The Proposed Developments will deliver 3.8 megatonnes per annum of abated carbon dioxide emissions via:

- PCC retrofit to two gas turbines (GT1 and GT2) and two auxiliary gas boilers at the VPI Immingham CHP Plant; and
- PCC retrofit to the Fluid Catalytic Cracker (FCC) stack at the Humber Refinery.

Progress of the Proposed Developments is subject to the necessary consents being granted and government policy/ funding support being in place to enable final investment decisions to be made.

8B.1.3 The Proposed Development Sites ('the Sites') are located to the north of the A160 between Eastfield Road and Rosper Road, near South Killingholme in North Lincolnshire. The locations of the Sites are shown in Figure 1.1 in ES Volume III.

8B.1.4 The Proposed Developments will utilise the existing accesses to the VPI Site and to the Phillips 66 Site (see ES Figures 3.1 and 3.2) during both construction and operation.

8B.1.5 A new access (also shown on ES Figure 3.2) is also proposed to be constructed from the public highway (Eastfield Road) into the north-west area of the Phillips 66 Site. This new access will be used as the main HGV and abnormal load access and egress during construction use. It is also proposed to provide egress for operational deliveries (which will access via the existing access road on Eastfield Road approximately 170 m to the north). Staff access during construction and operation will be via the existing access points into the Refinery and associated car parking areas.

8B.1.6 A new access (also shown on ES Figure 3.2) is also proposed to be constructed from the public highway (Rosper Road) into the VPI Site. This new access will be used as the main HGV access and egress during construction and for maintenance and emergency use during operation. Staff access will be via the existing main entrance to the CHP Plant.

8B.1.7 This CTMP has been prepared to assess the implications of construction traffic routing to and from the Sites from the highway network via the A160, Humber Road and the proposed site accesses on Rosper Road and Eastfield Road.

Objectives

8B.1.8 This CTMP details the measures that will be implemented to mitigate, so far as reasonably practical, the impact of traffic generated during the construction phase for both Proposed Developments.

8B.1.9 The key objectives for the CTMP are as follows:

1. ensure that movements of people, plant and materials are achieved in a safe, efficient, timely and sustainable manner;

2. ensure that the impact to the local community is minimised;

3. ensure construction traffic levels do not exceed an acceptable level during the peak hours on the highway network;

4. minimise and control construction vehicle trips where practical;

5. ensure strategies and mitigation measures are implemented and adhered to through continued monitoring, review and improvement of the CTMP; and

6. limit the impacts of construction traffic on the Local Road Network (LRN) and Strategic Road Network (SRN).

8B.2 Construction Phase

8B.2.1 This section considers the construction phase of the Proposed Developments and the movement of associated vehicles during construction.

Project Timescales

8B.2.2 Currently, it is anticipated that the construction of the Proposed VPI Development will begin in Q3 of 2024 while the Proposed Phillips 66 Development will begin in Q2 of 2024. Both Proposed Developments will be operational by late 2027/ early 2028.

8B.2.3 The assumed construction traffic activity has been based on information provided by the Applicants and covers both the expected level of HGV and staff traffic.

Abnormal Indivisible Load Movements

8B.2.4 The Proposed Developments will require the movement of Abnormal Indivisible Loads (AILs). AILs are defined as vehicles which fall outside the provisions contained within The Road Vehicles (Construction and Use) Regulations 1986 and The Road Vehicles (Authorised Weight) Regulations 1998.

8B.2.5 As set out in the Traffic and Transport Chapter (Chapter 8 of ES Volume I), an AIL report will be prepared for each of the Proposed Developments to assess the delivery of large components which will be supported by desk based swept path analysis and a record of consultation and agreement with North Lincolnshire Council.

Working Hours and Anticipated Vehicle Movements

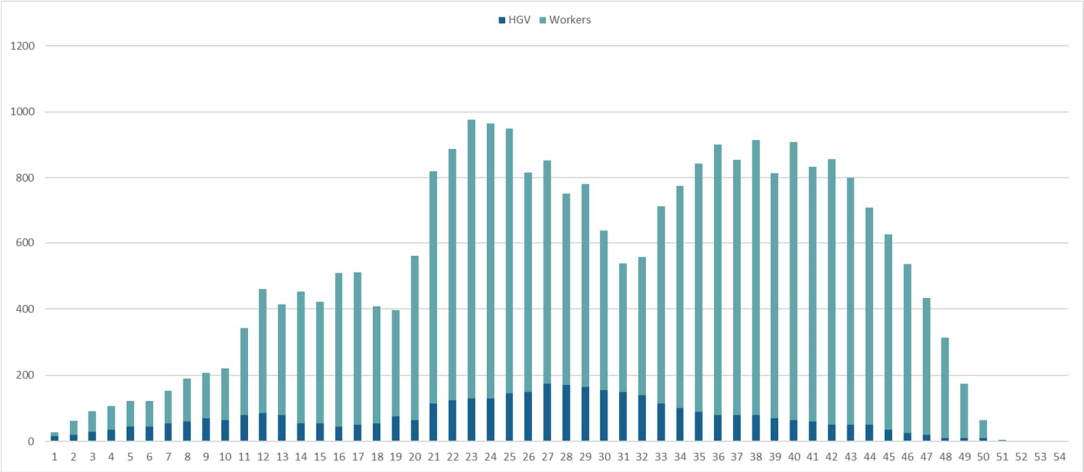
8B.2.6 Normal construction working hours for the Proposed Phillips 66 Development and Proposed VPI Development may be 24/7 as per the existing Humber Refinery and VPI Immingham CHP Plant operating and maintenance working hours.

8B.2.7 From information provided by the Applicants, the following daily construction staff and HGV numbers across the Sites are forecast for the concurrent construction phases of the two Proposed Developments:

- A peak of 350 two-way daily HGV movements (175 arrivals and 175 departures) occurring in 2026.
- A peak of 1,984 two-way daily staff movements (992 arrivals and 992 departures) occurring in 2026.
- These movements indicate a combined total for both Sites.

8B.2.8 The profile of anticipated HGV and worker resources are shown in Plate 8B.1 below.

Plate 8B.1. Anticipated Daily HGV and Worker Resource Profile for the Proposed Developments (Combined VPI and Phillips 66)



8B.2.9 Construction trips generated by the Proposed Developments have been split into worker trips (assumed as 1 car per worker, which is considered as a worst case scenario as some would be expected to travel using other modes such as car share, public transport etc.) and HGV trips.

Routing of Construction Traffic

8B.2.10 In Chapter 8 (ES Volume I), it was shown how construction traffic will be distributed on the local and strategic road network from the Proposed Developments. For worker traffic, this was predicted using a gravity model which took into account the size of the local population centres as well as their distance from the Sites. HGV traffic was distributed to the network using a methodology which considered the relative numbers of HGV traffic on various links near the Sites.

8B.2.11 The resulting distributions of construction traffic are shown on Table 8B.1 and Table 8B.2 below for worker and HGV traffic respectively.

Table 8B.1. Worker Distribution Percentage by Road Link

Site	Road	VPI Distribution	Phillips 66 Distribution
1	Rosper Road	100%	0%
2	Eastfield Road	0%	100%
3	A160 (near Killingholme PS)	83.7%	98.6%
4	A180 (near Ulceby Skitter)	83.7%	83.7%
5	A180 (near Immingham)	0%	12.6%
6	A1173 Manby Road	15.7%	1.4%
7	A160 (south of Phillips 66 site)	84.3%	1.4%
8	Humber Road	0%	0%
9	A15	42.8%	42.8%

Table 8B.2. HGV Distribution Percentage by Road Link

Site	Road	VPI Distribution	Phillips 66 Distribution
1	Rosper Road	100%	0%

Site	Road	VPI Distribution	Phillips 66 Distribution
2	Eastfield Road	0%	100%
3	A160 (near Killingholme PS)	64.8%	54.1%
4	A180 (near Ulceby Skitter)	53.8%	44.9%
5	A180 (near Immingham)	11.0%	9.2%
6	A1173 Manby Road	12.0%	15.7%
7	A160 (south of Phillips 66 site)	64.8%	45.9%
8	Humber Road	23.2%	30.3%
9	A15	9.4%	7.8%

8B.2.12 As can be seen from the above tables, it is expected that the majority of construction traffic would access the Sites from the A160 and A180. The traffic will then access the VPI Site and the Phillips 66 Site from Rosper Road or Eastfield Road respectively.

8B.2.13 The A160 links the South Humber Gateway to the wider Strategic Road Network and is a primary freight route. From the Manby Road roundabout the A160 runs westwards for 4.3 km before joining the A180 at a grade separated junction.

8B.2.14 The origin of materials will be confirmed by the appointed contractors for each of the Proposed Developments prior to the start of construction phases, however, as part of the CTMP, HGVs will be required to use a specific route based on the following elements:

- use of the shortest feasible route to/ from the site to/ from the primary A-road network whilst avoiding settlements and sensitive receptors;
- where possible, use primary A-roads and B-roads for routing; and
- avoid other routes constrained by narrow roads, weight restrictions, height restrictions and avoid any other route restrictions.

8B.2.15 The A180 and A15 are the key trunk roads in the area which connect to the Sites via the A160. The A180 is an east to west routing route which runs from Grimsby in the east to the M18 in the west. The A15 provides a nearby connection over the River Humber to Hull.

Site Induction

8B.2.16 On arrival at the Sites, construction vehicle drivers will undertake a site induction so that they are aware of the Sites' health and safety procedures and rules. They will also be made aware of the nearest hospital with an Accident and Emergency facility, which is:

Diana Princess of Wales Hospital (Grimsby)
Diana Princess of Wales Hospital
Scartho Road
Grimsby
DN33 2BA

8B.3 Traffic Management

Introduction

8B.3.1 Traffic Management (TM) methods would be used to enhance safety conditions on the SRN and the LRN and where physical mitigation measures are impractical or cannot be accommodated during the construction period.

8B.3.2 TM on all highways and roads (except dual carriageways with a speed limit of 50 mph or more) is required to comply with the UK Government's Code of Practice 'Safety at Streetworks

and Roadworks' (DfT, 2013) and to be agreed with the local highway authorities prior to the commencement of works.

8B.3.3 Discussion with the Local Highway Authority (North Lincolnshire Council) will be conducted prior to commencement of the construction phases for each of the Proposed Developments to establish the appropriate signage requirement.

8B.3.4 TM signage will be developed in accordance with the Traffic Signs Regulations and General Directions (TSRGD) 2016 and Traffic Signs Manual Chapter 8, the latter of which states the following:

> "*The complexity of traffic management arrangements varies from scheme to scheme, but the primary objective is always to;*
>
> - *maximise the safety of the workforce and the travelling public.*
>
> *The secondary objective is;*
>
> - *keep traffic flowing as freely as possible."*

8B.3.5 All traffic management works will be completed by trained competent personnel from a specialist sub-contractor. All signs will be designed and installed in accordance with Traffic Signs Manual Chapter 8. A risk assessment and method statement will be completed and will consider hazards and necessary control measures.

8B.3.6 Where reasonable and practicable, construction vehicles will avoid travelling in convoys on public roads.

8B.3.7 Construction staff using private vehicles to travel to the Sites will park their vehicles in designated construction site car parks and not on public roads.

Construction Route and Temporary Access Signage

8B.3.8 Temporary signs providing route information for contractors will be erected at key locations along the proposed construction traffic routes on the LRN and potentially the SRN. It is also proposed that project information boards will be erected at each of the Sites and will include key project information for the public and relevant contact details.

8B.3.9 The design and location of Contractor route information signs and project information boards will be agreed with North Lincolnshire Council/ National Highways prior to installation. Temporary signage will be erected around the Sites' access points and at other locations on the local road network to provide warning to other road users of the likely presence of construction vehicles undertaking manoeuvres.

8B.3.10 Signage will be in accordance with Chapter 8 of the Traffic Signs Regulations and General Directives (TSRGD), with examples of potential signage outlined in the Plate below.

Plate 8B.3. Proposed Signage Examples

8B.4 Mitigation Measures

Introduction

8B.4.1 This section outlines measures that will be introduced to reduce the potential impacts of the construction traffic on the highway network.

Proposed Mitigation

8B.4.2 The following specific mitigation measures are provided so as to reduce the impact of the construction traffic upon the highway and the local community as efficiently and successfully as possible and to achieve the objectives, as detailed in Section 1.

Table 8B.3. Proposed Vehicular & Traffic Mitigation Measures

Mitigation Measures	Objective
Prescribed HGV and LGV Construction Routes Construction traffic where possible will utilise the routes identified.	1/2
Community Engagement and Public Information Information regarding construction traffic activities and movements will be provided to the public. The means of communication could include online updates, letter drops, information boards and details of key contacts.	2/4
Production of a Travel Plan The appointed Contractors for each of the Proposed Developments will be encouraged to develop Travel Plans to identify feasible and practical measures to minimise the Proposed Developments' impacts, including the promotion of electric powered vehicles where possible and the provision of welfare facilities for cyclists.	2/3/4/6
Working Hours Construction activities are expected to take place 24 hours per day, 7 days per week at the Proposed P66 Development and the Proposed VPI Development.	2/3/6
Delivery Management System Delivery records will be kept at the site compounds at each of the Sites. Delivery records will allow vehicular activities to be recorded, monitored and managed throughout the construction of the Proposed Developments to ensure compliance with the CTMP.	All
HGV Traffic Movement & Timing Restrictions These could include: • Restriction of movements to allow for local special events	3/4/6
HGV Emissions and Safety Features All HGVs used in the construction of the Proposed Development will be to the required Euro Class and could have additional cycle friendly measures such as cameras, full length door windows, blind spot warning system and additional mirrors.	1/2
Abnormal Indivisible Loads (AILs) Temporary traffic management will be provided during AIL delivery where required, along with appropriate communications with the local community. Department for Transport Electronic Service Delivery for Abnormal Loads (ESDAL) system will be used for notifications. Night deliveries will be undertaken where required, to minimise disruption and maintain safety on the LRN.	1/2/5/6
Contractor Information Packs All contractors will be provided with: • Prescribed Construction Routes	All

Mitigation Measures	Objective
• Code of Good Practice • Traffic Incident Management Plan • Proposed Development/ Local Authority/ Emergency Contact Details • Delivery Management Systems and Vehicle Monitoring • HGV Timing Restrictions	
Traffic Safety and Control Officer (TSCO) Appointment of a TSCO for the duration of the construction of each of the Proposed Developments to act as the main point of contact and undertake the following duties for example; • Check all TM drawings for compliance prior to issue • Ensure sufficient resource is available to maintain TM on site • Monitor the TM schemes and layouts to ensure their effectiveness and safety to workers and public.	1/2/6
Wheel Washing Facilities The Contractors for each of the Proposed Developments will take reasonable steps to ensure that the deposit of mud and dirt on the highway is minimised. Wheel washing facilities to be provided with a pressure washer and manual brushing facilities. After each vehicle has vacated the Sites, road to be checked and cleared if required. Monitor to determine if a road sweeper is necessary to ensure the public highway remains reasonably clear of mud and grit during the works.	1/2/6

8B.5 Monitoring and Compliance

Monitoring

8B.5.1 A CTMP Management Group will be set up for each of the Proposed Developments and will have the following responsibilities:

- communicate and monitor the CTMP and its mitigation measures;
- ensure records of HGV movements are maintained and reported;
- be the first point of contact for the public, stakeholders and the project contractors;
- hold regular update meetings with North Lincolnshire Council/ National Highways and relevant stakeholders;
- record, near misses, incidents, hazards and resolve issues as informed by contractors and the public; and
- monitor, review and improve, where necessary, the CTMP and associated mitigation measures

8B.5.2 The Contractors will continue liaising with stakeholders throughout the construction of the Proposed Developments. Regular contact helps to inform the levels of CTMP monitoring, review and improvement as necessary.

8B.5.3 The formal procedure for handling project complaints/ concerns will be developed and agreed by the Contractors, an example of which is set out below:

- stakeholders will be able to report any concerns, complaints or other comments to the Principal Contractors in writing, by email or by telephone. Project contact details will be provided at Sites' entrances and on perimeter hoardings and provided to North Lincolnshire Council Highways;
- the relevant Principal Contractor will issue an initial response to the person who has submitted the complaint/ concern confirming its receipt. The relevant Principal Contractor

will record the date and contact information associated with a complaint/ concern on a standard form and place a copy in a project complain register;

- the relevant Contractor will undertake a full investigation into the complaint / concern and will assess the corrective and preventative action, or further investigation is necessary;
- the relevant Contractor will respond to the person who submitted the complaint/ concern in a reasonable timescale, outlining the actions to correct and prevent the complaint/ concern reported; and
- following the corrective action being implemented, agreement will be made with the relevant stakeholder to ensure that the complaint/ concern has been adequately addressed. The case will be closed, and date recorded.

8B.5.4 In the event that the complaint cannot be resolved, the relevant Site Manager will escalate this to an appropriate contact within the Contractor's/ Proposed Development's management team.

Compliance

8B.5.5 Senior management of the Sites and the appointed contractor would ensure that the CTMP is complied with by all staff, sub-contractors and deliveries to the Sites.

8B.5.6 Compliance with safety rules and the provisions of this CTMP are to be monitored and positive action taken if they are breached. Results of the monitoring shall be documented in the monthly progress reports prepared for progress meetings. Sub-contractor drivers are to follow the provisions of this CTMP.

8B.5.7 All personnel (workers) will receive site inductions covering the use of vehicles, traffic rules on site traffic routes and speed restrictions. A record of inductees and attendees will be held on each of the Sites.

8B.5.8 Where practicable, vehicles should be fitted with trackers to demonstrate compliance with the CTMP.

8B.5.9 It will be the responsibility of drivers to ensure loose soil is removed from wheels prior to exit into public highway. Access roads and public highways will be kept clean of any excess mud or dirt (using a mechanical road sweeper or similar). Roads will be inspected on a daily basis for compliance.