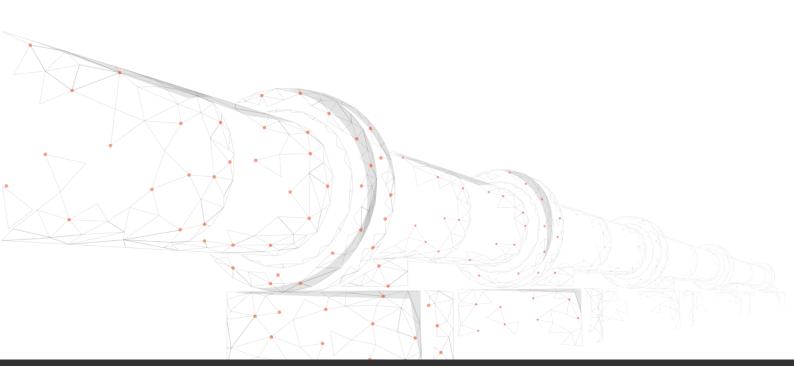
## **HyNet North West**

# ANNEX B - OUTLINE CONSTRUCTION TRAFFIC MANAGEMENT PLAN



**REVISION: 02** 

DATE: March 2023

**DOCUMENT OWNER: WSP UK Limited** 

**PUBLIC** 

#### **QUALITY CONTROL**

Issue/Revision	First Issue	Revision 1	Revision 2	Revision 3
Document Reference	T.5.1			
Revision	01			
Author Name and Sign	NT			
Approver Name and Sign	AL			
Document Owner	WSP UK Ltd			

#### **TABLE OF CONTENTS**

1.	INTR	RODUCTION	1
	1.1.	Introduction	1
	1.2.	Document Purpose	2
	1.3.	Objectives	2
	1.4.	Scoping Opinion and Consultation	3
2.	PRO	POSED DEVELOPMENT	5
	2.1.	Overview	5
	2.2.	Development Stages	8
	2.3.	Construction Vehicle Classification	9
	2.4.	Abnormal Indivisible Load Routes	10
	2.5.	TCPA Proposed Development Timescales	10
	2.6.	Working Hours	10
3.	CON	STRUCTION TRAFFIC ACCESS	11
	3.1.	Introduction	11
	3.2.	Construction Traffic Routes	11
	3.3.	Construction Traffic Route Access Risk Register	12
	3.4.	Access Locations	14
	3.5.	Temporary Access Tracks	15
4.	CON	STRUCTION WORKFORCE	16
	4.1.	Construction Staff	16
	4.2.	Working Locations	16
	4.3.	Workforce Numbers	17
5.	TRA	FFIC MANAGEMENT	18
	5.1.	Introduction	18
	5.2.	Construction Traffic Routes and Temporary Access Signage	18
	5.3.	Temporary Access Road Signage	19
	5.4.	Construction Access Traffic Management	19
6.	PUB	LIC RIGHTS OF WAY	20
	6.1.	Introduction	20
	6.2.	Wales Coast Path	20
7	LOC	ATION SPECIFIC MITIGATION	22

	7.1.	Introduction	2
	7.2.	Point of Ayr Terminal and Foreshore Works22	2
	7.3.	Cornist Lane Block Valve Station24	4
	7.4.	Pentre Halkyn Block valve Station24	4
	7.5.	Babell Block Valve Station24	4
8.	MONI	TORING, REVIEW, AND IMPROVEMENT20	3
	8.1.	Communication	3
	8.2.	Compliance, Enforcement, and Corrective Measures	3
INS	ERT	S	
Figu	ıre 1 :	Indicative Centralised Compound Layout16	3
TAI	BLES	<b>S</b>	
Tab	le 1.1:	Objectives of the OCTMP	2
		Stakeholder Engagement Summary	
		Typical Construction Vehicle Classifications	
		Local Road Network Constraints and Considerations	
Tab	le 3.3:	TCPA Proposed Development Access Locations	1
_		Indicative Centralised Compound Layout	
		<ul> <li>Estimated Transportation for Construction Personnel Per Day17</li> <li>Estimated Workforce Numbers Per Day</li></ul>	
Tab	10 4.2	Estimated Worklorde (Validoris Fer Day	
AN	NEX	JRES	
ANN	NEX A		
SITI	E PHC	TOGRAPHS	
ANI	NEX B		
CTF	RISK	( REGISTER	
ANI	NEX C		
ACC	CESS	RISK REGISTERS	

**VISIBILITY STANDARDS** 

**ANNEX D** 

#### ANNEX E FIGURES

#### 1. INTRODUCTION

#### 1.1. INTRODUCTION

- 1.1.1. This Outline Construction Traffic Management Plan (OCTMP) considers measures to mitigate the effects of constructing the TCPA Proposed Development on the environment in respect of Traffic and Transport. This document should be read in conjunction with Chapter 3 Description of the TCPA Proposed Development (Volume II) (Document Reference T.4.2.3), which has been included within upfront chapters of the Environmental Statement (ES) (Volume II) (Document Reference T.4.2). It should also be read alongside Chapter 17 Traffic and Transport (Volume II) (Document Reference T.4.2.17).
- 1.1.2. The TCPA Proposed Development is known as HyNet North West. The TCPA Proposed Development would be located entirely in Flintshire, Wales. The TCPA Proposed Development is split into two geographical areas: the Point of Ayr (PoA) Terminal and Foreshore Works and the three Block Valve Stations (BVSs) which would be located between Flint and the PoA Terminal on the existing Connah's Quay to PoA Pipeline.
- 1.1.3. The TCPA Application seeks consent for the construction, operation and maintenance of the following components which are part of the TCPA Proposed Development, namely:
  - Modification to the PoA Terminal: This would include disinvestment of redundant natural gas infrastructure (which cannot be repurposed for use with CO<sub>2</sub>) and installation of new assets and equipment (such as CO<sub>2</sub> compressors) to enable the PoA Terminal to receive and export CO<sub>2</sub> to offshore fields for storage;

#### Foreshore Works:

- Removal of the existing Shut Down Valve (SDV) which is installed in the Foreshore Area, west of the PoA Terminal. The SDV is currently located on the existing natural gas pipeline which runs from the PoA Terminal to the offshore Douglas platform in Liverpool Bay (the Foreshore Pipeline);
- Installation of electrical and fibre optic cables from the PoA
   Terminal to the Mean Low Water Spring point (MLWS) to the north-west of the PoA Terminal; and
- Installation of three BVSs: Works would be undertaken at three locations between Flint and the PoA Terminal along the existing 24" natural gas pipeline which spans approximately 24km between the PoA

Terminal and the existing Connah's Quay Power Station (the Flint Connection to PoA Terminal Pipeline).

1.1.4. Subject to planning permission, at present it is anticipated that construction would commence in 2024, with the TCPA Proposed Development becoming operational in late 2025. From the commencement of the pre-construction activities to completion of commissioning, the construction programme is expected to last approximately 32 weeks (plus 38 weeks for the disinvestment works prior to construction).

#### 1.2. DOCUMENT PURPOSE

- 1.2.1. This OCTMP details the mitigation measures which have been included within the design of the TCPA Proposed Development and would be implemented to mitigate, so far as reasonably practicable, the potential effects of traffic during the construction stage of the TCPA Proposed Development.
- 1.2.2. A full CTMP (and compliance with it) would be secured by planning condition and would be included within the Construction Contractor's documentation to form a comprehensive construction traffic management package which would be adhered to by the appointed contractor.

#### 1.3. OBJECTIVES

1.3.1. The objectives of the OCTMP are set out in **Table 1.1**.

Table 1.1: Objectives of the OCTMP

Objective	Description
Α	Ensure that movements of people, plant, and materials are achieved in a safe, efficient, and timely manner
В	Ensure that any impact to the local communities is reduced so far as reasonably practicable
С	Ensure construction traffic levels do not exceed an acceptable level during network peak periods
D	Reduce and control construction vehicle trips where practicable
E	Ensure strategies and mitigation measures are implemented and adhered to through continued monitoring, review, and improvement of the OCTMP
F	Limit the effects of construction traffic on the Local Road Network.

#### 1.4. SCOPING OPINION AND CONSULTATION

- 1.4.1. The TCPA Proposed Development is located within North Wales in the administrative boundary of Flintshire County Council, who manage the local road network, and have been engaged with prior to the application submission. Construction traffic associated with the Proposed Development would also use the Strategic Road Network (SRN) and, therefore, engagement has also taken place with the North and Mid Wales Trunk Road Agent (NMWTRA).
- 1.4.2. An Environmental Impact Assessment (EIA) Scoping Opinion (**Appendix 1.2, Volume III (Document Reference T.4.3.1.2**)) was received by the Applicant from the Local Planning Authority (LPA) on 25 August 2021, including formal responses from Statutory Consultees.
- 1.4.3. The responses from the LPA in relation to Traffic and Transport and how these requirements have been addressed by the Applicant are set out in **Appendix 1.3: Scoping Opinion Responses (T.4.3.1.3). Table 1.2** provides a summary of the consultation undertaken to inform the Traffic and Transport assessment and development of this OCTMP.

**Table 1.2: Stakeholder Engagement Summary** 

Organisation	Meeting dates and other forms of Consultation	Summary of outcome of discussions	
Flintshire County Council Highways	Virtual Meeting 12 May 2021	The Applicant introduced FCC Highways to the Project and the TCPA Proposed Development, discussed programme, likely impacts and consenting strategy. Project team explained the elements forming part of the TCPA Proposed Development and likely level of detail included in the Scoping Report (Appendix 1.1, Volume III). The Applicant confirmed the effects to be considered at the construction stage and that operational and decommissioning effects would be scoped out. FCC confirmed that they would be happy with this approach.	
Flintshire County Council Highways	Virtual Meeting 4 April 2022	This meeting covered both the Development Consent Order and TCPA Applications. The Applicant provided an update on the progress of the Project and likely timescales	

Organisation	Meeting dates and other forms of Consultation	Summary of outcome of discussions
		associated with the finalisation of the Basic Design of the TCPA Proposed Development. The Applicant confirmed that 1 June to 30 June 2022 will be the consultation period for the TCPA documentation, following submission of the Draft ES. The Applicant confirmed that the majority of TCPA works would be related to existing infrastructure, with the exception of the construction of the three Block Valve Stations.
Flintshire County Council Highways	Virtual Meeting 30 May 2022	This meeting was held to discuss the scope of the transport documents for the HyNet North West Project. The Applicant provided an overview of the TCPA Proposed Development construction activities at working locations and estimates of construction traffic volumes. The approach to the traffic assessment and Public Rights of Way (PRoW) was also discussed.
Flintshire County Council Public Rights of Way	Virtual Meeting 28 June 2022	The Applicant presented the proposed PRoW diversions and discussed the approach to the PRoW diversions in each location, confirming that all diversions would be temporary. FCC confirmed that they were broadly happy with the proposed approach but closures may be appropriate in some locations.
North and Mid Wales Trunk Road Agency	Virtual Meeting 27 July 2022	The Applicant presented the proposed assessment, likely construction traffic volumes and the A548/A494/A55 Flintshire Corridor improvement scheme. The North and Mid Wales Trunk Road Agency agreed to forward any comments on the proposed methodology to the Applicant.

#### 2. PROPOSED DEVELOPMENT

#### 2.1. OVERVIEW

2.1.1. The full description of the TCPA Proposed Development is provided in Chapter 3 – Description of the TCPA Proposed Development (Document Reference: T.4.2.3). This section summarises the key features of the TCPA Proposed Development which is located within North Wales in the administrative boundary of FCC.

#### POA AND FORESHORE WORKS

#### **Point of Ayr Terminal**

- 2.1.2. The following key assets at the PoA Terminal would be reutilised as part of the TCPA Proposed Development:
  - Existing drainage system, including outfall holding basin;
  - Admin / Control building;
  - Workshop / warehouse;
  - Firewater pond;
  - Main substation;
  - Instrumentation building;
  - Access roads;
  - Sewage system; and
  - Potable water supply (from the local water utility provider) and utility water system.
- 2.1.3. Control of all new CO<sub>2</sub> equipment, both onshore and offshore will be from the existing PoA Terminal Centralised Control Room (CCR) within the existing administration building.
- 2.1.4. These assets are shown in **Figure 3.5 Existing PoA Terminal Layout** (Volume IV, Document Reference T.4.4.3.5).
- 2.1.5. As part of the PoA Terminal's change in function from processing natural gas to filtering and compressing CO<sub>2</sub>, most of the existing infrastructure will be disinvested, as it will no longer be required. The key facilities which would be disinvested as part of the TCPA Proposed Development are listed below and are shown in blue on Figure 3.6: PoA Terminal Layout (Disinvestment) (Document Reference: T.4.4.3.6). It includes:
  - Existing Pigging facilities;
  - Inert gas facilities;

- Natural gas turbine generator;
- Hot oil heaters;
- Fuel storage;
- Gas sweetening units;
- Tail gas unit including Thermal Oxidiser stack;
- Glycol unit;
- Natural gas compressor house;
- Flare Unit;
- Knock Out Drums;
- Steel structures;
- Further associated assets and facilities including areas of piping, tanks, ducting, roads and paved areas, buildings, foundations, instrumentation, telecoms and electrical systems; and
- Existing 3" pipelines (and cables) running along the existing 20" PoA to Douglas Pipeline from the PoA Terminal to the Offshore Douglas Complex. These pipelines and cables are expected to be left in situ and no permanent or temporary works will be undertaken on them.
- 2.1.6. In addition to the repurposed existing infrastructure, new infrastructure at the PoA Terminal would be required to enable the PoA Terminal to process CO<sub>2</sub>. The new infrastructure includes:
  - Pipeline Inspection Gauge (PIG) launching and receiving facility (for CO<sub>2</sub>);
  - Gas filters:
  - Fiscal metering package;
  - CO<sub>2</sub> export compression trains;
  - Compressor air cooling system;
  - Nitrogen generation package, including air compressors;
  - Emergency diesel generator;
  - Vent system; and
  - New sub-station / electrical transformer compound.
- 2.1.7. New structures, similar to existing, will be of structural steelwork, and cladding, profiled metal sheeting.
- 2.1.8. The above new infrastructure is described in further detail in the text below and shown in Figure 3.7: PoA Terminal Layout (New Assets) (Document Reference: T.4.4.3.7).

#### **Foreshore Works**

- 2.1.9. There is an existing Shut Down Valve (SDV) installed on the Foreshore Pipeline, west of the PoA Terminal, which will be removed and replaced with a through-section of buried pipeline.
- 2.1.10. The existing PoA to Douglas Pipeline (of which a section will be the Foreshore Pipeline) will be used to transport CO<sub>2</sub> from the PoA Terminal for safe storage in the Offshore Douglas Complex.
- 2.1.11. Power supply from the onshore grid and upgraded telecommunications are required at the offshore Douglas Complex once it has been re-purposed to receive and distribute CO<sub>2</sub> for storage in the Offshore Douglas Complex. This will require two new power and fibre optic connections to be installed between the PoA Terminal and the Offshore Douglas Complex.
- 2.1.12. The route of the Foreshore Cables would be contained within the Red Line Boundary to the north-west of the PoA Terminal, as shown in **Figure 3.2: TCPA Proposed Development (Document Reference: T.4.4.3.2)**.

#### **BLOCK VALVE STATIONS**

- 2.1.13. The BVSs are facilities to host a block valve. Block valves are used to isolate sections of pipeline for maintenance purposes or in the case of an emergency. Early detection systems installed along the Carbon Dioxide Pipeline will identify if a potential fault has occurred and at what location, following which the appropriate block valves will then be remotely closed to isolate that section of pipeline. Each BVS will also have a local bypass to facilitate start-up and maintenance activities.
- 2.1.1. Three BVSs will be installed along the existing Flint Connection to PoA Terminal Pipeline. The BVSs are specifically designed to maintain the pipeline network for a period of 25 years.
- 2.1.2. Each block valve will be located within a compound, will be of a uniform size comprising an area within the fence line of approximately 35m x 30m and typically follow the same internal arrangement. The location of the BVSs are shown on Figure 3.2: TCPA Proposed Development (Document Reference: T.4.3.3.2). The block valves will be installed below ground level to an anticipated minimum depth of approximately 1m, with only limited above ground visible elements.

#### **Cornist Lane**

2.1.3. Cornist Lane BVS is located in a rural area between the settlements of Flint and Pentre Halkyn. Access would be via Cornist Lane (**Photograph 13, Annex A**).

- 2.1.4. The location of the BVS is shown on **Figure 3.2: TCPA Proposed Development (Sheet 4, Document Reference: T.4.4.3.2)**.
- 2.1.5. The general arrangement plan of this BVS is provided in Figure 3.8: Cornist Lane BVS Layout (Document Reference: T.4.4.3.8).

#### **Pentre Halkyn**

- 2.1.6. Pentre Halkyn BVS is located approximately 700m south of the village of Brynford. Access would be via the B5121 Ally Y Chwiler (**Photograph 14, Annex A**).
- 2.1.7. The location of the BVS is shown on **Figure 3.2: TCPA Proposed Development (Sheet 3, Document Reference: T.4.4.3.2)**.
- 2.1.8. The general arrangement plan of this BVS is provided in **Figure 3.9: Pentre Halkyn BVS Layout (Document Reference: T.4.4.3.9)**.

#### Babell

- 2.1.9. Babell BVS is located on the outskirts of the settlement of Babell. Access would be via Racecourse Lane.
- 2.1.10. The location of the BVS is shown on **Figure 3.2: TCPA Proposed Development (Sheet 3, Document Reference T.4.4.3.2)**.
- 2.1.11. The general arrangement plan of this BVS is provided in **Figure 3.10**: **Babell BVS Layout (Document Reference T.4.4.3.10)**.

#### 2.2. DEVELOPMENT STAGES

2.2.1. In line with **Chapter 17 – Traffic and Transport (Document Reference: T.4.2.17)**, and by definition, this OCTMP considers the construction stage of the TCPA Proposed Development only.

#### **Operation Phase**

- 2.2.2. During the operational phase, there would be infrequent trips related to routine maintenance which are negligible. The current regular inspections and maintenance procedure at the PoA Terminal would continue and be tailored, as appropriate, to the new infrastructure and components to be installed.
- 2.2.3. The BVS would not require permanent staffing or personnel presence.

  Routine maintenance visits and activities would be undertaken. The anticipated maintenance and inspection activities and frequencies are shown in more detail within Chapter 3 Description of the TCPA

  Proposed Development (Document Reference: T.4.2.3), which has been

included within upfront chapters of the **ES** (Volume II, Document Reference: T.4.2).

2.2.4. On this basis, it is not considered necessary or appropriate to develop a traffic management plan for the operation phase of the TCPA Proposed Development.

#### **Decommissioning**

2.2.5. The decommissioning phase of the TCPA Proposed Development is difficult to predict, however, it is anticipated that the effects would be notably less than the construction phase. On this basis, it is not considered necessary or appropriate to develop a traffic management plan for the decommissioning phase of the TCPA Proposed Development.

#### 2.3. CONSTRUCTION VEHICLE CLASSIFICATION

- 2.3.1. A wide variety of vehicle types would be used for the construction of the TCPA Proposed Development. Vehicles would be required to transport people, equipment and materials.
- 2.3.2. The volumes of Light Goods Vehicles (LGVs) and Heavy Goods Vehicles (HGVs) associated with the construction phase of the TCPA Proposed Development are detailed and assessed in **Chapter 17 Traffic and Transport (Volume II, Document Reference T.4.2.17)**.
- 2.3.3. For the purposes of the Transport Assessment (TA) and EIA, the construction vehicles have been classified as follows, in accordance with the Driver and Vehicle Standards Agency Lorry types and weights guide:
  - LGV: Vehicle 3.5 tonnes (t) or below in gross weight; and
  - HGV: Any vehicle exceeding 3.5t gross weight.
- 2.3.4. **Table 2.1** outlines the vehicle classification and typical vehicle types that would be required for the construction of the TCPA Proposed Development.

**Table 2.1: Typical Construction Vehicle Classifications** 

LGVs	HGVS
Car, Van, 4x4 pick up, welfare van, <b>and</b> minibus	Excavator, soil compactor, winch tractor, tractor and trailer,10m and 12m rigid vehicles, 20t tippers, concrete mixers, 14m and 16.5m articulated vehicles, low loaders, and cranes

2.3.5. It should be noted that the list of vehicles is not exhaustive and that the precise type and composition of the fleet of construction vehicles used would be determined by the construction contractor(s).

#### 2.4. ABNORMAL INDIVISIBLE LOAD ROUTES

2.4.1. The delivery of Abnormal Indivisible Loads (AILs) may be required at working locations. Access requirements, potential impacts, and associated mitigation would be assessed under separate cover by a specialist AIL contractor.

#### 2.5. TCPA PROPOSED DEVELOPMENT TIMESCALES

2.5.1. Subject to planning permission, at present it is anticipated that construction would commence in 2024, with the TCPA Proposed Development becoming operational in late 2025. From the commencement of the pre-construction activities to completion of commissioning, the construction programme is expected to last approximately 32 weeks (plus 38 weeks for the disinvestment works prior to construction).

#### 2.6. WORKING HOURS

- 2.6.1. Core working hours are proposed to be from 08.00 to 18.00 on weekdays and 08.00 to 13.00 on Saturdays (excluding bank holidays).
- 2.6.2. To maximise productivity within core working hours, the Construction Contractor(s) will require a period of up to one hour before and up to one hour after core working hours for the start-up and close-down of activities. This will include, but not be limited to, deliveries, movement to place of work, unloading, maintenance and general preparation works. It will not include the operation of any plant or machinery likely to cause disturbance to local residents or businesses. These periods will not be considered an extension of core working hours.
- 2.6.3. Core working hours may vary at locations where trenchless crossings are proposed according to the length of the pipe being installed, ground conditions, and the technique used. In such cases, continual <a href="24-hour">24-hour</a> working may be required to allow the tunnelling activities to be completed as safely and quickly as possible. The duration of 24 hour working at the majority of trenchless crossings is not likely to exceed a period of days, though the longer crossings in difficult ground conditions are expected to last up to four weeks.

#### 3. CONSTRUCTION TRAFFIC ACCESS

#### 3.1. INTRODUCTION

- 3.1.1. In order to provide vehicular access and facilitate construction of the various elements of the TCPA Proposed Development there are three types of road network to be utilised.
  - Strategic Road Network: relates to parts of the network managed and maintained by Welsh Government (NMWTRA); within the study area shown in Figure 17.1: Traffic and Transport Study Area (Document reference: T.4.4.17.1). This includes the A55 and A494. Provides access to the Local Road Network (LRN).
  - Local Road Network: Comprises the FCC maintained LRN and provides access to Off-highway Access Routes.
  - Off-Highway Access Routes: A network of temporary access tracks and existing access roads that are not part of the adopted highway.

#### 3.2. CONSTRUCTION TRAFFIC ROUTES

- 3.2.1. The proposed construction traffic routeing strategy has evolved through an iterative process of working with project engineers and consultation with the Local Highways Authorities (LHAs) and other relevant stakeholders.
- 3.2.2. The routeing strategy is based on the following principles:
  - Provide safe and efficient construction access for the TCPA Proposed Development;
  - Reduce as far as reasonably practicable, and mitigate to an acceptable level, disruption to the public;
  - Where practical use the shortest route between the access point and the SRN;
  - As far as reasonably practicable avoid sensitive receptors; and
  - Use temporary off-road access tracks to reduce the impact on the LRN.
- 3.2.3. Construction routes have been identified based upon their suitability to accommodate HGV and LGV traffic.
- 3.2.4. For the purposes of assessment, HGVs are defined as any vehicle exceeding 3.5t gross weight. As far as reasonably practicable, HGV routes maximise use of the SRN.
- 3.2.5. Proposed construction traffic routes for LGVs and HGVs are presented in Figures 17.2 to 17.5 (Document Reference: T.4.4.17.2 and T.4.4.17.5) and are summarised in Table 3.1.

**Table 3.1: Proposed Construction Traffic Routes** 

Reference	Element of Works	SRN Junction	Links
PoA CTR 1	Point of Ayr Terminal and Foreshore Works	A494 Deeside Park Junction	A548, Station Road
BVS CTR 4	Cornist Lane BVS	J32a A55	B5123, Bryntyrion Road, Lleprog Lane
BVS CTR 5	Pentre Halkyn BVS	J32a A55	B5123, Bryn Emlyn, Ffordd Groes, B5121
BVS CTR 6	Babell BVS	J31 A55	B5122, Racecourse Lane

3.2.6. Proposed construction traffic routes provide access to working locations. Working locations are in turn served by access locations; both temporary and permanent. Consideration of access locations is presented in **Section 3.5** of this OCTMP.

## 3.3. CONSTRUCTION TRAFFIC ROUTE ACCESS RISK REGISTER

- 3.3.1. Site visits and audits have taken place along the proposed construction traffic routes and at temporary access points. Matters which have been identified and have informed the construction traffic route proposals are as follows:
  - Existing height and weight restrictions;
  - Existing highway classification;
  - Existing highway structures;
  - Existing highway layout (width and horizontal/vertical alignments);
  - Existing traffic calming measures;
  - Built environment indicators (BEIs) adjacent to the highway such as schools;
  - Existing visibility constraints;
  - Existing speed limits and surveyed traffic speeds;
  - Existing Public Rights of Way (PRoW); and
  - Other road users (pedestrians, cyclists and equestrians).

- 3.3.2. **Table 3.2** details the existing LRN constraints and considerations, how they have been mitigated at the route planning stage and further opportunities for mitigation during the construction stage.
- 3.3.3. Further discussion of proposed mitigation measures, in response to identified constraints/risks, EIA outcomes, and stakeholder feedback is provided in **Section 7** of this OCTMP.
- 3.3.4. A Construction Traffic Route Risk and Access Risk Register have been developed and are presented in **Annex B** and **Annex C**, respectively.

**Table 3.2: Local Road Network Constraints and Considerations** 

Constraint/ Consideration	Stage of Mitigation	Potential Mitigation
Urban Areas and BEIs (villages, towns, schools)	Construction Traffic Route Planning	Proposed construction traffic routes avoid sensitive areas so far as reasonably practicable.
Narrow Local Roads	Construction Traffic Route Planning	Avoid unsuitable sections of the LRN.
Existing Highways Conditions	Construction Traffic Route Planning and Construction Phase	Appropriate inspections and condition surveys to be agreed with LHAs.
Existing Highway Structures	Construction Traffic Route Planning and Construction Phase	Structures identified and avoided where practical. If required, inspection surveys to be undertaken in agreement with LHAs.
Visibility at Access Points	Construction Traffic Route Planning and Construction Phase	Subject to speeds and road character, visibility based on Technical Advice Note (TAN) 18 or Manual for Streets requirements included in <b>Annex D</b> . Vegetation clearance, traffic management, and speed reduction measures implemented to achieve safe access.
Impacts on Pedestrians and Cyclists	Construction Traffic Route Planning and Construction Phase	Construction routes to avoid National Cycle Network where reasonably practicable.

Constraint/ Consideration	Stage of Mitigation	Potential Mitigation
		Requirement for HGVs to be equipped with cycling safety measures (e.g. cycle mirrors)
Road Safety	Construction Traffic Route Planning and Construction Phase	Selection of construction traffic routes and access design. Suitable traffic management, signage, and communications. Continued liaison with LHAs.
Impact on Junctions and Link Capacity	Construction Traffic Route Planning and Construction Phase (Informed by site audits, consultation, and ES assessment outcomes.	Construction traffic routing strategy. Liaison with Welsh Government, FCC to identify constraints at junctions, and if necessary, exclude them from prescribed construction traffic routes, or restrict movements/ timings of their use. Implement Worker Travel Plan to minimise trips

#### 3.4. ACCESS LOCATIONS

3.4.1. Proposed temporary access locations are located directly off the LRN making use of existing accesses. Access points would provide direct construction vehicular access to and from the LRN. No direct access is proposed to be taken from the SRN. All access locations for the construction phase of the TCPA Proposed Development are summarised in **Table 3.3**.

**Table 3.3: TCPA Proposed Development Access Locations** 

Construction Traffic Route	Element of Works	Access Reference	Existing	Temporary/ Permanent
PoA CTR 1	Point of Ayr Terminal	TCPA E1	Yes	Permanent
	Point of Ayr Terminal – Centralised Compound	TCPA E2	Yes	Permanent
	Foreshore Works –	TCPA E3	Yes	Temporary

Construction Traffic Route	Element of Works	Access Reference	Existing	Temporary/ Permanent
	Station Road			
	Foreshore Works – Talacre Beach Car Park	TCPA E4	Yes	Permanent
BVS CTR 4	Cornist Lane BVS	88E	Yes	Permanent
BVS CTR 5	Pentre Halkyn BVS	89E	Yes	Permanent
BVS CTR 6	Babell BVS	90E	Yes	Permanent

#### 3.5. TEMPORARY ACCESS TRACKS

3.5.1. Off road temporary access tracks have been provided alongside the Working Width and between the LRN and access locations. Their uses would be maximised, so far as reasonably practicable, in order to provide a connection between proposed HGV construction traffic routes, to reduce construction traffic effects on the LRN and to address the OCTMP Objectives in **Table 1.1**.

#### 4. CONSTRUCTION WORKFORCE

#### 4.1. CONSTRUCTION STAFF

**4.1.1.** The workforce for the TCPA Proposed Development would likely be of a migratory nature; travelling to the region and staying in local accommodation during the working week. Workers would travel from local accommodation to working locations each day.

#### 4.2. WORKING LOCATIONS

#### POA TERMINAL AND FORESHORE WORKS

4.2.1. It is expected that individual contractors would establish their Centralised Compound either at their current facilities or establish one in the area at the PoA colliery. The area is already partially paved and gravelled, with existing access routes. An indicative layout for the Centralised Compound is presented in **Figure 1**.

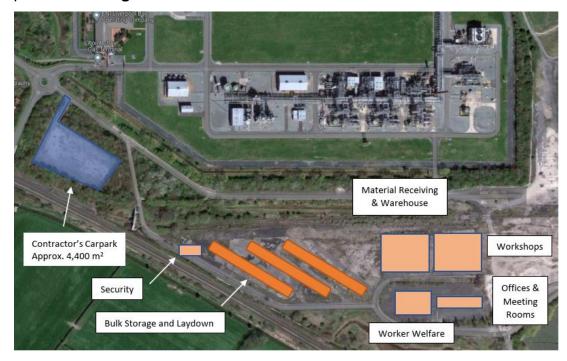


Figure 1 : Indicative Centralised Compound Layout

- 4.2.2. The Centralised Compound is likely to include the following:
  - Material laydown areas and yards;
  - Warehouse;
  - Workshops;
  - Offices: and
  - Workers welfare such as mess halls and changerooms.

- 4.2.3. Staff would travel to the Centralised Compound at the start of each day and subsequently travel to working locations; 'localised' compounds associated with Trenchless Horizontal Directional Drilling (HDD), Dune Valve Removal, and Intertidal Works.
- 4.2.4. It is typical for development of this nature that staff would be transported from the Centralised Compound to work-fronts by minibuses and pick-ups.
- 4.2.5. **Table 4.1** shows an estimate of transport required per day for construction personnel between the Centralised Compound and the work fronts. This is an estimate based on best available information at the time of writing and estimated workforce numbers. It assumes that all workers would walk to the PoA site from the Centralised Compound and two crossings being progressed at any one time away from the Centralised Compound. The number of vehicles required for staff movement may change in construction phase once a Construction Contractor is appointed.

Table 4.1 - Estimated Transportation for Construction Personnel Per Day

No. Required	Vehicle
3	15-seater minibuses
8	Double-cab pick-up

#### **BLOCK VALVE STATIONS**

4.2.6. For the construction of the BVSs, it is anticipated that workers would not travel to the Centralised Compound and would instead travel directly to working locations. It would therefore be necessary for any car-sharing or minibus scheme to target worker accommodation locations. This is considered in the Interim Worker Travel Plan (IWTP) (Volume III) (Document Reference T.4.2.17.5)

#### 4.3. WORKFORCE NUMBERS

4.3.1. The preliminary workforce numbers per day associated with the pipeline installation work of the TCPA Proposed Development are shown in **Table 4.2**.

Table 4.2 - Estimated Workforce Numbers Per Day

Average Workforce	65
Peak Workforce	91

#### 5. TRAFFIC MANAGEMENT

#### 5.1. INTRODUCTION

5.1.1. Traffic management methods would be used on the LRN and where physical mitigation measures prove to be not reasonably practicable or cannot be accommodated during the construction period of the TCPA Proposed Development. Traffic Signs Manual Chapter 8 states:

'The complexity of traffic management arrangements varies from scheme to scheme but the primary objective is;

- to maximise the safety of the workforce and the travelling public.

The secondary objective is;

- to keep traffic flowing as freely as possible'.
- 5.1.2. Traffic management on all highways and roads would comply with the UK Government's Code of Practice 'Safety at Streetworks and Roadworks' (DfT, 2013) or other relevant legislation and guidance as appropriate at the time of implementation. Traffic management would be agreed with the relevant LHA prior to the commencement of works.
- 5.1.3. At this stage, it is not anticipated that the construction of the TCPA proposed development will require any permanent or temporary road closures.
- 5.1.4. Traffic management signage would be in accordance with the Traffic Signs Regulations and General Directions (TSRGD) 2016 and Traffic Signs Manual Chapter 8.
- 5.1.5. As part of the full CTMP, detailed traffic management layouts, site specific risk assessments and method statements would be produced and agreed by the appointed contractor with FCC for all traffic management and highways related construction activities.

## 5.2. CONSTRUCTION TRAFFIC ROUTES AND TEMPORARY ACCESS SIGNAGE

- 5.2.1. Temporary signs providing route information for contractors would be erected at key locations along the proposed construction traffic routes on the LRN and potentially the SRN. Project information boards would be erected and will include key project information for the public and relevant contact details.
- 5.2.2. The design and location of route information signs and TCPA Proposed Development information boards would be agreed with FCC prior to

installation. Signs would be bi-lingual, with messages written in Welsh above English on the sign face (unless otherwise agreed with FCC).

5.2.3. Consistent signage at temporary access locations would be installed during use in order to provide relevant warnings and information to other road users of the presence of construction traffic.

#### 5.3. TEMPORARY ACCESS ROAD SIGNAGE

- 5.3.1. The off road temporary access tracks associated with compounds would have signage in order to assist the construction contractor to operate safely and efficiently. Signage on the temporary access tracks would include information such as: safety messages; speed limits; typical and site-specific hazards; distance to the LRN; area of potential vehicle conflicts; and PRoW crossings.
- 5.3.2. Where a temporary access track intersects with a PRoW, the form and content of the signs would be agreed with the PRoW officers at FCC.

#### 5.4. CONSTRUCTION ACCESS TRAFFIC MANAGEMENT

- 5.4.1. In order to limit potential disruption to the LRN, traffic management would only be deployed as required. The type of traffic management required at each temporary access location is dependent on a number of factors including traffic speeds, road widths, visibility and site characteristics.
- 5.4.2. Traffic management at temporary access points could be traffic control by priority signs, stop/go boards or portable traffic signals along with additional approach signage to reduce speeds where required.
- 5.4.3. Temporary Traffic Regulation Orders (TTROs) would be implemented as part of the traffic management approach for the TCPA Proposed Development where necessary. TTROs would include speed, access and waiting prohibition and restrictions. These would be agreed and implemented in liaison with FCC prior to the commencement of works.
- 5.4.4. Construction Traffic Route and Access Risk Registers are presented in **Annex B** and **Annex C** of this OCTMP.
- **Section 7** of this OCTMP considers site-specific traffic management measures that would be required, based on the outcomes of the EIA, site audits, stakeholder engagement, and risk registers.

#### 6. PUBLIC RIGHTS OF WAY

#### 6.1. INTRODUCTION

- 6.1.1. There are PRoWs within the Study Area (**Figure 17.1 (Document Reference: T.4.4.17.1)**) comprising footpaths, bridleways, restricted byways and byways open to all traffic ('BOAT') that are expected to interact with the TCPA Proposed Development.
- Around the PoA Terminal and Foreshore Works, there are direct impacts where working areas within the Red Line Boundary are expected to interact with PRoW; for example Footpath No. 409/27/10 (**Photograph 9, Annex A**) which extends around the south and east boundaries of the existing PoA Terminal and runs in an east-west alignment between the Point of Ayr and Prestatyn.
- 6.1.3. A temporary diversion of the footpath has been proposed through Talacre Dunes, which is presented in **Figure 17.6** (**Document Reference: T.4.4.17.6**). There is also a section located on the proposed Centralised Compound access road where it may be necessary to manage PRoW users and/or temporarily close the route.
- 6.1.4. The project team has discussed the approach to diversion and closures of PRoW with FCC who have confirmed their agreement in principle for diversions.
- 6.1.5. They have however, stated that they may seek to agree temporary closures at locations depending on the construction contractors' site management and the duration of works. It is anticipated that these would be confirmed prior to construction once a contractor is appointed.
- 6.1.6. In addition, there are footpaths located within the Red Line Boundary at BVS locations, however these are not anticipated to result in direct interaction between PRoWs and working areas.
- 6.1.7. Where PRoWs interact with proposed construction traffic routes, this is reflected in the link sensitivities applied in the Environmental Statement Chapter 17 Traffic and Transport (Document Reference: T.4.2.17) and subsequent assessment of environmental effects in these locations.

#### 6.2. WALES COAST PATH

- 6.2.1. The Wales Coast Path (**Photograph 1, Annex A**) is an 870 mile long designated footpath following the Welsh coast.
- 6.2.2. In particular, and as referred to in the previous subsection, the path directly interacts with the TCPA Proposed Development surrounding the PoA

Terminal/ Foreshore Works area, where Footpath No. 409/27/10 extends around the south and east boundaries of the existing PoA Terminal and runs in an east-west alignment between the Point of Ayr and Prestatyn. A temporary diversion of the footpath has been proposed in this location, which is presented in **Figure 17.6 (Document Reference: T.4.4.17.6).** This has been presented to FCC who agreed with the principle of the diversion route and would welcome further engagement prior to implementation.

#### 7. LOCATION SPECIFIC MITIGATION

#### 7.1. INTRODUCTION

- 7.1.1. A range of mitigation measures for the TCPA Proposed Development were identified in **Table 3.2**. This section sets out the measures that would be implemented at each location. These measures have been identified taking into consideration the following matters:
  - Site audits:
  - Outcomes of stakeholder engagement;
  - Liaison with the Applicant;
  - Forecast environmental effects identified in the Traffic and Transport ES Chapter; and
  - The constraints and considerations in the Construction Traffic Route (CTR) and Access Risk Registers.
- 7.1.2. The Construction Traffic Route and Access Risk Register are presented in **Annex B** and **Annex C** of this OCTMP.
- 7.1.3. The Construction Contractor would liaise with local highway officers to ensure appropriate traffic management and mitigation measures are implemented so as to ensure safety on the LRN was not compromised and reduce, so far as reasonably practicable, any disturbance and inconvenience to residents and road users.

## 7.2. POINT OF AYR TERMINAL AND FORESHORE WORKS POINT OF AYR TERMINAL

- 7.2.1. Access would be required to the PoA terminal via the existing main access road (**Photographs 4 and 5, Annex A**) during construction of the TCPA Proposed Development. This route is well-suited to increases in both LGV and HGV construction traffic, given its existing use as to serve the gas terminal.
- 7.2.2. Notwithstanding that, mitigation measures have been identified to respond to the presence of a footpath and nearby business park (**Photograph 11**, **Annex A**). These are summarised in **Annex B** and **Annex C** of this OCTMP.

#### POINT OF AYR TERMINAL CENTRALISED COMPOUND

7.2.3. Access to the Centralised Compound (**Photographs 6 and 7, Annex A**) would take place via the eastern arm of the roundabout serving the PoA Terminal Main Access. One further additional constraint relating to this

route is the presence of the footpath route from Station Road (**Photograph 10, Annex A**) which continues along the proposed Centralised Compound access road.

7.2.4. It is currently assumed that PRoW users would be managed via Traffic Marshalls, with appropriate warning signage and on-site speed restrictions. However, prior to construction the contractor, alongside FCC, may seek a temporary closure of the footpath to minimise interaction between PRoW users and construction traffic. This and other proposed mitigation measures are summarised in **Annex B** and **Annex C** of this OCTMP.

#### FORESHORE WORKS - STATION ROAD

- 7.2.5. Temporary access would be taken from Station Road (**Photograph 10**, **Annex A**). In this location it would serve the working area west of Station Road including the HDD compounds south of the dunes.
- 7.2.6. Station Road provides access to services and amenities associated with the Talacre Beach Resort, including caravan parks and public car parks. It is subject to a 30mph speed limit and timed waiting restrictions to manage and control parking. A number of private residential properties take access directly from Station Road (**Photograph 12, Annex A**).
- 7.2.7. Providing access to this element of works from the southern section of Station Road would minimise the volume of construction traffic travelling through the Talacre Beach Resort. Notwithstanding that it would be necessary to access the foreshore area from the beach via Station Road. This is discussed further under the following subheading.
- 7.2.8. In response to identified constraints, including the presence of pedestrians, busy tourist periods, and PRoWs, a range of mitigation measures have been identified. These are summarised in **Annex B** and **Annex C** of this OCTMP.

#### FORESHORE WORKS - TALACRE BEACH CAR PARK

- 7.2.9. Access to the Foreshore Works area would be taken via the existing Talacre Beach car park. The existing access is taken as a continuation of the northern end of Station Road. The Wales Coast path is intersected by Station Road in this location.
- 7.2.10. Access requires crossing of the Wales Coast Path (**Photograph 1, Annex A**), rising on approach to the path from Station Road and the car park. The Wales Coast path would be diverted through the dunes to minimise interaction with construction traffic (**Photographs 2 and 3, Annex A**).
- 7.2.11. Given the route through the Talacre Beach resort, the contractor would be required to schedule HGVs outside of busy periods of the year and outside

of peak hours during the day as far as practicable. Advanced communication, hazard warning signage, and presence of Traffic Marshalls would all be utilised to ensure that the route safely manages the route for all users during the construction phase.

7.2.12. These are summarised in **Annex B** and **Annex C** of this OCTMP.

#### 7.3. CORNIST LANE BLOCK VALVE STATION

- 7.3.1. Cornist Lane is a narrow single width road that is signed as being unsuitable for HGVs. Consequently, the route via Lleprog Lane has been identified for access to this BVS. Lleprog Lane is also a rural lane and largely single width. Daily traffic flows are very low (less than 100 AADT), and due to its use by Lleprog Farm around 5% of these were recorded as being HGVs. It would be necessary to manage vehicular movements to minimise disruption to Lleprog Farm and a private residential property.
- 7.3.2. Furthermore, the assessment contained within **Chapter 17 Traffic and Transport (Document Reference: T.4.2.17)** indicates that mitigation measures would be required to mitigate environmental effects on Cornist Lane.
- 7.3.3. Mitigation measures identified for Cornist Lane are summarised in **Annex B** and **Annex C** of this OCTMP.
- 7.3.4. Visibility Splays provided at the access of Cornist Lane BVS are presented in **Annex E** of this OCTMP.

#### 7.4. PENTRE HALKYN BLOCK VALVE STATION

- 7.4.1. Pentre Halkyn BVS would be accessed from the B5121. The assessment contained within **Chapter 17 Traffic and Transport (Document Reference: T.4.2.17)** indicates that mitigation measures would be required to mitigate environmental effects on the B5121.
- 7.4.2. Whilst the route is well suited to increases in HGV traffic in terms of its category and physical geometry, some measures may be required to minimise the impacts of activity at this location. These include the timings of large deliveries and presence of advanced hazard warning signage of the approaches to the site access.
- 7.4.3. Visibility Splays provided at the access of Pentre Halkyn BVS are presented in **Annex E** of this OCTMP.

#### 7.5. BABELL BLOCK VALVE STATION

7.5.1. Babell BVS would be accessed from Racecourse Lane (**Photograph 15**, **Annex A**). The assessment contained within **Chapter 17 – Traffic and** 

**Transport (Document Reference: T.4.2.17)** indicates that mitigation measures would be required to mitigate environmental effects on Racecourse Lane.

- 7.5.2. This route provides agricultural access and serves a small number of residential properties. Existing traffic flows are very low (Approx. 50 AADT). Nonetheless, due to the physical constraints of the route, including narrow sections and poor forwards visibility it would be necessary to implement controls on traffic movements during the construction of the BVS.
- 7.5.3. These measures would include maximising the use of small plant/equipment, and vehicles, as well as managing departures and arrivals into site suing radio controls at either end of Racecourse Lane. Other measures including advanced hazard warning signage, speed control measures, and engagement with local residents would ensure that disruption and inconvenience to local road users is minimised as far as reasonably practicable.
- 7.5.4. Visibility Splays provided at the access of Babell BVS are presented in **Annex E** of this OCTMP.

#### 8. MONITORING, REVIEW, AND IMPROVEMENT

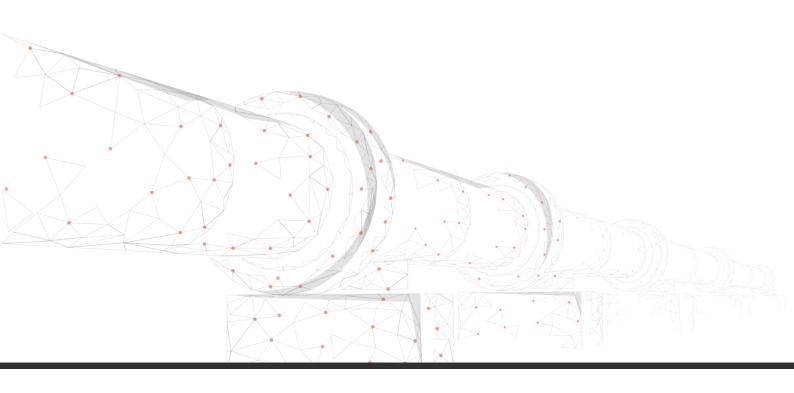
#### 8.1. COMMUNICATION

- 8.1.1. In order to ensure that the objectives and mitigation measures which are set out in this OCTMP are met, implemented as appropriate and managed effectively, a Transport Review Group would be put in place prior to and during the construction of the TCPA Proposed Development.
- 8.1.2. The Transport Review Group would likely be compromised of the construction contractor(s) and the local highway authority and would have the following responsibilities:
  - Communicate and monitor the OCTMP and its mitigation measures;
  - Ensure records of HGV movements were maintained and reported;
  - Be the first point of contact for the public, stakeholders, and contractors;
  - Hold regular update meetings with LHAs and relevant stakeholders;
  - Record near misses, incidents, and hazards and resolve issues as informed by the contractors, stakeholders, and the public; and
  - Monitor, review, and where necessary the OCTMP and associated mitigation measures.

## 8.2. COMPLIANCE, ENFORCEMENT, AND CORRECTIVE MEASURES

- 8.2.1. The applicant and the construction contractor would be committed to ensuring compliance with the final CTMP.
- 8.2.2. As a consequence, the following compliance methods are proposed to be adopted, as far as reasonably practicable:
  - Traffic Safety and Control Officer to be appointed;
  - Delivery Management System; and,
  - HGV Identification measures.
- 8.2.3. Compliance with the OCTMP would be part of the conditions of contract and mechanisms would be put in place to ensure compliance between the Applicant and the construction contractor. The Transport Review Group would provide a platform to ensure that any issues are recorded, addressed and appropriate corrective measures are implemented.

# Annexures



# Annex A

### **SITE PHOTOGRAPHS**



Photograph 1: Wales Coast Path, Talacre Beach Car Park



Photograph 4: Point of Ayr Terminal Access Road from Station Road/ A548 Roundabout



Photograph 2: National Cycle Network Link Route, Talacre Dunes



Photograph 5: Point of Ayr Terminal Main Access



Photograph 3: National Cycle Network Link Route, Talacre Dunes



Photograph 6: Point of Ayr Terminal Car Park







Photograph 7: PoA Terminal Access Road

Welcome to TALACRE
Blust dray the right

Photograph 10: Station Road, Talacre

Photograph 8: PoA Terminal Access on Southern Boundary



Photograph 11: Granary Court Business Park Access on Station Road

Photograph 9: Footpath 409/28/10 Signage on approach to PoA Terminal Access Roundabout



Photograph 12: Residential Properties on Station Road



## **Annex B**

### **CTR RISK REGISTER**

Construction Traffic Route	Element of Works	Image	Relevant EIA Outcomes	Constraints	Mitigation Response
PoA CTR 1	Point of Ayr Terminal		- Increase in construction traffic	<ul> <li>Access to Business Park</li> <li>Presence of PRoW and pedestrians</li> </ul>	<ul> <li>Advanced duallanguage hazard warning signage along the route</li> <li>Potential to temporarily close the PRoW route, in agreement with FCC</li> </ul>
	Point of Ayr Terminal  — Centralised Compound		- Increase in construction traffic	<ul> <li>Access to Business Park</li> <li>Presence of PRoW and pedestrians</li> </ul>	<ul> <li>Introduce max speed limit of 10mph on Centralised Compound access road</li> <li>Use of Traffic Marshalls to control pedestrian movements along Centralised Compound access road.</li> <li>Potential to temporarily close the PRoW route, in agreement with FCC</li> <li>Advanced duallanguage hazard warning signage along the route</li> </ul>

Construction Traffic Route	Element of Works	Image	Relevant EIA Outcomes	Constraints	Mitigation Response	
	Foreshore Works – Station Road	Wildows to TALACE	- Increase in construction traffic	<ul> <li>Tourism/ caravan parks</li> <li>Residential Access</li> <li>On Street Parking</li> </ul>	<ul> <li>Schedule works and deliveries outside of peak tourism periods and times of day as far as practicable</li> <li>Advanced duallanguage hazard warning signage along the route</li> <li>Parking restrictions (TTROs) implemented to ensure safe access to the PRoW can be achieved.</li> <li>Traffic Marshall to control movement of construction traffic and pedestrians at access.</li> </ul>	
	Foreshore Works – Talacre Beach Car Park	TRAETH TALACRE BEACH  Pilotrych Cod y Celt Guidt ov Surefweit yn stale Piest follow the Countrycrite Codi  NAMAGER AND SIDPORTER BY RODDWYS A RUESLAW OF AN RODDWYS ARROWS AN RODDWYS A RUESLAW OF AN RODDWYS ARROWS AND RODDW	- Increase in construction traffic	<ul> <li>Tourism/ caravan park</li> <li>Walking routes including the Wales Coast Path</li> <li>Residential Access</li> <li>Gradient and visibility at car park access</li> </ul>	<ul> <li>Schedule works and deliveries outside of peak tourism periods and times of day as far as practicable</li> <li>Advanced duallanguage hazard warning signage along the route</li> <li>Temporary Diversion of the Wales Coast path Figure 17.6 PoA Terminal &amp; Foreshore Works -</li> </ul>	

Construction Traffic Route	Element of Works	Image	Relevant EIA Outcomes	Constraints	Mitigation Response
					PRoW Diversion (Volume IV).
					<ul> <li>Use of Traffic         Marshals at car park         entrance. Radio         communication         between Traffic         Marshals further         south on Station         Road to warn of         vehicle arrival.</li> <li>7.5t Environmental         Weight Limit         (Exemption for         access)</li> </ul>
BVS CTR 4	Cornist Lane BVS		<ul> <li>Increase in construction traffic</li> <li>Significant effects calculated for Severance, Fear and Intimidation, Pedestrian Amenity, and Driver Delay along Cornist Lane.</li> </ul>	<ul> <li>Narrow single carriageway</li> <li>Verge damage</li> <li>Increase risk of collision</li> <li>Absence of pedestrian facilities</li> <li>Agricultural access required</li> </ul>	<ul> <li>Maximise use of smaller plant and equipment, where possible.</li> <li>Radio communications between Traffic Marshalls at site access and arrivals on Lleprog Lane</li> <li>Advanced duallanguage hazard warning signage along the route</li> <li>Engagement with Lleprog Farm prior to and throughout works</li> <li>Schedule works and</li> </ul>
					- Schedule works and deliveries outside of peak periods and times of day

Construction Traffic Route	Element of Works	Image	Relevant EIA Outcomes	Constraints	Mitigation Response
BVS CTR 5	Pentre Halkyn BVS		<ul> <li>Increase in construction traffic</li> <li>Significant effects calculated for Severance, Fear and Intimidation on B5121.</li> </ul>	<ul> <li>Increase risk of collision</li> <li>Absence of pedestrian facilities</li> <li>Agricultural access required</li> <li>Right turning vehicles block northbound traffic</li> <li>Vehicle speeds</li> </ul>	<ul> <li>Advanced duallanguage hazard warning signage along the route</li> <li>Schedule HGV deliveries and shift starts outside of peak times of day</li> <li>Introduce TTROs to reduce speeds at site access and deliver visibility splays in line with TAN 18 guidance.</li> </ul>
BVS CTR 6	Babell BVS		<ul> <li>Increase in construction traffic</li> <li>Significant effects calculated for Severance, Fear and Intimidation, Pedestrian Amenity, and Driver Delay along Racecourse Lane.</li> </ul>	<ul> <li>Narrow single carriageway (Approx. 2.5m in places).</li> <li>Verge damage</li> <li>Increase risk of collision</li> <li>Absence of pedestrian facilities</li> <li>Agricultural/ residential access required</li> </ul>	<ul> <li>Maximise use of smaller plant and equipment, where possible.</li> <li>Radio communications between site access and arrivals on Racecourse Lane</li> <li>Advanced duallanguage hazard warning signage along the route</li> <li>Engagement with local residents and agricultural interests prior to and throughout works</li> <li>Schedule works and deliveries outside of peak periods and times of day</li> </ul>

Construction Traffic Route	Element of Works	Image	Relevant EIA Outcomes	Constraints	Mitigation Response
					- Vegetation management

### Annex C

#### **ACCESS RISK REGISTERS**

Construction Traffic Route	Element of Works	Access Reference	Existing	Temporary/ Permanent	Road	Adopted	Speed Limit/ (Recorded Speeds) (Mph)	Constraints	Mitigation Response
PoA CTR 1	Point of Ayr Terminal	TCPA E1	Yes	Permanent	PoA Access Road	N	30 (N/A)	Increases in HGV Traffic at Roundabout	Advanced hazard warning signage
	Point of Ayr Terminal – Centralised Compound	TCPA E2	Yes	Permanent	PoA Access Road	N	30 (N/A)	Increases in HGV Traffic at Roundabout. PRoW (Footpath) On Access Road	Advanced hazard warning signage
	Foreshore Works  – Station Road	TCPA E3	Yes	Temporary	Station Road	Y	30 (35.7)	On-street parking may obstruct visibility 85th %ile speeds exceed 30mph speed limit	Advanced hazard warning signage TTRO implemented to deliver 20mph speed limit on approach to site access Use of Traffic Marshals to control HGV movements out of the site
	Foreshore Works  – Talacre Beach Car Park	TCPA E4	Yes	Permanent	Station Road	N	30 (N/A)	Public Car Park Local Walking Routes Gradient at Access	TTRO implemented to deliver 20mph speed limit on approach to site access Use of Traffic Marshals to control HGV movements out of the site
BVS CTR 4	Cornist Lane BVS	88E	Yes	Permanent	Cornist Lane	Y	60 (25.4)	Existing access width unsuited to HGVs Impact of hedgerows on visibility Single width road	Widen access to accommodate HGVs Deliver 15/20m Visibility Splays as agreed with FCC
BVS CTR 5	Pentre Halkyn BVS	89E	Yes	Permanent	B5121	Y	50 (49.7)	Existing access width unsuited to HGVs Impact of hedgerows on visibility High traffic speeds on B5121	Widen access to accommodate HGVs Deliver 15/20m Visibility Splays

Construction Traffic Route	Element of Works	Access Reference	Existing	Temporary/ Permanent	Road	Adopted	Speed Limit/ (Recorded Speeds) (Mph)	Constraints	Mitigation Response
									as agreed with FCC Consider temporary speed reduction
BVS CTR 6	Babell BVS	90E	Yes	Permanent	Racecourse Lane	Y	60 (24.3)	Existing access width unsuited to HGVs Impact of hedgerows on visibility Single width road	Widen access to accommodate HGVs Deliver 15/20m Visibility Splays as agreed with FCC

# **Annex D**

#### **VISIBILITY STANDARDS**

Observed Traffic Speed (mph)	75	62	53	44	37	30
SSD (metres)	395	215	160	120	90	70
Speed Limit (mph)	70	60	50	40	30	20
SSD (metres)	295	215	160	120	90	45

Source: TAN 18 Annex B Table A

Speed Limit (mph)	37	31	30	28	25	20	19	16	15	12	10
SSD (metres)	56	43	40	36	31	22	20	16	15	12	9

Source: Manual for Street Table 7.1

# Annex E

#### **FIGURES**

