

Thurrock Council

Local Impact Report

March 2018

Proposed Tilbury2 Port Expansion

Planning Inspectorate Reference: TR030003

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1.0 Introduction

- 1.1 This Local Impact Report (LIR) has been prepared by Thurrock Council (TC) in accordance with the requirements of the Planning Act 2008 (the Act) as amended by the Localism Act 2011. The LIR also takes into account the advice set out in the Planning Inspectorate (PINS) Advice Note One: Local Impact Reports (Version 2: April 2012). The content and conclusions of the LIR were presented to and agreed at the meeting of the Council's Planning Committee on 15th March 2018, with any relevant revisions after this time being agreed by the Assistant Director of Planning, Transport and Public Protection and the Chair of the Planning Committee.
- 1.2 The LIR is part of the Council's response to an application submitted by the Port of Tilbury London Limited (POTLL) for a Development Consent Order (DCO) authorising, in summary, the construction and operation of a new port terminal with associated development (Tilbury2) on land formerly comprising part of the Tilbury Power Station site.
- 1.3 The proposed main operational uses for Tilbury2 would comprise a roll-on / roll off (RoRo) terminal for containerised and trailer freight, a warehouse building, a Construction Materials and Aggregates Terminal (CMAT) to include stockpiles and the processing of aggregates for the production of asphalt and concrete products, associated road and rail transport infrastructure (Infrastructure Corridor) and associated ancillary development. The proposals will involve a range of works including:
- creation of hard surfaced areas;
 - improvements and extension to an existing river jetty and creation of a new RoRo berth;
 - associated dredging to form berthing pockets for the extended and new jetties;
 - new and improved conveyors;
 - erection of welfare buildings;
 - erection of a warehouse with a floorspace of 10,200 sq.m.;
 - storage and production structures associated with the CMAT;
 - construction of a new road link from Ferry Road to Fort Road; and
 - formation of a rail spur and sidings.
- 1.4 Tilbury2 is considered to be a Nationally Significant Infrastructure Project (NSIP) as the proposals comprise the development of a new harbour facility in England, including RoRo facilities with an estimated throughput of 500,000 units per annum. This proposed throughput is greater than the threshold of 250,000 per annum set out at s.24(3)(b) of the Planning Act 2008. Consequently, the proposals qualify as an NSIP for which development consent is required pursuant to s.31 of the 2008 Act.

- 1.5 As the development proposals comprise an NSIP, the application for a DCO been submitted to PINS (acting for the Secretary of State for Communities and Local Government). The application was made by POTLL on 31st October 2017 and accepted for examination by the Secretary of State (SoS) on 21st November 2017.

2.0 Terms of Reference

- 2.1 Section 60(3) of the Planning Act 2008 defines a LIR as a “report in writing giving details of the likely impact of the proposed development on the authority’s area (or any part of that area)”. In coming to a decision, the SoS must have regard to any LIRs that are submitted.
- 2.2 The PINS Advice Note One (Local Impact Reports – Version 2 April 2012) provides guidance on the content of a LIR and confirms that the content of the LIR is a matter for the local authority concerned as long as it falls within the statutory definition referred to in paragraph 1.6 above. The PINS Advice Note provides suggested topic headings (site description etc.) and this LIR broadly follows the suggested structure.
- 2.3 This LIR sets out the Council’s existing body of knowledge and evidence on local issues in order to present a robust assessment to the Examining Authority. As suggested by the PINS Advice Note, this LIR includes an evaluated statement of positive, negative and neutral local impacts within a structured document. This LIR also includes the Council’s views on the relative importance of different social, environmental and economic issues and the impact of the scheme on them. Finally, this LIR includes the Council’s views on the DCO articles, requirements and obligations.
- 2.4 For the purposes of this LIR the following environmental, economic and social topics will be considered:
- socio-economics;
 - health;
 - landscape and visual amenity;
 - terrestrial ecology;
 - archaeology and cultural heritage;
 - land-side transportation;
 - hydrogeology and ground conditions;
 - water resources and flood risk;
 - noise and vibration;
 - air quality;
 - waste and materials.

3.0 Site Description and Constraints

Introduction

3.1 The area which is the subject of the DCO and as identified as the “Order Limits” lies wholly within the administrative area of Thurrock Council. The Order Limits includes both the terrestrial environment and the marine environment associated with the proposed dredging works and the new and extended berths. TC’s interest as local planning authority operates between the Mean Low and Mean High Water Marks. Consequently, elements of the marine works and their associated impacts are beyond the ‘jurisdiction’ of the local planning authority. Although elements of the impacts of these marine works (such as landscape and visual impact etc.) are considered to be relevant matters for TC to assess in this document.

3.2 The Order Limits extends to a total area of some 103.49 hectares. As identified on Figure 4.1 this total comprises:

- the Asda roundabout junction – 2.85 hectares
- the Infrastructure Corridor – 17.66 hectares
- the Main Site – 60.91 hectares
- the Marine Area – 22.07 hectares.

Site Description

3.3 Asda Roundabout Junction

This is a parcel of land located at the junction of the A1089, Thurrock Park Way, Dock Road and the access road serving the recently constructed Travis Perkins and Amazon development. This land parcel is physically separate from the remainder of the land within the Order Limits and comprises highway land and adjacent verges, footpath and cyclepaths. The parcel includes the road approaches to the junction. The A1089 is a dual-carriageway road which forms part of the Strategic Road Network and links the existing access to the Port of Tilbury (to the south) to the A13 and M25 to the north and west. The junction is adjoined to the east by recently constructed commercial buildings occupied by Travis Perkins and Amazon as part of the London Distribution Park development. A new road access arm (Windrush Road) was created on the north-eastern quadrant of the roundabout to serve this new development. To the west of the junction are industrial / warehouse uses and an Asda retail store accessed from Thurrock Park Way. To the south the A1089 rises to cross the London-Tilbury-Southend (LTS) railway via a bridge. The Port of Tilbury is generally located to the south of the LTS railway line with the settlement of Tilbury located to the north of the LTS railway line and south-east of the Asda roundabout.

3.4 Infrastructure Corridor

This parcel comprises a ribbon of land generally located to the south of the LTS railway line, east of the A1089 (St. Andrew's Road) and west of Fort Road. Land within this Infrastructure Corridor also includes Fort Road and land either side of this highway on the northern side of the LTS railway up to the junction with Brennan Road. The western part of this land parcel includes open land forming the verge between the A1089 and the pedestrian bridge crossing the LTS railway line and a section of the existing railway siding extending to the south. To the east of this siding the land parcel includes the northern part of hardsurfaced vehicle storage areas operated by the Port of Tilbury. In between these storage areas and the LTS railway line is a soft-landscaped 'buffer'. The Order Limits has been drawn to include the alignment of public footpath no. 144 as it crosses the LTS railway corridor via an un-manned level crossing. On the southern side of the LTS railway line the footpath continues in an easterly direction within the soft-landscaped buffer and is included with the Infrastructure Corridor.

3.5 The eastern extent of the vehicle storage areas is defined by footpath no. 144 and the Chadwell Cross Sewer, defined as a 'main river' by the Environment Agency. Land within the access corridor east of this main river comprises open grassland used for horse grazing, with a narrow belt of trees and shrubs adjacent to the LTS railway line. The Infrastructure Corridor passes through a further 'main river' known as Pincocks Trough Sewer which forms the western boundary of an area of open Common Land which extends up to Fort Road and continues on the eastern side of Fort Road south of the power / sub-station approach road (referred to in the submission as Substation Road). Land within the infrastructure corridor includes Fort Road north and south of the railway line and its associated embankments.

3.6 Main Site

The Main Site forms the largest element of the four land parcels which make up the Order Limits and is generally located south of the LTS railway line, east of the Anglian Water Tilbury Water Recycling Centre (sewage treatment works) and north of the River Thames.

3.7 Substation Road initially runs in an east-west alignment where it meets Fort Road and land within the Main Site north of this alignment comprises an electricity sub-station within open land with mixed tree and shrub planting. South of a security gatehouse associated with the former power station Substation Road splits into two separate arms serving a large operational electricity sub-station and the former power station itself. Former power station buildings and structures within the Order Limits have been largely demolished and the southern part of the Main Site is a mix of open hardstandings, amenity grassland and areas formerly used for the storage of coal. At the southern end of the Main Site and north of the River Thames flood defence is an overgrown area formerly maintained as part of the Two Forts Way Wildflower Community Meadow (also known as the 'Riverside Meadows').

3.8 Marine Area

The Marine Area is defined on Figure 4.1 as land within the River Thames below the Mean Low Water Mark and the inter-tidal zone between Mean Low and Mean High Water Marks. This area includes two existing jetties comprising: to the east, a jetty associated with the former power station and including a jetty workshop, cranes and a conveyor; and to the west a jetty associated with the Anglian Water treatment works.

3.9 Areas Adjoining the Order Limits

The Asda Roundabout land parcel is immediately adjoined to the east, west and south by commercial development. Further to the north-west is open Green Belt land at Little Thurrock Marshes with residential development to the north. To the north-east of the Asda Roundabout is open Green Belt land which forms part of the Tilbury (West) Flood Storage Area. A Main River (the Chadwell Main Sewer) adjoins the roundabout junction and the A1089 to its east. The residential area of Tilbury is generally located to the south-east of the Asda Roundabout with the Port of Tilbury to the south-west.

3.10 The Infrastructure Corridor is immediately adjoined to the north by the LTS railway line, with the settlement of Tilbury on the northern side of the railway. The western part of the Corridor is adjoined to the south by land operated by the Port and used principally for open vehicle storage. The eastern section of the Corridor is adjoined to the south by open land with Tilbury Fort and the River Thames further to the south. Open land forming part of the Green Belt and the Tilbury (East) Flood Storage Area is located to the east of Tilbury and north-east of the Infrastructure Corridor.

3.11 The Main Site is adjoined to the north by the LTS railway line, with open Green Belt land within the Flood Storage Area located further north. Open agricultural land forming part of the Green Belt adjoins the Main Site to the north-east. Tilbury sub-station is to the east of the Main Site. A number of high voltage overhead transmission lines run in a northerly direction from this sub-station. The former Tilbury Power Station buildings (turbine halls etc.) adjoin the southern part of the Main Site to the east, with the Anglian Water treatment works to the west. The remaining power station buildings are in the process of being demolished. Open agricultural land and ash fields associated with the former power station are generally located further east of the Main Site.

3.12 Site Constraints

Asda Roundabout – the following land use planning constraints apply to this area within the Order Limits:

- Green Belt (part);
- Flood Zone 3;
- Main River (Chadwell Main Sewer);
- Strategic Road Network (A1089).

Infrastructure Corridor – the following land use planning constraints apply to this area within the Order Limits:

- Flood Zone 3;
- Main Rivers (Chadwell Cross Sewer and Pincocks Trough Sewer);
- Public Right of Way (footpath 144);
- Common Land (part);
- Local Wildlife Site (part).

Main Site – the following land use planning constraints apply to this area within the Order Limits:

- Flood Zone 3;
- Public Right of Way (footpath 146);
- Green Belt (part);
- Local Wildlife Site (part).

4. Description of the Proposal

Introduction

- 4.1 In summary, POTLL proposes to construct and operate a new port terminal on land comprising part of the former Tilbury Power Station (the Main Site). The principal uses operating at the new port would be a RoRo terminal and a CMAT terminal. Ancillary development and associated infrastructure, including road and rail access and new and extended berths for vessels, would support these port uses. The proposals also include road and rail transportation links to the Main Site via an Infrastructure Corridor.
- 4.2 Within their submission POTLL note that, as a 'working' Port, the nature of their operations may change over time in response to economic factors, changes in technology etc. POTLL therefore seek a degree of flexibility for the future and propose that permitted development rights (pursuant to the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended) would apply to the new port. However, in order to enable a robust assessment of the proposals, the description of the proposals refers to an envelope of development which is considered by POTLL to be a worst-case scenario. Proposals for the Main Site therefore refer to a number of 'parameters'. However, some elements of the proposals, including the Infrastructure Corridor and marine elements have been through the design process and can be assessed in detail.
- 4.3 The proposals for which a DCO is sought are described in detail as a series of 12 categorised 'Works' (plus a number of sub-works) by Schedule 1 of the Draft DCO. If approved, the Order would be known as the Port of Tilbury (Expansion) Order 201X and would have the status of secondary legislation as a Statutory Instrument. For information, the London Gateway Harbour Empowerment Order 2008 authorising the construction and operation of London Gateway Port is similar in structure and status to the proposed Order.

4.4 Summary of Proposals

The Environmental statement (ES) supporting the submission summarises the proposed works as follows:

- creation of hard surfaced areas;
- improvements and extension to an existing river jetty and creation of a new RoRo berth;
- associated dredging to form berthing pockets for the extended and new jetties;
- new and improved conveyors;
- erection of welfare buildings;
- erection of a warehouse with a floorspace of 10,200 sq.m.;
- storage and production structures associated with the CMAT;

- construction of a new road link from Ferry Road to Fort Road; and
- formation of a rail spur and sidings.

4.5 Proposed Schedule 1 Works

As noted above, Schedule 1 (Authorised Development) of the draft DCO provides a written description of a number of Works with reference to a number of Works Plans (document ref. 2.4). These Works are described in greater detail below.

4.6 Work No. 1

Construction of a RoRo berth on the River Thames, located in the Marine Area partly on the site of the existing power station jetty (upstream section) and extending upstream, including:

- (a) construction of dolphin with associated fenders and walkways;
- (b) construction of a floating pontoon and associated structures;
- (c) construction of structures and buildings on the floating pontoon;
- (d) construction of an approach bridge with abutments, roadway, footway and wind barrier;
- (e) construction of a linkspan bridge between the floating pontoon and the approach bridge, with a roadway, footway and wind barrier;
- (f) construction of a surface water outfall;
- (g) alteration, renovation and renewal of an existing jetty;
- (h) alteration and renewal of an existing flood defence;
- (i) removal of an existing jetty and associated structures;
- (j) related dredging works within the River Thames for the above; and
- (k) piling works and construction operations within the River Thames.

4.7 Work No. 2

Construction of a CMAT berth on the River Thames, located in the Marine Area partly on the site of the existing power station jetty (downstream section) and extending downstream, including:

- (a) construction of dolphins with associated fenders and walkways;
- (b) construction of a conveyor hopper and supporting structures;
- (c) installation of pipework on the jetty and connections to Work No. 8A;
- (d) construction of a conveyor and supporting structures in the river bed.
- (e) alteration, renovation and renewal of an existing jetty and its associated structures;
- (f) related dredging works within the River Thames for the above; and
- (g) piling works and construction operations within the River Thames.

4.8 Work No. 3

Construction of a RoRo terminal, located at the Main site on that part of the former power station site north of the flood defence, south of the Substation Road, east of the Anglian Water site and west of the remaining power station site, including:

- (a) filling of land for port facilities, port surfacing and port infrastructure with associated civil works, earth works, and service works;
- (b) construction of rail sidings and associated rail infrastructure;
- (c) vehicular, cyclist and pedestrian roads and routes including a connection to Work No. 1(d);
- (d) construction of ancillary buildings including staff welfare and operational facilities;
- (e) construction of site lighting, including lighting columns;
- (f) demolition of existing buildings; and
- (g) installation of above ground and underground drainage infrastructure including pumping station.

4.9 Work No. 4

Construction of vehicular, cycle and pedestrian routes for the RoRo terminal and the construction of the CMAT, located at the Main Site along and adjacent to the existing route of Substation Road from its junction with Fort Road to the former power station sub-station, including:

- (a) demolition of existing buildings;
- (b) construction of private means of accesses to land;
- (c) construction of a gatehouse and associated infrastructure; and
- (d) construction of a noise barrier.

4.10 Work No. 5

Construction of an operational compound for the RoRo terminal and the CMAT, located at the Main Site on the eastern and northern side of the Substation Road, including:

- (a) filling of land for port facilities, port surfacing and port infrastructure with associated civil works, earth works, and service works;
- (b) construction of car parking facilities;
- (c) construction of ancillary buildings including staff welfare facilities; and
- (d) demolition of existing buildings.

4.11 Work No. 6

construction and laying out of storage areas, located at the Main Site on land north of Substation Road and east of its junction with Fort Road, including:

- (a) filling of land for port facilities, port surfacing and port infrastructure with associated civil works, earth works, and service works; and
- (b) the construction of a railway line and associated railway infrastructure.

4.12 Work No. 7

the construction of a warehouse, located on the eastern side of the Main Site adjacent to the remaining power station buildings, including:

- (a) filling of land for port facilities, port surfacing and port infrastructure with associated civil works, earth works and service works;
- (b) construction of a warehouse;
- (c) construction of a railway line, rail sidings and associated rail infrastructure (to the extent that the location of Work No. 3 overlaps with the location of Work No. 7);
- (d) vehicular, cycling and pedestrian roads and routes; and
- (e) construction of site lighting infrastructure, including lighting columns.

4.13 Work No. 8

Construction of a CMAT, located at the Main Site, comprising -

(a) Work 8A, located at the south-eastern corner of the Main Site, including:

- (i) construction of silo facilities and associated piping, pumping and loading infrastructure;
- (ii) construction of weighbridges;
- (iii) construction of a railway line, rail sidings and associated rail infrastructure (to the extent that the location of Work No. 3 overlaps with the location of Work No. 8A);
- (iv) construction and laying out of vehicular roads and routes; and
- (v) filling of land for port facilities, port surfacing and port infrastructure with associated civil works, earth works, and service works.

(b) Work 8B, located adjacent to the eastern boundary south of the Substation Road, including:

- (i) filling of land for port facilities, port surfacing and port infrastructure with associated civil works, earth works, and service works;
- (ii) construction of a railway line, rail sidings and associated rail infrastructure (to the extent that the location of Work No. 3 overlaps with the location of Work No. 8B);
- (iii) construction of site lighting infrastructure, including lighting columns;
- (iv) construction of a conveyor and supporting structures; and
- (v) construction of vehicular roads and routes.

(c) Work 8C, located north of the Substation Road and south of the railway line, including:

- (i) filling of land for port facilities, port surfacing and port infrastructure with associated civil works, earth works, and service works;
- (ii) construction of an aggregate storage yard;
- (iii) construction of a railway line, rail sidings and associated rail infrastructure;
- (iv) construction of a conveying system and supporting structures; and
- (v) construction of vehicular and pedestrian access routes and roads.

(d) Work 8D, located north of the Substation Road and south of the railway line, including:

- (i) filling of land for port facilities, port surfacing and port infrastructure with associated civil works, earth works, and service works;
- (ii) construction of an aggregate storage yard;
- (iii) construction of construction materials and aggregate processing facilities including associated buildings and infrastructure;
- (iv) construction of a railway line, rail sidings and associated rail infrastructure (to the extent that the location of work No.8C overlaps with the location of Work No.8D); and
- (v) construction of vehicular and pedestrian access routes and roads.

4.14 Work No.9

Located within the Infrastructure Corridor, construction of a new highway from Ferry Road to a point 190 metres south-west of the centrepont of the existing Fort Road bridge over the railway line comprising –

(a) Work 9A

- (i) construction of a new single lane two way highway approximately 1,250m in length from a point on St. Andrew's Road approximately 1,460m from the centrepont of the Asda Roundabout to a point approximately 190m southwest of the centrepont of the existing Fort Road bridge over the railway line;
- (ii) construction of a new junction with a new highway at a point approximately 1,700m south-east of the centre point of the existing Asda roundabout constructed pursuant to Work No. 9B;
- (iii) construction of a new junction with a new highway at a point approximately 275m south-west of the centre point of the existing Fort Road bridge over the railway line constructed pursuant to Work No. 9C;
- (iv) improvement of St. Andrew's Road for a length of approximately 150m;
- (v) construction of a noise barrier;
- (vi) construction of private means of accesses to land;
- (vii) construction of a footway and cycleway;
- (viii)demolition of existing buildings;

- (ix) works to alter the course of, or otherwise interfere with, a watercourse other than a navigable watercourse; and
- (x) works to alter the position of apparatus, including mains, sewers, drains and cables.

(b) Work 9B

- (i) construction of a new highway approximately 165m in length from a junction with a St. Andrew's Road at a point approximately 1,825m south-east of the centre point of the Asda roundabout to a point approximately 1,700m south-east of the of the centre point of the Asda roundabout; and
- (ii) the construction of a cycleway.

(c) Work 9C

- (i) construction of a new highway approximately 100m in length from a point on Fort Road approximately 290m south-southwest of the centre point of the Fort Road bridge over the railway line to a point on Fort Road, approximately 280m south-west of the centrepoint of the Fort Road bridge over the railway line;
- (ii) construction of a new junction with Fort Road at a point approximately 290m south-west of the centrepoint of the Fort Road bridge over the railway line; and
- (iii) construction of a cycleway.

4.15 Work No. 10

Located within the Infrastructure Corridor, construction of a road overbridge at Fort Road including:

- (a) construction of a new bridge over new highway, new railway tying into the existing bridge over the railway line;
- (b) construction of a new length of highway approximately 330m in length, from a point 330m south-east of the centre point of the Fort Road bridge over the railway line to the centre point of the existing Fort Road bridge over the railway line;
- (c) construction of a cycleway;
- (d) works to alter the course of, or otherwise interfere with, a watercourse other than a navigable watercourse;
- (e) works to alter the position of apparatus, including mains, sewers, drains and cables; and
- (f) improvement of Fort Road including markings to indicate a mini-roundabout.

4.16 Work No. 11

Improvements to the Asda roundabout junction.

4.17 Work No. 12

Within the Infrastructure Corridor, construction of a rail line from a point approximately 95m south-east of the existing connection of the rail sidings known as the Riverside Sidings to the railway line to a point approximately 35m south of the centrepoint of the existing Fort Road bridge over the railway line including:

- (a) construction of a railway line, passing loop and associated infrastructure of approximately 1,325m in length from the existing siding off of the railway line to Work No. 6;
- (b) construction of a noise barrier;
- (c) construction of private means of accesses to land;
- (d) demolition of existing buildings;
- (e) works to alter the course of, or otherwise interfere with, a watercourse other than a navigable watercourse; and
- (f) works to alter the position of apparatus, including mains, sewers, drains and cables.

4.18 In addition to the numbered works (1-12) described above, Schedule 1 also describes *"ancillary or related development for the purposes of or in connection with the construction of any of the works and other development"* mentioned by Works 1-12. This ancillary or related development includes:

- works within highways
- works within the River Thames (located with the Order limits and Port limits)
- alteration / demolition of buildings;
- works to plant and apparatus;
- works to rights of way;
- embankment, viaducts, bridges etc.;
- settlement mitigation measures;
- works to watercourses;
- hard and soft landscaping, noise mitigation and ecological mitigation;
- site preparation, clearance etc.;
- construction compounds etc.; and
- service compounds etc.

4.19 Detailed Description of the Proposals

Jetty / Marine Works (Works 1 and 2):

Works to the existing power station jetty are required to enable its use for the proposed RoRo and CMAT terminals. The western part of the existing jetty would be retained and extended upstream in order to provide capacity for two vessels at the RoRo terminal. The jetty would also be extended downstream to accommodate a single vessel to serve the CMAT terminal. The application assumes that the

RoRo could accommodate 2 no. 200m long vessels with a 250m long, self-discharging aggregate vessel berthed at the extended downstream jetty.

4.20 Berthing Pockets (Works 1 and 2):

Dredging works would be required in order to create the berthing pockets for vessels using the RoRo and CMAT jetty. In addition, dredging is required on the vessel approaches to the berths. The proposals also refer to an ongoing requirement for maintenance dredging.

4.21 RoRo Terminal – Landside Facilities (Work Nos. 3 & 5):

This terminal would occupy a 20Ha area on the southern part of the Main Site to be used for the movement and storage of trailers and containers. The works required to create the terminal comprise, land filling, creation of hardstandings, formation of access routes, drainage infrastructure, lighting, soft landscaping, ancillary buildings and formation of rail sidings. No fixed cranes are proposed as the containers would be moved by reach stackers. Containers would be stacked at different heights up to a maximum of six high i.e. to a maximum height of 18m above ground level. Ground level is described as a maximum of 4m AOD. General arrangement plans (document ref. 2.2) show a layout of trailer and container storage across the RoRo terminal. However, these plans are indicative and different combinations of trailer and container storage could occur within the area. Work No. 5 refers to an area north of the Substation Road adjacent to the western boundary of the Main Site which would be used to accommodate workshop / administration / welfare floorspace for the RoRo terminal and associated parking.

4.22 Maritime Warehouse (Work No. 7)

This structure, located on the eastern side of the Main Site adjacent to the power station, would comprise a rail-served warehouse building on a 3Ha plot. The building would measure 170m (l) x 60m (w) x 22m (high), with a gross external floorspace of 10,200 sq.m.

4.23 CMAT Terminal – Landside Facilities (Work No. 8)

The CMAT terminal is described as comprising a number of permanent uses and structures, although the exact arrangement of uses, processes and structures is not known in detail. The proposals therefore describe a worst-case scenario including the following elements:

4.24 *Aggregates Storage Yard:* an area for the storage of aggregates, pigments and cementitious materials (cement, fly ash, limestone fines etc.). These materials would be stored within silos or in the open air fed by a conveyor linking to the riverside berth. This area would incorporate dust suppression measures. The

proposals assume that the maximum height of stored material would be 17m above ground level (a maximum 4m AOD).

4.25 *Processing Facilities:* these facilities could include (i) a block and precast manufacturing facility (comprising mixing, moulding, curing and stacking of manufactured products), (ii) a cement facility (comprising a ready mix concrete batching plant) and (iii) an asphalt manufacturing plant (comprising the processing of aggregate, sand, bitumen etc.). The submission assumes that building and structures within the CMAT processing area would be a maximum of 30m in height above ground level (a maximum 4m AOD).

4.26 Silo (Work No. 8A)

A silo for the storage of powdered bulk products is proposed with a height of 100m above ground level (a maximum 4m AOD) and a diameter of 15m. The silo would be located close to the CMAT terminal jetty and would be supplied by river.

4.27 CMAT Conveyor

A conveyor and supporting structure would link the CMAT jetty to the aggregates storage yard described above.

4.28 Other Uses

Land at the north-western corner of the Main Site and north of Substation Road close to Fort Road would be used for external storage (Work No. 6). The submission assumes a maximum height for stored goods / materials of 5m above ground level (a maximum 4m AOD).

4.29 Entrance Area

The entrance to the Main Site would incorporate a security gatehouse, fencing, cameras etc. (Work No. 4).

4.30 Rail Infrastructure within the Main Site

A new railway spur aligned parallel with the main railway line would enter the Main Site at its north-western corner. This spur would then turn from a north-east / south-west alignment to a north / south alignment running adjacent to the eastern boundary. This rail infrastructure would provide sidings and loading facilities for the CMAT, RoRo terminal and Maritime Warehouse.

4.31 Infrastructure Corridor

In order to provide new rail and rail access to the Main Site new links are proposed within the Infrastructure Corridor. These works comprise:

- a new single lane, two-way road linking Ferry Road to the Main Site entrance;
- improvements to St. Andrew's Road;
- creation of a new junction to enable continued access to the cruise terminal;
- new junction to link the access road to Fort Road;
- new open span road bridge south of the Fort Road bridge;
- works to improve the geometry of the Asda roundabout junction;
- new pedestrian / cycle path on the southern side of the new road;
- new rail link aligned south of the existing LTS railway and north of the proposed link road
- rail sidings within the Main Site;
- associated road and rail crossings over watercourses, with diversions;
- mitigation measures including noise barriers, compensatory habitat and landscaping.

4.32 Lighting

External lighting is proposed associated with the RoRo terminal, CMAT terminal, jetty, infrastructure corridor, rail sidings, internal roadways and ancillary buildings. A Preliminary Lighting Strategy forming part of the submission targets a lighting level of 20 lux for the site as a whole, although parts of the development would be illuminated to a higher level. Lighting infrastructure would comprise 'high mast' columns (maximum 50m high) for the terminals and 12m high columns to illuminate the roads and jetty areas. Illumination of the road link is only proposed at road junction or potential conflict areas.

4.33 Operational Details

Both the RoRo and CMAT terminals are intended to operate on a 24-hour basis, 363 days per year. The RoRo terminal would have a maximum capacity of 500,000 units (trailers and containers) per year. The RoRo berth could accommodate two vessels per day, resulting in four daily movements and 1,452 vessel movements per year. The RoRo berth will be capable of accommodating vessels up to 200m in length. The CMAT would have a maximum capacity of 1,600,000 tonnes of aggregates per year resulting in a maximum 20 vessels per year (of a maximum length of 250m) using the CMAT berth. The ES estimates that 700,000 tonnes of material would leave the CMAT by rail and 750,000 tonnes by road. The ES also estimates that 150,000 tonnes of material would leave the CMAT by barge, resulting in 150 vessels visiting the CMAT berth (300 barge movements). In order to inform the assessment of impact, the ES assumes 28,500 tonnes of materials for the asphalt plant will arrive by river, 260,000 tonnes of asphalt will leave by road, 50,000 cubic metres of concrete will leave by road, 150,000 tonnes of construction blocks will leave by road and 150,000 tonnes of pre-cast concrete will leave by road. The proposals assume a maximum of five trains per day entering and leaving the site (CMAT and RoRo)

4.34 Public Rights of Way

The proposals include the partial stopping-up of footpath no. 144 in between a point north of the existing LTS railway and a point south the proposed infrastructure corridor. Temporary diversions and stopping-up of footpath no. 146 and byway no. 98 located on the Thames foreshore may also be required. The proposals include an 'Active Travel Strategy' to enhance walking and cycling links in the area.

5. Relevant Planning History

5.1 Asda Roundabout

The Asda roundabout junction was formed in the late 1960's, with the Thurrock Park Way arm added in the 1970's and Windrush Road, serving the Travis Perkins and Amazon sites added more recently. The following applications relevant to this part of the site:

Ref.	Description	Decision
74/00161/FUL	Development of land at Tilbury North for 30 acres of housing, 45 acres of warehousing and 53 acres of open space	Approved
10/50157/TTGOUT	Development of land comprising formation of new accesses to the A1089(T) and Dock Road, creation of internal estate roads, erections of buildings for storage and distribution (B8), general industry (B2) and offices (B1), provision of lorry parking, associated earthworks, car parking, public amenity areas, open space and landscaping	Approved
13/00405/CV	Application under Section 73 for a Minor Material Amendment in respect of conditions 6 and 16 of planning permission ref. 10/50157/TTGOUT	Approved
14/00487/CV	Application for the variation of conditions 5 (building heights) and 6 (arrangement of land uses) following grant of planning permission ref. 13/00405/CV	Approved
15/01483/FUL	Full planning application for development of southern part of London Distribution Park (approved under outline planning permission 14/00487/CV) for new sortation and fulfilment centre comprising warehouse and distribution building (B8) with ancillary offices and yard areas, security and amenity buildings, staff car park parking etc.	Approved

5.2 Infrastructure Corridor

The following applications are relevant to this part of the site:

Ref.	Description	Decision
62/00307/FUL	Industrial and ancillary buildings for the production of mechanised handling	Approved

	equipment and cranes	
66/00267/OUT	Access road, factory, offices and warehouse buildings	Approved
66/00759/OUT	Warehouse and industrial buildings	Approved
67/00152/FUL	Two warehouses	Approved
70/00822/OUT	Headquarters for Thurrock Sea Cadet Corps training centre	Refused
78/00883/FUL	Loose boxes for housing cattle during winter months and storage of cattle fodder	Approved
80/00944/FUL	Loose boxes for housing cattle during winter months and storage of cattle fodder	Approved
82/00037/FUL	Loose boxes for housing cattle during winter months and storage of cattle fodder. (renewal of THU/944/80).	Approved
83/00702/FUL	Loose boxes for housing cattle and storage of fodder.	Approved
85/00285/FUL	Retention of loose boxes and fodder sheds for housing cattle.	Approved
89/00663/FUL	Construction of shipping berths, foreshore reclamation, trailer park and associated works including buildings, roads and bridgeworks	Refused
89/00664/FUL	Construction of shipping berths, foreshore reclamation, trailer park and associated works including buildings, roads and bridgeworks	Refused
94/00217/OUT	Outline application for change of use and as an automobile terminal	Refused
96/00845/FUL	Development of land east of the Port of Tilbury for Class B2 and B8 uses	Approved
98/00895/REM	New public highway and associated infrastructure works (including cycleways, footpaths and riverside promenade link)	Withdrawn
00/00296/OUT	Outline application for development of land for industrial (B2) and warehouse (B8) uses including alignment of road	Approved
01/01165/TBC	Erection of two animal shelters	Approved
03/00853/REM	Surfacing, fencing and lighting to provide vehicle storage and loading facility including new highway access and portacabin office buildings	Approved
05/00233/RDG	15m high mast with antennae and microwave dishes	Approved
06/00208/RDG	Redevelopment of existing 15m high mast to accommodate additional antennae	Refused

06/00629/RDG	15m high mast with antennae and equipment cabins	Refused
07/00045/RDG	15m high mast with antennae and equipment cabins	Approved

5.3 Main Site

The following applications are relevant to this part of the site:

Ref.	Description	Decision
50/00299/FUL	Access road	Approved
54/00035/FUL	132 KV substation and 33 KV compound	Approved
68/00736/FUL	Temporary offices and stores	Approved
69/01026/FUL	Use of canteen as social club	Approved
76/00132/FUL	Stockpile area for lightweight granular aggregate	Approved
88/00158/FUL	Concrete roof tile plant	Refused
90/00192/FUL	Change of use for existing building to nature study centre	Approved
96/00006/GDO	Change of compound structures for Tilbury local sub station	Approved
06/00751/TTGFUL	Replacement of existing coal stockyard lighting towers with new lighting columns	Approved
08/00847/TTGFUL	Installation of a new perimeter security fence enclosing the inner areas of the site, lying either on or within the present site boundary. The installation includes: A new fence to Class 3 (approx. 3.6m high) around the main plant and a fence to BS 1722 Class 2 (approx. 3m high) around the ash disposal site vehicle compound. New perimeter lighting comprising columns approx. 8m high located approx. 2m inside the new fence and spaced at approx. 20m centres. CCTV and infra-red security lighting located on alternate columns Ground level electrical cabinets adjacent to each column.	Approved
12/00890/OUT	Outline application for works required on the Tilbury Power Station site (onshore application) to extend the lifetime by 12-15 years	Approved
13/00497/FUL	Recovery for beneficial use of pulverised fuel ash deposited on Tilbury Power Station ash disposal site areas A2, A3 and B	Approved
13/01204/CV	Variation of Condition 13 (Restriction of	Approved

	Lorry Movements) against approved planning application 13/00497/FUL	
14/01304/CV	Variation of condition 2 of planning permission ref 13/00497/FUL (permitted recovery for beneficial use of pulverised ash deposited on Tilbury Power Station ash disposal site areas A2, A3, and B). The variation sought relates to phasing to allow recovery of ash from ash field A2 while the remaining ash on ash field A3 dries out, then allow the further recovery of ash from A3	Withdrawn
16/00186/DMI	Demolition of Tilbury B power station and all associated buildings and structures (including remaining structures from Tilbury A power station). The Jetty will not be demolished	Prior Approval granted
16/00848/FUL	Retention of use of land for storage of new motor vehicles for a temporary 5 (five) year period and retrospective planning permission for the laying of hardcore, improvement of concrete hardstanding, re-grading of land and formation of swale to western boundary	Approved
16/01234/FUL	Erection of 2.9m high security fencing.	Approved
17/00560/FUL	Use of land for storage of new motor vehicles for a temporary 5 (five) year period, including the laying of an anchored ground reinforcement paver to parts of the site	Approved

5.4 Jetty

The following applications are relevant to this part of the site:

Ref.	Description	Decision
84/00378/FUL	Simporter ship coal unloader	Approved
02/01148/FUL	Extension of existing jetty and dredging of new berth pocket. Relocation of ship unloading equipment. Additional mooring installation. Temporary contractor laydown area	Approved
10/50259/TTGFUL	Works to enable operation of Tilbury B Power Station on Biomass fuel in place of coal, comprising: 1. Installation of 2 new vacuum ship unloaders on jetty. 2.	Approved

	Relocation of existing ship unloaders on jetty. 3. Extension and enclosure of existing conveyor junction tower on jetty. 4. New dust separator enclosure and connecting conveyors on jetty.	
12/00891/OUT	Outline application for works needed in or on the tidal Thames (offshore application) to extend Tilbury Power Station lifetime by 12-15 Years	Approved

6. Relevant Development Plan Policies

6.1 Context

Section 104(2) of the Planning Act 2008 states that in deciding the application for a DCO the Panel must have regard to any National Policy Statement (NPS) for the development to which the development relates, any Local Impact Report, any matters prescribed in relation to development of the description to which the application relates and any other matters considered important and relevant. The National Policy Statement for Ports (2012) is relevant and provides the policy framework for determining nationally significant port proposals and associated development. The UK Marine Policy Statement is also relevant in this case. The applicant's 'Planning Policy Compliance Statement' (ref. 6.2.1.A) considers the proposals against the policies and assessment criteria of both the NPS for Ports and the Marine Policy Statement.

6.2 The PINS advice note for the preparation of LIRs refers to the inclusion of relevant development plan policies, supplementary planning guidance, development briefs or approved master plans. The LIR should also include the local authority's appraisal of the proposed development's compliance with local policy and guidance.

6.3 Development Plan

The statutory development plan for Thurrock is the Core Strategy and Policies for the Management of Development, originally adopted by the Council in January 2011 and subsequently amended in 2015 following an examination of a focused review assessing consistency with the NPPF. The Core Strategy is accompanied by a Policies Map. These documents are available on-line at: <https://www.thurrock.gov.uk/current-development-plan>. The following extracts from the Core Strategy are relevant to the proposals.

6.4 Chapter 3 – The Future of Thurrock Council

Paragraphs 3.18 and 3.19 identify Tilbury as one of five Key Areas of Regeneration and Growth in the Borough and located within the 'Thurrock Urban Area' extending from Purfleet in the west to Tilbury / Chadwell in the east. This urban area alongside the regeneration areas are indicated diagrammatically on the Key Diagram for the 'Adopted Core Strategy'. Paragraphs 3.34 – 3.37 refer specifically to Tilbury and note that Tilbury is a:

'key location for employment in the Borough and will provide between 1,600 and 3,800 additional jobs in logistics, port and riverside industries' (paragraph 3.34).

On a strategic level it is considered that the proposals would comply with the Council's aspiration to increase employment opportunities in Tilbury.

6.5 Paragraph 3.36 states that (inter-alia):

'The land between Tilbury and the riverside will be enhanced and ... green linkage between the urban area and the river pursued. The landscape setting of Tilbury Fort and approaches to it will be enhanced.'

The applicant's proposed heads of terms for a s106 agreement with the Council (ref. 5.3) include reference to a fund to undertake feasibility work into enhancements at Tilbury Fort and improvements to linkages as part of an Active Travel Study. These measures address some of the issues identified by paragraph 3.36.

6.6 Table 3 – Strategic Spatial Objectives

This table lists a number of Objectives which are essential to achieve the spatial Vision for the Borough. Those identified objectives which specifically refer to Tilbury are:

SS02 – *'Increase prosperity and employment growth in Thurrock in the five strategic Economic Hubs of Purfleet, Lakeside/West Thurrock, Grays, Tilbury and London Gateway whilst seeking a sustainable balance between housing and jobs growth across the Borough supported by integration and phasing with existing and planned transport and community infrastructure'*; and

SS019 – *'To safeguard and enhance the Thurrock riverside and coastal land for its various roles as a key asset of the Borough: as a haven for wildlife, a cultural and heritage environment, providing for leisure and recreation at Grays and East Tilbury and for port – related activity at Tilbury, London Gateway and other locations. To provide land for flood risk management including new/relocated habitats across the Borough'*.

As above, the economic benefits of the proposals are considered compatible with the strategic objectives set out in SS02. SS019 identifies Tilbury as a located for port-related activity but also recognises the environmental and cultural roles performed by Thurrock riverside and coastal land.

6.7 Employment Policies
Spatial Policy – CSSP2: Sustainable Employment Growth

This policy states that the Council will:

'promote and support economic development in the Key Strategic Economic Hubs that seeks to expand upon their existing core sectors and / or provide opportunities in the growth sectors.'

The core sectors for the Tilbury key strategic economic hub are described as port logistics, transport and construction. Growth sectors are identified as business, services, environmental technologies, recycling and energy. The proposed land uses are considered to be consistent with the core sectors for Tilbury referred to by CSSP2.

6.8 Thematic Policy – CSTP17: Strategic Freight Movement and Access to Ports

This policy recognises that Thurrock is traditionally an area of port-related and freight activity and is generally supportive of sustainable, reliable and high quality access to the Borough's ports (including Tilbury) in order to support economic growth whilst minimising adverse impacts. In particular this policy states (inter-alia):

'The Council will support the logistics and port sectors, and the positive impacts of freight activity in Thurrock and beyond, by:

- 1. Facilitating a shift to rail freight and freight carried on the River Thames. This will be through:
 - I. Protecting inter-modal, rail and water-borne freight facilities from other development at locations where a demand exists or is expected to exist.*
 - II. Promoting the use of rail and water borne freight facilities by supporting the development of appropriate infrastructure.*
 - III. Supporting improvements to facilitate sustainable freight movements, including the rail hub at London Gateway, the South West Thurrock Railhead and improving access to the ports'.**

The proposals are considered to comply with the objectives of this thematic policy.

6.9 Thematic Policy – CSTP28: River Thames

The supporting text for this policy (paragraph 5.179) notes that this policy sets out the basis for assessing the suitability of riverside development proposals, and for improving accessibility and recreational activities along the Thurrock riverside, balanced against the need for environmental protection. The Council will work collaboratively with relevant stakeholder organisations and agencies to ensure the delivery of a balanced approach to the Thurrock riverside. Paragraph 5.182 goes on to states that whilst industry and the large tracts of industrial landscape should be safeguarded and promoted to support the regeneration of Thurrock riverside in the broadest sense, the river and its setting needs to be accessible and visible, capitalising on the landscape and environmental improvements that will be realised for the future through the policies in this Core Strategy.

6.10 The relevant extracts from this policy are:

- 1. The Council and Partners will ensure that the economic and commercial function of the river will continue to be promoted through:

 - i. Priority being given to allocating riverside development sites to uses that require access to the river frontage, especially those which promote use of the river for passenger transportation purposes.*
 - ii. Safeguarding port-related operational land.*
 - iii. Safeguarding additional adjacent land required for further port development, including expansion. For port development onto additional land to be acceptable however, it will be necessary to substantiate the need for it over and above land that is already available for operational port uses.*
 - iv. To safeguard existing and promote new jetties and wharves facilities where appropriate for transport of goods and materials.**

- II. New development will provide new or enhanced sustainable, safe and equitable access to and along the river foreshore, especially using natural and semi-natural corridors and other elements of the Greengrid.*

- IV. New development will also maintain or enhance views, particularly of key features including heritage and landscapes, and will improve recreational interaction with the river and its setting. Critical elements include:

 - i. The Thames Path through Thurrock, a designated National Trail.*
 - ii. National Cycle Network Route 13, which overlaps with the Thames Path through much of Thurrock.*
 - iii. Safeguarding of strategic and locally important views’.**

6.11 The proposals are considered to be compatible with (I.) above. The proposed Active Travel Study promotes enhancements to the pedestrian and cycle network locally, including the Thames Estuary Path in compliance with (2.). The issue of views is considered separately in this LIR.

6.12 Environmental Policies

A number of environmental policies within the Core Strategy apply to the proposals as follows.

6.13 Spatial Policy – CSSP4: Sustainable Green Belt

As detailed below elements of the application site are located on land designated within the Green Belt. This spatial policy sets out the Council’s policy objective of maintaining the purpose, function and character of the Green Belt.

6.14 Thematic Policy – CSTP19: Biodiversity

This policy highlights the broad range of biodiversity interests in Thurrock and encourages development to include measures to contribute positively to overall biodiversity in the borough. Part (I.) of the policy states that SSSIs, SPAs, Ramsar, Local Nature Reserves and Local Wildlife Sites will be safeguarded and enhanced

to mitigate the effect of past habitat loss and fragmentation, development and climate change. The proposals would result in the loss of a Local Wildlife Site which at a prima-facie level is contrary to this policy, albeit the proposals include on-site mitigation in the Landscape and Ecological Mitigation Plan (LEMP) and a off-site Ecological Mitigation and Compensation Plan (EMCP) is to be provided.

6.15 Thematic Policy – CSTP22: Thurrock Design

This policy emphasises the importance of high quality design Thurrock, which is of particular importance in the Key Strategic Employment Hubs. The applicant's Masterplanning Statement (ref. 6.2.5.A) refers (at chapter 5) to number of design parameters and options. These principally comprise the identification of the area and height parameters for the RoRo and CMAT. Although these parameters set the envelope of development for the purposes of environmental assessment, the Council considers that any DCO should include measures or mechanisms to ensure the detailed design quality of buildings, structures and relevant associated development.

6.16 Thematic Policy – CSTP24: Heritage Assets and the Historic Environment

The introduction to this policy identifies Tilbury Fort as a military coastal fortification of international significance. This policy sets out a general objective of protecting and enhancing heritage assets. Part (2.) of the policy requires all development proposals to appraise options and demonstrate that the final appraisal is the most appropriate for the heritage asset. Finally part (3.) sets the Council's priorities for heritage and enhancement including (II. (i.)) to:

'Ensure that the setting of Tilbury Fort, including views of it from the river, are appropriately protected and enhanced, and that encroachment on the open land around it is not permitted'.

It is considered that the development proposals will impact to a degree on the setting of the Fort and this factor should form an important factor in the consideration of the proposals.

6.17 Policies for the Management of Development

A number of detailed environment-based development management policies would ordinarily apply to the proposals (assuming that they were below the NSIP threshold and therefore subject to a conventional planning application) as follows:

- PMD1: Minimising pollution and impacts on amenity, health, safety, and the natural environment;
- PMD2: Design and layout;
- PMD3: Tall buildings;

- PMD4 Historic environment;
- PMD6: Development in the Green Belt;
- PMD7: Biodiversity, geological conservation and development;
- PMD10: Transport Assessments and Travel Plans;
- PMD11: Freight movement;
- PMD12: Sustainable buildings;
- PMD13: Decentralised, renewable and low carbon energy generation;
- PMD15: Flood Risk Assessment; and
- PMD16: Developer Contributions.

These ‘fine grain’ Development Management policies are not applicable to NSIPs and in any case the assessment principles and generic impacts within the NPS for ports will largely replicate the subject areas of these policies.

6.18 Development Plan Policy Designations

The proposals map designations for the various elements of the site are referred to below.

6.19 Asda Roundabout

This roundabout junction and adjacent road approaches is designated as Green Belt by the Core Strategy proposals map. Core Strategy Policy for the Management of Development PMD6 (Development in the Green Belt) is relevant. It is not considered that the development described by Work No. 11 and shown on the General Arrangement Plan (sheet 5 of 5) would cause any material conflict with Green Belt policies.

6.20 Infrastructure Corridor

Land south of the LTS railways line is for the most part allocated as comprising Primary Industrial and Commercial Area by the Proposals Map. However, land forming the western part of the Infrastructure Corridor and land between Fort Road public footpath no. 144 has no specific policy designation. For reference, the Adopted Interim Proposals Map accompanying the 2011 Core Strategy stated that land with no notation was intended to remain broadly in existing use. For that part of the Infrastructure Corridor allocated as forming part of a Primary Industrial and Commercial Area policies CSSP4 (described above) and CSTP6 (Strategic Employment Provision) apply. Thematic policy CSTP6 safeguards primary industrial and commercial land for employment purposes. It is not considered that the proposals conflict with this development plan allocation.

6.21 That part of the Infrastructure Corridor north of the LTS railway and east of Fort Road forms part of the Green Belt, where policies CSSP4 and PMD6 apply. PMD6 is the Council’s development management policy applying to all

development proposals in the Green Belt. The works shown on the General Arrangement Plan (sheet 2 of 5) would not appear to raise Green Belt policy implications.

- 6.22 The northern side of Fort Road is designated as a linear feature where thematic policy CSTP18 (Green Infrastructure) applies. This policy seeks to restore, protect, enhance and, where appropriate, create green assets. Green infrastructure assets are described as including road and railway corridors. As above, the Active Travel Study, if realised, could enhance footpath and cycle connections in the area in compliance with the policy.
- 6.23 Finally, the Proposals Map designates Fort Road, south of its junction with the Substation Road, as a road improvement scheme where Core Strategy policies CSTP14 (Transport in the Thurrock Urban Area) and CSTP15 (Transport in the Greater Thurrock Area) apply. Both of these thematic policies generally refer to encouraging more sustainable modes of transport, including via the delivery of walking and cycling routes. It is considered that the Active Travel Study could contribute towards the objectives of these policies.

6.24 Main Site

The central and southern parts of the Main Site have no specific policy designation. Land at the north-western part of the Main Site forms part of the 'Lytag Brownfield' Local Wildlife Site (LWS). The proposals would result in the loss of this non-statutory site, where thematic policies CSTP18 (Green Infrastructure) and CSTP19 (Biodiversity) apply. Policy for the Management of Development PMD7 (Biodiversity, Geological Conservation and Development) is also relevant and states inter-alia:

- '1. Development proposals will be required to demonstrate that any significant biodiversity habitat or geological interest of recognised local value is retained and enhanced on-site. Where it can be demonstrated that this is not possible, and there is no suitable alternative site available for the development, developers will be required to show that their proposals would mitigate any loss of biodiversity or geological interest. In circumstances where it can be demonstrated that neither retention on site nor mitigation is possible, developers will be required to provide appropriate compensation for any significant loss of biodiversity or geological interest, such that there is no overall net loss of biodiversity habitat or features of geological conservation interest in Thurrock. The Council will seek to achieve net gains in biodiversity where such gains would be possible, with particular reference to the desirability of re-creating priority habitats and the recovery of priority species.*
- 2. The Council will not permit development that would result in the loss, or partial loss, of a locally designated biodiversity or geological site, except in*

exceptional circumstances where it can be demonstrated that there is no alternative, subject to the sequential approach outlined in (1) above’.

- 6.25 As the proposals involve the loss of the LWS and potential a conflict with the sequential approach of avoidance, mitigation and compensation set out in PMD7 may apply.
- 6.26 The north-eastern part of the Main Site is allocated as Primary Industrial and Commercial Area by the Proposals Map and the proposals do not, in principle, raise a conflict with relevant development plan policies for employment.
- 6.27 At the extreme north-east corner of the Main Site sections of the proposed rail siding and a small area of the CMAT would be sited on land designated as Green Belt extending to c.1.3Ha in area. The General Arrangement Plans (sheet 2 of 5) indicate that this area of the CMAT would be utilised as aggregates storage yard and this element of the proposals could be considered, on a prima-facie level, to be contrary to Policies CSSP4 and PMD6. Paragraph 90 of the NPPF states that local transport infrastructure which can demonstrate a requirement for a Green Belt location is not inappropriate in a Green Belt provided it preserves the openness of the Green Belt and does not conflict with the purposes of including land in Green Belt. Extracts from the applicant’s Masterplanning Statement (ref. 6.2.5.A) and Planning Policy Compliance Statement (ref. 6.2.1.A) refer to the engineering requirements influencing the alignment of the railway line and it is accepted that the incursion into the Green Belt is unavoidable. It is considered that the railway line would preserve the openness of the Green Belt and would not conflict materially with the purposes of including land in a Green Belt. The applicant cites a number of factors promoted as very special circumstances supporting the area of CMAT within the Green Belt. It is considered that the factors set out at paragraph 4.158 of the Planning Policy Compliance Statement (ref. 6.2.1.A) clearly outweigh the harm to the Green Belt.
- 6.28 Other Relevant Local Planning Guidance

Tilbury Development Framework (October 2017)

In October 2017 the Council’s Cabinet approved the ‘Tilbury Development Framework’. The purpose of this document is described as to stimulate positive outcomes, facilitate and ultimately coordinate on-going regeneration and the associated intermediate interventions in Tilbury for creating a better living and working environment. The Framework identified the following strategic objectives:

- integrate projects to deliver place;
- enhance public realm;
- facilitate employment and skills;
- improve access and movement; and

- balance development and environment.

However, the Framework notes that it is not intended to constitute part of the statutory Development Plan for Thurrock, and will not be formally adopted as a Supplementary Planning Document (SPD). Nevertheless, the Framework reflects a number of the Development Plan policy objectives referred to above in balancing the support of economic growth with environmental issues, whilst enhancing public realm and the sense of place.

6.29 Thurrock Design Guide – Design Strategy SPD (2017)

This strategy was the subject to consultation in 2016 and was adopted as a supplementary planning document in 2017. It is a material consideration in the determination of planning applications and provides detailed guidance on the application of Core Strategy policies, in particular policy PMD2 (Design and Layout). The SPD is consistent with the design principles expressed in the NPPF (Section 2) and emphasises the crucial importance of good design in the creation of place. Section 4 of the document sets out a number of key design requirements for commercial and industrial typologies including:

- tree planting and a strong landscape framework;
- convenient pedestrian and cycle linkages;
- well defined corners fronting the public realm; and
- opportunities for SUDS.

7. Consideration of Local Impacts

7.1 The submitted ES and supporting documentation sets out a wide ranging assessment of the development proposal, its impacts and proposed mitigation measures. Thurrock Council accepts that the chapters of the ES address the range of issues that are of a local concern to the authority. The following section sets out the Council's view of the local impacts of the development.

7.2 Consideration of mitigation measures which could address the negative impacts identified in the relevant sections are also addressed.

7.3 Socio-economics

7.3.1 This topic is considered by chapter 7 of the ES and by the Equalities Impact Assessment (ref. 6.6).

7.3.2 During the construction phase of the development TC agrees that the likely significant socio-economic impacts will be associated with employment, local skills and training, impacts associated with the Gross Value Added and the impacts on Tilbury Fort as a tourism receptor. Table 7.17 of the ES notes that, at 2.5% of residents aged 16-64, the Job Seeker's Allowance claimant count for Tilbury Town (March 2017) is higher than the average for Thurrock, Essex and England. 2011 Census data expressed in table 7.13 of the ES confirms that Tilbury Town has lower levels of economic activity than the Thurrock and Essex average. In addition, this table details the significantly higher long-term unemployment rate for Tilbury Town compared to Thurrock as a whole and Essex.

7.3.3 Table 7.19 of the ES predicts that a maximum of 266 full-time equivalent would be created during the construction phase, including up to 57 'local' jobs. The generation of employment during construction is supported by TC as a direct, positive and temporary impact of moderate significance. TC is supportive of the intention of the applicant to enter into a s106 agreement in order to secure promotion and implementation of an Employment and Skills Strategy during construction and operation of the development. The draft Strategy includes commitments by the applicant to employ additional employees from the local area during the construction phase.

7.3.4 During construction of the development the ES refers to the potential for approximately £18.3 million Gross Value Added to the regional economy and approximately £22.4 million Gross Value Added to the national economy. TC considers these construction phase impacts to be positive and of moderate significance.

7.3.5 Tilbury Fort to the west of the Main Site is a tourism destination and this function of the Fort is considered by the ES under the heading of socio-economic impacts. Construction activities on the Main Site and the Infrastructure Corridor to the north

of the Fort have the potential to impact upon this tourism and despite the presence of some screening on the Main Site, construction activities would partly impact on easterly views from the Fort. TC agrees with the ES assessment of negative, temporary impacts of minor significance on tourism receptors.

7.3.6 TC considers that, during operation, the development will result in clear benefits to the economy of Thurrock and the wider region. Most importantly, the potential for the development to generate up to 527 net additional jobs for the region and up to 868 net additional jobs nation-wide is considered to be a positive impact. The ES identifies the potential for up to 138 new 'local' jobs and the Employment and Skills Strategy, to be secured by the s106 agreement, will include measures to maximise the potential for local people to access employment opportunities. This positive impact of the proposals is strongly supported by the TC.

7.3.7 The ES also identifies a number of positive impacts on socio-economic characteristics, albeit of minor or negligible significance. These positive impacts comprise:

- demographics (working age population);
- qualifications and employment sectors;
- increased economic activity and reduction in job seekers;
- increase in average wages;
- deprivation and social grade;
- stimulus to housing supply; and
- potential reduction in crime through increased economic activity.

7.3.8 All of the above contribute as positive socio-economic factors weighing in favour of the proposals.

7.3.9 Tilbury Fort has been assessed in the ES as a tourism / business receptor, as well as being considered separately as a heritage asset and as part of the landscape and visual impact assessment. TC agrees with the conclusions of the ES that the operation of the proposed development could result in some minor negative impacts on the Fort as a tourist business. However, these impacts are considered to be of a lesser significance compared to the moderate positive socio-economic impacts associated with economic activity and new job creation.

7.4 **Health**

7.4.1 Chapter 8 of the ES considers the likely health impacts of the proposals on the local population during construction and operation. In a consultation response to PINS responding to the applicant's request for an EIA Scoping Opinion, TC's Public Health Team requested the submission of a Health Impact Assessment to accompany the DCO application. The Scoping Opinion issued by the SoS in May 2017 noted that the Applicant intended to provide a Health and Wellbeing

Assessment as part of the ES. The SoS advised that the applicant should have regard to the responses received from the relevant consultees regarding health, and in particular to the comments from the Public Health England and Thurrock Borough Council.

- 7.4.2 In response to chapter 8 of the ES, TC Public Health confirm that the methodology selected appears sound and its scope covers everything expected in relation to Human Health. Nevertheless, there are some concerns regarding the level of granularity of the ES assessment in terms of the specific community of Tilbury that will be most affected by the proposals. It is further noted that a number of health impacts are assessed as direct, negative and permanent during operation of the development, although some of these impacts are rated as resulting in 'negligible' or 'minor' health impacts. Nevertheless, because of the health inequalities particular to residents living in Tilbury, small changes in the environment could potentially have further additional detrimental impacts on health outcomes for local residents.
- 7.4.3 TC's Public Health's preference, given the size and nature of the development and its proximity to a population that experiences health inequalities, would be for the submission of a health impact assessment in its own right. Such an assessment could enable a better understanding of the overall health impacts. Nevertheless, as noted above, the ES Chapter 8 methodology and scope is considered to be sound.
- 7.4.4 Whilst the scope of the assessment is considered to be correct, ward level data could be drawn upon in making the assessment as some of the tables of data included within the ES do not include this level of detail. For example:
- 7.4.5 Table 8.4 (page 8-17 - Average Life Expectancy at birth taken from Local Health data 2017) could include reference to -
- Life expectancy for males in Tilbury Riverside & Thurrock Park Ward (75 years) and Tilbury St. Chads Ward (76.3 years) - lower than the Thurrock (79.1 years,) and national (79.4 years) averages,
 - Life expectancy for females in Tilbury Riverside & Thurrock Park Ward (79 years) and Tilbury St. Chads (80 years) - lower than the Thurrock (82.5 years) and national (83.1 years) averages.
- 7.4.6 Table 8.5 (page 8-18 - Incidence of disease under 75 mortality rate – cardiovascular, cancer and diabetes taken from Local Health Data, 2017) could include reference to -
- Premature mortality rates for conditions for deaths from all causes- the Standardised Mortality Ratio (SMR) for under 75's is 145.4 in Tilbury Riverside & Thurrock Park Ward and 148.7 in Tilbury St. Chads Ward - higher than both the Thurrock (103) and England (100) averages,

- Deaths and early deaths that could largely be prevented – circulatory disease (all ages) and respiratory disease deaths are higher than the Thurrock and national averages in both wards that comprise Tilbury,
- In Tilbury St. Chads ward premature deaths from Coronary Heart Disease (CHD) for all ages (223.2 SMR) are higher than the Thurrock (114.9) and National (100) averages,
- In Tilbury Riverside & Thurrock Park ward premature deaths from CHD (all ages) measured by SMR is 150 - higher than the national (100) average,
- Premature deaths from cancer across all ages measured by SMR is 130.9 - higher than the national (100) average,
- Deaths or early deaths from stroke are higher than the National (100) average in Tilbury Riverside & Thurrock Park Ward (173.1 SMR).

7.4.7 Table 8.7 (page 8-20 - Percentage of obese children and excess weight in adults, taken from Local Health Data, 2017) could include reference to -

- Childhood obesity –13% of 4-5 year olds in Tilbury - higher than the national average (9.3%). Of 10-11 year olds 26.2% children in Tilbury are obese - higher than the national (19.3%) average.

7.4.8 Statistics from Local Health data, 2017 for Tilbury, although not forming part of the ES, could nevertheless be useful in the assessment of health impacts as follows:

- Poverty - 38.6% (Tilbury St. Chads Ward) and 40.2% (Tilbury Riverside & Thurrock Park Ward) of children are living in poverty - higher than the Thurrock (21.8%) and national averages (19.9%),
- Deprivation - Tilbury Riverside & Thurrock Park Ward (36.6) and Tilbury St. Chads Ward (40.1) have a higher IMD score than Thurrock (21.6) and the national (21.8) averages,
- Limiting long term illness/disability –18.4% of people in Tilbury St. Chads Ward are living with a long-term condition - higher than the national average (17.6%),
- Hospital admissions for Coronary Obstructive Pulmonary Disease (COPD) - the Standardised Admission Ratio (SAR) is significantly higher for Tilbury (209) than the Thurrock (118.6) and national (100) averages,
- Incidence of lung cancer - the Standardised Incidence Ratio (SIR) in both Tilbury wards is 122.9,
- Social Isolation (based on number of pensioners living alone) – the percentage of people living in Tilbury Riverside & Thurrock Park living in social isolation is higher than the Thurrock (31.9%) and National (31.5%) averages.

7.4.9 The statistics above suggest that existing Tilbury residents are more likely to be living in poverty and deprivation and are more likely to die at a younger age from conditions that could be addressed by improved environmental conditions. There are higher proportions of older people living alone, leaving them at risk of social

isolation. Additionally, childhood obesity is a key health priority in this area. Although, as noted above, the methodology used in the ES is considered sound, the ward level data referred to above may be of assistance in describing the particular characteristics of Tilbury.

7.4.10 Noise and Vibration

The ES assessment that daytime construction noise is likely to have a health impact on local residents, particularly those living in close proximity to the proposed development, is noted. Paragraph 8.75 of the ES notes that *'there are likely to be health impacts related to the operation of the Tilbury2 site'*. Although these increases are not judged to have a significant health impact on local residents, it is notable that residents in Tilbury close to the site may already experience health inequalities (described above), such that even small changes to the noise levels may impact or further impact on health. On-Shore Power should be implemented as a means of strengthening the mitigation around the potential impacts on noise, albeit PoTLL have explained in submissions to the Examination that whilst they can future proof the proposal to allow for Shore Power, the current vessel fleet is not equipped to operate shore power nor is there grid capacity.

7.4.11 Lighting

The proposed mitigation measures included in the ES in relation to lighting are considered sufficient to reduce some of the impacts of lighting in relation to the proposed development.

7.4.12 Air Quality

The mitigation measures included in the Operation Management Plan and ES (chapter on Air Quality) are considered sufficient in reducing some of the impacts of air quality. The use of cleaner, greener technology and vehicles to further reduce the impacts relating to increased traffic into/out of the site is encouraged as is the use of On-Shore power as a means of strengthening the mitigation of potential impacts on air quality. It is noted that the Operational Management Plan indicates that where vehicles are under its control – including the various mobile plant and equipment that are likely to be used on the RoRo terminal and the CMAT operations, PoTLL will ensure these all meet the latest EU emission standard requirements (Euro VI) for low emission engines.

7.4.13 Transport, Traffic and Connectivity

The contribution, via the Active Travel Study, towards developing walking/cycling infrastructure that promotes active travel for employees and other visitors to the site is noted. This would be beneficial in not only reducing impacts on air quality but also in promoting physical activity. Linking new infrastructure to existing walking/cycle pathways, would further encourage local residents to participate in

physical activity and may promote social cohesion which is beneficial for mental health and wellbeing.

7.4.14 Neighbourhood Quality (including Visual Amenity)

The adverse impacts on neighbourhood quality and visual amenity (see LVIA) are noted and further mitigation measures centred on visual amenity could be explored.

7.4.15 Open Space and Active Travel incorporating Physical Activity

It is considered that the mitigation measures included in the ES are sufficient for supporting people to participate in active travel. The main area where mitigation measures require clarification relates to public access to the riverfront. The ES and associated documents include information around developing links between existing and new walking and cycling infrastructure, which is beneficial for health by creating links to other local communities and providing opportunities for physical activity. However, in order to encourage use, the infrastructure needs to be visually appealing, feel safe at all times and be accessible for all. The draft Active Travel Study, to be secured via a s106 agreement, should in particular provide walking and cycling infrastructure along the River Thames riverfront which exploits the riverside location and provides a space for users to enjoy views in order to maximise health benefits.

7.4.16 Direct Employment and Other Economic Impacts; Education and Training Opportunities

The Employment and Skills Strategy, to be secured by s106 legal agreement, is supported in terms of meeting local employment need in recognition of the employment opportunities that would be created by the proposed development at both construction and operational stages.

7.5 Landscape character and visual amenity

7.5.1 As noted by the Councils' relevant representation, it is considered that the landscape and visual impact assessment has been undertaken using appropriate methodology. Since the submission of the Council's relevant representation the applicant has produced an additional visibility cross-section drawing to the site from West Tilbury. This submission addresses the previous comment that an additional viewpoint from the public right of way south of West Tilbury should be provided. The visibility modelling was used as it was clear that views from key receptors were limited due to the existing topography and vegetation.

7.5.2 Chapter 9 of the ES contains a thorough analysis of predicted landscape and visual impacts during the construction and operation of the development. In particular, tables 9.16 and 9.17 summarise the predicted impacts on visual

receptors immediately following the completion of construction and at a point in time 25 years following completion. In addition, table 9.19 shows predicted residual impacts on visual amenity with the adoption of further mitigation measures, described by table 9.18. TC notes that 'substantial – moderate significance' adverse visual effects are modelled for residential receptors at Tilbury (south) and similar 'substantial – moderate significance' adverse effects for users of footpath no. 146 and the permissive path adjacent to Tilbury Fort (representative viewpoints 17 and 28).

- 7.5.3 The residual visual effects on users of the recreation / tourist facilities at Tilbury Fort (representative viewpoints 27, 59 and 62) modelled in table 9.19 as of 'moderate to slight significance' adverse. Although the significance of visual impact on these receptors is predicted to be 'moderate to slight' it is nevertheless an adverse visual effect on a recreation / tourist facility. TC's relevant representation highlighted the potential visual impacts of the development, including berthed vessels at the extended jetty, on the visual amenity of visitors to the Fort. The ES correctly predicts an adverse impact and it will be a matter for the Examining Authority to weigh this matter in the balance of considerations.
- 7.5.4 TC's relevant representation also referred to the potential adverse impact of new lighting along the infrastructure corridor and its relationship to Tilbury Fort. It is noted that the Preliminary Lighting Strategy and Assessment (ref. 6.2 9.J) and Indicative External Lighting Layout drawings suggest that road lighting will be absent from the proposals aside from the new St. Andrew's Road and Fort Road junctions. Nevertheless, as noted by the ES (para. 9.249) the effects of proposed artificial lighting on local visual amenity would be 'adverse'. However, as the site lies close to the waste water treatment works and Tilbury Docks complex which are characterised by artificial lighting for operational reasons, the significance of this adverse visual impact would be reduced.
- 7.5.5 With reference to landscape and visual mitigation, table 9.15 of the ES refers to a 'Landscape Strategy' (ref. Figure 9.9) which would be maintained and managed through the proposed Landscape and Ecological Management Plan (ref. 6.2 10.P). TC's relevant representation suggested that a more robust landscape mitigation package could be provided, which could also assist in providing additional ecological mitigation. At the time of drafting this LIR potential further landscape mitigation proposals are under discussion between TC and the applicant. These measures could include a fund to enable off-site landscape mitigation measures to be implemented. It is noted that the draft DCO (ref. 3.1) includes the Landscape and Ecology Management Plan as a 'compliance' influencing the construction and operation of the development.

7.6 **Terrestrial Ecology**

- 7.6.1 The draft SOCG confirms TC's agreement that the ecological value of the site is understood and that the ES contains an appropriate body of survey data to enable an assessment of the impacts of the proposals on terrestrial ecology.
- 7.6.2 In summary, the surveys within the ES conclude that the site currently supports a range of important habitats, plants and animals. Habitats within the non-statutory Lytag Brownfield and Tilbury Centre Local Wildlife Sites (LoWS), located within the Main Site and mapped within document ref. 10.B, support biodiversity resources up to National levels of importance. In addition, a number of rare and important plants, lichens and invertebrates have been recorded on-site, as well as protected and other notable species.
- 7.6.3 Potential impacts on terrestrial ecology are addressed from paragraph 10.328 of the ES.
- 7.6.4 Statutory Nature Conservation Designations:

With regard to the impact of the proposals on statutory nature conservation designations, Table 10.46 of the ES lists several nearby Thurrock SSSIs (Lion Pit, Grays Thurrock Chalk Pit, Hangman's Wood & Deneholes and Globe Pit as 'scoped out' of further assessment on the basis that there would be no potential impact vector. TC agrees with this conclusion.

- 7.6.5 The Thames Estuary and Marshes SPA / Ramsar site is located on the northern side of the River Thames within Thurrock and some 2.4km to the east of the Main Site. A Habitat Regulations Assessment Report (ref. 6.2 10.O) considers whether the proposals would have any likely significant effects on this statutory designation with reference to (inter-alia) habitat loss, air quality and disturbance from shipping, noise, lighting or human activity. The conclusions of the HRA report that the development will not have any likely significant impacts on features of qualifying interest, are noted.
- 7.6.6 Non-Statutory Nature Conservation Designations

The ES confirms that the construction of the development on the Main Site will result in the almost complete removal of existing habitats. The Tilbury Centre LoWS extending to 2.6 hectares in area would be lost to development along with 11.7 hectares of the Lytag Brownfield LoWS (leaving a 0.7 hectare area retained). The construction of rail and road infrastructure within the Infrastructure Corridor would also result in the loss of part of the Tilbury Marshes LoWS. An area of 2.5 hectares from the total Tilbury Marshes LoWS designation of 39.8 hectares would be lost. The loss and partial loss of these LoWS is considered to be a negative impact. In particular, the Lytag Brownfield and Tilbury Centre LoWS support important biodiversity resources. Paragraph 10.342 of the ES notes that these two LoWS are arguably of National and Regional value respectively for their

invertebrate, lichen and plant assemblages and that unmitigated losses of these two LoWS would be a significant adverse impact.

7.6.7 During the operation of the development the effects on air quality and the impacts of overspill lighting from the infrastructure corridor on the remainder of the Tilbury Marshes LoWS are assessed. The ES concludes that no significant impacts would occur and TC concurs with this assessment. The operational impact of the development on the adjoining non-statutory nature conservation designation is therefore neutral.

7.6.8 Protected Species

The ecological surveys forming appendices to the ES and summarised within the ES itself reveal the presence of water voles, badgers, bats, reptiles and nesting birds. TC is pleased to note that measures to avoid, mitigate and compensate impacts on these ecological receptors are described in the Construction Environmental Management Plan and the Landscape and Ecological Management Plan.

7.6.9 TC has not yet been provided with any details of the proposed off-site compensation site; although it is understood that the process of securing a site is well-advanced. It is further understood that the site currently being considered is within the Borough which is welcomed. However, until details of this site are provided and its suitability is assessed it is not possible to determine whether the sum of the on-site mitigation and off-site compensation measures will result in no net loss of biodiversity in the longer term.

7.6.10 TC notes the intention to capture and relocate water voles to new habitat on land north-east of the CMAT and to create an artificial badger sett in this location. The applicant recognises the need to ensure that the new receptors are suitable prior to construction commencing and TC welcomes plans to commence constructing the new mitigation features this year. The residual impact of the proposals on water voles is assessed in the ES as neutral and TC agrees with this conclusion. As there would be some loss of badger foraging habitat TC agrees with the conclusions of the ES that the impact of the proposals on the badger population is a neutral to minor negative impact, but only of local-level significance.

7.6.11 The ES notes that the loss of the bat roost (Building B7) would be compensated by the provision of bat boxes. TC agrees that the loss of this roost population is a neutral to minor negative impact, but only of local-level significance.

7.6.12 Reptile populations (common lizard, slow worm, grass snake and adder) on the site will need to be trapped and translocated to on-site and off-site receptor habitats. The ES concedes that land to the north-east of the CMAT will not have capacity to accommodate all of the potential reptile specimens and the Ecological Mitigation and Compensation Plan (EMCP) will need to fully detail the location,

current condition, proposed enhancements and management arrangements for off-site habitats. TC agrees with the analysis of the ES that the impacts on reptiles is likely to be net negative and significant at Borough / District level without comprehensive off-site mitigation that will be brought forward in the EMCP.

7.6.13 Section 41 Habitats

The construction of the development would, if unmitigated, have a significant adverse impact on the priority open mosaic habitat on previously developed land. The proposals therefore rely on avoiding a net loss of biodiversity through the creation of compensatory habitat. The applicant commits to the production of the EMCP during the examination and it is understood that the applicant is currently in negotiation with relevant interests prior to the completion and submission of the document. The EMCP will be an important document in mitigating the impacts of the proposals on terrestrial ecology. The ES (paragraph 10.318) notes an expectation that the EMCP will form an enforceable part of any DCO and TC notes that off-site ecological mitigation is referred to at Schedule 2, Part 1(5) of the draft DCO. TC looks forward to receiving and assessing the draft EMCP as soon as it becomes available.

7.7 Terrestrial Archaeology and Built Heritage

7.7.1 The summary of main issues and impacts within TC's Relevant Representation identified this item as an important consideration. This Representation also included a summary of the then current position from the main TC service areas, including the Historic Environment Advisor at Essex County Council who advise TC under a service level agreement. Since the submission of the Relevant Representation TC have been progressing a Statement of Common Ground with POTLL, which includes reference to terrestrial archaeology and built heritage. In line with PINS guidance for the content of LIR's this document is a statement of potential impacts and not a balancing exercise between harm and benefit. However, reference is made to TC's accompanying Written Representation which sets out a formal view on the application having balanced benefit and harm.

7.7.2 Terrestrial Archaeology

TC agrees that the study area, the methodology and the baseline environment used to assess the impacts on terrestrial archaeology as set out in chapter 12 of the ES are appropriate and adequate. Potential impacts on terrestrial archaeology are limited to the construction phase of the development. Paragraph 12.155 of the ES correctly states that piling, ground improvement works and the installation of services and drainage infrastructure could have a direct and indirect adverse effect on potential archaeological remains within buried peat deposits. However, assessed against Historic England guidance, the ES predicts that the worst-case impact of piling and ground improvement works will be within or close to the acceptable zone of disturbance.

7.7.3 The proposals refer to embedded mitigation measures to address impacts on terrestrial archaeology, comprising the Construction Environment Management Plan (ref. 6.9) and the Written Scheme of Investigation (WSI) for Terrestrial Archaeological Mitigation (ES appendix 12.D). The WSI is further referred to as potential further mitigation by the ES (paras.12.217 – 12.222 and Tables 12.15 (a) and (b)). TC agree that these measures are adequate to minimise impacts on terrestrial archaeology during construction and operation of the proposed development. Consequently, the residual impact of the development is assessed as ‘neutral’ and TC agrees with this conclusion. In order to secure the proposed mitigation measures, TC notes that Schedule 2, Part 1 (4) and (6) of the draft DCO establish the status of the CEMP and Terrestrial Archaeology WSI as ‘compliance’ documents influencing how development would be carried out.

7.7.4 Built Heritage Background

7.7.5 The ES adopts a 2km study area around the site in order to assess potential impact on built heritage. TC agrees the extent of this study and also supports the inclusion within the assessment two further Scheduled Monuments (Coalhouse Fort and Cliffe Fort) which are beyond the 2km study area. It is notable that a substantial number of the designated built heritage assets within the study area are located south of the River Thames within Gravesend and immediately adjoining areas. TC will not comment on the potential impacts of the proposals on these particular heritage assets.

7.7.6 TC agrees that the methodology and approach set out within the ES and Built Heritage Assessment (ref. 6.2.12.B) to assessing the significance and settings of the designated built heritage assets, and the potential impacts of the proposals upon their significance, is appropriate. Accordingly the ‘Very High (International) sensitivity / value of both Tilbury Fort (Scheduled Monument) in particular and Coalhouse Fort (although outside of the 2km study area) is recognised. Similar the ‘High’ sensitivity of the Grade II* listed Officers Barracks at Tilbury Fort, the Grade II* listed Tilbury Riverside Station and the Grade II listed World’s End Inn are clearly identified in the assessment. These designated heritage assets are included within Table 12.9 of the ES which refers to assets that have the potential to experience significant effects (para. 12.109).

7.7.7 Potential Impacts – Construction

There are no designated or non-designated built heritage assets within the draft Tilbury2 Order Limits. Within Thurrock, the closest designated asset to the site is Tilbury Fort. The map showing the extent of the Tilbury Fort Scheduled Monument designation includes the moats, ramparts and adjoining land to the north, east and west of the main fortifications and batteries. Such that the closest part of the designation is located approximately 190m to the west of the Main Site, although

the majority of the Scheduled Monument designation is a minimum of c.250m to the west of the Main Site. As the designation includes part of the River Thames foreshore on the seaward side of the tidal defence, the proposed upstream RoRo berth would be located c.70m from the Scheduled Monument designation.

- 7.7.8 During the construction phase of the development impacts from associated noise, dust, vibration, traffic and lighting could impact on Tilbury Fort in addition to potential visual impact which could affect setting. The ES notes that construction of the taller elements on the Main Site will be 'visibly prominent' (para. 12.178) and will add to the industrial character surrounding the Fort thereby affecting its setting. The construction of the new and extended jetties, although lower structures, would also be clearly visible from the Fort. Embedded measures within the CEMP and CTMP are likely to mitigate the impacts from noise, dust, vibration and traffic. Nevertheless, although the construction phase is temporary and accounting for embedded mitigation, there would still be an impact on Tilbury Fort arising from construction activity and an industrial character affecting the setting of the Fort. The significance of this impact is assessed as 'Moderate to Major Adverse' by Table 12.12 of the ES.
- 7.7.9 The Grade II* listed Officer Barracks is sited within Tilbury Fort and behind the earthworks and ramparts, which afford some screening between the heritage asset and the Main Site. Nevertheless, construction of the taller elements on the Main Site would be visible and would affect the setting of the listed building. As above, embedded mitigation will address some of the impacts during the construction phase. However, the visual effects on the setting of this asset are assessed as of 'Moderate to Major Adverse' significance.
- 7.7.10 The Tilbury Riverside Station, also Grade II* listed, is located c.900m to the west of the proposed extended RoRo terminal and its existing setting is influenced partly (to the west, north and north-east) by the industrial context of Tilbury Port. Nevertheless, the open views from the asset downstream along the River Thames towards the site result in some visual impact upon its setting. The significance of this effect is described as 'Minor to Moderate Adverse' by Table 12.12 of the ES. Similar 'Minor to Moderate Adverse' significance impacts are predicted for the setting of the World's End Inn.
- 7.7.11 Coalhouse Fort Scheduled Monument is c.2.9km east of the Main Site and any impacts on this asset during construction will be limited to long-distance views of the taller elements on the Main Site. The significance of this construction impact on Coalhouse Fort is assessed as 'Neutral to Minor Adverse'.
- 7.7.12 TC concurs with the 'headline' conclusions of the ES in identifying a range of adverse impacts on designated heritage assets in Thurrock during the construction phase.
- 7.7.13 Potential Impacts – Operation

Paragraph 12.190 of the ES notes that the operational phase of the development is likely to have potential permanent, direct impacts of the setting of built heritage assets surrounding the site. TC agrees with this summary.

- 7.7.14 Tilbury Fort: this asset has a 'very high' sensitivity. The existing industrial character of POTLL found to the west of the Fort would be extended to the east onto the site of the former Tilbury Power Station. The operation of the development will therefore affect the setting of the asset through the visual impacts of new buildings, structures, lighting, principally located on the Main Site as well as the visual impact of berthed vessels. The Built Heritage Assessment (ref. 6.2.12.B) and paragraphs 12.191 to 12.205 of the ES provide a thorough analysis of the potential operational impacts on Tilbury Fort and there is no need for this report to repeat this analysis. The significance of operational impact on this scheduled monument is assessed as 'Moderate to Major Adverse' and TC agrees that there would be adverse impact on setting to this level of significance.
- 7.7.15 Officers Barracks: the partial screening effect of the Fort's ramparts (noted above) has some effect in limiting inter-visibility between this heritage asset and the Main Site as seen from the Parade Ground inside the Fort. Views from elevated positions on the western Fort ramparts frame the Barracks in the background context of the Main Site and the existing waste water treatment works. The applicant's assessment of an adverse impact on the setting of this asset of 'Moderate' significance is not disputed.
- 7.7.16 Riverside Station / World's End Inn / Coalhouse Fort: the ES identifies adverse impacts on the setting of these heritage assets of 'Minor Adverse' significance. TC agrees with the conclusion of adverse impact on these assets.

7.7.17 Potential Further Mitigation

Measures for the further mitigation of impacts on built heritage, beyond the embedded mitigation measures are described by paragraphs 12.230 to 12.236 of the ES.

- 7.7.18 The retention of existing mature pine trees along the western boundary of the Main Site will be of some benefit in screening the lowest elements of the development. However, this landscaping cannot provide effective screening of the taller elements of the development. It is acknowledged that the Landscape and Ecological Management Plan could secure the retention of trees and compliance with this Plan could be a requirement of the DCO.
- 7.7.19 TC also note that the external appearance of buildings could also be a requirement of the DCO and that colours of finishing materials could to a degree reduce visual impact. TC notes that this potential requirement could not apply to areas of container storage or the aggregates storage yard.

- 7.7.20 The potential DCO requirement for the submission and approval of a lighting strategy for the site is noted and TC acknowledges the benefits of modern, well designed and efficient external lighting systems. Nevertheless, for operational reasons there will be a need for a number of tall lighting columns which will impact to a degree on the setting of heritage assets.
- 7.7.21 Paragraph 12.235 of the ES refers to potential enhancements to Tilbury Fort in the form of improvements to access, wayfinding and car parking. These potential enhancements could be secured via a s.106 agreement between POTLL and TC, the heads of terms of which are set out in document reference 5.3. The heads of terms are in draft form and are still to be agreed between the parties but nevertheless include a financial contribution to be used partly for the investigation and implementation of tourism and heritage enhancements at the Fort. The draft heads of terms also refer to potential improvements to the highway network outside of the Order Limits via an Active Travel Study. The draft travel improvements identified by the Study include improvements to walking and cycling links in the area in order to better connect Tilbury Fort and the riverfront with Tilbury town and the Tilbury ferry terminal. In principle TC supports these measures which could enhance the Fort as a tourism destination and better connect the Fort.
- 7.7.22 Nevertheless, table 12.16 of the ES, which identifies residual impacts on built heritage assets, ascribes an 'Moderate Adverse' impact on both Tilbury Fort and the Officers Barracks and 'Minor Adverse' impacts on the remaining Thurrock heritage assets described above. Therefore, with all of the embedded and additional mitigation measures there is still adverse impact on built heritage assets and particularly on Tilbury Fort and the Officers Barracks. The Written Representation to be submitted by TC will weigh this adverse impact in the balance of considerations.

7.8 **Land side transport**

7.8.1 **Main Access Routing and Traffic Impact – Summary**

The proposed development will see a significant increase in traffic movement on the A1089 and A13 (strategic road network (SRN)), which will place increased pressure on the local road network as a result. This increased pressure will be particularly focused around the main access junction between the A1089 Dock Approach Road and Dock Road Tilbury (the Asda roundabout).

- 7.8.2 The SRN comprises the A1089 and that part of St. Andrew's Road south of the Asda roundabout and extending to the existing entrance to Tilbury Docks. This is an asset of Highways England and the suitability of increased use of these roads falls within the remit of Highways England as a result. However, TC in its function as the local highways authority has responsibility for roads that connect to the

SRN and, as such, comments with regards to potential highways impact are made in accordance with the impact on the local road network.

7.8.3 Whilst the local highways authority does not have jurisdiction over the increased use of this junction, TC can provide comment on this proposal in the context of the impact on the local road network.

7.8.4 Core Strategy Policy PMD10: Transport Assessments and Travel Plans

The application is supported by a Transport Assessment (TA) which identifies that there will be a significant increase in traffic flows as a result of the proposed Port expansion, particularly on the Asda roundabout junction and at junction 30 of the M25. The impact on junction 30 will not be commented on by TC as there is no local road network directly accessing this junction, which is within the remit of Highways England to assess and provide comment. However, comments are made in relation to impact on the Asda roundabout junction as Dock Road and Thurrock Park Way, both part of the local road network, directly access this junction. The evidence submitted identifies that the Asda roundabout junction is nearing capacity in peak periods. The increased traffic movements associated with the development proposal will likely trigger the requirement for improvement, to ensure that the network is not severely adversely affected.

7.8.5 The proposed improvements seek to provide a lane segregation scheme on the A1089 St. Andrews Road arm of the junction, to improve lane discipline as a safety improvement. This scheme does not appear to address the capacity issues in the modelling, particularly with regard to traffic movement south from the A1089 Dock Road.

7.8.6 The layout of the Asda roundabout junction is a five-arm roundabout, with adverse camber, with the A1089 Dock Approach Road at 12 o'clock, the London Distribution Park (Windrush Road) at 2 o'clock, Dock Road, Tilbury at 5 o'clock, A1089 St. Andrew's Road at 7 o'clock and Thurrock Park Way at 9 o'clock. The evidence of the TA identifies that the majority of traffic flow will be via the A1089 Dock Road and the A1089 St. Andrew's Road and vice versa.

7.8.7 The traffic movement patterns of the London Distribution Park (Windrush Road), Dock Road and Thurrock Park Way identify that the traffic movements are mainly to and from the A1089 Dock Approach Road. Upon review of the TA RFCs for this junction, it is identified that the current morning peak hour flows show RFC rates that are below what the local highways authority would consider for intervention; save for the A1089 Dock Approach Road, which is at capacity and meets the criteria for intervention. When interpreting the RFC for the 2027 peak hour with the proposed development, there is a significant decrease in reserved capacity on Dock Road, which could require intervention.

7.8.8 However, the TA suggests that drivers would "*adjust their behaviour*" accordingly (para. 7.4.13). This opinion is queried as it is not based on any empirical data that is provided within the TA. On this basis the proposed improvement is queried by the local highways authority and an improved junction enhancement should be investigated.

7.8.9 New Link Road to development proposals

The proposals seek to provide a new distributor road that would run parallel to the LTS railway line into the site and includes two new junctions: one at the Fort Road railway over bridge; and another to the west, where it meets Ferry Road. The eastern access point is proposed as a priority junction with a spur road connecting this junction with Fort Road by way of a mini-roundabout junction. In general this is agreed, subject to further design work on the detail of the access arrangement and details of the railway over bridge extension being provided and agreed by the local highways authority. It is noted that Schedule 10, Part 7 of the Draft DCO comprises protective provisions for TC as local highways authority.

7.8.10 The western access is proposed as a ghosted right-turn lane, with Ferry Road as the minor arm, for access to Tilbury Port Gate 2, the London Cruise Terminal, the Tilbury-Gravesend ferry berth and other industrial sites. At the pre-submission stage, it was requested by the local highways authority that this junction be upgraded to a signalised junction, with Toucan crossing facilities, due to the traffic impact at this junction and the cycle path which crosses the road at this point.

7.8.11 Unfortunately, at the time of writing there do not appear to have been any investigations into this suggestion which is disappointing, considering that this matter was raised before formal submission of the proposals. From the pre-submission discussions it emerged that the operation of Tilbury2 will include additional of Ro-Ro facilities to complement the existing facilities in the Port. It was identified that there will be an increase in traffic movements between the existing and proposed facilities which will generally utilise Gate 2, accessed from Ferry Road. As a result, there are likely to be a high proportion of left-turn movements into Ferry Road and right-turn movements out and it does not appear to be evidenced if this has been assessed as part of the proposals and whether a ghosted right-turn lane is appropriate.

7.8.12 Additionally, the presence of the cycle path does raise a potential concern with safety at this junction. The applicant has stated the cycle path will help a modal shift away from private car trips, as this is a link from Tilbury railway station into the proposed development, as well as providing a facility for residents to access the riverfront from the cycle links to the east and west. It is agreed that the sensitivity test does not identify a RFC that would raise concern. However, when considering the importance of the cycle links to the riverfront and the potential routing of National Cycle Network 13 along this route, a case could be justified for the upgrading of this junction to a signalised junction.

7.8.13 Furthermore, the applicant is proposing to install a Toucan Crossing to the west of this junction (Active Travel – Proposed Walking and Cycling Improvements). It is considered preferable to combine these two conflict points at the junction and provide a better arrangement that could improve safety at the junction and have a negligible impact on congestion in this area.

7.8.14 Whilst the new junction of the Port access road and Ferry Road may not be contrary to Core Strategy policy PMD9 ((Road Network Hierarchy) in relation to congestion, it may not be appropriate in relation to highways safety and signalisation may be preferable.

7.8.15 Use of the A1089 for access to Tilbury2

The A1089 is the sole main access to the existing Tilbury Port and various logistics sites in Tilbury. Alternative access can only be made via local road network which is not considered suitable for any HGV movement. Currently, if there is an incident or if any planned maintenance on the SRN requires one direction or both directions to be closed, this causes significant impact on the local area and causes congestion. This potential congestion issue is not just local to Tilbury, but also impacts nearby residential conurbations, such as Chadwell St. Mary, East Tilbury/Linford and Grays.

7.8.16 Incidentally, as part of the DP World London Gateway port development proposals (SI 2008 No. 1261: The London Gateway Port Harbour Empowerment Order), the port sought to use one means of access from the A1014 Manorway and this issue was identified. A solution was to provide maintenance crossovers at key points along the route. This system also allows for a quick deployment, so that the crossovers could be utilised in the event of a major incident. This enables the local highways authority to undertake maintenance works and maintain access to the port by introducing a contra-flow system to manage traffic flow, negating the need to divert traffic through residential areas; to the benefit of highways efficiency and amenity.

7.8.17 On balance, it is considered that the development proposals will likely result in an increased impact at times when there is a lane closure and consideration should be made to providing maintenance cross-overs at key points along the A1089 dual carriageway to ensure that effective access along the SRN is maintained. It is accepted that this will be a matter for Highways England.

7.8.18 Public Realm and sustainable transport proposals – Summary

The public realm and sustainable transport proposals in principle align with TC's aims in this area and will assist with commuter and leisure route access to the riverside and improving walking and cycling links for the National Cycle Network and Thames trail links to Leigh-on-Sea. The proposals seek to close public

footpath no.144 over the railway line; currently an at-grade facility with no pedestrian control mechanism. The proposals will stop this access up, as the new railway line will make this crossing significantly worse in terms of safety and security of the railway line.

7.8.19 In principle, the stopping up of public footpath no. 144 across the railway line is supported as part of this proposal. However, it should be progressed by diverting the public footpath so that it is re-aligned along the hairpin bridge crossing and the Fort Road over bridge.

7.8.20 Toucan Crossing on A1089 Ferry Road

This element of the proposals may not accord with Core Strategy policy PMD2 (Design and Layout), which states at (v. Accessibility) that development proposals must allow easy and safe access for all members of the community. As noted above, the location of this proposed crossing facility is in an isolated location. At the pre-submission discussions, this facility was debated and the local highways authority considered that it would be better located at the new Ferry Road/Tilbury 2 access road junction.

7.8.21 This suggested revised location would accord with Core Strategy policy PMD9, (Road Network Hierarchy) which refers to access on the road network and the suggested combination of two conflict points onto the network, would have a positive contribution to road safety and congestion. As such the cycle path from the hairpin bridge could be located on the northern side of the carriageway to the Ferry Road junction and then a signalised junction, with a Toucan Crossing phase included, could be installed. This would also remove the need for the cycle path that runs behind a drainage swale, along the current alignment of Ferry Road and provide a secure route to Tilbury Gate 2 and cruise terminal and link to the proposed cycle path on the south side of the new port access road to the east.

7.8.22 Footpath adjacent to sea defence structure

The proposed improvement to the footpath is queried. The local highways authority advised the applicant in pre-submission discussions that the Environment Agency may object to any works on the seaward side of the flood defence, as this may reduce flood capacity. In addition, it is not clear whether the proposed re-surfacing scheme will locate the footpath above the high water level, so that it can be utilised at any time.

7.8.23 It is suggested that further investigation and clarification is required alongside review by the Environment Agency of this element of the proposals. Pre-submission discussions with the applicant also raised the issue of whether a pontoon bridge could be investigated, to potentially remove any Environment Agency objection and to ensure that the route could be used at all times. Whilst this may be expensive to construct, it is likely that a facility of this nature would

better enhance the leisure route between the two historic areas of Tilbury Fort and Coalhouse Fort. Officers are in dialogue with PoTLL regarding technical issues related to such a proposal given potential environmental and technical matters including a proposing a structure in proximity to the existing flood defence.

7.8.24 Bridge access over the railway at Fort Road

The plans show a shared pedestrian / cycle surface along the re-aligned Fort Road to the railway over bridge, but stops short of the existing bridge location. No details of how a shared surface facility could be advanced past this point are provided. The applicant is encouraged to provide a shared facility to a likely connection point, such as the Brennan Road junction otherwise, the scheme will provide facilities with no onward connections; thus reducing its usefulness in terms of a cycling strategy. This element of the scheme could be expanded to include a link to Brennan Road junction with Fort Road; particularly considering TC's aspirations to extend National Cycle Network route 13 to Fort Road, via Brennan Road.

7.9 Hydrogeology & ground conditions

7.9.1 Prior to the formal submission of the application for a DCO the Council's contaminated land officer reviewed a draft version of the ES chapter addressing this environmental topic which was circulated by the applicant. The officer agreed that the effects of the proposals on hydrogeology and ground conditions in relation to physical effects, effect on geology and effects associated with ground contamination had been satisfactorily considered. If the proposed primary mitigation, outlined in the draft ES chapter, was implemented the contaminated land officer was satisfied that ground contamination both known and suspected would be remediated to the required standard for the proposed end-use.

7.9.2 TC has reviewed the hydrogeology and ground conditions chapter of the submitted ES and relevant accompanying appendices (documents refs. 6.2.15.C, 6.2.15.F and 6.2.15.G). With reference to the Asbestos Investigation and Recommendations Report (6.1.15.C) TC is satisfied that the measures within the report have addressed the management of current and potential asbestos containing material contamination within the proposed development. TC notes that the following further investigations are proposed:

- a suspected fragment of asbestos was encountered close to MTP38. Additional excavations are therefore recommended along the bund;
- completion of site investigations in the RWE area and infrastructure corridor; and
- further investigation around the lake in the north-east to augment the data to date (MHP11 and MHP12).

- 7.9.3 In addition, TC agrees that air monitoring is to be carried out by an independent UKAS accredited specialist during excavation of asbestos-contaminated soils.
- 7.9.4 Upon completion of the works set out in the Asbestos Investigation and Recommendations Report a verification report will be produced. TC considers that the verification report will provide sufficient detail to clearly demonstrate that the remedial objectives have been met and that any residual material is compliant.
- 7.9.5 TC is therefore satisfied that the potential effects of the proposals on hydrogeology and ground conditions have been properly assessed by the application. Provided that the proposed mitigation measures outlined within the ES, Construction Environmental Management Plan and Operational Management Plan are implemented TC is satisfied that ground conditions will be suitable for the proposed uses on-site.

7.10 **Flood Risk and Water Resources**

7.10.1 This topic is considered by chapter 16 of the ES and by the associated appendices to this chapter.

7.10.2 Flood Risk

All of the land within the proposed Order Limits (Asda roundabout junction, Infrastructure Corridor and Main Site) is within the high risk flood zone (3a) defined as having a 1 in 200 or greater chance of flooding each year by sea flooding. However, the site benefits from existing tidal defences adjacent to the north bank of the River Thames which provide protection to a minimum 1 in 1000 year tidal event.

7.10.3 Assessed against the 'Flood Risk Vulnerability Classification' comprising Table 2 of National Planning Practice Guidance (Reference ID: 7-066-20140306), the proposed uses and operations would be defined as 'Water-compatible development'. Therefore, applying the proposals against the 'Flood Risk Vulnerability and Flood Zone Compatibility' (Table 3 – Reference ID: 7-067-20140306) the development is 'appropriate' to the flood zone. It is recognised that the application of Tables 2 and 3 of Planning Practice Guidance only refers to flooding from river and sea sources and that the requirements of the Sequential Test are also relevant.

7.10.4 Sequential and Exception Test

TC is satisfied that the Tilbury2 development cannot be located elsewhere on a reasonably alternative site at a lower risk of flooding as the proposed use is a water compatible development functionally required to be located next to the River Thames and its associated shipping channel. The proposals are therefore considered to satisfy the Sequential Test. As the development proposals are

Water Compatible Development located in flood zone 3 the Exception Test is not applicable.

7.10.5 With reference to other sources of flooding, the Council agrees that the ES adequately assesses the risk of surface water flooding associated with the proposals.

7.10.6 Surface Water

The draft Statement of Common Ground between the TC and POTLL refers at section 4.13 to a number of agreed matters comprising:

- culverting of existing watercourses;
- surface water discharge into ordinary watercourses; and
- components of water quality.

7.10.7 TC is satisfied that all elements relating to surface water flood risk have now been addressed. However, there are currently a number of outstanding points in relation to water quality, particularly with regard to the proposed Ro-Ro terminal and the access road. TC believes that it will be possible to address these concerns in relation to the access road. However the applicant's current position is that this particular element of the site should be designed to DMRB standards. The CIRIA SuDS manual addresses water quality from this type of road and requires more exacting standards which TC would like to see met if at all possible. The need for robust pollution management associated with this part of the site is heightened by the likelihood of the Ro-Ro area potentially underperforming in terms of pollution control.

7.10.8 POTLL has undertaken a substantial review of the pollution controls available for use in the Ro-Ro area and have ruled out the majority of treatment methods as not being deliverable based on technical limitations. TC generally agree with the results of the applicant's assessment but is discussing the detail of potential feasible treatment methods with POTLL. TC understands that the applicant will be undertaking further assessment in relation to the costs of delivering such a system. Subject to the resolution of these outstanding matters, the TC is satisfied that the proposals with associated mitigation will not impact negatively on surface water drainage.

7.11 Noise and Vibration

7.11.1 TC has examined chapter 17 of the ES which contains the assessment of noise and vibration. The assessment uses a standard reporting approach and the methodology employed was agreed in advance with TC's Environmental Health Officer.

- 7.11.2 TC is in overall agreement with the assessment and are satisfied that it has addressed all the relevant noise and vibration impacts during both the construction and operational phases of the proposed Tilbury2 development. The ES significance criteria developed is acceptable, and is summarised in Table 17.15 of the ES for both the construction and operational phases, depending on the source. The Policy Significance Criteria with respect to effect thresholds, LOAEL and SOAEL, are acceptable and these are summarised in Table 17.16 for both the construction and operational phases.
- 7.11.3 The development “Scheme Design and Embedded Mitigation” detailed in paragraph 17.134 (page 17-36) will minimise scheme impacts. It is proposed to install the noise barriers within the transport corridor before the construction of the road and rail links to further mitigate construction noise. A noise reassessment will be made on the basis of the finalised operational design and procedures for the RoRo and CMAT (as required by the DCO) and, where a significant effect is predicted for a receptor, an offer of sound insulation will be made.
- 7.11.4 There will be further potential to mitigate impacts during both the construction and operational phase as detailed in paragraphs 17.223 to 17.226 of the ES, including temporary noise screening of static plant during construction.
- 7.11.5 The Operational Residual Impacts paragraph 17.229 refers to a Table 17.14, but this appears to be the wrong table. TC believes that this should be table 17.46 (Summary of Airborne Noise Significance) on page 17-53. The daytime operational port noise is indicated to have a ‘significant’ noise impact at receptors near NSR2 in Sandhurst Road plus two others in Gravesham. For those receptors an offer of sound insulation to the dwellings is proposed to minimise the residual effect to ‘minor’.
- 7.11.6 Additional errata documents were submitted to PINS and TC has examined those documents that could have a bearing on comments from this section, and do not believe any alterations to the above comments will be required. In document ‘TR030003-000467-PoTLL-T2-EX-11 Errata ES Chapter 5 Track Changes’ TC notes the addition of ‘Extent and method of piling’ detailing terrestrial and marine piling in paragraphs 5.115 to 5.118.

7.12 **Air quality**

- 7.12.1 TC’s air quality officer has reviewed the air quality assessment (Chapter 6 of the ES) and the accompanying appendices (6.2.18.A-18.E and Figures 18.1-18.4). A review of the Construction Environment management Plan (6.9) and Operational Management Plan (6.10) has also been undertaken.
- 7.12.2 With regard to the operational phase of the development, it is agreed that the development will not have a significant impact on relevant receptors in Thurrock with regard to the modelled outputs for nitrogen dioxide (NO₂) and particulate

matter (PM₁₀ and PM_{2.5}). It is agreed that the submitted air quality assessment has considered areas of most relevant public exposure in relation to the operational impacts generated from the proposed development and all modelled receptors in this assessment are considered to be appropriate.

- 7.12.3 TC notes that all of the modelled receptors (ref. 18.E) would be either below or well below the relevant air quality objectives for NO₂, PM₁₀, and PM_{2.5}. One human health receptor (R10 – Nairn Court, Dock Road, Tilbury) is modelled to experience a ‘moderate adverse’ magnitude of impact. This receptor is located c.36m from the existing alignment of St. Andrew’s Road. The ‘Do Something’ (DS) 2020 modelled scenario predicts a concentration of 30.6 µg/m³ (NO₂), with a change of +4.4 µg/m³ (NO₂) from the “Do Minimum”(DM) 2020 scenario. Nevertheless, this is not a concern as the modelled figure remains well below the air quality objective 40 µg/m³ for NO₂.
- 7.12.4 In addition to this one receptor with a modelled ‘moderate adverse’ magnitude of impact (R10), there are a further four human health receptors modelled to experience a ‘slight adverse’ magnitude of impact (R9: 16 Dock Road, Tilbury; R13: Ivydene, Sandhurst Road, Tilbury; R14: 138 London Road, Tilbury and R19: St. Mary’s Roman Catholic Primary School, Calcutta Road, Tilbury). However, as all of these receptors are modelled to remain below the air quality objective for NO₂, this is not an area of concern for TC. All of the remaining human health receptors are modelled to experience a ‘negligible’ magnitude of impact with annual mean NO₂ levels within the air quality objective level.
- 7.12.5 The modelled PM₁₀ and PM_{2.5} outputs are all described as a ‘negligible’ magnitude of impact. All of these human health receptors were within the air quality objective 40 µg/m³ for PM₁₀. Following the receipt of further information on daily mean PM₁₀ modelling results, it is confirmed that this will not lead to any further exceedences at the modelled human health receptors.
- 7.12.6 TC is satisfied that the model used in the air quality assessment is appropriate, and used in accordance with the criteria laid out in the Defra TG(16) Technical Guidance. The air quality assessment represents a worst case scenario, and the model verification process is considered to be robust and has limited any uncertainties associated with the model.
- 7.12.7 TC is therefore satisfied that the operational phase of proposed development will not have any foreseeable or lasting impact in terms of air quality on nearby residential receptors most at risk from the proposals.
- 7.12.8 With regard to the impacts on local air quality from the construction phase of the development, TC’s Environmental Health Officer has assessed the proposed measures for dust control set out Construction Environment Management Plan (ref. 6.9). TC is satisfied that the measures for dust control during construction are satisfactory.

7.13 Waste and Materials

- 7.13.1 Chapter 19 of the ES undertakes an assessment of the potential impacts of waste and materials during construction and operation. Tables 19.9 to 19.12 provide a detailed estimate of waste arisings associated with the construction, demolition and excavation phase and table 19.13 estimate operational waste arisings. TC agrees with the assessment that the impact of construction, demolition and excavation waste will be of 'moderate' significance and that hazardous waste would be of 'negligible' significance.
- 7.13.2 TC notes that appropriate mitigation measures could be secured through a site Waste Management Plan and Materials Management Plan which form elements of the CEMP. TC also notes that the Operational Management Plan (ref. 6.10) contains provisions for the management of operational waste.
- 7.13.3 The draft SOCG between TC and the applicant confirms agreement that waste produced by the proposals is likely to have a minor impact on the Borough's waste infrastructure.

8. Consideration of Articles and Requirements of the Draft Order

8.1 Schedule 2, Part 1 (3)

8.2 TC welcomes the requirement set out at Schedule 2, Part 1 (3) (1) of the draft Order requiring details of external materials to be submitted to and approved by the relevant planning authority prior to construction. The Council assumes that Schedule 2, Part 1 (3) (1) (b) is meant to apply to Work No. 8D (iii) rather than Work No. 8C (iii), i.e. details of the external materials of the aggregate processing facilities are required rather than details of the railway line.

8.3 In addition, given the proximity of the Main Site to Tilbury Fort and the emphasis on good design promoted by the NPPF, NPS for Ports and the Thurrock Design Guide – Design Strategy SPD (2017), the TC requests that consideration could be given to extending the requirement to submit details of external materials to include the proposed warehouse to be constructed by Work No. 7 (b) and the buildings constructed as part of Work No. 3 (d) and Work No. 5 (c).

8.4 TC also suggests that consideration could be given to the inclusion of the term 'external appearance' or 'design' as well as 'external materials'. Such that the relevant planning authority and relevant consultees may give consideration to the general form of the external building envelope, as well as the specification for finishing materials.

8.5 Schedule 2, Part 1 (3)

TC suggest, in the interests of clarity, that consideration could be given to adding a maximum height restriction (AOD) in the table to include reference to any buildings constructed as part of Work No. 5 (c). TC suggests that any such height restriction for Work No. 5 (c) buildings should match the maximum height for similar Work No. 3 (d) buildings, i.e. a maximum 12 metres AOD.

8.6 Schedule 2, Part 1 (4) to (12)

TC generally welcomes the requirements to ensure that the construction and operation of the development is undertaken in accordance with:

- the construction environmental management plan;
- proposals for off-site ecological mitigation;
- the written scheme of investigation for terrestrial archaeology;
- the timing of delivery of the Asda roundabout junction works;
- the flood risk assessment;
- the noise mitigation and monitoring proposals;
- the drainage strategy;
- the framework travel plan;

- the landscape and ecological management plan;
- the operational management plan;
- the operational community engagement plan; and
- the sustainable distribution plan

8.7 Schedule 2, Part 1 (9) (1)

TC query whether this requirement should be re-worded to refer to the noise barrier as Work No. 4 (d), not Work No. 4 (c).

8.8 Schedule 2, Part 2

TC has no objection to the proposed procedure for the discharge of requirements set out by Part 2 (13) to (18). However, in the interests of clarity and consistency with the provisions of Town and Country Planning legislation (referring to applications for the approval of details reserved by planning conditions) TC suggest that consideration could be given to adding the following wording:

'The requirements of Schedule 2, Part 1 shall be deemed to be conditions subject to which a planning permission was granted under section 70 of the 1990 Act and, accordingly, they shall be subject to the provisions of that Act and all associated legislation.'

This suggested addition would have the benefit of allowing the applicant to use existing convenient on-line systems for the submission and approval of details reserved by planning conditions.

9. Planning Obligations

9.1 A Community Infrastructure Levy is (CIL) being developed by TC alongside the preparation of a new Local Plan. Until the CIL is prepared TC seeks developer contributions in accordance with Policy PMD16 (Developer Contributions) of the current Core Strategy. Policy PMD16 sets TC's policy context for securing planning obligations under s106 of the Town and Country Planning Act 1990 and in accordance with the NPPF. Through the use of s106 agreements, TC will seek to ensure that development:

- i. appropriately contributes to the delivery of strategic infrastructure;
- ii. meets the reasonable costs of new infrastructure made necessary by development;
- iii. mitigates or compensates for any significant loss of amenity or resource; and
- iv. provides for the ongoing maintenance of facilities provided as a result of new development.

9.2 The range of matters that may be covered by obligations as described by PMD16 include vocational training in employment, employment of local residents, sustainable public transport, accessibility and travel planning, pedestrian and cycling infrastructure, transport information, maintenance payments for existing transport infrastructure and preservation and enhancement of the historic environment.

9.3 TC uses an Infrastructure Requirement List which identifies development scenarios on an area by area basis. This list was used as the basis to provide the applicant with a schedule of potential infrastructure requirements last year. The applicant has produced draft heads of terms for a s106 agreement with TC (ref. 5.3) which propose:

1. a financial contribution to the Council for the following purposes –
 - (a) improvements to the Gravesend – Tilbury Ferry comprising
 - (i) installation of real time information boards at ferry departure points
 - (ii) installation of real time information boards at Tilbury Town railway station
 - (b) undertaking a feasibility study into enhancements at Tilbury Fort to realise tourism and heritage benefits including car parking, access and interpretive signage
 - (c) implementation of measures identified in the feasibility study (b) where reasonably capable of implementation
2. promotion and implementation of an Employment and Skills Strategy (ref. 5.3A) during construction and operation of the development
3. improvements to the highway network outside of the Order Limits in accordance with an Active Travel Strategy (ref. 5.3B).

- 9.4 TC considers that the heads of terms for the s106 agreement described above are justified by the relevant development plan policy (PMD16) and are detailed within the TC's Infrastructure Requirement List. The obligations are considered necessary to make the development acceptable in planning terms, are directly related to the development and are fairly and reasonably related in scale and kind to the development in accordance with paragraph 204 of the NPPF.
- 9.5 TC is confident that a s106 agreement, based on the heads of terms described above, will be concluded with the applicant before the close of the examination period.