

# Design and Access Statement

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**Our ref** 61586/01/NW/JMa  
**Date** 23 November 2020  
**To** Redcar and Cleveland Borough Council  
**From** Lichfields

**Subject** Southbank Quay

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## 1.0 Introduction

1.1 This Design & Access Statement has been prepared by Lichfields in support of two detailed planning applications submitted by South Tees Development Corporation (STDC) for the development of a new quay at South Bank, Redcar.

1.2 The description of development is as follows:

*“Demolition of existing redundant quay structures, capital dredging and development of new quay and associated works.”*

1.3 Figure 1 shows the extent of the application site.

Figure 1 The application site



Source: POD (2020)

1.4

- 1.5 STDC is the Mayoral Development Corporation tasked with the regeneration of land in what is the UK's largest industrial zone: Teesworks. This application relates to that part of the Teesworks area known South Bank.
- 1.6 The formation of the new quay involves a range of construction works which can be divided into two groups:
- The Seaward Works – these comprise dredging of the approach channel and berth pocket, the disposal of the dredged material at sea. Planning consent is not required for these works as they affect land below mean low water (MLW) and hence are not subject to planning control. A separate application has been made to the Marine Management Organisation (MMO) for the necessary Marine Licence.
  - The Landward Works – these comprise the works above MLW involving the demolition of the existing quays and the formation of the new quay, installation of surface water drainage system, installation of power system (including floodlighting), installation of a water supply system and associated ancillary works. It is these works for which planning permission is being sought.
- 1.7 Figures 2 and 3 below shows the site as existing.

Figure 2 Photograph of site as existing



Source: POD (2020)

1.8 This DAS covers the following.

- Introduction
- Site and Surrounding Area
- Planning Policy Overview
- Design Proposals
- Access Arrangements
- Summary

Figure 3 Site as existing



Source: POD (2020)

## **2.0 Site and Surrounding Area**

2.1 The development site is located approximately 2.5 miles north east of Middlesbrough town centre and 3 miles south west of Redcar town centre. The planning application site is situated immediately adjacent to the River Tees and includes the area of river up to Mean Low Water (MLW). The new quay extends beyond MLW and hence an application for a marine licence has also been submitted to the Marine Management Organisation (MMO).

2.2 An aerial view of the application site is shown in Figure 3 below.

Figure 4 Aerial view of application site



Source: STDC (2019)

2.3 The site of the proposed quay is currently occupied by a dilapidated wharf approximately 750m in length, two jetties immediately downstream, a further jetty at the extreme downstream end of the proposed scheme footprint with associated conveyor and various buildings and structures on the riverbank and the adjacent hinterland (including a live substation). Consultation with the Harbour Master in July 2020 has confirmed that no vessels have utilised any of the jetties within the proposed scheme footprint for a number of years.

2.4 The proposed scheme is located within and immediately adjacent to the Teesmouth and Cleveland Coast SPA and is adjacent to the Teesmouth and Cleveland Coast Ramsar site. The proposed scheme is also located within and adjacent to the Teesmouth and Cleveland Coast SSSI.

### **3.0 Planning Policy Overview**

3.1 In accordance with Section 38(6) of the Planning and Compulsory Purchase Act 2004, the determination of the application must be made in accordance with the development plan unless material considerations indicate otherwise. In this case the relevant statutory development plan is the Redcar and Cleveland Local Plan (adopted May 2018).

3.2 The application site is designated in the adopted Local Plan as a Protected Employment Area (Policy ED6) to be developed for employment uses. There is, therefore, a clear and unequivocal presumption in favour of the grant of planning permission for the type of development proposed in the application, subject to there being no other material considerations which indicate otherwise.

3.3 Policy ED6 notes that proposals within the South Tees Development Corporation area should have regard to the South Tees Area Supplementary Planning Document (SPD) and that proposals which positively contribute towards growth and regeneration will be supported. It goes on to note that where appropriate, proposals will need to demonstrate that there will be no adverse effects on the integrity of the Teesmouth and Cleveland Coast SPA and Ramsar site, or other European designated nature conservation sites.

- 3.4 The South Tees Area SPD supports the economic and physical regeneration of the South Tees Area, setting out the vision and core objectives for the area and providing greater detail on how adopted planning policies will be interpreted. The SPD is supported by the South Tees Regeneration Master Plan. Development Principle STDC14 (South Industrial Zone) notes that the Council will encourage development proposals for port related uses, including port-based fabrication, offshore energy industries, including manufacturing, materials processing and manufacturing, contract fabrication and energy generation and, potentially, rig and large equipment decommissioning on the application site.
- 3.5 Other relevant Local Plan policies include the following:
- Policy SD 1 (Sustainable Development);
  - Policy SD 4 (General Development Principles);
  - Policy SD 5 (Developer Contributions);
  - Policy SD 6 (Renewable and Low Carbon Energy);
  - Policy SD 7 (Flood and Water Management);
  - Policy N 1 (Landscape);
  - Policy N 2 (Green Infrastructure);
  - Policy N 4 (Biodiversity and Geological Conservation);
  - Policy TA 1 (Transport and New Development);
  - Policy TA 2 (Improving Accessibility within the Borough and Beyond);
  - Policy TA 3 (Sustainable Transport Networks).
  - Policy MWC 4 (Safeguarding of Minerals Resources from Sterilisation);
  - Policy MWC 8 (General Locations for Waste Management Sites).
- 3.6 The National Planning Policy Framework ('NPPF') is also an important material consideration in the determination of this planning application. Chapter 6 (Building a Strong, Competitive Economy) states that planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account local business needs and wider opportunities for development. The NPPF recognises this as particularly important where Britain can be a global leader in driving innovation.

## **4.0 Design Proposal**

- 4.1 The proposed scheme comprises demolition of the existing wharf, jetties and other minor infrastructure along the river bank at South Bank (including an electrical substation), capital dredging to create a berth pocket and construction and operation of a new quay (to be set back into the riverbank). The new quay will be a solid piled quay structure up to 30m wide and 1,230m in length (with an approximate 1,050m of usable quay for berthing), set back into the riverbank. Although the useable surface of the quay itself will be up to 30m wide, the overall footprint of the quay will be up to 50m wide due to the need to construct an anchor structure further inland of the quay deck.
- 4.2 Demolition works to be undertaken as part of the proposed scheme include the dilapidated wharf, three jetties downstream of the wharf (with the associated conveyor at the downstream

end), a live electrical substation on the hinterland and pipework which previously abstracted water from the Tees estuary associated with the pumping station.

- 4.3 The proposed scheme requires the construction of a new solid piled quay structure. The proposed quay length is a direct function of the operations that are predicted to be undertaken at the site; the quay has been designed to accommodate up to five vessels at the same time, including two large windfarm installation vessels as well as up to three smaller vessels which are predicted to import products to the site. The assumed size of such vessels has informed the length of quay required. The proposed scheme has been designed to accommodate a vessel with an overall length of up to 169m, breadth of up to 60m and laden draft of 11m.
- 4.4 Similarly, the beam of the widest design vessel has directly informed the size of the berth pocket required (90m wide) and the associated dredging requirements. Consultation with PD Ports' Harbour Master during June 2020 confirmed that the berth pocket should not intrude into the existing navigation channel, but that it would be possible to manage the risk of cargo (e.g. wind farm blades) intruding into the channel during loading operations. These criteria effectively set the riverward extent at which it is possible to locate the berth line and resulted in the proposed construction of the quay set back into the riverbank.
- 4.5 The proposed berth pocket would straddle an area that is currently partly land and estuarine. There would, therefore, be a requirement for dredging of estuarine (marine) sediments and excavation of soils / landside materials within the riverbank to create the berth pocket (as the berth line has been set approximately 90m inland from the edge of the channel) . The proposed scheme (and consequently the dredging requirements) has been designed to avoid the pipe tunnels which cross underneath the Tees estuary downstream of the proposed quay, as well as the overhead power lines and pylons upstream of the proposed quay.
- 4.6 A 2m thick Rock Blanket is to be laid in the berth pocket. This is required to avoid the risk of a jack-up barge 'punching' into the underlying sediments when berthed at the quay during the operation phase. Such an effect could result in instability of the berthed vessel as well as potentially destabilising the quay wall.
- 4.7 The assessed form of construction for the quay wall is a combi-wall comprising steel tubular king piles with steel sheet pile infills. All piles would be installed through soils on land; no piling is proposed in the river channel. An anchor structure would be constructed to provide lateral restraint to the combi-wall. Tie rods would be used to connect the combi-wall to the anchor structure.
- 4.8 The quay face will include 'verti-pools'; these pools are pocket rock pools that are designed to be applied to vertical sea defences to create water retentive habitat features. It is proposed that a number of verti-pools are positioned along the length of the quay face at different heights within the tidal frame to provide a range of different habitat opportunities.
- 4.9 The ground level for the quay would be formed with stone surfacing, with the exception of two heavy lift areas which would have a concrete surface. Approximately 25,000m<sup>3</sup> of crushed stone is proposed to be imported to create the surfacing on the quay. Surface water would drain through the crushed stone into the underlying material without the need for a formal drainage system.
- 4.10 A drainage system would however be required on the heavy lift areas, as such areas are proposed to be surfaced with concrete. Such a system would capture surface water runoff from the heavy lift areas through a series of gullies. The collected water will be discharged into the Tees estuary through the quay wall, via an interceptor.

- 4.11 Welfare facilities are not proposed on the quay itself in order to maximise the available space to support with operations; there would therefore be no foul sewage generated as a result of the proposed scheme.
- 4.12 The quay is proposed to contain two heavy lift areas along its length which would comprise concrete ground slabs supported on approximately 500 vertical bored cast in-situ piles to support each of the heavy lift areas (i.e. up to 1000 piles for the heavy lift areas). Each heavy lift area would be approximately 150m x 30m in size.
- 4.13 Fixed infrastructure to be installed on the quay would be limited to mooring bollards, Demand Side Units (DSUs), lighting towers and a new electrical substation. It has been assumed that 18 lighting towers (high masts) up to 30m will be utilised during the operational phase. The lighting towers are envisaged to have 50 Lux and will be spaced approximately 80m apart along the quay.
- 4.14 There would be water supply (both potable and fire water) at the quay, as well as the provision for ship to shore power connection. It has been assumed that all vessels to be used during operation would connect to the shore power, rather than running auxiliary engines when berthed at the quay.

## **5.0 Access**

- 5.1 Due to its function as a river quay, access for the majority of visitors to the site will be via boat on the River Tees. It has been estimated that up to 390 offshore wind vessel calls would take place at the facility on an annual basis. This includes approximately 300 vessel calls per year associated with offshore wind staging and 90 vessel calls per year associated with offshore wind manufacturing activities.
- 5.2 Pedestrian and vehicular access to the new quay will be via the adjacent South Bank development site. Once completed, the quay will have easy access the proposed Teesworks internal estate road which in turn will allow good access to the wider road and rail links.

## **6.0 Phasing**

- 6.1 STDC is intending to commence phased construction of the facility during 2021 to enable the first section of the quay to be in operation by 2023 (an approximately three-year construction phase).
- 6.2 For various reasons STDC needs to submit two separate, but parallel, planning applications: one for the phase 1 quay and the other for the phase 2 area.
- 6.3 The Phase 1 quay wall would extend 125m either side of the berth pocket to retain the dredged slopes back up to the existing bed level, resulting in a Phase 1 quay length of up to 700m. The quay would be extended up to the full 1,300m (equating to a total useable berth length of 1,050m) as required in Phase 2, based on market demands. Phase 2 may be constructed many years after completion of Phase 1, or may not be constructed at all if market conditions do not require it. In addition, the length of quay to be constructed during each phase may also be subject to change depending on financial availability and the market requirements at the time of construction. There is a small overlap between the phase 1 and 2 areas where an element of dredging will need to take place as part of each phase.

## 7.0 Summary

**Process** – Designed with inputs from PD Ports’ Harbour Master to accommodate up to five vessels at the same time, including two large windfarm installation vessels as well as up to three smaller vessels which are predicted to import products to the site. The assumed size of such vessels has informed the length of quay required. The proposed scheme has been designed to accommodate a vessel with an overall length of up to 169m, breadth of up to 60m and laden draft of 11m.

**Use** – A new quay to serve vessels visiting Teesworks development site.

**Amount** – The new quay will be a solid piled quay structure up to 30m wide with 1,050m of usable quay for berthing, set back into the riverbank.

**Layout** -Quay comprises combi-wall of steel tubular king piles with steel sheet pile infills, crushed stone surface with heavy lift areas with concrete surfacing .

**Scale** - Footprint of the quay will be 50m wide and 1,230m long. To be delivered in two phases.

**Landscaping** – No soft landscaping is required.

**Appearance** – Traditional quay with mooring bollards, Demand Side Units (DSUs) and 18 lighting towers (high masts) up to 30m high spaced approximately 80m apart along the quay.

**Access** – Primarily via River Tees with links to internal road network being developed on adjacent Teesworks site. This will be a secure site with no public access.