

The Lake Lothing (Lowestoft) Third Crossing Order 201[*]



Lake Lothing
**THIRD
CROSSING**

Document SCC/LLTC/EX/179: Summary of the Applicant's Oral Submissions at Hearings on 14 May and Response to Interested Parties' Deadline 9 Submissions

Planning Act 2008

Infrastructure Planning

The Infrastructure Planning (Examination Procedure) Rules 2010

PINS Reference Number: TR010023

Author: Suffolk County Council

Document Reference: SCC/LLTC/EX/179

Date: 24 May 2019

This page is intentionally left blank

| CONTENTS | | Page No. |
|-----------------|---|-----------------|
| 1 | Introduction..... | 2 |
| 2 | Response to ABP's Proposed Changes to the DCO | 5 |
| 3 | Response to ABP's Deadline 9 Submission | 14 |
| 4 | Response to ABPmer's Comments on pNRA | 21 |
| 5 | Response to Nexen's Deadline 9 Submission | 26 |
| | Appendix A: Technical Support to the Applicant at Examination..... | 29 |
| | Appendix B: Meeting Note: Applicant and DfT Ports Team..... | 30 |

1 Introduction

1.1.1 This document sets out the Applicant's substantive submissions for Deadline 10 of the Examination; and deals with a number of matters pursuant to the Examining Authority's Rule 8 letter (as amended) and in consequence of the Hearings on 14 May 2019 and discussions with Interested Parties since the Hearings.

1.1.2 It is split into the following sections:

- Section 2 comprises the Applicant's submissions in relation to ABP's very recent proposed changes to the draft DCO (effectively proposed changes to both revisions 3 (22/02/19) and 4 (26/04/19)). These are the changes suggested by ABP only at the DCO Hearing on 14 May, which were subsequently followed up in writing to the Applicant. The Applicant understands that these change proposals will be submitted to the Examination at Deadline 10. The Applicant's submissions in response reflect what was said by the Applicant at the hearing, further expanded as necessary to deal with the points then raised by ABP in writing.
- Section 3 comprises the Applicant's response to ABP's Deadline 9 submission "Comments on the Applicant's Response to ABP's Summary of Case at 8 March Hearing and to Second Written Questions 1.11 to 1.13" [REP9-11].
- Section 4 comprises the Applicant's response to ABP's Deadline 9 submission "A Peer Review and Assessment of the Applicant's pNRA ABPmer (April 2019)" [REP9-013]. The Applicant does not intend to respond to ABP's Port of Lowestoft Masterplan [REP9-012], except to note its late arrival into the Examination and that it does not build much further than what has already been submitted to the Examination by ABP. The Applicant also does not intend to respond to ABP's comments on the Port Impact Paper [REP9-014], which repeats many of the same points already put forward in both parties' submissions, and which will be brought together in the Applicant's Closing Statement at Deadline 11.
- Section 5 comprises the Applicant's response to Nexen's Deadline 9 submission [REP9-016], which deals with many of the points raised by them at the 14 May hearings. The Applicant does not intend to respond in this submission to the other points made by Nexen at the hearing, or those by Lings (at the hearing or in the written submission submitted the day before Deadline 10), as these were issues that have already been much discussed in the Examination (see, for example, Response to WRs [REP4-014], CAH Written Submissions [REP5-010] and Response to D7 submissions [REP8-006]), and on which the Applicant will re-emphasise its case in its Closing Statement.

1.1.3 The Applicant notes that there was some discussion at the DCO hearing in relation to the potential inclusion of a Crown rights article in the DCO. This has not been brought forward at Deadline 10 as the Applicant is still considering the appropriate position to be taken. Further submissions will be made on this point at Deadline 10.

1.1.4 The Applicant also notes that at the DCO hearing of 14 May 2019 it said that it would set out in its Deadline 10 submissions the latest position in respect of statutory undertakers. The Applicant's understanding of this is set out in the below table:

| Statutory undertaker | Objection Submitted? | Objection Withdrawn/SoCG agreed? | PPs agreed? |
|---|---|---|--|
| Anglian Water Services Limited ("AW") | Yes | Yes | Yes |
| Associated British Ports ("ABP") | Yes | No | No |
| Cadent Gas Limited ("Cadent") | Yes | Yes | Yes |
| Environment Agency ("EA") | Yes | No but SoCG submitted at Deadline 10 notes all matters agreed | Yes |
| Essex and Suffolk Water Limited ("E&SW") (c/o Northumbrian Water Limited) | No – objection submitted by NWL as landowner in respect of Trinity House and not re apparatus | n/a | Yes |
| Network Rail Infrastructure Limited ("NR") | Yes | No – NR has indicated it cannot withdraw until a Framework/Property Agreement is completed (provided to NR on 16.4.19, on which the Applicant awaits feedback). NR has indicated it will however write to the | Understood to be, yes, but confirmation awaited. |

| Statutory undertaker | Objection Submitted? | Objection Withdrawn/SoCG agreed? | PPs agreed? |
|---|----------------------|----------------------------------|-------------|
| | | ExA in respect of the dDCO. | |
| Openreach (British Telecommunications) ("BT Openreach") | No | n/a | Yes |
| Eastern Power Networks Limited ("EPN") (previously referred to in the Book of Reference and Statement of Reasons as "UK Power Networks Limited") | No | n/a | Yes |
| Virgin Media Limited ("Virgin") | No | n/a | Yes |

2 Response to ABP's Proposed Changes to the DCO

| DCO Provision | ABP Comment | Applicant Response |
|--|---|--|
| Article 5 (limits of deviation) | <p>ABP considers that its concerns with, and practical observations in relation to, Article 5 could be satisfactorily addressed if an amendment was made as follows:</p> <p><i>"(8) The undertaker must not carry out any dredge to a depth lower than—</i></p> <p><i>(a) 6.4m below chart datum in respect of works comprised in the authorised development in Lake Lothing except Work No.7; and</i></p> <p><i>(b) 3.0m below chart datum in respect of Work No.7, unless the undertaker has demonstrated to the MMO and the MMO has agreed in writing that dredging to a depth lower than those depths set out in sub-paragraphs (a) and (b) would not give rise to any materially new or materially different environmental effects than those assessed in the environmental statement.</i></p> <p><i>(9) The undertaker must not carry out any dredging pursuant to this Order unless it has:</i></p> <p><i>(a) provided specifications of the proposed location and depth of any dredge to the Harbour Authority; and</i></p> <p><i>(b) obtained prior written consent from the Harbour Authority (not to be unreasonably withheld or delayed), which may attach reasonable conditions to any consent."</i></p> | <p>The Applicant recognises the practical benefit of the change to paragraph (8)(b) and has made this change in revision 6 of the DCO submitted at Deadline 10.</p> <p>But the Applicant does not agree to the proposed addition of a paragraph (9). This is because such approvals will already be necessary under paragraph 55 of ABP's Protective Provisions, as dredging operations would be a "specified work". As such, ABP's amendment to this article by the addition of a paragraph (9) does not need to be made.</p> |
| Article 8 and 11 (street works articles) | <p>ABP seeks the removal of the requirement for the street authority to 'act reasonably' and for its consents to not be 'unreasonably withheld or delayed' respectively, within these two articles.</p> | <p>In respect of article 11, the Applicant notes that the addition of the words noted by ABP were added at revision 4 to reflect recent practice in DCOs to include such wording (e.g. The Port of Tilbury (Expansion) Order 2019) even where it has involved repetition with the equivalent to article 61 of this draft DCO.</p> <p>But as a result of the protection in article 61, which already provides that consents under articles 8 and 11 must not be unreasonably withheld or delayed, the Applicant is content to make the amendments requested by ABP.</p> |
| Article 40 (scheme of operation) | <p>ABP considered that a number of changes need to be made to article 40.</p> | <p>The Applicant is largely supportive of the principles that ABP is seeking to reflect through its proposed changes to the article. To aid the ExA, the Applicant has accepted in the text of article 40 set out below all changes made by ABP to the text of article 40 proposed by the Applicant on 17 May, and then made further track changes with comment boxes to explain where necessary why the further changes have been made:</p> <p><i>(1) The undertaker must operate the new bridge in accordance with the Scheme of Operation.</i></p> <p><i>(2) The Scheme of Operation may be varied or replaced by the undertaker at any time—</i></p> <p><i>(a) on the undertaker's own volition, with the consent of the harbour authority (such consent not to be</i></p> |

| DCO Provision | ABP Comment | Applicant Response |
|---------------|-------------|--|
| | | <p>unreasonably withheld) or, in accordance with paragraph (5), the consent of the Secretary of State; or</p> <p>(b) following receipt of a request by the harbour authority for the undertaker to vary or replace the Scheme of Operation, which the undertaker must not unreasonably refuse to agree to, or then delay in proceeding with under this article.</p> <p>(3) Before varying or replacing the Scheme of Operation under paragraph (2) the undertaker must request that the harbour authority takes the following sequential steps—</p> <p>(a) consider in accordance with Requirement 11 if the most recent version of the navigation risk assessment prepared by the undertaker and approved under Requirement 11 needs to be updated on account of the proposed variation to or replacement of the Scheme of Operation, or whether any other form of formal risk assessment is required to be undertaken;</p> <p>(b) if the harbour authority considers in accordance with Requirement 11 that the navigation risk assessment does need to be updated on account of the proposed variation to or replacement of the Scheme of Operation, the harbour authority must update the navigation risk assessment and obtain approval of it</p> <p>(c) consults the PMSC Stakeholder Group on the proposed variation to or replacement of the Scheme of Operation and on receiving such a request the harbour authority must then consult the PMSC Stakeholder Group at the earliest opportunity.</p> <p>(4) When consulting the PMSC Stakeholder Group under paragraph (3):</p> <p>(a) the harbour authority must provide to the PMSC Stakeholder Group information relating to the outcome of the any review by the harbour authority of its the navigation risk assessment or of any other formal risk assessment it may have carried out in connection with the proposed variation to or replacement of the Scheme of Operation by virtue of paragraph (3) including (if applicable) the updated navigation risk assessment; and</p> <p>(b) the undertaker and the harbour authority must have regard to any representations made by the PMSC Stakeholder Group in relation to the proposed variation to or replacement of the Scheme of Operation, prior to the undertaker or the harbour authority providing its consent under paragraph (2)(a) or (b) (as applicable).</p> <p>(5) If the consent of the either party required under paragraph (2) is not given—</p> <p>(a) within 28 days of the submission to the other party of an application for its consent to a proposed variation to or replacement of the Scheme of Operation; or</p> <p>(b) before the expiration of any extended deadline for that consent agreed to by the party proposing the amendment, the grant of such an extension not to be unreasonably withheld or delayed, then the proposed variation to or replacement of the Scheme of Operation must be submitted by the undertaker an arbitrator for determination and settled by arbitration under Article 59 (Arbitration)-undertaker to the Secretary of State for determination. approval.</p> <p>(6) Any submission to the Secretary of State an arbitrator under paragraph (5) must also include a report setting out any representations of the PMSC Stakeholder Group given in response to the proposed variation to or</p> |

Commented [PM1]: These changes are consequential on the changes made to the NRA provisions in Requirement 11. Those changes are that once the NRA for the Scheme is finalised for the first time, it is then subsumed into the Port's NRA. At that point it becomes ABP's document as the SHA, who must then be able to do as they wish with it, and so it would not be appropriate for ABP to be forced by this DCO to do something that is in any event part of its ongoing obligations under the PMSC to keep its risk assessment under review. Thus it will be ABP's choice whether to update it alongside any proposed changes to or replacement of the Scheme of Operation and that would inform whether ABP gives its consent under this article.

Commented [PM2]: This should be the undertaker's obligation as the Scheme of Operation is the undertaker's and the power to vary it under paragraph (2) is vested in the undertaker alone.

| DCO Provision | ABP Comment | Applicant Response |
|--|--|---|
| | | <p><i>replacement of the Scheme of Operation under paragraph (2).</i></p> <p>(7) <i>Following submission of the proposed variation to or replacement of the Scheme of Operation to the Secretary of State arbitrator for approval under paragraph (5), the relevant party may still grant its consent to the proposed variation to or replacement of the Scheme of Operation at any time prior to the Secretary of State's arbitrator's determination, but if the relevant party does so it must on the same day inform the other party and the Secretary of State arbitrator of its consent.</i></p> <p>(8) <i>The undertaker must take such steps as it considers appropriate to publish details of the Scheme of Operation not less than 21 days prior to the new bridge opening for public use or, in relation to any variation to or replacement of the Scheme of Operation under paragraph (2), at such times and with such prior notice as the undertaker considers appropriate in consultation with the harbour authority.</i></p> <p>(8) <i>Article 60 (arbitration) does not apply to any dispute arising under this article.</i></p> <p>The 'PMSC Stakeholder Group' is defined as follows:</p> <p><i>"the PMSC Stakeholder Group" means the group comprising the group maintained and consulted by the harbour authority in accordance with its duties under the Port Marine Security Code, and the undertaker.. as the highway authority for the new bridge"</i></p> <p>Notwithstanding the above discussion relating to the PMSC Stakeholder Group, the Applicant considers that it is important that the Navigation Working Group has a specific role during construction and to that end has brought forward an amendment to the Interim CoCP at Deadline 10 at paragraph 2.9.4: <i>The Navigation Working Group, as set up by the Applicant prior to the consent for the Scheme, must be retained during the construction of the Scheme to provide a forum for exchange of relevant information between the undertaker and the navigation community.</i></p> <p>Finally on the Scheme of Operation, as mentioned at the DCO Hearing the Applicant has prepared an updated Scheme of Operation (which was shared with ABP on 17 May but on which no comments have since been received) which has been submitted at Deadline 10.</p> |
| Article 44 (protection against dredging) | <p>For the avoidance of doubt, ABP considers that its concerns with Article 44 could be satisfactorily addressed if amendments were made as follows:</p> <p><i>"(4) The harbour authority must notify the undertaker at least 5 days before undertaking any maintenance dredge in Lake Lothing within the limits of dredging."</i></p> | <p>The Applicant agrees to this amendment and has included it in its Deadline 10 submission of the draft DCO (version 6).</p> |
| Article 45 (byelaws) | <p>ABP considers that its concerns with Article 45 could be satisfactorily addressed if amendments were made as follows:</p> <p><i>"(6) The harbour authority must not</i></p> <p><i>(a) amend or revoke the byelaws inserted into the Lowestoft Harbour Byelaws 1993 by paragraph (5); or</i></p> <p><i>(b) make byelaws which affect the new bridge, the new bridge infrastructure or impede operation of the new bridge in</i></p> | <p>This provision is required to ensure mutual cooperation between two statutory undertakings and to ensure that provisions of the Order (article 45(5)) are not able to be amended later by ABP without the Council's consent. It enables concerns to be dealt with prior to requiring the involvement of the Secretary of State at the byelaws confirmation stage.</p> <p>Article 45(6)(b) is essentially a mirror to 45(3), where the Applicant is required not only to consult ABP but to obtain its agreement before making any byelaws under the Order controlling navigation or mooring of vessels.</p> <p>But the case for the undertaker to give its prior consent under article 45(6)(a) is actually stronger than the case for consent under article 45(3), because this is not just a question of reciprocity with article 45(3) but, in the case of article 45(6)(a), necessary to ensure that the harbour authority does not directly through a byelaw process undermine the provisions of the DCO contained in article 45(5). This consideration in particular sets this apart from the analogy</p> |

Commented [PM3]: This will be a determination of a difference between two statutory undertakers in relation to whether the Scheme of Operation should be varied or replaced – essentially a choice between the views of one public body (the undertaker) and another having statutory functions (the harbour authority). It is appropriate that this choice is made by the Secretary of State and not an arbitrator because at issue will be whether the Scheme of Operation should be varied or replaced. The Scheme will be a key provision of the statutory regime governing the new crossing and so it is inappropriate as a matter of public policy for anyone other than the Secretary of State to consider whether the Scheme should be varied or replaced. This is very different to any disputes that might arise under the harbour authority's PPs, which should properly be submitted to arbitration (as the DCO currently provides), as those disputes would not involve a question of whether a key provision of the statutory regime governing the new crossing should be changed.

Commented [PM4]: This suggested deletion is not accepted for the reasons given above but the removal of the reference here to paragraph (2)(b) is considered appropriate given the (now) fully reciprocal nature of the article.

| DCO Provision | ABP Comment | Applicant Response |
|--|---|---|
| | <p style="text-align: center;"><i>accordance with the Scheme of Operation, without first obtaining the consent of the undertaker, such consent not to be unreasonably withheld."</i></p> | <p>relating to the existing A47 Bascule Bridge drawn by ABP.</p> <p>The provisions of article 45(6) are therefore important to the protection of the Applicant's undertaking that the DCO would authorise and therefore the Applicant does not agree to their removal.</p> |
| Requirements 4 (CoCP), 6 (Drainage) and 7 (Lighting) | <p>ABP seeks to be expressly consulted by the county planning authority under these Requirements in order that its interests are protected in relation to the specific schemes that are approved.</p> | <p>Whilst the Applicant considers that it is in any event likely that it would be approaching the CPA at the same time as ABP under their Protective Provisions, and that the CPA would be highly likely to consult ABP of their own accord, it understands ABP's concern that it may miss out on receiving certain information that others have seen, and is therefore willing to make these amendments. The Applicant has included them in its Deadline 10 submission of the draft DCO (version 6).</p> |
| Requirement 8 (contaminated land) | <p>ABP considers that its concerns with Requirement 8 could be satisfactorily addressed if an addition is made as follows:</p> <p style="text-align: center;"><i>"(9) In this paragraph, where any contaminated land, including groundwater, is encountered within Lowestoft Harbour, or has the potential to enter into or impact on Lowestoft Harbour, the undertaker must –</i></p> <p style="text-align: center;"><i>(a) report the contaminated land, including groundwater, to the Harbour Authority as soon as reasonably practicable; and</i></p> <p style="text-align: center;"><i>(b) in addition to seeking approval from the county planning authority under sub-paragraphs (3), (4), (5) and (7), seek approval from the Harbour Authority."</i></p> | <p>The Applicant notes that ABP is already protected with regard to contamination pursuant to paragraph 63(1)(d)(i) of its Protective Provisions. The Applicant also notes that the county planning authority must deal with contamination issues as they arise.</p> <p>However the Applicant is cognisant that ABP will need to be aware of where contamination is found in order to manage its undertaking. It has therefore amended the DCO at Deadline 10 to provide for ABP to be informed under Requirement 8 of contaminated land and to be consulted by the county planning authority for all other stages.</p> |
| Requirement 11 (navigation risk assessment) | <p>ABP considers that its concerns with Requirement 11 could be satisfactorily addressed if an addition is made as follows (these amendments also fully work in the context of the amendments to Article 40, specified above):</p> <p>(1) <i>Prior to commencement of construction of the new bridge and following consultation with the harbour authority, the undertaker must undertake a vessel simulation which takes account of the final design of the new bridge.</i></p> <p>(2) <i>Prior to commencement of construction of the new bridge and following consultation with the harbour authority and the PMSC Stakeholder Group Navigation Working Group, the undertaker must update the preliminary navigation risk assessment to take account of the final design and construction methodology of the new bridge and, in doing so, must use the results of the vessel simulation carried out under sub-paragraph (1).</i></p> <p>(3) <i>Following the update carried out pursuant to sub-paragraph (2), the Applicant must submit the updated navigation risk assessment to the</i></p> | <p>Further to the discussion above in relation to article 40, the Applicant is receptive to many of the changes proposed by ABP to this Requirement which are consequential to that article.</p> <p>In that context, the Applicant:</p> <ul style="list-style-type: none"> • accepts the change to sub-paragraph (2); • does not accept the change to sub-paragraph (3): The Applicant accepts that as statutory harbour authority, ABP is concerned to ensure that it is not in breach of its statutory duties and obligations. However, providing for consent not to be unreasonably withheld does not put ABP in a position that it would be in breach, as refusing consent for those reasons would not be unreasonable. The wording (not unusual in DCOs, e.g. in protective provisions involving various parties with statutory functions) is required to ensure ABP does not have spurious reasons for refusing consent and thus delaying construction of a NSIP and to ensure it acts both reasonably and in compliance with its statutory obligations; • accepts the change to sub-paragraph (4) subject to the important proviso that any future dispute with ABP on a further updated NRA affecting the bridge undertaking could be resolved by arbitration under article 60 (this is necessary protection for the undertaker otherwise it would have no influence on actions taken by ABP re the NRA which, if then leading to a breach by the Applicant of Requirement 11(5) as numbered below, would lead to criminal liability); and • considers that the remaining proposed sub-paragraphs other than the last one can be deleted, consequential on the Applicant's acceptance of sub-paragraph (4). This is on the basis that once the Scheme NRA has become subsumed into ABP's port wide NRA, the document is 'owned' by ABP as part of the exercise of its |

| DCO Provision | ABP Comment | Applicant Response |
|---------------|---|--|
| | <p>harbour authority for its approval, which must not be unreasonably withheld.</p> <p>(4) Following construction of the new bridge, the harbour authority must incorporate the updated navigation risk assessment into the wider navigational risk assessments relating to Lowestoft Harbour. the undertaker must ensure that the updated navigation risk assessment produced pursuant to sub-paragraph (2) is kept under review and further updated as the undertaker considers circumstances require.</p> <p>(5) The harbour authority must ensure that the updated navigation risk assessment approved pursuant to sub-paragraph (3) is kept under review and further updated if:</p> <p style="padding-left: 40px;">(a) the harbour authority considers that an update is necessary; or</p> <p style="padding-left: 40px;">(b) a request is made from the undertaker, the harbour authority considers that circumstances require it.</p> <p>In updating the navigation risk assessment the undertaker must consult the Navigation Working Group in any case where material changes are proposed to be made by the undertaker, and the undertaker must submit the updated navigation risk assessment to the harbour authority for its approval, which must not be unreasonably withheld.</p> <p>(6) Where material changes are proposed to be made to the navigation risk assessment by the harbour authority under sub-paragraph (5), it must first consult with the PMSC Stakeholder Group.</p> <p>(7) Any navigation risk assessment updated by the undertaker pursuant to sub-paragraph (5) must be submitted to the harbour authority for its approval, which must not be unreasonably withheld.</p> <p>(7) The construction and operation of the new bridge must be carried out in accordance with the recommendations of the updated navigation risk assessment produced pursuant to sub-paragraph (2) or any further updated navigation risk assessment produced pursuant to sub-paragraph (5)."</p> | <p>wider navigation safety duties relating to its statutory undertaking. It would therefore be inappropriate for the DCO to <u>require</u> ABP to undertake any further steps in relation to the port wide NRA. Pursuant to the processes in article 40, ABP will be able to make its own decision on whether the NRA needs to be updated as part of any proposed update to or replacement of the Scheme of Operation. The Applicant has accepted below that it must pay the costs of any update to the NRA that arises from the applicant or ABP proposing an update to or replacement of the Scheme of Operation.</p> <p>As for the last sub-paragraph, the Applicant considers that it should be amended and divided into two sub-paragraphs, to read:</p> <p>(5) <i>The construction and operation of the new bridge must be carried out in accordance with the updated navigation risk assessment approved under sub-paragraph (3) and, subject to sub-paragraph (6), in accordance with any further updated navigation risk assessment prepared by the harbour authority in consequence of sub-paragraph (4)."</i></p> <p>(6) <i>The obligation under sub-paragraph (5) to operate the new bridge in accordance with any further updated navigation risk assessment prepared by the harbour authority in consequence of sub-paragraph (4) is subject to the terms of the determination under article 60 of any dispute between the undertaker and the harbour authority relating to that further updated navigation risk assessment,</i></p> <p>The Applicant has updated the DCO on this basis at Deadline 10 (Revision 6).</p> |
| DML | <p>Paragraph 3(2)(i)(cc) – Minor drafting error – the word 'situation' should be substituted by the word 'siltation'.</p> <p>Paragraph 3(2)(i)(ee) – This provide the Applicant the right to remove/relocate moored vessels etc. It is important that this power is subject to Article 21 of the dDCO.</p> <p>As such, ABP requests that reciprocal consultation and approval with the 'Harbour</p> | <p>The Applicant has corrected the error in paragraph (3)(2)(i)(cc) at Deadline 10.</p> <p>Paragraph 3(2)(i)(ee) repeats paragraph (x) of the Ancillary Works in Schedule 1 to the DCO. This has always been subject to article 21 which provides for consultation with and for consent to be given by ABP.</p> <p>The Applicant has added the harbour authority to the consultation requirements in conditions 4 and 6; but the harbour authority's approval of such matters will be dealt with under the existing Protective Provisions. It is not appropriate for the harbour authority to be a decision-maker in the context of the DML, which operates pursuant to the Marine and Coastal Access Act 2009 and under which the MMO is the relevant approving body.</p> <p>The harbour authority is already referenced in condition 8(3) as a consultee and so no change has been made.</p> <p>Conditions 10 and 11 relate to 'how' construction is carried out – there is no consultation or approval mechanism within</p> |

| DCO Provision | ABP Comment | Applicant Response |
|---|--|---|
| | <p>Authority' is included in the following conditions of the DML:</p> <ul style="list-style-type: none"> a) Condition 4 – Construction Method Statement; b) Condition 6 – Maintenance Dredging Method Statement; c) Condition 8 – Marine Pollution Contingency Plan; d) Condition 10 – Concrete and Cement; and e) Condition 11 – Coatings and Treatments. | <p>them; and in any event ABP would be able to impose appropriate controls and monitoring in relation to such matters if it felt necessary pursuant to its Protective Provisions. As such, no change has been made to these conditions.</p> |
| <p>Protective Provisions Paragraph 53</p> | <p>We understand this position is agreed by the Applicant, however to ensure there is no doubt, ABP considers that its concerns with Paragraph 53 could be satisfactorily addressed if an addition is made as follows:</p> <p><i>“plans” includes sections, descriptions, drawings, specifications, any navigation risk assessment updated under Requirement 11(2) or 11(4), proposed method statements and hydraulic information, including but not limited to information as to the discharge of water and materials;</i></p> | <p>Further to the above submissions on article 40 and Requirement 11, the Applicant is content to make this change and has done so at Deadline 10.</p> |
| <p>Protective Provisions Paragraphs 54 and 55</p> | <p>ABP considers that its concerns with Paragraph 54 could be satisfactorily addressed if an addition is made as follows:</p> <p><i>“(5) If the harbour authority fails to express its refusal or approval of any request for a consent under—</i></p> <ul style="list-style-type: none"> <i>(a) sub-paragraph (1) in respect of temporary possession powers;</i> <i>(b) sub-paragraph (2); or</i> <i>(c) sub-paragraph (3),</i> <p><i>within 30 days of such a request having been delivered to it, and the harbour authority has not requested an extension of time to give its consent from the undertaker prior to the expiration of the 30 days, such a request is deemed to have granted been refused by the harbour authority.</i></p> <p><i>(6) If the harbour authority fails to express its approval of any request for a consent under this sub-paragraph (1), (2) or (3) at the expiration of the extension to time granted by the undertaker under sub-paragraph (5), such a request is deemed to have been refused by the harbour authority.”</i></p> <p>ABP considers that its concerns with Paragraph 55 could be satisfactorily</p> | <p>The Applicant acknowledges that deemed refusal is preferable to ABP in its role as statutory harbour authority, and it is therefore willing to make such a change.</p> <p>However, the Applicant is mindful that this should not be used as a way to frustrate the Scheme by continually refusing approval of the detail of a Scheme consented in principle by the Secretary of State.</p> <p>As such the Applicant is only willing to accept such changes if, in paragraphs 54(5) and 55(4), after the ABP added words <i>'and the harbour authority has not requested an extension of time to give its consent from the undertaker prior to the expiration of the 30 days'</i> the following words are also added: <i>'which the undertaker has granted, acting reasonably'</i>.</p> <p>The Applicant has put forward such changes at Deadline 10.</p> |

| DCO Provision | ABP Comment | Applicant Response |
|---------------------------------------|---|---|
| | <p>addressed if an addition is made as follows:</p> <p>(4) <i>If the harbour authority fails to express its refusal or disapproval of any plans or arrangements within 30 days after they have been delivered to it under sub-paragraph (1), and the harbour authority has not requested an extension of time to give its consent from the undertaker prior to the expiration of the 30 days, it is deemed to have approved refused them.</i></p> <p>(5) <i>If the harbour authority fails to express its approval of any plans or arrangements delivered to it under sub-paragraph (1) at the expiration of the extension to time granted by the undertaker under sub-paragraph (4), such a request is deemed to have been refused by the harbour authority."</i></p> | |
| Protective Provisions Paragraph 62 | <p>ABP considers that its concerns with Paragraph 62 could be satisfactorily addressed if a modification is made as follows:</p> <p>"(4) This paragraph does not apply where any work is being managed and operated in accordance with any approval given by the harbour authority.</p> <p>(4) In the event of a Article 59 (arbitration) does not apply to any difference or dispute between the undertaker and the harbour authority as to the necessity of any steps or works specified in a notice by the harbour authority under this paragraph, such difference or dispute shall be determined by arbitration in accordance with article 59 (arbitration)."</p> | <p>The Applicant accepts the removal of the original sub-paragraph (4).</p> <p>However, it does not accept that an arbitrator should not be able to be appointed in the event of a dispute as to the steps to be taken. Whilst the Applicant recognises that ABP is concerned that it should be able to deal with safety matters urgently, there is still scope for it to ask something of the Applicant under paragraph 62 that is far reaching in its scope/requirements but unreasonable, and so this provision ensures that a dispute as to whether it is indeed reasonable can be heard. This is why this is a well precedented provision in PPs for harbour authorities. In the meantime, ABP as SHA would be able to take whatever action is required to ensure the safety of navigation using its own statutory powers, the costs of which would be covered by the indemnity in the PPs. The Applicant notes that ABP accepted this wording on the Tidal Lagoon Swansea Bay DCO.</p> |
| Protective Provisions Paragraph 63 | <p>ABP considers that its concerns with Paragraph 62 could be satisfactorily addressed if an addition is made as follows:</p> <p>(1)</p> <p>(c) any update of the navigation risk assessment relating to the whole of Lowestoft Harbour to the extent that it is required as a result of any updated navigation risk assessment approved by the harbour authority under Requirement 11(3) or 11(5);</p> <p>(d) any update of the Scheme of Operation required under Requirement 40;</p> <p>(e) any consultation required to be undertaken by the harbour authority in accordance this Order;</p> <p>(d) the construction, operation, maintenance or failure of a specified work, or the undertaking by the harbour authority of works or measures to prevent or</p> | <p>The Applicant responds as follows:</p> <ul style="list-style-type: none"> • Pursuant to the discussion of article 40 and Requirement 11 above, the Applicant accepts the change to (c) up to the word 'required' as there will be no update to the NRA 'under Requirement 11' on the basis of the changes proposed above; the following words should instead be 'as a consequence of any variation to or replacement of the Scheme of Operation proposed by the undertaker or the harbour authority under article 40'. • The Applicant accepts that any cost incurred by ABP in connection with any variation to or replacement of the Scheme of Operation through the article 40 process should be covered by the Applicant and so would propose adding 'any variation to or replacement of the Scheme of Operation proposed by the undertaker or the harbour authority under article 40'. • The Applicant also accepts that it should pay the costs incurred by ABP in responding to consent and consultation requests <u>by the undertaker</u> to it. It has therefore brought forward an addition to the paragraph which reads 'responding to a request for consultation, agreement, approval or consent by the undertaker pursuant to any provision of this Order'. • The Applicant does not accept the suggestions in relation to costs and losses for the reasons set out in its previous submissions. In particular it notes that para 63(1) of the PPs refers to: 'all losses, costs, charges, damages and expenses however caused which may reasonably be incurred by or occasioned to the |

| DCO Provision | ABP Comment | Applicant Response |
|---------------|--|--|
| | <p><i>remedy danger or impediment to navigation, or damage to port land arising from such construction, maintenance or failure, including but not limited to—</i></p> <p>(i) <i>any additional costs of dredging incurred by the harbour authority as a result of contamination of the lakebed caused by the construction or maintenance of the specified work;</i></p> <p>(ii) <i>damage to any plant or equipment belonging to the harbour authority and located on port land, or to any port land or building on port land, that is caused by the construction, operation, maintenance or failure of a specified work; and</i></p> <p>(iii) <i>the failure of the opening mechanism of the new bridge; and</i></p> <p>(e) <i>any act or omission of the undertaker or its servants or agents whilst engaged in the construction, operation or maintenance of a specified work or in the act of operating the opening mechanism of the new bridge, save where such acts or omissions are undertaken by the harbour authority; and</i></p> <p>(f) <i>any consultation or consent required to be undertaken or provided by the harbour authority under the Order.</i></p> <p>(2) <i>In sub-paragraph (1) -</i></p> <p>(a) <i>"costs" include:</i></p> <p>(i) <i>expenses and charges;</i></p> <p>(ii) <i>staff costs and overheads; and</i></p> <p>(iii) <i>legal costs,</i></p> <p>(b) <i>"losses" includes-</i></p> <p>(i) <i>Direct, indirect and consequential financial loss, including loss of profit, loss of use, loss of reputation, loss arising from business interruption;</i></p> <p>(ii) <i>Loss of or damage to vessels, vehicles, equipment, plant, machinery and port infrastructure (including loss or damage to cargo and cargo transhipment costs) and loss or damage to the specified work and costs of repair and/or reinstatement, including the costs of repair or reinstatement of port facilities, and/or the specified work;</i></p> <p>(iii) <i>Loss caused by delay;</i></p> <p>(iv) <i>Loss caused by pollution;</i></p> <p>(v) <i>Loss of life;</i></p> <p>(vi) <i>Personal injury; and</i></p> <p>(vii) <i>Occupier's liability.</i></p> | <p><i>harbour authority by reason of' and 63(2) states that the undertaker must indemnify the harbour authority from and against all claims and demands arising. As such, the indemnity is already very wide ranging; and would cover the costs, losses and charges suggested by ABP to the extent that such a claim, etc., is able to be brought against ABP in the first place.</i></p> <ul style="list-style-type: none"> • The debate really must focus on what those losses, charges and costs relate to, where ABP has sought through its changes and previous submissions that they should relate to the undefined 'operation', 'existence' and 'use' of the Scheme. In particular, at the DCO Hearing, ABP drew attention to the fact that the indemnity for the Environment Agency within the dDCO relates to the 'operation' of a specified work (as defined in their protective provisions). • The Applicant's position on these matters is as follows: <ul style="list-style-type: none"> ○ Individual Protective Provisions are just that and comparing one set with another on detailed points like 'operation' does nothing to advance the issues. They have arisen and evolved over the years entirely separately and with reference to entirely different legislation and statutory and other bodies. ○ The definition of 'specified work' in the Environment Agency's Protective Provisions relates to works which affect any drainage work (any land which provides or is expected to provide flood storage capacity for Lake Lothing and any bank, wall, embankment or other structure, or any appliance constructed or used for land drainage, flood defence or tidal monitoring) or the volumetric rate of flow of water in or flowing to or from any drainage work; (b) affect the flow, purity or quality of water in Lake Lothing and any other watercourse or other surface waters or ground water; (c) cause obstruction to the free passage of fish or damage to the fishery; (d) affect the conservation, distribution or use of water resources; or (e) affect the conservation value of Lake Lothing and habitats in its immediate vicinity. ○ These are all matters which relate to the Environment Agency's functions as the statutory regulator for the water environment in England, and do not relate to its position as a statutory undertaker whose assets, apparatus or, indeed, 'statutory undertaking' is sought to be protected through the provisions. As such, it is appropriate for the Protective Provisions to refer to 'operation' as, for example, it may be the case that once the Scheme has been fully built out and opened, the flow, purity or quality of water may be affected in ways not expected at ES stage. Furthermore, if, for example the Lowestoft Tidal Barrier is brought forward by the Agency as a measure used for flood defence, it may be affected by the operation of the new bridge. ○ A better example within the DCO is Network Rail, a statutory undertaker in the transport sector, like ABP, whose apparatus is sought to be protected through their Protective Provisions – they do not have a provision providing protection for the operation, existence or use of the Scheme with regard to its statutory undertaking or apparatus. ○ As the Applicant has consistently stated, the indemnity in the Protective Provisions deals with the issues that would cause a loss or liability to ABP which could be considered the fault of the Applicant: which is a scenario where the bridge fails in any way; there is an act or omission by the Council (which could include failure to adequately maintain parts of the bridge such as barriers and fencing); and where the opening mechanism fails, causing loss to ABP. So the indemnity does already relate to <u>appropriate and relevant</u> aspects of the operation, existence and use of the bridge. ○ The Applicant notes that the indemnity is not expressed as being only related to 'direct' costs, but can also relate to 'indirect' costs meaning that costs arising from such failures, acts, or omissions could potentially deal with a large range of the types of losses of the type that ABP is concerned about. ○ In relation to losses caused as a result of the bridge's existence, ABP at the Hearing discussed the example of a driver suffering a heart attack and driving off the bridge into a warehouse on Port land, where in such a scenario any claim against that driver's insurance company may not be possible. It should be noted that the bridge will be designed with appropriate vehicle restraint barriers/parapets in |

| DCO Provision | ABP Comment | Applicant Response |
|---------------|---|--|
| | <p>(3) <i>Without limiting the generality of sub-paragraph (1), the undertaker must indemnify the harbour authority from and against all claims and demands arising out of, or in connection with, such construction, operation, maintenance or failure or act or omission as is mentioned in that sub-paragraph.</i></p> <p>(4) <i>For the avoidance of doubt, sub-paragraphs (1) and (3) are intended to provide an indemnity to the harbour authority for:</i></p> <p style="padding-left: 20px;">(a) <i>any form of losses of damages whatsoever without limitation suffered by the harbour authority; or</i></p> <p style="padding-left: 20px;">(b) <i>where any claims of whatsoever nature are made against the harbour authority, or</i></p> <p style="padding-left: 20px;">(c) <i>where the harbour authority incurs any form of liability to the undertakers or to any third parties whatsoever without limitation, if the harbour authority would not have suffered that loss or damage or such a claim would not have been made or such liability not incurred but for the construction or the existence or the location or the operation or use of the specified work and whether the loss or damage or claim or liability was caused either directly or indirectly by the fact of and effects of the construction or the existence or location or the operation or use of the specified work.</i></p> <p>(5) <i>Nothing in this paragraph imposes any liability on the undertaker to the extent that any losses, costs, charges, damages, expenses, claims or demands referred to in sub-paragraph (3) are attributable to negligence on the part of the harbour authority or of any person in its employ or of its contractors or agents, including negligence in the course of operating the opening mechanism of the new bridge.</i></p> <p>(6) <i>The harbour authority must give to the undertaker notice in writing of any claim or demand for which the undertaker may be liable under this paragraph and no settlement or compromise of any such claim or demand may be made without the consent in writing of the undertaker."</i></p> | <p>accordance with DMRB standards so such an event is inherently unlikely. In any event, in that example, the Applicant fails to see that this consequentially means that ABP would therefore be liable for any loss or damage caused to others by the accident, even were the warehouse to be occupied by one of its tenants. If ABP is the occupier of the warehouse, or even as landlord, it would be reasonable to expect ABP to have its own buildings insurance in place which could be used to claim for putting right any damage caused and suffered by ABP. The Applicant maintains its position that it is inappropriate for an indemnity to deal with claims arising just from the fact the bridge exists. Those should be dealt with by the general law.</p> |

3 Response to ABP's Deadline 9 Submission

| Reference | The Applicant's Comment | ABP's Response | Applicant Further Response |
|-------------------------------------|--|---|--|
| <p>Legal Side Agreements</p> | <ul style="list-style-type: none"> The conditional consent under the dDCO, whereby ABP is required to consent to the Applicant's use of compulsory acquisition powers, would, in essence, be ABP's 'deal' that would enable the acquisition to take place. Since 'no deal' assumes ABP has sought to impose unreasonable restrictions, it is not a scenario that the Applicant considers should be given much weight.' | <ul style="list-style-type: none"> The Applicant has seriously misunderstood the purpose and rationale for the proposed Legal Side Agreements and in this context, the ExA should note that even at this late stage in the process, ABP is still waiting to receive from the Applicant's lawyers a complete set of draft documentation – which of itself leads ABP to question the genuine intent of the Applicant to actually resolve the issues between the parties. The sole rationale for ABP being prepared to even contemplate entering into any legal agreement with the Applicant is to give the Applicant an opportunity to provide the necessary measures of mitigation sufficient to offset the serious detrimental impact of the Scheme on the Port. A 'no deal' scenario assumes that the Applicant has not been able to address and adequately mitigate ABP's fundamental objections to the Scheme through the medium of the Legal Side Agreements. As a result, ABP in light of its statutory obligations and duties will not have been able to enter into those legal agreements and as a consequence, will not be able to withdraw its objections to the Scheme. Until such time as a complete set of draft Legal Side Agreements have been provided to ABP and then negotiated and approved by both parties, ABP has no choice, if it is to protect its statutory undertaking and comply with its statutory obligations and duties, but to proceed on the basis that a worst case scenario (i.e. a 'no deal' scenario) will be the unfortunate, but inevitable, conclusion. Certainly based on the current state of the draft documentation provided by the Applicant's lawyers, ABP cannot see how such a result can be avoided. The Applicant's assertion that a "no-deal" scenario "<i>assumes that ABP has sought to impose unreasonable restrictions</i>" simply underlines the underlying and fundamental concern that ABP has drawn to the ExA's attention consistently throughout the examination process – and before – that the Applicant has made no attempt at any time in the process to understand and recognise: <ul style="list-style-type: none"> o the importance of the Port of Lowestoft; o the complexity of port operations; o the value of the Port to the local economy; o the naivety in proposing the construction of a low bridge through the middle of an operational port; and o the serious detriment that the LLTC scheme will cause to the statutory undertaker's statutory undertaking. The Applicant's assertion is simply further evidence of the Applicant's arrogant approach to this Scheme. As such, the ExA will understand that the conditional consent contained in the dDCO is not a 'deal' that would render the Scheme acceptable to ABP in the absence of an agreed position between the parties, comprising genuine mitigation and an satisfactory indemnity, formally encapsulated in the Legal Side Agreements. | <p>The Applicant has put forward multiple submissions setting out its attempts to engage with ABP and has through its submissions and discussions sought to find mechanisms to deal with ABP's concerns.</p> <p>Clearly, there is a disagreement between the Applicant and ABP as to whether the effects of the Scheme would constitute 'serious detriment' to the carrying on of ABP's undertaking. ABP maintains that without the full package of measures it is seeking as mitigation, it will suffer a degree of detriment that will amount to 'serious detriment'. The Applicant does not accept this starting position is demonstrated by the available evidence, and considers that even without mitigation the overall detrimental effects of the Scheme would not amount to 'serious detriment'. Nonetheless, the Applicant has always proposed a variety of mitigation measures as part of the Scheme and has sought to engage with ABP on further measures that could be taken to meet or allay its concerns. ABP's approach appears to be that unless the Applicant 'gives' on the 'big ticket' mitigation items, it is not willing to negotiate the side agreement and associated property documentation which have been provided to it; although the Applicant acknowledges that it has very recently received and responded to proposals to move forward with the side agreement from ABP.</p> <p>As the Applicant has previously noted, it accepts that it needs to justify its land acquisition proposals, and make the case for why mitigation measures are not necessary.</p> <p>It has done this and the ExA will make its judgement, but this should not stop negotiations from continuing.</p> |

| Reference | The Applicant's Comment | ABP's Response | Applicant Further Response |
|--|---|---|---|
| Permanent acquisition of land and Extent of Compulsory Acquisition Powers | <ul style="list-style-type: none"> The Applicant is seeking a permanent transfer of land within the Port, rather than a long leasehold proposition requested by ABP, as the Applicant does not want any fetter on its ability to exercise its powers as highway, street and traffic authority over the land and airspace involved, including in relation to the interaction of ABP with the bridge structure within the Port estate. | <ul style="list-style-type: none"> The long leasehold requested by ABP, whereby ABP would provide the Applicant with all necessary rights over the bridge and highway structure for the life of the Scheme, with an under-lease granted back to ABP to provide ABP with rights and access to the spaces under the bridge structure, provides the Applicant with all necessary powers to act as the highway, street and traffic authority over the part of the Scheme that over-sails the Port, without any fetter on its powers by ABP. In the light of the Applicant's response, ABP queries whether the Applicant has actually understood the legal process. This position has been accepted by Welsh Government in respect of its statutory duties relating to the M4 Motorway that interacts with the Port of Newport. As such, it is unclear why this position is unacceptable to the Applicant? | <p>The Applicant has indicated that it is willing to discuss the potential of this proposal with ABP.</p> <p>The Applicant's point at Deadline 8 was that whilst it could operate its statutory powers in a long lease scenario, it still would be subject to the landlord and tenant relationship - that would 'hang over' such powers; notwithstanding that they could be used. In addition, for any such arrangement to be effective there would need to be dedication of all of the relevant land as highway by ABP in order for the Applicant to have any statutory powers as highway authority over that land (and for the public to be able to exercise public rights over the highway). As a mere tenant the Applicant could neither dedicate the land as highway nor compel ABP (as landlord/freehold owner) to do so. Thus ABP would need to unequivocally commit to dedication of the relevant land as highway as well as offering the Applicant a long lease of it.</p> <p>However, and as previously noted, the Applicant is willing to consider such a proposal, but has not received any detailed proposals from ABP.</p> <p>Until such proposals are able to be secured, the Applicant requires compulsory acquisition powers to ensure that the Scheme can be delivered.</p> |
| Permitted Development Rights | <ul style="list-style-type: none"> The Applicant considers that, if it had to decommission the bridge in the future and dispose of the land within the Port estate to ABP, that disposal would enable ABP to use the land for its undertaking, and thus its PD rights would be able to be utilised. The Applicant also considers that loss of permitted development rights is not a 'ground' of alleged serious detriment, and even though this land is lost to ABP, it should not be 'double counted' in a decommissioning scenario. | <ul style="list-style-type: none"> This response by the Applicant merely evidences further the Applicant's lack of understanding of the legal process, which in the context of these proposals, ABP finds extremely worrying. ABP is unable to simply 'regain' its permitted development rights ("PD rights") rights once the Applicant has disposed of the impact parts of the Port estate to ABP in the future. The PD rights that ABP currently benefits from can only be conferred on ABP by way of a parliamentary process, and it would be all but impossible for ABP to obtain the necessary parliamentary powers to reinstate those rights at a future date. The loss of PD rights, as well as ABP's loss of interest in its statutory Port estate, both form part of the overall serious detriment caused by the Scheme. These are separate and discrete issues and the Applicant is being disingenuous to suggest that there is any element of 'double counting' when considering both the immediate and long-term impacts of the loss of this land. Further information regarding ABP's loss of PD rights is set out in ABP's Deadline 8 Submissions (ABP: 3 of 3 – LD8) | <p>First, the Applicant notes that this is discussing a very hypothetical situation of the bridge being decommissioned, and so the seriousness of the potential detriment in such a scenario will need to be considered by the ExA.</p> <p>As noted the Applicant does not propose through the DCO to amend the Port's harbour limits; so the question will purely rest on whether the land is operational land or not - if it is SCC's highway, it will not be the Port's operational land. However, if circumstances were to change in future such that the land was returned to ABP, then provided that that land was held by ABP as operational land the permitted development rights already granted by the General Permitted Development Order (England) 2015 would apply to that land and there would be no need for any fresh or new grant of permitted development rights.</p> |
| Vehicular Access and Commercial Road | <ul style="list-style-type: none"> Instead of arbitrarily applying land powers to the whole of the north bank, the Applicant recognised that arrangements would need to be made for a diversion as a condition of any consent for the Applicant's exercise of the limited extent of temporary possession powers sought. The Applicant acknowledges that it needs to take additional steps | <ul style="list-style-type: none"> As ABP has pointed out, and as the Applicant is unsurprisingly reluctant to admit, in failing to understand the actuality of port operations, the Applicant has failed to identify and consequently legislate, in terms of legal process, so as to ensure the deliverability of the Scheme. As the Applicant has conceded, the location of the proposed diversionary route between 3 Shed and Lake Lothing is not deliverable under the terms of the current DCO application. As the proposed diversionary route is located across port operational land (i.e. private land not subject to any temporary possession powers), the Applicant cannot implement such a route without both the street authority and the landowner's consent. | <p>The Applicant notes that whether the diverted route was in the Order limits or not, ABP's consent would have been required as street authority, landowner, or under protective provisions.</p> <p>Whilst ABP's view in the fourth bullet point is noted, the Applicant emphasises that under any scenario (i.e. the land in or out of the Order limits), the question of the provision of a reasonable diversion route being consented by ABP would come back to the 'reasonableness' test of ABP refusing consent under article 11, and in it likely refusing consent to the use of temporary possession powers for the construction compound (on the basis that it considers no reasonable alternative route has been provided). As such, if agreement was not able to be reached between the parties, the issue would be able to be resolved through arbitration.</p> |

| Reference | The Applicant's Comment | ABP's Response | Applicant Further Response |
|---|---|---|--|
| | <p>to ensure a diversion of Commercial Road can be implemented and, taken with ABP's proposed Protective Provisions, it is clear that the Applicant would always be required to work with ABP to facilitate a diversion taking place</p> | <ul style="list-style-type: none"> Given the seriously detrimental impact that the proposed diversionary route will have on port operations and the Applicant's failure to carry out any health and safety risk assessment of the adequacy of its proposal, despite repeated requests by ABP, the ExA should note that at this stage that ABP is not minded to grant consent for use of its port estate for the proposed diversionary route during construction of the proposed crossing. Furthermore, the ExA should be aware that despite representations and evidence provided by ABP at the examination in writing, the Applicant has to date failed to respond meaningfully to the practical difficulties that will arise in relation to HGV marshalling for the Dudmans operations. | <p>Notwithstanding this, the Applicant does wish to reach an arrangement with ABP and the ExA has seen correspondence indicating its attempts to respond to ABP, noting that at this stage the Applicant does not have the full detail of the construction stage (as would be expected at this stage of the project).</p> <p>The Applicant, in that correspondence with ABP, which was appended to REP8-007, has suggested in the Appendix to the letter from SCC to ABP, dated 26 March 2019, a number of mitigating measures which could be explored with ABP at the relevant time. The principal mitigation measure is sequencing, i.e. by having a full understanding of contemporary requirements, the construction programme can be developed to avoid conflicts which are difficult to resolve – as a very obvious example SCC could not occupy the entirety of plot 2-22 and close Commercial Road, because this would obstruct the proposed diversionary route. With regard to Dudman's operations, specifically, it was noted that</p> <ul style="list-style-type: none"> HGVs could be held within plot 2-22. As stated previously SCC does not expect to need all this space all of the time. SCC is also seeking temporary possession of plot 2-19, this plot can be used in concert with plot 2-22. Commercial Road is, to the point of entry to the Port, public highway. Temporary traffic regulation orders could be introduced (under either RTRA 1984 powers or pursuant to article 52 of the DCO) to limit parking if that was constraining available width or use traffic management measures, should they be required for highway safety. A radio call up facility could be used, with HGVs held in a different area of the Port to be agreed with ABP and movements therefore orchestrated to avoid congestion or conflicts. A form of Vehicle Booking System – the principal of which are commonly used in Ports, such as at the Port of Felixstowe, London Gateway, albeit at a much larger scale, could be developed to avoid coincidence of larger numbers of contractor and Port related HGVs. Provision of a second weighbridge at the exit point (i.e. eastern end) of the Dudman site to avoid the need for any recirculation and reduce any congestion. <p>These matters remain under discussion with ABP, pursuant to the draft Side Agreement.</p> |
| <p>Paragraph 53 of ABP's Protective Provisions</p> | <ul style="list-style-type: none"> It is the Applicant's position that ABP would not be able to unreasonably veto the use of compulsory acquisition powers over its land, once the Secretary of State has determined that powers should be granted over the full extent of it, and therefore would not be able lawfully to use the consent mechanism in the protective provisions to frustrate implementation of the Scheme. The focus of the consent of the Protective Provisions is therefore | <ul style="list-style-type: none"> At the examination hearing on 8 March 2019, the Applicant dismissed ABP's concerns regarding the compulsory acquisition powers sought by the Applicant over the Port estate, as it considered that these could be addressed at a later stage of the NSIP process, by virtue of paragraph 53 of ABP's protective provisions. The purpose of the examination process is for the Applicant to consider, explain and address ABP's concerns regarding the Scheme before the application is determined by the Secretary of State. The examination process is not an opportunity for the Applicant to defer these issues until such time as it is too late for them to be considered or addressed by the Applicant in any meaningful way. As such, if ABP's concerns remain unacknowledged or unaddressed by the Applicant, then ABP considers it would not be unreasonable for it to refuse to provide consent for all or part of the Applicant's exercise of compulsory acquisition powers over the Port. | <p>The Applicant re-states its submissions at Deadline 8 on this point – it does not dismiss the fact that the compulsory acquisition powers are required to be justified through the Examination process.</p> |

| Reference | The Applicant's Comment | ABP's Response | Applicant Further Response |
|---------------------------------|--|--|---|
| | <p>on the 'how' of the powers being used, not the 'what' or the 'where'.</p> | | |
| <p>Serious Detriment</p> | <ul style="list-style-type: none"> The Applicant agrees that the serious detriment test includes consideration of both current and future operations, but in respect of future operations, the ExA and SoS will also need to ascertain what those future operations will be in order to make the judgement as to whether there is serious detriment to those operations - in other words, identifying the future operations underpins identifying the detriment caused, and its level of seriousness. Whether matters being made a little less 'efficient' or not 'best fit' in the Port (such terms that were used by ABP in the 1 April hearing) or that a new bridge is regarded by ABP as 'undesirable' should not, in the Applicant's view, be judged as either a 'detriment' or 'serious'. The Applicant makes reference to the Able Marine Energy Park Project DCO, (AMEP) where it states that ABP made similar objections to this Scheme in relation to the proposed compulsory acquisition of a triangular piece of land that ABP proposed to be used as a deepwater jetty ('WDJ'). The Applicant notes the parallels of Able Marine with the Scheme, particularly the reliance on an unpublished Masterplan to evidence the future scenario, and that the use proposed for the land affected could be undertaken elsewhere – a jetty in that case, berthing in this case, | <ul style="list-style-type: none"> ABP's ongoing concerns regarding the serious detriment that will be caused by the Scheme have been dealt with in numerous previous written submissions made by ABP, and are not duplicated here. In light of the Applicant's failure to make any attempt to address the legal test of serious detriment, ABP at this stage in the process, believes it has no choice but to make its case to the Secretary of State in accordance with the provisions of section 127 of the Planning Act 2008. The ExA should record that the Applicant has again deliberately mischaracterised the serious detriment test, by attempting to impose a limit on what future operations may be considered in the context of the test that is not encapsulated in either statute or case law. It is patently not a legal requirement for specific future operations to be identified in order for the SoS to undertake an assessment of the proposed detriment caused. Conversely, it is sufficient that the SoS is satisfied that the proposed compulsory acquisition will significantly impair essential operational flexibility, which will in turn, constrain both current and future operations, as was the case in <i>Hinckley</i>. It is disappointing that in order to further their case; the Applicant has simply ignored the legal precedent. The Applicant's less than subtle attempt to diminish ABP's case by referencing specific words used by ABP at the ISH on 1 April 2019 out of context does the Applicant and its team little credit. ABP finds it extremely worrying that the Applicant is prepared to treat the NSIP examination process with such flagrant disregard. As the ExA will be only too aware, the phrases quoted were made by ABP in the specific context of providing the ExA with an explanation as to how the Port allocates vessels to particular berths to maximise utility within the Port, and how the Applicant's vessel survey does not provide a correct baseline analysis for berth utilisation at the Port. The Applicant's attempt to assert that these comments, taken out of context, constitute ABP's position regarding the serious detriment caused by the Scheme is both unprofessional and misleading. The Applicant's comments should be disregarded. The Applicant's assertion that the Able Marine Energy Project DCO ("AMEP") is 'parallel' to the Scheme is wholly incorrect. ABP finds it astonishing that the Applicant could be attempting to draw upon alleged precedents that in reality have no bearing on this Scheme whatsoever. The weakness in this strategy has already been demonstrated by ABP in the context of the Applicant's attempt to rely on Silvertown and Thames Tideway DCOs as being somehow relevant precedents. As far as the AMEP DCO on the Humber is concerned, ABP finds it difficult to draw any comparisons. That project concerned an application to construct a new port facility for the off-shore wind energy market on an area of land adjacent to ABP's Port of Immingham. To implement the AMEP project, the applicant in that | <p>The Applicant is unsure what ABP means by 'making its case to the Secretary of State' - that is the point of this Examination process, and the Planning Act 2008 no longer requires a 'section 127 certificate' to be given by the Secretary of State.</p> <p>The Applicant does not contend that specific future operations need to be identified in order for there to be potential for 'serious detriment' to arise. However, in judging the severity of any claimed adverse impacts on future operations, the nature of those operations and the likelihood of them arising both need to be considered. As a matter of judgment (not a point of law) it is the Applicant's view that the more uncertain or inchoate a potential future activity, the less likely the loss of an opportunity to undertake that activity, or any restrictions in the way it could be carried on, would contribute to a case of 'serious detriment'. In both the <i>Hinkley</i> and <i>Able Marine</i> cases, the ExA and SoS considered the effect of the acquisition on operational flexibility, and the plans for the Port in the future. The Applicant is simply stating that this will also need to be done for this Project – i.e. a judgement call on whether the detriment is indeed 'serious' in the future – that answer will be partly dependent on how busy the Port will be.</p> <p>The ExA and SoS in <i>Able Marine</i> took a different view as to the Port Authority's evidence in that case (ABP) as to the effect of the compulsory acquisition to the future of the Port than it did for the evidence in the <i>Hinkley</i> case. The ExA will have to make that same judgement here.</p> <p>The Applicant has set out its views on ABP's evidence because it has sought to assert that the detriment is serious; and it is the Applicant's view that it is not serious. The fact that, for example, the Berth Utilisation Report has required hearing and offline discussions, demonstrates the importance of ensuring that clear evidence on the level of seriousness is put before the ExA and SoS.</p> <p>The Applicant has set out throughout the Examination that it has had expert advice throughout the development of the project and through the Examination. This is further explained in the Appendix A to this submission.</p> |

| Reference | The Applicant's Comment | ABP's Response | Applicant Further Response |
|---|--|--|---|
| | <p>and that ABP was not able to convince that ExA that the loss of that particular piece of land would cause an inability for the jetty to be built elsewhere.</p> <ul style="list-style-type: none"> The Applicant would suggest that there are parallels with those judgements made in the case of the AMEP scheme with the LLTC Scheme when considering the future scenario to which any detriment would be caused, particularly when one comes to consider actually how many berths will be used in the future compared to the loss created by the Scheme. Furthermore, the Applicant notes that even ABP recognised, at the 1 April hearing, that impacts on the port's business will only 'potentially' occur (1:22:10 of EV-16) and that it would be more 'difficult' to market Lowestoft (1.23:34 of EV-16) with some disadvantages. Mr. Harston of ABP concluded his remarks at the hearing by stating that the new bridge would create 'increased difficulties, increased risk and challenges in marketing and operating the Port' (1.36.25 of EV-16). Whilst the Applicant has made its case in this document and elsewhere that even these impacts are either mitigated or can be managed, it is apparent from the words used by ABP itself, that the 'detriment' is not set out as 'serious' or anything approaching that. | <p>case sought the compulsory acquisition of an area of land – owned by ABP but physically separate from the Port. The site was the subject of an application for a new ABP terminal – which ABP has been unable to replicate elsewhere. As the ExA will appreciate, there are absolutely no legitimate comparisons to be made between the two projects and the Applicant's suggestion can be safely disregarded.</p> <ul style="list-style-type: none"> As the ExA will have noted, ABP has submitted the draft Master Plan to the ExA at Annex 1 (ABP 1 of 1 – DL9). The document produced is in fact an advance copy of the consultation draft – formal consultation upon which will commence during the week commencing 29 April. The ExA should note, in anticipation of the inevitable criticism from the Applicant, that the delay in publication of the draft Master Plan has been simply due to the fact that, as ABP indicated at the commencement of the examination process, Ports operate in a rapidly evolving market and the Port of Lowestoft, probably more than many, over the last 24 months, bears positive witness to the vicissitudes of that market. ABP is very conscious that as the market continues to evolve, with new commercial opportunities opening up on a regular basis – Petersons, aggregates, new offshore wind energy fields etc. – the current consultation draft of the Master Plan may itself require further updating before it can be formally adopted by ABP. To respond directly to the Applicant's assertion, however, that the activities undertaken by ABP at the Port, both current and future, are simply justified by an 'unpublished Masterplan' – ABP would point out that it has submitted a considerable amount of expert evidence to support its position. The ExA will have noted that this is in stark contrast to the evidence, or rather lack of evidence, produced in response by the Applicant. The Applicant's strategy seems to have been either to attempt to attack ABP's submitted evidence on a somewhat haphazard basis without producing any expert evidence to support its assertions or simply to refer to alleged precedents, which on analysis have been shown to be entirely irrelevant. Indeed, the lack of genuine evidence produced by the Applicant to rebut ABP's case should be fully taken into account by the ExA. It does perhaps underline a theme that has unfortunately run through the entire examination process, namely that as the project is being take forward as an NSIP as a result of a section 35 Direction made by the Secretary of State – it cannot fail, no matter how weak the actual case. | |
| <p>ABP's Statutory Undertaking</p> | <ul style="list-style-type: none"> In terms of understanding the extent of ABP's undertaking, the Applicant has recognised the extent of the undertaking since the application, as set out in the | <ul style="list-style-type: none"> The Applicant has taken a very narrow interpretation of ABP's statutory undertaking in the Statement of Reasons by reference only to the Transport Act 1981. ABP's statutory undertaking comprises a myriad of legislative instruments. ABP is pleased, however, to see the Applicant has now accepted that ABP's statutory undertaking incorporates both statutory and commercial | <p>The Applicant has throughout the Examination accepted that ABP has a range of statutory functions and that its statutory undertaking should be considered widely, including commercial operations undertaken by ABP for Port purposes.</p> |

| Reference | The Applicant's Comment | ABP's Response | Applicant Further Response |
|---|--|---|--|
| | <p>Statement of Reasons. It recognises that ABP's statutory and commercial undertakings are holistic but that section 127 does not extend to the success or failure of specific tenants within ABP's undertaking, as set out in the Applicant's Deadline 7 submissions.</p> | <p>undertakings.</p> <ul style="list-style-type: none"> ABP's statutory undertaking must be considered in the broadest sense. For example, the Port undertaking includes the future as well as the current position - i.e. the direct impact of the compulsory acquisition of land and also the direct and indirect impact upon business, both existing and future, and anything that affects the port undertaking. As such, it is imperative that the serious detriment test includes commercial operations undertaken or contracted by ABP at the Port as a statutory undertaker. To assert the contrary is simply unsustainable in fact and law and it is disappointing that the Applicant's legal team even attempted to take that line when addressing the ExA. | <p>The nuance of this relates to the performance of the tenants themselves. This is stated clearly in the Applicant's Deadline 8 submissions. The Applicant acknowledges that the ExA will need to take account of both parties' views on this position.</p> <p>In any event, even if it was accepted that the performance of tenants in and of themselves should be considered as part of the serious detriment test, the Applicant's submissions to date on the Scheme's effect on berthing, future growth and its willingness to work with the tenants currently occupying land on or close to the construction compound would be equally applicable.</p> |
| <p>Extent of Serious Detriment</p> | <ul style="list-style-type: none"> ABP claims serious detriment will occur from three broad issues: <ul style="list-style-type: none"> the detriment that is caused due to the direct loss of berth space – both at that specific location and what that means for vessel berthing at that location and the consequential impact on the amount of berth space available across the Port in both the current and future scenario; the detriment that is caused by the bridge's physical presence in terms of navigational risk and safety; and the operation of the bridge in terms of the timing restrictions in the Scheme of Operation and the number of vessels that would require an opening due to their height - the delay this would cause and thus the consequential reduction in attractiveness of the Port of Lowestoft in the future to vessels who may be affected by those restrictions (e.g. as an offshore hub). For each of those topics, the Examining Authority and the Secretary of State will need to determine whether the effect of the Scheme is a detriment, and in so doing, consider what current and future scenarios will that | <ul style="list-style-type: none"> The serious detriment test requires a holistic approach, not a consideration of whether discrete elements are 'detrimental' in isolation. As such, the serious detriment is not only confined to the specific issues identified by the Applicant. Further, detriment caused by the loss of berthing is not solely linked to the 'direct' loss of berth space – size is not a determining feature when assessing significant or importance in terms of serious detriment. The impact of the berthing loss must be considered in terms of both direct and indirect impacts on Port operations as a whole, including for example, berth utilisation across the Port, impact on tenants and perception of future occupiers/users of the Port. The ExA are fully aware in this context that ABP, as part of the Applicant's mitigation measures, has asked the Applicant to provide adequate replacement berthing space in another area part of the Port - a request which ABP was initially led to believe was being genuinely considered by the Applicant, but which now turns out not to have been the case The Applicant's assertions in relation to the temporary possession of land are clearly not correct in law. The test goes to the impact on port operations. ABP does not believe that it has to repeat, yet again, its views on these points, which will in due course, be addressed elsewhere. | <p>The Applicant does not suggest that the three 'headings' it set out should be considered separately. However, each of them goes to the question of seriousness and so the ExA and SoS will need to consider all of them - the Applicant used them simply as headings to aid the ExA and SoS in considering all of them.</p> <p>ABP's second bullet point is accepted and is in fact covered by the second half of the Applicant's first bullet point.</p> <p>The Applicant's position on the emergency berth has been consistent throughout the Examination – that it is not required.</p> <p>The Applicant maintains its Deadline 8 submissions. Nevertheless, even if this is not accepted, the Applicant considers that no serious detriment is caused arising from the activities to be carried out on that land:</p> <ul style="list-style-type: none"> they can either be managed as the Applicant has set out in submissions or correspondence; and they would be of such short time or space not to cause a detriment that would be 'serious'. <p>The Applicant also notes that one of the concerns that ABP has raised in relation to serious detriment has been that an additional extended area (223 metres of quay) of the Port would be sterilised by the needs of port security. In so doing, they have suggested that DfT has agreed with ABP's conclusions in this regard. In that context, the Applicant has met with the DfT to discuss these issues, and a note of these discussions is in Appendix B to this note.</p> <p>It can be seen from this note that the DfT has not taken such an assertive position; and recognises that practical measures can be taken to ensure a minimal amount of sterilisation would need to occur.</p> |

| Reference | The Applicant's Comment | ABP's Response | Applicant Further Response |
|---------------------------------------|--|---|---|
| | <p>detriment be caused to, to ascertain its seriousness.</p> <ul style="list-style-type: none"> The Applicant considers that the serious detriment test is not engaged when considering the impacts of the temporary possession of that land - in that instance the Examining Authority and the Secretary of State must just determine whether the Applicant should be granted the proposed powers over the temporary possession plots. The 'wider effects' which the Applicant agrees must be considered when considering the serious detriment test are those that flow from the compulsory acquisition of ABP's land, i.e. that a bridge structure will exist and operate, potentially causing the issues set out above. Separate powers are applied for in relation to the temporary possession of land, and the consequences of them relate to that power, not the power of compulsory acquisition. | | |
| Other Serious Detriment Issues | <ul style="list-style-type: none"> The Applicant accepts that the size of an area of land taken is not necessarily determinative (in that a small area of land could, depending on its location, have critical functional importance) but the size and extent of land taken is, nonetheless, a relevant factor. The Applicant also considers that the likelihood of future activities taking place is relevant to how much weight they should carry in any assessment of 'serious detriment'. | <ul style="list-style-type: none"> Size is not a determining feature when assessing significance or importance in terms of serious detriment. It was accepted by the ExA and the Secretary of State in <i>Hinkley</i>. The ExA needs to look at the Port as a whole, not just the size of the impact. There is no statutory requirement or precedent which provides that the likelihood of future activities taking place is relevant to how much weight it should be given when assessing serious detriment. As noted above, these issues have already been addressed by ABP and will be put formally to the Secretary of State. | <ul style="list-style-type: none"> The Applicant agrees that the ExA and SoS need to consider the Port as a whole, but the judgement is whether, taken as a whole, any detrimental effects are sufficient in extent or nature to amount to 'serious detriment' to the carrying on of the undertaking. Thus in <i>Able Marine, Hinkley and Richborough</i>, whilst size was a not a <u>determining</u> feature, it is relevant, in the context of the Port as a whole as to how severe the detriment actually is. Determining whether a detriment is serious is a matter of judgement – the Secretary of State needs to decide if a 'serious' detriment exists. The Applicant has consistently agreed that future operations need to be considered when determining if a serious detriment is caused. The Secretary of State will make that judgement call – if the Port was full in the future then clearly the level of detriment caused by the Scheme would be judged accordingly, but if it was half full then the level of detriment would again be judged in that context. So the question of what the future holds is inherent to the question of whether the detriment is serious. |

4 Response to ABPmer's Comments on pNRA

| Section / Topic | ABPmer Comment | Applicant Response |
|-------------------------------------|--|--|
| 2 – Reference Document | <p>ABPmer has reviewed APP-208 Document 6.7 'Preliminary Navigation Risk Assessment' (SCC, 2018). The pNRA document is set out in the following sections:</p> <p>Section 1: Introduction;</p> <p>Section 2: Project Description;</p> <p>Section 3: Methodology;</p> <p>Section 4: Hazard Identification;</p> <p>Section 5: Existing Operational Measures;</p> <p>Section 6: Risk Assessment; and</p> <p>Section 7: Additional Mitigation Measures.</p> | <p>The list of reviewed sections does not include the appendices to the report which comprise both the base line information and outputs from the assessment process.</p> |
| 2.1 – Preliminary status of the NRA | <p>The Silvertown and Thames Tideway NRAs have used methodology proposed by the Port of London Authority (PLA) in the capacity of Harbour Authority.</p> | <p>ABP were asked to share their port wide NRA prior to the preparation of the scheme pNRA to assist in its development and ensure compatibility with existing risk assessments. ABP declined to provide details of how it prepared its risk assessments this until after the submission of the Application. Requirement 11 of the dDCO provides for updates of the pNRA to be approved by the SHA, as such ABP is able to provide guidance on the relevant methodology through that approval process.</p> |
| | <p>Silvertown Tunnel Section S.1.7 states:</p> <p>“The NIPRA is a live document and follows the preferred PLA methodology for NIPRA's, which is appropriate to the level of design completed to gain planning approval. This report shall be revisited and updated on commission of the detailed design by the design team and likewise throughout the construction phase by the Contractor in consultation with the PLA.”</p> | <p>This compares with the pNRA S1.1.1</p> <p>“This report sets out the preliminary Navigation Risk Assessment (NRA) based on the reference design brought forward for DCO application. It covers both the construction and operational phases of the Scheme. Any subsequent changes to the bridge design or construction methodology will need to be considered and the Risk Assessment amended accordingly.”</p> <p>And S7.3.5</p> <p>“All navigational risk assessments are live documents and must be reviewed and revised in light of any changes in conditions to remain effective, as such the final bridge NRA should be incorporated into the wider SHA's Port Navigation Risk Assessment and revised and updated in line with the Ports Marine Safety Management System.”</p> |
| Summary | <p>Through comparison with the Silvertown Preliminary NRA and an example Thames Tideway Preliminary NRA it is considered that SCC have used the term 'preliminary' to justify a minimalistic approach. Compared to the example preliminary NRAs there is a lack of data, consultation and detail.</p> | <p>Baseline information was taken from the Vessel Survey, which was annexed to the pNRA, though not listed in the reviewed section.</p> <p>Two Navigation Working Group workshops were undertaken with key maritime stakeholders (including ABP) to discuss the methodology and potential hazards associated with the Scheme. The meeting notes for these workshops are included in Appendix 37 of the Consultation Report (APP-090). A further meeting, post submission, focussed on the Scheme of Operation, the notes from that meeting are included in Appendix B</p> |

| Section / Topic | ABPmer Comment | Applicant Response |
|-------------------------------|--|--|
| | | of REP3 -029. |
| 3.1 – Assessment process | A NRA must consider the hazards associated with marine construction and dredging craft operating at the scheme including transits of dredge vessels to/from disposal site, the passage of vessels engaged in towing and the physical presence of craft during the construction. | An assessment of potential impact is included within Appendix A, however full construction details are not available therefore a final assessment cannot be undertaken. It is for this reason the NRA is described as preliminary, with a robust process in place for its ultimate approval by the SHA. |
| Summary | Consideration of all direct and indirect impacts associated with the proposed LLTC development has not taken place. There is no assessment of the ancillary activities associated with the construction and maintenance of the development. This is a significant omission by the Applicant and a serious defect. | An assessment of potential impact is included within Appendix A, all assessments have been undertaken up to the level possible at the current stage of design, ancillary activities associated with construction specific methodology cannot be assessed at this stage, therefore this is not an omission or a defect. |
| 3.2 - Consultation | Notably, there have been no consultation meetings held to discuss specific hazards that may be associated with the scheme. Section 4.2.6 of the GtGP states: “Harbour authorities are required to identify hazards and to develop or refine procedures and defences to mitigate those risks. It is good practice to establish channels of consultation which can be used for this purpose.” | Specific hazards associated with the Scheme were discussed at both Navigation Working Group workshops, with open discussions held between all parties, including ABP, and this is reflected in the meeting notes. |
| Summary | There has been insufficient consultation regarding the identification of hazards as promoted by the referenced guidance on carrying out an NRA. | As noted above, in total 3 Navigation Working Group workshops have been held, 2 pre-application for discussion and input into the pNRA process, including hazard identification, and a further 1 post submission to discuss the pNRA output and the Scheme of Operation. |
| 3.3 – Guidance and references | A previous version of the GtGP was referenced within the pNRA, dated February 2017. When the pNRA was published, the current version of the GtGP was dated February 2018. Whilst this is not a significant issue in itself, it is indicative of a lack of attention to detail in preparing the pNRA for the proposed LLTC. | The preparation of the pNRA began well in advance of the Scheme submission (as is good practice), the guidance was updated in the intervening period and the references updated. |
| 3.4 – Data gathering | The data used for the pNRA are not listed in sufficient detail to assess their adequacy and they do not include any information that could be used to analyse the current vessel traffic in the area. This section should include detailed information on the data used, to show that an appropriate analysis of the current navigational environment has been carried out. | The Vessel Survey Report sets out the baseline assessment of vessel movements at the time the pNRA was produced, this was contained in appendix B to the pNRA. |
| 4 – Hazard Identification | This list of potential hazards is not considered to be appropriate for the construction and operation of the scheme and is considered to have arisen due to a lack of assessment regarding the activities associated with the construction, including use of marine craft and lifting operations. | Details of construction traffic and methodology are not presently sufficiently developed to be assessed, the need for future assessment of these activities is noted within the pNRA. |
| | There should be consideration of the effect of all elements of the scheme and how port marine operations may affect the scheme. A list of hazards suggested by the OREI guidance is provided in Appendix A. | Only those hazards that are materially increased by the bridge are identified within this section. Other hazards associated with general vessel operations have not been considered as it is assumed they must form part of the existing port NRA. The range of hazards was discussed at the NWG workshops. |
| 4.1 - General | Section 4.1.1 of the pNRA states: “The following section outlines the hazards resulting specifically from navigation in the vicinity of an opening bridge and the primary causational effect which lead to such hazards.” This statement implies that these hazards only apply to the scheme in the operational phase and not during construction. | The assessment, as presented in Appendix A of the pNRA, includes operational and construction phases to the extent that the relevant details are available. |
| 4.2 Major causes of hazards | Causes are described for the three assessed hazards which can lead to a marine incident associated with the scheme. The causes do not include any interactions with either craft engaged in the construction, the effects of road traffic or pedestrians. | Details of construction traffic and methodology are not presently sufficiently developed to be assessed, the need for future assessment of these activities is noted within the pNRA. |
| 4.3 – Incident | This section of the pNRA contains analysis of data obtained from the Marine Accident Investigation Branch (MAIB) and the results of a traffic survey. The data set has been reviewed throughout for incidents | Information on the Ports NRA process and accident/incident information was requested during preparation of the pNRA but the Applicant did not receive anything from ABP until after the submission date and was |

| Section / Topic | ABPmer Comment | Applicant Response |
|-----------------------------------|--|---|
| frequencies | involving bridges. There has been no analysis of incident rates in the Harbour Area or any review of other relevant incident data, including that from the Royal National Lifeboat Institute (RNLI) or ABP that include incidents which would not be classed as MAIB reportable. | therefore not able to include it within the pNRA. |
| | The assessment of traffic frequency does not consider the types of commercial vessels navigating in the Harbour Area. Different types of vessels have differing levels of manoeuvrability and ability to react to emergencies. | The pNRA takes account of the movements of large and small commercial vessels, this includes consideration of the relative characteristics of these vessels. |
| 5 – Existing Operational Measures | Summary: The list of existing mitigation measures considered for the assessment in the pNRA does not consider all relevant measures. | Only those measures directly related to the hazards under consideration have been identified, additional measures may further contribute to a reduction in the assessed risks but would never increase them, thereby making the pNRA conservative in its assumptions. |
| 5.1 – Navigation control | There are a range of different navigation marks available which provide information to vessels navigating in an area. These marks may be used to mark a channel, identify hazards to navigation or provide reference points to aid the positioning of vessels. The range of uses for these marks is large and so it is important to adequately identify the navigational marks in a Harbour Area and their purpose. There is no detail on the specific marks available or their purpose, in the pNRA. | The pNRA is prepared as a technical document, therefore generic background information is not included. Navigational marks are subject to the approval of the SHA in any event – see paragraph 60 of the protective provisions for the harbour authority |
| | There is no quantification of the size of the recreational community at the Port of Lowestoft or the different recreational activities that take place. It is common for recreational activities to be most frequent during summer months when weather conditions are more favourable and, conversely, there is a reduction in activity during the winter period. | Data on vessel types and frequency, including seasonal variations, was taken from the Vessel Survey, Appendix B to the pNRA. |
| 5.2 – Vessel control | A Special Direction is issued for a specific vessel to carry out a specific action for a limited set of reasons. Special Directions would not be used to regularly control traffic in a port. The Port of Lowestoft does not have powers to issue General Direction, does not currently have any issued Harbour Directions and there are no provisions in the Port of Lowestoft Byelaws for vessels to seek permission before proceeding so there is no mechanism for the LPS to control vessel traffic as stated by the pNRA. | Lowestoft was included in the Harbour Directions Order No2 2015 giving the ability to issue directions under 40A to D of the 1964 Act. Section 52 of the Harbour Docks and Piers Clauses Act 1847 details the Harbour Master's statutory powers: "The Harbour Master may give directions for all or any of the following purposes; For regulating the time at which and the manner in which any vessel shall enter into, go out of, or lie in or at the harbour, dock or pier, and within prescribed limits, if any, and its position, mooring or unmooring, placing and removing, whilst therein" |
| 5.3 – Depth control | This statement is misleading, the SHA carries out hydrographic surveys used to produce soundings charts and passes this data to the United Kingdom Hydrographic Office (UKHO). The UKHO uses the survey data to compile navigational charts which are made available to those who wish to navigate in the area. | While UKHO produces and issues Admiralty Navigation Charts, ABP's website for Lowestoft has links to ABP's own post dredge survey charts. |
| 6 – Risk Assessment | There is no definition of what is considered to be a large and small commercial vessel. Whilst the size of a vessel is an important factor for commercial vessels, the type of vessel is of equal relevance as this provides information on its manoeuvrability, as previously noted. | The Applicant accepts that the pNRA does not explicitly specify the differentiation between large and small vessels within the text, although it has been considered within the assessment, for the purposes of the pNRA a large vessel has been taken as any that falls within the compulsory pilotage requirements for the Port of Lowestoft. |
| Summary | The assessment in the pNRA does not cover damage to reputation or business as suggested by the available guidance. | In the pNRA the risk rating was calculated on the outcome that produced the greatest severity value, of the hazard events identified the Applicant does not consider that reputational outcomes would be the critical |

| Section / Topic | ABPmer Comment | Applicant Response |
|---------------------------------|---|--|
| | | factor, e.g. if a vessel hit a bridge and leaks oil, this would have a negative effect on public perception if it was the Port's fault, however in the assessment the environmental outcome would be of greater magnitude than the negative perception. |
| 7.1 – Planning and design phase | The outputs of a NRA process should be a detailed set of mitigation measures for inclusion into the various stages of construction and operation. The additional mitigation measures listed in the pNRA do not provide enough detail to evaluate the effects of the measures on the identified hazards. | The individual items of mitigation are contained in the pNRA table in Appendix A. |
| 7.2 – Construction phase | This section of text does not provide any information on how the monitoring of risk to navigation would be carried out. This is not a commonly identified mitigation measure as there is not practical way to monitor levels of risk. There needs to be further detail on how the applicant intends to monitor levels of risk and evaluate it to identify if a hazardous situation is developing. | The monitoring proposed is detailed in the pNRA table in Appendix A, notably sediment surveys. |
| | The notifications identified in this section place the responsibility for distribution of information on the SHA. To provide Notices to Mariners at the appropriate level to inform port users, there needs to be coordination of construction activities with the SHA. In practice, this means that schedules should be provided to the SHA and a designated point of contact provided once a construction contractor is appointed. | ABP has previously indicated that it would wish to issue the Notice to Mariners, and therefore this has been reflected in DCO articles 20 and 41. The Applicant agrees that liaison between the Contractor and SHA is crucial to safe working during the construction phase and the draft Side Agreement has provided for comprehensive engagement for this reason. |
| | Proposals regarding lighting and marking of the construction works need to be the subject of consultation with Trinity House Lighthouse Service (THLS) in addition to the SHA. As the General Lighthouse Authority, THLS will provide guidance on markings and consent the design. If consultation has not been carried out, this should be completed before the scheme design progresses further. | This was an implied requirement though not explicitly stated, the need for aids to be approved via GLA is noted in the operational phase section. It is noted there is a saving provision for Trinity House in article 57 of the Order. |
| Summary | The suggestion of monitoring navigational risk as a control is impractical and shows a lack of understanding of the range of hazards associated with port marine operations. | It was not implied that the monitoring of risks is the control mechanism, rather monitoring of the factors that can cause a risk then acting upon them before the risk develops, is common practice. |
| 7.3 – Operational phase | This paragraph places the responsibility for the additional risk on the SHA. The SHA has not been consulted on the pNRA and the hazard identification process, it is unrealistic to assume that any additional responsibility should, or would, be accepted. If this is the intended outcome, the SHA will need to be satisfied that the eventual NRA correctly identifies all the hazards and the corresponding mitigation measures. | The Applicant does not accept that that the SHA was not consulted on the pNRA as it is a member of the NWG in that capacity and attended all three NWGs. The pNRA was drafted to reflect that the continued assessment of risks would fall to ABP as a direct outcome of ABP's comments that the NRA should form part of the port wide NRA. |
| 8 – Principal Weaknesses | <i>This section summarises and repeats the comments identified above, the responses to which are contained within the foregoing table.</i> | |
| | There has been a failure to identify and establish the current marine navigational environment as a baseline for the assessment; | Baseline data is contained in pNRA Appendix B. |
| | There has been a failure to identify and consider all direct and indirect impacts associated with the LLTC proposal; | All impacts created by the construction or presence of the Scheme have been identified and assessed to the extent possible with the current level of Scheme design. |
| | There has been no consideration of vessel movements and construction activities associated with the development meaning the assessment is incomplete. | Details of construction traffic and methodology are not presently sufficiently developed to be assessed, the need for future assessment of these activities is noted within the pNRA, as such this will be available before the final NRA is submitted to ABP for approval |
| | During the hazard identification process, ABP as Harbour Authority and local port users have not been | The range of hazards was discussed at the NWG workshops. |

| Section / Topic | ABPmer Comment | Applicant Response |
|-----------------|--|--|
| | consulted on the hazard log (hazard identification) process. | |
| | There is minimal description of data sources used for the assessment. There is no analysis of the local navigational environment and not all relevant data sources are used. | Baseline data is contained in pNRA appendix B, the outputs of MAIB data is included, and as mentioned above, even though requested, ABP did not provide data until after submission. |
| | There are several sections of the pNRA which show a lack of understanding of port operations, legislation and powers. | This relates to the interpretation of specific phases within the pNRA methodology, none of the cited examples materially affects either the outputs or conclusions of the pNRA as a whole and therefore does not diminish the suitability of the assessment undertaken. |
| | <p>Compared with the Preliminary NRAs cited as a precedent, the Applicant's pNRA does not evidence:</p> <ul style="list-style-type: none"> - a sufficient level of detail; - comprehensive hazard identification; - genuine consultation; and - the use of NRA guidance methodology. | <p>The details are contained within Appendix A of the pNRA.</p> <p>Comprehensive hazard identification is also contained in Appendix A.</p> <p>2 Navigation Working Group workshops were undertaken to obtain input into the pNRA preparation</p> <p>The pNRA was prepared using the method set out in the Guide to Good Practice on Port Marine Operations.</p> |

5 Response to Nexen's Deadline 9 Submission

| Paragraphs | Nexen Comment | Applicant Response |
|------------|---|--|
| 4-11 | <p>The Applicant's response to Question 1.17 provides absolutely no guarantees as to the state that Plot 3-57 is to be returned. Indeed, the response appears to avoid the fact that Plot 3-57 is in the landownership of PFK Ling Limited and none of the Nexen Group's views on the state that Plot 3-57 should be left in would be taken into account under Article 32 as currently drafted.</p> <p>The reality is that the provisions of Article 32 do nothing to preserve the functionality of services and drainage in Plot 3-57 and the Nexen Group (or the local planning authority) would have no action against the Applicant, save for in a claim for compensation. Even if we assume that the Applicant was to ensure that any servicing to the Land currently within Plot 3-57 would remain in place and be functional following the Applicant's temporary possession of this Plot, the Applicant's response also does not take into account the fact that it is entirely possible that it may temporarily possess Plots 3-56 and 3-57 at different times or its period of temporary possession of one of these plots may exceed the other.</p> <p>If Plot 3-57 was temporarily possessed for a longer period of time than the Development Land this would mean that the lack of any guarantee as to the functionality of any services and drainage would continue to impact on the development of the Development Land even when that site was returned to the Nexen Group.</p> <p>We consider that it is appropriate to draw the ExA's attention to the fact that the Nexen Group's rights extend along the whole of the existing private road to the south of the Development Land and therefore the rights that the Nexen Group benefits from over Plot 3-32 will also be affected by the compulsory acquisition of rights in that Plot. It is understood that the current drafting of Article 27(2) means that only rights which are inconsistent with those restrictive covenants being imposed under the DCO are to be extinguished by the operation of the DCO. However, Schedule 6 of the draft DCO draws the purposes for which rights over plots may be required (including Plot 3-32) so broadly it is impossible to establish whether the Nexen Group's existing rights (including of vehicular access) will be "inconsistent" with these covenants or not.</p> <p>It is understood that Article 35 means that the rights of access to statutory utilities for statutory undertakers and public communications providers are not affected by the stopping up of streets or private means of access. We also appreciate the provisions of Article 35 of the draft DCO mean that where a private means of access is stopped up under Article 10 of the DCO any statutory utility whose apparatus is under, in, on, over or across the street may, and if reasonably requested to do so by the Applicant either (a) remove this and place it or other apparatus provided in substitution for it in such other position as the utility may reasonably determine and have power to place it; or (b) provide other apparatus in substitution for existing apparatus and place it in such a position. The problem that the Nexen Group have with this is that they do not have any direct control over the timing or provision of any substituted or replacement apparatus under this Article.</p> | <p>The Applicant notes that article 32 aligns with the precedent of the majority of DCOs made to date.</p> <p>However, notwithstanding this, the point remains that the article seeks to protect the interests of the party most affected by any temporary (and exclusive) possession – i.e. the landowner; whose ownership and, potentially, any rental income, would be affected by land being returned not to its reasonable satisfaction.</p> <p>Nexen does not own plot 03-057 and therefore does not require such protection. However, in having its interest in 03-056, the same obligation will apply to the Applicant - i.e. to return that land to the reasonable satisfaction of Nexen.</p> <p>As such, no matter how long each plot may be held, if the drainage of one would affect the other, the Applicant would need to ensure that each plot could be returned to each owner's satisfaction and so would need to manage both plots accordingly.</p> <p>In respect of article 35, the Applicant notes that it is the statutory utilities who are responsible for providing services from the apparatus; which is why the article (and related Protective Provisions) give them the protection. It is incumbent on the utilities to ensure services are maintained whilst they work with the Applicant pursuant to article 35 to move or replace apparatus.</p> |
| 12-24 | <p>It is not disputed that, amongst other heads of claim, the Nexen Group will be entitled to a claim related to the diminution in the value of the Land (including the Development Land) arising as a result of the permanent acquisition of land and rights over the Land.</p> <p>As set out in the ExA's Question 1.18 the ExA is not required to have regard to representations</p> | <p>The representations made by Nexen repeat previous observations to which the Applicant has already responded, including at length in response to Nexen's comments on the proposed NMC6 – see REP7-003, Appendix K.</p> <p>To that end, to briefly recap, Nexen currently has one access to the operational business and has proposals to make use of land currently owned and occupied by Lings (known as the "service road") to access its development land. Access to the service road is removed by the Scheme, and thus to mitigate that impact, the Applicant is through NMC 6</p> |

| Paragraphs | Nexen Comment | Applicant Response |
|------------|---|---|
| | <p>concerning compensation. However, it is clear that the Proposed Scheme's removal of the separate, unrestricted and established connection of both access and services from the public highway of Riverside Road to the Development Land is a matter which the ExA must have regard to when considering the merits of the Proposed Scheme in its current form. As we have stated in previous representations the Development Land lies within an Enterprise Zone. Indeed, the Applicant's Case for the Scheme states that the Proposed Scheme has been "developed in order to support the Enterprise Zone in fulfilling its potential for economic growth and job creation" (paragraph 4.7.22) and one of the "scheme objectives" set out at paragraph 4.8 of the Case for the Scheme is to open up opportunities for regeneration and development in Lowestoft. The removal of a separate, unrestricted and established connection of both access and services from the public highway of Riverside Road to the Development Land is in direct conflict with these stated aims of the Proposed Scheme.</p> <p>We note that the Applicant remarks that they will provide a "replacement" vehicular access to the wider land interest which is in the freehold ownership of Overseas Interests Inc which means that the Development Land will not be "severed from the public highway". The provision of "replacement access" to the "wider land interest" is an access from under the proposed bridge to the Land. This "replacement vehicular access" is not a bespoke and separate access to the Development Land. This proposed "replacement" access does not link up with the private access road to the south of the Development Land and therefore any access routes into the Development Land shall be required to be incorporated into any development of the Development Land itself, rather than utilising the existing private access road to the south of the Development Land.</p> <p>In addition, the proposed "replacement" access would need to be shared with vehicular traffic related to the Nexen Group's existing business operations. The Nexen Group have not received any assurances supported by technical evidence that suitable access arrangements to the existing businesses on the Land and the proposed development on the Development Land can be achieved if the Proposed Scheme proceeds.</p> <p>The ExA should be aware that the current form of the draft DCO (see Article 10 and Schedule 4 Part 3) and the (as submitted) Rights of Way & Access Plan (1069948- WSP-HAC-LL-RD-CH-0003) do not require the provision of a replacement vehicular (or temporary) access to the Land before the private means of access is stopped up. This is at odds with the Applicant's response to this Question 1.18 and the Nexen Group urge the Applicant to update Schedule 4 of the draft DCO to require the provision of a replacement, separate, vehicular access (with services and utilities being available of sufficient capacity therein) to the Development Land before the current private means of access is stopped up.</p> <p>As we have stated at length previously, it is the Nexen Group's position that the only way in which a suitable separate vehicular access to the Land may be provided without risk of interruption during the construction period or future maintenance of the Proposed Scheme is by way of an access to the eastern edge of the current Lings site. This solution would merely require the access to the eastern edge of the Lings site, which now forms part of the Applicant's "non-material" changes to the Proposed Scheme, to be physically linked and necessary rights granted allowing access/egress to the Development Land, over the private access road to the south of the Development Land. Since the new southern access road constructed on the east of the Lings site</p> | <p>ensuring that in the future Nexen will continue to have two points of access to the site; both the existing access, which can also serve the Development Land, and a northern access (NMC6) to serve the operational business, in particular HGVs. There is therefore a 'status quo' in respect of the number of accesses to Nexen's land interests.</p> <p>The Applicant has set out in the SoCG with the local authorities (REP5-005, item [53]) that the highway authority in principle considers the retained existing access can service the future development; it should be noted that the highway access to the site will be constructed to a width of 7.3m and minimum headroom of 5.3m in line with DMRB standards for a single carriageway urban all-purpose road. The presence of a structure above this road, at a minimum height of 5.3m, does not affect the highway 'capacity' of that access point.</p> <p>For this reason the Applicant does not consider the Scheme has a material effect on the deliverability of Nexen's development land, which is acknowledged forms part of an Enterprise Zone. As has been set out in the Case for the Scheme (APP-092, see section 4.7), the Scheme will have an overall beneficial effect on delivery of Enterprise Zones in Lowestoft.</p> <p>The Applicant notes that Nexen's representations refer to "the current form of the draft DCO" and "the (as submitted) Rights of Way & Access Plan (1069948- WSP-HAC-LL-RD-CH-0003)". The version of the draft DCO which would have been "current" when Nexen's Deadline 9 comments were being prepared for submission would have been the version of the draft DCO submitted by the Applicant at Deadline 5 (Revision 3) [REP5-004 / SCC/LLTC/EX/80]. It is correct that in that version of the draft DCO, Part 3 of Schedule 4 does not include a replacement vehicular access to the Nexen site. This is because Nexen's existing site access is not proposed to be stopped up. As noted above, this existing access can also serve the Development Land.</p> <p>The Applicant's Responses to the ExA's Second Written Questions [REP8-004 / SCC/LLTC/EX/97] include reference, in the response to Question 1.18, to a "replacement" access. This is in effect the existing access described above and should more properly be referred to as an "existing alternative" access. It follows that in respect of the proposed stopping up of private means of access "reference i" (to which Nexen's Deadline 9 comments, at paragraphs 21 and 22, relate), no replacement access for the benefit of the land in plot 3-56 (owned and occupied by Nexen) is required, because there is already another extant means of access to that land, which is (as explained above) via the existing access off Riverside Road.</p> <p>Separately, private means of access "reference i" is proposed to be replaced by new private means of access "reference 15", which, as the relevant entry in Part 3 of Schedule 4 to the DCO makes clear, is proposed for the benefit of land occupied by Lings.</p> <p>Access via the Lings site to the Nexen site has been discussed repeatedly; as the Applicant does not consider it justifiable or necessary, it is not part of the application, and therefore undeliverable. It is noted that Lings does not also support this proposition, as set out in its oral representations at CAH2.</p> |

| Paragraphs | Nexen Comment | Applicant Response |
|------------|---|--------------------|
| | <p>by the Applicant is understood to extend and join with the existing private access road adjoining the south of the Development Land it makes sense for it to serve the Development Land too. Mayer Brown's proposal as set out in previous representations is a wider road (at 7.5 metres) and it is submitted that any additional cost involved in the construction of this is substantially less than the compensation liability if this is not provided. This alternative access could, of course, provide an alternative access to the Land as a whole during construction works of the bridge itself and provide a guarantee that those construction works would not interrupt continuous access/egress to the Land which we have already explained is important to the Nexen Group's business operations.</p> <p>For the reasons stated in full elsewhere in representations previously made on the Proposed Scheme on behalf of Nexen Group it is not accepted by Nexen Group that either the current or revised form (pursuant to the recent proposed scheme changes) of the Proposed Scheme provide an acceptable access solution to the Land. In relation to the Development Land the Nexen Group have concerns about the acceptability of the access to the Development Land for proposed development, the need to physically separate HGV movements from those accessing a development on the Development Land and the requirement to ensure the current business operations remain securely gated. This is quite apart from the proposed temporary possession of the Development Land practically preventing any development during this period of possession.</p> <p>In addition, the removal of direct access to the private road to the south of the Development Land will mean that this road shall need to be re-provided within the Development Land and therefore constrain and reduce the developable area of a development scheme on the Development Land.</p> | |

Appendix A: Technical Support to the Applicant at Examination

ABP in its representations has questioned a lack of expert input in to the Applicant's submissions and arguments relating to maritime and port matters.

The Applicant can assure the Examining Authority that this is not the case and for convenience sets out below the respective inputs from a range of professional advisors, whose full CVs are included with this note.

As is evident, the advisors are very experienced and competent individuals in their field and as such the Applicant's representations should be considered authoritative and robust in their conclusions.

| Topic | Contributors | | | | | |
|----------------------------|---------------|---------------|----------------|---------------|-----------------|-------------------|
| | Stephen Horne | Andrew Harvey | Jonathan Tyler | Bernard Jones | Merdan Haydarov | Michael Nicholson |
| Vessel Survey | ✓ | | | ✓ | | |
| Vessel Simulation | ✓ | | | | | ✓ |
| Navigation Risk Assessment | ✓ | | | ✓ | | ✓ |
| Emergency Berth | ✓ | ✓ | | | | ✓ |
| Mooring Assessment | ✓ | | | | | ✓ |
| Port Security | ✓ | | ✓ | | | ✓ |
| Berth Utilisation | ✓ | ✓ | | | | |
| Future CTV Business | ✓ | | | | ✓ | |
| Air draft Clearance | ✓ | | | ✓ | | |
| Air Draft Trends | ✓ | ✓ | | | | |
| Effects on Port Operations | ✓ | ✓ | | ✓ | | ✓ |



STEPHEN HORNE

Principal Engineer, Maritime



Years with the firm

2 years

Years total

22 years

Professional qualifications

BEng (Hons) Civil and Structural Engineering, 1996

Areas of practice

Asset Management and maintenance including condition inspection, structural assessment and refurbishment.

Languages

English

PROFILE

Stephen has over 20 years' experience of engineering within the Maritime Sector gained working for the UK's second largest ports group. This client side experience gives Stephen insight into the specific requirements of undertaking works within an operational port environment.

Stephen has experience across a range of maritime sectors, including container ports, general and bulk cargo terminals, cruise and Ro-Ro terminals, oil and bulk liquid terminals and small craft berths in both tidal waters and impounded docks. Site supervision responsibility on numerous contracts has given Stephen an excellent knowledge of health and safety implications of construction activities in high risk port environments.

EDUCATION

BEng (Hons) Civil and Structural Engineering, University of Manchester Institute of Science and Technology. 1996

PROFESSIONAL EXPERIENCE

Tranmere Oil Jetties – Inspection and Assessment Renovation

- 2017, Essar, Tranmere, UK
- Principal Structural Engineer
- Leading the maritime team in detailed inspection and high resolution sonar and laser scan in order to produce an asset management strategy for the defects; ultimately prolonging the operational life of the asset.

Lake Lothing Third Crossing

- 2016 to date
- Principal Maritime Engineer – Technical Lead
- Working with stakeholders to design an options appraisal for a third crossing across Lake Lothing with further vessel simulation studies and fender design. Further quayside inspections were also carried out to establish the impact of bridge construction on the southern embankment

Liverpool South Docks – Asset Management

- 2015 to date, Liverpool, UK
- Principal Engineer
- Long-term commission to provide civil engineering consultancy and maritime asset management services to various estate management clients in the historic Liverpool South Docks estate. Stephen's role on the project is technical lead, overseeing the condition surveys to historic dock walls, bridges and highways.

Western Gateway Improvement Scheme, Manchester

- 2014 to 2015, Manchester, UK
- Civil Asset Manager
- Client asset management and civil design review for a new build 60m span lift bridge over a navigable waterway, including navigation channel fendering.



STEPHEN HORNE

Principal Engineer, Maritime

Mersey Gateway, Runcorn, Liverpool

- 2014 to 2015, Runcorn, UK
- Civil Asset Manager – Technical Lead
- Review of impact of new crossing on the navigability of the Manchester Ship Canal and recommendations on mitigation measures to minimise potential issues, including pier impact protection works.

MSC Bridge Inspection Procedures

- 2013-2014, Manchester, UK
- Civil Asset Manager
- Investigations and rating of inspection and maintenance priorities for over 30 bridges crossing the Manchester Ship Canal, including fixed and movable bridges crossing the canal, road and rail.

Liverpool 2, Peel Ports Limited-

- 2013-14, Liverpool
- Civil Technical Design Reviewer
- Undertaking client side design review and signoff for landside civil and operational designs for a new post-panamax terminal being built at Port of Liverpool..

PAS55 / ISO55001 Asset Management Implementation, Peel Ports Limited

- 2013-14, Liverpool
- Development of asset ranking systems for port infrastructure. Undertaking condition reviews and surveys for civil infrastructure within various terminals at Port of Liverpool. Development of asset management strategies for dock walls, port roads, terminal paving, security fencing etc.

Alexandra Bridge Recommissioning, Peel Ports Limited

- 2012
- Project Manager
- Works to repair and recommission a 40m main span swing bridge that was damaged following a vessel impact, this included jacking the bridge to undertake a main pivot inspection.

Liverpool Bridges Passage Fendering, Peel Ports Limited

- 2012-13
- Project Manager
- Design and project management of works to improve fendering and collision protection at 3 swing bridges within the Port of Liverpool.



ANDREW HARVEY, BSc (Hons) MSc MICE MCI Arb *Technical Director, Maritime*



Years with the firm

Less than one year

Years total

20 years

Professional qualifications

HSE Class III & IV Commercial Diver, 2003

744 Professional Photography

Lean 6 Sigma Project Management - Yellow

Areas of practice

Maritime Engineering

Port Planning

Project Management

Construction Law & Dispute Resolutions

Languages

English (Native)

Spanish (Basic)

French (Basic)

PROFILE

Mr Harvey's work has included many aspects of coastal and maritime engineering with a strong emphasis on contract preparation and administration, design work, multidisciplinary team management and construction management. Mr Harvey is a Member of the Institute of Civil Engineers, and having undertaken a Master's in Construction Law and Dispute Resolution, is a Member of the Chartered Institute of Arbitrators.

Mr Harvey has gained widespread international experience of major projects covering many aspects of the planning, design and execution of port and maritime related projects. He has design and supervision experience of large scale development schemes including land reclamation and breakwater projects in the UK, Europe, South East Asia, Australia, India and the Caribbean as well as experience of managing large multidisciplinary teams for Ro-Ro facilities, container terminals and both liquid and bulk handling facilities.

As a Director of Maritime design groups in South East Asia, India and in the UK, Mr Harvey has managed and developed multidisciplinary teams of technical staff and been responsible for client and business development and for the budgetary control and delivery of projects.

In addition, Mr Harvey is also a qualified inshore commercial diver with experience of both technical supervision and a wide range of underwater structural inspections both in the UK and abroad.

EDUCATION

| | |
|--|------|
| MSc Construction Law and Dispute Resolution (Pass with Merit), Kings College, London, UK | 2012 |
| BSc (1st Class Hons) Civil Engineering & Environmental Technology, University of Hertfordshire, UK | 1999 |
| HND Civil Engineering, University of Hertfordshire | 1997 |
| HSE Class III & IV Commercial Diver, South Africa – Capetown Commercial Divers | 2003 |

PROFESSIONAL MEMBERSHIPS

Member of Institute of Civil Engineers

Member of Chartered Institute of Arbitrators

Lean 6 Sigma Project Management

City & Guilds, 744 Professional Photography

EMPLOYMENT HISTORY

WSP – Technical Director

- November 2016 – Present – UK & India
- Technical Director within the Maritime Team of WSP. The role incorporates a variety of objectives including the delivery of projects, business development and team development both in the UK and in India. The role encompasses national and international projects and clients.



ANDREW HARVEY, BSc (Hons) MSc MICE MCI Arb *Technical Director, Maritime*

As part of this role Mr Harvey led the development of a Port Asset Management data collection and strategic planning tool incorporating the use of latest technologies to allow inspections to be streamlined, coordinated and consistent whilst providing useful and flexible data output that can be used for strategic planning.

HaskoningDHV Sdn Bhd – Country Director

- October 2013 – July 2016 – Kuala Lumpur, Malaysia
- As Country Director of Haskoning DHV Sdn Bhd Malaysia Mr Harvey has responsibility for financial performance, strategy, overall leadership and management of the HaskoningDHV business in Malaysia. Key aspects of the role are the development and maintenance of the organisational culture and values, promoting business integrity and sustainable development principles. As Director Mr Harvey was responsible for the profit & loss for all projects and clients in Malaysia.

From a technical perspective Mr Harvey oversaw the work of the maritime team and the delivery of projects which ranged from port planning to large and small scale detailed design on the major container and bulk terminals along the Malacca Straits. Ferry Terminal operations were also a significant part of the work and feasibility studies were delivered at top government levels.

Aurecon - Associate, Ports & Marine

- July 2012 – October 2013 - Perth Area, Australia
- Mr Harvey was lead engineer and project manager on the Rio Tinto EPCM Panel works for Marine structures and ports. The role encompassed detailed technical review and project leadership as well as client relationship management and business development.

Royal Haskoning - Director of Advice Group, Maritime South West UK

- April 2008 – June 2012 Exeter, United Kingdom
- Mr Harvey established a new Maritime Advisory Group for Haskoning in the South West of England to provide support to projects on both national and international level. A key part of the group's work was to provide support and service to the Royal National Lifeboat Institution (RNLI) whose relationship with Haskoning is over 100 years old.

Royal Haskoning - Director of Advisory Group, Maritime India

- February 2006 – April 2008 - New Delhi Area, India
- Mr Harvey was heavily involved in the establishment of Haskoning's Delhi office and the start-up of the business in India. He was responsible for business development, profit and loss accounting, team development and project delivery. Fundamental to the role was the development of links between the new Indian office and the overseas offices so that a uniform quality product could be produced.

Royal Haskoning - Principal Maritime Engineer

- January 2004 – February 2006 - London, UK
- Maritime Engineer working on UK and International port developments including detailed design, contract administration and site supervision

Royal Haskoning - Maritime Engineer

- December 2000 – January 2004 - Peterborough, UK

- Maritime Engineer working on UK and International port developments including detailed design, contract administration and site supervision

British Waterways - Engineer

- 1997 – 2000 - London, UK
- Mr Harvey was a graduate engineer within the London Waterways team. The role encompassed design, management and supervision of projects ranging from Lock refurbishments to Marina developments.

AMEC – Site Surveyor (Highways Construction)

- 1996 – 1996
- Site Surveyor for A1(M) Widening, Cambridgeshire, UK

PORT & HARBOUR PLANNING & DEVELOPMENT RELATED EXPERIENCE

Liberty Primary Steel - Whyalla Steelworks, Port Planning, South Australia

- October 2018 – Present
- Project Director/Manager
- The Whyalla steelworks is the last remaining steel manufacturing facility in Southern Australia and currently produces around 1.2Mtpa of steel long product which is exported by rail to the domestic market. The facility has recently been acquired by GFG Alliance with the intention of upscaling the existing production and expanding the facility over a number of phases to a production rate of 12Mtpa in 10 years and 20Mtpa in 20years. The existing port facilities associated with the facility are beyond their design life and require a complete rebuild and expansion.
- Mr Harvey has taken the lead technical role and overall management of the port development planning and concept designs required for the initial planning and costing stages. The layout of the new port has been developed in conjunction with both steelworks facility design and the mine supply networks. The port will provide bulk material import capacity for in excess of 40Mtpa and the export of 20Mtpa of steel slab product and 8Mtpa of bulk materials. The slab export yard will be designed to be a fully automated facility capable of handling and loading a 25T slab every forty seconds and operate in a similar manner to the latest automated container yards.

Ceyhan Petrochemical Facility master planning – Turkey

- Jan 2018 – Present
- Project Director/Manager
- Mr Harvey was the project manager and director for the development of the Preliminary Masterplan for this 4000Ha Petrochemical Facility in the Adana Province of Turkey. The project included the development of high level market studies to determine the countries petrochemical product usage for the next 20years and from this data develop block flow diagrams and site layout options for this multi-billion-dollar investment opportunity. The site required the planning of a vast array of facilities including for construction camps, import jetties, Naphtha Cracker, PDH-PP facilities, Power and Desalination facilities as well as all the production facilities downstream from the Naphtha cracker.
- The findings of the studies and planning were presented to the Turkish ministry for Energy and highlighted not only the countries potential requirements, the potential supply option but also the high level economic

assessments around creating and running the potential facility. The Ministers will utilise this information for a go/no-go decision on further studies and potential site development.

12 Quays RORO Terminal Upgrade Tender Design, River Mersey UK

- April 2018 – June 2018
- Project Director/Manager
- Mr Harvey was the project manager and director for the concept engineering design development for the tender design of the upgrade works for the 12 Quays RoRo facility on the River Mersey. The design included navigational mooring and berthing analysis associated with the development of an upgraded river berth to accommodate larger RoRo vessels. The works included monopile design, approach trestle bridge design, fendering and mooring designs.
- The design was undertaken with the Contractor to accommodate the preferred methods of work and plant availability.

ATI Container Terminals – Manila South Harbour and Batangas Terminals

- Aug 2017 – Aug 2018
- Project Director/Manager
- Mr Harvey was the project manager and director for the engineering inspections for all Civil Infrastructure assets within the ATI Port Facilities at both Manila South Harbour and Batangas Terminals. The Terminals contain a mix of structures and handle both Container and RORO operations. The project has been undertaken using the latest tablet and GIS based data capture and has been developed to meet with DP World compliance and standards.
- Mr Harvey has engaged with ATI to develop an Asset Management Strategy that includes for the establishment of unique asset identification system and a standardised approach to categorising defects across all of their Terminals. The established system utilises database and GIS information and supports the client in establishing defect repair, maintenance requirements and future inspections scheduling.

Flour Mills Grain Import Jetty, Lumut, Malaysia

- April 2015 – 2016
- Project Director
- As Technical Project Director, Mr Harvey was involved in all stages of this project from proposal through to the detailed design and tendering stages. The scheme involved the creation of a new Panamax Vessel size Grain facility in the Sungai Manjung. Navigational risk assessments were undertaken and planning consents sought as part of the process.
- The team also assisted the client with the upgrading of existing bulk handling equipment and the project will continue through procurement and supervision phases.

Sapangar Bay Oil Terminal, Sabah, Malaysia

- Jan 2015 – July 2016
- Project Director
- As Technical Project Director, Mr Harvey was involved in all stages of this project from proposal through to the detailed design and tendering stages. The scheme involved access via trestle arrangement and

embankments across coral and other varying soil conditions to an island jetty suitable for a range of tankers for both import and export of mixed products. In addition to the Civil Structural elements the team also undertook the Mechanical and Electrical design.

Ferry Terminals Master-planning and Feasibility Studies, Kedah & Perlis States, Malaysia

- Oct 2013 - July 2016
- Project Director
- Maritime Institute Malaysia (MIMA) is a semi gov. organisation who specialise in issues relating to planning and maritime law. Our team were employed to undertake the review of two river mouth ferry terminals that service the tourist island of Langkawi. The river mouths carry huge volumes of sediment requiring expensive dredging and also have navigational restrictions. Our team were engaged to study the economic, socio economic, hydrodynamic, environmental, engineering and operational aspects of the existing facilities and looking forward 30 years.
- The 12-month study has put forward a number of different options for consideration. These options range from minor to major engineering solutions through to subsidy and tariff structure revisions. The solutions have been derived from the detailed modelling and development of multi criteria analysis.
- The final reports were issued to the Malaysian Federal and State Governments for review and option selection.

Kuala Linggi Port Development, Melaka, Malaysia

- Oct 2013 - July 2016
- Project Director
- The Kuala Linggi Port Project is potentially one of the largest developments in the Melaka Straits. The project includes the market studies, master-planning, site investigation and preliminary design stages of a new greenfield development consisting of 620 acres of land reclamation.
- The selected site will contain Oil & Gas storage and jetty facilities, Shipyard capacity for VLCC, fabrication yard and heavy load out, and a general cargo wharf. The development will also require all services and utilities along with administration and training facilities. As part of the planning work outline designs and costs were undertaken for the major structural components such as the breakwater/revetments, reclamation, quay walls, jetties and dry docks. The masterplanning work has been taken through to ministerial level in the Federal Government and been put forward for inclusion in the National Physical Plan.

Berth Upgrade Studies, Port of Tanjung Pelepas, Malaysia

- Oct 2013 - July 2016
- Technical Director
- Reviews of existing Container Wharf for potential upgrading works to enable the berthing and operations of the latest EEE (18000TEU) class of Container Vessels and Cranes.

Port Master-planning Review, Kuantan Port, Malaysia

- Oct 2013 - July 2016
- Project Director

- Mr Harvey undertook the reviews of the Port Master-planning works for the new outer harbour development at Kuantan. The development includes for container, general cargo and dry bulk wharfage.

Rio Tinto EPCM Marine works lead, Western Australia

- July 2012 – Oct 2013
- Project Director
- Mr Harvey is responsible for the coordination of all marine works undertaken for Rio Tinto under Aurecon's EPCM Panel agreement. The role includes works at key facilities for the client in the Pilbara region of Western Australia. Responsible for design and construction staff, Mr Harvey's role is key to the delivery of projects in operational ports where works are required to be carried out during tight operational shutdowns and amongst critical operational activities.

East Intercourse Island – Dolphins Replacement & Wharf Upgrade, Western Australia

- July 2012 – Oct 2013
- Project Lead Engineer
- Mr Harvey is the Project Lead for this EPCM contract for Rio Tinto. The works included the Design and Procurement Support packages for the reconstruction of Nine Dolphins for this live operational Iron Ore wharf which is in constant operation and key to Rio Tinto's operations in the Pilbara region. The wharf was originally designed for Cape size vessels in the range of 160,000 DWT and now accommodates vessels up to 323,000DWT. The project required multidisciplinary team approach and for the project to designed and constructed around the live berth and minimal operational closures.

Port of Broome, Western Australia

- July 2012 – Dec 2012
- Port Planner
- Working closely with the client Andrew acted as project director on the development and compilation of a port master plan for Broome, WA. The Master plan will later filter into being a part of the Kimberly Regional Port Master plan.

Construction Supervision Advisor, Tripoli Breakwater, Libya

- 2010 – 2011
- Diving Engineering Advisor
- Working closely with the site engineering team and the client, Mr Harvey provided high level support regarding the underwater construction activities associated with the breakwater repair and strengthening project. Advice was provided on international safety standards and requirements as well as the potential difficulties in this type of work environment.

BAPCO - Ship Impact Protection System, Bahrain

- 2010 – 2012
- Project Director
- Working closely with the client, the project team developed a bespoke Ship Impact Protection System designed to protect the oil berth pipelines and approach trestles from accidental berthing scenarios. As Project Director, Mr Harvey formed the interface between the design team and the client.

Royal National Lifeboat Institution (RNLI), United Kingdom

- 2008 – 2012
- Client Manager
- The RNLI is one of the company's key clients and Mr Harvey was the main point of contact and was responsible for financial and design related deliverables. As part of his role, Mr Harvey took the position of Project Director for major capital work developments such as new lifeboat stations at The Lizard, Cornwall and St Davids, Wales and new beach lifeguard facilities at Fistral Beach, Newquay, Cornwall.

Freeport Container Terminal and Harbour Inspections, Bahamas

- 2008 – 2009
- Project Engineer
- Commissioned by Insure London, Mr Harvey carried out both technical and operational reviews of Hutchinson's facilities. Structural surveys were carried out, discussions undertaken and workshops held to assess the operational management of the container terminal and harbour.

Lae Port Tidal Basin, Papua New Guinea

- 2007 – 2008
- Project Director
- Mr Harvey was heavily involved in the detailed design of a new tidal basin and multi-purpose container yard for Lae Port in Papua New Guinea. The project included extensive dredging and reclamation work along with the creation of a 240m suspended deck wharf with yard area and inter-port connection roads. A number of buildings, offices and container freight stations were also included in the scheme. Papua New Guinea is a highly seismic area and great consideration was given to tsunami action on the structures as well as seismic loading.

Machilipatnam Port Development, India

- 2007 – 2008
- Project Director
- Machilipatnam is located on the East Coast of India and was selected as a potential location for a new port development for container, bulk and ship repair facilities. Mr Harvey was tasked with undertaking the master planning of the new development to a concept level for funders to assess potential phasings of development and the overall risks and potentials associated with the chosen site.

Mumbai Oil Jetty - Pir Pau, India

- 2007 – 2008
- Project Director
- Mumbai Port Trust commissioned Haskoning India to develop a new multi-purpose oil berth alongside an existing berth at the Pir Pau Oil facilities at Mumbai. As Project Director Mr Harvey led the project development through from concept to detailed design.

Keamari Groyne Container Terminal, Pakistan

- 2006 – 2007
- Project Manager

- Mr Harvey was Project Manager during the initial port planning and feasibility stages of the development of this deep-water container terminal. He was involved in the concept design aspects of the scheme and later in developing the financial options for the Build Operate and Transfer (BOT) in full contracts.

Sayga Grain Import Jetty, Sudan

- 2006 – 2006
- Project Engineer
- Mr Harvey was responsible for managing and conducting a Pre-Feasibility first phase option study for the location and design of a new grain import jetty within the Port of Sudan.

Navigational Survey and Assessment, Bahamas

- 2005 – 2005
- Project Engineer
- Desk study and site survey of the Island of Grand Bahama Navigational Aids and Markers in order to build an asset register for Hutchison Port Holdings and the Island's Government.

Gdansk Deep Sea Container Terminal, Poland

- 2004 – 2006
- Assistant Project Manager
- Based in Poland working directly with the developer's team Mr Harvey was heavily involved in the project design development and procurement stages of this port development scheme. Haskoning's involvement in this project was to mitigate the slippage in programme that had occurred by the local design and management consultants. The scheme required an exceptionally fast track approach to ensure that programme slippage was mitigated and that contract award dates were met without delay.

Re-Development of Cairnryan Port, United Kingdom

- 2003 – 2007
- Project Manager
- Mr Harvey has acted as the Project Manager for the planning, granting of consents and the design of the construction for a new port development which is a joint venture between Stena Line and P&O European Ferries (Irish Seas). The port development combines the client's operations of Cairnryan and Stranraer and is the first new port to gain a Harbour Empowerment Order through the Scottish Executive.
- Mr Harvey has managed the multidisciplinary team to provide the joint venture with a three berth Ro-Ro facility comprising of a new Stena HSS berth with passenger terminal building, a new 220m berth with double deck linkspan and the upgrading of an existing 140m berth with double deck linkspan, all of which form part of the design package.
- The project also includes 10 hectares of new paving with 600,000 cu.m of reclamation and assorted buildings, fencing, roads, drainage and services. In addition to this, the site requires nearly 1km of slope protection and revetments.
- As part of the planning and consents process Mr Harvey has co-ordinated the in-house team in carrying out detailed Environmental Impact Assessments.

Port of Felixstowe, Trinity III Extension, United Kingdom

- 2000 – 2001
- Project Engineer
- Design and cost estimates for the dredging, navigation channel, berthing pocket and the reclamation of 400,000m² of land including ground improvement techniques and the design of revetments for this 270m extension to the UK's leading container port. Mr Harvey was also responsible for the compilation and drafting of contract documents, specification and drawings.

Pulau Bunting Coal Import Jetty

- 2000 – 2001
- Design Engineer
- Was responsible for the tender design of a piled suspended deck coal import jetty and approach bridge in Malaysia. Involvement included the planning and design of the dredge channel, reclamation areas, rock revetments, fenders, pre-stressed concrete piles, reinforced concrete. Mr Harvey was also responsible for the initial drafting of the contract and specifications for the marine works elements of the assignment.

Portsmouth Passenger Access, United Kingdom

- 2000 – 2001
- Project Engineer
- Was responsible for the analysis of passenger volumes and movements for the planning and concept design of ship to shore passenger walkways and terminal buildings. As part of this, a first order model was developed for the detailed analysis of passenger movements in line with the operational constraints of a port. Preliminary designs of steelwork for movable and lifted passenger walkways were prepared along with cost estimates and operational safety procedures.

Rosslare Harbour, Ireland

- 2000 – 2001
- Engineer
- Was responsible for the contract administration, including both contractual and financial processes for the design team assigned to the Phase 1 redevelopment programme. Additional duties included the evaluation and design of the facilities to allow berthing in extreme conditions; wind and waves. Specific features of the design included high loading fendering over the lead in to the berth.

Southampton Quay Wall Stabilisation, United Kingdom

- 2000 – 2001
- Project Engineer
- Was responsible for the design for the stabilisation of a 20m high gravity retaining wall with a minimum water depth alongside of some 14.0m. Back analysis methods were used to identify the reason for failure and the most effective method of stabilisation. The developed design included ground anchor positioning and waling loading to provide sufficient support.

DIVING & UNDERWATER CONSTRUCTION PROJECT EXPERIENCE

Offshore Cooling Water Intake Pipelines, Qatar

- 2009 - Present
- Diving Engineering Advisor
- Working for the client, M Power, Mr Harvey undertook several site visits to monitor both the offshore construction methodology and the compliance with the required IMCA diving standards. The construction works consisted of the installation of a new 1.5km long 1.8m dia. intake pipeline for M Power's Mesaieed Power Station near Doha.
- Mr Harvey provided the client with advice on both improvements to the construction methodology workmanship and the standards of safety for the diving contractor, enabling improvements to be made without additional costs to either party.

Stranraer, United Kingdom

- 2004 – 2004
- Project Coordinator
- Mr Harvey helped to liaise with local consultants, planners and consultees in order to control the lines of communication and to act as the co-ordinator of the UK based contract and design teams.

Port of Stranraer Condition Survey

- 2004 – 2004
- Engineering Diver
- Mr Harvey carried out an extensive underwater survey of a number of structures at the Port of Stranraer in Scotland. The structures varied from concrete gravity retaining structures, sheet piled retaining walls and suspended deck structures. The inspections were presented to the client in report format with digital video of the dives.
- Mr Harvey used the results from the inspections and thickness testing to determine the likely life expectancy of the structures and probable maintenance schedules.

Cairnryan Ro-Ro Berth Inspections, United Kingdom

- 2004 – 2004
- Engineering Diver
- Mr Harvey carried out an extensive underwater survey of the Berth 1 Ro-Ro berth at Cairnryan in order to investigate the effects of ALWC on the structural steelwork of the berth's bank seat structure and quay wall.
- The findings of the survey were interpolated in a report to the client advising on corrosion mitigation methods and the loss of section per annum for future structures in the port.

Holyhead Terminal 2 & 3, United Kingdom

- 2004 – 2004
- Engineering Diver
- In his role as an Engineering Diver, Mr Harvey was requested to carry out inspection dives in the Port of Holyhead to inspect the pontoons and hydraulic lifting rams on terminal 2 & 3. Both video survey techniques and

thickness testing were used to report to the client the condition of these structures.

Holyhead - Dolphin D9, United Kingdom

- 2003 – 2003
- Engineering Diver
- Mr Harvey undertook a diving inspection of this damaged monopile dolphin as part of the repair works designed by Posford Haskoning. The dive meant locating, at bed level, the cut off monopile and descending down inside the tube to a depth of 22m in order to ensure that there was no further damage or obstructions within the monopile which was later to have a Spigot pile placed inside.

Landguard Quay Repairs - Felixstowe, United Kingdom

- 2003 – 2003
- Engineering Diver
- Following the completion of substantial quay repairs including the installation of ground anchors, concrete patch repairs, replacement of bearing piles and fender panels, Mr Harvey carried out inspection dives to assess the quality of construction and workmanship

CONSTRUCTION SUPERVISION EXPERIENCE

Saba Fort Bay Breakwater Reconstruction, Caribbean

- 2004 – 2004
- Resident Engineer
- In 1999 the Fort Bay Harbour was hit by a hurricane destroying the breakwater protecting the harbour. The reconstruction of this breakwater which ran along the existing caisson quay involved the construction and placement of revetments with Accropode armour units. These units ranged in size from four to sixteen cubic metres. The toe of these slopes extended down to -13mCD.
- Mr Harvey took the role of Resident Engineer during the critical period of placing the largest and deepest Accropode units. Further, Mr Harvey undertook diving inspections in order to advise on the correct placing method for the Accropode units.

Gwadar Deepwater Port, Pakistan

- 2003 – 2003
- Technical Advisor
- Working for the Local Consultant and Government Port Authorities in an advisory role, Mr Harvey was assigned as Technical Advisor on the pile testing techniques being carried out by Chinese Contractors using Chinese design codes and practices. The role included site visits in order to inspect the works and the methods of construction being used.

Landguard Quay Repairs, Port of Felixstowe, United Kingdom

- 2002 – 2003
- Resident Engineer
- Was responsible for the implementation of complex quay wall stabilisation, making use of Single Bore Multiple Anchors and Limpet Dam Technology to form structural concrete patch repair to the sheet

piled wall. The works also involved the installation of a telescopic Rendhex pile replacement using diving contractors. The Limpet Dam enabled the close inspection of ALWC effects on the sheet piles, thickness testing was undertaken and reports compiled for the Client.

Trinity South Container Terminal, Paving Works, Port of Felixstowe, United Kingdom

- 2002 – 2003
- Resident Engineer
- Was responsible for overseeing a design and construct contract to pave approx 12HA of container terminal to convert an existing 8-wheel stack area to 16 wheel. The works were carried out on a visiting basis and involved the close liaison with Clerk of Works, Contractor and Client. The works were undertaken on a phased handover basis with tight deadlines and major operational implications.

Project Seabird - Breakwater and Land Reclamation Phase, Indian Ministry of Defence, India

- 2001 – 2002
- Assistant Resident Engineer
- Based on the West Coast of India working for the Indian Ministry of Defence, constructing a new Naval Base. His role was to oversee the works undertaken by a combination of international and local contractors together with close liaison with the client.
- The project consisted of the creation of 3km of geotextile lined rubble mound breakwaters for the reclamation of 0.5M m² dredged sand fill land reclamation, 6km of rubble mound breakwaters, all associated quarrying works and haul roads.
- Mr Harvey was also heavily involved in the overseeing of the quarry production and yield, which required the implementation of production and management techniques for the contractor.
- Mr Harvey also held the position of Project Safety Manager, which involved the monitoring of the contractor's safety procedures.

RIVER, COASTAL & OTHER PROJECT EXPERIENCE

London Cable Car Ship Impact Protection System, UK

- 2011 to June 2012
- Project Director
- The fast track nature of the procurement scheme for the new London Cable Car required close communication and a proactive approach. Haskoning designed the Ship Impact Protection Systems for the two main support towers. The design involved complex energy absorption systems and the design of structural elements for energy dissipation through to failure and collapse. The procurement of the scheme required a great deal of participation from all involved and included ECI and design and build aspects in order to achieve the tight programme.

Blyth Staithes Art Feature, United Kingdom

- 2002 – 2003
- Project Engineer
- Appointed to compile full contract documentation for the design, fabrication and erection of a 15m high steel art feature for Blyth Staithes.

This involved the sourcing of specialist contractors and close liaison with the artist and councils.

Melton Mowbray Flood Relief Scheme, United Kingdom

- 2000 – 2001
- Design Engineer
- Design for large diameter concrete approach channels and wingwalls to divert the river through culverts in a new earth embankment dam.

London Region Construction Term Contract, UK

- 1999 – 2000
- Responsibility for the annual spend for the region covering a variety of works from structural repairs of locks and weirs through to towpath schemes and canal dredging. Mr Harvey's involvement covered the day to day management of the overall contract and the scoping of works, design and procurement of works, supervision on site, settlement of claims, measures and valuations of the individual projects.
- Duties also included reviewing the contractor's performance and costs in order to form a comprehensive report on the strengths and weaknesses of the term contract in relationship to other procurement strategies. Planning supervision for all works associated with the contract.

Stoney Sluice, Grand Union Canal, Brentford, London, UK

- Project management for the emergency repair and replacement of the sill to the flood relief gate. The works included the design and installation of temporary dams.

Stonebridge Redevelopment Scheme, London, UK

- Management for the mooring and redevelopment scheme at Stonebridge. Works included the construction of a Marina formed in a dredged pocket with piled retaining walls and the reclamation of contaminated land to form access roads and car parks, together with supply of lighting, drainage to roads etc and services supply to boats. His role included a high level of involvement in planning stages for the site, including public consultation.

Lock Repairs, Hanwell Flight, Grand Union Canal, London, UK

- Lock repairs and stabilisation of the lock walls with ground anchors, and the dredging and repair of the lock sideponds. This work involved careful analysis of the historical records of these listed structures.

Docklands Moorings, London, United Kingdom

- Project management for the mooring development in Docklands UK. Works included the procurement and supervision of munitions surveys, basin dredging, installation of large diameter steel piles, installation of floating pontoons, provision of services and security.

River Stort Canal Bridge -, Harlow, UK

- Project management and design for the construction of replacement timber bridge, formation of revetments, abutments and construction of replacement timber bridge and dredging of Mill Stream Channel.

River Wall Repairs, River Lee Hertford, UK

- Project management and design for the removal and replacement of gravity retaining wall, revetments and bank protection works.

Hertford Lock Emergency Repairs, River Lee, Hertford, UK

- Project management for the emergency replacement of scour apron to lock including the design of reinforced concrete slab and the replacement at lock gates and associated fixings.

Kings Weir, River Lee, Hertfordshire, UK

- Project management and planning supervision for the design and management of the repair and replacement of a 40m broad-crested weir with spanning footbridge. The site was in an environmentally important area and works were undertaken whilst maintaining flows. The works included reinforced concrete and pile design.

Portly Ford Feeder, Northampton, UK

- Project management for the design and site supervision of 1km of gravity fed pipeline negotiating a landfill site, major roads and the repair of a small listed aqueduct.

A1(M) Widening, Cambridgeshire, UK

- 1996 – 1996
- Site Surveyor
- Site surveying on major road improvement scheme with responsibility for setting out, topographic and control surveys for A1(M) widening project.



JONATHAN TYLER

Director Port Planning, Maritime



Years with the firm

Two years

Years total

30 years

Professional qualifications

The City University London,
BSc (Hons) Civil Engineering,
1989

Areas of practice

Container Terminals

Lenders Due Diligence

Heavy Duty Pavement
Engineering

FIDIC Contract Management

Languages

English – Fluent

French -- Basic

PROFILE

I am a Senior Ports Consultant with global involvement in port related activities with a particular focus on port planning and container terminals.

I have some 30 years' experience in the planning, design, construction supervision and maintenance of ports, highways and large civil engineering structures. I have undertaken and led due diligence and similar high level assignments worldwide and I am familiar with meeting the demands of these fast-tracks assignments. In addition to working on port projects worldwide I have also provided expert technical opinion in port paving related disputes.

I have particular experience of major container terminal projects whether acting for the overall Client or being the Lead Designer for the Construction Contractor. These projects include a very wide range of conventional manually-operated terminals, and semi-automated and fully-automated terminals. These projects require a wide range of disciplines and my particular focus is to manage the project teams' activities to ensure a high quality project on budget and on time.

EDUCATION

| | |
|--|------|
| BSc (Hons) Civil Engineering, The City University London, | 1989 |
| Middlesex University, Post-graduate certificate in Project Finance | 2016 |

PROFESSIONAL MEMBERSHIPS

| | |
|---|------|
| Fellow of Institution of Civil Engineers | 2008 |
| Chair of Drafting Committee for British Standards; BS 6349 Part 9: Port Surfacing | |
| Member of Institution of Civil Engineers | 1993 |

PROFESSIONAL EXPERIENCE

Hadarom Container Terminal

- 2019 to date, Eastern Mediterranean
- Lead Adviser in the Lender's Technical Adviser's team for technical due diligence of a major container terminal for the import and export of 2.4 million TEU. The terminal is a semi-automated container terminal incorporating the latest technologies and special operational features. The project is of national importance and is the first port development in the country to be financed through project finance. The initial stage of our assignment is the fast-track independent assessment of the project, including market review, project implementation and procurement strategy, FIDIC construction contract and equipment supply contracts, with quarterly site visits and reporting to follow.

Albert Island Redevelopment

- 2019 to date, United Kingdom
- Port planning lead for proposed redevelopment of Albert Dock in London Docklands. Following a future-use market study, the redevelopment is to feature maritime industry related activities such as repair of a wide range of craft. The site is constrained by the existing basin accesses from the Thames into Albert Basin and King George V Dock, and the flight path of

London City airport. Other constraints include the existing operational locks and the storm surge protection gate and minimising the modification of the existing historic lock and dock structures.

Belvedere Jetty Options Study

- 2018 – 2019, United Kingdom
- Investigation of options for property owner regarding disused oil jetty as an ongoing liability in their portfolio. The options considered included demolition, minimal works to ensure on-going safety, and partial re-development for future beneficial use and possible sale.

Freeport Container Port (HPH) Pavement Revitalisation Phase 1

- 2019 to date, The Bahamas
- Project Director for the Freeport Container Port Pavement Revitalisation Phase 1 project. The project consists of the rehabilitation of the existing pavement areas of the container yard due to wear-and-tear damage of the pavement structure caused by the continuous operation of straddle carrier container handling equipment circulating in the terminal roadways and stacking areas. The scope of works consists of tender evaluation and recommendation, management of tender correspondence, value engineering exercise and preparation of contract documentation.

DPW Sokhna Container Terminal

- 2017 – 2018, Egypt
- Tender design of heavy duty port pavement for Package 1 of Basin 2 terminal expansion project.
- Update to port masterplan for phased expansion of multi-purpose port to 2047.
- Activities included:
 - Market study to 2047, including growth from adjacent Special Enterprise Zone developments
 - Planning for phased development of diverse range of cargoes: Containers, Ro-ro, General cargo, Clean dry agri-bulks, Dirty dry bulks, Liquid bulks, Cruise, Ferries, and Livestock
 - Vessel navigation simulation of wide range of vessels including 24,000 TEU container vessels
 - Planning of road, rail, conveyor, pipeline hinterland links
 - Services and utilities capacity requirements, including improvements and diversions to existing services.
 - Sequencing and phased development synchronised with market forecast
 - Concept design of major structures, including quay walls
 - High level cost estimates for phase development

Multi-purpose Port Due Diligence

- 2017 – 2018, Gabon
- Technical due diligence audit, capacity and operational assessments, of an existing major multi-purpose port and the on-going phased development plans to further expand the port.

Sharma New Berths

- 2017 – 2018, Saudi Arabia
- Project Director for design reviews of new berth on Red Sea coast.

Transport for London Waterfreight Toolkit

- 2017 – 2018, United Kingdom
- Project Director for project to research and design an interactive web-based mapping tool of wharves to assist multi-modal construction freight planning within London through the use of the River Thames and London canals.

Mineral Port Due Diligence

- 2017 – 2018, Gabon
- Technical due diligence audit, capacity and operational assessments, of an existing major mineral port and the proposed phased development plans to further expand the port.

Multi-purpose Port Due Diligence

- 2016 to date, Turkey
- Technical due diligence audit, capacity and operational assessments, of an existing major multi-purpose port and the proposed phased development plans to further expand the port.

Felixstowe South Terminal, Phase 1

- 2016 – 2017, United Kingdom
- Paving technical specialist providing specialist knowledge to the designer's team in connection with pavement modification works.

Lomé Container Terminal

- 2016, Togo
- Provided specialist guidance to the Lender's Technical Adviser on completion of the main project leading into commencement of various remedial works.

Baku New International Sea Trade Port

- 2016, Azerbaijan
- I was the Project Manager and Lead Engineer for a technical due diligence audit of a part-built train/truck ferry and general cargo port development. Following the resumption of construction works on site, activities include overseeing the on-site supervision team until completion of the works.

London Gateway Port

- 2016, United Kingdom
- I provided specialist paving advice to a contractor in connection with premature deterioration in a heavy duty port pavement at a new major container terminal development.

Pakistan International Bulk Terminal

- 2015 – 2016, Pakistan
- I was the Lead Adviser in the Lender's Technical Adviser's team for technical due diligence of a major dry bulk handling terminal for the

import of coal (8 million tonnes) and the export of cement and clinker (3 million tonnes). On completion the terminal will be Pakistan's largest coal import terminal. The terminal is part-built with construction on-going. The initial stage of our assignment was the fast-track independent assessment of the project, its implementation and procurement strategy, FIDIC construction contract and equipment supply contracts, with quarterly site visits and reporting following.

Liwonde Dry Port

- 2015 – 2016, Malawi
- I was the Lead Adviser in the Lender's Technical and Environmental Adviser's team for technical and environmental due diligence of a proposed major 1 million tonnes cargo per annum dry port gateway development in Malawi. The initial stage is the fast-track independent assessment of the project and its implementation and procurement strategy, including detailed review of FIDIC EPC documents, with quarterly site visits and reporting potentially to follow.

Port of Bar Development

- 2015 – 2016, Montenegro
- I was the Lead Adviser in the Lender's Technical Adviser's team for technical due diligence of proposed improvements to the existing container handling and general cargo facilities at Port of Bar. The initial stage prior was the fast-track independent assessment of the various improvement projects and their implementation and procurement strategies, with further detailed technical analysis of proposed rehabilitation and improvement works to the existing container quay.

Port of Cotonou Expansion

- 2014 – 2016, Benin
- I was the Project Director for FIDIC D&C contract for expansion of container yard facilities at the Port of Cotonou

Assan Port Off-Dock Development

- 2015 – 2016, Turkey
- I was the Project Director for the detailed design of a new off-dock container yard in Iskenderun. The topography of the site and the seismic risk requires substantial retaining walls of significant height.

Melbourne BCR Development

- 2015, Australia
- I undertook a whole life cycle review of the proposed pavement works for an extension to an existing container terminal. The site for the extension was on an industrial brownfield site with challenging geotechnical conditions. Activities included the review of repairs at the existing container terminal, review of the proposed new pavement constructions, and a detailed whole life cost assessment over a 30 year period.

Liverpool 2 ASC Infrastructure

- 2015, United Kingdom
- I was Project Director for the detailed design of ASC crane civils works infrastructure. The Client had concerns regarding the whole life cost and performance of the C-ASC rail system and foundations proposed by others. To assist the Client we undertook the design and whole life

costing of various alternative ASC rail systems including the foundations. Following the selection of one of our alternatives by the Client, we were commissioned to undertake the full detailed design of the C-ASC rail system and foundations for construction on site by the contractor. Our practical approach to this problem produced a “win-win” for the Client and the Contractor: The solution was swift to implement on site, with a lower capital cost, and through consideration of the as-found geotechnical conditions, an excellent balance between predicted in-service performance and operational maintenance costs.

Panama Container Terminal Phase 2 Development

- 2015, Panama
- I undertook the review of proposed pavement works and other landside infrastructure for Phase 2 of a container terminal in Panama for Lender’s as part of a wider technical and environmental due diligence assignment.

Alexandria and El Dekheila Container Terminals

- 2015, Egypt
- I undertook the capacity analysis (including capacity constraints) of existing and proposed container terminals at Alexandria and El Dekheila for Lender’s as part of a wider due diligence assignment.

Teesport Pavement Reconstruction

- 2015, United Kingdom
- I was the design review engineer for the reconstruction of concrete pavements to accommodate the handling and storage of 26t to 35t steel slab product by 50t fork lift trucks.

Cairnryan Ferry Terminal

- 2013, United Kingdom
- I was the designer for the pavements for the ro-ro truck marshalling and manoeuvring areas at the new ferry terminal expansion.

Aguadulce Container Terminal

- 2014 – 2015, Colombia
- I was the Lead Consultant heading up a team undertaking the landside development works for this new container terminal near to Aguadulce in Colombia. The facility was future-proofed to allow progressive expansion to reach the client’s target of 1.5 million TEU throughput per annum as trade develops. The facility is operated using Rubber Tyred Gantry cranes (RTG’s).

Rotterdam Container Terminal

- 2014, Netherlands
- I undertook the site inspection and adequacy assessment of landside infrastructure at an existing container terminal in Rotterdam for a potential purchaser as part of a wider due diligence assignment.

Venice Offshore

- 2014 – 2015, Italy
- I assisted the team with the review of various options for the development of a 1 million TEU container terminal to be located offshore of Venice. The assignment was part of the European Union’s TEN-T programme

and a particular feature of the project was the proposed use of barges which would be loaded with containers in advance of being transferred to the offshore terminal by a special semi-submersible vessel.

Kuantan New Deepwater Terminal

- 2014 – 2015, Malaysia
- I undertook the detailed master planning of a 1.5 million TEU container terminal and iron ore export terminals as a major extension to the existing port infrastructure. Activities included detailed planning and cost estimates of the various development options, and simulation of the container handling operations to verify that the required levels of service could be achieved.

Victoria Terminal 3, Belfast

- 2014, United Kingdom
- The client was seeking to re-configure and modernise one of their existing container terminals to expand throughput capacity and increase efficiency.
- I undertook a site inspection of the existing facility followed by the preparation of various phased development options to allow the expansion to be implemented with minimal disruption to the on-going container handling operations.

Asyaport Container Terminal

- 2013 – 2015, Turkey
- I was the Project Manager for the design integration team for a 2 million TEU container terminal on the west side of the Sea of Marmara. Initially we undertook a scoping study of the part-built project (with construction works on-going) and produced a new project structure including road map to bring the project to successful completion. Following on from the scoping study we undertook the production of detailed terminal plans, concept and detailed designs, integration of the designs of other parties and the production of FIDIC construction procurement packages. The project items included dredging, quay wall construction, reclamation, ground improvement, jet grouting and the provision of all paving, services, drainage, lighting, fire-fighting facilities and buildings in a region of high seismicity. Further activities included a Probable Maximum Loss study for possible earthquake related damage.

Port of Melbourne Web Dock Container Terminal

- 2013 – 2014, Australia
- I was the Lead Adviser of the Lenders' Technical Adviser's team for technical due diligence of a proposed major container terminal. The project scope included all construction works, port equipment, and operating systems. Terminal development is required to meet or surpass stringent environmental requirements.

Incheon Container Terminal

- 2013 - 2013, South Korea
- I was the Lead Adviser for performance evaluations using simulation for a proposed container terminal development in Incheon.

Lomé Container Terminal

- 2012 – 2016, Togo
- I was the Lead Adviser in the Lender's Technical Adviser's team for technical due diligence of proposed major 2 million TEU transshipment container terminal development in West Africa. The initial stage prior to financial close was the fast-track independent assessment of the project and its implementation and FIDIC EPC procurement strategy, with quarterly site visits and reporting to follow until 2016. The terminal opened in 2014 and is the region's deepest deep water container terminal.

Aden Container Terminal

- 2013 – 2014, Yemen
- I was the Lead Adviser for assisting the Client with negotiations with the Contractor (including review of FIDIC EPC tenderer's offer) for major extension to the Aden container terminal. Scope included all construction works, port equipment, and operating systems.

Lagos Multi-purpose Terminal

- 2013 – 2016, Nigeria
- I was the Lead Adviser for the Lenders' Technical Adviser's team for technical due diligence of proposed upgrade to the existing terminal to allow multi-purpose traffic (containers, Ro-Ro, bulk cargo, and general cargo). Activities included review of FIDIC EPC tender.

Busan Container Terminal

- 2013 -2013, South Korea
- I was the Lead Adviser for performance evaluations using simulation for an automated container terminal development in Busan.

Ras Laffan Port Expansion Project Container Terminal

- 2012 – 2013, Qatar
- I provided expert paving advice to the Contractor to allow the Client to formally accept the as-constructed works at this major 1 million TEU container terminal development. Activities included presenting findings at senior level to the ultimate Client and end user, and negotiating technical deviations with the ultimate Client on behalf of the Contractor.

High Capacity Container Terminal Concept

- 2012 – 2013, Norway
- I was Lead Adviser for the investigation and evaluation of a novel highly automated container handling concept including capex and opex comparisons against existing full automation technologies.

Karasu Multi-Purpose Port Development

- 2012 - 2012, Turkey
- I was the Lead Adviser for a technical due diligence of the project to complete part-built port on Black Sea for container handling, Ro-Ro freight including train ferries, and general cargo.

Container Terminal Paving Specialist

- 2012 – 2016
- I provided expert paving advice for numerous container terminals including: KAAP Dammam, Saudi Arabia; Duqm, Oman; APMT Callao, Peru; APMT Poti, Georgia; DCT Gdansk, Poland; Gemadep CT, Vietnam; APMTT Tanger Med, Morocco; DPW Southampton; DPW QICT, Pakistan; DPW Yarimca, Turkey; DPW Callao, Peru; DPW Cochin, India; Seaforth CT, UK; Teesport Northern Gateway, UK; DPW Brisbane, Australia; DPW Jebel Ali, Dubai; BHC Belfast, NI; DPW Maputo, Mozambique; APMT Cotonou, Benin; PDC Duqm, Oman; Palmeira CT, Cape Verde; DPW Algiers, Algeria, and Port Said East CT, Egypt.

Turkmenbashi Container Terminal

- 2012 , Turkmenistan
- I was the Lead Designer for the Contractor's bid for terminal planning and preliminary engineering for a proposed container terminal development which will include a shipyard and a general bulk cargo terminal.

Rotterdam World Gateway

- 2012 – 2016, Netherlands
- Lender's Technical Adviser Implementation Phase
- I was the Lender's Technical Adviser, Royal HaskoningDHV undertook the pre-financial close due diligence and following financial close in June 2012 we are now undertaking regular monitoring and reporting on the progress of this 2 million TEU fully-automated container terminal development on behalf of the Lenders until the end of the loan period.

Third Rail Terminal Development, Port of Felixstowe

- 2012 – 2016, Felixstowe, United Kingdom
- I was the Employer's Representative for a major design and construct contract to provide the UK's longest on-terminal rail sidings for container freight trains. The works include ground improvements, heavy duty paving, ballasted rail track, signalling, piled crane rail support beams for RMG's, locomotive traverser with pile support structure and various buildings.

London Gateway Port Container Terminal

- 2012, United Kingdom
- I was the Lead Adviser for the Contractor's bid for construction of a terminal gate complex including the development of alternative paving designs to reduce cost and to use local site-won materials and hence enhance sustainability of the project.

Klaipeda Smelte Container Terminal Development

- 2011 – 2012, Lithuania
- I was the Team Leader for the technical, shipping trade and environmental due diligence on behalf of consortium of lenders for proposed container terminal development.

London Gateway Port Container Terminal

- 2011 – 2012, United Kingdom
- I was the Peer Reviewer of alternative paving designs for a new Lift-AGV semi-automated container terminal, including assisting Client (Contractor) with presentations to various key stakeholders.

Container Terminal Expansion Plans

- 2011 – 2012, Poland
- I was the Director for the terminal planning and engineering assignment for the phased expansion of an existing container terminal over the next 10 to 15 years.

Busan 2-4 Container Terminal

- 2011 – 2012, Korea (South)
- I was the Director for due diligence performance evaluation using simulation of a proposed semi-automated container terminal on behalf of the lenders.

Ras Issa Development

- 2010 – 2016, Yemen
- I was the Project Director for a proposed bulk handling import development at Ras Issa on the Red Sea coast. Current activities include the procurement and management of a geotechnical site investigation contract.

CT Steinwerder Competition

- 2009 – 2010, Germany
- I was a team winner of the first prize in a competition held by the Hamburg Port Authority with an entry called "Port Evolution" in which we focused on innovation, sustainability and community engagement, for a proposed 3.5m TEU container development in the middle of Hamburg city harbour area.

Antwerp Gateway

- 2007 – 2015, Belgium
- I was the Lead Adviser in the Lender's Technical Adviser's team for the operational phase of a 1.5 million TEU transshipment container terminal in Antwerp. Following on from our pre-financial close activities in 2004, then project implementation monitoring to 2007, we undertook operations status reporting to monitor actual versus forecast throughputs and the performance and reliability of the container handling equipment.

Port Louis Cruise Terminal, Mauritius

- 2007 – 2012, Mauritius
- I was the Project Director and Engineer for the FIDIC design and construction of a new cruise terminal, which included marine works, landside works and buildings.

Felixstowe South Reconfiguration

- 2007 – 2011, United Kingdom
- I was the Director responsible for the detailed design of major deep water container terminal extension at the Port of Felixstowe with capital cost of circa £200 million.

OKLNG Export Facility, Nigeria

- 2007 – 2009, Nigeria
- I was the Project Director for a major new LNG export facility in Nigeria. The project was at pre-FEED stage and at peak, team size was 80 staff strong on this multi-billion dollar project.

Duqm New Port

- 2006 – 2016, Oman
- I was the Engineer for the largest port development in Oman with FIDIC construction cost circa GBP 1.5 billion. The Port includes container terminal, bulk handling berths, general cargo berths, and various defence forces facilities.

Ferry Terminal

- 2006 – 2007, United Kingdom
- I provided expert paving advice regarding the premature deterioration of terminal paving.

Busan Container Terminal, South Korea

- 2006 – 2006, Korea (South)
- I provided expert simulation and terminal planning advice to a team carrying out detailed operational simulations for the proposed automated container terminal.

Project Gaudi, Spain

- 2006 – 2006, Spain
- I undertook due diligence for container terminal operations in two Spanish container terminals on behalf of an investment consortium.

Seaforth CT, Liverpool, UK

- 2006 – 2006, United Kingdom
- I provided terminal planning advice to the simulation team investigating operational improvements at the existing container terminal using our in-house terminal simulation software.

Oysterbank CT, Cork, Ireland

- 2006 – 2006, Ireland
- I was involved in the terminal planning and optimisation for the proposed container terminal including the use of automated yard equipment using our in-house terminal simulation software.

Trinity Terminal III Extension Container Yards, Felixstowe

- 2005 – 2007, United Kingdom
- I was Project Director for the £15 million design and construct contracts for the construction of 20 hectares of container yard paving and associated services.

Northern Gateway, Teesport Deep Sea Container Terminal, UK

- 2005 – 2006, United Kingdom
- I was involved in the terminal planning and paving designs for the proposed container terminal. Activities included phasing and development cash flow optimisation using our in-house terminal simulation software.

Strategic Business Planning, Scandinavia

- 2005 – 2006, Norway
- I was the leader of a team developing business strategy for a port equipment manufacturer to enter the container Lo-Lo industry with novel products.

Thamesport East Park, UK

- 2005 – 2005, United Kingdom
- I provided paving advice for a range of heavy duty paving constructions at the existing container terminal.

Selby Intermodal Depot, UK

- 2005 – 2005, United Kingdom
- I provided expert paving advice in connection with the prematurely deteriorated heavy duty container pavement constructed on soft ground, including peat.

Antwerp Gateway

- 2004 – 2008, Belgium
- I was involved in the assessment of pavement designs for a new 110ha container terminal carried out on behalf of the financial institutions, along with the assessment of Automatic Stacking Cranes pilot scheme.

Felixstowe South Reconfiguration, Port of Felixstowe

- 2004 – 2008, United Kingdom
- I was the designer of heavy duty pavements for a 70 hectares container yard paving for the D&C bid. Designs optimised to utilise recycled existing pavements and minimise environmental impacts through the use of innovative pavement technologies.

Argos Direct Inland Distribution Centre

- 2004 – 2006, United Kingdom
- I provided expert paving advice and expert witness for a dispute arising from the premature failure of heavy duty pavement at a major UK retailer's container distribution centre.

Blofield Road Container Depot Phase 3, Felixstowe

- 2004 – 2006, United Kingdom
- I was the Project Manager and Terminal Planner for development of a 2.5ha Greenfield site for use as an off-port container depot.

Shahid Rajasee Container Terminal

- 2003 – 2006, Iran
- I was the Designer of various paving options of a container yard paving for a new container terminal. The design and construct contract included

50 hectares of container yard and 850m of quay wall plus associated services. The designs permit full flexibility in the choice of yard gantry cranes to handle the containers whilst minimising construction costs.

Trinity Terminal III Extension, Port of Felixstowe

- 2003 – 2005, United Kingdom
- I was the Project Manager for a site supervision of a £30 million design and construct contract for the construction of a 270m long quay wall extension to the existing deep water berth at Trinity Terminal III. This included 16 hectares of container yard paving and associated services, berth access dredging, reclamation and environmental mitigation bunds.

Port Said East Container Terminal

- 2003 – 2005, Egypt
- I was the Designer of heavy duty pavements for 40 hectares of container yard paving which included rail sidings. Designs optimised to accommodate unforeseen site conditions plus maximum use of both site-derived and locally-sourced aggregates.

Humber Sea Terminal

- 2003 – 2004, United Kingdom
- I was the Designer of various pavements for a further new phase to the existing Ro-Ro freight terminal. The design and construct contract included 8 hectares of container yard paving, trailer parking, and trade car parking plus access roads.

Tangier Mediterranean Container Terminal

- 2003 – 2004, Morocco
- I was the Designer of various paving options for a container yard paving for the container terminal. The design and construct contract included 40 hectares of container yard paving plus associated services.

Sjursøya South Terminal, Oslo

- 2003 – 2004, Norway
- I was involved in the simulation of container handling operations for the proposed terminal to assess and validate proposed phased implementation of stack areas and container handling equipment using in-house Posport fast-time container terminal simulation software.

Jebel Ali Container Terminal

- 2003 – 2003, Dubai, United Arab Emirates
- I was the Paving Specialist for the design of pavements and runway beams for a new container stacking configuration within existing container yard areas.

Intermodal Container Depot, St Petersburg

- 2003 – 2003, St Petersburg, Russian Federation
- I was the Container Handling Specialist which carried out reviews of proposed intermodal (road/rail) container depot at the western end of the trans-Siberian railway.

Rumer Hill Intermodal Container Depot, Cannock

- 2003 – 2003, United Kingdom

- I was the Project Manager and terminal planner for the redevelopment of a disused inland coal depot for use as intermodal (road/rail) container depot.

Dublin Ferryport Container Terminal, Dublin

- 2003 – 2003, Ireland
- I was involved in the simulation of container handling operations at the existing short sea container terminal to establish likely achievable throughputs and potential development options on a compact site using in-house Posport fast-time container terminal simulation software.

Blofield Road Container Depot, Felixstowe

- 2002 – 2006, United Kingdom
- I provided expert paving advice and expert witness for a contractual claim against a Contractor following the occurrence of defects on a new overlay pavement for container stacking operations.

HSS Linkspan Improvements, Dun Laoghaire

- 2002 – 2004, Ireland
- I was the Project Manager and Lead Designer for improvements to the HSS fast ferry berth at Dun Laoghaire. The improvements included the replacement of the linkspan hinge pins each weighing some 0.3 tonnes and the installation of a linkspan restraint system. The linkspan restraint system was a novel development which allowed the semi-submersible linkspan to be "parked" between sailings of the HSS ferry and in doing so prevented the linkspan from moving with the tides and waves. The fully automated restraint system has had Lloyd's Register Classification and a CE mark. The restraining system has been mounted on steel tubular piles and should reduce the amount of wear on the linkspan pins and linkspan structure and permit future pin replacement. The design of the restraint system had involved wave hindcasting, wave train simulations and tank testing plus detailed structural analysis of both the existing linkspan and the new restraint system. The procurement of the restraint system had involved the instigation and management of several specialist contracts on a fast track basis including piling, structural steelwork both in situ and off site, mechanical and electrical equipment, in line boring, strain gauge installation, and sundry items including shipping and insurances. The works were completed in February 2003.

Trinity South RTG Pavement Conversion, Port of Felixstowe

- 2002 – 2003, Felixstowe, United Kingdom
- I was the Project Manager and the Employer's Representative for a Design and Construct contract for the refurbishment of an existing container stacking yard. The existing 20 year old pavement has been converted to allow a change of container stacking operation from stacking 1 over 3 in blocks 6 wide using 4-wheel RTGs to stacking 1 over 5 in blocks 7 wide using 16-wheel RTGs on a 12 hectare site.

Lodeco Container Terminal, Abidjan

- 2002 – 2002, Ivory Coast
- I was the Designer for a paving for container terminal on a 40ha site

Jawaharlal Nehru Port, Mumbai

- 2002 – 2002, India

- I was involved in the simulation of various development options to develop an existing bulk grain facility into a container terminal using in-house Posport fast-time container terminal simulation software. The Client was particularly interested in the benefits of constructing additional approach jetties to an existing island quay versus extending a reclamation out towards the island quay.

Northfleet Block Paving Factory, Kent

- 2002 – 2002, United Kingdom
- I provided specialist paving advice for a project which involved the overlaying of block paving on an existing asphalt pavement on contaminated ground.

Maersk Container Hardstanding, Bahrain

- 2002 – 2002, Bahrain
- I was the Designer for hardstanding for stacking of containers using local materials in very short timescale.

South Killingholme Jetty Study, River Humber

- 2001 – 2001, United Kingdom
- I was the Senior Engineer for a study into various planning issues at an existing LPG and oil products import jetty. The study included the investigation of both engineering and operational issues. The first state of the study required a forensic assessment of the structure of the facility, built in the 1950's and extended in the 1970's, to determine its suitability for use by vessels up to an LOA of 252m. The second stage examined the mooring arrangements of several vessels using the OPTIMOOR mooring analysis software. The third stage reviewed the published codes and recommendations for clearances between vessels at berth and during arrival and departure, and reviewed the vessel clearances imposed at other similar facilities. This stage also reviewed the operational practices at the jetty and, to this end, consultations were held with the Harbour Master, a Pilot, Tug Master and Berthing Master.

Dublin Bay Ferry Service Study

- 2001 – 2001, Ireland
- I was the Project Manager for a study to assess the potential for a Dublin Bay ferry service. It was felt that a Dublin Bay ferry service may have the potential to contribute to the relief of the traffic congestion in central Dublin and potentially to form a sea leg as the eastern leg of the ring motorway. The study investigated the technical and economic aspects of several ferry routes sailing from Dun Laoghaire and made recommendations on ferry routes, vessel types, sailing details, port facilities and levels of subsidy. The study was initiated by the Office of An Taoiseach.

Rosslare Harbour Berth 2 Linkspan Option Study

- 2001 – 2001, Ireland
- I was the Senior Engineer for an option study for the procurement of a new linkspan to replace the existing semi-submersible linkspan. The study included a review of Ro-Ro vessel trends and the derivation of whole life costs for the various linkspan schemes. Discounted cash flow techniques were used to investigate the annual and intermittent operating and maintenance costs of the various linkspan schemes.

Dunmore East & Kilmore Quay Harbours Technical Review, Ireland

- 2001 – 2001, Ireland
- I was the Project Manager for a technical review of the facilities at Dunmore East and Kilmore Quay fishing harbours situated on the south east coast of Ireland. There had been a number of proposals for developments at both harbours but, when considered together, the proposals were not complementary. Therefore the primary purpose of the review was to identify the harbour most suited technically to further development.

RTG Wheel Load Assessment Port of Felixstowe

- 2001 – 2001, United Kingdom
- I was the Project Manager for a study to assess the implications on anticipated residual pavement life of changing from 16-wheel RTGs stacking 1 over 4 to 16-wheel RTGs stacking 1 over 5 at an existing container stacking yard. The study also investigated the effects on the existing pavement of the wheel load configurations of the different equipment manufacturer's 16-wheel RTGs.

Rosslare Harbour Pier 1/2 Improvements Financial Risk Assessment

- 2001 – 2001, Ireland
- I was the Senior Engineer for a study to assess the financial risks associated with a package of four schemes to improve Pier 1/2. The scheme package comprised repairs to the existing masonry pier, replacement of an existing linkspan, modification of an existing passenger access walkway and the provision of a new freight export building. The @RISK proprietary software was used to perform Monte Carlo simulations to derive probability distributions that describe the possible implementation cost outcomes of each improvement scheme. The financial risk assessment was used by the Client in their decision making processes at Board level.

Oil Jetty, Fujairah Port, UAE

- 2000 – 2001, United Arab Emirates
- I was the Senior Engineer for the planning and design of a new jetty which provided three berths for crude oil and product tankers up to 120,000DWT. Design options included caisson/gravity structures, raking pile dolphins and vertical piles with shore braces.

Ormsund Container Terminal, Oslo Havnevesen

- 2000 – 2000, Norway
- I was the Senior Engineer for a simulation study of container handling operations at Ormsund Container Terminal. The study included the investigation of a phased transition from a reach stacker operation to an RMG operation. Comparative operational cost data were derived and they demonstrated the impacts on overall productivity when trying to achieve a phased change as opposed to an immediate change.

Marine Terminals Ltd, Port of Dublin

- 2000 – 2000, Ireland
- I was the Senior Engineer for a simulation study of container handling operations at the MTL Container Terminal using Posport in-house simulation software. The Client was particularly concerned about the

impact of increasing terminal throughput on the required manning levels. The existing terminal was a reach stacker operation and involved the direct pre-stacking of containers on the quay prior to vessel arrival. Various container handling operations were modelled which included straddle carrier and RMG operations. Comparative operational cost data, in terms of manpower, were derived for the various handling operations and container throughputs. The phased implementation costs of these options were also investigated.

Mostyn Ro-Ro Development

- 2000 – 2000, United Kingdom
- I was the Senior Engineer for the design of support structures for a lifted linkspan as part of a Design & Construct bid.

Shell Haven Port Related Development, Essex

- 2000 – 2000, United Kingdom
- I was the Project Manager for the feasibility study of various major port related developments on the site of a disused oil refinery. The purpose of the study was to aid the Client in the disposal of their asset. The study included the preparation of cash flow profiles for various container terminal and Ro-Ro schemes. The cash flow profiles featured revenue projections and the capital and operating costs of the port equipment and civils' works. Proposed developments included a £150m container terminal and Ro-Ro facility. A sale was successfully negotiated with P&O Ports in January 2000.

Rosslare Harbour Berth 2 Linkspan Relocation Study

- 2000 – 2000, Ireland
- I was the Senior Engineer for a feasibility study into relocating the semi-submersible linkspan on Berth 2 to accommodate vessels modified in accordance with the latest SOLAS regulations.

Rosslare Harbour Berth 1 and 2 Ship-to-Shore Walkway Study

- 2000 – 2000, Ireland
- I was the Senior Engineer for a feasibility study into modifying the existing passenger walkways to increase their operational envelopes to cater for larger vessels.

Tivoli Container Terminal, Port of Cork

- 2000 – 2000, Ireland
- I was the Senior Engineer for a simulation study of container handling operations at Tivoli Container Terminal using Posport in house simulation software. The Client felt that the terminal was operating at its capacity but wanted to increase the throughput. The existing terminal was a straddle carrier operation and involved the pre-stacking of containers on the quay prior to vessel arrival. A particular feature of the terminal was a direct access road along the quay that avoided the yard gate control. Various container handling operations were modelled including RMG operation. The implementation costs of these options were also investigated.

Container Terminal Project, China

- 2000 – 2000, China

- I was the Senior Engineer for a simulation study of container handling operations at a proposed container terminal using Posport in house simulation software. The Client was particularly concerned with the effects of various traffic movements around the quay area on overall productivity and the Posport software was developed further for the special needs of this project.

Ro-Ro 1 Modification Study, Port of Felixstowe

- 2000 – 2000, United Kingdom
- I was the Project Manager for a feasibility study into modifying the twin-deck pontoon Ro-Ro facility to suit the vessels that visit the facility from Easter 2001.

Marine Drive Bridge, Southport Pier, Sefton

- 2000 – 2000, United Kingdom
- I was the Senior Engineer for the design of a steel bridge to carry a tramway and pedestrian walkway over the Marine Drive promenade as part of the Southport Pier Restoration project.

Northern Container Terminal, Jeddah Islamic Port

- 1999 – 2000, Saudi Arabia
- I was the Project Co-ordinator for the development of a container terminal within the northern area of the existing port. The project included upgrading of an existing quay for use by ship-to-shore cranes and provision of new paved areas, buildings and associated services over an 80 hectare site. Pavement designs included block paving on CBM, asphalt pavements and reinforced concrete slabs.

Harwich Eastern Development, Essex

- 1999 – 2000, United Kingdom
- I was the Senior Engineer for the development of a 15 hectare site for the importing of paper and subsequent distribution by road and rail. The project included a 500 m long quay wall, 10 hectare reclamation, double deck Ro-Ro pontoon and linkspans, 1 hectare of warehousing and 2km of rail sidings. Pavement designs included block paving on CBM and reinforced concrete slabs.

HMNB Clyde SSN Berthing Facility

- 1999 – 2000, United Kingdom
- I was the Senior Engineer for the outline design of various options (including the winning design) for a Prime Contract bid. The outline designs included concrete pontoons, steel pontoons, linkspans, and dolphins designed to satisfy the nuclear safety case and seismic considerations. Following the successful bid, detailed designs were to be prepared for this facility which will service the next generation of Royal Navy submarines.

Mer Rouge Coal Terminal, Mauritius

- 1998 – 1999, Mauritius
- I was the Project Manager for the planning, design and construction of a new coal import terminal on a 4 hectare site on the Mer Rouge reclamation, Port Louis. Pavement designs included rolled coral sand mixes, rolled crushed rock and concrete pavements.

1996 – 1998, Senior Engineer, Brown & Root

A1(M) Alconbury to Peterborough DBFO Motorway Widening Project

- 1996 – 1998, United Kingdom
- I was the Senior Engineer in the Designer's Site Team of the Construction Joint Venture. Duties included examining the works, addressing technical matters with the CJV, auditing the CJV's compliance with quality control procedures, identification and investigation of potential cost savings and problems, and liaising with the various parties to the project. The project included 23km of motorway, 10km of local road, 15 bridges and 25 culverts. Pavement designs included flexible, flexible composite and rigid pavements using various empirical and analytic design methods. Pavements formed by various methods including slipforming with an integral drainage channel.

1994 – 1996, Senior Engineer, Stirling Maynard & Partners

A47 Walpole Highway & Tilney High End Bypass, Norfolk

- 1994 – 1996, United Kingdom
- I was the Section Engineer overseeing construction of five overbridges, one underbridge and eight culverts on a new 10km bypass. Duties included co-ordination of site staff, design staff and sub-consultants, addressing technical and contractual matters with the Contractor, assessment of claims and implementation of the Construction Design and Management regulations within a Quality Assurance environment. Pavement designs included flexible and flexible composite designs.

1990 – 1993, Assistant Resident Engineer, Mott MacDonald

A20 Trunk Road, Bexley

- 1993 – 1993, United Kingdom
- I was the Assistant Resident Engineer supervising a major carriageway reconstruction and widening work under a bonus-charge contract.

Preston's Road, London Docklands

- 1993 – 1993, United Kingdom
- I was the Deputy and sometimes Acting Resident Engineer supervising construction of white concrete terrace walls and other architectural works within and beneath a roundabout.

East India Dock Link, London Docklands

- 1990 – 1993, United Kingdom
- I was the Assistant Resident Engineer supervising construction of a cut-and-cover road tunnel, bored services tunnel, steel services bridge and associated buildings.

1984 – 1990, Trainee Engineer, Essex County Council, Highways and Planning Department

1990 – 1990, United Kingdom

- Croydon Office
 - Railways and Transportation Division
 - I was the engineer engaged on design work for various highway projects.
- Aberdeen Office



JONATHAN TYLER

Director Port Planning, Maritime

- 1990 – 1990, United Kingdom
- I was the engineer involved in the design of pumped water supply schemes and industrial and commercial buildings in various materials.

Transportation Planning and Highway Design

- 1984 – 1990, United Kingdom
- I was involved in site investigations, transportation planning, highway design, traffic management, highway maintenance, accident investigation and materials testing.

PUBLICATIONS AND PRESENTATIONS

Presentations

- Speaker at PIANC in London: Finishing the BS 6349 Task, 2014
- Speaker at PIANC in London: Bringing BS 6349 'Maritime Works' into the 21st Century, 2012
- Speaker at TOC 2005 Europe in Antwerp: Terminal Asset Integration & Optimisation Workshop, 2005
- Speaker at TOC 2004 Europe in Barcelona: Automatic Continually Optimised Stacking, 2004
- Speaker at Port & Terminal Technology 2004 in Amsterdam: Container and Ro-Ro terminal optimisation using simulation, 2004



BERNARD I JONES

Technical Director, Maritime

CAREER SUMMARY

Bernard Jones joined the Parkman Group in 1965 and was appointed a Technical Director in 1988. He is currently Technical Director in the firm's Ports and Maritime Group in Liverpool, responsible for technical and quality aspects of the Group's operations. He has accumulated considerable experience in the management, design and construction of major multi-disciplinary projects requiring input by other engineering professionals, as well as by environmental consultants, architects, hydraulic modelling specialists, geotechnical contractors, economists and quantity surveyors. Recent and current work has been mainly related to port, dock and harbour infrastructure, sea defences and inland waterways. He also provides "expert witness" services in relation to ports and harbours, dredging and general maritime works.



1 year with WSP

52 years of experience

Area of expertise

Port and Maritime Engineering & Management of Multi-disciplinary Projects

Language

English -- Native

EDUCATION

BEng (1st Hons) Civil Engineering, Liverpool University 1965

PROFESSIONAL MEMBERSHIPS

CEng, Institution of Civil Engineers 1970
MICE, Institution of Civil Engineers 1970
MCIWEM, Chartered Institution of Water & Environmental Management 1979

PROFESSIONAL HISTORY

Technical Director, WSP 2017 - present
Technical Director, Mouchel 2007 - 2017
Technical Director, Mouchel Parkman plc 2003 - 2007
Technical Director, Parkman Group plc 1988 - 2003
Principal Engineer / Associate, Ward, Ashcroft & Parkman 1981 - 1987
Chief Engineer, Ward, Ashcroft & Parkman (East Africa) 1980 - 1981
Project Engineer, Ward, Ashcroft & Parkman 1978 - 1979
Project Engineer, Ward, Ashcroft & Parkman (Iran) Ltd 1974 - 1977
Graduate/Engineer, Ward, Ashcroft & Parkman 1965 - 1973



BERNARD I JONES

Technical Director, Maritime

PROFESSIONAL EXPERIENCE

Essar Energy, Re-lifeing of Tranmere Oil Jetty, United Kingdom

2017

Technical Reviewer

Provision of technical guidance and reviews for comprehensive rehabilitation of Tranmere Oil Jetty on the River Mersey, constructed in 1960 and providing two berths for tankers up to 210,000 dwt. Initial work comprised detailed inspection of all structural components of the jetty, encompassing reinforced concrete frames and decks, steel piles, gravity fenders, mooring dolphins and floating stages. Subsequent activities included overall condition assessments, with the preparation of full rehabilitation proposals, cost estimates and report.

Liverpool City Council, Dingle and Beechwood Revetments, United Kingdom

2016

Technical Reviewer

Undertook technical guidance and review of studies into design options for the major refurbishment /renewal of existing revetment structures at Dingle (approximately 500m long) and Beechwood (80m long) on the Mersey Estuary. The studies included cost estimates and construction period assessments, together with the identification of possible funding sources.

CBRE, Victoria Dock, Caernarfon, Wall Inspections, United Kingdom

2015

Lead Inspector

Leader of small team which undertook condition surveys/inspections of the masonry walls to Victoria Dock and the adjacent Menai Strait within a conservation area at Caernarfon. The work included alignment monitoring of a sensitive dock wall, prioritised maintenance requirements and reporting.

Peel Ports (Mersey Docks and Harbour Company), Pier Head Landing Stage, United Kingdom

2014 – 2015

Technical Advisor

Provision of technical lead and direction in the preparation of outline designs and NEC 3 tender documents for a Design and Build contract for a replacement floating landing stage in the River Mersey, to serve fast and conventional ferry services to the Isle of Man. The selected design comprised a pontoon landing stage of length 215m, accommodating passenger terminal facilities and vehicle marshalling areas. The commission encompassed the identification and assessment of design options, covering alternative locations, pontoon and linkspan arrangements, together with cost estimates and project risk registers.

Volker Stevin Ltd, Kirkcaldy Sea Wall Improvements, United Kingdom

2013 – 2014

Technical Reviewer and Checking Leader

Leader of team undertaking design reviews and design checks for improvements to the existing sea wall at Kirkcaldy, Fife. Designs include reinforced pre-cast concrete units for wall crest raising and access ramps, together with related anchor elements and construction details.

Liverpool City Council, Liverpool Cruise Liner Terminal, United Kingdom

2012 – 2014

Technical Advisor

Provision of technical direction and support to engineering staff engaged in the definition and supervision of maintenance operations on the Liverpool Cruise Liner Berth. The work encompasses the re-ballasting of berthing pontoons, adjustments to inter-pontoon connections and the maintenance of fenders, together with



BERNARD I JONES

Technical Director, Maritime

the review of inspection/completion reports submitted by the maintenance contractor.

Cheshire West and Chester Council, Ellesmere Port Marina Development, United Kingdom 2012 – 2013

Technical Advisor

Technical advisor to project team engaged on feasibility studies into the development of a marina in the historic docks at Ellesmere Port, Cheshire, adjacent to the Manchester Ship Canal. The studies encompassed condition surveys of the existing dock assets, followed by the preparation of optional development layouts, taking account of requirements for support facilities/amenities and the conservation status of the docks. The work included liaison with stakeholders, together with estimates of investment and recurring costs and reporting.

Graham Construction for Associated British Ports, Grimsby River Terminal, United Kingdom 2012 – 2013

Technical Advisor

Technical advisor to project team engaged on the design of a car import/export terminal on the Humber Estuary. Principal input related to a reinforced concrete floating pontoon, of plan area 80m x 30m and depth 5.5m, carrying an 8m wide vehicular linkspan and Ro-Ro ship ramps. Other elements of the project included pontoon restraint dolphins, a finger pier for the berthing of two car transporter ships, a piled jetty from shore to the linkspan and an onshore vehicle storage/marshalling area.

Expert Witness, United Kingdom 2010

Expert Witness providing an opinion and an Expert's Report during litigation in connection with the failure of masonry facings to a sheet pile river wall on the Torridge Estuary.

Yorkshire Water Services, Whitby Harbour Sheet Pile Wall Failure, United Kingdom 2009

Technical Expert

Technical expert undertaking an investigation and providing an opinion in relation to the failure of a section of steel sheet pile wall in the Lower Harbour, Whitby. The opinion covered matters such as stability of the wall, potential causes and responsibilities for the failure, in addition to precautions that should be taken to enhance stability of the remaining sections.

Merseytravel, Liverpool Ferry Landing Stage, United Kingdom 2008 - 2011

Project Manager

Technical Manager for the preparation of outline designs and tender documents for an NEC 3, ECI, design and build contract relating to the construction of a pontoon landing stage on the River Mersey, capable of accommodating approximately 400 ferry passengers. The contract included dredging, the pontoon, restraint piles, and the provision of a vehicular/pedestrian linkspan bridge, passenger accommodation and facilities for the Mersey Inshore Rescue Service. Following tender assessments and contractor appointment, undertook Project Manager role under the NEC 3 Contract.

Swale Borough Council, Faversham Creek Regeneration, United Kingdom 2009

Dredging Specialist

Review of previous reports and other information, followed by the preparation of a report discussing optional methods of dredging and the disposal of dredged spoil for the restoration of Faversham Creek to a navigable standard. The report included identification of related environmental effects and constraints.

Fairview Homes Ltd, Appeals by Fairview Homes Ltd, United Kingdom



BERNARD I JONES

Technical Director, Maritime

2006

Technical Expert

Provision of 'expert' services in connection with the flood protection of a proposed residential development, comprising 145 units, adjacent to the River Gade, Hertfordshire, including the preparation of proof of evidence, dealing with responses and giving evidence to Planning Inquiry.

Liverpool City Council/2020 Liverpool, Liverpool Cruise Liner Facility, United Kingdom

2004 – 2010

Technical Manager

Technical Manager for the preparation of outline designs and tender documents for the design and build contract relating to the construction of a cruise liner facility on the River Mersey, capable of accommodating vessels up to the Queen Mary II (19,000 dwt). The scheme comprises the installation of a new pontoon berth, some 260m long, with steel monopile restraints and mooring dolphins, linkspan bridge, reception building and onshore vehicle marshalling areas, which include a navigable culvert to accommodate a proposed canal link between Princes and Canning Docks. Further consultancy services included the procurement and supervision of a marine site investigation, together with appraisal of the D&B tenders, subsequent technical administration of the Contract and post commissioning assistance.

Liverpool City Council/2020 Liverpool, Restoration of Stanley Park Lakes, United Kingdom

2004 - 2006

Technical Manager

Technical Manager controlling the preparation of detailed designs for the restoration of two existing lakes in the listed Stanley Park, Liverpool. The work includes the construction of a third lake (to reinstate the original 19th century design concept), together with the improvement of a water replenishment system, drawing from an existing borehole, lake overflow arrangements and foul/surface water drainage networks.

Expert Witness, United Kingdom

2003

Expert Witness providing an opinion in relation to construction defects (specifically inadequacies in the depth of concrete cover to reinforcement) which occurred in pre-cast concrete terrace units forming the outer protection to a coastal revetment. Work involved technical investigations, preparation of expert's report and proofs of evidence, responses to opposing submissions and giving evidence during the trial.

The Coal Authority, Pool Farm Minewater Treatment Scheme, United Kingdom

2002 - 2005

Project Manager

Project Manager (and Engineer under the Contract) for outline design, detailed design, preparation of contract documents, tendering procedures and contract administration of Pool Farm minewater treatment scheme. The works comprised diversion of Dippool Water Burn, minewater inlet arrangements, earth bunded wetland ponds, reinforced concrete inter-connecting/outfall channels and site access arrangements. Responsibilities also included consultations with regulatory bodies and landowners and the acquisition of statutory consents.

Manchester Ship Canal Co., Development Studies, Manchester Ship Canal, United Kingdom

2002

Project Director

Project Director, supervising feasibility studies into the redevelopment potential of a substantial site adjacent to the Manchester Ship Canal. The studies included engineering assessments, cost estimates and reporting in connection with highway and rail links, a new ship berth on the canal and land reclamation measures within a "low flash" environment, close to an existing petrochemical complex.



BERNARD I JONES

Technical Director, Maritime

The Coal Authority, Worsley Delph Minewater Treatment Scheme, United Kingdom 2001 - 2004

Project Manager

Project Manager (and Engineer under the Contract) for outline design, detailed design, contract documentation, tender procedures and construction supervision of minewater treatment scheme, comprising minewater collection structures, pumping station and transfer pipelines, minewater treatment ponds and final discharge system to Bridgewater canal. The scheme included extensive consultations with regulatory bodies, landowners and the public and the acquisition of statutory consents.

Cardiff Bay Barrage, United Kingdom 2000 - 2001

Expert Witness

Expert Witness providing an opinion and expert report in relation to the effects of clay and silt during dredging and sand filling operations for the Cardiff Bay Barrage and the need for associated remedial works.

North Somerset District Council, Weston-Super-Mare Flood Defence, United Kingdom 2000-2001

Technical Manager

Technical Manager for feasibility studies into the improvement of the existing flood defences of the central commercial and tourist areas of Weston-Super-Mare. The studies encompassed the assessment of options for reducing wave overtopping of the existing sea wall, estimates of costs and benefits, eligibility of scheme for MAFF grant and, public consultations and potential amenity/planning implications.

Environmental Research & Consultancy, Sefton Park Lakes Hydrological Study, United Kingdom 2000

Project Director

Project Director for studies into the restoration of the hydrological and hydraulic regime for existing lakes within an extensive 'listed' Victorian park in Liverpool. The studies included topographic and bathymetry surveys, analysis and identification of deficiencies in the existing water sources supplying the lakes, alternative water sources, requirements for the restoration of water features and possible dredging, leading to the preparation of cost estimates and a future maintenance/ management plan.

North West Development Agency, Project Evaluation, Proposed Ro-Ro Terminal, United Kingdom 2000

Technical Expert

Engineering evaluation, as a precursor to the provision of substantial grant aid, for a Ro-Ro terminal development on the River Mersey, at Twelve Quays, Wirral. The evaluation encompassed tenders which had been received for the onshore terminal area, including the diversion of existing dock impounding culverts and the reclamation of Wallasey Dock, through the placing of hydraulic sand fill over deep deposits of soft compressible silts.

Trinity Marine Ltd, Holyhead Marina Development, United Kingdom 1999-2001

Project Director

Project Director for the preparation of detailed designs and specification concerning land reclamation and a breakwater/access spit, including the associated rock armoured revetments, and foul drainage/pumping requirements for the development of a 350 berth marina at Holyhead, Anglesey.

The Drinking Water Inspectorate, Audit of Distribution System (Section 19) Undertakings, United



BERNARD I JONES

Technical Director, Maritime

Kingdom

1996 - 2001

Temporary Technical Assessor

Under appointment as "Temporary Technical Assessor" with the DWI, carried out audits of water utility companies to assess compliance with, and progress achieved in meeting the requirements of formal undertakings provided in accordance with Section 19(1)(b) of the Water Industry Act 1991, concerning the renovation of water distribution systems for water quality reasons.

English Partnerships/British Waterways, South Docks Waterspace Term Appointment, United Kingdom

1998 - 2006

Project Director

Project Director for engineering consultancy term commission, relating to the restored Liverpool South Docks. Initial works included the establishment of maintenance procedures and schedules, preparation of emergency response plans and the design/supervision of emergency repairs to the Canning River Entrance Gate onto the Mersey Estuary. Subsequent works included maintenance dredging, pontoon renewals, dock and river wall inspections, analysis of hydrographic surveys, dock gate monitoring/maintenance and principal/general inspections of highway and pedestrian bridges. Recent works have encompassed the improvement of roads and parking facilities in the substantial Kings Dock development site and formal inspections of the associated access bridges.

Herefordshire & Gloucestershire Canal Trust, Canal Restoration Studies, United Kingdom

1998 - 2001

Project Director

Project Director controlling comprehensive feasibility studies into the restoration of the Herefordshire and Gloucestershire Canal, over its full length of 53 km, including engineering, water resources, environmental and economic/funding components. Study Cost £55k.

British Aerospace Ltd, Planning Supervisor, Drainage Improvements, United Kingdom

1997-1998

Planning Supervisor

Planning Supervisor, under the CDM Regulations 1994, for the construction of extensive improvements to the drainage system at British Aerospace Ltd's manufacturing complex at Warton Lancashire. Project Cost £830k.

Wirral Metropolitan Borough Council, Rock Park Waterfront, Wirral, United Kingdom

1997 - 1998

Project Director

Project Director for initial studies into the feasibility of construction of a marine lake, of area 19 hectares, and a marina basin, for some 320 craft, on the West bank of the Mersey Estuary at Rock Ferry. The studies encompassed layout planning, based on previous demand surveys, dredging, the configuration of engineering works and cost estimates, together with public consultation exercises and liaison with specialists in connection with hydraulics/sedimentation and environmental implications. Subsequently, the work extended to encompass the preparation of preliminary designs and an application for detailed planning consent for Phase I of the project, comprising the marine lake, water sports centre and associated environmental improvement, with an estimated construction cost of £14.5m.

Mersey Ferries, Ferry Terminal Maintenance Programme, United Kingdom



BERNARD I JONES

Technical Director, Maritime

1997-1999

Project Director

Project Director for surveys, definition of works to be undertaken, preparation of contract and supervision of the annual maintenance programmes for the Woodside and Seacombe Landing Stages in the River Mersey, including pontoons, dolphins, booms and linkspans. Annual maintenance costs £80K-£100K.

**Defence Estate Organisation (Works), Standards for Capital & Maintenance Dredging, United Kingdom
1996 - 2000**

Project Director

Project Director for review of existing standard documentation in connection with the identification, specification and execution of dredging works within the Defence Estate and the preparation of an up-to-date "Practice Guide", to be adopted as the basis for future dredging projects.

Shell UK Ltd, Coaster Berth, Manchester Ship Canal, United Kingdom

1996

Project Director

Project Director controlling structural assessments of an existing coaster berth on the Manchester Ship Canal at Stanlow, to establish the capability of the berth to receive tankers of increased sizes, up to 7,500 dwt. The assessment encompassed the capacity of the berth to accommodate improved product loading arms and hose hoists.

Shell UK Ltd, Tanker Berths, Manchester Ship Canal, United Kingdom

1996

Project Director

Project Director for detailed condition surveys of 4 No berths accommodating tankers up to 18,000 dwt in the White Oils Dock, on the Manchester Ship Canal at Stanlow. Work included the sampling of reinforced concrete structures to determine the extent of carbonation and chloride ingress, coupled with inspection of timber-framed elements and assessments to ascertain the feasibility of installing new loading arm equipment.

Medway Ports, Surveys of Cool & Ambient Stores, Port of Sheerness, United Kingdom

1996

Project Director

Project Director for detailed structural condition surveys of two substantial steel portal framed warehouses, having an eaves height of 10m and plan dimensions of 71m x 150m in the case of the cool store and 59m x 150m for the Ambient Store.

Manchester Ship Canal Co, Site Preparation, Pomona Development, United Kingdom

1995-1999

Project Director

Project Director for initial studies, site investigation, design/tendering procedures and construction supervision of a programme of works to prepare the Pomona Site, Manchester, for re-development. The principal works involved the permanent closure and infilling of Pomona Dock No 1, by means of controlled filling over existing deposits of soft, compressible silts. The dock closure comprised a double skin sheet pile dam, while other works included the diversion/culverting of the Corn Brook, with outfall to the Ship Canal, the restoration of a highway bridge over the Bridgewater Canal and on-site access roads and landscaping works. Project cost £3.5m.

Northumberland County Council, Port of Blyth, Battleship Wharf, United Kingdom

1995 - 1997

Project Director

Project Director for initial studies, marine site investigation, detailed design, tendering procedures and construction supervision of a new quay structure of length 180m and maximum water depth 13m. The quay



BERNARD I JONES

Technical Director, Maritime

comprised circular cells formed in steel sheet piling, with reinforced concrete capping beam and deck slab, together with ship fendering and quayside pavement. Project cost £1.7m.

**Alred McAlpine Ltd, Flood Control Gates, Clarence Dock, Leeds, United Kingdom
1995**

Project Director

Project Director for the detailed design of new timber mitre gates at the entrance to Clarence Dock on the Aire and Calder Navigation, including refurbishment of the necessary sills, quoins and passage walls.

**Manchester Ship Canal Co, Wharfside Quay Restoration, United Kingdom
1994 - 1995**

Project Director

Project Director controlling condition survey of some 700m of existing heavy reinforced concrete suspended quay of Wharfside, on the Manchester Ship Canal, followed by design and construction supervision of the refurbishment of 450m of the existing quay and the reconstruction of 250m as an anchored, steel sheet pile wall.

**Merseyside Development Corporation, Planning Supervisor, Monks Ferry Graving Dock No 4, United Kingdom
1995**

Planning Supervisor

Planning Supervisor, under the CDM Regulations 1994, for the demolition of suspended quays at Monks Ferry Graving Dock No 4, Wirral, and the construction of replacement quays in steelwork and pre-cast concrete.

**Edmund Nuttall Ltd, Tranmere Mooring Dolphins, United Kingdom
1995**

Project Director

Project Director for the preparation of detailed design and specification for two mooring dolphins of 150t capacity at the Tranmere Oil Terminal on the River Mersey. The dolphins comprised 1.6m diameter fabricated steel tubular piles, of overall length some 30m.

**Port of Blyth, Reconstruction of West Quay, United Kingdom
1994 - 1995**

Project Director

Project Director for condition survey and structural assessment to ascertain the capability of an existing timber framed quay structure to carry a 300t mobile crane. Subsequent work included the design, tendering procedures and construction supervision of a new anchored sheet piled structure, some 160m in length. Project Cost £1.0m.

**English Partnerships, Chatham Marina Environmental Statement, United Kingdom
1994 - 1995**

Project Director

Project Director controlling a study team, including marina specialists, civil and geotechnical engineers, transportation planners and ecologists, engaged in the preparation of an Environmental Statement for a proposed marina development at Chatham Dockyard, Kent. Study cost £26k.

**Cumbria County Council, Morecambe Bay/Solway Firth Studies, United Kingdom
1994**

Project Director

Project Director controlling multi-disciplinary study team, involving engineers, economists and environmental specialists, carrying out a study of strategic transportation routes through West Cumbria, including major estuarial crossings of Morecambe Bay, the Duddon Estuary and Solway Firth and potential for tidal energy



BERNARD I JONES

Technical Director, Maritime

generation. Study cost £25k.

Gwynedd Council (formerly Arfon Borough Council), Victoria Dock, Caernarfon, United Kingdom 1993 - 1995

Project Director

Project Director for detailed design, tendering procedures and construction supervision of engineering works to improve existing tidal dock. The works encompassed dredging, dock wall repairs, entrance sill with flap gate and the reclamation of an adjacent area, including associated armourstone revetment. Project cost £1.2m.

Manchester Ship Canal Co, Pomona Lock, United Kingdom 1993 - 1995

Project Director

Project Director controlling initial engineering studies, followed by the design and construction supervision, for a new lock between the Bridgewater Canal and the Manchester Ship Canal, including a new highway over-bridge. Project cost £1.2m.

Merseyside Development Corporation, Wirral Waterfront Development, United Kingdom 1993

Project Director

Project Director for the preparation of environmental assessments of six development options for the 22 hectare Wirral Waterfront site, Birkenhead. Possible developments included mixed business and residential uses, together with port-related industry involving a Ro-Ro terminal and a bulk liquids berth.

The Mersey Barrage Company, Mersey Barrage Feasibility Studies, United Kingdom 1986 - 1993

Project Director/Project Manager

Project Director and formerly Project Manager responsible for a series of feasibility studies into the Mersey Barrage, a 700 Mw tidal energy project. The studies encompassed civil engineering design, shipping and navigation, hydraulic and sedimentation modelling, environmental assessments, social/industrial studies and geotechnical/geophysical surveys. Engineering designs for turbine, sluice and lock structures included major construction in diaphragm walling, reinforced concrete caissons and steel sheet piling. Estimated project value £1,000m.

Merseyside Development Corporation, Wirral Docklands, United Kingdom 1990-1992

Project Director

Project Director for studies, designs and construction supervision of remedial works to dock and river walls, dredging and reclamation of dock areas and construction of causeway, including revetments, at Morpeth and Egerton Docks, Wirral. Project cost £4m.

Department of the Environment (Northern Ireland), Marine Surveys, Northern Ireland 1991

Project Director

Project Director for marine surveys at Ballymartin and Ballyhornan, involving current monitoring, drogue and dye releases, water quality sampling and analysis and beach inspections to assess the performance of existing sea outfalls.

British Aerospace Consultancy Services, Liverpool Airport Extension – Hydraulic Study, United Kingdom



BERNARD I JONES

Technical Director, Maritime

1989 - 1990

Project Director

Project Director responsible for hydraulic studies, using a 2-D numerical hydraulic model, to investigate the effects on the hydrodynamic and sedimentation regime of the Mersey Estuary of expansion of Liverpool Airport, involving major reclamation of inter-tidal sand banks and mud flats.

Department of the Environment, Mersey South Bank Studies, United Kingdom

1985 - 1987

Project Manager

Project Manager responsible for feasibility studies into the reclamation of some 300 ha of inter-tidal saltmarsh and mud banks on the southern shore of the Mersey Estuary, including hydraulic and sedimentation modelling, environmental assessments and the investigation of a variety of fill materials, including available waste and by-products. Estimated project value some £40m.

Merseyside Development Corporation, Liverpool South Docks – Restoration of Water Regime, United Kingdom

1982 - 1987

Project Manager

Project Manager responsible for studies, designs and construction supervision of a substantial programme of docklands restoration, including dredging, repairs to dock/river walls, reconstruction of dock walls, and the installation of dock gates, together with dock reclamation, as a precursor to subsequent development. Overall programme value some £20m

Merseyside Development Corporation, Herculaneum Dock & Dingle Tank Farm, United Kingdom

1981 - 1982

Project Engineer

Project Engineer responsible for planning, design and construction supervision of reclamation works involving the dredging and infilling, using hydraulically placed sand, of Herculaneum Dock, Liverpool, together with major excavation and filling operations to remove contamination and re-profile an adjacent oil storage tank farm site. Project Cost £1.8m.

Ward Ashcroft & Parkman (East Africa)

1980 - 1981

Chief Engineer

Responsible for a local team of engineers and technicians engaged on the planning and design of a number of water supply schemes (eg Sidindi Malanga, Kisumu) and waste-water treatment projects (eg. Kericho, Kiambu).

Ward Ashcroft & Parkman, United Kingdom

1978 - 1979

Project Engineer

Responsible for design team engaged on the design and construction supervision of major water supply projects, including Prescot Reservoir Scheme, Liverpool, Ysbytty Service Reservoir, Caernarfon and Cwm Dylan Treatment Works.

Ward, Ashcroft & Parkman (Iran) Ltd

1974-1977



BERNARD I JONES

Technical Director, Maritime

Project Engineer/Area Manager

Responsible for the design of a variety of civil engineering projects, including water supply schemes, waste-water treatment, airports and urban infrastructure projects.

Ward, Ashcroft & Parkman, United Kingdom

1965 - 1973

Graduate/Engineer/Project Team Leader

Engaged on design of various sewerage and sewage treatment schemes, followed by a period of some five years initially on the design and subsequently as Assistant Resident Engineer on the Llysyfran Dam Project, Pembrokeshire.



MERDAN HAYDAROV

Senior Consultant, Maritime



Years with the firm

Two years

Years total

Eight years

Education

BA (Hons) Business Management with Finance and Economics, 2011

Key expertise

>Market study
>Cargo trade forecasting
>Transport network and captured market analysis
>Vessel movements and shipping market developments
>Data acquisition, processing, and analysis
>Geospatial data analysis

Languages

English – Excellent
Turkish – Excellent
Russian – Native
Turkmen – Native

PROFILE

I have over eight years of professional work experience in port and shipping market studies. I joined WSP in September 2016 and my responsibilities include regional port trade flow analyses, market research, trade forecasting, shipping and economic data analysis, industry and competitiveness studies, transport network and captured market analyses.

I have covered a range of shipping sectors and fleets such as container, dry bulk, liquid bulk, LNG, passenger, Ro-Ro as well as shipyard sector including offshore oil & gas industry, platform rigs, and rig construction and repair in the Middle East.

Prior to joining WSP, I worked at Ocean Shipping Consultants, a specialist unit within Royal HaskoningDHV for 6 years.

EDUCATION

BA (Hons) Business Management with Finance and Economics, The University of Winchester, UK 2011

PROFESSIONAL EXPERIENCE

North Europe - Commercial, Technical and Environmental Due Diligence

November 2018

Consultant, London

Produced a detailed container market study in the North Sea and Baltic regions as part of the Due Diligence report. The study covered:

- Port competition/major stakeholders
- Shipping line market shares and vessel movements/deployments analysis within the regions
- Analysis of the total container demand of the Baltic Sea Ports with regional breakdown
- Analysis of the total feeder market of the Baltic Sea Ports and transshipment ports in the region.

Ukraine – Yuzhny Marine Terminal Complex Market Study

October 2018

Consultant, London and Ukraine

Produced analysis of major stakeholders and conducted a series of on-the-ground interviews with iron ore and grain producers, and freight forwarders serving the Ukraine market.

Georgia – Anaklia Port Market Study

August 2018

Consultant, London

Produced a comprehensive container and bulk cargo market study as a Lender's Independent Market Consultant of the greenfield Anaklia Deep Sea Port. This large-scale study covered developments of shipping market developments in the Black Sea and detailed analysis of countries across the Caucasus, Central Asia, and Iran. Finally, forecasts for the primary and secondary hinterlands for Georgian ports and Anaklia were produced.

South East Turkey - Mersin Port Due Diligence and follow-up studies

December 2016 - August 2018

Consultant, London

Produced a detailed market study analysing Turkey's socio-economic developments, regional hinterland transportation network, hinterland distribution of industry stakeholders, port market competition, and shipping industry trends. An updated market study was completed in 2018.

Ecuador - Guayaquil Approach Channel Study

March 2018

Consultant, London.

Produced the analysis of vessel movements derived from the automatic identification system (AIS). This required a detailed analysis of future shipping patterns and vessels sizes in relation to the draft in Guayaquil Channel and ultimately helped to assess the future competitive position of the port of Guayaquil after the dredging campaign and to prepare cargo and shipping forecasts.

Africa - Nigeria River Terminals Market Study

February 2018

Consultant, London.

Produced a detailed hinterland study to determine the modal shift potential for existing and future cargo volumes which assisted the client with enhancing understanding of the market potential for river ports. Major part of the study was related to researching and handling various types of location-based data to identify demand points within the country, socio-economic developments, and crucially, modelling of the current and future hinterland cargo flows and distribution.

Americas - North Peru Port Investment Market Study

October 2017

Consultant, London.

Assessed the potential private investment initiative in the Peruvian container port market and produced a detailed market analysis. The main objectives included an overview of Peruvian and regional container port demand, regional shipping developments, comprehensive analysis of Peru's containerisable cargo trade and agricultural produce.

Americas - Veracruz Multi-Purpose Terminal Market Study

September 2017

Consultant, London.

Produced a detailed market analysis for a greenfield multi-purpose development project in Veracruz, Mexico. The main objectives included an overview of Mexican and regional container port demand and market shares, regional shipping, vessel size developments, historical vessel movements, capacities and services connecting Mexican ports on the Pacific and Gulf coasts.

Ukraine - Chornomorsk Container Terminal Market Study

September 2017

Consultant, London and Ukraine.



MERDAN HAYDAROV
Senior Consultant, Maritime

Produced a detailed market study including hinterland overview and development of container demand and forecasts. As part of the study a series of on-the ground interviews were undertaken with major forwarders serving the Ukraine market.

North Europe - Rotterdam Port Heavy Lift & Project Cargo Strategy Study

February 2017

Consultant, London

Provided a comprehensive market report for the Heavy Lift and Project Cargo (HLPC) sector. The report covered an overview of:

- Regional HLPC cargo trade
- All existing and developing port facilities
- Port competitive positioning
- Hinterland distribution of HLPC cargoes
- Transport cost modelling
- Port market share analysis, and primary and contestable markets
- Recommendations to increase the market share in the sector

South Europe - Container Transit Markets Review

December 2016

Consultant, London

Main objective was to provide analysis on key macro-economic trends, hinterland freight transport links and regional transit of different types of cargo in the Balkans and Greece.

Market Prospects for Container Ships to 2038

September 2016

Consultant, London

Provided analysis of the market prospects for the 5000+ TEU container vessels. The primary outcome of this review is a series of forecasts for daily charter rates for the vessels over the forecast periods.

Georgia - Anaklia Port Development Market Study

September 2016

Consultant, London and Georgia

Carried out a local and regional research to assess the current and the potential demand for container cargoes in Georgia. This study involved an on-the-ground investigation of the major stakeholders within Georgia's container market sector. Interviews were conducted with port operators, shipping lines, freight forwarders, and government officials (railway, and ministry of labour).

Nigeria Market Study

May 2016

Consultant, London

Produced a comprehensive market study for one of the world's leading port operators which examined container hinterland development, market competition, current and future inland connections, and container logistics facilities.



MERDAN HAYDAROV
Senior Consultant, Maritime

West Turkey – Belde Port Market Study

April 2016

Analyst, London

Produced a market study for the port operator covering economic and trade developments in Turkey (specifically in the Marmara region), and competitive analysis of the regional ports/terminals.

Angola - Port of Dande Market Study

November 2015

Analyst, London

Produced a broad analysis of Angola's trade and regulations, ports (performance, development, vessel movements), agriculture industry, and inland container logistics facilities. The report was an overall assessment of the market demand and characteristics for a greenfield port development at Dande in Angola.



Marine Consultant / Pilot

Core Skills and Experience

Master Mariner, Pilot and Harbour Master with widespread knowledge of all aspects of shipping and ports along with extensive general and people management skills. Experienced in dealing with many stakeholders. Excellent IT and communications skills.

Qualifications and Affiliations

- **Master Class 1** (Foreign Going - Unlimited)
- **Lead Auditor** OHSAS 18001 Health & Safety,
- **Trained Auditor** ISO9001(Quality) ISO14001 (Environment)
- **Harbour Master.** UK Harbour Masters Association - MCA Approved
- **Pollution Control** O.P.R.C. Level 5 (On Scene Commander)
- **ISPS Port Facility Security Officer**

- **Vessel Traffic Services** VTS V103 Operators Certificate

National Committee of the UK Harbour Masters Association

Employment

- Portia Management Services
- Shipmove
- Port of Tyne
- Seaham Harbour
- Humber Pilots
- Shell

International Experience

- UK
- Worldwide - Seagoing

Languages

- English

Michael Nicholson
Project experience (selected)

2015 - Ongoing, Shipmove Marine Consultancy

Specialising in Port Marine Safety Code issues and Harbour Operations.

2003 - 2015 Port of Tyne, Harbour Master and Head of Security

Part of the Executive Management Team and responsible for a Maine Department of 70 staff and a multi-million pound budget, this included;

- Vessel Traffic Services, Pilotage and Conservancy
- Fleet of 4 launches, plough dredger and debris vessel
- Port Security Department, in-house and contract security at 4 locations
- PFSO and Chair of the Port Security Authority

2002 -2003, Seaham Harbour - Harbour Master and Pilot

- Responsibility for navigation, marine safety and conservancy.
- Staff of pilots and dock-head staff including the operation and maintenance, of two pilot boats and Tug/Workboat.

1994 to 2002 Humber Pilots, Pilot

1st Class Pilot, piloting a large range of vessels from small coasters to VLCC's and Capesize bulkers and berths ranging from creeks to Single Buoy Moorings.

1979 - 1994 - Seagoing Career, Apprentice to Master

Shell Tankers on their varied fleet of crude and clean tankers and LNG carriers. Third officer on product tankers. Chief Officer with Buries Markes on chemical tankers & deep-sea geared and gear-less bulk carriers, then Master for James Fisher of Barrow on their Heavy Lift Ro-Ro vessel.

Health Safety and Assurance Accreditation, Port of Tyne

ISO 18001 (Safety), ISO 14001 (Environment), and ISPO (International Standards for Pilotage Organisations) accreditation (Safety & Quality). Reviewed and upgraded all mooring bollards, inc. devising a simple mooring verification process used by pilots.

Contingency & Emergency Planning

Production of Port Marine Safety Code, Emergency Response Plans (both Marine & Land), Business Continuity, Protest, Waste Management, & Pollution Prevention Plans (all completed without recourse to external consultants). Devised an electronic business (and asset) risk assessment tool, which was adopted by the company and now informs the board on business and asset risk.

HR / Training / Organisation Structure

Successfully re-organised several departments, introduced new staff contracts where appropriate, all at zero added cost but with increased productivity. Profitability from pilot services trebled in ten years as a result of re-organisation.

Security

Ensured the port achieved compliance with the ISPS code on time, and substantially under budget (organising a training course locally produced a profit). Introduced and then chaired the port-wide Tyne Port Security Authority.

Made business case, specified, tendered and commissioned two new vessels, a pilot launch (£0.7M) and a Multi-cat workboat / plough dredger (£1.0m GBP).

Appendix B: Meeting Note: Applicant and DfT Ports



Present:

Michael Wilks, Consenting Manager, SCC

Stephen Horne, Maritime Engineer, WSP

Andrew Gibson, Head of Ports Security Policy, Maritime Directorate, Department for Transport

Tim Light, Transport Security Compliance Inspector, Maritime Security & Resilience Division, Department for Transport

Notes

MW explained the background to the Scheme by reference to Scheme plans and visualisations and noted that ABP has set out concerns over the impact of the Scheme relating to port security – specifically in its representations it had set out that:

“Having discussed the matter with DfT, it is ABP’s view that an area of quay 50m either side of the footprint of the Proposal as it crosses the Port’s North Quay will have to be sterilised in order to maintain the required standard of statutory security at the Port. This view has also been discussed and agreed by the DfT at a meeting at the Port on 22 August 2018.”¹

Against that context the purpose of the meeting was for SCC to better understand the concerns of DfT and how they may be mitigated.

By way of context, the Port of Lowestoft is classified as an ‘Other Bulk Cargo’ (OBC) port, considered the lowest security risk classification within the UK implementation of the ISPS code. (Class hierarchy: PAX – Passenger, CRR – Container Ro/Ro, COG – Chemical, Oil and Gas, OBC – Other Bulk Cargo).

The Lowestoft Port Security Plan provides for Temporary Restricted Areas (TRA) to be set up in certain circumstances.

It is understood that the Port Security Plan currently identifies a number of areas in the Port (both in the Inner and Outer Harbour) with potential to be set up as TRAs, which are only required in association with ISPS vessels – these are vessels over 500 gross tonnes on international voyages, and as such not regular visitors to the Port of Lowestoft – and only when the security level of the Port is raised from 1 (which is yet to prevail).

¹ ABP Written Representation, paragraph 19.10 - <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/TR010023/TR010023-000737-Associated%20British%20Ports%20-%20Written%20Representation%20and%20appendices.pdf>

In practical terms, the creation of a TRA involves the creation of a secure area, typically involving the erection of fences, around a berthed vessel.

TL explained that he had met on site with ABP Lowestoft's Harbour Master, Gary Horton, to discuss the Scheme in the context of Port Security, though there was no particular science relating to the 50m figure and was not therefore a 'fixed' figure.

SH explained that the elevation of the Scheme was such that it would not be conducive to providing a sensible means of access to the Port – far more straight forward options existed currently. TL agreed that the principle discussion point was in relation to how the Scheme may facilitate throwing of proscribed objects in to secure areas.

MW queried why such a specific parameter would need to be specified for the Scheme, or indeed whether it would be effective, when seen in the context of risks that already exist within the Port – which are presumably managed through the Port Security Plan.

For example, the proximity of public highway (Commercial Road) to areas that may be set up as TRAs, widespread use of drones and ability to project objects over long distances currently all present similar challenges to those presented by the Scheme. TL acknowledged that these are risks which would be managed through existing Port Security Plan and are not unique to the Scheme.

SH explained that the Scheme fendering would provide a set off distance from the structure, i.e. it would not be possible to berth a vessel immediately adjacent to the elevated walkway (or any publicly accessible area) of the Scheme. According to the reference design, and taking account of mooring lines, a vessel would unlikely be berthed closer than 21m.

SH suggested that with this offset and complemented by CCTV on the structure, additional bespoke measures to address the presence of the Scheme would not be needed. TL agreed that was a reasonable proposition. It was agreed therefore that in the future a TRA could not be set up within the footprint of the Scheme, taking a line landward from the outer edge of the fenders.

To that end, it was agreed that reflecting the presence of the Scheme in an updated Port Security Plan was a relatively straight forward exercise.

TL noted the effect of the Scheme on the Port's ability to set up TRAs would need to be seen in the context of;

- the frequency with which such an area may need to be set up,
- the necessity of setting up a TRA in the vicinity of the Scheme, as opposed to elsewhere in the Port
- the ability of ABP to accommodate vessels requiring secure areas in other ports in its ownership.

Consequently, it was concluded that Scheme would require a limited update to the Port Security Plan, and the impact on the Port of any geographic constraints on TRAs was similarly limited. It was reiterated that port security is only an issue at higher Security Levels and for certain vessels, as such quays adjacent to the Scheme can continue to be used without additional restriction for the vast majority of the time.