



Report of the Cabinet Member for Environment & Infrastructure

Special Cabinet – 29 September 2022

Contract for Mumbles Coastal Protection Project

Purpose:	<p>To approve the award of the construction contract for the Mumbles Coastal Protection project following a mini competition from the South West Wales Regional Civil Engineering Framework and approve in principle a funding agreement between Swansea Council & Welsh Government.</p> <p>To comply with Financial Procedure Rule No. 7 (Capital Programming and Appraisals): to commit and authorise schemes onto the Capital Programme.</p>
Policy Framework:	<p>Council Constitution – Contract Procedure Rules and Financial Procedure Rules; Well-being of Future Generations (Wales) Act 2015</p>
Consultation:	<p>Access to Services, Finance, Legal, Procurement and Highways and Transportation.</p>
Recommendation(s):	<p>It is recommended that Cabinet:</p> <ol style="list-style-type: none">1) Approve in principle the offer of funding to be made by Welsh Government to the Council following the approval of the Final Business Case and authorise the Director of Finance to accept the offer of funding on behalf of the Council.2) Approve the construction cost for the scheme and that the scheme and its revised costs are added to the Council's capital programme.3) Approve the award of the construction contract for the Mumbles Coastal Protection project to the tenderer detailed in sections 4 and 5 of this report.4) Delegate authority to the Head of Highways and Transportation and the Chief Legal Officer to enter into the legal documents necessary to progress the project.

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1. Introduction

- 1.1 The Welsh Government's Flood and Coastal Erosion Risk Management Programme (FCERM) has presented Swansea Council with a significant opportunity to implement a sustainable solution to the current issues of the condition of the Mumbles seawall and address long term flood risk affecting the community. It will also support the potential of future development and regeneration of the area whilst secure improvements to the amenity and recreation value of the promenade and its use as an important visitor attraction.
- 1.2 The Welsh Government Coastal and Risk Management Board has considered the Mumbles Outline Business Case (OBC), completed in July 2017 and has previously confirmed their support and approval for the scheme to progress to a detailed design stage.
- 1.3 The project area extends from Knab Rock slipway in the southwest to Mumbles Road and Oystermouth Square and the Dairy Car Park in the north. Mumbles is currently protected by two types of coastal defences; a 0.5km long mass concrete vertical sea wall and a 0.7km long sloping revetment. The responsibility for maintaining or addressing any repairs following any failure in these defences lies with Swansea Council.
- 1.4 The options available for improved sea defences are determined in the light of prevailing policies set out in the Shoreline Management Plan to 'Hold the Line' (not extending new infrastructure or development seaward) and in the context of a range of adopted planning policies. The foreshore area of Mumbles lies immediately adjacent to the Blackpill Site of Special Scientific Interest (SSSI), and lies partly within the Mumbles Conservation area. Significant Welsh Water infrastructure also lies in close proximity to the promenade structure.
- 1.5 Welsh Government, in their letter dated 18 January 2018, confirmed the offer of funding for the design and development stage of the project, offering a grant of 75% equivalent to £682,500.00, to be match funded by Swansea Council with a 25% contribution, equivalent to £227,500.00.
- 1.6 As of 4 December 2020, Welsh Government improved the grant funding offer, by offering to provide 100% funding for the design and development stage, replacing the previous offer. The new funding was accepted by the S151 Finance Officer of Swansea Council on 8 December 2020.

- 1.7 The design and development stage of the project was undertaken by Amey Consulting and this has been concluded on 31, March 2022.
- 1.8 Welsh Government grant funding has been received by Swansea Council totalling £1,735,130.19, less a 5% retention, amounting to £86,756.51. The retention is held until the Final Business Case (FBC) for the project is submitted and approved by Welsh Government.
- 1.9 The FBC will be submitted to Welsh Government, upon agreement and approval of this Cabinet report, which is seeking the approval to award the construction contract for the project and approval in principle of the funding offer from Welsh Government to Swansea Council in respect of the project costs.

2. Background Design Objectives & Benefits of the Project

2.1 Background

- 2.1.1 The foreshore revetment, seawall and parapet are in poor condition with significant cracks and an exposed toe footing. The undermining and failure of the existing structure is a possibility during a storm event. A trunk sewer rising main runs beneath the promenade, retained by the defences, and the consequences of failure of the seawall adjacent to the SSSI could be significant. Maintenance of the revetment is currently carried out by Swansea Council on a purely reactive basis with costs varying annually from £6,000.00 to £10,000.00.
- 2.1.2 The promenade is relatively low with wave and still tidal water overtopping relatively common. Swansea Council deploy stop logs across openings in the car park 'set back' walls during periods of high tides. The average costs of installing and removing the stop logs which provide an informal secondary flood prevention measure, costs approximately £10,000.00 annually. Despite these measures, some 79 properties have more than a 1 in 10 chance of tidal flooding each year. Through the modelling of sea level rise, at Outline Business Case stage in 2017, this was predicted to increase to 126 properties by 2120, with predicted depths and the likelihood of flooding increasing significantly. This inundation would also sever vital primary access to parts of Mumbles and Mumbles Head including the lifeboat station.
- 2.1.3 The promenade is a key element of the Mumbles destination, and is a popular visitor attraction and amenity for residents. However, it has a restricted width in many areas, and the removal of the 'pinch-points' will make it safer, more attractive and accessible for pedestrians and cyclists particularly during peak periods. Access to the foreshore for pedestrians and boat use is limited to two narrow steep steps and two slipways.

2.1.4 The Swansea Bay Strategy (2008) highlights the potential for the regeneration of Mumbles waterfront, focused around key nodes such as Knab Rock, Southend Gardens and Oystermouth Square. Developments in this area will need to be safe from flooding and erosion for their lifetime. Also the seafront public realm has developed on an ad-hoc basis over many years, and the provision of adequate car parking for residents and visitors is an important issue, along with competing uses for storage of boats.

2.1.5 The Outline Business Case (OBC) in July 2017 was structured around the Welsh Government criteria for a five case business model. It considered the case for change, and established a preferred solution to address the issues which represent value for money and which are deliverable and affordable. The OBC included an assessment of the condition of existing coastal structures, expected coastal flooding and erosion, regeneration and amenity, environmental issues and mitigation, constructability, and an evaluation of a series of options and costs. The suggested precautionary approach to the flooding risk design at this time, was to develop a scheme for a 1 in 200 year standard of flood risk protection, to withstand climate change sea level rises to 2120, with a 0.5% Annual Exceedance Probability (AEP).

(Note: a precautionary approach is defined as taking a significant risk averse design approach at the current time, whilst factoring in future uncertainties and risk).

(Annual Exceedance Probability is defined as the chance or probability of a particular natural hazard, such as a flooding event, occurring in any given year).

2.2 Design Objectives

2.2.1 Following the approval of the OBC, additional wave overtopping and flood inundation modelling has been conducted to account for the Welsh Government's Adapting to Climate Change Guidance for Flood and Coastal Erosion Risk Management Authorities in Wales, published in early 2021 which highlights the impact of climate change on changes in sea level rise.

2.2.2 The key findings of the additional wave overtopping and flood inundation modelling, resulted in the assessment of still water levels as being 0.5 metres higher than that first considered at OBC stage. Still water levels were initially assessed at OBC stage as being at 6.30m Above Ordnance Datum (AOD). However with the updated modelling carried out, this level has been advised as being nearer to 6.80m AOD. With existing promenade levels varying between 6.00m AOD at the Oystermouth Square area and 6.50m AOD at the Southend Gardens area, the still water level increases,

even without the impact of wave action and storm conditions, will pose a flooding risk.

2.2.3 Modelling of the preferred construction option recommended by the OBC, would result in a greater defence height in order to achieve the required standard of protection for 1 in 200 years, with a 0.5% AEP with the updated sea level rise allowances in 2120.

2.2.4 Based on the updated modelling, it was concluded that the preferred option of achieving a 1 in 200 year standard of protection with a precautionary allowance for climate change until 2120, would be no longer feasible due to the defence heights required to manage the increased waves and water levels predicted in the later years.

2.2.5 An adaptive pathway approach has been agreed with Welsh Government to maintain the 1 in 200 year standard of protection up to 2120. An adaptive pathway approach to the design offers a standard of protection of 1 in 200 years, (0.5%) Annual Exceedance Probability (AEP) event against coastal flooding, with an allowance for climate change of 50 years, that is to 2070. The adaptive approach has the capacity to increase the design life of the coastal defence to 2120, through additional changes that will have to be made to the construction.

(Note: an adaptive pathway approach is defined as an approach that enables decisions to be made to manage current risks but with the capacity to make phased modifications in the future. This enables 'no regret' interventions to be taken now, while planning for future risks and uncertainties, such that when more data, information and certainty is provided, the right decisions can be made at the right time in the future).

2.2.6 The features of the new coastal defence project are as follows:

- construction of a primary coastal defence upstand wall seaward of the promenade to achieve the required wave overtopping standard
- maintain or widen the existing promenade and revise the promenade level where required
- construct a set-back secondary coastal defence wall to achieve the required wave overtopping standard
- undertake suitable works to strengthen the face of the 0.5km length of existing sea wall including consideration of possible scour and lowering of the beach foreshore level
- undertake suitable works to strengthen the 0.7km length of existing revetment including consideration of possible scour and lowering of the beach foreshore level

2.2.7 The design working life, including the structural design life of the concrete elements, will be 100 years, although aspects of the designed scheme will require adaption in 50 years to maintain the standard of protection for 1 in 200 years, in line with sea level rise. These adaptations do not form part of the current project.

2.2.8 The project area has been split into three frontages, with three different design cross-sections as shown in Figure 2.1, below. Design cross sections are described in Table 2.1.

Figure 2.1 Design frontages

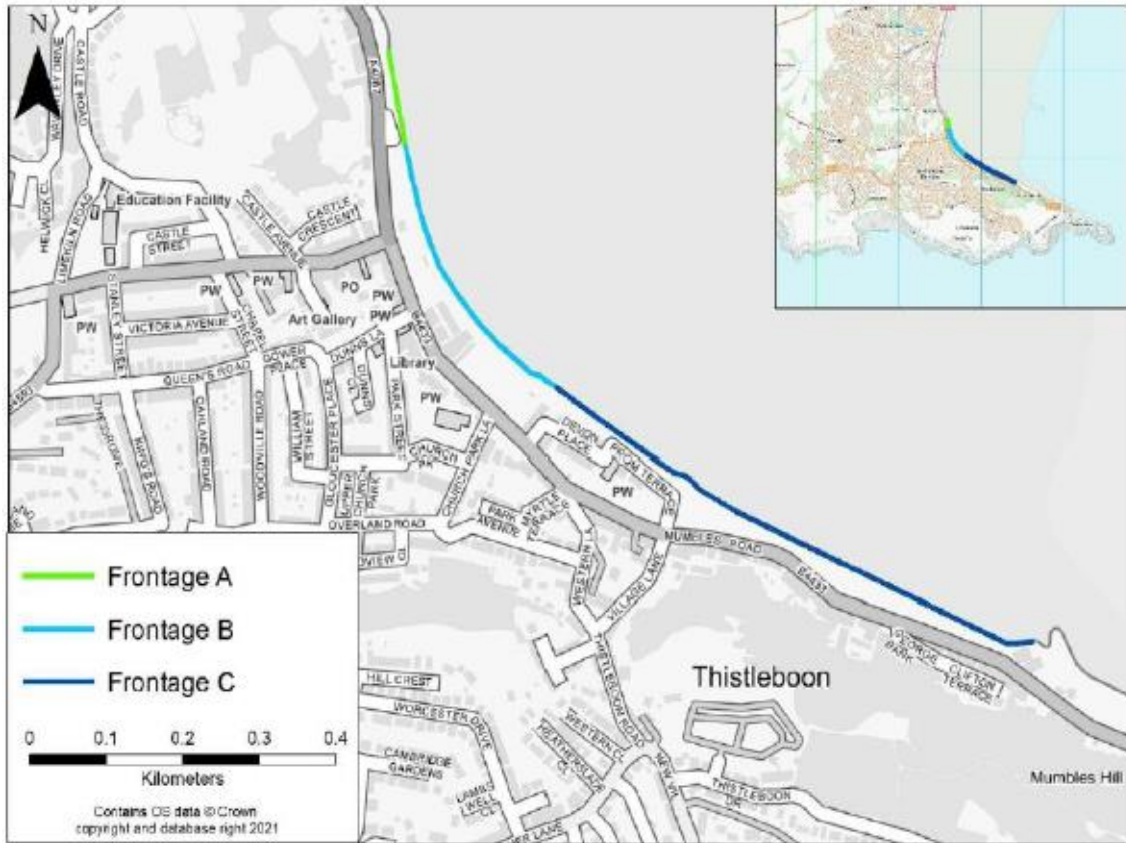


Table 2.1 Design cross-section descriptions

Frontage	Description
Frontage A	<p>Existing seawall with promenade at a level of +6.75m AOD or above. Existing ground levels landward of the promenade at a level of +7.9m AOD or above, providing natural secondary defence.</p> <p>Cross-section to include the encasement of the seaward face of the existing seawall with reinforced concrete. In addition, a reinforced concrete stepped apron with sheet pile at the toe of the wall will be included alongside the replacement of material retained behind the seawall with lightweight fill.</p>
Frontage B	<p>Existing seawall with promenade at a level below +6.4m AOD. No natural secondary defence, although existing splash wall present in places.</p> <p>Design cross-section to include the encasement of the seaward face of the existing seawall with reinforced concrete. In addition, a reinforced concrete stepped apron with sheet pile</p>

	at the toe of the wall will be included alongside the replacement of material retained behind the seawall with lightweight fill. A reinforced concrete recurve upstand will be added to the top of the seawall to achieve a top level of +7.2mOD and a secondary defence with a top level of +7.2mOD will be provided. Existing promenade levels will be raised to +6.5mOD.
Frontage C	Existing concrete sloping revetment with promenade generally at a level below +6.5m AOD. No natural secondary defence, although existing splash wall present in places. Design cross-section to include the replacement of the concrete revetment face with new reinforced concrete slab. A steel sheet pile wall will be designed for the toe of this revetment. A reinforced concrete recurve upstand will be added to the top of the revetment to achieve a top level of +7.5m AOD and a secondary defence with a top level of +7.4m AOD will be provided. Existing promenade levels will be raised to +6.5m AOD.

2.2.9 A Marine Licence application to obtain permission to work along the foreshore was submitted to Natural Resource Wales on 28 May 2021. A marine licence consent was successfully granted on 10 December 2021. A copy of the Marine Licence Consent Ref. CML 2128 is included as Appendix 1.

2.2.10 The planning application for the project was submitted to Swansea Council Planning Department on 14 December 2021 and was the subject of a Planning Committee decision on 5 April 2022.

2.2.11 The project has been granted detailed planning consent. This was granted by Swansea Council Planning Department on 5 April 2022, with sixteen attached Planning Conditions, all of which will be discharged during the course of the pre-construction and construction stages. A copy of the approved Planning Permission is included in Appendix 2.

2.2.12 The project will utilise the current tennis courts area, adjacent Oyster Wharf, as a contractor temporary compound. It offers good access and is in close proximity of the proposed works. Once the project is completed, the intention would be to carry out a full public consultation to determine the future use of this area.

2.3 Benefits

2.3.1 Due to the significant change in climate change allowances, it was deemed necessary to re-run the flood modelling to reassess the flood risk with the latest sea level rise estimates. As a result, it has been necessary to update the economic assessment to ensure the increased scale of the works proposed is economically viable.

- 2.3.2 The increased sea level rise allowance results in a greater number of properties being at risk and hence greater scheme benefits for the final option compared to that at the OBC appraisal stage.
- 2.3.3 The updated economic appraisal indicates that 126 properties are at risk of flooding during the 1 in 200-year (0.5% AEP) event in 2020, raising to 162 when considering a 100-year allowance for climate change.
- 2.3.4 Upon completion of the construction project, at the 1 in 200 year standard of protection by 2120, 162 properties are no longer at risk of flooding.
- 2.3.5 The Council will seek to consider future funding opportunities, in seeking to provide enhancements to the wider adjacent public realm areas, where an opportunity of extra funding presents itself. The funding will be required in addition to that of the Welsh Government coastal protection funding.

3. Overview of the Procurement Process

- 3.1 Tenders were formally invited on 18th March 2022 to carry out the construction stage of the project, utilising Lot 3 and 4 of the South West Wales Regional Civil Engineering Framework. The tendering process was conducted electronically via the eTenderWales tendering portal, with a stated return date of 6th May 2022.
- 3.2 Prior to the formal tendering invite, e mails had been issued and workshops held with the appointed framework contractors to canvass their interest in submitting a bid for the project. A Presentation Workshop held via Teams on 22nd September 2021, confirmed that all of the framework contractors were interested in submitting a tender.

4. Tender Evaluation

- 4.1 Due to numerous tender queries and additional information being issued during the tendering period, the tender return date was extended to the 1st July 2022.
- 4.2 Tenders received were opened by Commercial Services in accordance with Contract Procedure Rules. None of the tenders received were disqualified at opening.
- 4.3 Tenders received were evaluated by an Evaluation Team comprising of Officers from Highways & Transportation and external consultants. Officers from the Beyond Bricks & Mortar Team scored the relevant question on Community Benefits & Social Value Initiatives.
- 4.4 The tender evaluation was undertaken in accordance with the criteria set out in the Invitation to Tender documents and the Evaluation Team produced and agreed a single scoring sheet and noted relevant reasons for the scores awarded.

- 4.5 Tenders were evaluated using the following award criteria: Quality 40% and Price 60%, as per the Instructions to Tenderers.
- 4.6 The quality evaluation ensured tenderers were able to demonstrate a minimum understanding of the key requirements of the project. The quality evaluation was based on the assessment of method statement questions on the following:
- Avoidance of delay and disruption during the Works - 15% weighting
 - Risks, Mitigation and Opportunity - 10% weighting
 - Provide an NEC3 Compliant Programme of Works - 10% weighting
 - Community Benefits and Social Value Initiatives - 5% weighting
- 4.7 A tender attaining a score of 0 for any of the Method Statement questions or a failure to provide a response to any of the Method Statement questions, would have resulted in a tender being rejected without further evaluation, as per the Instructions to Tenderers. No tenders received were rejected.
- 4.8 Tenders that achieved the required score in the quality evaluation proceeded to the price evaluation stage, whereupon commercial envelopes were opened.
- 4.9 Tenders received have been evaluated by our external consultants and internal officers and it is recommended that the successful tender is accepted.

5. Contract Award

- 5.1 Approval is requested to award the construction contract for the Mumbles Coastal Protection project to the successful tenderer.
- 5.2 A financial appraisal of the tenderer has been completed based on their previous two years of published audited accounts.
- 5.3 The tenderer provided additional requested information and this has been reviewed and approved by the S151 Finance Officer.

6. Financial Implications

- 6.1 The successful tender has been checked and no arithmetical errors were found.
- 6.2 The tender has been based upon the issued tender documentation which identified the project risks incumbent upon a civil engineering contractor to allow for, in the preparation of their commercial offer.

- 6.3 Other project risks lie with the Council, as it was deemed the Council would be best placed to manage these risks. Chief among these risks, is the increase in labour, plant and materials costs, which has seen extraordinary increases over previous years. The terms of contract selected requires that the Employer bear the cost of inflationary increases, by reference to Government published indices throughout the duration of the construction contract.
- 6.4 The funding of the project will be conducted through the Welsh Government's Coastal Risk Management Programme (CRMP). This funding is set up in such a way that Swansea Council fund the short term period of the construction stage and are paid back by Welsh Government funding over a 25 year period.
- 6.5 The CRMP funding arrangement dictates that Welsh Government will fund 85% of the total project costs and Swansea Council are to provide match funding of 15% of the total project costs.
- 6.6 The Council will need to take out borrowing in order to fund the scheme both for the CCS 15% match element and to cover the WG 85% funding element. There is currently an approved budget for CCS match funding in part for the scheme, with a further approval required for an additional amount which will need to be funded by new borrowing.
- 6.7 The capital finance costs, both principal and interest, for the WG element will be fully reimbursed by WG by 25 equal annual instalments commencing in 2022-23, with the first repayment by March 2023. An initial payment will be made by WG by March 2023 with future repayments made through an increase in the Revenue Support Grant for the following 24 years.
- 6.8 There could be a slight differential on the interest rate offered by WG compared with the interest rate secured by the Council but this will not lead to a significant detrimental impact upon the Council's cashflow as the loan repayments will mirror the annual reimbursement from WG.
- 6.9 However the current MTFP and budget (plus capital and treasury strategy) is explicitly predicated on "no net new borrowing", so the impact of additional borrowing required for the Council's match element for this scheme has not been factored into current approved MTFP or budgets. That was the policy of the previous Council and remains extant until Council formally agrees a new revenue and capital budget, MTFP, Capital and Treasury Management strategy.

The reality is the continuing need to intervene where there is market failure, to be the place maker for regeneration activity, to provide some match funding for other future large infrastructure schemes and to facilitate match funding bids for the Levelling Up agenda, will require in due course, a major policy decision to be made over the level of new borrowing that will be necessary and that in turn will need to take into account the

Council's appetite for budgetary restraint, efficiencies, savings, future council tax increases, the appetite to borrow with interest rates now rising and the trade off between revenue spending and capital investment when the outlook for public finances looks extremely challenging. Those decisions will ultimately crystallise next March at budget setting Council which will be required at all times by the S151 Officer to ensure a lawfully balanced budget is set.

7. Integrated Assessment Implications

7.1 The Council is subject to the Equality Act (Public Sector Equality Duty and the socio-economic duty), the Well-being of Future Generations (Wales) Act 2015 and the Welsh Language (Wales) Measure, and must in the exercise of their functions, have due regard to the need to:

- Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Acts.
- Advance equality of opportunity between people who share a protected characteristic and those who do not.
- Foster good relations between people who share a protected characteristic and those who do not.
- Deliver better outcomes for those people who experience socio-economic disadvantage
- Consider opportunities for people to use the Welsh language
- Treat the Welsh language no less favourably than English.
- Ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs.

7.1.1 The Well-being of Future Generations (Wales) Act 2015 mandates that public bodies in Wales must carry out sustainable development. Sustainable development means the process of improving the economic, social, environmental and cultural well-being of Wales by taking action, in accordance with the sustainable development principle, aimed at achieving the 'well-being goals'.

7.1.2 Our Integrated Impact Assessment (IIA) process ensures we have paid due regard to the above. It also takes into account other key issues and priorities, such as poverty and social exclusion, community cohesion, carers, the United Nations Convention on the Rights of the Child (UNCRC) and Welsh language.

7.2 An Integrated Impact Assessment Full Report has been undertaken and will be monitored and updated throughout the duration of the construction stage. This is included as Appendix 3.

8. Legal Implications

- 8.1 The Responsible Officer is satisfied that the tender process has been undertaken in compliance with the Public Contracts Regulations 2015 and the Council's Contract Procedure Rules and recommends approval in accordance with those Rules.
- 8.2 The Conditions of Contract shall be the NEC3 Option A: Priced contract with activity schedule, incorporating Secondary Option Clauses X1, X2, X4, X7, X13, X15, X16, X18, X20, Y(UK)1, stated z clauses and Dispute Resolution Option W2. Contracts are to be prepared by the Chief Legal Officer. All contractual liabilities / obligations will be covered by the contract documentation.
- 8.3 Implementing the Mumbles Coastal Protection project, will support the Council in complying with its obligations under the Well-being of Future Generations (Wales) Act 2015.

Background Papers: None

Appendices:

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| Appendix 1 | Marine Licence Consent Ref. CML 2128 |
| Appendix 2 | Decision Notice – Swansea Council Planning Approval |
| Appendix 3 | IIA Report |