Sunderland City Council

Item No. 14

CABINET MEETING – 11 JANUARY 2022

EXECUTIVE SUMMARY SHEET – PART I

Title of Report:

PROCUREMENT OF A CONTRACTOR FOR RECONSTRUCTION WORKS TO THE SEA DEFENCE STRUCTURE AT HENDON FORESHORE BARRIER

Author(s):
Report of the Executive Director of City Development

Purpose of Report:
The purpose of this report is to seek approval to procure a contractor through the NEPO 211 Framework for the reconstruction works to the sea defence structure at Hendon Foreshore Barrier (Strategy Frontage 3) within the Port of Sunderland.

Description of Decision:
Cabinet is recommended to:

(i) approve the procurement of the required reconstruction works to the sea defence structure at Hendon Foreshore Barrier; and

(ii) authorise the Executive Director of City Development, in consultation with the Dynamic City Portfolio Holder and the Executive Director of Corporate Services, to approve the appointment of a contractor, and finalise the contract with the successful bidder.

Is the decision consistent with the Budget/Policy Framework? Yes

If not, Council approval is required to change the Budget/Policy Framework

Suggested reason(s) for Decision:
By undertaking the reconstruction of the sea defence structure at Hendon Foreshore Barrier the lifespan of the structure will be extended, NWG's wastewater treatment facility will be protected against future climate change and sea erosion, and the integrity and functionality of Hudson Dock will be maintained, thereby supporting Sunderland's economic growth and contributing positively to the City Plan objectives of a Dynamic and Healthy City.

The value of the contract will exceed £500,000, therefore in accordance with the Council's Procurement Procedure Rules, Cabinet approval is required prior to commencing the procurement process.

Alternative options to be considered and recommended to be rejected: Do Nothing: By undertaking no reconstruction of the existing sea defence structure the area would continue to remain unprotected against the future impact of climate change and coastal erosion, and vulnerable to the severe environmental impact from the potential release of untreated effluent into the North Sea, with the associated impact on the functionality of Hudson Dock. To note Hendon Foreshore Barrier is regularly monitored to assess the risk of potential structural failure given its current state of repair. During December 2020 the council completed an emergency repair through the installation of 2000T of rock armour to mitigate the effects of coastal erosion. We will continue to monitor and assess the situation up to the commencement of the major repair works in 2023 to help prevent any public health risks.
Impacts analysed; **Equality** No **Privacy** No **Sustainability** No **Crime and Disorder** No
Is the Decision consistent with the Council's co-operative values? Yes
Is this a "Key Decision" as defined in the Constitution? Yes **Is it included in the 28 day Notice of Decisions? Yes**

CABINET **11 JANUARY 2022**

PROPOSAL FOR THE APPROVAL FOR FUNDING FOR REPAIRS STONEHILL WALL

Report of the Executive Director of City Development

1.0 Purpose of the Report

1.1 The purpose of this report is to seek approval to procure a contractor through the NEPO 211 Framework for the reconstruction works to the sea defence structure at Hendon Foreshore Barrier (Strategy Frontage 3) within the Port of Sunderland.

2.0 Description of Decision

2.1 Cabinet is recommended to:

(i) approve the procurement of the required reconstruction works to the sea defence structure at Hendon Foreshore Barrier; and

(ii) authorise the Executive Director of City Development, in consultation with the Dynamic City Portfolio Holder and the Executive Director of Corporate Services, to approve the appointment of a contractor, and finalise the contract with the successful bidder.

3.0 Introduction/Background

3.1 Hendon Foreshore Barrier is located within Management Area B7/8 (Policy Unit 8.2 - 220/6920) adjacent to the South West Breakwater. Constructed circa 1930, this structure comprises approximately 200m of concrete wall fronted by a rock revetment, 5m in height from foreshore level. In addition, there is a 2m high Northumbrian Water boundary/splash wall offset from the existing sea defence structure.

This report considers the adopted '*Whitburn Bay to Ryhope Coastal Defence Strategy Report (2001)*'. The 2001 'Strategy' report detailed a 5-10 year residual life for all parts of the structure (except for the boundary/splash wall which exceeded 10 years) stating that the structure was "*in a very poor state of repair*". The recommendation of the 'Strategy' Report was the construction of a full height rock revetment with new crest protection and wave bund as part of the proposed '*phased improvement iii'*.

During December 2020 an emergency repair was undertaken to the north end of the structure. This repair was required due to significant damage to the existing stone/timber structure following a series of successive storm events in recent years. This, coupled with the cyclic effects of erosion by the sea, had resulted in the creation of a substantial void which threatened the structural integrity of the NWG's splash wall and hence the functionality of the wastewater treatment facility. The repair scheme involved the placement of approximately 1,500 tonnes of rock armour to provide protection until the permanent works could be undertaken.

3.2 The Council is currently progressing the design of a new sea defence structure for Hendon Foreshore Barrier, which involves the construction of a new reinforced concrete deck slab, encasement to the existing stone/timber wall, a new seawall facing and supplementary rock armour to the existing revetment. This will be approximately 130m in length. A new 26m long section of sheet pile wall will be constructed as a permanent repair to the rock armour repair mentioned above. Both these elements will form the new sea defence structure.

During the feasibility stage various forms of construction were considered, including:

(i) Demolition of the existing structure and reconstruction using a mass gravity concrete retaining structure.

This option was ruled out as the cost of removing and disposing of the material was deemed too high due to the substantial volume of contaminated material being excavated. The limited width of the site also restricts the methods of construction available to the contractor, and accordingly added to the cost.

(ii) Installing a sheet pile wall to the full length of the existing structure and infilling with concrete

This option was ruled out as the cost of sheet piling under current market conditions were deemed too expensive.

By going with the preferred option of retaining the existing structure and limiting the extent of sheet piling the council were able to minimise costs, and also reduce the carbon footprint of the proposed works.

4.0 Costs Estimates &Timescales

4.1 Timescales

Due to current planned workloads and the statutory consultee process required prior to the Works , the works are not expected to commence until April 2023. The total duration of the reconstruction works is dependent on the availability of site access routes but is estimated to take a maximum of 45 weeks. This allows for the restrictions imposed by the Bird Nesting season and demobilising the site from the end of October until to the start of April.

It should be noted that since the reconstruction works fall within the tidal limit of Mean High Water Springs, a Marine Management Organisation licence is required prior to the construction of the works.

4.2 Cost estimates

The cost estimate for the scheme is £1.76m. This is based on recent schemes of a similar nature.

This estimate includes a 20% risk contingency. The risk contingency is included to allow for potential adverse weather and additional costs due to increased contractor costs in the event of access restrictions.

It should be noted that the construction industry is currently experiencing significant increases in the cost of raw materials as detailed in the recent *Monthly Statistics of Building Materials and Components June 2021* report. This has led to significant inflationary costs, over-and-above that experienced for standard goods especially in steel and concrete costs.

4.3 Procurement

Procurement of the contractor will be through the NEPO 211 Framework for Civil Engineering and Infrastructure Works based on the pre-tender cost estimate.

5.0 Reasons for the Decision

By undertaking the reconstruction of the sea defence structure at Hendon Foreshore Barrier the lifespan of the structure will be extended, NWG's wastewater treatment facility will be protected against future climate change and sea erosion, and the integrity and functionality of Hudson Dock will be maintained, thereby supporting Sunderland's economic growth and contributing positively to the City Plan objectives of a Dynamic and Healthy City.

The value of the contract will exceed £500,000, therefore in accordance with the Council's Procurement Procedure Rules, Cabinet approval is required prior to commencing the procurement process.

6.0 Alternative Options

Do Nothing: By undertaking no reconstruction of the existing sea defence structure the area would continue to remain unprotected against the future impact of climate change and coastal erosion, and vulnerable to the severe environmental impact from the potential release of untreated effluent into the North Sea, with the associated impact on the functionality of Hudson Dock.

To note Hendon Foreshore Barrier is regularly monitored to assess the risk of potential structural failure given its current state of repair. During December 2020 the council completed an emergency repair through the installation of 2000T of rock armour to mitigate the effects of coastal erosion. We will continue to monitor and assess the situation up to the commencement of the major repair works in 2023 to help prevent any public health risks.

7.0 Relevant Considerations/Consultations

(a) Financial Implications - The cost estimate for these works is £1.76m and will be met from the current approved Capital Programme as part of the Strategic Frontage 3 project. The cost estimate is based on recent schemes of a similar nature and includes a 20% risk contingency.

(b) Risk Analysis – undertaking these works has some inevitable and unavoidable construction risks, which the Council will look to mitigate where possible as part of the process of awarding a contract. At this stage, two main construction risks have been identified:

(i) *Weather risk/Additional Preliminary Costs* – a 20% risk contingency has been allowed for in the construction of both the seawall and the rock armour installation.

(ii) *Access* – issues arising due to the prevention of using NWG's access gate.

(c) Legal Implications

The Assistant Director of Law and Governance has been consulted in relation to the proposals and her comments have been incorporated in this report. The procurement process for the works will be carried out in accordance with the Council's Procurement Procedure Rules, and public procurement law.

(d) Procurement Implications

The Corporate Procurement Team has been consulted on this proposal and agree to the procurement approach.

8.0 Impact Analysis

(a) Equalities – No equality analysis has been undertaken. The proposals are based on reducing the risk of further damage to the structures in question and will not have a disproportionate impact on any protected characteristics.

(b) Privacy Impact Assessment (PIA) – There are no privacy impacts identified as part of the strategy.

(c) Sustainability – No Sustainability Impact Filter has been produced.

(d) Reduction of Crime and Disorder – Community Cohesion / Social Inclusion – The proposals has no crime and disorder impacts.

9.0 Other Relevant Considerations

9.1 Not applicable.

10.0 List of Appendices

10.1 Appendix A – Plan showing Hendon Foreshore Barrier location and proposed access routes (see attached '*NC040 Hendon FSB Site Area & Access v1.0.pdf*').

11.0 Background Papers

11.1 Not applicable.

APPENDIX A

Plan showing Hendon Foreshore Barrier location and proposed access routes ('*NC040 Hendon FSB Site Area & Access v1.0.pdf*')