COMMUNITY COMMITTEE 9 August 2017

Highcliffe Zig-Zag Path

1. PURPOSE AND RECOMMENDATIONS

Report Type:	Public Report for Recommendation
Purpose of Report:	To agree whether or not to proceed with the project to reconstruct the Highcliffe zig-zag path
Recommendations:	**It is RECOMMENDED that:** **a) the committee decide whether or not to proceed with the reconstruction of the Highcliffe zig-zag path;** **b) if the recommendation of this Committee is to proceed with the reconstruction, officers are requested to identify funding options and the matter be referred to Full Council for approval;** **c) if the decision is not to proceed with the reconstruction, officers are requested to bring a report to this Committee to determine the best options for making the site safe.**
Wards:	Highcliffe
Contact Officers:	Lindsay Cass, Head of Property and Engineering Judith Plumley, Head of Community and Leisure Jonathan Ross, Property, Engineering and Parking Manager

2. BACKGROUND

2.1. The current zig-zag path from the grounds of Highcliffe Castle to the beach was constructed by the council in 2005 using treated softwood timber to create revetment walls to hold back soil where the tarmac surfaced path is cut into the cliff.

2.2. Since 2012 repairs have taken place to the wooden revetments to ensure their continued stability. Temporary solutions included the installation of timber anchors, the removal of a portion of supported soil, the partial removal of timber revetment to reduce its height and temporary fencing to reduce the path's width.

2.3. Investigations in Spring 2016 by the council's engineers revealed that severe rot is present in the majority of the timber uprights, meaning they are no longer structurally sound. An independent report in August 2016 (by consulting engineers AECOM) confirmed these findings and, despite the remedial measures put in place, recommended immediate closure of the path. This was done in late August 2016.

2.4. Policy and Resources Committee on 28 September 2016 approved funding for phases 1 and 2 works (£65k) and the earmarking of funds for phase 3 (£300k):

- Phase 1 – Temporary work to remove the most dangerous sections of revetment and cut back unsupported soil to form embankments; monitor remaining sections of revetment and sloped soil; all in an attempt to allow the path to be kept open until closed for full reconstruction
- Phase 2 – Appointment of a consultant to carry out ground investigations and produce a design and estimate of cost for a new path
- Phase 3 – Tendering and reconstruction of path.

2.5. The phase 1 temporary works were undertaken in November 2016, after the necessary work to TPO'd trees had been approved by Planning Control Committee. The path was re-opened on 22 November 2016.

2.6. A decision was taken to close the path in March 2017 following concerns over noticeable movement in the remaining timber revetment. The continuing movement to the revetment was confirmed by precision surveying techniques.

2.7. Investigations were undertaken into the option to erect a temporary path using scaffolding so that the failing revetment could be bypassed. This and other temporary solutions proved to be impractical. The decision was then taken to keep the ramp closed until replaced.

2.8. After a procurement process, AECOM were appointed to carry out the phase 2 ground investigations, design and estimate of cost for a new path. This report explains the outcome of their work.

2.9. The preliminary programme for the project has been reported as construction commencing in November 2017 and completion by Easter 2018.

2.10. The council, working in partnership with the Dorset Coastal Forum, has secured a £280k contribution from the Coastal Communities Fund towards the works to the zig-zag path. A contribution toward coastal investment may also be achieved by granting an easement over council owned land adjacent to the MCA site but this is by no means a secured or certain funding stream.

3. PROPOSALS FOR RECONSTRUCTION OF THE PATH

3.1. Consulting engineers AECOM have carried out ground investigations and considered nine structure options for the reconstruction of the zig-zag path. These include sheet pile walls, mass concrete walls, reinforced earth slopes, crib walls, gabions, king post piled walls and soil nailed slopes. Their recommendation is that the most viable option is for the revetments to be constructed using king post piled walls.

3.2. The viability assessment has been based on engineering considerations, such as whether there is sufficient space and access for the various wall types to be constructed, whether vibration from driven piles is acceptable, the impact on the SSSI and trees, etc. There isn't an option identified by the consultants that would be viable from an engineering point of view that would be cheaper to construct than a king post piled wall.

3.3. King posts are steel or concrete posts that are set in deep, augured holes which support precast concrete wall panels spanning between the posts. This form of construction would allow the installation of drainage behind the walls to aid the overall stability of the cliff. The path is approximately 250m long and the AECOM design has shown that 125m of king post piled walling would be required with a small length of gabion wall near the bottom of the slope.

3.4. The Planning and Landscape Architects employed as part of the Coastal Communities Fund programme are also content for the design to proceed using a king post piled wall construction, so long as the concrete wall panels are clad in a suitable material, such as timber.

3.5. The life of the structure would be at least 30 years but is likely to be considerably longer, other than for the surfacing of the path, which will require periodic renewal.

3.6. AECOM have prepared an indicative order of cost for the construction described above, which is in the range £825,000 to £875,000. This includes the cost of fixing timber cladding to the revetment walls, but not the supply of the timber. There would also be costs associated with disposal of the excavated material that cannot be incorporated in the works, interpretation panels (relating to the Coastal Community Fund work) and risk-based allowances. It is estimated that the total cost of the phase 3 work could be in the order of £1.25m.

3.7. This is significantly greater than the original desk estimate that was prepared before an engineering assessment had been carried out. There is currently a pause in the design process whilst the implications of the increase in costs are assessed. This now makes it very unlikely that the target of completing any works by Easter 2018 could be achieved.

3.8. The council needs to decide whether or not to proceed with the reconstruction of the Highcliffe zig-zag path. The cost of developing the engineering design, submitting a planning application and inviting tenders would incur costs in the order of £25k.

3.9. There is an alternative route to the Highcliffe beach from the Castle grounds using the steps to the west of the zig-zag path and another route to Friars Cliff promenade that is suitable for wheelchairs and buggies via Steamer Point.

4. IMPLICATIONS

Corporate Plan & Council Objectives

4.1. The matter under consideration impacts upon the Corporate Plan in the following areas:-

- GE3 - Enhance our reputation as being a place which is “open for business”
- EC4 - Maintain a strong reputation and recognition for the Partnership’s achievements
- SC1 - Help our communities to be stronger and more resilient
- SC2 - Promote healthy and active lifestyles
- ME1 - Work with partners to maintain clean and green public spaces
- ME2 - Balance growth and development with the conservation of our built and natural heritage

Legal

4.2. There are no legal implications arising from this report.

Environmental

4.3. The cliff where the zig-zag path is located is part of a geological Site of Special Scientific Interest. Natural England have given their initial support for the king post pile wall form of construction and have indicated that there may be researchers who would wish to retrieve samples of soil from the augering operations for micropalaeontological and palynological study in relation to (amongst other issues) the nature of the base of the Bartonian Stage.

Financial and Risk

4.4. The zig-zag path replacement raises two key issues from a financial perspective; firstly, is it the best use of limited public money and secondly, how could it be funded?

4.5. As this report sets out, the replacement of the zig-zag path is a significant civil engineering project which comes with a high level of uncertainty and risk relating to cost. The current estimate for a viable solution is in the region of £0.9m. This estimate relates solely to the hard engineering costs and does not include other costs relating to cladding or the cost of aesthetic enhancement to the design. These could take the estimated cost to £1.25m.

4.6. Given the nature of the project there is a significant risk that the hard engineering costs could be exceeded. Whilst the consultant's estimates do contain a contingency; until work commences there is no certainty that the costs could be contained within the £0.9m estimate. A contractor will not wish to accept the risk of unforeseen costs and would only fix a contract price if they had allowed for sufficient contingency themselves. Therefore, the risk of cost overrun, which in the view of the Chief Finance Officer is high, sits wholly with the Council. A tendering exercise would identify whether the consultant's estimate is accurate but, given the nature of the project, unforeseen costs are likely once construction is underway.

4.7. The consultants have looked at a number of options and concluded that the most viable structure is the one recommended in this report. Officers have also considered whether a like for like, and therefore lower cost option is feasible. Regrettably, it has been concluded that the only long term viable option to replace the zig-zag path is the one set out in this report.

4.8. Given this conclusion and in light of the current forecast cost and risks associated with the work, members must consider whether committing funding in the region of £1.25m on a project to replace a single path is the best use of public money.

4.9. Whilst it is acknowledged that the zig-zag path is well used, it is not the only access to Highcliffe Beach. Given that the Castle is an attraction in itself it is considered unlikely that not having a zig-zag path would materially affect car parking income or trade. The income from car parking charges at the Castle has been very similar in 2017 (during the period that the path has been closed) when compared to that during the same periods in 2015 and 2016.

4.10. The replacement of the zig-zag path has no financial incentive to protect or generate income and therefore, for the investment required, does not provide any commercial benefit.

4.11. The Council has competing and potentially more pressing priorities for funding which it is considered should take preference over this project. These include investment in assets such as Two Riversmeet Leisure Centre and the Regent Centre.

4.12. The Council has only £117,000 of uncommitted capital funding with £5.4m currently committed to a wide range of schemes and projects. Within the capital programme a sum of £365,000 was set aside for the zig-zag path replacement, some of which, £65,000, has been committed to the temporary work to remove the most dangerous sections of revetment and the design work undertaken by AECOM. The Council was awarded £280,000 by the Government from the Coastal Community Fund, 90% of which could be used for hard engineering costs. A further £670,000 would therefore be required to provide a £1.25m budget.

4.13. Members could revisit the current allocation of capital resources and consider deleting some of the yet to start projects but clearly this has implications in itself.

4.14. The Council has £2.2m of unallocated revenue funding which could be directed at the project but this would remove the buffer the Council has worked hard to create to enable it to mitigate future funding gaps and also to deal with more critical unforeseen events.

4.15. If no existing resource is redirected to fund the zig-zag path replacement an underlying need to borrow would be created or a call on yet to be identified future capital receipts would be required.

4.16. The recommendation of the Chief Finance Officer is that the project is not progressed at this stage. The level of investment required and the financial risk to replace the zig-zag path is of such scale that it cannot be justified given the limited resources the Council has and the need for a balanced level of investment across the Borough. The opportunity cost of committing this scale of resource into one project of relatively low benefit would be significant.

4.17. There is a significant risk of criticism of the council if the path reconstruction project does or does not proceed. A decision not to proceed would impact mostly on residents living in the vicinity of the Castle.

4.18. The main objective of the zig-zag path reconstruction project is to provide a safe ramped access from the Castle grounds to and from Highcliffe beach. If the decision is not to proceed with the project, there will be a need to minimise the risk of people trying to use the existing path or being injured by cliff instability. It would be necessary to remove the existing path construction, regrade the cliff face, plant vegetation and erect substantial fencing at the top and bottom of the cliff. It is estimated that the cost of this work would be in the order of £140,000.

Equalities

4.19. The zig-zag path provided access to the beach and coastal paths for people with disabilities that affect their mobility. Alternative ramped accesses to the coastal paths and beach are available at Cliff Top car park and Chewton Bunny and to the Friars Cliff promenade and beach at Steamer Point.

Consultation and Engagement

4.20. The Dorset Coastal Forum carried out public engagement sessions in the local area on 13 and 15 July 2017. These sessions allowed participants to influence the 'look and feel' of the reconstructed zig-zag path.

4.21. There will be a further public engagement session at Highcliffe Castle on 5 September on the development of a Christchurch Coastal Strategy.

5. CONCLUSION

5.1. Consulting engineers AECOM have considered nine structure options for the reconstruction of the zig-zag path including sheet pile walls, mass concrete walls, reinforced earth slope, crib walls, gabions, king post piled walls and soil nailed slope. Their recommendation is that the most viable option is for the revetments to be constructed using king post piled walls.

5.2. AECOM have prepared an indicative order of cost for the reconstruction works using king post piled walls, which is in the range £825,000 to £875,000. This includes the cost of fixing timber cladding to the revetment walls, but not its supply. There would also be costs associated with disposal of the excavated material that cannot be incorporated in the works, interpretation panels (relating to the Coastal Community Fund work) and risk-based allowances. It is estimated that the total cost of the phase 3 work could be in the order of £1.25m.

5.3. The recommendation of the Chief Finance Officer is that the project is not progressed at this stage. The level of investment required and the financial risk to replace the zig-zag path is of such a scale that it cannot be justified given the limited resources the Council has and the need for a balanced level of investment across the Borough. The opportunity cost of committing this scale of resource into one project of relatively low benefit would be significant.

Appendices:

None

Background Papers:

AECOM Highcliffe Zig Zag Retaining Structure – Preliminary Design Report