



Title: **Princess Promenade Refurbishment**

Public Agenda Item: **Yes**

Wards Affected: **Tormohun**

To: **Council** On: **29 September 2011**

Key Decision: **Yes – Ref. 1005527**

Change to Budget: **Yes** Change to Policy Framework: **No**

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1. What we are trying to achieve and the impact on our customers

- 1.1 To provide an immediate solution to repair the defective structure of the “banjo” and the eastern section of Princess Parade, Torquay, which enables the closed sections to be reopened as soon as possible.
- 1.2 The proposed repair standards will extend the life of the structure for a minimum of 25 years and will match the design and detail of repairs carried out to the western length of the promenade in 2006/07. A repair of this magnitude will make the existing structure safe for up to 25 years. Members are asked to consider whether this investment represents best value for money, as the need to carry out such extensive repairs might be regarded as an opportunity to improve the design and area as a visitor attraction. The area is especially important to Torquay’s tourism offer.

2. Recommendation(s) for decision

- 2.1 That tenders be invited and a contract be let to carry out repairs to the eastern promenade and the banjo. The contract to commence in early 2012 with a break in the summer of 2012 with no works carried out in June, July and August and will be completed by the end of 2012.
- 2.2 That the capital programme for 2011/12 be amended to provide £800,000 to carry out the first phase of repairs to the promenade and upper level of the Banjo to be opened for the Summer of 2012.
- 2.3 That the capital programme for 2012/13 be amended to provide £2.15 million to fund the second phase of the single contract for repairs to the structure to secure its long term future.

3. Key points and reasons for recommendations

- 3.1 The eastern section of Princess Parade and the banjo has been closed to the public since 2006 following a report by consulting engineers Pell Frischmann. This is a prime section of Torquay's waterside and the continued closure has provoked widespread criticism. Hitherto the Council has investigated the repair costs and funding options. It is noted that the extent of repairs within the immediate area are considerable.

Earlier reports confirm that estimated cost of repair in the immediate area is:

Repairs to front garden areas	£500k - £1.5m
Repairs to Pavilion, in excess of	£2.0m
Repair "banjo"	£1.3 - £1.5m
Repair/replace eastern section of Princess Parade	£1.6 - £2.0m
New walking surfaces and wall repairs	£500k - £1.0m

Torbay Council's contribution to Princess Pier repairs (see below)	£2.5m*
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Total cost of repairs	£10.5m
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*The Environment Agency (EA) have been asked to fund repairs to the masonry elements of Princess Pier as Torbay Council believe this structure, acting with Haldon Pier, provides a flood defence to Torquay's harbour area. The decking and steelwork above is considered to be an amenity and as such repairs to these elements would not be funded by the EA.

- 3.2 The proposed programme will allow for the Eastern length of promenade to be reopened for the summer of 2012. However, further works are required to secure its long term future.
- 3.3 Splitting the works into two phases will allow the works to be carried out over the winter, but will cost an estimated additional £80,000. If the works are carried out in one phase they will take a year to complete and will be carried out over the summer of 2012.

For more detailed information on this proposal please refer to the supporting information attached.

Sue Cheriton
Executive Head – Residents & Visitor Services

Supporting information

A1. Introduction and history

- A1.1 The design of the original promenade had an important plus, that permits an open balustrade walkway offering clear uninterrupted views of the bay and Marina. It provides wave and sea air protection to the Princess Gardens by the use of a suspended structure providing a rebound “cap” to prevent sea swells and chlorinated sea air from impacting on the Princess Gardens. A traditional inland public garden is able to thrive in this protected location.
- A1.2 The Promenade was built between 1939 and 1958, with construction interrupted by World War II. The promenade is known to have a number of limitations. Many of which are typical of reinforced concrete structures in a marine environment. They can be summarised as follows:-
1. The promenade design has no spare capacity over and above its strict use by pedestrians and was not designed for vehicle loads greater than small cars.
 2. The types of defects exhibited in the structure suggest that the promenade has at some stage been trafficked by lifting equipment, craneage and/or heavy vehicles. There is also no evidence of vehicle control until recent years. These defects have made the structure more susceptible to the damage outlined in item 4 below.
 3. Many years of chloride (sea water) attack on the deteriorated and exposed structure has led to substantial concrete spalling, almost total loss of its vital steel reinforcement, leading to the promenade walkway being beyond economic repair.
- A1.3 The two tier banjo structure was constructed in the 1960's at a similar time to the construction of the Princess Theatre.
- A1.4 Repairs to the Eastern Promenade were carried out some time after 2000 in the form of a repair mortar applied to the structural soffit. This work started at the adjacent to the MDL marina offices. However, funding appears to have run out quickly as only some 30 metres of the promenade were actually repaired in this manner. The remedial work appears to have held up well but may be showing signs of deterioration, which is consistent with a 10 year life expectancy for concrete repairs. This small area of the Eastern Promenade has remained open to the public. The projected life of this small area is currently being verified using a portion of the funds recently released by Council. This area will either be accepted as being in good condition or else it will be repaired. There are no plans to demolish and rebuild this small section of the promenade.
- A1.5 As a consequence of this work apparently ending prematurely through funding problems, the unrepaired length of the Eastern Promenade would have continued to suffer accelerated sea chloride damage. Although the supporting columns, beams and walls were still in a fair condition, the majority of the Eastern length of promenade walkway itself was considered to be in such a poor condition as to be beyond repair.
- A1.6 The Eastern and Central Banjo Promenades have not been maintained since 2006 and was closed on the recommendation of the Structural Engineers, following the receipt of the structural investigation by Consulting Engineers Pell

Frischmann in 2006. Soon after the closure, a temporary pedestrian walkway surfaced in red bitmac was formed adjacent to the closed area of promenade.

A1.7 The Central Banjo was closed at the same time, on the instructions of the Mayor. Although the structure would benefit from significant long term remedials, there were no pressing structural reasons for its closure, with the decision based on the consequence of a history of anti-social behaviour. As the structure has not been maintained since 2006, minor repairs, tidying up and painting would be required to permit it to be reopened.

A1.8 The Western Promenade was temporarily reduced in width in 2006 in order to reduce stress in the centre of the walkway. Partial closure of the western length proved to be highly unpopular at the time as this length was seen as an important part of the main coastal walkway for the town in the area linking Princess Pier, The Princess Theatre and Torquay Marina. Torbay Council asked for repair options for the Western Promenade and in 2007, a 25 year life repair including a cathodic protection system was constructed for the sum of £733,000 including design fees. This length of promenade was reopened to the public in May 2008 after it was repaired to a high standard with a technical cathodic protection system installed throughout the structure which eliminates any chance of the promenade deteriorating over the next 25 years and also potentially for the rest of its operating life.

A1.9 In order to re-open the unrepaired length of Eastern promenade, its structural decking needs to be replaced with new pre-cast concrete decking with a new surface. This work will take approximately 5 months to complete and could commence in February 2012 allowing the promenade to be opened by the main summer season of 2012. The cost of this element of the project is £750,000. The banjo would need some minor spot repairs to the concrete to protect the reinforcement. The cost of this is estimated at £50,000.

A1.10 The first phase of the works will ensure the area can be reopened to the public and ensure that the area can remain open.

A1.11 The first phase of the works will secure the long term future of the promenade decking, however, the columns that support this structure will need refurbishment and cathodic protection added. The cost of this second phase of works is estimated at £850,000. This work will commence in September 2012.

A1.12 The supporting columns of the banjo will also need to be refurbished with the same cathodic protection. The estimated cost of the second phase for the banjo is £1.3million. This work will commence in September 2012.

A2. Risk assessment of preferred option

A2.1 Outline of significant key risks

A2.1.1 If the first phase repairs are not followed by the second phase repairs the structure would deteriorate quickly leading to eventual re-closure.

A2.1.2 The works will be carried out over the winter period in a marine environment so the programme of works and final costs can be affected by weather and the environment.

A2.2 Remaining risks

A2.2.1 The final 1930's design may not be appropriate for a modern tourist resort. The Princess Gardens are Grade II Listed gardens with the promenade included within the designated area. However, as the project relates to maintenance English Heritage have no legislating powers over the works. Officers have consulted with English Heritage who have given support for the repairs to the promenade, but have stated they would prefer that the top section of the banjo is removed and the sunken garden infilled to provide a level walkway. Repairs to the banjo will split the cathodic protection over the two levels allowing it to be removed at a later date, if required.

A3. Other Options

A3.1 The following options have been considered:-

a) Demolition

The whole structure could be demolished, however, the construction of a new wave wall would be required to resist sea water overtopping affecting the gardens. Environment Agency permission would be required and the wall could affect the sea vista for the public from the gardens. The estimated cost is £4.2million.

b) Intermediate Repairs

The promenade decking could be replaced and intermediate repairs to guarantee the structure for 10 years could be carried out. The estimate cost of this option is £1.3million.

c) Partial Demolition

The top level of the banjo could be removed as suggested by the English Heritage.

A4. Summary of resource implications

A4.1 Following lengthy discussions with the Environment Agency regarding grant aided funding for flood defence structures at Torquay Harbour, detailed wave modelling analysis works have been undertaken in order to identify the structures that have been identified as flood defence. This modelling work has identified that both Haldon Pier and Princess Pier act as primary flood defence structures for coastal flooding within the Torbay Harbour area. As a result the Environment Agency has recently approved £1.272 million of grant aided funding for the next phase of structural repair work at Haldon Pier and they are currently considering an application from Torbay Council for a further £5.973 million of grant aided funding for structural repairs to both Haldon Pier and the masonry portion of Princess Pier.

A4.2 Although the Princess Promenade structure acts as a flood defence within Torbay Harbour, the value of the assets protected would not provide sufficient benefit/cost ratios to ensure funding through the Environment Agency Flood Defence Grant Aided system. As a result, an alternative source of funding for the repairs to the Princess Promenade will need to be identified. A number of alternative sources of funding options have been considered and these include:

- Capital Funding from Torbay Council;
- Prudential Borrowing by Torbay Council;
- Developer contributions from any future development at the Marina Car Park or Princess Theatre;
- Infrastructure levy for flood defence schemes;
- Heritage Lottery Funding for Princess Gardens and Promenade;

A4.3 At this time funding is most likely to come from Torbay Council Capital funding. An application has been submitted for the following sums:

2011/12	£ 800,000
2012/13	£2,150,000

A5. What impact will there be on equalities, environmental sustainability and crime and disorder?

A5.1 The repair and maintenance of the Princess Promenade will provide continued protection to the Princess Gardens and seafront area.

A5.2 As the lower level of the Banjo will be re-opened, the project will include improvements aimed at designing out crime. Specifically this will include lighting and gates allowing the area to be closed at night if required.

A6. Consultation and Customer Focus

A6.1 No official consultation on the proposals have been carried out as the proposals relate to maintenance of an existing structure rather than a material alteration.

A6.2 Whilst Planning Permission is not required officers will work with representatives from the Environment Agency and English Heritage to discuss the finishes to be used.

A7. Are there any implications for other Business Units?

A7.1 The cost of the works will need to be funded from the Council's Capital Programme.

A7.2 The works will affect the operation of the harbour and marina and officers from Engineering Services have met with the Harbour Master to discuss how the impact can be mitigated.

Appendices

None

Documents available in members' rooms

None

Background Papers:

The following documents/files were used to compile this report:

Structural Assessments – princess Promenade, Torquay – Structural Appraisal – Volume 2 - Calculations