

# **Deal Pier**

## **Maintenance Options**

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# **Deal Pier - Maintenance Options**

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(Including sketch plan: Deal Pier - General Arrangement)
2. **Public Consultation - Petition**
3. **Condition Surveys - Galbraith (Structural), Under Water, Present**
4. **Recent Work - Repair Contracts (excluding Routine / Minor)**
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  - **Demolition**
  - **Do Little (Keep Users Safe)**
  - **Phased / Complete Refurbishment**
6. **Funding - Maintenance / Capital, Programme / Interreg, etc.**  
(Including Updated Costing and Revised Cash Flow)

## **1. History, Lottery Bid, Cessation of Sinking Fund**

### **History**

Deal Pier was opened in 1957 and was the last pier of any length constructed in the United Kingdom since 1910. It is the only remaining pier in Kent.

It replaces a pier opened in 1863 which was partially lost in 1940 through enemy action and then demolished by the army to hinder any invasion.

The existing pier was rebuilt with Government Funding as a result of the strength of public feeling and action at that time. This strength of public opinion remains high as evidenced by the petition signed by over 33,000 people during the month of August 1997. These being both residents and visitors to the town. (Please see letters at the end of this section from Mr. and Mrs. B.A. Cakebread, Mr. J. Leverington, Mrs. E. Sykes and Miss G.M. Reilly.)

### **Lottery Bid**

A detailed and carefully prepared lottery bid was submitted in early April 1997. In July 1997 an Advisor to the Lottery Fund, Sir John Burnett and the Case Officer visited the Pier. Despite making positive noises at the time being concerned only that there was local support for such improvement (indications at the time were for a grant of £1.2m against our bid of £1.6m) we were advised on 2 October 1997 that our bid was unsuccessful as "In view of the substantial costs of the proposals, the Trustees considered that the scheme was not of sufficient heritage importance to justify Heritage Lottery Fund grant aid on the scale proposed."

### **Cessation of Sinking Fund**

This Council operated for some years a Deal Pier's Renewals Fund which had been built up over a number of years to meet abnormal and excessive maintenance, renewal and major refurbishment and avoid the cost falling in one year. However this had to be discontinued as CIPFA accounting guidelines prevented these type of funds being created and held in the Balance Sheet. The fund was discontinued in the year 1992-1993.

## **2. Public Consultation**

There was considerable public interest at the time of the lottery bid receiving local TV, radio and press coverage. Extensive reporting and support was given by the 'East Kent Mercury'.

Support for the Pier was given by local Ward Councillors and in August 1997 during the first five days of seeking public support, 7,000 people signed. Although hopeful of gaining support from 15,000 - 20,000; in one month over 33,000 people pledged their support. These were both residents and visitors, some who frequently visit Deal specifically to visit and enjoy the Pier. Copies of 4 sample letters received at the time are attached to demonstrate the breadth and depth of concern.

Support was received from many organisations and associations including:-

Dover Access and Mobility

Deal Town Council

Rotary Club of Deal

Royal British Legion

Deal and Walmer History Society

Various Sea Angling Clubs and Associations

Various Resident Associations

### **3. Condition Survey**

Surveys have been undertaken at regular intervals throughout the life of the Pier in order to ensure that the condition of the structure is closely monitored. Studies undertaken during the past fifteen years or so have included:-

- (a) **February 1977:** Structural Condition Survey of the Pier undertaken by Sir William Halcrow and Partners, designers of the original structure. Report recommended certain repair works in order to maintain the structural integrity of the Pier.
- (b) **June 1981:** Underwater Survey of support legs to Pier approach and Pier Head undertaken by Shiers Diving Contracts Limited. Report provides record of condition and makes no recommendations regarding action required.
- (c) **August 1985:** Underwater Survey of support legs to Pier approach and Pier head structure undertaken by Sea-Lift Diving Contracts Limited. Report provides record of condition for comparative purposes.
- (e) **February 1991:** Detailed Underwater Condition Survey of support legs to Pier approach and Pier head carried out by SAR Diving Limited. Report includes general comments as to the condition of the structure and includes specific recommendations to deal with the problem of marine growth and concerns regarding the progressive degradation which was noted to the concrete casing surrounding certain of the support legs.
- (f) **March 1993:** Full Structural Survey of super-structure in order to assess its structural integrity. Survey included testing of handrails, appraisal of mechanical and electrical services, and condition survey of buildings. Survey was undertaken by Galbraith Hunt Pennington. This survey has formed the basis for the work undertaken in recent years as noted below.
- (g) **July 1999:** Underwater Survey of Pier structure undertaken by Burgess Engineering Limited. Report provides a record of condition only and makes no recommendations as to action required.

As can be seen, there is a wealth of data available allowing a detailed analysis to be made on the condition of the structure and any changes over time.

The March 1993 report prepared by Galbraith Hunt Pennington is by far the most detailed condition assessment undertaken in recent years. The report included recommendations for urgent investigation and repair including costings which have mostly been undertaken and also noted the need to develop a planned maintenance programme for the structure. The following paragraphs are taken from Section 5.6 of the report and are quoted in full:

## 5.6 Planned Maintenance

5.6.1 *Having identified the most critical conditions of degradation to the Pier structure and identifying the priorities for further investigations and urgency of repair the next stage is to decide the future of the Pier and how best to proceed.*

5.6.2 *Dover District Council will need to decide what size of budget should be set aside to maintain the amenity. Either proceed on a crisis management basis and only deal with urgent problems to retain full use of the Pier with short term solutions patching up and strengthening dangerous parts of the structure, or, alternatively, plan for a period of maintenance repairs over, for example, say 5 years where each type of repair is undertaken to provide a long term benefit so that the Pier has a future.*

5.6.3 *We have set below a 5 year plan of action if a realistic budget can be found to arrest the degradation and control the cost and frequency of future repairs.*

### 5.6.4 Year 1

*To carry out a detailed evaluation of a full programme of repairs to include some destructive investigation to determine accurately the scope of major repairs together with budget costs for ongoing remedial work. Generally undertaking the work listed in item 5.3.*

### 5.6.5 Years 2 to 4

*To carry out structural repairs to cover all major items of work including all work listed in item 5.4. Contracts would be set up to create annual expenditure of approximately equal value designed to deal with the most urgent problems first. The work would include the following:*

- i) *Landing deck repairs*
- ii) *Promenade deck repairs*
- iii) *Pier approach repairs*
- iv) *Pile leg repairs*
- v) *Electrical and mechanical repairs.*

*The work could be phased in such a way that at all times the Pier will be in use with only part closure of various areas under repair.*

### 5.6.6 Year 5

*To carry out non-essential work such as major refurbishment of the restaurant, toilet and other shop facilities and possible redecoration of the Pier structure to improve its overall appearance.*

*5.6.7 Throughout the 5 year period we would recommend that a small works programme be established to carry out repainting of steel and timber surfaces to ensure corrosion and rot are not allowed to develop in this highly exposed structure.*

The plans developed since the 1993 report have been aimed at achieving this planned maintenance approach. A list of the main areas of work undertaken is included in Section 4. Lack of funding has prevented the introduction of a planned maintenance programme as envisaged, although this is now included within the capital programme for 2002-2003 and subsequent years.

Currently visual surveys continue to be undertaken by District Engineering staff on a monthly basis in order to ensure that the structure is maintained in a safe condition. Works identified during these surveys relate to matters such as the timber decking and other minor works.

#### **4. Recent Work - Repair Contracts**

During the past few years a number of contracts have been undertaken as part of ongoing maintenance and improvement works. These works are in addition to the general day to day routine works which are of a more minor nature.

**Mid 1994:** Reconstruction and improvement works to handrail support posts following recommendations made by Galbraith Hunt Pennington in their 1993 survey report.

**Early 1995:** Concrete repairs to underside of promenade deck (2 bays) and to South West corner of fishing deck (1 bay). Works involved removal and replacement of existing concrete casing to the steel support beams.

**Late 1995:** Further repairs to handrails and redecoration work.

**Mid 1996:** Substantial repairs to lower deck, handrailing and anglers huts following severe storm damage in February 1996.

**Mid 1996:** Conversion of part of store for use as disabled public convenience to rear of cafeteria.

**Mid 1996:** Repairs to West facade of cafeteria including improved ventilation to kitchen area and installation of disabled access ramp to cafeteria.

**Late 1996:** Concrete repairs to beams to main deck under cafeteria area. Works were started early in 1996 and then delayed due to storm damage to the structure. Works undertaken involved replacement of existing concrete casing with sprayed concrete finish.

**Mid 1997:** Installation of pumped sewerage system for Pier foul drainage system. Pumping station installed below cafeteria together with associated pipework on land to link with main public sewer opposite Broad Street junction.

**Mid 1998:** Installation of toilet and wash facilities within North toll house as part of improvements to facilities for Pier staff.

**Early 2000:** Temporary repairs to the structural steel columns to the sun lounge.



## 5. Options

(a) **Do Nothing:** This is not an option. As long as the Pier is in use by the public it has to be kept in a safe condition both for the public using it, and for as long as it remains, passing underneath it in boats, swimming, or on the beach.

(b) **Demolition:** It will be necessary to withdraw the steel piles and concrete casing from the sea bed to avoid possible hazards to navigation and the public through future erosion of the sea bed.

The costs of demolition and removal of the structure would be between £1.25 - £1.5 million.

(c) **Do Little:** **(Keep Users Safe)** This is the situation which has prevailed over approximately the last year. In addition to any reports from the Council's Pier staff and any special inspections following severe storms, the Pier is inspected mostly by the Council's Structural Engineer. Safety issues which include loose boards, handrailings, gratings, lights, possible loose concrete, etc., are addressed as necessary.

More major matters which are safety related and need to be addressed are:-

- i) The condition of the sun lounge which is suffering from rust corrosion to its steel frame - temporary strengthening of the frame has recently been carried out.
- ii) The surfacing to the Pier stem - this had a design life of about 20 years. It has been in place for over twice that period of time. Trip hazards have been repaired but it is likely that the asphalt is leaking, thus allowing water penetration into the structure. Although the asphalt should be replaced, this should be done after, or in conjunction with, any works to the concrete structure below. In this case it is possible to continue to keep on 'patching' the asphalt.
- iii) Handrails, etc., - it is important that these continue to be inspected and repaired as necessary.
- iv) Concrete structure - to maintain the Pier with a minimum of expenditure as long as it is open to the public, the Council will need to inspect all concrete and repair to prevent any spalling concrete from falling on Pier users or those underneath.

- v) The casing to the Pier columns continues to deteriorate. A 'do the minimum' policy may leave these repairs for a while. We should be aware, however, that the steel piles within the concrete casing will most likely continue to deteriorate and future repairs will therefore be more extensive and hence costly.

**(d) Phased / Complete Refurbishment**

Under this option, there would be a wholesale phased structural refurbishment of the Pier including the café buildings and finishes. The works planned would include:-

i) **Structural Works:**

- (a) **Support Piles** - the support piles comprise driven Larssen piles encased by precast concrete rings with insitu concrete infill and external concrete casing. The external concrete casing is now beginning to fail and significant cracking can be seen. The proposed repairs involve the removal of the outer damaged layers, the application of protective coating to the steel piles and the replacement of the damaged concrete by gunite with the application of a surface sealant.
- (b) **Structural Frame** - the concrete casing to the structural steel frame is steadily deteriorating allowing moisture to affect the steelwork. The refurbishment work will seek to remove the existing casing, undertake local repairs to the steel members as required and re-encase the beams with new concrete.
- (c) **Upper Deck** - the existing mastic asphalt surface is long past its design life and moisture has been able to penetrate to the deck. Localized repairs to the deck may be required and in addition the joints between individual spans need to be reconstructed in order to avoid future deterioration of the structure. The existing asphalt surfacing will be stripped away, new gullies installed, and new non-skid surface laid.
- (d) **Lower Deck** - the timber boarding to the lower deck is subject to regular damage during storm events. The introduction of metal grilles has been shown to reduce the damage caused by wave action and it is proposed to replace some 25% of the timber boarding with open mesh grilles. This will, it is anticipated, reduce future maintenance costs.

ii) **Buildings:**

- (a) **Repairs to Café Structure** - the surface finishes to the structure have reached the end of their lives. The works planned involve the removal of the existing tiled finish and the replacement with a treatment similar to that used on the West elevation in 1996. The existing windows have corroded beyond repair and require replacement and the roof covering also requires removal and replacement.
- (b) **Sun Lounge** - the sun lounge is giving cause for concern due to the amount of corrosion and temporary repairs have recently been undertaken. It is intended to replace the entire structure.
- (c) **Internal Works** - the planned refurbishment works would include further internal refurbishment to the cafe, public conveniences and amenity facilities.

iii) **Miscellaneous:**

A series of proposals are also put forward to deal with works required to the lighting and electrical system and to protect the services from the elements.

## **6. Funding**

The current year revenue budget for the Pier includes £36,000 for maintenance and £4,000 for storm damage. The latter is to meet the excess which applies to any claim made against our insurers.

The maintenance budget has been reduced so as only to meet the cost of works which must be carried out to enable the Pier to be kept open, i.e. following the Do Little option.

The Heritage Lottery Fund noted that the Pier was not listed. However, it is not believed that this was a major factor in their refusal to offer a grant. If listed, our future options of closure, demolition or refurbishment would be subjected to more constraints and regulation - and this is not recommended.

Enquiries have been made of DETR for special SCA and Government Office for the South East for funding under the INTERREG III Programme. The responses received by our Finance Department are shown below:-

A response has been received from C.J. Lambert, Policy Adviser at DETR, dated 3 February 2000. He has concluded that this authority's circumstances are not considered so exceptional as to meet the criteria set by Ministers for the issue of SCAs outside of existing programmes. He has, however, forwarded a copy of the correspondence to the Department for Culture, Media and Sport who have responsibility for tourism, the Pier being a major attraction for tourists. A response has not yet been received from this department.

A letter was received from the Government Office for the South East on 23 December 1999 saying that they would advise in March 2000 when we can submit proposals for the INTERREG III programme. A telephone call with Annie Norgrove from GOSE on 23 March 2000 confirmed that the bidding process for INTERREG III would not now begin until Spring of 2001. Ms Norgrove advised that we should contact GOSE just before Christmas to see whether the Deal Pier scheme is likely to be considered as part of this programme. This was done but it is understood still to be too soon to be considered.

Deal Pier: Option 4 Phased/Complete Refurbishment Works Programme 2001 to 2005

Element of Work	2001/02				2002/03				2003/04				2004/05				2005/06		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
1. Scheme Preparation																			
Project Approval		★																	
Design of Works/ Award of Contract			26.5	40	10	10	10	10	10	10	10	10	10	10	10	10	10		
Quarterly Costs £k																			
2. Construction Works																			
A; Structural Works																			
Landing Deck (North/South)																			
Main Deck																			
Small Boat Deck & Access Stairs (N/S)					433					433									
Quarterly Costs £k																			
B; Deck Surfacing Works																			
Grilles to Landing Deck (North/South)																			
Grilles to Small Boat Deck																			
Asphalt to Main Deck						75.8				75.8									
Quarterly Costs £k																			
C; Pier Head Buildings																			
Improvements to café and Entrance																			
Quarterly Costs £k																			
D; Utilities and Services																			
Upgrade existing services																			
Quarterly Costs £k																			
Total Cost																			
Quarterly Cost Summary £k	0	0	26.5	40	443	85.8	57.5	27.5	443	85.8	498	27.5	450	10	180	168	120.5		
Annual Budget Cost £k				66.5			614				1054					808		2662.6	