



Rough Order of Cost Estimate Nr 2A and Condition Report

01 August 2018

for

East Lindsey District Council

for

Sutton-On-Sea Colonnade

Gleeds Cost Management Ltd
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East Lindsey District Council (ELDC) has identified some areas of deterioration of the colonnade at Sutton-on-Sea. This includes but is not limited to exposure and corrosion of reinforcing bars, signs of surface cracking and complete degradation of an area of timber decking. All are visible along the colonnade over a length of approximately 120 metres (from beach huts 1 to 39). It is suspected that the deterioration has occurred on account of the age of the asset and exposure to chlorination and carbonation.

ELDC has asked, through the Perfect Circle / Scape framework, that a rough order of cost estimate be produced by Gleeds based on an inspection and condition report produced by AECOM, see Appendix A of this document. This summary will highlight the range of cost for the most financially sound option going forward.

This will allow ELDC to assess the viability of the proposed options with their Project Board.

The site is located on the East Coast adjacent to York Road in the seaside resort of Sutton-on-Sea, North Lincolnshire.

Information Received

Sutton on sea Interim Report 1-6-18 , Produced by AECOM
Sutton on Sea Colonnade Testing results FINAL VERSION
Sutton-on-sea Condition Report on Colonnade 2018-07-26
74386 57776 AECOM Sutton on Sea Conc Test Results

Assumptions

All costs associated with the beach huts are at this time Provisional pending discussions with ELDC. Nominal sums have been allowed for Compensation or Early Release etc. but will require further details to be provided from ELDC to agree the correct levels to be included going forward.

All current costs associated with repairs are high level and will require further reports and quantifying for a firm cost estimate to be delivered.

It has been assumed that the scheme would be carried out in one visit and no allowance has been included for phasing.

Within Option 1 and 3 - No consideration has been given to any potential requirement for the existing spine wall to be open to a Boundary Wall agreement between ELDC and the Environment Agency for joint ownership and the like after demolition of the ELDC asset. No costs for legal or other such costs have been included.

It has been assumed that an ongoing weekly inspection will be required by an Engineer between now and a potential start on site date (currently included as being 1 September 2019) to ensure the structure is sound and not a Health and Safety risk.

We have allowed for the existing concrete stairs to be retained and an allowance has been included for the construction of a new Tank room for the bowling green irrigation system.

Exclusions

Land acquisition costs.
Capitalised Salaries.
VAT.
Fees.
Finance costs.

Exclusions cont'd

Tender Inflation outside the timescales given.

Section 106 costs/Committed Sums .

Section 38/278/104/106 fees, charges & associated bond costs (other than those specifically highlighting within this cost estimate).

Client supervision, maintenance and management costs.

Archaeological works.

Flood risk / alleviation measures .

Dealing with contaminated material including invasive weeds.

Works associated with underground mine works / shafts / capping's etc.

Landfill tax.

Off-site reinforcement costs for Stats or Highways.

Disconnection of existing services / utilities and provision of fibre optic network.

Ground water monitoring.

Ecological works.

Water course diversions.

Works involving soft spots and the like

Works to existing drainage systems

No allowance has been made for poor ground conditions due to no available SI information. Therefore no ground improvements, capping etc. have been currently allowed for.

Any works to Public Right of Ways

Phasing of the works

Spine Wall Boundary Wall agreements and any associated legal fees

Works to remove beach huts temporarily and addition strengthening works and the like to the beach huts

Works to find/fix the existing water leaks within the structure

General Notes

This cost plan/estimate reflects prices based on current market costs.

The pricing basis of this preliminary budget estimate is current market conditions and should be reviewed at regular intervals of no longer than 3 months.

This preliminary budget estimate has been prepared from outline information only and we strongly advise that the consultants should be allowed to develop the brief further before any irrevocable financial commitment is entered into by the Client.

It should be noted that the construction industry is currently experiencing changing market conditions with the supply chain becoming increasingly selective in the opportunities they pursue. This is leading to some pricing volatility with projects being considered based on procurement route, risk apportionment, programme and the robustness of tender documentation. The number of 'major' tier one contractors both suitable and available for sizeable and/or complex schemes is becoming more limited with projects tending to be favoured where price and programme risk are fairly shared. In addition, the lack of contractor in-house resources coupled with the potential cost of tendering may also dissuade contractors from tendering. This is starting to have a knock-on effect generally.

Projects with potential pitfalls, inappropriate risk transfer and non-standard contract conditions may result in tendering opportunities being declined or they may attract a pricing premium.

It is therefore essential that all aspects of the project profile are fully considered by the client and project team in light of this current volatility. This should help ensure that project procurement is appropriate, project documentation is comprehensive and risk is effectively addressed.

Produced by: Matthew Miles

Checked by: Ann Bytheway-Thomas

Recommendations

Based on the reports supplied by AECOM (Sutton-on-Sea Condition Report on Colonnade 2018-07-26, Sutton-on-Sea Interim Report 1-6-18 and Sutton-on-Sea Colonnade Testing results all in Appendix A of this document) and the Gleeds costing exercise, the following recommendations can be presented to East Lindsey District Council (ELDC) with respect to the Sutton-on-Sea colonnade :-

For the structure to be used for the benefit of the public over the next 40 to 50 years a number of defects would need to be rectified.

Some of these defects are serious and are currently affecting the safe use of the structure as there is a high risk of small sections of concrete cover to the embedded steel reinforcement spalling off by ferrous oxide expansion from the high sections of the structure and falling and potentially injuring persons moving close to and/or within the structure.

This safety risk is expected to increase with time unless robust remedial measures are undertaken or parts of the structure decommissioned from its present usage.

The temporary safety provisions that have already been implemented on site in the form of a physical barrier fence and structural props to the enclosed area under the first floor and separating sections of the structure from public access, will need to be enhanced for robustness and maintained until a remedial proposal is implemented.

The defects have reached an advanced stage of deterioration so that local patch repairs are insufficient to safeguard all the structure for an extended life, and wholesale reconstruction of certain members is considered necessary.

Within this report there are outlined a number of remedial options that can be considered and budget figures apportioned to them.

It would also be recommended that the beach huts and sand build-up be removed / managed to prevent the structure from accelerated deterioration and to minimise the Health and Safety risk. These measures would assist in the prevention of ponding water from entering the structure through the already damaged sections and causing further damage / deterioration.

As the fascia and transfer beams which span over the public access to the North stairs to the promenade are not currently closed off from the public and are showing advanced signs of degradation, it would be recommended that these are inspected for safety at least every 10 weeks by an engineer with appropriate structural experience.

In summary:-

- 10 weekly inspections of the areas remaining open to the public
- Remove sand build-up and or relocate beach huts
- Enhance the temporary safety provisions and inspect on a 10 weekly basis
- Review Remedial options and budget costs to allow ELDC to select a preferred option to take forward

Gleeds and AECOM would be more than happy to assist ELDC in any further cost, structural design, tendering, contract documentation or site supervision of specific remedial measures should they pursue this as a project in the future.

			Comments
<u>Summary</u>			
<u>Remedial Works - Option 1 - Demolition</u>			
<i>These works comprise the demolition of all three sections of the structure, back to the Spine Wall and the making good of the upper slab etc. It also allows for the small access road to be grubbed up and replaced by a grassed area.</i>	£	574,673.86	
<u>Remedial Works - Option 2 - Major Renovations/Repairs and Decoration</u>			
<i>These works comprise the renovation / repair of the areas of defects as visually observed by AECOM that have multiple defects and are considered to be rapidly deteriorating leading to structural instability and would require rebuilding or supporting and other highlighted works.</i>	£	1,285,451.02	
<u>Remedial Works - Option 3 - Partial Demolition (North and South Sections) and Major Renovations/Repairs and Decoration (Central Section)</u>			
<i>These works comprise the demolition of the structure, back to the Spine Wall and the making good of the upper slab etc. to the North and South Sections of the Colonnade. It also allows for the small access road to be grubbed up and replaced by a grassed area.</i>	£	807,555.80	
<i>These works also comprise the renovation / repair of the areas of defects as visually observed by AECOM that have multiple defects and are considered to be rapidly deteriorating leading to structural instability and would require rebuilding or supporting and other highlighted works to the Central Section of the Colonnade</i>			
<u>Option 4 - Costs associated with Removal of Beach Huts and Sand build-up</u>			
<i>These works comprise the removal and disposal of the existing Beach huts and the initial removal of 'drift' sand from the colonnade.</i>	£	112,000.00	
<i>Onqoinq sand removal etc is excluded from these costs.</i>			

Ref	Item	Qty	Unit	Rate	Total	Comments
	<u>Remedial Works - Option 1 - Demolition</u>					
	PROVISIONAL ITEM					
	Isolation of all affiliated services or relevant diversions	1	Sum	50,000.00	50,000.00	Provisional until relevant Statutory Undertakers consulted
	Removal of existing timber beach huts; disposal off site	39	Nr	500.00	19,500.00	
	PROVISIONAL ITEM					
	Compensation allowance for Beach Huts 1-15	15	Nr	1,500.00	22,500.00	Cost for early termination of lease - cost to be reviewed
	Compensation allowance for Beach Huts 16-29	14	Nr	0.00	0.00	Owned by ELDC
	Compensation allowance for Beach Huts 30-39	10	Nr	1,000.00	10,000.00	Cost for early termination of lease - cost to be reviewed
	Remove existing metal balustrade	180	m	25.00	4,500.00	
	Demolish existing reinforced concrete structure; including suspended concrete slab, columns, café structure; ensure 'Spine Wall' is protected and left insitu, making good where necessary; Removing all arisings off site	2,040	m ³	45.00	91,800.00	
	Make good concrete slab; New edge slab of suitable marine environment concrete	240	m ³	275.00	66,000.00	
	New balustrade, painted and fixed to concrete slab	180	m	125.00	22,500.00	
	General allowance for decorations / making good					
	to newly exposed spine wall	390	m ²	12.00	4,680.00	
	to soffits of slab	160	m	12.00	1,920.00	
	Construct new Tank room for the bowling green irrigation system and pumps needs; rendered block walls and a new concrete roof; including moving and reinstatement of tank, pumps and affiliated pipework, commissioning etc.	1	Sum	50,000.00	50,000.00	Provisional pending design and M&E survey

Sutton-On-Sea Colonnade

Remedial Works - Option 1 - Demolition



Ref	Item	Qty	Unit	Rate	Total	Comments
	Grub up existing small access road; disposal off site;	720	m ²	28.00	20,160.00	
	Allowance for subsoil, topsoil and seeding to removed road	720	m ²	15.00	10,800.00	
	<i>Main Contractors Preliminaries</i>	15.00%		374,360.00	56,154.00	
	<i>Main Contractors OH&P</i>	2.60%		430,514.00	11,193.36	
	<i>Professional Fees</i>	15.00%		441,707.36	66,256.10	
	<i>Surveys</i>	0.00%		507,963.47	0.00	Included in Professional Fees
	<i>Risk</i>	10.00%		507,963.47	50,796.35	
	<i>Tender Inflation Estimate</i>	2.85%		558,759.82	15,914.05	Based on 3Qtr2019 Start on Site
TOTAL TO SUMMARY PAGE				£	574,673.86	

Ref	Item	Qty	Unit	Rate	Total	Comments
	<u>Remedial Works - Option 2 - Major Renovations/Repairs and Decoration</u>					
	Works to undercroft below timber floor to all the beach huts; clean out all heavy debris; costs include for temporary works and access	1	Sum	30,000.00	30,000.00	
	Repair to any water leaks into the undercroft; sealed	1	Sum	10,000.00	Excl	Works excluded pending further investigation into the cause.
	PROVISIONAL ITEM					
	Isolation of all affiliated services or relevant diversions	1	Sum	50,000.00	50,000.00	Provisional until relevant Statutory Undertakers consulted
	PROVISIONAL ITEM					
	Compensation allowance for Beach Huts 1-15	15	Nr	500.00	7,500.00	Cost for suspension of lease - cost to be reviewed
	Compensation allowance for Beach Huts 16-29	14	Nr	0.00	0.00	Owned by ELDC
	Compensation allowance for Beach Huts 30-39	10	Nr	500.00	5,000.00	Cost for suspension of lease - cost to be reviewed
	Temporary removal and reinstatement of existing timber beach huts;	25	Nr	1,500.00	Excl	Excluded pending further survey on condition
	Removal of existing timber beach huts; disposal off site	14	Nr	500.00	7,000.00	
	<u>North Section of Structure GLs B to N in AECOM Report, Appendix B (11 Bays)</u>					
	Allowance for works as per AECOM report; (Potential Remedial Options for Concrete Structure Elements items i,ii,iv,v,vi)	433	m ²	350.00	151,550.00	
	<u>Central Section of Structure GLs N to Y/Z in AECOM Report, Appendix B (12 Bays)</u>					
	Allowance for works as per AECOM report; (Potential Remedial Options for Concrete Structure Elements items i,ii,iv,v,vi)	239	m ²	300.00	71,700.00	

Sutton-On-Sea Colonnade

Remedial Works - Option 1 - Demolition



Ref	Item	Qty	Unit	Rate	Total	Comments
	<u>South Section of Structure GLs Y/Z to MM in AECOM Report, Appendix B (12 bays)</u> Allowance for works as per AECOM report; (Potential Remedial Options for Concrete Structure Elements items i,ii,iv,v,vi)	278	m ²	450.00	125,100.00	
	<u>General Repairs</u> Shot blasting to ageing RC Concrete	900	m ²	10.00	9,000.00	
	Exposed concrete surfaces repaired and over coated with a proprietary, anti-carbonation fairing coat	900	m ²	25.00	22,500.00	
	Painting to RC concrete; suitable marine quality paint grade	900	m ²	12.00	10,800.00	
	Works to strip out existing damaged M&E and replace or make good;	950	m ²	75.00	71,250.00	General allowance pending M&E survey
	Demolition of slab and replacement with a new insitu concrete slab; structural screed topping and mastic asphalt floor waterproof coating (equivalent to Fosroc Dekguard) to areas of low concrete cover (circa 15 to 20mm) hollow concrete and extensive spalling to soffits of first floor slab; Allowed to bays identified	650	m ²	300.00	195,000.00	
	Allowance for ongoing Inspection of structure and propping / hoarding for Health and Safety purposes; based on weekly rate between June 1 2018 and estimated Start on Site of 1 September 2019	14	wk	500.00	7,000.00	
	Allowance for hire of propping / hoarding for Health and Safety purposes; based on weekly rate between June 1 2018 and estimated Start on Site of 1 September 2019	14	wk	300.00	4,200.00	

Sutton-On-Sea Colonnade

Remedial Works - Option 1 - Demolition



Ref	Item	Qty	Unit	Rate	Total	Comments
	<i>Main Contractors Preliminaries</i>	15.00%		767,600.00	115,140.00	
	<i>Main Contractors OH&P</i>	2.60%		882,740.00	22,951.24	
	<i>Professional Fees</i>	15.00%		905,691.24	135,853.69	
	<i>Surveys</i>	0.00%		1,041,544.93	0.00	Included in Professional Fees
	<i>Risk</i>	20.00%		1,041,544.93	208,308.99	
	<i>Tender Inflation Estimate</i>	2.85%		1,249,853.91	35,597.11	Based on 3Qtr2019 Start on Site
TOTAL TO SUMMARY PAGE				£	1,285,451.02	

Ref	Item	Qty	Unit	Rate	Total	Comments
	<p align="center"><u>Remedial Works - Option 3 - Partial Demolition (North and South Sections) and Major Renovations/Repairs and Decoration (Central Section)</u></p> <p><u>Partial Demolition (North and South Sections)</u></p> <p>PROVISIONAL ITEM</p> <p>Isolation of all affiliated services or relevant diversions</p> <p>Removal of existing timber beach huts; disposal off site</p> <p>PROVISIONAL ITEM</p> <p>Compensation allowance for Beach Huts 1-15</p> <p>Compensation allowance for Beach Huts 30-39</p> <p>Remove existing metal balustrade</p> <p>Demolish existing reinforced concrete structure; including suspended concrete slab, columns, café structure; ensure 'Spine Wall' is protected and left insitu, making good where necessary; Removing all arisings off site</p> <p>Make good concrete slab; New edge slab of suitable marine environment concrete</p> <p>General allowance for decorations / making good to newly exposed spine wall to soffits of slab</p> <p><u>Major Renovations/Repairs and Decoration (Central Section)</u></p> <p>Works to undercroft below timber floor to all the beach huts; clean out all heavy debris; costs include for temporary works and access</p> <p>Repair to any water leaks into the undercroft; sealed</p>					
		1	Sum	50,000.00	50,000.00	Provisional until relevant Statutory Undertakers consulted
		25	Nr	500.00	12,500.00	
		15	Nr	1,500.00	22,500.00	Cost for early termination of lease - cost to be reviewed
		10	Nr	1,000.00	10,000.00	Cost for early termination of lease - cost to be reviewed
		100	m	25.00	2,500.00	
		1,377	m ³	45.00	61,965.00	
		80	m ³	275.00	22,000.00	
		210	m ²	12.00	2,520.00	
		70	m	12.00	840.00	
		1	Sum	10,000.00	10,000.00	
		1	Sum	5,000.00	Excl	Works excluded pending further investigation into the cause.

Ref	Item	Qty	Unit	Rate	Total	Comments
	PROVISIONAL ITEM Isolation of all affiliated services or relevant diversions	1	Sum	50,000.00	Inc	Included in Demolitions costings above
	PROVISIONAL ITEM Compensation allowance for Beach Huts 16-29	14	Nr	0.00	0.00	Owned by ELDC
	Removal of existing timber beach huts; disposal off site	14	Nr	500.00	7,000.00	
	<u>Central Section of Structure GLs N to Y/Z in AECOM Report, Appendix B (12 Bays)</u> Allowance for works as per AECOM report; (Potential Remedial Options for Concrete Structure Elements items i,ii,iv,v,vi)	239	m ²	300.00	71,700.00	
	<u>General Repairs</u> Shot blasting to ageing RC Concrete	503	m ²	10.00	5,025.00	
	Exposed concrete surfaces repaired and over coated with a proprietary, anti-carbonation fairing coat	503	m ²	25.00	12,562.50	
	Painting to RC concrete; suitable marine quality paint grade	503	m ²	12.00	6,030.00	
	Works to strip out existing damaged M&E and replace or make good;	239	m ²	75.00	17,925.00	General allowance pending M&E survey
	Demolition of slab and replacement with a new insitu concrete slab; structural screed topping and mastic asphalt floor waterproof coating (equivalent to Fosroc Dekguard) to areas of low concrete cover (circa 15 to 20mm) hollow concrete and extensive spalling to soffits of first floor slab; Allowed to bays identified	250	m ²	300.00	75,000.00	
	Construct new Tank room for the bowling green irrigation system and pumps needs; rendered block walls and a new concrete roof; including moving and reinstatement of tank, pumps and affiliated pipework, commissioning etc.	1	Sum	50,000.00	50,000.00	Provisional pending design and M&E survey

Sutton-On-Sea Colonnade

Remedial Works - Option 1 - Demolition



Ref	Item	Qty	Unit	Rate	Total	Comments
	Allowance for ongoing Inspection of structure and propping / hoarding for Health and Safety purposes; based on weekly rate between June 1 2018 and estimated Start on Site of 1 September 2019	14	wk	500.00	7,000.00	
	Allowance for hire of propping / hoarding for Health and Safety purposes; based on weekly rate between June 1 2018 and estimated Start on Site of 1 September 2019	14	wk	300.00	4,200.00	
	Grub up existing small access road; disposal off site;	720	m ²	28.00	20,160.00	
	Allowance for subsoil, topsoil and seeding to removed road	720	m ²	15.00	10,800.00	
	<i>Main Contractors Preliminaries</i>	15.00%		482,227.50	72,334.13	
	<i>Main Contractors OH&P</i>	2.60%		554,561.63	14,418.60	
	<i>Professional Fees</i>	15.00%		568,980.23	85,347.03	
	<i>Surveys</i>	0.00%		654,327.26	0.00	Included in Professional Fees
	<i>Risk</i>	20.00%		654,327.26	130,865.45	
	<i>Tender Inflation Estimate</i>	2.85%		785,192.71	22,363.08	Based on 3Qtr2019 Start on Site
TOTAL TO SUMMARY PAGE				£	807,555.80	

Ref	Item	Qty	Unit	Rate	Total	Comments
	<u>Option 4 - Costs associated with Removal of Beach Huts & Sand build-up</u>					
	PROVISIONAL ITEM					
	Isolation of all affiliated services or relevant diversions	1	Sum	50,000.00	50,000.00	Provisional until relevant Statutory Undertakers consulted
	Removal of existing timber beach huts; disposal off site	39	Nr	500.00	19,500.00	
	PROVISIONAL ITEM					
	Compensation allowance for Beach Huts 1-15	15	Nr	1,500.00	22,500.00	Cost for early termination of lease - cost to be reviewed
	Compensation allowance for Beach Huts 16-29	14	Nr	0.00	0.00	Owned by ELDC
	Compensation allowance for Beach Huts 30-39	10	Nr	1,000.00	10,000.00	Cost for early termination of lease - cost to be reviewed
	PROVISIONAL ITEM					
	For works following Winter Storms; Remove sand build-up from entire structure; including disposal;	1	Sum	10,000.00	10,000.00	Based on 2 men for 2 weeks clearance (say 2 days per storm for clearance)
	<i>N.B - No mechanical plant to be used on weakened slab</i>					
	<i>Main Contractors Preliminaries</i>	15.00%		112,000.00	Excl	Excluded - deemed to be undertaken by ELDC
	<i>Main Contractors OH&P</i>	2.60%		0.00	Excl	Excluded - deemed to be undertaken by ELDC
	<i>Professional Fees</i>	15.00%		0.00	Excl	Excluded - deemed to be undertaken by ELDC
	<i>Surveys</i>	0.00%		0.00	Excl	Excluded - deemed to be undertaken by ELDC
	<i>Risk</i>	10.00%		0.00	Excl	Excluded - deemed to be undertaken by ELDC
	<i>Tender Inflation Estimate</i>	2.85%		0.00	Excl	Excluded - deemed to be undertaken by ELDC
TOTAL TO SUMMARY PAGE				£	112,000.00	

APPENDIX 1

AECOM Site Pictures and Reports

AECOM Site Photos

Front Cover Colonnade GL 1



GL 1, G-H Fascia Bm Half-lap jt



GL 1, LL-MM Fascia Beam-Soffit-Wall



GL 1, LL-MM Fascia Bm



GL 1, LL-WW West Elev Sth end Fascia bm support



GL 1-2, U-V Slab Soffit Cracks & Spalled conc



GL 1-2, BB-AA Mt Joint cracks, rust, spalling & hollow Conc. Half cell survey



GL 2 G Confined space behind spine wall



GL 2 V-W Central Section Service void under hut No 23-24



GL B-D, 1-3 North end prom slab nr stairs Cracks



GL KK, 1-2 Slab soffit crack



AECOM Reports