

**Appendix 6: Officer response to Friends of Shoebury Common Technical Review included at Appendix 5**

<b>Question</b>	<b>Response</b>
<p><b>2.1</b> – 5.80 AOD is required to give a flood protection of 1 in 200 (0.5% AEP) whereas at Hinguar School planning application the same AOD was shown at a 1 in 1,000 (0.1%) risk. Why the difference.</p>	<p>See answer to question 7 of “Questions with no answers” sent to Mr Lovett on 10<sup>th</sup> June 2013</p>
<p><b>2.2.1</b> – Sand has been mechanically removed from this beach &amp; Thorpe Bay Yacht Club beach to reduce beach levels and improve the beaches at Chalkwell. This makes the topographic survey low. We attach pictures to assist</p>	<p>The substantive Cabinet Report acknowledges the possibility that the survey may have been carried out when beach levels were atypically low.</p>
<p><b>2.2.2</b> – The introduction of 6 new beach access steps for the disabled is just to increase overall costs for this scheme. The Council’s preferred option<sup>1</sup> is also using 5.8 AOD and will raise the existing access by identical amount, but have not included disabled access in their costs.</p>	<p>The existing layout includes 6 sets of access steps. B&amp;V have assumed that they would all be retained in any scheme. For the FoSC scheme, beach accesses would need to be rebuilt or substantially modified, in which case they would need to be DDA compliant.</p>
<p><b>2.2.3</b> – The existing East &amp; West sea walls have a residual life of 15 – 30 years. Shoebury Common wall was built in the 60’s, whereas the West is only “fair” and was built much earlier. Wave pressure would be considerably more at the West end with a beachside wall at over 2.5 metres high against Shoebury Common wall, which are only 0.6 metres high. In the preferred option, they can build a new sea wall (West of the Common) in front of the existing, but at Shoebury Common the council say they will have to beach re-charge to protect the existing wall.</p>	<p>The walls at the west end of the site were constructed to much more robust proportions than the east end wall. They are integral with a substantial base and extend the whole height from crest level to below beach level. Also, the ground levels increase towards the west, so that the ground retained behind the wall provides substantial support to the wall structure as a whole against wave pressure. The wall at the east end is a much lighter structure with limited ground support and depends on having been pinned down by dowel bars onto a non-rigid revetment, which constituted the original coast protection structure.</p>
<p><b>2.2.4</b> – A question was raised at the</p>	<p>The question at the consultation meeting</p>

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<p><i>consultation meeting as to how the Council were going to drain the water in the preferred option and the Council said this was not designed yet, but would “possibly” be with pumps? The Common is a great flood plain and all the water from the promenade drains onto the common. Once the promenade is raised by 550mm (22”), it will still drain back onto the flood plain, as happens at present. The only costs shown against drains, is the repair to the <u>existing</u> drains, as detailed by Black &amp; Veatch, in their cost breakdown given to us.</i></p>	<p>was concerning the drainage of the area between the existing and proposed walls and the most likely method of disposal of that water is by pumping.</p> <p>Drainage of any flood water resulting from overtopping of the improved defences for either scheme would be through the existing public sewerage system, which would ultimately employ the storm pumps in the Ness Road pumping station</p>
<p><b>2.2.5</b> – <i>We were told during consultation that the drawings for this wall could not be found, but when we were given a copy by B&amp;V, the situation changed. Common sense tells us that there is greater chance of a wall 2.0 / 2.7 metres high (above the beach) collapsing (West end), than on the Common where only the top of any wave surge that would have an effect. The Council can build a new 1.6 metre high wall, opposite Maplin Way, in front of the existing sea wall, without any structural changes to the existing older sea wall. Could this just be a “technical” blanket?</i></p>	<p>See 2.2.3 above.</p>
<p><b>2.2.6</b> – <i>Why is a beach re-charges just required along Shoebury Common, but is not required once you pass beach hut 401 Westward, where as we have said, the wall is much higher and at greater risk of collapsing under pressure? The council have already admitted that if the preferred option is to work, then the front line sea wall must be protected, but this is covered in a separate budget. Should this cost not be included in the costs now? In the BERA alternative scheme, they have included a beach re-charge,</i></p>	<p>Substantial beach levels are essential to the stability of the existing front wall in the FoSC scheme because construction of the new defence wall behind it both adds lateral load to it, and depends on its being in place to prevent undermining of the new structure. Therefore it would be essential that a substantial beach be maintained in conjunction with the raised promenade to ensure stability.</p> <p>The Council’s preferred option is more tolerant of varying beach levels and even</p>

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<p><i>but have also included a rock groyne to reduce wave pressure and to protect sand drift (West to East). Although groynes are included in our costs, NO GROYNES were included in the huge beach re-charge in 2002 from the Pier to the Halfway House Southend. We know from other schemes that they are important, but they can be omitted when it suits the Council.</i></p>	<p>partial collapse, through which, due to its set back position, it would still function.</p> <p>The groynes at Eastern Esplanade were not discarded on a whim, but as a result of advice following computer modelling of the beach by the Council's then consultant, Halcrow.</p>
<p><b>2.2.7</b> – <i>There are around 400 beach huts, 166 of which are on the common, but only 132 are effected and need to be raised around 550mm (22”). We had already approached a specialist company and although some huts are old, they were confident that they could be easily lifted using jacks, rather than by crane, which they said would be expensive. The huts would be lifted on jacks and moved north; ready to be replaced back on the new foundations once the work was complete. We were surprised how reasonable the cost would be. They have moved 700-year-old churches, so moving a wooden hut was an easy task. We have full backing from 95% of the hut owners, although there are a few we have been unable to contact. The council survey forms show 100% against the preferred option.</i></p>	<p>The Council has received no information on the cost of this method of moving the beach huts, and we note that the questions do not provide that figure. We understand that a number of them are bolted down to their base slabs, which may affect this proposal.</p>
<p><b>2.2.8</b> – <i>It is worth mentioning that despite offering to meet the council and discuss our proposals, no agreement was ever reached. There is NO water or electrical services at any of the beach huts. Some have a gas supply, so it should be easy to work out that the vertical inlet pipe to the gas metre needs extending by around 600mm. We have a cost around 25% of the cost allowed by the council. Transco are the only people</i></p>	<p>Black &amp; Veatch have only included for alterations to the gas supplies to the huts.</p> <p>We note the comment about simple extension of the service pipes, although this will be complicated by the proposed moving back of the huts by 1m, (not 500mm as suggested) in 2.2.10, which may result in the gas supply main having to be relaid.</p>

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<p><i>allowed to extend their inlet services.</i></p>	<p>The Gas undertaker is no longer Transco, it is now National Grid.</p>
<p><b>2.2.9</b> – <i>We have never professed to be experts, but the Council have moved these shelters before. Again we have a company that would undertake this work, using the existing shelters at a fraction of the cost allowed.</i></p>	<p>We believe that the figure included in Black &amp; Veatch’s estimates is reasonable, whether the shelters can be moved or require reconstruction.</p>
<p><b>2.2.10</b> – <i>The simple sketches submitted to the council clearly showed the new wall just in front of the existing, which would reduce the promenade by around 500mm (20”) We have never had this point raised before, but it would be a simple task of moving the huts back 500mm Northwards on the new bases, thus leaving the promenade width the same as existing.</i></p>	<p>The reduction is more of the order of 1m.  See 2.2.8 above</p>
<p><b>2.2.11</b> – <i>Again this is such an unfair technical criticism, although I am sure if we were asked, we could find the answer. However, I know from Leitrim Avenue and the Common, that even after a huge weather storm, like we had in August, the water soaks through the sandy soil within minutes, leaving a firm hard standing, as it has on the Common car park. If the underlying strata were London Clay, then surely this would hold the water and not act as a flood plain. The report from the soil at the Cliffs slippage showed to be mostly London Clay, which the Council are placing onto the Common, two metre high on the embankments and 1.2 metre over the whole grassed car park, until all of the soil is used. We are talking about 550mm (22”).</i></p>	<p>This is not unfair, it is a valid engineering concern. The sands and gravels are underlain by clay, which would settle, as described, under the surcharge of the heavy wall structure and the raising of the promenade. This would not only result in differential movement of the structure, but cracking and disruption of the relaid promenade.</p>
<p><b>2.2.12</b> – <i>Again we made it very clear that the slipway crest is 700mm below</i></p>	<p>Noted</p>

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<p><i>the MOD wall at 5.80 AOD. The slipway needs increasing in height by 700mm, with a 2-metre depth flat section (beachside), to allow the cars to access the beach. At present, because the ramp is peaked, the cars get stuck with their trailers. We had approached all interested parties, before submitting our brief proposals.</i></p>	
<p><b>2.2.13</b> – <i>Access to Uncle Toms is presently by concrete steps down. There is a slope both sides, which are used by disabled persons. Raising the beach huts and promenade by 550mm (22”) was another 5 steps and the incline was well within the disabled guidelines. We had designed with Peter Grubb (Uncle Tom’s) a design for this area, which included flower beds and a centre access, which we feel would have improved health &amp; safety, but have never been asked for any detail.</i></p>	<p>Noted</p>
<p><b>4.1.1</b> – <i>We only showed one floodgate at Thorpe Bay Yacht Club, but were also in discussion with the Club about trying to raise their boat ramp, with a raised “calming bump” across the main road to reduce car speeds. However, although we knew the promenade was going to be raised by 550mm at Shoebury Common, this would be lower as the main Thorpe Esplanade went uphill. If it was reduced to 300mm at this point, then we may not even need a floodgate.</i></p>	<p>To maintain the necessary wall crest level (5.80m AOD), the ramp would require to be lifted by 750mm if a gate were to be dispensed with. This would call for either a northward extension of the yacht club’s launching ramp, which would make the solid ramp running east-west inaccessible, or a lifting of both ramps.</p> <p>The carriageway, footway and cycle route of the esplanade would also require to be raised to accommodate the raising of the ramp. All of these additional works would cost a substantial amount of money, which has not been allowed for in the estimates.</p>

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	<p>We consider that the difficulties and costs involved in this proposal make it impracticable.</p>
<p><i>There is no reason to replace the existing shelters. We also never asked for lighting as the promenade would not change, unlike the increased risk of crime, with the preferred option, where lighting was essential. With the amount and weight of construction material being moved greatly reduced, onsite &amp; pre-construction works should be considerably less than the preferred option, but we have no details of the cost breakdown for the councils scheme</i></p>	<p>We are of the view that the shelters would not be amenable to being handled and moved, whether by jacking or craning, and that reconstruction would be the most practical way of dealing with them.</p> <p>Even in the present situation, the beach huts are subject to frequent vandalism. We believe that lighting would be a highly beneficial feature to install.</p> <p>The estimates take account of all construction and pre-construction necessary.</p>
<p><b>4.1.2</b> – <i>Cost breakdowns shown on this report are totally different to the breakdown given to us in April. Again it is unfair to include £245,448 in our costs for repairing the existing sea wall, when this figure is covered in a separate budget in the preferred option. £115,388 should be removed from our costs. Access between huts and into the car park etc, will be done with concrete / asphalt, to provide disabled access from the rear car park, between each hut, to the promenade. Asphalt will also be used in the car park. Why have they therefore included £533,122 for soil, we never asked for. There is no surface water drainage on the promenade or behind the beach huts, so why is</i></p>	<p>As stated above for paragraph 2.2.6, the condition of the existing front wall is fundamental to the overall stability of the proposed front wall. It would therefore be necessary in the implementation of this project to fully repair this wall at the same time as the construction.</p> <p>Laying concrete/asphalt accesses in the gaps between all the huts, at gradients complying with the Building Regulations requirements would be very expensive, and potentially far more destructive of the environment of the Common than a grassed slope would be. The cost of this is not included in the estimates.</p>

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*£76,923 allowed for drainage. Nothing would change from as existing.*

*It is very strange how our net construction costs at £2,608,467 becomes £8,565,852 as a total scheme value, an increase of £5,957,385 or 228% on cost. Place this against the preferred option at £4,600,000 net construction costs against £7,3000,000 as a total scheme cost, an increase of £2,700,00 or 59% on costs.*

The “soil” included is the fill material required to raise the promenade and create the embankment that the FoSC scheme would require to support the back of the footway. This would be the free issue material available as for the Council’s scheme. The cost of transporting, placing and compacting the material is £233k, not £533k as stated.

We accept that the figure inserted for drainage alterations may be deleted.

Your quoted net construction cost of £2,608,467 (£2,426,467 in B&V’s report) does not include the normal contract on-costs or contingency, nor does it include the necessary beach replenishment on which the project depends. Whereas your figure for the Council project, £4,600,000 is almost the total contract value. To make a true comparison, the figures which should be compared are:-  
FoSC £8,225,118 (plus costs connected with any beach hut renewal)

SBC £4,895,410

Notwithstanding that some minor items could be deleted from the FoSC scheme, the costs will never approach those for the Council’s preferred option.

**5 – Having spent a considerable amount of time, effort and being given free technical support from professional people & local companies, we take great**

We would acknowledge that the text on the Council’s drawings was too small. This was because the plans were being worked on up until the Saturday

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*exception to the conclusion notes. The council drawings placed on display at Shoebury library was an embarrassment, but we have never made this public or tried to gain “cheap” political points. Richard Atkins will confirm that you could not even read the graphics on the council drawings and any attempt to enlarge on the website, left blurred vision. The sectional views were also very misleading, showing the beach huts in clear view from the road with a 2 metre high wall and with the road being 1.8 metres lower than the promenade; it would be impossible to see the hut at all. Some of the pedestrians had bowler hat attire. Nobody knew that the car park was going to be raised by around 1.2 1.3 metres. Our drawing depicted both schemes to show the public exactly what would be seen, with horizon lines to show the angles involved. They were bright, colourful and at least displayed people in beachwear. According to the public, the only thing wrong with our drawings was that they showed the Council lacked technical support. This was a similar comment made at the two public consultation meetings. Having paid out over £100,000 to Black & Veatch in consultation fees to July 2013, to expect an organisation such as ours, to produce detailed construction drawings at no cost is disgusting. Considering, our design and detailed drawings have the backing of at least 83% of those involved is a tribute we are proud of.*

*Having read this report, even our supporters know more about our scheme than the council, despite having simple sketches with written*

before the exhibition opened, and by the time the final versions were available to check, no time remained to correct this.

We deny that our cross sections were misleading – they were produced solely using the level data from the original topographic survey and the design levels of the wall. The section locations were not selected to minimise the impact of the work – they were taken generally to illustrate the true nature of the proposals. The wall is nowhere 2m above the ground level at the base of the huts – in general it is 1.5 – 1.6 m above. Most beach huts are about 2m high, so they will remain as visible as indicated on the Council’s sections.

It was noted by Black & Veatch that the figures on your plans were very out of scale with the ground levels, so that the physical impacts of the FoSC proposals appeared to be drastically understated.

We have always respected the fact that your organisation is non-professional in this area, and have treated you with due respect. However, we cannot ignore the difficulties presented by your proposal when making recommendations for expenditure. The report by Black & Veatch is, we believe, a fair appraisal of the implications of implementing your scheme.



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<p><i>descriptions. However, although our scheme was not included at the consultation meetings or the online survey, it is nice to know that with the growing support, they felt the need to try and destroy any credibility it had</i></p>	
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