

HCRC has the following comments with regard to the applicant's 28 January 2020 Flood Risk Technical Note.

1) Failure to provide drawings

The applicant is aware that the current date for determination of this application is 30 March 2020, some 2 months after the date their Technical Note was submitted. Given the controversy this scheme has attracted and the very complex nature of the proposed flood risk mitigation, we maintain that the Council, Environment Agency and interested parties should not be asked to consider the proposed mitigation unless detailed drawings, including cross-sections, are provided. The proposed mitigation detailed by Watermans includes:

"The void structure proposed below Hampton Court Way Building has been modelled as 20m wide and 1m high, giving a cross-sectional area of 20m²". (para. 2.8)

"The proposed void is 20m wide and 40m long, giving a total area of 800m²". (para.2.11)

We are reasonably assuming that there are two voids sitting under the Hampton Court Way building but what is not clear is if there will be two voids (20m x 1m and 20m x 40m) or one void 20m x 40m x 1m at 800 cubic m. (Surely it is the cubic volume to contain water that must be critical and what the EA will be interested to know). Regardless, these are clearly important and substantive elements of the building which need to be detailed. The lack of detail gives us no confidence that the voids will be implementable or maintained properly.

The Environment Agency raised an objection with respect to the lack of drawings, as does HCRC. There is a possibility that the void structure will have subsequent unknown implications for the design, aesthetics and maintenance of the building. There is a reference at para. 2.7 to drawings in Appendix C. Preliminary Structural Design, however these are new drawings which should be subject to consultation. Also these new drawings do not demonstrate the position of the void/s in the layouts, or the siting below ground in section and in relation to the sunken woodland and River Ember. The drawings already submitted should be used, with amendments to show the void. See further comments on the plans below.

2) Viability.

The Council will be aware that the applicant has forecast a profit of £1.1 million on a project cost of £55 million. These financials were prepared by Alexpo's team in December 2018 and do not include the addition of numerous consultant reports, nor the addition of the flood mitigation voids.

We are assuming that additional consultant reports are running at £400,000 plus, and the void structure will cost over £750,000. We are therefore reasonably calculating that the scheme is no longer viable and request an update from Alexpo on the scheme financials.

3) Highways Layout

The Watermans 28 January 2020 Technical Note includes the following Drawing:

Proposed Highways Layout date 20 August 2018 ...0047 A03 at appendix C page 38. Inclusion of this drawing is unhelpful for a number of reasons. There have been subsequent changes to the proposed highways layout since this early draft and also changes to landscaping, etc. Alexpo conceded, for example, that the area adjacent to the River would categorically not be used for "vehicle loading", but have now included this. HCRC would want to raise an objection to vehicle loading at this point and we assume HRP would also.

Could the Council please consult Historic Royal Palaces on this matter, and also consult SCC regarding the revised highways layout, or alternatively withdraw this drawing and confirm which drawing they are submitting to the Council.

Given the quantity and complexity of new data in this technical report we would encourage the withdrawal of the current FRA and a replacement with an updated FRA. We would encourage the Environment Agency to support this view.

4) Layout Plans

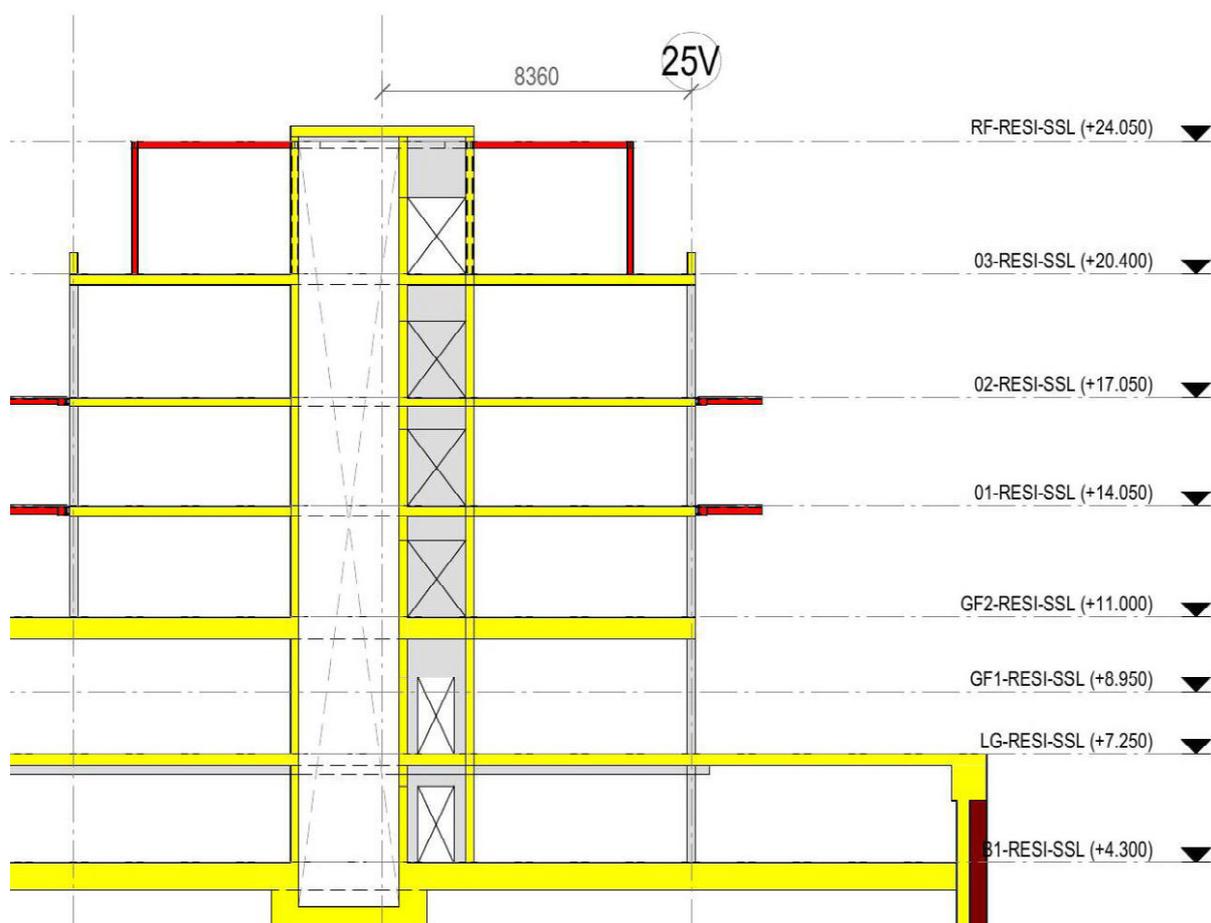
These plans are of no relevance to any void/s under the hotel. They are at Stage 2 plans of the structure for Building Regulation purposes. However, the Lower Ground Floor Plan099 P06 shows voids but are not marked up as water compensation storage tanks, and do not appear to be at the appropriate level, and the dimensions do not appear to fit with the text. Basement Level 10098 P06 does not show voids, and there is no layout for a lower void level.

The drawing numbers match the Allies & Morrison drawing number suffix parts, for example ...100/...101.../104 but whereas Revision P02 accompany the application we are now shown revisions at Stage 2 of P04 which makes us suspicious that there are further amendments. We note the hotel building is shown in the submitted plans as not having a basement or lower ground floor. There is a conflict in the design shown in these two sets of plans. For all of these reasons we reiterate our request for a new FRA.

5) 3D and 2D Drawings

We note that Watermans have included a number of 2D and 3D drawings in Appendix C (for example, see below), none of which have to date been included in this application. Watermans have provided a very cursory explanation for these drawings.

The drawings are illustrative and make a significant contribution by clearly illuminating a number of characteristics of the scheme, some of which are less than positive. These include the number of storeys visible from Cigarette Island Park (CIP). We note land levels in CIP adjacent to the site range from 7.4m AOD to 7.6m AOD and the base level for the ground floor is 7.25m AOD. This drawing puts to bed any notion that this development is anything other than five storeys.



The Allies and Morrison plans accompanying the application include many sections including three which show the hotel building in section in drawings ..._203 P3,..._204 P1 , and ..._205 P1. These should be the drawings used to show the void under the hotel. At present they do not show a basement or voids below the finished floor level illustrated at footway level. With the submission before us these drawings are clearly not accurate.

The 2D and 3D drawings are illustrative and fundamental to the application and should be added to the scheme portfolio of drawings and consulted on separately and not discreetly tucked away in a technical flood risk assessment update which few will read.

6) Additional Drawings Required

The south elevation of the hotel building is most likely to need amending as the text suggests (see para 2.14) that there will be an outlet, we assume below ground floor level, "facing the woodland garden".... with "vertical bars"..."at a minimum spacing of 140mm". We do not know the length of this outlet, it could be the full width of the building or the width of the void at 20m. This will be a significant change to the south elevation and needs an amendment to drawings ..._201 P3, and ..._205 P1 amongst others. The section through to the River Ember should be shown in detail as there will need to be more land remodelling to enable this outlet to discharge into the woodland garden which is currently shown as having a pathway around the south end at finished floor level. The description does not suggest the outlet will be below ground with discharge pipes stating that there will be open vertical bars.

We have deep reservations about the appearance of the south elevation with vertical bars at basement level and further ground level changes to the sunken garden. It is naive to think that the bars will prevent wildlife including rodents and birds from accessing the void. This is not a matter that should be subject to a Reserved Matters Condition.

The solution of an outlet to the sunken garden concerns us as this external sump may already be flooded if the levels rise on the River Ember at the same time as floodwaters from the north enters the hotel void. We understand that this sunken dell forms part of the flood defences incorporated into the 1970's Lower Mole Flood Alleviation Scheme which is currently under review. EA-should ensure their colleagues that manage this scheme are consulted to ensure the Lower Mole Flood Alleviation Scheme is not put at threat given that it is already under scrutiny.

Clearly the void will need to be designed to incorporate a gradient from the intake pipes to the outlet on the south elevation to allow it to empty with natural flows and so it does not require electronic pumping. This will require considerable excavation work and ground works that comprise an engineering operation and are within the definition of development, thus requiring planning permission. Such extensive ground works will have implications for archaeology, contaminated land, additional construction traffic and of course finances. These issues should be a material consideration at the main application stage and not be subject to a Reserved Matters Condition. Details that are suitable to cover via condition might include the maintenance and access arrangements for these engineered structures, and the flood defence barriers to the staircases and lifts above to protect users of the building during a flood event. This "Technical Note" devotes unnecessary detail in Sections 3 & 4 to maintenance of a system that is not yet designed which must be completely about face, and nonsensical.

7) Technical Update versus revised FRA

We question whether this document is appropriate and would encourage an updated FRA which includes all relevant information. The current document has significant omissions, drawings which have been superseded and a very cursory explanation of new, as yet, unseen drawings and it is not clear which parts of the FRA are superseded or ignored.

8) Flood Storage Loss Caused By Car Park Foundation Slab

As with the Environment Agency, HCRC are troubled by any scheme that contributes in any way to flood risk. We note that the entire carpark foundation slab sits at a level of below 4.3m AOD which is the mean summer river level. Therefore there is a very significant and permanent loss of floodplain storage caused by this development. We would welcome an assessment of the volume of flood plain storage that will be lost by the slab and how and where this will be compensated.

9) Trigger Levels

The applicant has assumed that flood levels will increase at uniform and sequential rates which are entirely predictable giving residents and other carpark users ample time to move cars out of the carpark. We challenge this thesis. Watermans in their updated FRA (Nov 2019) noted:

“While the proposed car park is set at 7.25m AOD the onset of flooding is controlled by the level of the land in Cigarette Island Park, which would remain as existing. With this in mind, flood levels would need to reach approximately 7.55m AOD to create a flow route to the Site, which is 0.85m (85cm) above the reported flood level in 2014”.

The low point of CIP is 7.4m AOD which gives a differential of 0.70m versus the 0.85m suggested by Watermans. We also draw interested parties to the underside of the rail bridge which sits just above the maximum flood levels from 2014 and will have an impact on flooding if river levels collide with the underside of the bridge.

Our argument is that the carpark would need to be closed well before it started to flood. This level should be determined as part of the main application and not within a planning condition. If for example the Environment Agency set the trigger level at current flood levels plus 75cm then we can assume that the carpark will be closed on a fairly regular basis and for an unknown duration.

10) Policy Assessment

We do not understand why the 2019 Strategic Flood Risk Assessment prepared by the Council’s flooding consultant AECOM to support Policy CS26 is not being addressed by the applicant. At page 50 under the sub heading Flood Voids at 5.7.5 there is a clear statement:-

“Sole reliance on the use of under-floor voids to address the loss of floodplain storage capacity is generally not acceptable on undeveloped sites...”

This site must be considered equivalent to undeveloped land as it contains nothing more than a tarmac covered car park and a single storey small building. It would appear that the adopted policy is being ignored, and the principle of a void is being forced upon the Council without being fully specified in location or dimensions. Thus in our opinion it is a fudged solution and suggests to us that the Council is putting extraordinary pressure on the Environment Agency to accept something that its technical flood prevention designers would otherwise consider to be an ineffective solution which is not implementable and is unlikely to be maintained, irrespective of any written agreement with the Council.

HCRC