Argyll and Bute Council
Development and Infrastructure Services

Delegated or Committee Planning Application Report and Report of handling as required by Schedule 2 of the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013 relative to applications for Planning Permission or Planning Permission in Principle

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Reference No: 18/01614/PP

Planning Hierarchy: Major Application

Applicant: Executive Director Development and Infrastructure Argyll and Bute Council

Proposal: Erection of new leisure building including swimming pool, improved flood defences, new car park including public realm works and demolition of existing swimming pool

Site Address: Helensburgh Swimming Pool, 1B West Clyde Street, Helensburgh

SUPPLEMENTARY REPORT NO. 4

1.0 INTRODUCTION

The purpose of this report is to advise Members of additional matters following continuation of the application at PPSL on 19 December 2018. Continuation of the item was requested in order that the Head of Planning, Housing and Regulatory Services could:

a) Seek further information from the Applicant to ascertain whether altering the location of the building would change the flooding risk factor leading to vulnerability of the building; and

b) Seek further advice seeking further reports from the Applicant on the impact of wave overtopping/wave action on the building.

By letter dated 21.12.18 the applicant has provided further information in respect of such matters. Details of which are set out below.

2.0 ADDITIONAL SUBMISSIONS BY THE APPLICANT TO ADDRESS THE REASONS FOR CONTINUING THE APPLICATION

In respect of the first reason for continuing the application relating to "*whether altering the location of the building would change the flooding risk factor leading to vulnerability of the building",* the applicant submits that:

The simple answer to this question would be an unequivocal NO, moving the building would not reduce the flood risk.

This is because the flood risk reduction measures that we have proposed in our application are designed to provide enhanced protection to the site in its entirety, as opposed to just looking to protect the Leisure Building.

In our proposals the flood risk reduction is delivered through the combination of a number of factors, including:

1.1. Raising the Finished Levels across the site –

- *+4.7m AOD for the car park – this is 640mm above the still water level in 2018 (4.06m AOD) and 310mm above the equivalent level (4.39m AOD) in 2060*
- *+4.8m AOD for footways - this is 740mm above the still water level in 2018 (4.06m AOD) and 410mm above the equivalent level (4.39m AOD) in 2060*
- *+5.1m AOD for the Phase 2 development area - this is 1040mm above the still water level in 2018 (4.06m AOD) and 710mm above the equivalent level (4.39m AOD) in 2060*
- *+5.4m AOD for the Finished Floor Level of the Leisure Building - this is 1340mm above the still water level in 2018 (4.06m AOD) and 1110mm above the equivalent level (4.39m AOD) in 2060*

1.2. Improved Sea Wall Defences and Rock Armour –

- *+5.9m AOD for the southern sea defence wall - this is 1840mm above the still water level in 2018 (4.06m AOD) and 1610mm above the equivalent level (4.39m AOD) in 2060*
- *+5.4m AOD for the eastern flood defence wall - this is 1340mm above the still water level in 2018 (4.06m AOD) and 1110mm above the equivalent level (4.39m AOD) in 2060*
- *+5.9m AOD for the section of the western flood defence wall adjacent to the existing slipway - this is 1840mm above the still water level in 2018 (4.06m AOD) and 1610mm above the equivalent level in 2060*
- *+5.4m AOD for the rock armour generally - this is 1340mm above the still water level in 2018 (4.06m AOD) and 1110mm above the equivalent level (4.39m AOD) in 2060*

1.3. Improved Surface Water Drainage –

- *Our surface water drainage system utilises a combination of gullies, ACO channels and weep holes, which ultimately discharge the surface water back out to the River Clyde.*
- *The discharge pipework is fitted with what are effectively non-return valves. This means that the water can only flow in one direction i.e. out to the river, so even if the still water level and/or maximum sea level (still water + 1 in 0.5 year wave height) is higher than the height of the discharge point, the sea water cannot come back up the pipe to flood the site.*
- *The ACO channels specified for the southern perimeter of the site have a capacity, which is significantly greater than the volume of water, which could 'overtop' the rock armour at high tide:*
    - *Along the southern elevation of the Leisure Building the ACO Channel has a capacity of 10.1l/s. The maximum overtopping volume at the rock armour in 2018 is 2.01l/s, rising to 5.13l/s in 2060.*
    - *Along the southern edge of the car park the ACO Channel has a capacity of 22.1l/s, with a maximum overtopping volume at the rock armour in 2060 of 3.65l/s.*

Our Flood Risk Advisor, Dr Yusuf Kaya (BSc in Civil Engineering, PhD in Civil Engineering Hydraulics, Chartered Engineer and Member of the Institute of Civil Engineers) has advised that 'The calculations show that should an extreme event of the order of 1 in 200 year return period occur during the design life of the development, any waves which <u>could</u> overtop the proposed defences <u>would not cause damage</u> to the building. Therefore based on the EurOtop guidance there is no justification for <u>moving the building</u> as the calculations show no damage at its current location.'

In response to the second reason for continuing the application to "*Seek further advice seeking further reports from the Applicant on the impact of wave overtopping/wave action on the building",* the applicant submits that*:*

Members concern focussed on whether a wave could reach the building and cause damage to it.

It must be stressed that there is a difference between a wave, a natural and physical phenomenon, and the spray created by it when it comes in contact with a stationary and immoveable object such as a flood defence wall.

Waves can't reach the building*, however, as will be explained in the following paragraphs, it would be possible that spray from some waves hitting the sea defences, would be capable of overtopping the defence.* ***None of that spray is capable of causing any damage to the Leisure Building****.*

There will be a greater volume of rainwater capable of hitting that side of the building, than there will be as a result of the spray that may occur.

WAVE OVERTOPPING / WAVE ACTION

The issue of wave overtopping/wave action is more complex and involved as compared to general flooding.

It is important to note the guidance provided in the EurOtop Manual (Second Edition 2016), which provides technical guidance on 'wave overtopping of sea defences and related structures'. This states that 95% of the volume of water, which initially overtops a flood defence, will have landed on the ground, within a distance which is equal to ¼ of the length of the wave which caused the overtopping.

For the site in Helensburgh this means that 95% of the volume of water, initially overtopping the sea defence, will have landed on the ground within 6.25m of the outer (seaward) edge of the flood defence. As we have set our Leisure Building back from the outer edge of the sea defence by 6.3m, this means that only a maximum of 5% of the volume water, initially overtopping the sea defence, would be capable of actually making contact with the building itself, before landing on the ground.

As previously stated in our response to Question 1 - ***The ACO channels specified for the southern perimeter of the site have a capacity, which is significantly greater than the volume of water, which could 'overtop' the rock sea defence at high tide.***

The overtopping rate is calculated in litres/second/linear metre (l/s/m) and the EurOtop Manual gives some guidance as to what rate would be considered tolerable. For a building behind flood defences and with doors and windows facing the sea an overtopping rate no greater than 1l/s/m is considered tolerable.

By raising the height of the southern flood defence wall to +5.9m AOD and setting the southern elevation of the Leisure Building back by a distance of 6.3m from the crest of the rock armour, we have calculated that the maximum rate of overtopping, which could reach the building, would be 0.80l/s/m in 2060. ***This is the equivalent of 40mm of***

water *for every meter length of* ***a building that is some 60m in length by 11m in height*** *which is well within what the EurOtop manual considers to be a tolerable level.*

Our Flood Risk Advisor, Dr Yusuf Kaya, has advised that 'Our Flood Risk Assessment report contains the best available guidance on the calculation and assessment of wave overtopping. ***It should be noted that the calculations being discussed are based on an event with a 200 year return period, which is a highly infrequent event that may not occur at all during the lifetime of the building****.*

'Wave overtopping is not an everyday phenomenon, and only occurs when there is the combination of a very specific set of circumstances: wind speed; wind direction; spring tide, all coming together to cause overtopping.

'The design places the building at a distance where no damage is predicted even during this extreme event*. In addition, there will be a drainage system behind the defences that will capture any water resulting from wave overtopping of the defences.'*

WHAT IS THE IMPACT OF WAVE OVERTOPPING/ WAVE ACTION ON THE LEISURE BUILDING?

The simple answer is NONE.

As our building has been set back 6.3m from the outer edge of the southern sea defence, and the maximum rate of overtopping during its design life will remain below 1l/s/m, the highest rate being 0.8l/s/m in 2060, we are confident that the leisure building will not be at risk from spray*.*

The fact that the Leisure Building is not at risk from overtopping hasn't prevented us from ensuring that the materials of construction are robust, resilient and designed, manufactured and fabricated for use in a marine environment, as you would quite rightly expect of competent and experienced professionals –

- *The south elevation will be formed using traditional blockwork cavity wall construction and faced with a "battered" random rubble natural stone base designed to be robust in appearance, provide protection from the elements and to minimise future maintenance.*
- *There will be six sets of windows, non-opening, set into the ground floor, and located towards the southwest corner. These are formed of glass set into a, Polyester Powder Coated aluminium, curtain walling window system.*
- *There will be an escape door from the plant room, of a flood proof security design, manufactured out of powder coated galvanised steel and providing flood proofing to its full height.*
- *The upper floor is formed primarily of glass set into a Polyester Powder Coated aluminium, curtain walling window system to combat the marine environment.*

The plant room louvres, which are located on the first floor are again Polyester Powder Coated aluminium to combat the marine environment

The submission concludes that:

The various reports, drawings etc., and more specifically the calculations provided in our Flood Risk Assessment report demonstrate that should an extreme event of the order of

1 in 200 year return period occur during the design life of the development, any waves which could overtop the proposed defences would not cause damage to the building. The same would be the case if the building was moved further away from the sea defences.

We trust that the above provides the necessary clarification to enable the members of the Committee to come to a determination on the suitability of our application.

Additional commentary in respect of representations by Dr Peter Brown are also contained within the submission. These are essentially a rebuttal of his representations on behalf of the Community Council, and therefore not a matter which it is considered appropriate to specifically include or comment upon on within this report. Full details can be viewed on the Council's website www.argyll-bute.gov.uk

3.0 FLOODING CONSULTEE RESPONSES

All flooding consultees remain content that the proposals meet necessary standards on flooding and drainage and offer no objections to the proposals.

SEPA have previously confirmed that they have no objection to the current proposals. The details of the updated sea defence measures, following review of the latest climate change data, are considered by this statutory flooding consultee to be acceptable.

SEPA consider that:

To summarise, we offer no objection to the proposed development for the aforementioned reasons which demonstrate that the proposal complies with the principles of SEPA guidance and SPP. In addition, upon review of the revised Kaya Consulting FRA Addendum (December 2018) and Technical Memo (Patrick Parson, 7th December 2018) which have been revised to include the best available climate change figures (UKCP18), we are satisfied that the proposed development should benefit from a flood risk betterment in comparison to the existing developed site where there is a clear coastal flood risk susceptibility.

The Councils own flooding advisor also offers no objection to the proposals on flooding grounds subject to the imposition of an appropriate condition. In response to the letter dated 21.12.18 from the applicant, the Council's flooding advisor has added the following additional comment by response dated 4.1.19:

The formal flood risk response on this application remains as per that of 10 December 2018 and the following is a comment upon the applicant's letter, dated 21 December 2018, to the Head of Planning, following continuance of this application in December 2018.

With respect to item 1) "Position of Building and Flood Risk", per the flood risk consultation response of 10 December 2018, the proposals remain acceptable with respect to protecting the building from the estimated joint probability 1 in 200 year flood event through 2060. Relocating the building on the same site would require the same type of flood protection measures to those proposed for the existing location (i.e. land raising, flood defences and drainage). The applicant's argument that moving the building would not reduce flood risk is therefore accepted.

As regards item 2) "Impact of Wave Overtopping/Wave Action on the Leisure Building", the applicant's information is acceptable with respect to the appropriate design standard for this location (i.e. the estimated joint probability 1 in 200 year flood event through 2060).

Officers can identify no reason to set aside the views of these expert consultees, both of whom offer no objection in respect of the current application.

4.0 ADDITIONAL REPRESENTATIONS

Since the production of the previous report additional representations objecting to the proposals have been received from

- Helensburgh Community Council
- Helensburgh Chamber of Commerce

These were reported verbally to members at the PPSL on 19.12.18 by Ms Davies at the start of the committee, and a short recess to allow Members to review and consider these late submissions was agreed. It is not considered that any new substantive planning issues have been raised in respect of the two submissions.

It is however considered appropriate to briefly comment that that the arguments relating to the cost of the proposals contained within both the Community Council and the Chamber of Commerce submission are not considered to be a material planning consideration in respect of this application. Costs will be for the appropriate committee to consider and any grant of planning permission which may be given does not compel any other part of the Council to thereafter implement the planning permission.

An additional submission in support of the application has been received from Ms Jacky Hood. No new issues are raised in this submission.

5.0 CONCLUSION

In respect of the first reason for continuing the application relating to "*whether altering the location of the building would change the flooding risk factor leading to vulnerability of the building",* the applicant confirms that:

The simple answer to this question would be an unequivocal NO, moving the building would not reduce the flood risk.

In response to the second reason for continuing the application to "*Seek further advice seeking further reports from the Applicant on the impact of wave overtopping/wave action on the building",* the applicant confirms that*:*

Waves can't reach the building, however….it would be possible that spray from some waves hitting the sea defences, would be capable of overtopping the defence. None of that spray is capable of causing any damage to the Leisure Building.

It should be noted that the calculations being discussed are based on an event with a 200 year return period, which is a highly infrequent event that may not occur at all during the lifetime of the building.

'The design places the building at a distance where no damage is predicted even during this extreme event. In addition, there will be a drainage system behind the defences that will capture any water resulting from wave overtopping of the defences.'

The Councils flooding advisor concurs with the above submissions.

In summary, it remains the view of officers that:

i. The proposal is in accordance with the policies of the adopted LDP.
ii. The proposal is in accordance with the approved 2012 Masterplan addendum.

iii. There have been no objections from statutory consultees other than Helensburgh Community Council.
iv. The proposal fulfils its role as a landmark building on this prominent and important site.
v. The new leisure facility will provide benefits for the whole community and also tourists and visitors to the town.
vi. No technical objections are raised on flooding matters which have now been fully addressed using the most up to date climate change information to inform the amended flood defence measures proposed.

6.0 RECOMMENDATION

It is recommended that planning permission be granted subject to the revised conditions appended to supplementary report no.2.

Author of Report: David Moore **Date:** 4.1.2019

Reviewing Officer: Sandra Davies **Date:** 4.1.2019

Angus Gilmour
Head of Planning, Housing and Regulatory Services