

06 August 2021

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Project No: 30730

UBRNSurf Group
Attention: Jonathan Howell

Dear

**RE: URBNSurf Sydney
Acoustic Report Update for DA Modification**

This letter aims to provide further information and clarifications regarding to the significant changes in the predicted operational noise level of the proposed URBNSurf Sydney towards its nearest receiver between Acoustic Report for Development Application, revision 04, dated 25/10/2017 and Acoustic Report for Development Application, revision 06, dated 17/06/2021.

Since the initial report issued in October 2017, the following changes has been made into the model:

- Changes to incorporate the terrain heights due to the landscaping in north western side of the wave pool as shown in Figure 1 below. As can be seen on Figure 2, this change in height have provided significant acoustic barrier towards Hill Road and all other receivers located in the North Western side of the pool.

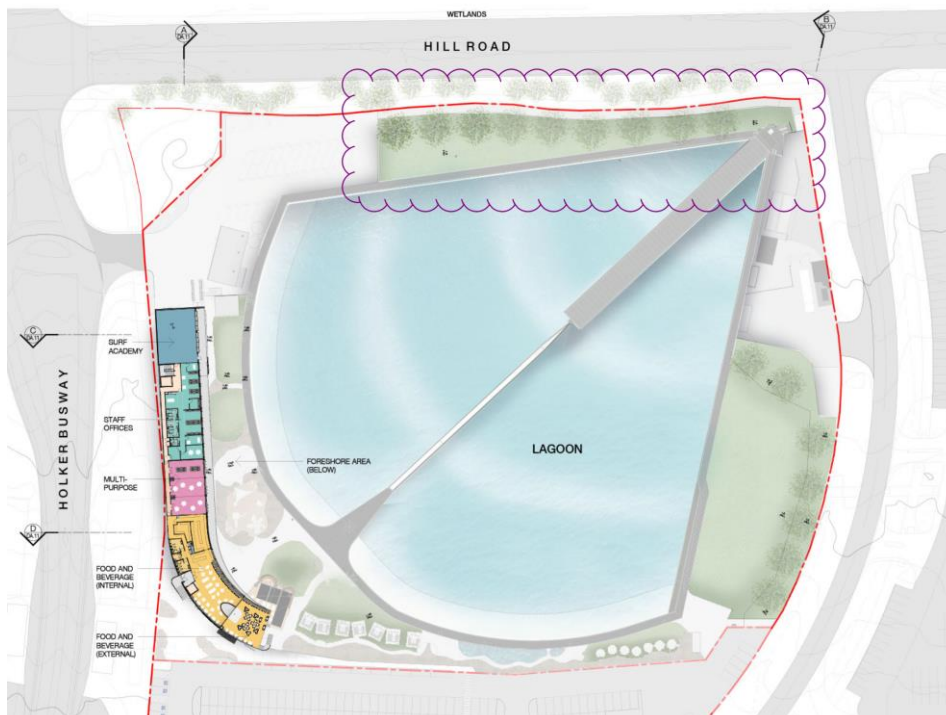


Figure 1: Location of the grass area which now been incorporated to the new noise model

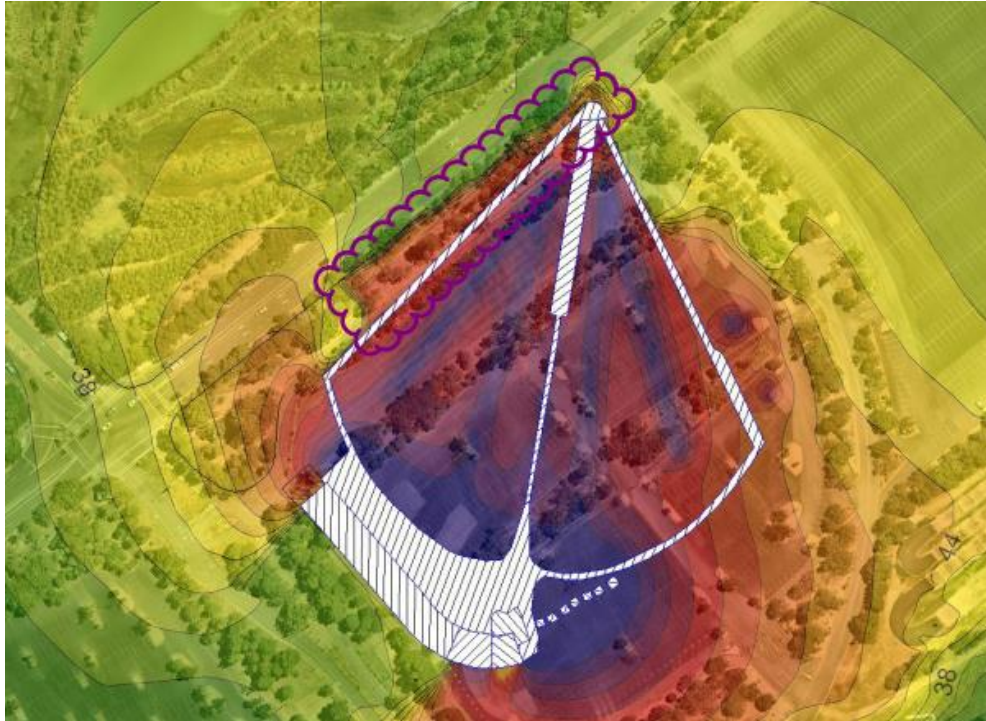


Figure 2: Noise model show the shielding effect from the grass event area

- Re-arrangement of the location of the patron noise areas. Initially, the patron noises have been modelled as a point sources concentrated in-front of the URBNSurf building as shown on Figure 3 below. Following the layout update of the wave park in 2021, it is in our understanding that the patron will be concentrated along the southern end of the wave park instead of the north-western side of the wave-park. Therefore, some of the point sources have been moved towards the southern end of the park as shown on Figure 4 to simulate the shift the concentration of the patron towards the southern end of the wave park. As the consequence, there are some noise reductions towards the north-western side of the wave-park.

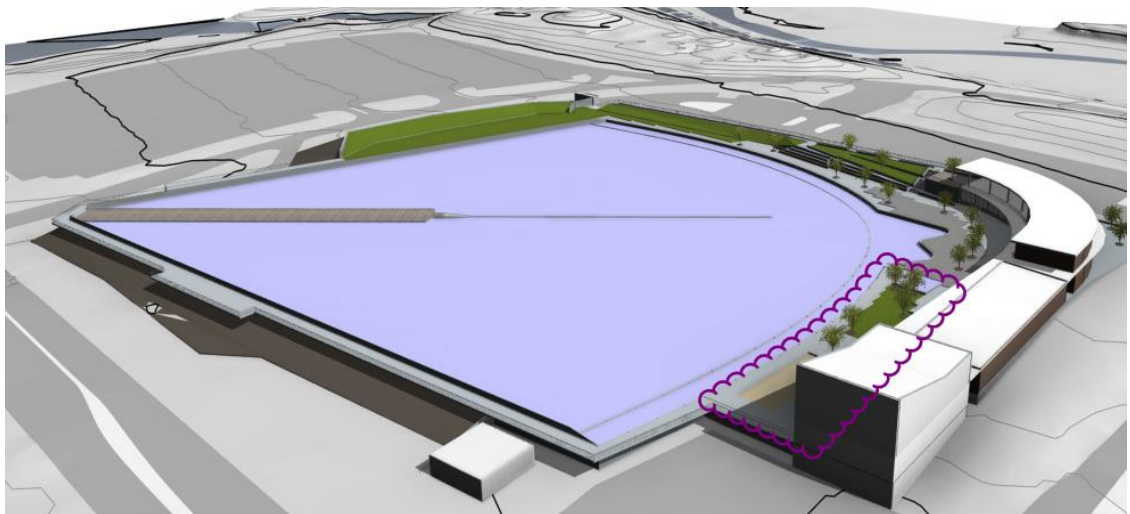


Figure 3: Initial location of the patron noise area (2017 Scheme)



Figure 4: Location of the patron noise area (2021 Scheme)

- Changes in the overall wave-park and main building. The 2021 model have also incorporated the changes in the overall wave-park and main building shape. Figure 5 shows the proposed wave-park design in 2017 whilst Figure 6 presents the proposed wave-park design in 2021.

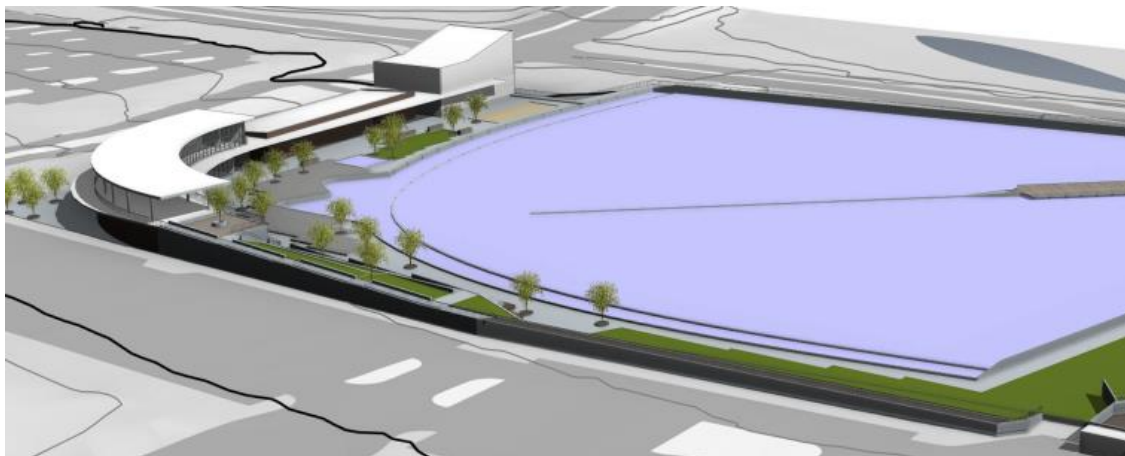


Figure 5: Overall wave-park layout (2017 Scheme)



Figure 6: Overall wave-park layout (2021 Scheme)

- Changes in the modelling software. The 2017 noise model have been modelled using the older SoundPlan v7.4. Whilst the 2021 noise model have been modelled using SoundPlan v8.2 which have a slightly different calculation method and parameters.

Based on the explanations above, it is in our opinion that the changes in the noise level at the nearest receiver as presented on our latest report Acoustic Report for Development Application, revision 06, dated 17/06/2021 can be expected.