

**DESIGN NOTE**

DOCUMENT CONTROL			
<b>DOCUMENT TITLE</b>	REVIEW OF STADIUM CONCERT NOISE	<b>REVISION</b>	R00
<b>DOCUMENT NUMBER</b>	102159	<b>ISSUE DATE</b>	12 <sup>TH</sup> JULY 2016
<b>PROJECT NAME</b>	TWICKENHAM EAST STAND EXTENSION	<b>AUTHOR</b>	M WHITE
<b>STATUS</b>	FOR INFORMATION	<b>CHECKED</b>	C GOFF
<b>ISSUED TO</b>	RFU	<b>PASSED</b>	C GOFF

A planning application has been submitted for the Twickenham East Stand Extension project.

To form a part of the planning application, a *Planning Noise Report* was submitted (VC-102159-AA-RP-0002-R04). This report considers the impact of noise from the new aspects of the development on nearby receptors based on a typical match day and non-match day.

Considerations included noise from mechanical plant, traffic noise, patron noise, breakout noise (from stadium bowl and from internal areas) and off-site hospitality.

Other than sporting events and hospitality events, the stadium is also used for occasional live music concerts within the stadium bowl. This was not included within the assessment as there is no material change taking place to the internal bowl or roof of the stand. There is also to be no change in stadium capacity as part of the development.

The following figures show a section through the existing and proposed East Stand. The figures clearly show that the general arrangement of the seating and roof has not changing.

The current East Stand has a semi-open outer façade. The proposed East Stand will have large extents of sealed glazed façade. This will improve the overall sound insulation of the façade and will reduce sound leakage via open vomitories to the bowl.

Assuming that the scale, operating level and frequency of concerts within the stadium remains the same, it is not expected that there will be any increase in noise breakout from concerts held within the stadium. There is likely to be some reduction in noise breakout to receptors to the east of the stadium.

Figure 1 Cross-section through East Stand (Existing)

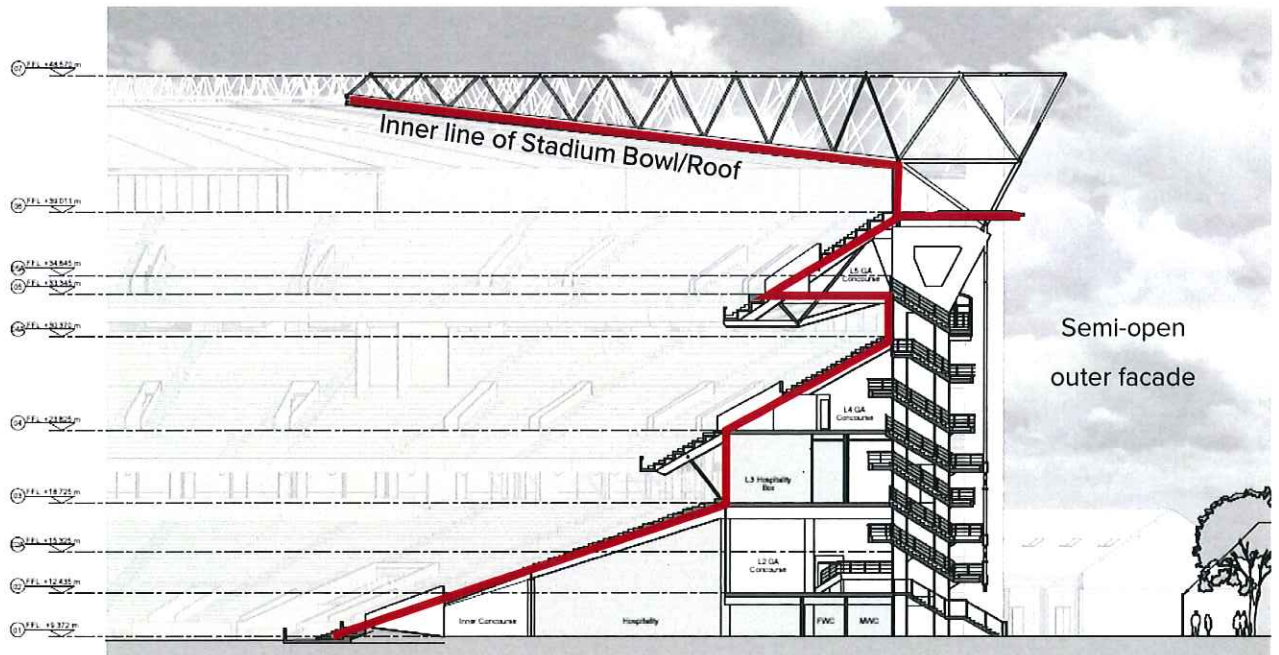
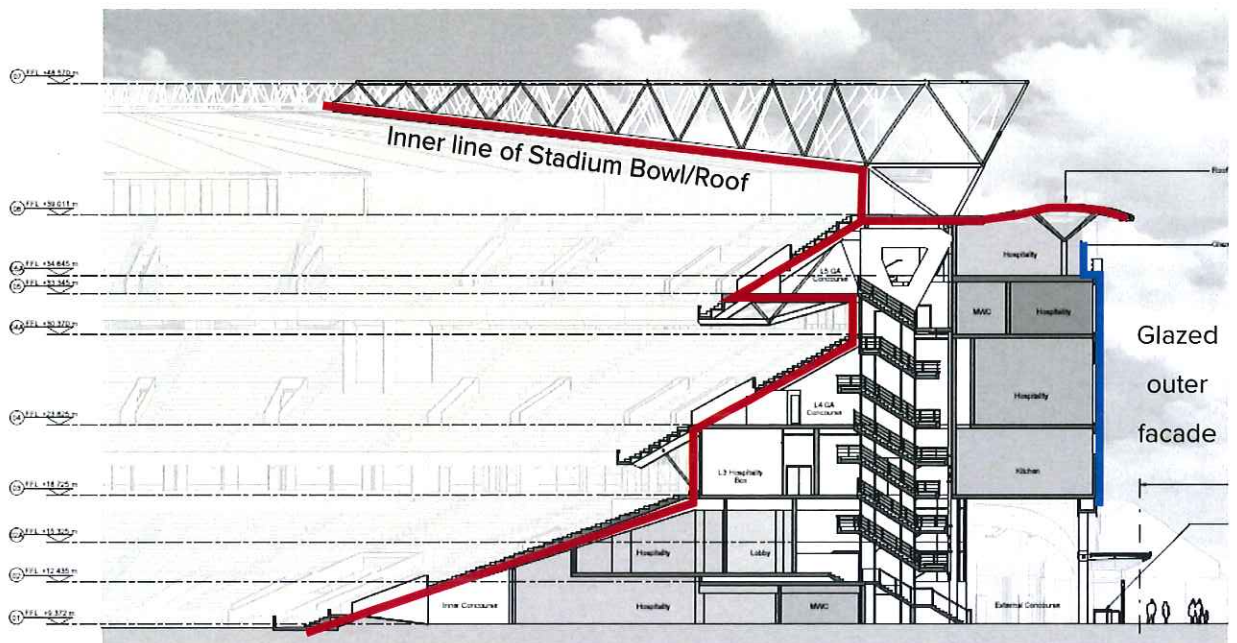


Figure 2 Cross-section through East Stand (Proposed)





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