MEMORANDUM

To:	H West (CTC)* V Chase(WSP)*		
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1. Background

During the design works for Koko auditorium, SVM Consulting Engineers (M&E Services) worked closely with the full design team to inform where ventilation equipment could be located. Several options were looked at for each system. Two of the options (more details set out below) would have more of an impact on the internal historical features and would result in further structural issues at roof and other levels. Therefore, the current location of the ventilation equipment that has been installed and therefore, the location of the louvres, was seen as the best option in terms of retaining the integrity of the listed building.

Further comment as to why options 1 and 2 were not seen appropriate have been provided below.

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2. SVM Comment on Options

2.1 Option 1 – (Re-Routing Ductwork to Roof)

Key issues associated with this potential option.

- Revising ductwork routes to the roof will require strip out of ceilings and local wall finishes to gain access to the existing duct connections and local breaking out of walls / slabs etc to install new ducts through completed areas which will cause disruption. It was seen by the design team that removal of these listed features would have a detrimental impact on the listed building.

- With this option ductwork would need to run through the escape staircase which would result in a reduction of the width of the corridor. The design team believed this would have implications on the fire strategy and would impact on the ability for people to escape is there was a fire.

- The existing ventilation units associated with these ducts would need to be reselected / replaced to ensure required ventilation rates are maintained, extended duct routes will require reselection to overcome increased system ductwork resistances. Plant replacement will result in significant disruption to completed areas / finishes. The design team view was not only would this result in further alterations to the listed features internally, but this would also have a significant implication on the operations of the venue.

- This option indicates ducts would be re-routed to communicate with atmosphere at roof level penetrating floor and roof slabs which will result in significant disruption as above. The design team view was further works internally would be required to be undertaken which would result in further alterations to the listed building.

- The ductwork / terminals on this roof will need to be accessed for inspection / installation, as indicated on the photograph in the report there is no existing access to this roof so safe maintenance access will need to be provided.

Option 2 – (Re-Routing Ductwork to lower levels)

Key issues associated with this potential option.

- Revising ductwork routes to lower levels will require strip out of ceilings and local wall finishes to gain access to the existing duct connections and local breaking out of walls / slabs etc to install new ducts through completed areas which will cause disruption. It was seen by the design team that removal of these listed features would have a detrimental impact on the listed building.

- The existing ventilation units associated with these ducts would need to be reselected / replaced to ensure required ventilation rates are maintained, extended duct routes will require reselection to overcome increased system ductwork resistances. Plant replacement will result in significant disruption to completed areas / finishes. The design team view was not only would this result in further alterations to the listed features internally, but this would also have a significant implication on the operations of the venue.

- This option indicates ducts would be re-routed to communicate with atmosphere at lower levels penetrating floor slabs which will result in significant disruption as above.

- This option indicates ductwork being re-routed through the AV/IT room. This room is already extremely congested with safe access to electrical racks at minimum clearances. Installing further ductwork will further compromise this. From an operational point of view there will be risk of creating dust and dirt while installing rerouted ducts which could be detrimental to the complex IT/AV equipment installed with risk to building operations.

- This option revises ductwork intake to lower levels. As indicated in Part F of the building regulations ventilation air intakes should not be installed at low level / should be installed as high as possible to avoid intake of pollutants – a clear issue here with heavy traffic adjacent to “low” level intakes in Crowndale Rd.

3. General Comment

It should be noted, as encountered during the original works, that there were concealed features in the listed areas that may only become apparent when further opening up is carried out which would further impact on the above options.

The design team therefore believed the current louvre option was the best location to retain the important features of this listed building whilst also ensuring that Koko can operate effectively.