28 June 2024

Ms Katherine Vintiner
Principal
Hampton Court House
Hampton Court Road
Richmond-upon-Thames
LONDON
KT8 9BS

Our Ref: DLD/2377

Dear Ms Vintiner

REPORT NO 3

DRAMA ROOM – DRY ROT IN ROOF
HAMPTON COURT HOUSE

Following our initial reports dated 04 September 2023 and 19th October 2023, further inspections were carried out on the Drama Room on 19th March 2024.

Findings – Refer to attached indicative plan for location
In addition to the reported findings in our previous reports, we carried out a basic level measurement survey of the roof structure. There is a dramatic drop in the roof level in excess of 110mm at the junction of the sloping hip and the upper horizontal central lantern roof structure.

Conclusions
Having reviewed the latest survey evidence, we consider it now appropriate to provide new structural supports to the underside of the existing roof profile. Such supports would comprise profiled steel beams that will be suitably shaped to follow the existing ceiling profile and transfer the weight of the roof to the outer walls. The introduction of the steel beams will avoid the need for the full roof structure to be replaced.

In our previous report No 2 dated 19th October 2023, early investigations carried out then had suggested that the roof would likely need replacement, however on further investigation it is now considered that the introduction of the steel beams will allow the existing structure to be retained, From a heritage perspective, the approach of introducing steel beams is considered to be more heritage sensitive, as it will allow more of the building's existing fabric to be retained.

Recommendations
We attach our updated structural drawings showing the recommended steel structure that should be constructed beneath the exiting ceiling profile.

I look forward to hearing from you.

Yours sincerely

[redacted]

Declan Duffy BSc(Hons) CEng MIStructE MICE MIEI
Chartered Civil & Structural Engineer
Director

Photos
Structural Drawings

Photos

Photo 3/1
Main roof rafters

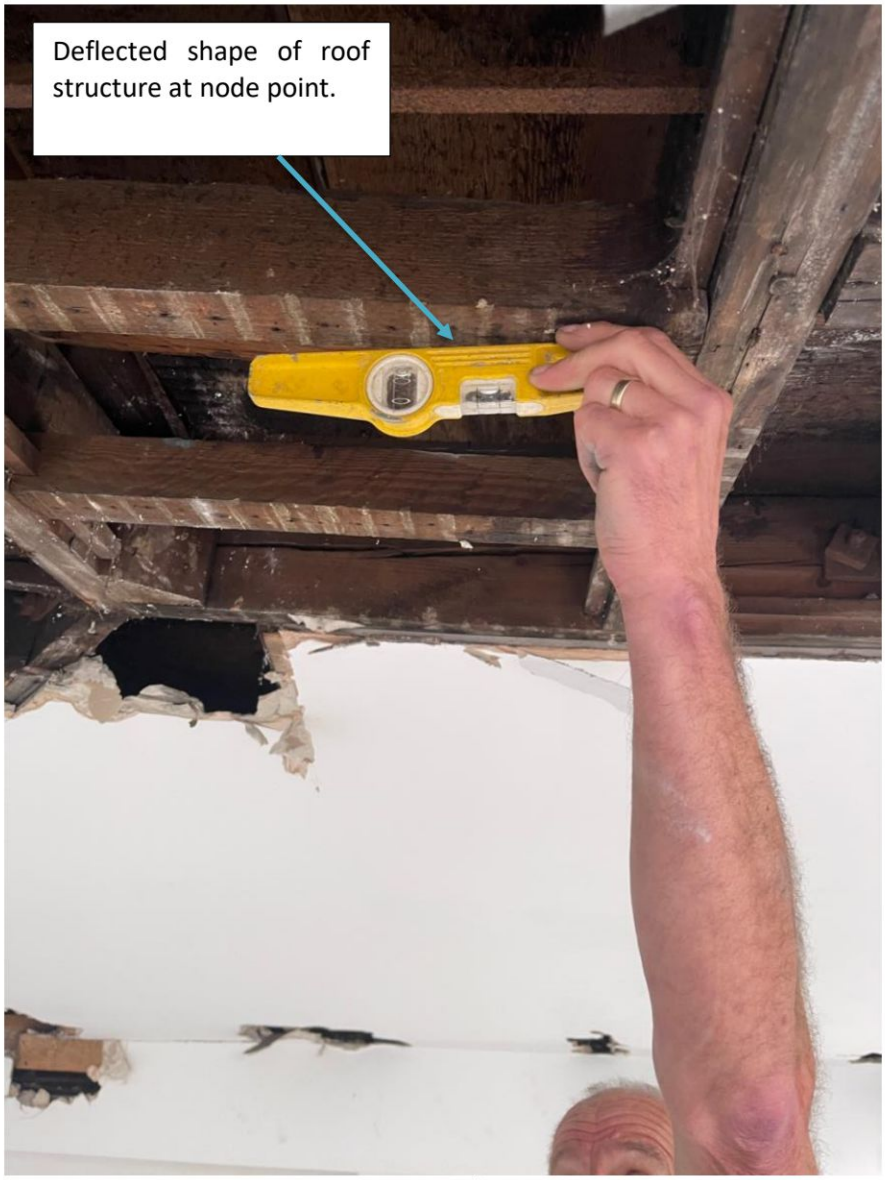

Photo 3/ 2
Deflection at Junction