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Our Ref: 22146

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Dear Graham

UCAS Rosehill, New Barn Lane, Cheltenham

This report has been prepared following a simple visual inspection of the remaining external boundary walls to the West of the estate due to recent removal of vegetation with a view to summarise its current condition and stability while making recommendations on the remedial measures that could be considered.

This letter should be read in conjunction with the observations and recommendations given in my letter dated 23.12.2022.

#### Site observations

- 215mm wide freestanding masonry wall
- Height varies from approximately 1800 to 2100mm
- Movement joints filled using foam void fillers
- Restraint across movement joint is poor
- Trees in the near vicinity
- Substantial Laurel hedge growing over wall recently removed
- Tarmac movement due to tree roots

#### Discussion

The review focuses on the remaining sections of wall to the North West of the site which have been fitted with tell-tale survey, monitoring devices which indicate that the masonry panels have moved through a vertical rotation, in recent months. It was noted that much of the vegetation immediately adjacent to the wall has been reduced/removed. Given the extent of the vegetation it is possible that it has been sheltering the wall while also placing a lateral load on the face due to its growth.

The panels do not appear to be tied together effectively and as a result should be considered as individual panels and only partially restrained at the intersect with adjacent panels. This was particularly apparent with one of the panels which could be rocked when pushed laterally by hand. It was also noted that the walls were very slender with a 215mm thick wall stem and a wall height of approximately

2100mm in places. This exceeds the allowable slenderness ratio of the masonry wall when considered against design guidance for walls of this nature.

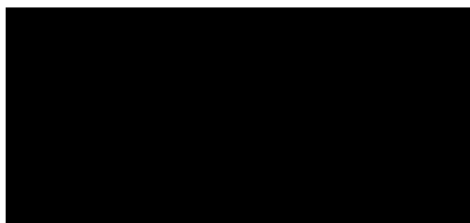
Although there is no evidence to suggest that the wall is at risk of imminent collapse, it is very exposed to wind. It is understood that the works associated with the Gloucestershire Cycle Spine scheme will be taking place immediately adjacent to the boundary walls in question. There is a concern that the vibrations associated with the forthcoming works could potentially lead to the walls movement being accelerated and could potentially render the wall unsafe for workers in close proximity.

On this basis, I would suggest that the wall is rebuilt prior to the works commencing or alternatively the wall could be braced temporarily and rebuilt once the cycleway work has been completed.

Given the height of the wall it is suggested that it is reduced to comply with the maximum height given in the current rebuild design. Alternatively, the height of 2.1m could be maintained but a new design will need to be put together to comply with current guidance.

### Conclusion

Although it is believed that there is life left in the wall panels, they do not comply with the slenderness recommendations given in the current design guidance. This combined with the forthcoming adjacent works could lead to the wall being compromised and potentially unsafe to workers and therefore it is recommended that the wall is either rebuilt or braced during the construction works to then be rebuilt at a later date.



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