Eldreds

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TECHNICAL ADVICE G1603-TA-02-E2

Project	10 CLORANE GARDENS NW3 7PR	**Project Ref**	G1603
Subject	Planning application 2015/6734/P and 12 Clorane Gardens	**Date**	28/10/2016

Revisions:
E2 28/10/2016 1st revision: typing errors corrected.

1 Purpose

1. I write at the request of the owners of 12 Clorane Gardens in connection with the Campbell Reith Audit Report version F1 dated July 2016, prior correspondence and further to my previous submission dated 26th February this year, reference G1603- TA-01-E2.

2 Damage

2. I am pleased to note that the applicants' advisers now recognise the structural sensitivity of 12 Clorane Gardens to nearby excavation caused by the difference in founding level between its front part and its basement at the rear.

3. That said, they have calculated the risk of damage to No 12 arising from the No.10 basement construction by a method which is completely unsuited to the configuration of No.12 and seems to have been employed in preference to a proven alternative in order to provide a desired result.

4. An email dated 8th July 2016 from the auditor to the Architect stated … *As advised on Wednesday we were concerned that your statement with respect to predicted building damage appeared to leave matters open ended. The purpose of the BIA is to provide assurance that the stability of neighbouring structures is maintained and that any damage to affected properties will not result in considerable inconvenience to their occupants.*

5. *I would suggest that you provide a predicted damage category on the clearly stated assumption that the affected buildings are in sound condition and then undertake to carry out condition surveys in advance the construction works.*

6. In responding on behalf of the Architect, an email from Gabriel Geo Consulting, which is dated 14th July and is appended to the audit report, first stated quite correctly that the Burland method of damage assessment cannot be used in this situation. It then proceeded to use just that same method in a way that ignores the theory, logic and deformation characteristics of the Burland model [1] and relies for its validity on what

the author of the technical submission claims to have been "extensive experience". But that assurance has no substance without proof.

7. The audit report does not expressly accept the response. But it does not reject it either and to those whom the report is intended to advise, the term "final audit report" used on the Camden website can only mean at least passive acceptance.

8. At this point I refer back to my previous submission. There can be no doubt that if as predicted by the BIA, the construction of a basement at No.10 caused ground below the front wall of No.12 to settle by 3.6 mm relative to the basement foundation, the building damage risk for No.12, calculated by the simple but best method currently available [2], would be Category 2.

9. That method is fully reported, is logical, can be applied to a wide range of configurations, and derives from large scale practical modelling, numerical modelling and correlation with real building damage carried out in centres of excellence in North America and UK. The full reference for the method provided below was also given in my February submission.

10. The conclusion must be that the application still fails to satisfy the requirements of DP27 in respect of damage to neighbouring property, indicating a need of more detailed ground movement analysis or better design, or both.

3 Workmanship

11. Throughout the BIA and continuing in the email appended to the audit report, major reliance is placed upon good standards of workmanship being achieved during construction. It is stated throughout that such standards will be necessary and it is assumed they will be achieved.

12. This is an assumed fact for which there can be no evidence at the planning stage or, indeed, until the work is done. Workmanship is not controlled by the planning process and even less by the applicant's technical advisers and the auditor. It will be determined by a contractor who will not be appointed before planning consent is granted. Thus assumption of good workmanship is not an acceptable basis for an opinion about compliance with planning conditions.

13. This is emphasised by the fact that, in 2015, 50% of basement schemes inspected by HSE failed its statutory requirements.

14. Therefore, the futility of the reliance placed upon good workmanship, simply increases the margin by which the scheme currently fails to satisfy DP27.

15. Perhaps an alternative approach might be to decide the amounts of movement that can be tolerated by the building of No.12 in currently sound condition without being excessively damaged. Then, provided the design makes them practicable, to specify those amounts and where and how they are to be measured independently of the contractor. The specification could be included for contract implementation via an S106 agreement.

16. The Party Wall etc. Act is not the vehicle for such detailed specifications, particularly when it is realised that although party wall surveyors have some influence, they can neither specify what shall be done, nor supervise its execution.

4 Other matters

17. In their email of 14th July appended to the audit report Gabriel Geo Consulting state plainly their opinion that the construction of No.12 is not in accordance with good building practice. An earlier comment to the same effect was made in a published letter to the Architect dated 4th March. This followed my February comment that they had made their risk assessment for the wrong wall in No.12, because they had not accounted for its basement and difference of footing levels between front and back of the house. The Camden planning website had furnished that information about the building configuration.

18. The 4th March letter also opined that the owner of No.10 should not be responsible for damage to No.12 which was associated with "deficiencies in the No.12 foundations".

19. The basement addition was subject to planning consent and Building Regulations approval, both of which were granted, with completion certified in October 2007. The house is stable, without significant structural defect (as the applicant's party wall surveyor knows) and there is no reason to suppose that it will suffer such defect unless by reason of the proposed basement at No.10.

20. When, as in so many cases, enquiry and investigation reveal building features that are sensitive to adjacent excavation the task and legal duty of applicants and their advisers is to accept that situation and take extra care about their work, not to criticise another's property for causing them difficulty.

21. The letter of 4th March appears to have been commissioned as a commentary on both Dr de Freitas' and my own earlier submissions in this matter. My only other response to that letter is to make clear that nothing within it causes me to change any

of the opinions expressed in either of my technical advices G1603-TA-01-E1 and G1603-TA-01-E2.

22. Finally, a series of emails that preceded that of the 14th July were not published on the planning website but have since been made available by enquiry. They contain fragmented comments and explanation of matters affecting the surface water drainage and SUDS assessment for the proposal. The author of the technical content of those emails is not identified. There is a need for a consolidated report on surface water drainage and SUDS issues that is attributable to a competent author and evidences the final provisions which the auditor has considered to be satisfactory.

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References:

[1] CIRIA Special Publication 200 (2001) Building response to tunnelling: Case studies from the Jubilee Line Extension London: Vol 1. Projects and methods.

[2] Cording, E., Long, J., Son, M., Laefer, D., and Ghahreman, B. (2010) Assessment of Excavation-Induced Building Damage. ASCE Earth Retention Conference 3: pp. 101-120