TABLE 1 DDA Project 1343 - 41 Howitt Road Technical issues in the Chelmer (CCS) response July 2015 – Re-assessment against DDA's BIA Revision E (June 2016) DRAFT 21/09/2016				
Item	**GCL Ref**	**Topic**	**Response input**	**Topic Resolved:** **Topic Not Resolved:** ☒
1	2.1.3 2.2.19 2.2.20 2.2.21	Damage to neighbouring properties	The assessment follows CIRIA guidelines. Burland category of damage 2 is acceptable, as per Section 2.31 of Camden Planning Guidance "CPG4 Basements and lightwells" Document. Also verified by Mr. Alex McDougall (Camden Senior Planning Officer), in December 2014, over a telephone conversation.	☒ 1. The damage category has still not been calculated in accordance with CIRIA/ Burland system, because there is no vertical heave/ settlement assessment and no deflection. 2. Separate assessments will be required for No.39 and No.43 because they are at different levels. 3. Paragraph 2.30 of CPG4 2015 states that for Burland Category 1 or higher the Council
2	2.2.3	DDA qualifications	Qualifications required fully met in DDA BIA Revision D Report: Surface flow and flooding: 'a ***hydrologist or civil engineer specialising in flood risk management and surface water drainage'*** Land stability: ***Chartered Engineer 'specialising in ground engineering' or a 'geotechnical specialist' or 'with some proof of expertise in engineering geology' and demonstration of land stability must be undertaken 'with demonstrable evidence that the assessments have been made by them in conjunction with an Engineering Geologist (CGeol)*** Groundwater flow: ***Hydrogeologist with "CGEol" Chartered Geologist*** See DDA BIA Revised Report: Section 0.4-page 12	Surface flow: Resolved. Alex Halfin meets the required competencies. ☒ Land Stability: CPG4 requires the "*demonstrable evidence*" that the Land Stability assessment to be carried out "*in conjunction with*" a Chartered Geologist – no evidence has been provided to show that Ian Marychurch (or any other CGeol) provided that scrutiny.
3	2.2.4, 2.2.6 2.2.11	Extent of underpinning to neighbours	Basement under no. 43 is partial so need to underpin the remainder of the length of wall 41/43. DDA drawings revised. See DDA BIA Revised Report, Appendices 2 and 5.	2.2.4 & 2.2.6: Resolved. ☒ 2.2.11: Still does not identify risks to adjoining houses where not underpinned, so our previous comments still apply. Needs to be amended as per Section 0.3.
4	2.2.5	Justification of all responses in Scoping	All answers justified. See DDA BIA Revised Report: Section 1-pages 20-24	Closed.
	Screen-ing	Known areas of flooding	CPG4 (Surface flow and flooding screening flowchart, Q6) now requires specific reference to the Camden SFRA (URS, 2014)	Addition required to paragraph 1.3.1 Q6 – the site is in Critical Drainage Area Group3_005.

5	2.2.7 2.2.18	Groundwater levels	1. Rising head permeability test complete, as per CGL recommendation. See DDA BIA Revised Report: Section 1.4-page 25 and BIA Revised Report, Appendix 9. 2. Basement to be designed as tanked. See DDA BIA Revised Report: Appendix 2.	Resolved - The new data suggest a slow inflow rate, although the response zone is not identified, which severely limits the interpretation of the results. Section 4 still allows for "*hydrostatic pressures of water up to ground level*", which is appropriate.
6	2.2.9 2.2.13	Groundwater flow	Thames Water to be contacted so as to receive information regarding foul and water system in the area.	Resolved re change in infiltration. ☒..Uncertainty regarding whether the existing rear patio discharges to the mains drainage system has not been resolved, which means that DDA's claims of no adverse effect on the public sewer cannot be substantiated. Tunnels & services search: see Item 8 below. (Also please note: Our para 2.2.9 concerned private drains, not Thames Water's adopted drains).
7	2.2.12 3.2.4	Arboricultural Impact Assessment	See DDA BIA Revised Report: Appendix 6	Our para 2.2.12: Resolved. The Category U tree to be removed (Tree 4) is now identified as the 8m high pavement Cherry tree. ☒ Our para 3.2.4: This might have the potential of causing heave below No.39, which was recognized in the Scoping but has not been covered in the impact assessment or mitigation sections. Thus, our concerns of differential movement between No's 41 & 39 and the rear part of no.43 remain valid.
8	2.2.12	Services survey	The electricity and gas intakes were found under the floor where Trial Pit 2 was dug (the meters are on the wall immediately outside). The sewer was also located underground (2.7 metres down) by the hand auger for the borehole. Sewer and services locations to the Trial Pit drawing. Copy attached, dwg. no. 1308.22a.	☒ The recommended services search concerned adopted services; the new information concerns only private services. DDA have removed, inappropriately, the recommendation for a services search from the Land Stability Screening.

			See DDA BIA Revised Report: Section 2.2-page 27	
9	2.2.14 3.1.2	Borehole / trialpits	Trialpits dug. See attached document. See DDA BIA Revised Report: Section 4.0-page 30.	Resolved. Information (including drawing) is on pages 8 & 9, not on page 30).
10	2.2.15	Clay cohesion value from Albury	See DDA BIA Revised Report: Appendix 8 (Letter from Albury)	Resolved. c' = 0 has been adopted for analyses. (Albury's guidance for London Clay has not been adopted, correctly, because while c' values of 5kPa (or higher) can be measured in laboratory tests at shallow depths, in our experience they are seldom used in design for Weathered London Clay).
11	2.2.17	Risks of groundworks	DDA understand the risks inherent in underpinning schemes for residential basements: See DDA BIA Revised Report: pages 8, 9 and 33.	Closed (see page 30, not pages 8 & 9). The two sweeping generalizations previously identified remain in place, although the first has been moderated slightly. Our previous recommendation that "a suitably experienced/ competent ground engineer should be appointed for the duration of the groundworks" remains valid and appears to have been accepted (see Item 16 below).
	2.2.20	Mitigation	Mitigation measures are required by CPG4, paragraphs 3.26, 3.30 & 5.12 (and Camden case officers have specifically requested a summary in the past). New Section 4.2 added.	☒ Mitigation of the effects of underpinning cannot reasonably be delegated to the Party Wall Surveyor, as proposed! The several other proposed mitigation measures all relate to routine process control; the mitigation required by CPG4 involves design changes to reduce the potential impact of the proposed scheme.
	2.2.21	Monitoring	Monitoring proposals were vague, with no identification of locations or frequency of readings, etc. Locations now added to Drg No.1343-010-P4 and new Section 4.1 has been added (page 32)	Resolved, provided monitoring is as per BIA Section 4.1.
12	2.2.22	Retaining wall design	See DDA BIA Revised Report: Appendix 5	Resolved. See k_0 checks on pages 101-104 of revised BIA.

13	2.2.23	DDA Drawings	Retaining wall matches thickness of wall over. See DDA BIA Revised Report: Appendix 2 (Drawings 1343-010, 1343-011)	Resolved.
14	2.3.1	Previous damage	See note in DDA BIA Revised Report: Section 1.2-page 22	Resolved (re Stability Screening Q7).
15	3.1.3 2nd bullet	LBC's Development Policy DP27	See DDA Report pages where linkage to DP27. See DDA BIA Revised Report: Page 3, Section 0.3-page 11, Section 3.0-page 29, Section 4.2, page 32, Section 5.0-page 36	Resolved (see pages 12, 30, 33 & 37).
16	3.3.2 2nd bullet	Construction measures	DDA advised and client agreed that a Ground Engineering professional specialist is to be separately appointed once planning permission received. See DDA BIA Revised Report: Section 4.0-page 30.	Resolved. We recommend that this appointment **should be applied as a condition to any consent.**