

HAVANT BOROUGH COUNCIL

Town & Country Planning Act 1990

Consultation on Planning Application

MEMORANDUM

From:	Environmental Health	To:	Development Control
Our Ref:	CONS/23/03500	Your Ref:	APP/22/00492
EH Case Officer Extn:	44 6677	Date:	26 January 2024
DC Case Officer:	Ms Josephine Lacey		
DC Case Officer Extn:	4317		
Application Number:	APP/22/00492		
Site Address:	31A North Street, Emsworth, PO107DA		
Proposed Development:	Construction of 6 No. Dwellings (2No.1bed, 3No.2bed 1No.3bed) with associated out buildings and parking, with minor amendments of design and siting - Revision of APP/19/00854.(23.11.22) Request to discharge condition 2 (05.07.23).		

Observations / Comments:

I have reviewed the following documents in connection with this application;

- Ground Condition Consultants (GCC) Remediation Strategy 26/10/2023 Ref: J22-014-R02 Rev6.0
- Parchow Groundworks Ltd. Cover System Validation Report 28- & 29-/09/2023 Ref: PGW001
- Parchow Groundworks Ltd. Cover system validation report overview document dated December 2023

Environmental Health has previously reviewed & accepted a ground gas & vapour protection validation report under condition 2, our ref: CONS/22/00492. Comments made under that reference remain valid, and the only outstanding issues were in relation to the execution of clean cover and protection of (potable supply) services.

The report overview document was produced in response to some questions raised informally by Environmental Health, arising from a review of the PGW001 document.

Taken together, the Parchow Groundworks documents provide a reasonably representative record of the groundworks undertaken.

As has already been highlighted in informal discussions, what has been evidenced appears to fall short of the approved remediation strategy J22-014-R02 Rev6.0 ('the RS'), for the following reasons (paragraph/section references refer to the RS);

- Cover system depth appears to have achieved around 80% of that approved (500mm cf. 600mm approved)
- Made soils have been retained on site.
 - Parchow has assumed patio areas to be permanent hard cover, referring to the text of 4.2 as justification.

- Unfortunately this assumption is contrary to prior discussions and the wording of the section referred to, which states "...while *parking spaces and pedestrian access routes are considered permanent hard standing, patios and other amenity hardstanding should not be considered as permanent **and should be subject to the installation of a cover system thickness equivalent to that of the soft landscaped areas.***" (my emphasis).
- Some limited areas of soft-landscaping appear to have been retained in the area of retained made soils (within the private garden areas)
- The Hi-Vis Terram geotextile has not been shown to have been lapped up against the retained made soil to prevent soil mixing (via bioturbation) – an implicit requirement with reference to the principles of the tree-pit-design outlined in 4.3.3.
- It does not appear that text-based 'do not dig' warnings have been applied in conjunction with the hi visibility geotextile to communicate its purpose, as per 4.3.2 of the Remedial Strategy
- There is a possible discrepancy between the volume of imported topsoil & the stated requirement (for the clean cover system)
 - Based upon revised calculations which account for the achieved cover thickness & the retained made soils (reducing the requirement from a stated 114cu.M to 82cu.M); the potential shortfall ranges from 33.5cu.M (deficit) to -6.1cu.M (surplus), depending on bulking ratios used.
 - It should be noted that of the delivery tickets provided, upto 17cu.M appears to have been delivered to alternative addresses (in Southampton & Rowlands Castle), and that deliveries of between 29 & 46 cu.M are only referred to in the narrative text. No delivery tickets presented for purchased from Emmerson Transport. Accounting for these uncertainties results in a potential shortfall of between 53 & 61 cu.m (both deficits).
- The quality of imported soil has not been verified in line with the RS

Current Risk Status of Site

The remedial works undertaken to date have substantially reduced the exposure risks for future occupants.

In the near term, the measures employed will serve as a barrier solution, preventing any significant contact between occupants and the contaminants that remain on site.

In the medium to long term however, it is anticipated that there will be a progressive risk that the efficacy & function of these measures will be undermined by either or both occupant activity &/or natural process, through (e.g., in broad order of significance-);

- Planting of lawned areas overlying retained made soils (without barrier), involving manual soil mixing & a risk of contaminant exposures via plant uptake pathways (via home-grown produce in this area, e.g. via edible fruit tree etc.).
- The remodelling of garden spaces involving removal &/or reconfiguration of non-permanent hardstanding
- Bioturbation arising from the activity of soil fauna (vertical & lateral migration of contaminants to clean cover materials)
- Physical migration of contaminants from made soils to cover soils, driven by thermal or hydraulic processes

Due to these factors, in the medium to long term the remedial strategy would amount to a risk-reduction strategy whereby some harmful exposure might be expected to arise at a future date. It is unclear whether or not that harm would remain below the regulatory intervention threshold under the statutory guidance. It is possible that material adverse effects from non-threshold contaminants (such as Pb) could nevertheless arise whether or not the regulatory

threshold is reached (as, to balance intervention costs, the intervention-level incorporates a concept of acceptable levels of harm). It is similarly possible that a property-specific use scenario could arise which breaches the intervention threshold, such that harms could be considered unacceptable.

Some theoretically acute risks do exist in association with the made soils – trace quantities of free- chrysotile fibre bundles were identified in one of 5 samples during the initial site investigation. Given limited sample volumes, this is taken to indicate widespread presence in made soils is more likely than fibres being extremely rare, but equally, the limited detection rate does not indicate that substantial quantities are likely to be present.

The quantity identified was <0.001% by weight, so for context, the risk is probably not significantly out of step with that associated with long-established allotments or gardens of properties built before 1990 or so; albeit that in principle a single free-fibre is capable of producing illness (so the risk is not nil).

Recommendations & way forward

The above issues & risks have been discussed informally with the Planning service, and it is understood that the consensus of opinion is that relying too heavily upon the principles of NPPF paragraph 189 would fail to provide adequate protections against the aims of local policies DM10 & DM17 (*'...the health and safety of existing and future users of the site, ...is not put at risk'*, and *'ensure it does not have a negative effect on human health'*), and does not take sufficient account of NPPF paragraph 135 a) or f) ([policies & decisions should ensure that development] *'will function well...not just for the short term but over the lifetime of the development'* and *'create places that are safe...and which promote health and well-being, with a high standard of amenity for existing and future site users'*). [my policy interpretation from the principles discussed]

Given this, I cannot advocate for discharge of c.2 in reliance upon the provisions of paragraph 189, and it follows that the *recommendation must be to refuse to discharge c.2* in absence of either a material improvement to the standard of protection offered by the remedial & risk mitigation scheme, or a demonstration that the residual risks are sufficiently low as to be reasonably regarded to be negligible (or acceptable).

I appreciate that the properties are essentially complete, and that this decision will prevent occupation, and necessitate disruptive work to resolve. It is helpful therefore to outline the actions & approaches that would provide the required level of assurance; (numbered 1)-4) below, broadly in order of most- to least- disruptive;)

- 1) Implement key elements of the approved remedial strategy;
 - Remove installed patio's
 - Excavate & remove made-soils that are known to have been retained, to within 100mm of the formation level
 - Install high-visibility geotextile, lapped over that pre-installed in the soft-landscaped (lawned) areas,
 - Replace made soils with clean fill^,
 - Verify the chemical quality of soils used on the clean-side of the cover system* and;
 - Replace patio's
- 2) Implement additional risk reduction measures, at a lesser standard to the approved scheme;
 - Excavate areas of soft landscaping that overlie made-soils known to have been retained, to a minimum depth of 400mm, remove made-soils encountered.
 - Install high-vis geotextile,
 - where abutting the soft-landscaped (lawned) areas, lapped over the pre-installed textile,

- where abutting an area requiring treatment on an adjacent plot, lapped over the adjacent treatment area, and
 - where abutting a patio, taken up the sides of the pit and secured into the made-soil/subbase boundary
 - Replace removed made soils with clean fill[^],
 - Excavate cover materials in a linear trench along installed patio's, taking care to segregate clean topsoil from retained made soils,
 - install new high-vis geotextile lapped over that pre-installed in the soft-landscaped (lawned) areas, taken up the patio-side of the trench and secured at the made-soil/subbase boundary.
 - Backfill with the segregated topsoil arisings, and top-up as necessary with clean topsoil
 - Dispose of any made soil arisings.
 - Verify the chemical quality of soils used on the clean-side of the cover system*, and;
 - Implement a communication mechanism as envisaged within section 6 of GCC J22-014-R02 rev 1.0 (30/03/2022)
- 3) Implement additional risk reduction measures, at a lesser standard to the approved scheme (alternative);
- Excavate cover materials in a linear trench along the line of installed patio's, across the full width of the northern plots, taking care to segregate clean topsoil from retained made soils,
 - install new high-vis geotextile lapped over that pre-installed in the soft-landscaped (lawned) areas, taken up the patio-side of the trench and secured into the made-soil/subbase boundary (or where abutting soft landscaped areas – where this would be-).
 - Backfill with the segregated topsoil arisings, and top-up as necessary with clean topsoil
 - Dispose of any made soil arisings.
 - Extend patio areas to the full width of the northern plots, along the line of maximum patio depth (i.e. minimum 1.8m from building façade)
 - Verify the chemical quality of soils used on the clean-side of the cover system* and;
 - Implement a communication mechanism as envisaged within section 6 of GCC J22-014-R02 rev 1.0 (30/03/2022)
- 4) Demonstrate sufficiency of risk reduction measures
- Collect a sufficient number of representative soil samples from made-soils known to have been retained on site, in order to generate a representative characterisation across the 3 northern plots
 - Verify the chemical quality of soils used on the clean-side of the cover system*, and;
 - Complete a generic or site-specific risk assessment, accounting for the relative soil areas (clean cover comprising approximately 70% of garden areas in the northern units, made soils approx. 30%), using exposure scenarios that include plant uptake, and;
 - (Assuming favourable results-) Present the results to the Council in the form of a written report, for approval, or;
 - (Assuming unfavourable results-) Implement one of the options 1)-3) above.

* - considering the garden areas as a whole, i.e. including some samples from material already placed in lawned areas, 'as placed', at the approved sampling rate (given the multiple & undocumented suppliers, at a rate of at least 1/20 cu.m – minimum 3 samples)

^ - to comprise sub-soil & topsoil or topsoil only in line with the cover strategy (as designed, or as implemented). For amenity reasons, not to comprise inert hardcore.

Matters established or otherwise accepted (and therefore omitted from the above list;

- Vapour protection in buildings – accepted as per CPL verification report G221101-004VR, on the assumption that the sub-floor ventilation remains unobstructed by subsequent construction.
- The reduced depth of clean cover – the depth of cover is specified for amenity purposes, and a slight under-shoot on the achieved depth does not have a direct impact upon the risks to future occupants, provided that the achieved depth does not fall short of amenity standards. The 500mm achieved is considered to be adequate.
- Volumetric discrepancy in imported soils cf. requirements – it is accepted that it is not always possible to provide records of imported soils (e.g. where not retained by supplier or customer). Verification of cover soils ‘as placed’ at the higher rate (minimum 1 sample per 20cu.M) will be accepted to be sufficient to demonstrate suitability of soils.
- Potable pipe protection - whilst there is no direct narrative in the verification reports as regards the protection of potable supply service corridors, I note the incidental evidence in verification photographs and I am content to accept that the use of continuous ducting is likely to be sufficiently protective from direct contact with VOC’s.
- Tree-Pit protection – the absence of any related narrative in verification documents, coupled with the incidental evidence in verification photographs, is accepted as evidence that tree pits were not required, and that the provisions of 4.3.3 are not relevant to the implemented scheme (or options 1) & 2), above)
- Omission of text-based warning to communicate purpose of high-vis geotextile – does increase risk of inadvertent compromise of risk mitigation elements, but is an acceptable omission subject to the execution of one of the options 1) – 3) above.
- Whilst there is no direct narrative as regards the protection of potable supply service corridors, I note the incidental evidence in verification photographs, and I am content to accept that the use of continuous ducting is likely to be sufficiently protective from direct contact with VOC’s. No further details are being sought.
- Similarly, given the absence of any related narrative in the submitted documents, it is assumed that tree pits were not required for the landscaping scheme, and that the provisions of 4.3.3 were not therefore required. No further details are being sought.

Mr. Jonathan Driver

Environmental Control Officer