

HAVANT BOROUGH COUNCIL

Town & Country Planning Act 1990

Consultation on Planning Application

MEMORANDUM

From:	Environmental Health	To:	Development Control
Our Ref:	CONS/15/01540	Your Ref:	APP/14/01225
EH Case Officer Extn:	44 6677	Date:	20 November 2015
DC Case Officer:	Steve Weaver		
DC Case Officer Extn:	44 6512		
Application Number:	APP/14/01225		
Site Address:	Market Parade Development Site, Market Parade, Havant		
Proposed Development:	Outline application with all matters reserved for demolition of existing buildings and redevelopment of site to erect 130No. apartments and 1126sqm of ground floor commercial/retail space (Use Classes A1-A5 and B1(a)) and associated service, access and 58 private residential basement parking spaces (indicative height of building between five and thirteen stories).		

Observations / Comments:

I have reviewed the environmental & geotechnical desk study, flood risk assessment / drainage strategy, transport assessment & travel plans. On the basis of those documents, assessments & proposals, I have no in-principle objections to the development,

I am however aware that these proposals form Phase 1 of a wider town centre regeneration, and so it might be beneficial to provide specific comments particularly in respect of transportation (emissions / local air pollution) issues, contamination assessment (inc. other related risks), and surface water drainage (pollution prevention).

I have also undertaken an air quality screening exercise in accordance with the 2015 guidance, and whilst largely favourable, there remains some ambiguity with respect to the management of the undercroft / basement car-parking which could be materially relevant to local air quality (exposures of future or nearby residents to vehicle related emissions).

Some more detailed comments follow in the sections below;

Soils Ltd. Environmental & Geotechnical Desk Study (contamination & other environmental risks)

It is noted that Appendix D (site walkover photographs) from the Soils Ltd. Report was missing from the application documentation. This is not thought to be critical, but if available, should be provided for completeness.

Sources of contamination

In terms of potential sources, the site walkover identified few credible contamination sources - noting construction & demolition wastes present at the surface of vacant sites within the application boundary, but little else. The desk study identified some credible off-site sources (allotment / laundry / telephone exchange / railway goods yard & sidings), however the distances to these features, and their orientation in relation to the site would lead me to conclude that a low-negligible risk is presented. The possible exception to this would be the telephone exchange, where contamination potential is in association with buried cables, where unexpected or currently unidentified preferential migration pathways could exist, and contamination could occur away from the identified location.

Laundry & Dry Cleaning Supplies located within 25m of the site boundary represents a credible potential for persistent & harmful chemicals (chlorinated solvents) being present - but this potential source is located off-site, local soils are clayey (retards migration), and the premises is of such small scale that previous bulk storage of solvents at the site is not considered to be particularly likely. As such, the presence of gross contamination at the Laundry / Supplies site that might be materially significant to this proposed development is similarly not considered to be likely.

Exposure - Human

With respect to residential or other human exposures at the development, it is noted that no private gardens are proposed and there is limited amenity space that includes soft landscaping at ground level. Any landscaping proposed is likely to be highly artificial in terms of it's support (soil preparation for containment, nutrition, infiltration & drainage). Ground floor commercial use provides relatively large volume internal space, represents a short-duration exposure scenario to customers, and a low risk person profile for the commercial exposure (employees).

The basement parking has the potential for enclosed or poorly ventilated areas where ground gas or vapours associated with contamination could accumulate. However, residents would not be expected to spend significant periods of time within the basement, and given the air volume, and requirement to manage ventilation to prevent accumulation of motor vehicle emissions - contamination would likely need to be severe in order to be materially relevant from a human exposure perspective. The desk study has not identified any potential sources likely to have resulted in such (severe) contamination.

Other Environmental Receptors

The report assumes that the site overlies Head / London Clay. It is however noted that the 50K BGS data shows the site at a horizon between London Clay & Bognor Sand, and just 115m from the Lambeth Clays. The scale of available geological mapping cannot reliably be applied at a site level and the maps cannot be taken to represent a reliable indication of the likely conditions at the site.

If overlying sands, there may be a high degree of hydraulic conductivity; potential for contaminants to migrate, and potential for continuity with surface waters.

It is also noted that the site falls within an SPZ1c, and is within 200m of the SPZ1. The '1c' refers to 'sub-surface' (confined aquifer). This would not typically be relevant where conventional or shallow piled foundations area proposed, however, the proposed development includes provision for below ground parking facility, comprises upto 13 storeys, and is located where the depth of confining geology is 'thinning' (beds rising to the South, towards the eroded Portsdown Hill Anticline).

Chalk is anticipated to be encountered at depths as shallow as 10-15m below ground level, and this is expected to be within the range of foundations required to support a structure of this scale. The development could therefore pose a risk to the principal aquifer- either by:

- creating preferential vertical migration pathway(s) for contamination present within shallow soils (on site), or mobile-phase contaminants on adjacent land, or;
- the physical process of boring / pile construction, whereby;
 - i. water supply could be at risk through the creation of short-term turbidity that could significantly impact treatment facilities (through loss of uncured concrete, or mobilisation of pulverised or comminuted chalk to critical fissures), or;
 - ii. individual springs could be at risk from the blocking of critical fissures / flow paths with cured concrete - either intentionally (structural pile) or unintentionally (through concrete loss to fissures/fractures).

It is noted that at least 3 no. abstracted springs are located within 500m of the site, and that fissure flow is unpredictable.

Considering the above, this development is considered to be potentially very sensitive in terms of controlled waters, and this is likely to represent the risk driver for any contamination issues identified.

Radon

It is noted that class 2 radon areas are located within 100m, and class 3 within 200m - similar scale issues apply to Radon areas as to geological information (i.e. cannot reliably apply on at a site level). There are no zero risk sites, and fluvial geology is always variable with respect to radon generation (i.e. there remains uncertainty with respect to radon potential at this site).

With reference to the development, the undercroft car park would be most at risk of radon accumulation, but (as for human exposures to contamination) this is a non-habitable space where exposure duration will be low, and extremely high levels would be needed for an average daily exposure risk to exist. It is expected that the ventilation solution for the car parking level will be of a specification suitable to disperse any accumulations of soil gas (Radon, or low-moderate levels of CO₂ / CH₄).

Residential units are all located on 1st floor & above - it is anticipated that principle air supply will be from external source (facade), with building volumes and ventilation arrangements being such that the risk of thermal draw (of radon from soils / low areas of the building) into habitable areas should be low. For these reasons, no specific radon protection is considered to be necessary.

Report Recommendations

Whilst I may disagree with some of the likelihood & significance judgements made within the Soils Ltd. Assessment, I do agree that a general Phase 2 Intrusive Ground Investigation should be undertaken in order to quantify the risk from common contaminants referenced. I consider this need to be driven by the potential sensitivity of the site in terms of controlled waters, rather than a particularly high risk contaminants being present.

The report also recommends the completion of a Construction Risk Assessment to enable appropriate mitigation (of contaminants mobilising to groundwater). I would recommend that this be extended to the 'impacts of construction'; regardless of the presence of contamination, the excavation of the basement level & installation of suitable piling (indeed, the recommended Phase 2 Geo-Environmental Ground Investigation itself) may carry additional risks to the public potable supply - predominantly turbidity.

I would *recommend that this be formalised as a separate condition* (to any contamination assessment requirements); whilst turbidity *acts* as a contaminant, it is considered to fall outside the definition of contamination.

The conclusions of 8.3 & 8.4 (Recommendations for Intrusive Investigation & Discovery Strategy, respectively) are agreed. It is recommended that these requirements are formalised by means of suitable planning conditions. (see 'proposed conditions', below).

Odyssey Markides Ltd. Flood Risk Assessment & Drainage Strategy

It is noted that the LLFA (Hampshire CC) has requested additional information, namely runoff calculations, justification for the selected surface water strategy, soakage tests and a drainage trace. I will leave it to the LLFA to comment on the suitability of the storage volumes proposed.

The surface water infrastructure proposals presented on drawing 14-006/002 are considered to be appropriate - I would prefer not to see a below basement level infiltration drainage system given that it would be serving a non-trivial parking facility (where liquid pollutant releases are likely, and little opportunity exists for natural attenuation & treatment of such pollutants), and that discharge could be direct to an SPZ1c, within 500m of abstracted groundwater features.

It is considered to be an inherently lower risk strategy to utilise below ground storage for flow regulation purposes, and to discharge, as proposed, to local surface waters either direct or via the public sewer system.

The downstream defender unit proposed is considered to represent an adequate pollution mitigation unit, but it is recognised that it's efficacy will be strongly dependent upon the robustness of the operational & preventative maintenance schedule observed. Poor maintenance would present a degree of downstream risk regardless of the destination of the onward connection (whether to soils, principal aquifer, surface water or public sewer [discharging to surface water])

It is also noted that the drainage strategy proposed is reliant upon a pump to raise water from the storage to the level of the public system. The risk of failure of this critical infrastructure arguably presents the greatest risk of flooding - *it may be beneficial to consider building in additional redundancy in this regard (e.g. tandem pump installation)*

Maintenance of the pump system & downstream defender is key to the success of the proposed scheme, and *securing the production of- & adherence to- the proposed Maintenance Management Plan would ideally be achieved by means of a suitable condition.*

Odyssey Markides Ltd. Transport Assessment

The apportionment of development road traffic suggests that b/w 57 & 69% development traffic is expected to pass via the Park Road / Elm Lane Junction. Local air quality in the vicinity

of this junction is known to exceed national air quality strategy objective values (annual average exposure levels) at the kerbside, with some relevant exposure present within 5m of the kerb on the Southeast corner of this junction. In this way, it would always be preferable to minimise any increases in road traffic at this junction in the interests of minimising adverse impacts on local air quality.

The level of on-site parking proposed has been shown to be low (0.45:1 as spaces:residential units), but justifiable under HBC policy & SPD's. The accessibility of the site by means of public transport is accepted, and I would agree that this site is in a highly sustainable location in terms of local services within walking & cycling distance. A reduced parking provision is therefore likely to be appropriate.

Whilst welcome for a site in this location, it is acknowledged that a limited parking provision does not entirely negate the vehicle trip rate (production / attraction) of a development, and the issue of 'overspill' must be considered.

Overspill parking can lead to saturation of local parking space capacity, and vehicle 'cycling' on the local road network whilst seeking a parking space. In this way an under-provision of spaces can have a disproportionate negative effect on local air quality if the limited spaces do not sufficiently discourage car ownership (residential), or limited external facilities do not discourage customers from favouring on-street parking (this could be a problem for particular tenants of commercial units, if of a business type represent a high likelihood of single-destination / short duration trips [high turnover] where town centre parking facilities may be unfavourable in terms of cost or proximity). It is accepted that the latter is difficult to control by means of planning, other than in terms of the allocation of some customer spaces for the commercial units.

Location of site Access (undercroft / basement car park)

As Market Parade is a 1-way carriageway, taking access from North St. considered to be more efficient than utilising the existing access from Market Parade - reducing the need for traffic to route via (and turn across traffic flows on) Elm Lane, particularly where it's origin is from the East (e.g. via South St. / East St.). This is expected to have a marginal positive impact on the potential for Eastbound queuing on Elm Lane to impact the Park Road Junction.

Given the sensitivity of this junction to increases in road traffic pollution (i.e. traffic volumes), any opportunity for marginal gain should be taken, and it is therefore desirable for the development to take access from North Street, as proposed. I would hope that this be considered as a factor in the event of any revisions to the outline development proposals.

Parking Provision & Allocation - Residential

From an Air Quality perspective, the discouragement of private car use (particularly single occupant trips) is desirable, provided that it does not lead to significant uncontrolled parking or other issues liable to adversely or disproportionately impact traffic flows.

As is noted above, the proportional provision of parking is low. The report suggests that spaces will be permanently allocated to individual residential units, and in this way there remains the possibility of under-utilisation of the available spaces as not all occupants will necessarily choose to own a vehicle. It is appreciated that tandem spaces must have common allocation, but there are alternative means of allocating spaces based upon need (i.e. retention of spaces by building management, and rental scheme on application to occupants who require a space) - allocation of spaces does not appear to have been considered in depth, and there is a risk that the limited provision will be subject to under-use.

Whilst this could be taken as a success, it could conversely (and at the same time) encourage 'overspill' parking whilst on-site allocated spaces remain unsaturated. It is desirable for the allocation to be fully utilised, and *I would recommend that further consideration be given to the issue of effective allocation* in the interests of avoiding wider issues on the local road network (and town centre parking saturation) caused by resident overspill parking.

It is understood that there is a general lack of long-stay parking facilities - so in theory these spaces should not (generally) be available for use of residents of the proposed development without frequent penalty. It is noted however that there are no restrictions <08:00 or >18:00 at East Pallant, Prince George, Elmleigh Rd. Car Parks, and that parking restrictions at the majority of streets are either unrestricted >18:00, or waiting restrictions only apply to 18:00 with not strict prohibition thereafter.

Local (on & off street-) parking may be limited, but it remains largely unrestricted beyond 18:00pm - leaving open the possibility that residents could maintain ownership of a vehicle without an allocated parking space.

Whilst the parking survey shows that there remains reasonable car parking capacity at present within the local area, on-street facilities have been shown to attract a high degree of utilisation and it is noted that the current proposals represent only the first phase of a wider redevelopment aspiration.

Whilst it may not be appropriate to object to the level of parking allocation proposed for this development, it's allocation & utilisation is important to local air quality, to congestion and to parking saturation in the vicinity.

It is considered that reasonable account should be made for consented &/or proposed additional development, as there remains a risk that separate developments / development phases will rely upon the capacity of the same parking facility. An example might be the under-used Eastern Road spaces which have similarly been identified as having capacity for visitor & residential parking for a development on New Road.

It would appear that parking would be available for determined or well provisioned residents, with reference made to possible under-use of (and availability of permits for) private parking facilities - e.g. the currently unquantified availability at the Meridian Centre.

Within the wider context of town centre, it is considered that care should be exercised so as not to encourage a substantial erosion of available spaces for town centre visitors for the certainty of payments from 24/7 permit holders. Maximising use of on-site facilities (for this & future related developments) is considered to be the most effective mitigation, in preference to a significantly increased parking allocation.

Parking Provision & Allocation - Commercial

The omission of car parking provision for the commercial element of the site would appear to be consistent with the West Street pedestrianised shopping parade, and would be appropriate to encourage pedestrian footfall / linked trips.

Vehicle Trip Generation

I note that the values presented for the Saturday peak are for an assumed peak hour (12:00-13:00), and not the dictated by either average survey data or available counts within TRICS (both identifying 13:00-14:00pm to represent peak flows). From TRICS, it would appear that Saturday Peak estimates should be 143% those presented.

The report assumes that the commercial units on the ground floor will not generate any additional vehicular trips; all customers are assumed to be drawn from existing town centre shoppers who are already in the vicinity (or would have made the journey to the town centre independent of the presence of those units). Whilst I agree that additional retail, cafe or restaurant facilities will encourage linked trips, the report assumption regarding trip generation is considered to be an over-simplification. It is not unreasonable to assume that the purpose of undertaking regeneration including retail facilities is to draw more shoppers to the town centre. It is considered that additional aggregate trips to the town centre are inevitable (i.e. new units are an initial draw for a 'new' trip, albeit that this may encourage a further linked trip to another retail outlet or restaurant etc.. Where there is no additional parking allocated for customers of proposed units, it is not complex to estimate the number of new trips (i.e. based upon proposed sq.m area), nor is it complicated to allocate these trips to the local road network (existing proportions / flow patterns can be assumed).

For these reasons, it is considered that the peak flow estimates presented in the assessment are likely to under-represent likely (development) traffic generation, particularly for Saturday peaks, but more generally by ignoring the attraction of ca. 1000 sq.m retail space & associated deliveries.

This is not necessarily likely to be materially significant in terms of local air quality, but it may impact junction capacity assessments, and as noted above, any negative impact on flows at the Elm Lane / Park Road junction is likely to have a corresponding negative impact on local air quality.

Traffic Impact Analysis

Traffic impact assessments are omitted from the report in relation to

- North/East /South Street Junction
- North Street / Pallant Priority Junction, and
- Elm Lane / Park Road / Park Way Junction

It is unclear why these are omitted from the report - given the sensitivity of the Elm Lane / Park Road (S/N) / Park Way junction, I have conservatively calculated the impact (results were: 1.02%, 0.85%, 1.34 %, as AM/PM/Saturday peak respectively). The residential allocation therefore represents a very small proportional increase, and it is considered that the commercial draw is unlikely to be such as to materially influence junction capacity unless already at an RFC >0.95.

These values should be accounted for in future development phase assessments however.

Air Quality Screening Exercise (based upon Transport Assessment figures)

The assessment was based upon conservative thresholds (i.e. treating the sensitive Park Road junction as if it were a designated management area with extant air quality issues).

The development represents major development, being over 10 units, with >1000 sq. m commercial floorspace, and including >10 parking spaces. For these reasons it was necessary to proceed to a tier 2 screen.

AADT figures were projected from short-term (peak period) turning count surveys for three key road junctions of the local road network in the vicinity of the development, using averaged vehicle class proportions. No AADT increase thresholds were met for any Tier 2 criteria,

however screening criteria 6 has potentially been met - "[proposed development includes] an underground car park with extraction system". This is relevant if the ventilation extract is located within 20m of a relevant receptor & >100 two way movements are expected within the parking facility.

Given residential properties at first floor level, it is not unlikely that a relevant receptor will be located within 20m of the car park ventilation outlet, and I calculate between 111 & 421 vehicle trips/day can be expected on average, using figures presented within the report (peak flows, TRICS) and Peak flow>AADT factors from a local 7-day automatic traffic count (Solent Road, 2012) as the best available surrogate.

It is therefore considered necessary to consider emissions from the enclosed parking area in terms of the likely impact upon exposure of nearby sensitive receptors to related airborne pollutants. It is not clear at this point whether this will require deterministic modelling of exposures, or simply a conceptual qualitative assessment that confirms ventilation arrangements both for the car park, and for potentially affected residents. This should ideally be explicitly considered as part of the approved development, but could be left as a reserved matter, or required by means of a suitable condition.

Odyssey Markides Ltd. Framework Residential Travel Plan

Initial mode share targets presented in table 3.1 (based upon St. Faiths census) propose a target of 67% passenger car (PCU) trips (as driver), considered to be inappropriate for a development of this type with a parking allocation of <0.5/unit (i.e. in all likelihood, <0.25/occupant).

If initial targets are insufficiently stringent, there is a risk that little effort will be put into the implementation of the travel plan. It is accepted that the initial target will only apply until a transport survey is undertaken at 50% occupancy - however I would anticipate the modal share of PCU trips to be around half the initial target following that initial survey, so it would not be unreasonable to set a lower / more stringent aspiration, especially as the mode-share reduction target is only 10%.

Whilst the report references measures such as promotion of available lift share websites, Given the <50% resi unit/space allocation (and co-location of all residents within the building), there would seem to be an opportunity to run a more proactive in-block car-share scheme which could have a significant positive impact, with potential reductions in single occupancy trips even among car owners / space holders if driving duties are shared.

Section 4 outlines proposed travel plan measures, which are largely agreed to be appropriate. There do however appear to be missed opportunities for significant positive impact - for example (as above) lift share websites are to be promoted in literature, but not actively promoted on site; and additionally, delivery services are to be promoted without considering ways to ensure all-day delivery acceptance (preventing items being returned to depot for collection, or multiple repeat delivery attempts). Given the concentration of residential accommodation, and the range of services available online, these kinds of provisions could significantly reduce the need for short-distance PCU trips by residents that do own / operate a vehicle.

Parking allocation is presented as a means of encouraging alternative modes of transport. I would refer to comments above regarding the allocation of parking spaces to maximise utilisation (and therefore opportunities for lift-share); and further note that reasonable opportunity exists (i.e. sufficient free off-peak parking provision exists) for motor vehicle ownership / operation from a residential unit without an allocated space. In this way the PCU trip generation is expected to be greater than presented in the Transport Assessment, and consequently the

implementation of the travel plan will be important.

The framework travel plan is agreed to be broadly appropriate, but it is considered that it could provide for stronger modal share & modal shift targets. It is unclear where the proposed monitoring reports are to be submitted, what degree of scrutiny is likely to be applied, or what contingency may be in place to rectify poor performance against the (currently fairly weak) targets.

I gather that it is not general practice to specifically seek to secure a residential travel plan by condition, and given the relatively low traffic generation represented by this development (notwithstanding the omission of the commercial units from the assessment) I would not seek to ensure it on air quality grounds alone. The above comments are made by way of suggestions with respect to good practice.

Air Quality (General)

Whilst local air quality is known to be poor at the busy Park Road / Elm Lane Junction, and at the Elm Lane roadside (both locations likely to exceed National Air Quality Strategy long-term exposure criteria at the roadside), these values are associated with average daily road traffic flows of ca. 15,000 (Elm Lane) and ca. 39,000 (Elm Lane / Park Road Junction total). By way of comparison, flows on Market Parade, and North Street are calculated to be ca. 1500, and ca. 7000 vehicles per day respectively.

The rolling rail stock are known to be >95% electric, and emissions are known to disperse (reduce, by volumetric proportion) rapidly from source. In this respect, and in consideration of the height of the proposed building, the application site is not considered to be within an area whereby exposures could be regarded as being likely to be unacceptable. No exposure mitigation measures are considered to be required to protect future residents.

Proposed Conditions

Clarification of basement car parking ventilation provisions should form part of the approved details to inform the need (or otherwise) for a specific air quality assessment - as such, no condition wording is proposed. If it is necessary or desirable to require these details by condition, I would be happy to draft some suitable wording.

As the proposed Phase 2 Geo-Environmental Intrusive Site Investigation (contamination assessment) will be instrumental in informing foundation design, this should ideally be approved as part of this consent, or as a part of the first reserved matters application (i.e. prior to commencement), assuming that this is feasible in planning terms without recourse to a specific condition. Otherwise, the conditions below (c3, c4 & i1) should be used.

Suggested wording for conditions referenced in the sections above is presented below.

Provision of Drainage (Amended, third-party consultee requested condition) [c1]

Construction of the development shall not commence until details of the proposed means of foul and surface water sewerage disposal have been submitted to, and approved in writing by, the Local Planning Authority in consultation with Southern Water. The approved details shall include a schedule of operational and preventative maintenance for surface water drainage structures, pumps, or separators required for either a) the proper operation of the system to its design flow rates, or b) for the effective retention of pollutants to prevent downstream release. Parties responsible for observing the maintenance plan shall be clearly identified within the plan, and the plan shall be implemented as approved.

Reason: The approved outline drainage strategy includes critical infrastructure that requires regular maintenance to ensure its' effective operation (to prevent flooding &/or downstream pollution). The condition is imposed having due regard to Havant Borough Local Plan (Core Strategy) 2011 policy DM10 and the National Planning Policy Framework 2012.

Construction Risk Assessment (Bespoke) [c2]

Prior to the commencement of any specific phase of development approved by this planning permission (or such other date or stage in development as may be agreed in writing with the Local Planning Authority), an assessment of the risks associated with proposed means of undertaking groundworks and construction shall be submitted to and approved in writing by the Local Planning Authority. The assessment shall be undertaken by competent persons, and the findings presented as a written report.

The assessment may comprise separate reports as appropriate, but unless specifically excluded in writing by the Local Planning Authority, shall include;

- 1) An assessment of the local geological succession, sufficient to determine whether the principle aquifer (Source Protection Zone 1c) falls within the likely vertical range of proposed excavations or foundations.*
- 2) The result of an appropriate assessment of risks based upon 1) in relation to proposed construction depths, methods & materials. Where potentially unacceptable risks are identified, a risk-based appraisal of construction method options and clearly defined proposals for mitigation of the identified risks.*
- 3) Contractors method statement(s) in accordance with mitigation proposals (2), and*
- 4) Where deemed necessary, a scheme to appropriately monitor the impact of construction activity upon groundwater and/or surface waters, including details in respect of necessary stakeholder liaison*

All elements shall be adhered to unless agreed in writing by the Local Planning Authority

Reason: The site lies within the groundwater Source Protection Zone 1c for the Bedhampton & Havant Springs water supply. Deep excavations, Boring, Piling or any other foundations using penetrative methods can result in risks to potable supplies both from turbidity, and by creating migration pathways for pollutants &/or contaminants. It should be demonstrated that the proposed construction methods will not result in any unacceptable adverse impacts upon controlled waters. The condition is imposed having due regard to Havant Borough Local Plan (Core Strategy) 2011 policy DM10 and the National Planning Policy Framework 2012.

Contamination (Amended Standard) [c3]

Prior to the commencement of any specific phase of development approved by this planning permission (or such other date or stage in development as may be agreed in writing with the Local Planning Authority and notwithstanding any assessment provided with the planning application), an assessment of the nature and extent of contamination at the site, whether originating from within or outside the curtilage, shall be submitted to and approved in writing by the Local Planning Authority. The assessment shall be undertaken by competent persons, and the findings presented as a written report.

The assessment may comprise separate reports as appropriate, but unless specifically excluded in writing by the Local Planning Authority, shall include;

- 1) A site investigation based on The Soils Ltd. Phase 1 Desk Study Ref: 14981/DS (June 2015); to provide sufficient data and information to adequately identify & characterise any physical contamination on or affecting the site, and to inform an appropriate assessment of the risks to all receptors that may be affected, including those off site.*

- 2) The results of an appropriate risk assessment based upon (1), and where unacceptable risks are identified, a Remediation Strategy that includes;
 - appropriately considered remedial objectives,
 - an appraisal of remedial &/or risk mitigation options, having due regard to sustainability, and;
 - clearly defined proposals for mitigation of the identified risks.
- 3) A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in the Remediation Strategy (3) are complete, identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action.

All elements shall be adhered to unless agreed in writing by the Local Planning Authority

Reason: Having due regard to policies DM10 of the Havant Borough Adopted Core Strategy [2011] and DM17 of the Havant Borough Local Plan (Allocations) [2014], Contamination may be present at or in the immediate vicinity of the site as a result of both previous & current land uses (&/or activities) that could pose a risk to controlled waters.

Verification (Standard) [c4]

*Prior to the occupation of any relevant part of the permitted development, any verification report required in accordance with **condition [X]** shall be submitted to and approved in writing by the Local Planning Authority.*

The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan, and must demonstrate that site remediation criteria have been met. Where longer-term monitoring of pollutant linkages is identified as being necessary, the report shall clearly set out plans for monitoring, provision for maintenance, relevant triggers and contingency actions (a "long-term monitoring and maintenance plan").

The long-term monitoring and maintenance plan shall be implemented as approved.

Reason: Having due regard to policies DM10 of the Havant Borough Adopted Core Strategy [2011] and DM17 of the Havant Borough Local Plan (Allocations) [2014], Contamination may be present at or in the immediate vicinity of the site as a result of both previous & current land uses (&/or activities) that could pose a risk to controlled waters.

Informative: Unexpected Contamination [i1]

"It is the responsibility of the developer to ensure development, upon completion, is safe & suitable for its consented future use. Notwithstanding any site investigation or assessment report submitted with the planning application hereby approved, or submitted in accordance with any condition of this decision notice; contamination may be present at the site within un-investigated areas of the site associated with sources that were either unanticipated, not previously identified, or anticipated but not located. Such contamination may be identified during the course of development. In the event that any discoloured soils or groundwater, oily sheens, foul or solvent odours, or deposits / inclusions comprising obvious waste materials are encountered during groundwork, or if groundwork staff report acute symptoms (skin, eye or respiratory); works in that area of the site should cease until an appropriate assessment of the nature and extent of the suspected contamination has been undertaken. The local planning authority should be notified of the nature of the contamination, and how that contamination is to be dealt with"



Mr. Jonathan Driver
Environmental Control Officer