

Land adjacent to Netley Firs, Kanes Hill Southampton

Dust Assessment & Mitigation Hi-Acre Construction Ltd

JAK/TN/26.0069/7230
23rd January 2026

Introduction

MJA Consulting have been appointed by Hi-Acre Construction to progress the Reserved Matters & Detailed Design for the development of land adjacent to Netley Firs, Kanes Hill, Southampton. The site currently benefits from outline planning permission for 23 employment units with associated car parking and access from Kanes Hill. Granted by Eastleigh Borough Council in March 2021, Application Reference: 0/18/82750.

This Technical Note has been prepared to provide the additional information requested by Eastleigh Borough Council relating to dust assessment and mitigation measures for discharging Condition 11. The site is a cleared site with no demolition work required therefore no assessment is needed for any demolition stage of work. Welfare and office facilities are on site from previously approved works that will be utilised for the project. Consideration is given in this assessment to principal elements of construction of the infrastructure serving the development and the buildings themselves to determine what aspects may or will generate dust during the process; refer to Table 1.

The generation and impact of any dust will at times be significantly influenced by the weather and this is considered in the assessment. In wet periods many potential sources of dust will not be an issue as the ground will remain wet to preventing dust arising from it and additionally dust from most secondary sources will be 'captured' on the wet ground and ultimately washed away. Some situations will remain where finer dust created well above ground level can be carried further by windy conditions before settling. In dry periods there will be more potential for dust to be generated from various sources and these are the main areas that will need to be addressed.

It is proposed that the initial works on site to create the access from the existing public highway will commence at the beginning of March 2026 and be completed by May 2026. This will be a relatively wet and mild period when general weather conditions should be favourable to limiting the risk of dust generation. Works will pause during the summer months before commencing again with the on-site infrastructure works in the autumn and continue through to the winter. The construction of the buildings will follow in phases at various periods on the year to suit occupancy needs to ensure that works on site are suitably managed to cause minimal impact to the surrounding land users.

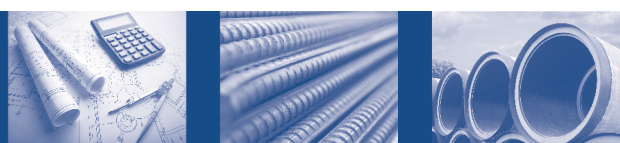


Table 1: Site Activities – Construction Stage

	Activity	Dust Generation Risk	Mitigation proposal
1	On-site vehicle movements - natural ground	Negligible Risk Natural soils cohesive material, retain moisture well. Running surface only temporary short term and should not be used for long periods to become an issue. Surface only exposed as preparation for further treatment such as road construction or building cover.	None needed
2	Road Construction - excavation	Negligible Risk Shallow soils are cohesive material and not expected to generate dust by the nature of their properties during short term works to excavate and either relocate on site or export from site in lorries. Underlying granular materials are not expected to generate dust as they will have been protected by the overlying cohesive materials just prior to exposure and excavation.	None needed
3	On-site vehicle movements – road formation	Low Risk Underlying sand & gravel layer to be exposed as formation level for road construction. Exposed surface should not initially be dust generating, exposure with vehicle movements across only temporary and should not be used for long periods prior to being covered.	None expected. Should sequencing vary and surface exposed long enough to dry out surface to be wetted by bowser periodically to suppress dust.
4	Material Stock Piling	Low Risk Suitable topsoil and subsoil to be set aside on site for reuse as landscaping material in the latter part of the development. Material a blend of organic, clayey silty sandy soil that will retain moisture readily and not generate wind blown dust or debris. Extreme dry periods may create loose material but these periods are unlikely to be windy to transport the material.	Monitor stockpiles and dampen or cover as necessary depending upon programme of works and season.
5	Estate and temporary road construction – filling and compaction	Low-Medium Risk Material for road construction imported from unmonitored source that may be dry with fines that could generate dust when tipping from the lorry and when being spread. Material dense and should settle readily except in very windy conditions. During compaction vibrating systems will be used that in dry periods will create localised dust	In dry periods loads to be control tipped & spread using hoses to suppress dust. Bowsers to be used to dampen surface during the compaction process.

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	Activity	Dust Generation Risk	Mitigation proposal
6	Estate road construction – kerbing	Low Risk Precast concrete kerb elements to be bedded on wet cast concrete haunching has negligible risk of dust generation. Locally generated dust for short term when concrete kerb units cut for infill sections.	None expected.
7	On-site vehicle movements – temporary haul roads	Negligible risk Haul and access roads to be for access to site facilities, car parking and storage yard to be capped with bound macadam to prevent dust generation from granular base course under.	None needed.
8	Drainage Construction	Low risk Manholes to be constructed using wet cast concrete base and surrounds to precast concrete elements for larger parts of the system and plastic pipes and chambers for smaller sections localised to the buildings has negligible risk of dust generation. Pipe laying using precast & preformed pipes laid into pea shingle bed and surround that is placed in controlled sections that is not expected to generate dust. Locally generated dust for short term when concrete pipes need cutting or openings needed in concrete rings.	None expected, dust not anticipated to migrate beyond site boundaries.
9	On-site vehicle movements – permanent roads	Negligible risk Permanent estate roads to be capped with bound macadam to prevent dust generation and protect the underlying granular attenuation layer from contamination during the construction of the buildings. Low Risk Final surfacing to be permeable block paving on a sand layer, cores to be drilled through the macadam layer just prior to laying the bedding sand and blocks.	None needed Ensure exposed sand periodically wetted in dry periods.
10	Estate road construction – kerbing	Low Risk Precast concrete kerb elements to be bedded on wet cast concrete haunching has negligible risk of dust generation. Locally generated dust for short term when concrete kerb units cut for infill sections	None expected, dust not anticipated to migrate beyond site boundaries.

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	Activity	Dust Generation Risk	Mitigation proposal
11	Landscaping	Negligible Risk Stock piled soil item 4 kept in damp/wet condition to be used for creating soft landscaping areas. Planting activities are not expected to create dust.	None needed
12	Building Works - Foundations	Negligible risk Excavations for pad and strip foundations to be undertaken by tracked excavators. Estate roads or temporary roads in place will provide clean access to plots and for material removal. Site investigation reports identify generally high ground water in the area that will keep soils damp/wet when excavated. Excavated material to be locally stockpiled for short period before being removed from site therefore negligible risk of dust from drying out. Foundations to be wet cast concrete, no dust generation. Holding down bolts for columns on pads to be cast into bases to avoid secondary drilling.	None needed None anticipated. If work sequence changes and stock piles left longer and may dry, wet down or cover to prevent dust.
13	Building Works – Ground floors B1 units	Negligible risk Ground floors to offices to be beam and block floors using precast pre-stressed beams and infill blocks. Plastic pipe runs and ducting to be installed prior to laying beams, pipework and ducting laid in pea shingle with no dust generation risk. Beam and block floor covered with rigid insulation sheets and plastic dpm before wet casting cementitious screed.	None
14	Building Works – Ground floors B2 units	Low risk Ground floors to B2 units to be cast insitu RC slabs to form finished surface. Plastic pipe runs and ducting to be installed prior to casting floor, pipework and ducting laid in pea shingle with no dust generation risk. Area to be levelled over pipework using sharp sand that may dry out prior to covering with plastic dpm and rigid insulation. Reinforcement to be laid and wet concrete poured and power floated to form slab, no dust generation expected during the slab formation works.	None expected, but potential for sand blinding to dry out in the short term. Aim to cover promptly or wet as needed to avoid dust generation.

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	Activity	Dust Generation Risk	Mitigation proposal
15	Building Works – Steel frame	Negligible Risk The main building structure for all unit types to be hot rolled steelwork prefabricated off site and positioned using mobile cranes. No dust generation expected from any works involved in the process	None needed
16	Building Works – Upper floors	Negligible risk B1 office units to use either precast concrete planks or cast insitu RC slabs on metal decking composite with the steel frame. Neither operation expected to generate dust. Negligible risk B2 office elements to be formed from cold rolled metal beams bolted to the primary steel frame and topped with chipboard or OSB floor sheets. Localised cutting of floor sheets to suit lapping and building dimensions will generate small amounts of dust.	None needed No significant dust generation expected and will be generated inside the building
17	Building Works – External masonry walls	Low - medium risk All units are to have a half height insulated cavity wall from ground level to ground floor cill level. These walls will be conventionally constructed insitu using preformed masonry units and mortar. Due to small volumes mortar expected to be mixed on site using bagged cement and bulk delivered sand. Cement powder will be a dust issue, albeit due to its dense nature will settle readily out of wind.	Dedicated work area to be created for site mixing mortar with vertical screening to shelter from wind to limit cement dispersal. Location to be situated to the northern end of the site away from existing housing.
18	Building Works – External cladding	Negligible risk The main elevations of the buildings and their roofs are to be constructed from prefabricated insulated panels fixed to cold rolled steel rails and purlins. The vast majority of components prefabricated to exact dimensions offsite with only infill insulated panels requiring site cutting. Cutting process not expected to create dust.	None needed

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	Activity	Dust Generation Risk	Mitigation proposal
19	Building Works Internal Finishes	Negligible Risk B1 units and admin areas to B2 units areas to have suspended ceilings utilising light weight metal frames and preformed ceiling tiles. No works undertaken generate dust. Walls to be dry lined utilising plasterboard panels, taped and jointed, minimal dust generation from board cutting and light sanding. All works carried out internally in managed space.	None needed, maintain clean work areas.
20	Building Works Services	Negligible risk • Plumbing • Electrical • Mechanical All works fundamentally clean and dust free undertaken internally in a managed environment. Minimal dust generation from localised cutting and drilling into secondary elements such as walls and ceilings.	None needed, maintain clean work areas.

Summary and Conclusion

This Dust Assessment and Mitigation Proposal Technical Note has been prepared on behalf of Hi-Acre Construction Ltd in respect of the approved planning application for 23 commercial units off of Kanes Hill, Southampton. Planning Approval Ref: 0/18/82750.

This note has been prepared to demonstrate that the sources and risk of dust generation are understood and measures proposed to ensure that dust does not detrimentally impact site operations nor third parties adjacent to site. External works needed as part of the development that are expected to carry the greatest potential of generating dust are to be undertaken during springtime to establish the main site entrance, followed by a break in works during warmer drier summer periods before commencing again in the autumn and winter with the main site infrastructure.

We consider that the risk to site and adjacent land users is small and with suitable simple measures in place any impact made negligible. It should now allow the discharge of Planning Condition 11 (dust mitigation).