SOUTH NORTHAMPTONSHIRE COUNCIL

MEMORANDUM

To: Peter Grittins – Planning Officer
(Development Management

From: John Penny – Environmental Protection Officer
(Environmental Protection – Noise and General Pollution)

Date: 28 July 2020

Our ref: WK202003240(1)

TOWN & COUNTRY PLANNING ACT 1990
APPLICATION REF: S/2020/0930/MAO
PROPOSED DEVELOPMENT: OUTLINE PLANNING APPLICATION FOR UP TO 35 (MAXIMUM) RESIDENTIAL DWELLINGS INCLUDING ACCESS WITH ALL OTHER MATTERS RESERVED
SITE: LAND SOUTH OF STATION ROAD BLISWORTH NORTHAMPTONSHIRE NN7 3DN.

SUMMARY OBSERVATION: No adverse comment subject to imposition of safeguarding conditions as detailed below.

Detailed Observations:

I refer to your consultation on the above detailed application and would make the following general comments on the noise impact assessment report undertaken by Environment RSK (i.e. Noise Assessment Land South of Station Road, Blisworth 297911-RSK-RP-01(00) dated April 2020)

The new National Planning Policy Framework recommends that the planning policy system should contribute to, and enhance the natural and local environment by, amongst other things, preventing both new and existing developments from contributing to or being put at unacceptable risk, or being, adversely affected by unacceptable levels of pollution. It goes onto recommend that planning policies and decisions should ensure that new development is appropriate for its location taking into consideration the effects of pollution on health, general amenity, and quality of life amongst other things with an emphasis on achieving a sustainable development in accordance with the UK Sustainable Development Strategy. It also advises recognition of developments that create some noise in respect of existing businesses wanting to develop in continuance of their business without

unreasonable restriction being placed on them because of changes to nearby land use.

Summary of RSK Report

The noise assessment has been undertaken in accordance with procedures and criteria recommended n the National Planning Policy Framework, Noise Policy Statement for England' Professional Planning Guidance on Planning and Noise (ProPG Planning and Noise): 2017, BS 8233: 2014 'Guidance on sound insulation and noise reduction for buildings, International Standard ISO 9613:1996 - Acoustics – Attenuation of sound during propagation outdoors, Calculation of Road Traffic Noise and Calculation of Railway Noise (CRN), 1995 (see Section 1.2 of RSK Report).

A baseline noise survey was undertaken during March 2020 in order to characterise noise sources affecting the site (i.e. road traffic at the local road network and train movements on the West Coast Main Line (WCML). The monitoring was completed prior to lockdown measures affecting the UK due to COVID-19 (See Section 4.3 and Figure 4.1 of RSK Report). The report identifies that the noise environment at the northern and eastern site boundary was dominated by road traffic noise from Northampton Road. Also, that when trains passed on the WCML their noise emission was more significant than other noise sources. When no vehicles on the nearby roads and no trains were passing, distant traffic on the M1 motorway and the A43 were audible (see Section 4.5 of RSK Report).

It is reported that averaged daytime noise levels for the eastern parts of the site ranged between 63-66 dB $L_{Aeq(16\ hours),}$ while night-time values were assessed in the range of 53-57 dB $L_{Aeq(8\ hours).}$ These were dominated by noise from traffic using the Northampton Road. Averaged noise levels at the north-eastern section of the site ranged between 58-62 dB $L_{Aeq(16\ hours),}$ while night-time values were assessed in the range of 50-54 dB $L_{Aeq((8\ hours).}$ These were dominated by road traffic noise from Northampton Road and operational rail noise from the WCML (see Section 4.0 and tables 5.1 and 5.2 of RSK Report). The predicted noise levels have been compared with the internal and external amenity criteria recommended in BS 8233:2014 and WHO guidance on night-time sleep disturbance as summarised in Table 7.1 of the RSK Report. This has been undertaken to determine internal and external noise levels at properties across the development and assumes a 10 dB reduction for a partially open window and is based on a site layout given in Appendix 2 of the RSK Report).

The assessment predicts that noise levels across the development site vary, and that the maximum predicted noise levels at a building facade will require glazing to provide a noise reduction of 36 dB and the lowest will require glazing to provide a reduction of 19 dB. The glazing would need to be accompanied by a similar specification trickle ventilation system to preclude the need to open windows. It also predicts that noise levels at some of the proposed dwellings will result in an exceedance of the recommended internal acoustic design target during a situation in which windows are open for

ventilation purposes (see Section 7.1 of the RSK Report). It therefore advises that primary ventilation for the properties will need to be provided by other means, this might be trickle vents with an acoustic rating equal to that of the glazing and recommends that that the specific ventilation requirements for addressing overheating should adhere to the outcomes of both this acoustic report and supplementary feasibility report to ensure internal conditions are suitable for resident occupation.

The assessment also predicts noise levels at the proposed garden areas are expected to be below the upper guideline value within BS 8233: 2014 of 55 dB(A) for the majority of the site, with the exception of the closest proposed gardens to Northampton Road. It goes onto state in the report that “Good acoustic design parameters have been adopted during the initial design of the proposed development in order to minimise noise levels at these garden areas” including the provision of a buffer area between Northampton Road and the site; and locating the proposed properties between the gardens and the dominant noise sources. However, it recommends that further measures are required in order to reduce external noise levels for the closest garden areas to the main noise sources affecting the site, further good acoustic design parameters are recommended to be adopted and recommended that garden fences for the closest development areas to Northampton Road are installed with a height of 2m and constructed from solid timber with a minimum superficial mass of 15 kg/m2; the fences should be double lapped to avoid gaps in joins and should meet the ground with no gaps. Installation of one of these fences as the eastern fence for each of the gardens exceeding the criteria will provide the required noise reduction of approximately 4 dB.

A further assessment has been considered in the report concerning potential impacts from the recently approved Northampton Gateway strategic rail freight interchange located 1.5 km to the east of this proposed development. It is based on acoustic information provided in the Environmental Statement submitted for the strategic rail freight interchange and concludes its impact will be negligible.

Comment

I am generally satisfied that the noise impact assessment has been undertaken in accordance with the relevant standards and procedures. Internal and external amenity criteria are considered in the context of levels recommended in BS 8233:2014 Sound Insulation & Noise Reduction for Building. The assessment indicates that for the proposed development, the exposure situation is mixed and relative to the location of any individual plot to the two main noise sources identified as road traffic using the A508 and West Coast Mainline, as based on a site layout detailed in the RSK Report. Also that a range of mitigation measures need to be provided including appropriate window glazing specification for habitable rooms and also primary ventilation measures that balance the necessary acoustic glazing specification and to ovoid overheating conditions for those plots that will require bedroom windows to remain closed in order to meet the internal noise criteria recommended in the guidance.

Environmental Protection generally recommend that the principle aim, should be to achieve the internal noise level guidelines in noise sensitive rooms with windows open, and also the desirable external amenity area limit, but recognise that this is not always possible in all situations.

The Governments Planning Practice Guidance on Noise advises consideration should be given to whether any adverse internal effects can be removed by optimising the sound insulation provided by the building envelope and by keeping windows closed, but subject to a suitable alternative means of ventilation being provided and consideration being given to the effects of living conditions in such circumstance (i.e. overheating for example - see paragraph 006 Reference ID: 30-006-20190722 & 010 Reference ID: 30-010-20190722 of the Planning Practice Guidance on Noise). Also, it is recommended in BS 8233:2014 Guidance on Sound Insulation & Noise Reduction for Buildings that “Where development is considered necessary or desirable, despite external noise levels above WHO guidelines, the internal target levels may be relaxed by up to 5 dB and reasonable internal conditions achieved (see paragraph 7.7.2, Table 4 and Note 7 of BS 8233:2014).

Environmental Protection would therefore make no adverse comment if the planning authority are minded to approve the development having regard the above mentioned guidance. Since this is an outline application then the precise details of any necessary mitigation specifications will need to be determined for each plot at a detailed application stage as detailed in the RSK Report. This will need to also include specific ventilation requirements for addressing overheating by adhering to the outcomes of both the RSK acoustic report and a supplementary feasibility report on avoiding overheating to ensure internal conditions will be suitable for resident occupation. Specialist advise may need to be sort for this and which should also have regard to the joint Institute of Acoustics, Association of Noise Consultants “Acoustic Ventilation & Overheating Residential Design Guide Jan 2020 for example. A safeguarding condition would therefore need to be imposed to require details of any noise mitigation scheme as follows:-

5.4-PC-Insulation-against-external-noise-dwellings

No development shall commence until a scheme for protecting the proposed dwellings from noise sources affecting the site has been submitted to and approved in writing by the Local Planning Authority. Any scheme shall be based on the recommendations in Environment RSK Noise Assessment for Land South of Station Road, Blisworth 297911-RSK-RP-01(00) dated April 2020) and include a feasibility report on avoiding overheating conditions to ensure internal conditions will be suitable for resident occupation having regard to the joint Institute of Acoustics, Association of Noise Consultants “Acoustic Ventilation & Overheating Residential Design Guide Jan 2020. The proposed noise mitigation scheme shall meet the design aims of the National Planning Policy Framework and Planning Practice Guidance. Any works which form part of the scheme shall be completed in accordance with the

approved details before any of the permitted dwellings to which the scheme relates are occupied.

Reason : To ensure the creation of a satisfactory environment free from intrusive levels of noise to meet the aims of Planning Policy 179 of the National Planning Policy Framework, Planning Practice Guidance on Noise, and Policy G3 of the South Northamptonshire Local Plan.

Noise & Dust during Construction Phase

A requirement for the submission of a Construction (and/or Environment) Management Plan, and which should include a noise and dust impact assessment and details of measures that will be employed during the construction phase of the approved development as outlined in the attached appendix below.

I trust these comments are self-explanatory but please do not hesitate to contact me direct on Ext 2280 if you have any queries regarding these.

Environmental Protection Officer
Environmental Protection

APPENDIX

Noise & Dust during Construction Phase

Construction and demolition activities can generate significant emissions of noise, vibration and dust which can adversely affect the surrounding environment and amenities so it is crucial that relevant control measures should be employed throughout the construction phase of a development project in order to minimise any such effects. The information in this appendix is not intended to duplicate the contents of recommendations referenced in the following sections on control of noise, vibration and dust emissions and developers are directed to refer to the referenced guidance in order to identify relevant the mitigation measures appropriate to the site and development activities that will be undertaken.

1.0 Noise and Vibration

Under the Control of Pollution Act 1974, Part 3, Environmental Protection Act of 1990 and the Noise Regulation Act, noise is a recognised form of pollution and as such can be classified as a nuisance. The Control of Noise (Codes of Practice for Construction and Open Site) Order 1984 gives legal approval for BS 5228, parts 1 & 2, 1984. This provides information on noise and noise control on Construction Sites.

Noise, vibration and dust emissions should be controlled by employing Best Practicable Means (BPM) as prescribed in the following legislative documents and the approved code of practice including BS 5228:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites, The Control of Pollution Act 1972, The Health & Safety at Work Act 1974, The Environmental Protection Act 1990, Construction (Design and Management) Regulations 1994, The Clean Air Act 1993

- In general, noise levels from construction activities at the site should not exceed an $L_{Aeq(1\ hour)}$ 70 dB(A) as determined at 1m in front of the closest façade of a habitable room of the nearest sensitive dwelling. However regard should also be given to noise criteria levels as detailed in Annex E of BS 5228:2009 +A1: 2014 Code of Practice for Noise & Vibration Control on Construction & Open Sites and the lowest relevant recommended guideline value used whether based on “Example Methods 1 or 2 as detailed in Annex E of the British Standard.

- Best practicable means (BPM) will be applied during construction works to minimise noise (including vibration) and dust at neighbouring residential properties and other sensitive receptors arising from construction activities undertaken on the approved development site. As detailed in Section 72 of the Control of Pollution Act 1974 and Section 79 of the Environmental Protection Act 1990 and ncludes amongs other things and outlined in the attached appendix below:-

1.1 General

General measures to be adopted by the Contractor to reduce noise, dust and vibration include:

- Erection of site hoarding to act as minor acoustic screen (The standard hoarding height of 2.44m, with a minimum surface density of not less than 7kg/m2, should be increased to break the line of sight to any residential window.
- Use of super silenced plant where feasible.
- Use of well-maintained modern plant.
- Site operatives to be well trained to ensure that noise minimisation and BPM's are implemented.
- Effective noise and vibration monitoring to be implemented and which should include measurements of noise/vibration/dust where works are being undertaken close to occupied dwellings. The measurements should have reference to the criteria detailed in.
- Reducing the need to adopt percussive and vibrating machinery.
- Bored piling techniques to be adopted to reduce piling induced vibration if required.
- Piles to be broken down using non-percussive techniques.
- Vehicles not to be left idling.
- Vehicles to be washed and cleaned effectively before leaving site.
- All loads entering and leaving the site to be covered.
- Measures to be adopted to prevent site runoff of water or mud.
- Water to be used as a dust suppressant.
- Cutting equipment to use water as suppressant or suitable local exhaust ventilation system.
- Skips to be covered.
- Drop heights to be minimised during deconstruction.
- Use of agreed wet cleaning methods or mechanical road sweepers on all roads around site.
- Set up and monitor effective site monitoring of dust emissions.
- Working hours to be restricted as required by the Local Authority.

Every attempt shall be made to control noise at source. On sites where construction works are in progress everyone has a responsibility to see that activities are carried out in the quietest practicable manner. Where noisy activities are unavoidable the disturbance will be minimised/attenuated by choice of technique, timing, shielding or protection as appropriate.

1.2 Monitoring

As a minimum attended noise monitoring should be undertaken when construction activities are in close proximity to any sensitive receptors such as occupied dwellings, school, or hospital for example, and are likely to generate emissions of noise/vibration.The Contractor should maintain a record of these noise monitoring results.

Monitoring locations should be chosen to accurately measure the worse affected locations on/off site and be subject to agreement with the Environmental Protection Team.

Noise and vibration monitoring should be used by the Contractor as a proactive tool to: improve work processes; identify and address issues as they arise; investigate complaints and check compliance with recommended levels For development of 15,000 square metres of land, or over 100 properties, the following additional monitoring requirements should be considered:

- Continuous noise monitoring should be undertaken at one or more permanent monitoring station(s), being capable of sending text and/or e-mail alerts when trigger levels are exceeded. Trigger levels should be based on the noise criteria detailed in Annex A of BS 5228:2009+A1:2014 as mentioned above.

- If any piling works are involved then also BS 6472-1:2008, Guide to evaluation of human exposure to vibration in buildings-(vibration sources other than blasting), BS 7385-2:1993 Evaluation and measurement for vibration in buildings (guide to damage levels from ground borne vibration). A nominated person at the site should investigate any exceedance(s) of a trigger level as soon as reasonably practicable to ensure that Best Practicable Means are being implemented and measured employed to prevent it continuing.

The effectiveness of all measures should be monitored frequently by the main contractor, reviewed at least weekly and may be subject to inspection by officers of the London Borough of Lewisham.

1.3 Plant and Equipment

Noisy plant or equipment should be sited as far away as is practicable from sensitive buildings. The use of barriers, such as soil mounds, site huts, acoustic sheds or partitions to deflect noise away from noise sensitive areas, is to be employed wherever practicable.

Wherever practicable all plant and equipment should be powered by mains electricity in preference to locally powered sources such as diesel generators. Hand tools should also be electrically powered rather than petrol or diesel driven.

Vehicles and mechanical plant used for the purpose of the works should be fitted with effective exhaust silencers, maintained in good and efficient working order and operated to minimise noise emissions. The contractor should ensure that all plant complies with the relevant statutory and manufacturers• requirements.

2.0 Dust & Air Pollution

Emissions of dust to air can occur during the preparation of the land (e.g. demolition, land clearing, and earth moving), and during construction. Emissions can vary substantially from day to day, depending on the level of activity, the specific operations being undertaken, and the weather conditions. A large proportion of the emissions result from site plant and road vehicles moving over temporary roads and open ground. If mud is allowed to get onto local roads, dust emissions can occur at some distance from the originating site. The scale of these impacts depends on the dust suppression and other mitigation measures applied.

In terms of effects, construction sites can give rise to annoyance due to the soiling of surfaces by dust. Very high levels of soiling can also damage plants and affect the diversity of ecosystems. Additionally, there is evidence of major construction sites increasing long term particulate matter (PM10) concentrations and the number of days when PM10 concentrations exceed 50• g/m3, the daily limit value for this pollutant. Exposure to PM10 has long been associated with a range of health effects.

Also, the Institute of Air Quality Management Guidance on Monitoring in the Vicinity of Demolition and Construction Sites recommends that the approach used to devise an air quality monitoring strategy for a specific construction site should be commensurate with the risk category (“negligible”, “low risk”, “medium risk” or “high risk”) assigned to each of the four potential activities (demolition, earthworks, construction and trackout) as determined using the risk assessment method detailed in the Institute of Air Quality Management (IAQM)Guidance on Assessment of Dust from Demolition & Construction 2014 mentioned above. The nature of the assessment depends on the level or risks involved and the guidance recommends a number of assessment methods and criteria depending on the circumstances. For medium to high risk sites this includes the following criteria for example:-

• PM10 Concentrations: 190 • g/m3 averaged over a 1-hour Period.

• Dust Deposition
{{ Frisbee-type Deposition Gauges: 200 mg/m2/day, averaged over a 4-week period
{{ Glass Slide Deposit Gauges: 25 soiling units (su) per week, measured as a running 4-week average
{{ Sticky Pads: 5% EAC/day, measured over a 1-week period
• Dust flux
{{ Sticky pads where both EAC and AAC are measured over a 1-week period as shown in Table 2 below. It is suggested that a Site Action Level is “High” or above.

A development may include all or some of the following phases which have the potential to generate dust:

- Demolition
- Earthworks
- Construction
- Vehicle Movements and Trackout

It is strongly recommended that a dust risk assessment should be undertaken before the development work commences in accordance with recommendations in “The Institute of Air Quality Management (IAQM)”. Details of the risk assessment should be documented and reviewed throughout the development phase. A copy of the risk assessment document should be held at site and available for an officer from a local authority to view in the event of visiting the site to investigate any complaints received by them concerning dust emissions from the site. Management of dust emissions should be based on the recommendations in that document and which may go beyond some of the following suggestions outlined in this appendix.

It should also be noted that any plant used for the crushing of materials must be authorised by a local authority under the Pollution Prevention and Control 2010 regime. All works should be carried out in accordance with the conditions of such an authorisation. Where plant is used to recycle materials, the appropriate licence from the Environment Agency should be obtained. The process operator should notify the local authority prior to the movement of the plant on to the site.

2.1 General

The following points are intended to provide information and requirements that are specific to the district of South Northamptonshire:

Typical dust control measures may include:-

- Stock piles should be minimised and covered/damped down.
- A water supply/stand pipe will be available on site for dust suppression purposes.
- Vehicle movements: Any loads likely to produce dust shall be covered and wheel wash facilities where necessary will be provided at the exit to the site to prevent tracking of material off site.
- The contractor will monitor on a daily basis the areas immediately surrounding the site to ensure dust and dirt is minimised.
- All personnel working in a dusty area shall, where necessary, wear a dust mask deemed suitable by the HSE (Health and Safety Executive)
- General dust extraction will be used if required and local extraction used whilst wall chasing.
- On completion of demolition and the heavy structural works, the contractor will get a window cleaning company to attend all overlooking, neighbouring properties if required.

Contractor should ensure that the area around the site, including the public highway, is regularly and adequately swept using wet sweeping methods only to prevent any accumulation of dust and mud. Depending on the assessed risk, the use of wheel cleaning facilities may be required.

Effective methods of work should be adopted to prevent dust from becoming airborne at source, including enclosure of fixed plant, addition of moisture, or provision of effective exhaust ventilation and filtering. The application of dust suppressants to the hard surfaces on and around the site can help reduce the re-suspension of dust. Developers should routinely monitor the dust situation of the site in respect activities taking place and dispersal into any nearby residential areas, and check the effectiveness of dust control measure to ensure these are working sufficiently and take any necessary steps if a problem or exceedance arises. Details of any inspections, observations and actions taken should be recorded.

2.2 Monitoring

As a minimum dust monitoring should be undertaken when construction activities are in close proximity to any sensitive receptors such as occupied dwellings, school, or hospital for example, and are likely to generate emissions of dust that would affect them.

Dust monitoring should be undertaken in accordance with the procedures detailed in the Institute of Air Quality Managements (IAQM) Demolition and Construction Site Monitoring Guidance.

Monitoring can range from regular visual observations and record-keeping for smaller, low-risk sites to the installation of real-time automatic particulate monitors at higher risk sites such as those adjacent to occupied dwellings/schools/hospitals for example. The relative and absolute trigger action levels for the devices should be set to ensure the National Air Quality Objectives are not exceeded in respect of PM_{10} and $PM_{1,25}$ and based on the Institute of Air Quality Management Guidelines on the Assessment of Dust from Demolition & Construction. The Contractor should maintain a record of dust monitoring results and should share these with the local planning authority.

If trigger levels are reached and the detector alarms activated, the developer should investigate the cause of the elevated concentrations and take appropriate remedial action. This may involve the temporary cessation of dust-generating activities on site.

2.3 Smoke

The developer should also comply with all regulations introduced under The Clean Air Act 1993. As best practice, the burning of any materials on the site will **NOT** be permitted**.** Suitable provisions will, therefore, need to be in place for the removal of all waste from site.

Contractor should take all necessary precautions to prevent the occurrence of smoke emissions or fumes from the site plant or stored fuel oils for safety reasons and to prevent such emissions or fumes drifting into residential areas. In particular, plant should be well maintained and measures taken to ensure that it is shut down in the intervening periods between work or throttled down to a minimum.