HORSHAM DISTRICT COUNCIL CONSULTATION

TO:	Horsham District Council – Planning Dept
LOCATION:	Former Novartis Site Parsonage Road Horsham West Sussex RH12 5AA
DESCRIPTION:	Residential development comprising approximately 206 dwellings, including the conversion of 'Building 3' and demolition of 'Building 36'. Vehicular access taken from Wimblehurst Road. Car and cycle parking, landscaping and open space and associated works. The replacement of the existing cedar trees at the site.
REFERENCE:	DC/25/0629
RECOMMENDATION:	More Information / Modification

SUMMARY OF COMMENTS & RECOMMENDATION:

We have reviewed the April-2025 Air Quality Assessment, document reference 2509761_02, and have the following comments to make.

MAIN COMMENTS:

Construction Phase

During site clearance, preparation, and construction there is the potential for local residents to experience adverse impacts from noise, dust and construction traffic movements. These should be minimised and controlled by the developer and a dust management plan is recommended as a condition.

Damage Cost Calculation

I tried to replicate the damage-cost calculations using the same inputs you provided in the Air Quality Assessment but got higher outputs for NOx and PM2.5 than you reported. Please could you check your results, and include a detailed breakdown of your workings as supporting evidence?

The annual emission figures should then be entered into the Damage Cost Toolkit:

- Start year = 2027 (opening year)
- End year = 2031
- Price base year = 2025 (baseline year for the project appraisal)

Air Quality Mitigation Plan

Sussex Air (2021) Air Quality and Emissions Mitigation Guidance for Sussex takes a low-emission strategies' approach to avoid health impacts of cumulative development, by

seeking to mitigate or offset emissions from the additional traffic and buildings. It is recommended that the emission mitigation statement contain itemised costing for each proposed mitigation option and total value of all proposed emissions' mitigation. This should be equal to the value from Emissions calculation and total calculated value of emissions' health damage cost. Sussex Air quality guidance aims to avoid the duplication of measures that would normally be required through other regimes. Alternative schemes we would support include:

i. Local Cycling and Walking Infrastructure Plan
ii. Improvements to existing cycling paths, and including cycle paths that meet up with current paths in the development design.
iii. Offsite provision of EV charging points to support the EV Charging Network and Delivery Plans for the local area.
iv. Support the delivery of WSCC Bus Service Improvement Plan
v. Other measures included in the Air Quality Action Plan and Annual Status Report

PM2.5 Targets

Although PM2.5 concentrations were not directly monitored at Park Way in 2023, it is possible to estimate it from the PM10 data using a nationally derived factor. Considering that estimated PM2.5 concentrations are above the PM2.5 interim target of 12ug/m3 for 2028 at Park Way (HO2), it should have been considered in the air quality assessment.

An Interim Planning Guidance on the consideration of the Environmental Act Pm2.5 target in planning decisions was published in October 2024. Applicants are advised to provide evidence in their planning applications that they have identified key sources of air pollution within their schemes and taken appropriate action to minimise emissions of PM2.5 and its precursors as far as is reasonably practicable.

1. How has exposure to PM2.5 been considered when selecting the development site? *Applicants are advised to consider the following in their application:*
    - Site proximity to people (particularly large populations and/or vulnerable groups, e.g. schools, hospitals, care homes, areas of deprivation) and the impact of the development on these,
    - Site proximity to pollution sources and the impact of these on users of the development,
    - Exposure and emissions during both construction and in-use.
2. What actions and/or mitigations have been considered to reduce PM2.5 exposure for development users and nearby receptors (houses, hospitals, schools etc.) and to reduce emissions of PM2.5 and its precursors? *Applicants are advised to explain (with evidence where possible) why each measure was implemented. Or, if no mitigation measures have been implemented, why this was not proposed. Actions can refer to, but are not limited to, the following:*
    - Site layout,
    - The development's design,
    - Technology used in the construction or installed for use in the development,
    - Construction and future use of the development.

Modelling

Diffusion tubes 5,6,7 are triplicates co-located with the NO2 chemiluminescent monitor in Park Way and should not be used as an additional verification factor of the model. We have been monitoring air quality in Horsham for many years, and in 2023 there were 11 air quality monitoring sites in Horsham. Further clarification why only one site was used in the baseline and model verification.

The LAQM Technical Guidance 2022 states that *Care needs to be taken when applying model adjustment based on one monitoring site only as the adjustment may not be representative of other locations.*

For the verification and adjustment of NOx/NO2, a combination of continuous monitoring and diffusion tubes is recommended. As described above, some types of sites can perform differently, and it is considered better to have multiple sites at which to verify results rather than just one continuous monitor. The use of one continuous monitor alone to derive the adjustment factor for a model is not recommended as the monitoring site may not be representative of other locations modelled, and the adjustment factor derived will be heavily dependent on the source to receptor relationship as represented by the meteorological data file used in the dispersion model.

Full statistical analyses to give full picture of the model performance, including (but not limited to):

- The correlation coefficient
- Fractional bias
- Root Mean Square Error (RMSE)

The statistical analyses should also include model performance for PM10 and PM2.5.

Further clarification for why EFT road type rural was applied in the model.

The possibility of cumulative impacts should also be considered to quantify the combined impact at the receptors and assess it against the future baseline. Another future scenario should be modelled, as there is a notable proposed development (DC/25/0415) in close proximity that could contribute to an impact at receptors in combination with the development being assessed.

ANY RECOMMENDED CONDITIONS:

Pre-Commencement Condition: Prior to the commencement of the development, a Construction and Environmental Management Plan (CEMP) shall be submitted to and approved in writing by the Local Planning Authority. During site clearance, preparation and construction the Construction Mitigation measures described in Section 9 of the Air Quality Assessment report (RWDI, April 2025) shall be adopted. The CEMP shall include details of the following relevant measures:

i. An introduction consisting of construction phase environmental management plan, definitions and abbreviations and project description and location
ii. A description of management responsibilities
iii. A description of the construction programme which identifies activities likely to cause high levels of noise or dust
iv. Site working hours and a named person for residents to contact
v. Detailed Site logistics arrangements
vi. Details regarding parking, deliveries, and storage
vii. Details regarding dust and noise mitigation measures to be deployed including identification of sensitive receptors and ongoing monitoring
viii. Details of the hours of works and other measures to mitigate the impact of construction on the amenity of the area and safety of the highway network; and
ix. Communication procedures with the LBL and local community regarding key construction issues – newsletters, fliers etc
x. Details of traffic construction routing to and from the site The construction shall thereafter be carried out in accordance with the details and measures approved in the CEMP for the related phase

Reason: As this matter is fundamental in order to consider the potential impacts on the amenity of nearby occupiers during construction and in accordance with Policy 33 of the Horsham District Planning Framework (2015).

Pre-Commencement Condition: Prior to the commencement of the development, a detailed Air Quality Assessment and Mitigation Strategy shall be submitted to and approved in writing by the Local Planning Authority. The assessment and strategy shall be written in accordance with the Sussex Air (2021) Air Quality and Emissions Mitigation Guidance for Sussex and shall detail the calculated damage costs that will be spent on practical mitigation measures. The approved detail within the strategy shall thereafter be strictly adhered to unless otherwise agreed to and approved in writing by the Local Planning Authority.

Reason: To mitigate the impact of the development on air quality within the District and to sustain compliance with and contribute towards national objectives for pollutants in accordance with Policies 24 & 41 of the Horsham District Planning Framework (2015).

NAME:	Thais Delboni
DEPARTMENT:	Environmental Health
DATE:	14 May 2025