

Our ref: PT/MTW/GM13180/002

Date: 26th March 2024

Your ref:

Mr Gary Rafferty

Lidl GB Ltd

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Dear Gary,

Lidl, Bankwood Way, Birstall - Amendment to Air Quality Assessment Emissions Mitigation

Wardell Armstrong LLP (WA) were commissioned by Lidl GB Ltd to undertake an air quality assessment (REF: GM11587/001/FINAL) to accompany a planning application for a proposed Lidl supermarket, and a separate Home Bargains store with associated garden centre off Bankwood Way, Birstall.

The air quality assessment was completed in January 2021 and was submitted as part of the planning application to Kirklees Council (KC) that year, which subsequently went to committee in March 2022.

The decision notice for this permission was issued in November 2023 (ref. 2021/62/92528/E), however, Lidl GB are now seeking to apply for a Section 73 minor material amendment to bring the approved scheme in line with Lidl's latest specification and to accommodate a slight repositioning of the units following further survey work being undertaken, this results in a reduced number of car parking spaces but increased EV charging provision.

A condition was placed on the planning application in relation to air quality mitigation measures associated with the damage cost calculation undertaken as part of the air quality assessment. Condition 29 states:



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Prior to the commencement of development, a scheme detailing fully costed air quality mitigation measures, based on the cost damage calculation as detailed in the Air Quality Assessment by Wardell Armstrong (ref: GM11587) (dated: January 2021) section 5.2.26 of the report, shall be submitted to and approved in writing by the Local Planning Authority. In the absence of acceptable proposals for Low Emission Mitigation Measures of sufficient value, a Section 106 agreement may be required for the amount up to the estimated damage cost made available to the local authority to spend on air quality improvement projects within the locality. Following completion of the agreed air quality mitigation measures a verification report detailing a breakdown of costs shall be submitted to and approved in writing by the Local Planning Authority. The report shall detail the expenditure of each of the mitigation measures agreed, and this should reflect the total sum of cost damages that have been calculated for the development. The mitigation and measures required by the report will be implemented prior to the retail use of the site commencing”.

As part of the material amendment application, the total gross floor area of the Lidl building has reduced very slightly, and the number of car parking spaces to be provided at the development has fallen. The appointed Transport Consultant for the scheme, Bryan G Hall, have confirmed that this has resulted in a reduction in vehicle trips generated by the proposed development.

It is also worth noting that the updated site layout includes increased Electric Vehicle (EV) charging provision, with the development now incorporating 12 EV spaces (compared to the previous 2 spaces).

As a result of this, the damage cost calculated as part of the January 2021 air quality assessment is now considered to overstate the financial commitment required to offset potential development-generated traffic emissions. Therefore, the emissions mitigation assessment has been updated to reflect the reduced number of vehicle movements associated with the proposed development. The updated assessment has been undertaken in accordance with the West Yorkshire Low Emission Strategy (WYLES) – Technical Planning Guidance document, and incorporates the latest Defra guidance, released in March 2023.¹

¹ <https://www.gov.uk/government/publications/assess-the-impact-of-air-quality/air-quality-appraisal-damage-cost-guidance>



Emissions Mitigation Assessment

The WYLES Technical Planning Guidance, adopted by KC, classifies the proposed development as a 'major' sized proposal. In accordance with this document, any proposed development classed as major requires an emissions mitigation (damage cost) assessment to be undertaken as part of the air quality assessment.

A damage cost assessment provides a basis for quantifying a financial commitment required to offset potential development-generated traffic emissions. An air pollution damage cost assessment utilises the current DEFRA Emission Factor Toolkit (version 12.0.1), available on the Defra website, to estimate the annual link emissions associated with the additional development generated vehicle trips over a 5-year period.

The damage cost calculation has been undertaken using the most recent guidance available from Defra (March 2023), which includes updated damage cost values for both NO_x and PM_{2.5}. The total number of trips in a 24-hour period, generated by the proposed development, is included within the damage cost assessment to determine the transport related emissions. The damage cost calculation uses central damage cost values provided by Defra and applies these to the opening year of the proposed development. Full operation of the development is assumed in the opening year.

Consultation undertaken with Bryan G Hall, the appointed Transport Consultants for the scheme, confirmed that 20% of the trips to and from the site will be new trips, with 80% of the vehicles using the development already on the network. Therefore, the total new vehicle trip generation for the proposed development (i.e., new trips generated by the proposed development, as Annual Average Daily Traffic - AADT) in a 24-hour period is 720 vehicles.

The average trip length is assumed to be 10km and the average speed is 50kph. The calculation has been undertaken for both NO_x and particulate matter (PM) emissions, as these are the major pollutants associated with road traffic emissions. The Defra guidance gives a road transport sector estimated central cost of £84,548/tonne for PM_{2.5}. For NO_x, the Defra guidance gives a road transport sector central cost of £11,682/tonne.

The EFT output (tonnes/annum) for each of the five assessed years is detailed in Table 1 overleaf.



| Table 1: EFT Output (tonnes/annum) | | |
|------------------------------------|-----------------|-------------------|
| Year | NO _x | PM _{2.5} |
| 2025 | 0.460964 | 0.046839 |
| 2026 | 0.408564 | 0.046207 |
| 2027 | 0.359452 | 0.045721 |
| 2028 | 0.313011 | 0.045329 |
| 2029 | 0.269832 | 0.04501 |

The emissions from Table 1 are then multiplied by the estimated sector costs. Table 2 details the central road transport sector cost for each assessed year, beginning with the estimated development opening year of 2025.

| Table 2: Calculated Cost for Each Year (£) | | |
|--|-----------------|-------------------|
| Year | NO _x | PM _{2.5} |
| 2025 | 5384.98 | 3960.17 |
| 2026 | 4772.84 | 3906.72 |
| 2027 | 4199.11 | 3865.62 |
| 2028 | 3656.59 | 3832.51 |
| 2029 | 3152.18 | 3805.49 |
| Total | £40,536 | |

The total damage cost of both NO_x and PM_{2.5} for the proposed development over a five-year period is £40,536. Input data for the damage cost calculation can be seen in Figure 1, below.

| Primary Inputs | | Pollutants | Selected | Standard Outputs | Selected | Additional Outputs | Selected | Advanced Options | Selected | Click the button to: |
|-----------------------------|----------------------|-------------------|----------|--------------------------------|-------------|----------------------------------|------------|-----------------------|----------|---|
| Area | England (not London) | NO _x | Y | Air Quality Modelling (g/km/s) | | Breakdown by Vehicle | | Bespoke Base Fleets | | <input type="button" value="Run EFT"/> <input type="button" value="Clear Input Data"/> |
| Year | 2025 | PM ₁₀ | N | Emissions Rates (g/km) | | Source Apportionment | | Bespoke Euro Fleet | | |
| Traffic Format | Basic Split | PM _{2.5} | Y | Annual Link Emissions | Y | PM by Source | | Fleet Projection Tool | | |
| <i>All must be selected</i> | | CO ₂ | | | | Primary NO _x Fraction | | | | |
| | | | | | | Export Outputs | | | | |
| SourceID | Road Type | Traffic Flow | % HDV | Speed(kph) | No of Hours | Link Length (km) | % Gradient | Flow Direction | % Load | |
| Site | Urban (not London) | 720 | 0 | 50 | 24 | 10 | | | | |

Figure 1: Damage cost Assessment inputs



Proposed Mitigation Measures

In accordance with the West Yorkshire Low Emission Strategy (WYLES) – Technical Planning Guidance, it is expected that the monetary value calculated as part of the emissions mitigation assessment should be used to contribute to on-site mitigation measures, however it is also possible contributions could also be made to off-site mitigation measures planned by KC.

Wardell Armstrong have undertaken further consultation with Bryan G Hall to discuss potential cost values for the proposed mitigation measures within the Travel Plan which would be paid for using the £40,536 figure calculated as part of the emissions mitigation assessment.

Travel Plan Mitigation Measures

Bryan G Hall have provided the following indicative costings associated with the various mitigation measures outlined within the Travel Plan, and the associated cost over the 5-year lifetime of the Travel Plan.

| Table 3: Travel Plan Measures | | |
|--|--|--------------------------------------|
| Measures listed within the Travel Plan | Details | Total cost over 5-year period |
| Measure 2: Sustainable Travel Board to provide staff with sustainable travel information | £500 in Year 1 plus up to £200 printing. | £1,500 |
| Measure 5: Liaison with external bodies to investigate the potential for improvements to facilities and services | Annual events, up to £1,000 each including equipment. | £5,000 |
| Measure 6: Discounted public transport tickets | Assume £60 monthly voucher per staff, and 100 staff over the 5-year period | Up to £6,000 |
| Measure 7: Staff induction (travel pack) | £500 in Year 1 plus up to £200 printing | £1,500 |
| Measure 10: Guaranteed ride home | Up to £500.00 per year | £2,500 |
| Total cost over 5-year period for measures outlined above | | £16,500 |



Some measures outlined within the Travel Plan require implementation by a designated Travel Plan Co-ordinator (TPC) who will be appointed for the proposed development. These include measures such as:

- Advice on personal safety
- Participate in national and local events
- Encourage car sharing

Bryan G Hall estimate the standard fee for the time of the TPC to implement the Travel Plan, over the course of the 5-year period required, is £25,000 (£5,000 per year). An additional £16,500 is expected for delivering the specific measures listed above over the five-year period.

Table 4 outlines the total costs over the five-year period for the proposed Travel Plan mitigation measures and costs associated with the TPC.

| Table 4: Total Costs for Travel Plan Measures | |
|---|--------------------------------------|
| Travel Plan Measure | Total cost over 5-year period |
| Travel Plan measures outlined in Table 3 | £16,500 |
| Costs associated with Travel Plan Co-ordinator | £25,000 |
| Total cost over 5-year period for all proposed Travel Plan Mitigation Measures and TPC | £41,500 |

The total estimated costs for the Travel Plan mitigation measures, as detailed in Table 4, exceeds the damage cost value calculated as part of the emissions mitigation assessment (£40,563) and therefore the damage cost value will be used to pay towards the measures outlined in the Travel Plan.

However, Lidl have also committed to additional mitigation measures at the proposed development over and above their commitment as part of the damage cost value, that will further aid in the mitigation of air quality impacts.

Site Design Measures

Lidl have agreed to a package of pedestrian improvement works in the surrounding area, including a Section 106 highways contribution of £160,000 for the provision of a signalised



crossing on Gelderd Road, and new and upgraded crossing points in the vicinity of the proposed development site.

Electric Vehicle Charging Provision

The proposed development is to include 6 rapid Electric Vehicle (EV) charging points that are able to serve two vehicles at the same time (i.e. 12 rapid EV charging spaces). This has the potential to increase the number of zero tailpipe emission vehicles travelling to the development compared with the previous site layout (which included only 2 EV charging spaces).

The WYLES guidance does not specify the power output required for EV charging points and it is therefore common practice for developers to install standard 7kW chargers. Lidl have confirmed that all EV charging points at the proposed development will meet this specification.

The proposed EV chargers cost approximately £15,000 per unit, and although WYLES guidance states that EV charging provision *“is expected in addition to mitigation arising from the exposure assessment”*, the provision of 12 rapid EV charging spaces (6 chargers) highlights a significant financial contribution and demonstrates Lidl’s commitment to reducing AQ impact in the local area.

Commercial Specific Mitigation Measures

The WYLES guidance states that for commercial developments such as the proposed development, the following mitigation measures should be considered:

- *All commercial vehicles should comply with current or the most recent European Emission Standards from scheme opening, to be progressively maintained for the lifetime of the development.*
- *Fleet operations should provide a strategy for reducing emissions, including the uptake of low emission fuels and technologies such as ultra-low emission service vehicles.*

Lidl have confirmed that all their delivery vehicles currently comply with all recent European Emission Standards and will continue to do so in the future.

Lidl are also beginning to incorporate biogas vehicles into their fleet, using biogas generated from residual food waste from their stores. The proposed development will make use of these biogas trucks.



Summary

The air quality assessment undertaken by Wardell Armstrong in January 2021, predicts that the impact of the proposed development will be not significant. However, mitigation measures will assist in reducing any potential impact and general best practice measures in relation to air quality could be implemented.

The emissions mitigation assessment undertaken as part of the January 2021 air quality assessment has been updated to reflect the reduced number of vehicle movements associated with the proposed development. The result of the updated damage cost calculation, undertaken in accordance with the WYLES Technical Planning Guidance document, shows the total damage cost of both NO_x and PM_{2.5} emissions for the proposed development over a five-year period is £40,563.

Suitable mitigation measures within the Travel Plan for the proposed development have been detailed above, with estimated costs for each measure provided. The proposed mitigation measures from the Travel Plan exceed the damage cost value calculated in the emissions mitigation assessment and therefore there is no need to provide any further financial contributions as part of a section 106 agreement for other additional mitigation measures. Despite this, Lidl have committed to incorporating additional mitigation measures over and above their commitment as part of the damage cost value, that will further aid in the mitigation of air quality impacts.

Yours sincerely

for Wardell Armstrong LLP

PAUL THRELFALL

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MALCOLM WALTON

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