
APPENDIX 14.1- OPERATIONAL (COMMERCIAL & INDUSTRIAL) WASTE CALCULATIONS

1.1 COMMERCIAL WASTE

- 1.1.1 Calculated utilising the minimum required space for an individual working in an office as specified in Regulation 10 of the workplace, (Health Safety and Welfare) Regulations 1992 as 4.6m² per employee. The total office floor area of office space (24,435 m²) was then divided by 4.6m² to give an estimate of the maximum number of employees, calculated as 5,312.00 employees.
- 1.1.2 The proposed development is estimated when fully operational to provide up to 7,500.00 jobs based on standard densities, and assuming full implementation of the mezzanine floorspace allowed for in the proposals.
- 1.1.3 For this assessment, the remaining 2,188.00, (7,500 – 5,312) employees are attributed to the warehouse and rail freight aspects of the proposal and will be considered under the industrial waste section of the operational arisings.
- 1.1.4 Based on BS 5906:2005 Waste Management in Buildings – Code of Practice which estimates 50 litres of waste generation per employee per week.
- 1.1.5 50 litres (converted to tonnes based on a 1:1 ratio) equals 0.05 tonnes. Based on the above, 0.05 tonnes of waste produced per employee (0.05 x 5,312 employees) = 266 tonnes per week produced. Therefore, the yearly total arisings (266 x 52 weeks in the year) is **13,832.00** tonnes produced per year.

1.2 INDUSTRIAL WASTE

- 1.2.1 The total warehouse and mezzanine floor area (sqm) (598,889.00 m²) was used in combination with BS 5906:2005 Waste Management in Buildings – Code of Practice which estimates a 5-litre generation of waste per sqm of industrial floor space per week.
- 1.2.2 5 litres were converted to tonnes based on a 1:1 ratio which equals 0.005 tonnes. 0.005 tonnes of waste produced per sqm of industrial floor space per week (0.005 x 598,889.00 Sqm) = 2,994.00 tonnes per week produced. Therefore, the yearly total arisings (2,994.00 x 52 weeks in the year) is **155,688.00** tonnes produced per year.
- 1.2.3 The number of employees estimated to be associated with this aspect of the development is 2,188. Based on BS 5906:2005 Waste Management in Buildings – Code of Practice which estimates 50 litres of waste generation per employee per week.
- 1.2.4 50 litres (converted to tonnes based on a 1:1 ratio) equals 0.05 tonnes. Based on the above, 0.05 tonnes of waste produced per employee (0.05 x 2,188 employees) = 110 tonnes per week produced. Therefore, the yearly total arisings (110 x 52 weeks in the year) is **5,720.00** tonnes produced per year.
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Waste	Waste (Tonnes Per Annum)
Office	5,720.00
Industrial	155,688.00
Total Arising's	161,408.00
Total Arising's assuming a 52% recycling rate (Ref 14.14)	83,932.00