



Appendix A8.1
Embodied Carbon

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This appendix provides the key parameters and GHG outputs associated with embodied carbon emissions during the Construction Phase, as shown in Table 1. The most significant contributor to the embodied carbon emissions is steel which accounts for 48% of total embodied carbon emissions followed by asphalt at 23%, as listed in Table 1.

Table 1: Embodied Carbon Emissions During Construction of the Proposed Scheme

Embodied Carbon Material	Tonnes CO _{2eq} / Total	% Contribution
Asphalt	5,105	23%
Aggregates	550	2%
GGBS	146	1%
Steel	10,517	48%
Other	5,364	24%
Transport of Materials	369	2%
Total	22,051	100%

The key parameters and associated GHG outputs associated with embodied carbon emissions during the maintenance phase are shown in Table 2. The most significant contributor to the embodied carbon emissions is asphalt which accounts for 91% of total embodied carbon emissions followed by steel at 7%.

Table 2: Embodied Carbon Emissions During Maintenance of the Proposed Scheme

Embodied Carbon Material	Tonnes CO _{2eq} / Total	% Contribution
Asphalt	1,030	91%
Steel Columns	81	7%
Other	20	2%
Total	1,131	100%