

Category (Aligned to the GHG Protocol Corporate Standard)	Carbon Emission Source	Calculation Assumptions	Recycling Type	2020				2022				Mitigation Measures	Cost Implications of Mitigation Measures (£)			
				Conversion Factor	Annual Consumption	Unit	Amount (Tonnes)	Amount (Kg CO2e)	Amount (Tonnes)	Amount (Kg CO2e)						
NOT APPLICABLE TO BEN ADAMS ARCHITECTS																
Scope 1	Direct emissions arising from owned, leased or directly controlled stationary sources that are fuel-burned and/or are subject to combustion in a boiler or engine															
Scope 2	Electricity from the generation of purchased electricity, heat steam or cooling	Conversion of purchased electricity / gas at 99 Southbank Street Grid Energy - 100% renewable energy		0.21233	53363 kWh	11330.57	11.3306	kWh	53363 kWh	11330.57	11.3306	Reducing energy consumption through the following measures: - Use of smart meter energy monitoring to identify usage and patterns - Monitoring use of air conditioning prior to any passive strategies for thermal comfort as much as possible - Using natural ventilation in the summer - Using remote blinds to avoid overheating - Encouraging wearing extra layers in winter and removing layers in summer - Identifying thermal zones within the office and adjusting temperature for each zone - Changing automatic sensor settings for light fittings to minimise lighting used - Conduct an energy audit - Upgrading existing blinds/shading blinds to sky lights? - Upgrading inefficient office equipment to more energy efficient A+ rating equipment - Upgrading lighting to energy efficient LEDs - Provision of plants within the office to improve air quality - Moving to Cloud - providing flexibility, enabling working from outside our premises, reducing heat generated by machines, minimising need for high capacity ground/air conditioning - Encouraging a holistic approach to the office - Use a carbon-negative search engine e.g. Ecosia - Free - Quotation required - Appliance audit required - Lighting calculation required - £200 Budget cost - Further IT input required - Free - Free - Many refrigeration, the protection and air conditioning equipment contain a type of F gas (fluorinated greenhouse gas), which has a large carbon footprint. Please include the type and quantity of top up that has been done during the reporting year. You can find this information in the service sheets provided by your air conditioning or refrigeration contractor				
Scope 3	1. Purchased goods and services	1a. Water supplied to subject	Taken from bills provided by Caste Water	18m3 of water for 12 months	GHG Emissions Calculator, UNFCCC	0.149	18 m3	2.682	0.002682	18 m3	2.682	0.002682				
		1b. Consumable supplies (Weight generally taken from recycling amounts)	Plastics (equivalent to mixed recycling)	Based on paper order from January 2019 to January 2020 2111 kg = 48,200 sheet boxes = 243.2 kg = 1127.92 kg	Delta Conversion Factors	3116.29	2500 Kg	2.500	7790.725	7.791	2500 Kg	2.500	7790.725	7.791		
			Cardboard		Delta Conversion Factors	821.2300	750 Kg	0.750	615.923	0.616	750 Kg	0.750	615.923	0.616		
			Office paper consumption		Delta Conversion Factors	739.40	1127.920 kg	1.128	833.984	0.834	2 x 250 A3 sheets	4.680 kg	0.005	3.460	0.0035	Reducing paper consumption through the following measures: - Facilitate paperless communication e.g. use friendly PDF files, templates, provision of search packs etc. - Encourage re-use of one-sided printed paper for drafts e.g. providing tray for one-sided prints - Use of heavier paper for day to day prints and only use thicker paper only when necessary e.g. for presentations - Upgrading office paper to 100% recycled paper - Free
			Coffee		Delta Conversion Factors	116.13	1188 Kg	1.188	137.962	0.138	1188 Kg	1.188	137.962	0.138		
			Food (excluding employee lunches)	Calculate assets and meals Food (kg per week) Snacks (kg per week) Tea (kg per week) = 36kg per year	Delta Conversion Factors	3701.40	750 Kg	0.364	1347.310	1.347	750 Kg	0.750	2776.050	2.776		
			Glue		Delta Conversion Factors	1402.77	600 Kg	0.600	841.662	0.842	600 Kg	0.600	841.662	0.842		
			Annual Christmas meal	1 average meal = 400g 33 people x 400g = 14.3kg Alcoholic beverage average 3 per each of 33 employees	GHG Emissions Calculator, UNFCCC	3701.40	14.70 Kg	0.01470	54.411	0.054	14.70 Kg	0.015	54.411	0.054		
			Staff communications - Phones and mobile phone calls	Based on annual O2 bill as of January 2020, excluding expenses claimed by staff using their own mobile phones 2 Phones Each employee prints average 52 sheets per week (45 employees, 50 working weeks)	GHG Emissions Calculator, UNFCCC		6000 £			1.450	6000 £			1.450		
			HP LaserJet Printer	Included carbon of printers would be included in general IT equipment budget Total sheets = 54255			337500 g	337.500	0.338	11250	67500 g	67.500	0.0675			
			IT equipment	Average IT budget (£ per annum)			10000.00 £		11.400		10000 £		11.400			
			3a. Upstream emissions of purchased electricity and heat													
			3b. Transmission & distribution													
			4a. Upstream transport & distribution	4b. Third party transportation and storage of inbound production-related goods	Office Courier Unit: Mileage travelled on carbon emitting vehicles Citygroup annual usage summary - All deliveries or postboxes except 2 deliveries on motorbikes		0.10090	11.26 km	1.136	0.001	11.26 km	1.136	0.001	Reduce courier deliveries, using dedicated couriers with low-carbon emissions delivery e.g. Citygroup, Green Couriers etc.		
Scope 3 - Upstream	5a. Watermeter	Taken from bills provided by Caste Water	18m3 water for 12 months			0.2720	18 m3	4.896	0.0049	18 m3	4.896	0.005				
			General Waste	Annual report by First Mile as of March 2019, February 2020 28% of total waste stream is incinerated to waste electricity	Combustion turned into electricity	21.2940	2250 Kg	2.250	47.912	0.048	2250 Kg	2.250	47.912	0.048		
			Mixed Recycling		Open loop	21.2940	2500 Kg	2.500	53.235	0.053	2500 Kg	2.500	53.235	0.053		
			Cardboard		Closed loop	21.2940	750 Kg	0.750	15.971	0.016	750 Kg	0.750	15.971	0.016		
			Paper		Closed loop	21.2940	25 Kg	0.025	0.532	0.001	1.0875 Kg	0.001	0.023	0.000		
			Colours Grounds	Annual report by First Mile, March 2019, February 2020	Anaerobic digestion	8.9510	1188 Kg	1.188	10.634	0.011	1188 Kg	1.188	10.634	0.011		
			Food recycling	72% of all waste streams is recycled	Anaerobic digestion	8.9510	750 Kg	0.750	6.713	0.007	750 Kg	0.750	6.713	0.007		
			Glue		Closed loop	21.2940	600 Kg	0.600	12.776	0.013	600 Kg	0.600	12.776	0.013		
			IT		Open loop	21.2940	288 Kg	0.288	6.133	0.006	288 Kg	0.288	6.133	0.006		
			WEEE and Toner		Separated into plastic and metal open loop	21.2940	25 Kg	0.025	0.532	0.001	25 Kg	0.025	0.532	0.001		
			4b. Business travel	4a. Business travel	4a. Business travel	4a. Business travel	4a. Business travel	4a. Business travel	4a. Business travel	4a. Business travel	4a. Business travel	4a. Business travel	4a. Business travel	4a. Business travel	4a. Business travel	
			Taxi Site visit / client meetings in London (within 4.8km of 99 Southbank Street)	Average of 3 return trips (9.6km) per week (50 weeks of year)	Delta Conversion Factors	0.14876	1448.4 km	215.465	0.215	Average of 1 return trips per week (50 weeks of year)	482.51 km	71.78	0.0718			
			Taxi Site visit / client meetings in London (within 4.8km of 99 Southbank Street)	Average of 5 return trips (9.6km) per week (50 weeks of year)	Delta Conversion Factors	0.02781	2400.0 km	66.744	0.067	Average of 3 return trips (9.6km) per week (50 weeks of year)	1448.40 km	40.28	0.0403			
			London / Moscow	Assumed 2 persons every 2 months (12 journeys per year) Economy class 2500km each way 3100km return		0.14787	61272 km	9060.3	9.060							
			London / Hongkong	Assumed 2 persons every month (24 journeys per year) Economy class 2800km each way 4700km return		0.24587	16224 km	3989.0	3.989							
			Office annual trip Right	London to Rick for 22 people Economy class 1700km each way 2540km return		0.15102	129200 km	19511.8	19.512							
			Office business trip - Hongkong Airport / Heathrow	Assumed 2 return trips (14 miles each return) every month = 540 km		0.14876	540.74 km	80.4	0.804							
			Office business trip - national rail	100km average trip (1 per month)		0.03549	1200.00 km	42.6	0.426							
			Office business trip - London to Cambridge - national rail	2 return trips = 410km		0.03549				418.42 km	14.85	0.015				
			Overnight stay - Moscow Hotel	Assumed 1 night stay (2 rooms) - every 2 months Russian Federation		37.98	12 nights	455.76	0.456				0.440			
			Overnight stay - Heathrow Resort	Assumed 1 night stay (2 rooms) - every month United Kingdom		13.90	24 nights	333.600	0.334				-			
			Taxi trip Home Hill to Blackford	Assumed 16.00km daily return journey (p.p.) (254 working days) 15 people	Delta Conversion Factors	0.03549	61302.90 km	2175.640	2.176		61302.90 km	2175.64	2.176			
			Tube	Assumed 16.00km daily return journey (p.p.) (254 working days) 15 people	Delta Conversion Factors	0.02781	61302.90 km	1704.834	1.705		61302.90 km	1704.83	1.705			
			Bus	Assumed 16.00km daily return journey (p.p.) (254 working days) 15 people	Delta Conversion Factors	0.07718	61302.90 km	4731.358	4.731		61302.90 km	4731.36	4.731			
Scope 3 - downstream	8. Downstream transport and distribution	8a. Third party transportation and storage of sold products	NOT APPLICABLE TO BEN ADAMS ARCHITECTS													

CARBON FOOTPRINT TOTAL	79.78
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