J Coffey Construction Ltd.
2019 & 2021 Carbon Footprint

By Green Element & Compare Your Footprint

7th February 2022

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J COFFEY CONSTRUCTION

METHODOLOGY AND ASSUMPTIONS

Data Point	Assumptions
Electricity and Gas	• Monthly kWh supplied directly by J Coffey. No assumptions required.
Water	• Water usage (m^3) was available from monthly invoices for Minerva and Infrastructure. • The water reading for Infrastructure included the consumption at Dragor Yard. J Coffey provided an estimated percentage split of consumption between the two sites (40/60 Infrastructure/Dragor). • The invoices for Greenford only provided detail on the total cost. m^3 was calculated from using the volumetric charge (£ per m^3) from the other 3 sites.
Construction Materials	• Embodied carbon emissions were sourced across a wide range of materials from ICE DB, combined with some government factors. • Green Element went through the Easybuild materials spreadsheets and categorised and mapped each line item to the most relevant construction material according to the available carbon factors.

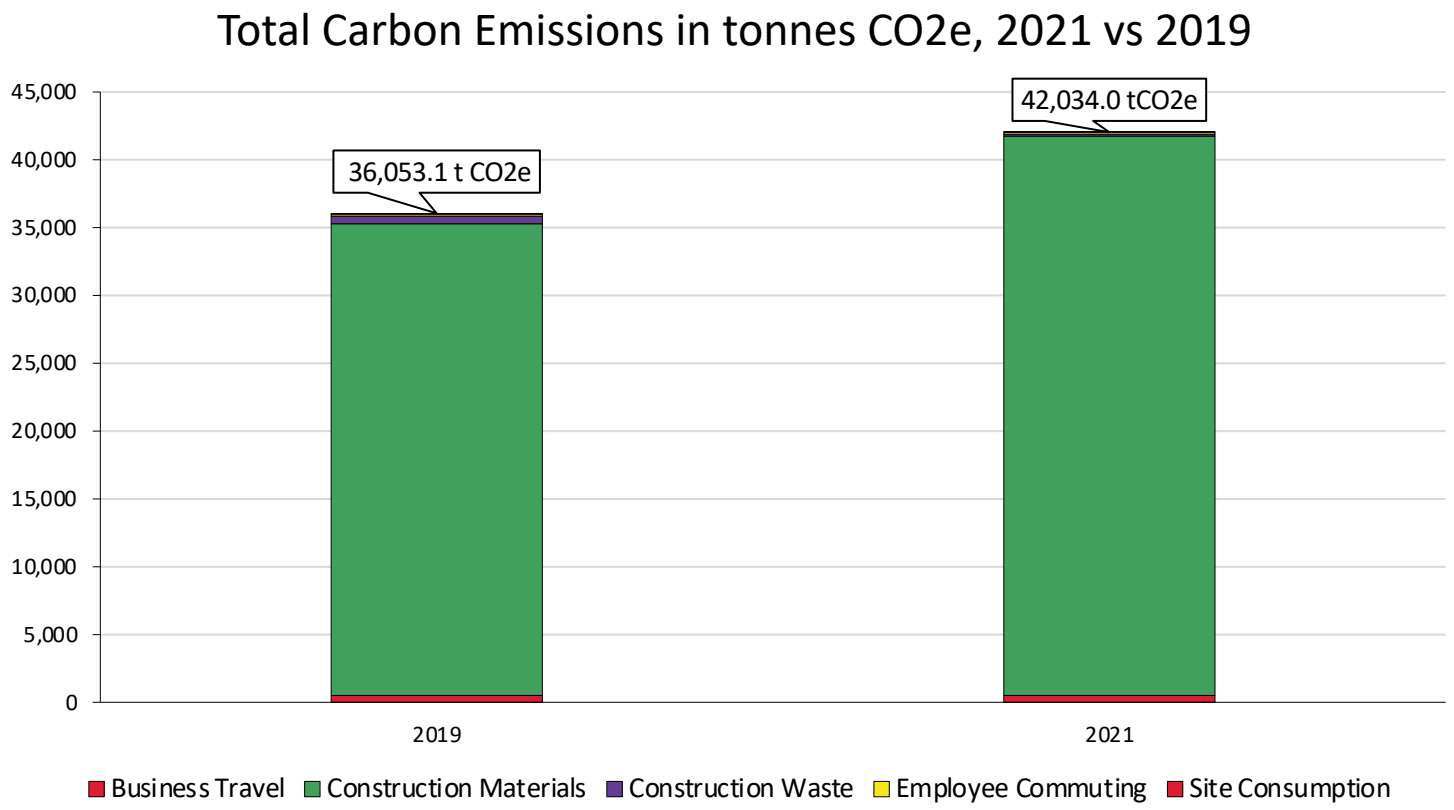
Construction Waste	2019:
	• 36 of the 52 2019 construction sites had detailed O'Donovan 2019 waste reports (included weight by each waste type).
	• To ensure a full baseline year, where waste data was missing for a site, the gap was filled by either:
	  • *Calculating and applying monthly average waste per waste stream from waste reports available for 2020.*
	  • *Using the 2019 Easybuild orders spreadsheet to convert costs of waste (eg: per load) into weights.*
	2021:
	• As these contracts are 'live', it was assumed that waste reports provided from O'Donovan's, RMS, JRL and Sivyer provided a full picture of the quantities of waste per site.

Employee Commuting	2019: • Employee commuting data was provided as a monthly report for 5 active operating sites in 2019 (8009, 8022, 8023, 8032, 8033). The monthly km travelled was multiplied by total months of operation per site. • For sites with no employee commuting data, an average km per commuting transport mode per month was calculated from the above data. The obtained monthly per person values were multiplied by the total workforce number and months of operation supplied per site, by J Coffey. 2021: • Employee commuting data was provided as a monthly report for 16 active operating sites in 2021. The same method was applied for 2021 as detailed above for 2019.

TOTAL ABSOLUTE CARBON EMISSIONS INCREASED BY 16.6% IN 2021 COMPARED WITH 2019

We set a baseline in 2019 including all our operations, construction materials, waste, employee commuting, business travel and office utilities.

In absolute terms, total emissions across all operations increased by 16.6% in 2021 compared with 2019.



TOTAL ABSOLUTE CARBON EMISSIONS INCREASED BY 16.6% IN 2021 COMPARED WITH 2019

Category	2019 tonnes CO2e	2021 tonnes CO2e	Change %
Business Travel	517.6	484.1	-6.5%
Construction Waste	546.2	155.4	-71.6%
Office Consumption	51.7	19.7	-61.9%
Employee Commuting	172.9	116.6	-32.6%
Construction Materials	34,764.7	41,258.1	18.7%
Grand Total	**36,053.1**	**42,034.0**	**16.6%**

Despite the overall increase in emissions, emissions have actually decreased across all categories (with the exception of materials). This is because J Coffey had more active sites in 2021 (61 compared to 52 in 2019) and consequently bought more construction materials in 2021.

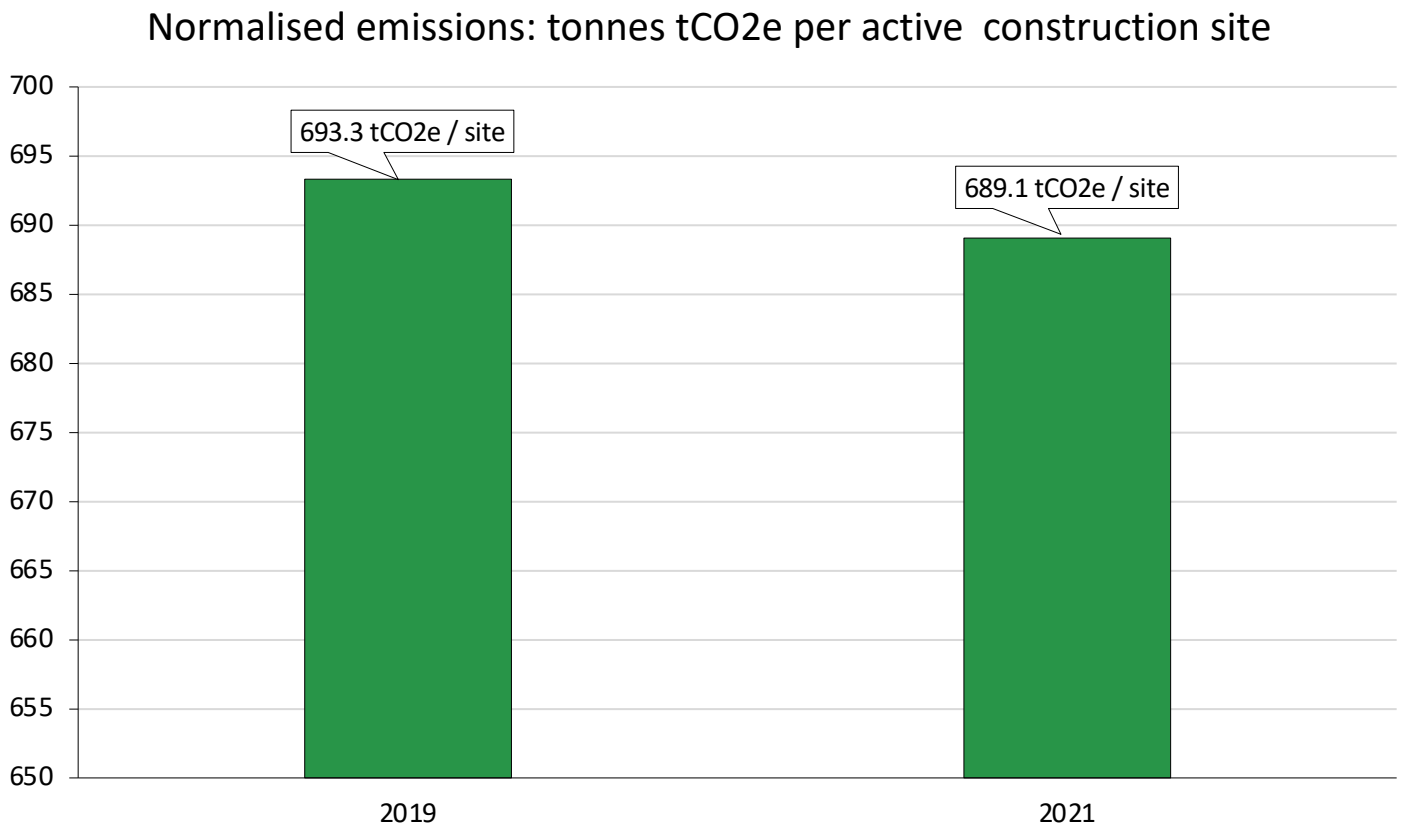
Therefore, emissions have been normalised by both number of active sites (Slide 5) and number of construction items purchased (Slide 6) to take into account the increase in activity.

CARBON EMISSIONS PER ACTIVE PROJECT IN 2021 REDUCED BY 0.6% COMPARED WITH 2019

Emissions have been normalised by the number of active projects* in order to take into account the increased number of sites between 2019 and 2021.

When considering emissions normalised by the number of active project sites, emissions in 2021 have reduce by 0.6% compared with 2019.

The vast majority of emissions come from purchasing construction materials, especially concrete and steel.



*active projects in 2019 = 52, active projects in 2021 = 61.

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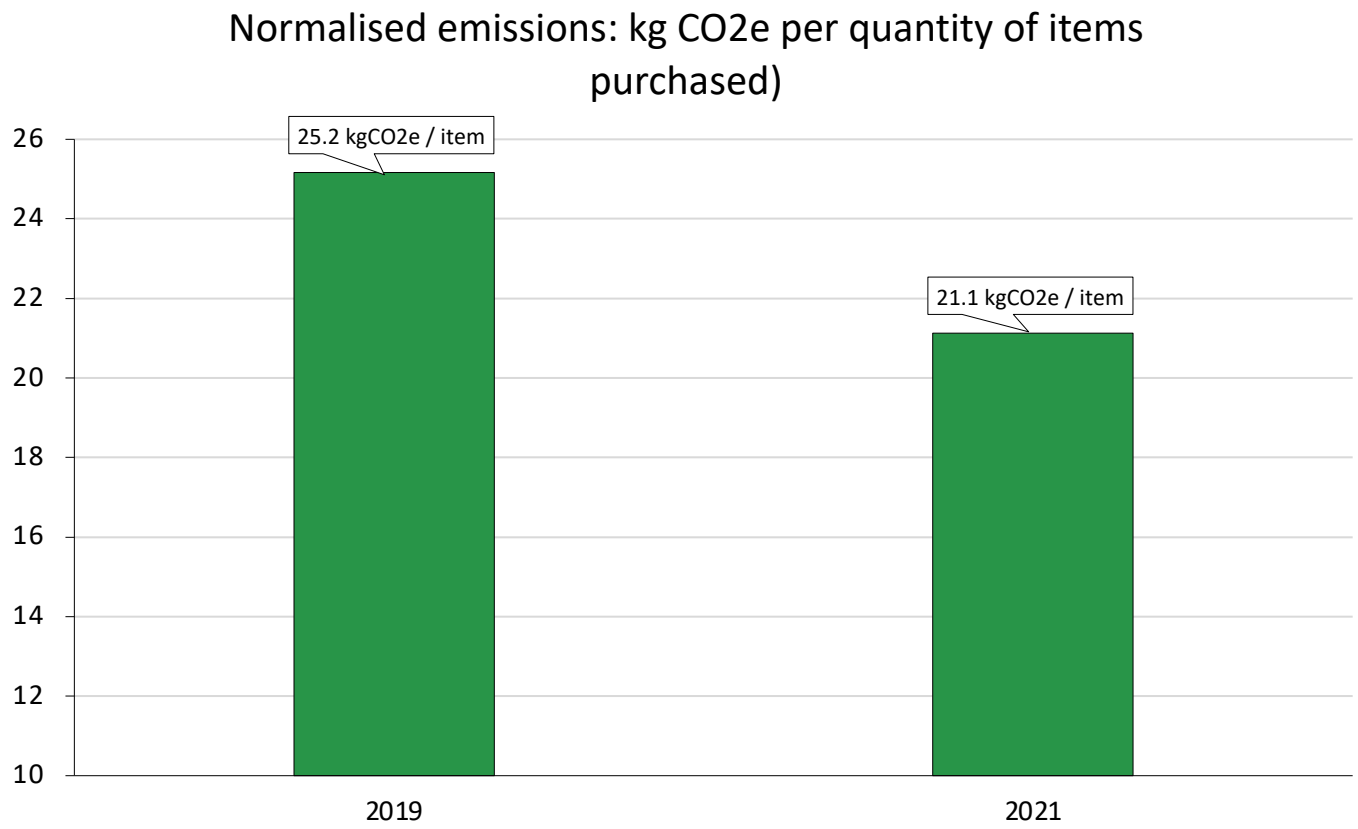
CARBON EMISSIONS PER QUANTITY OF ITEMS PURCHASED IN 2021 REDUCED BY 16.0% COMPARED WITH 2019

Emissions have also been normalised by the number of construction items purchased.

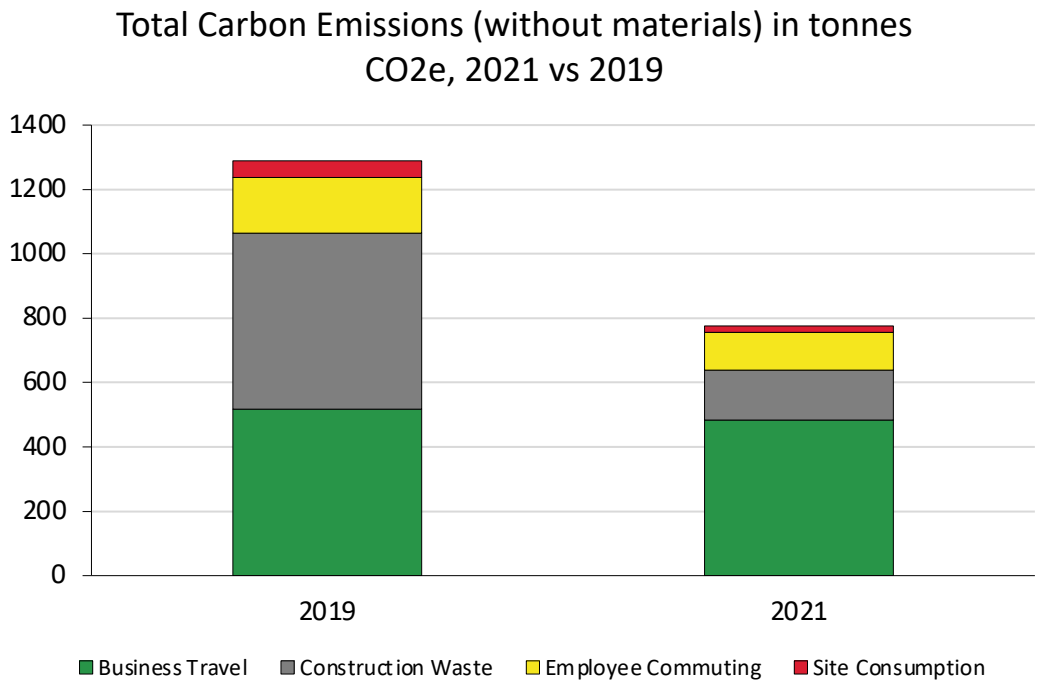
When considering emissions normalised by the number of items purchased in each reporting year, emissions have reduced in 2021 by 16.0% compared with the 2019.

This suggests that the carbon intensity of the construction materials J Coffey are purchasing has significantly decreased between 2019 and 2021.



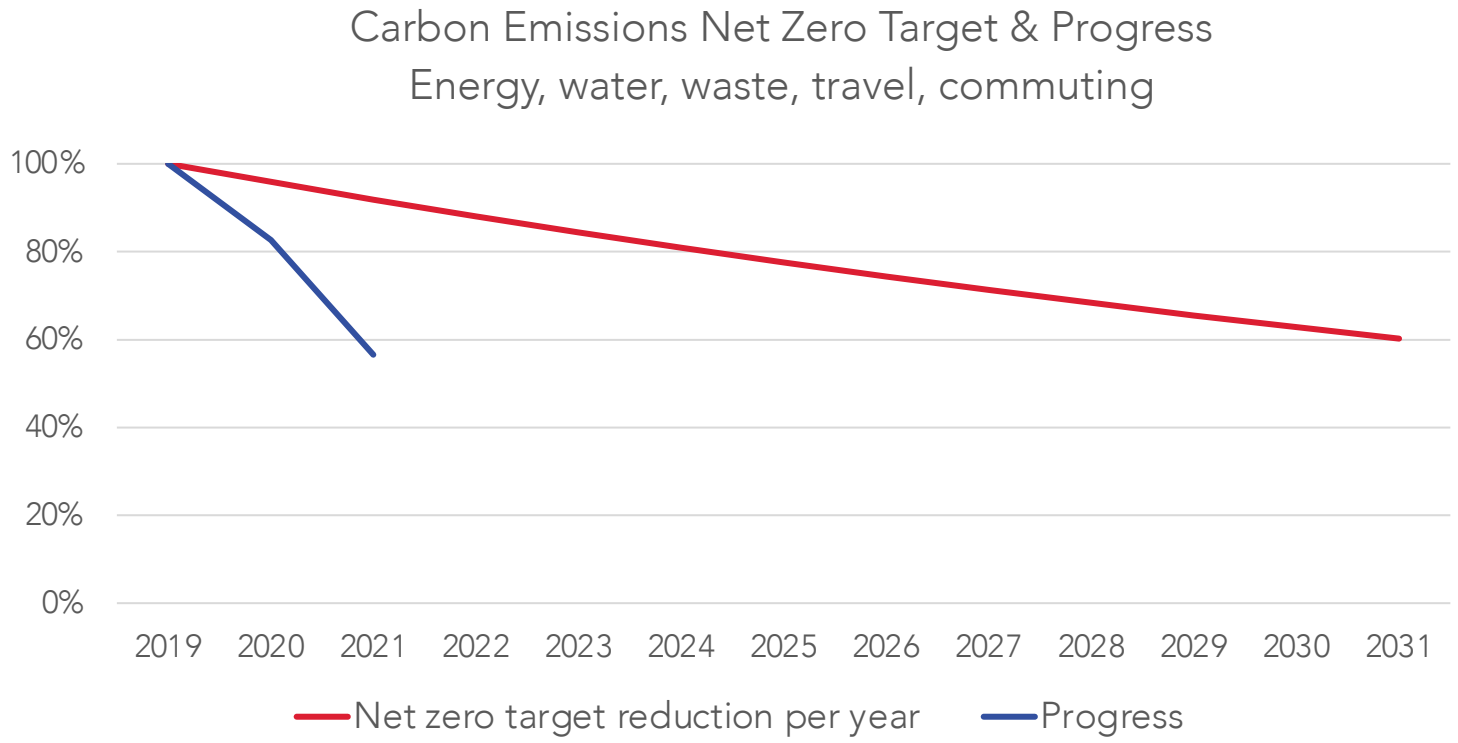
TOTAL CARBON EMISSIONS (WITHOUT CONSTRUCTION MATERIALS) DECREASED BY 39.8% IN 2021 COMPARED WITH 2019

Category	2019 tonnes CO2e	2021 tonnes CO2e	Change %
Business Travel	517.6	484.1	-6.5%
Construction Waste	546.2	155.4	-71.6%
Site Consumption	51.7	19.7	-61.9%
Employee Commuting	172.9	116.6	-32.6%
Grand Total	**1,288.4**	**775.8**	**-39.8%**



Taking out construction materials, emissions have decreased between 2019 and 2021 across all categories. As a result, emissions across business travel, waste, site consumption and commuting have collectively decreased by 39.8%.

TOTAL CARBON EMISSIONS (WITHOUT CONSTRUCTION MATERIALS) DECREASED BY 39.8% IN 2021 COMPARED WITH 2019



Emissions across business travel, waste, site consumption and commuting have collectively decreased by 39.8%.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Thank you