

Carbon Emissions from Transport Calculator Guide

Transport Category



DRAFT

Carbon Emissions from Transport Calculator Guide

Transport Category

Client: Green Building Council of Australia

ABN: N/A

Prepared by

AECOM Australia Pty Ltd

Level 9, 8 Exhibition Street, Melbourne VIC 3000, Australia

T +61 3 9653 1234 F +61 3 9654 7117 www.aecom.com

ABN 20 093 846 925

26-Mar-2014

AECOM in Australia and New Zealand is certified to the latest version of ISO9001, ISO14001, AS/NZS4801 and OHSAS18001.

© AECOM Australia Pty Ltd (AECOM). All rights reserved.

AECOM has prepared this document for the sole use of the Client and for a specific purpose, each as expressly stated in the document. No other party should rely on this document without the prior written consent of AECOM. AECOM undertakes no duty, nor accepts any responsibility, to any third party who may rely upon or use this document. This document has been prepared based on the Client's description of its requirements and AECOM's experience, having regard to assumptions that AECOM can reasonably be expected to make in accordance with sound professional principles. AECOM may also have relied upon information provided by the Client and other third parties to prepare this document, some of which may not have been verified. Subject to the above conditions, this document may be transmitted, reproduced or disseminated only in its entirety.

DRAFT

Quality Information

Document Carbon Emissions from Transport Calculator Guide

Ref \\aume11fp001\projects\60315776\4. tech work area\4.3
esd\02_transport\performance path - carbon emissions from transport\calculator
guide\140326 green star transport category - carbon emissions from transport
calculator guide (final).docx

Date 26-Mar-2014

Prepared by Renan Grace

Reviewed by Chris Walker

Revision History

Revision	Revision Date	Details	Authorised	
			Name/Position	Signature
A	13-Mar-2014	For Review	Chris Walker Senior ESD Consultant	

DRAFT**Table of Contents**

1.0	Introduction	1
2.0	Performance Path - Carbon Emissions from Transport credit development	2
3.0	Glossary of Terms	2
4.0	How the calculator works	2
5.0	Where to find the calculator and how to enter data	3
6.0	Determining the reference case	5
6.1	Mode share	5
6.2	Avoided trips	5
6.3	Average trip length	5
6.4	Work weeks	5
6.5	Walk Score®	5
6.6	Emissions intensity	5
7.0	Determining points from the Transport Calculator	7
8.0	Claiming improvements from the reference case	8
8.1	Design and As Built Rating Requirements	8
8.1.1	Mode share changes	8
8.1.2	Trip length changes	8
8.1.3	Avoided trips changes	8
8.1.4	Work weeks changes	8
8.1.5	Emissions intensity changes	8
8.2	Documentation Requirements	9
Appendix A		
	Project Examples	A

DRAFT

1.0 Introduction

The Green Building Council of Australia (GBCA) and AECOM have developed a Carbon Emissions from Transport Calculator ('the Calculator') that may be used to validate the Performance Pathway in all Green Star rating tools where projects can demonstrate a reduction in carbon emissions from transport by comparing their design to a reference building (see Figure 1).

As an alternative to the Transport category's Prescriptive Pathway, the Calculator determines the number of points awarded out of the 10 available for the Green Star Transport Category. This Calculator Guide ('the Guide') should be used in conjunction with the Calculator in the Green Star Design and As Built tool.

The Calculator determines the number of points awarded based on the proposed emissions reduction, vehicle kilometres travelled reduction, active mode encouragement, and walkable location.

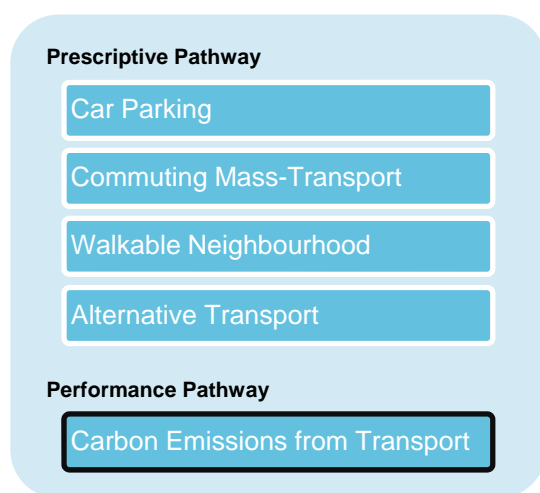


Figure 1: Green Star Transport Credits

Compliance with the Carbon Emissions from Transport Performance Pathway requires a project to demonstrate the carbon emissions from transport generated from typical operations. This value is then compared to carbon emissions from transport for a comparable building of a similar type in a similar location (the 'reference building').

Points are rewarded according to the reductions determined by the calculator. The credit provides carbon emissions reductions as a result of transport design initiatives, such as removal of a car parking space, provision of cyclist facilities or carpooling initiatives.

DRAFT

2.0 Performance Path - Carbon Emissions from Transport credit development

A Transport Calculator has been developed that assigns a total of 10 points, divided into the below criteria:

Criterion 1. Emissions reduction (5 points)

Criterion 1 relates to a reduction in transport emissions directly related to commuting trips to and from the site. Criterion 1 is calculated from commuting trips mode share, average trip length and the proportion of trips that may be avoided (e.g. by working from home). Criterion 1 considers reduction in greenhouse gas emissions which contribute to climate change.

Criterion 2. Vehicle kilometres travelled reduction (1 point)

Criterion 2 relates to a reduction in vehicle kilometres travelled (VKT) for commuting trips, which may be affected by either or both of a reduction in average trip length or a reduction in the mode share of car trips. Criterion 2 considers lessening car dependence which, in addition to reducing greenhouse gas emissions, also reduces local pollution, crashes, and improves social equality as well as having potential financial benefits to commuters.

Criterion 3. Active mode encouragement (1 point)

Criterion 3 relates to an increase in the mode share of walk and bicycle commuting trips, referred to collectively as "active modes". Criterion 3 considers encouragement of transport modes that promote health and fitness to commuters as well as having financial benefits and reducing the societal cost of healthcare.

Criterion 4. Walkable location (3 points)

Criterion 4 relates to a site that is located in a "walkable" location. Criterion 4 is not related to commuting trips but instead considers that motorised trips may be avoided by allowing employees to accomplish errands on foot (e.g. during a lunch break).

Total: 10 points

3.0 Glossary of Terms

- Building population: Refers to the population of permanent staff within a facility. E.g. office staff or teachers within an education facility. The Transport category aims to capture the emissions attributed to the facility being rated, and therefore, does not take into account visitor or students populations
- Mode Share: The proportion of commuting trips that take place by a given mode of transport (e.g. bus, car, bicycle)
- VKT: Vehicle Kilometres Travelled
- ABS: Australian Bureau of Statistics
- SA2: Statistical Area Level 2, a Census geographical unit representing a population of 3,000 to 25,000 people
- MTWP: Method of Travel to Work (a Census statistic)
- Walk Score®: A measure of pedestrian accessibility to amenities (e.g. supermarkets, restaurants etc.) that is publicly available for every address in Australia from the following web address: <<http://www.walkscore.com/>>

4.0 How the calculator works

The calculator works by comparing a reference building from the area to the building that is being assessed for Criteria 1 (emissions reduction), 2 (VKT reduction) and 3 (active mode encouragement). The reference building characteristics are automatically calculated within the spreadsheet tool. Points are assigned by comparing the performance of the building that is being assessed with a reference case. For information on how the reference case is generated, see Section 6.0.

Criterion 4 (walkable location) considers the walkability of the location of the building being assessed. Points are assigned to Criterion 4 using data from the Walk Score® website, separate from the points for Criteria 1, 2 and 3.

DRAFT

5.0 Where to find the calculator and how to enter data

The calculator may be found at the following web address: [<link>](#).

Step 1: Enter the address of the building to be assessed. The address must be entered in the following format:

<Street Number>, <Street Name>, <Street Type>, <Suburb>, <State Code (e.g. NSW)>, <Postcode>

Step 2: Enter the building type. There is a drop down box with a list of possible types. These are listed below:

- Office
- Education
- Healthcare
- Industrial
- Retail Centre
- Public Building
- Multi-unit Residential

Step 3: Press the Find/Reset button. This is used to populate the reference data for the address and building type entered, and may also be used at any time to reset the assessment to its starting point. The SA2¹ and State fields are automatically determine from the address. If these are incorrectly calculated, please adjust the address until the SA2 and state correctly represent the building's location (see Step 1 above).

Steps 1-3 are shown in Figure 2.

Building Address 179 Elizabeth St Sydney NSW 2000

Building Type Office

FIND / RESET

SA2 Sydney - Haymarket - The Rocks

State New South Wales

Figure 2: Steps 1-3: Enter the building address, building type, and press the Find/Reset button

Source: Transport Calculator

Step 4: The mode share percentages, avoided trips, average trip length and work weeks per annum are automatically populated based on the building type and location. Adjust any of those values by using the grey spinboxes on the right of the green cells shown in Figure 3. The other fields, including total emissions, total VKT and percentage of trips using active modes are automatically calculated.

Refer to Section 8.0 for guidance on how to justify changes in mode share.

¹ SA2 maps can be found at the following website on the "downloads" tab:
<<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/1270.0.55.001Main+Features1July%202011?OpenDocument>>

DRAFT

	Reference	Current	Unit	
Train	42.6%	42.6%	Mode Share %	◀ ▶
Bus	25.2%	25.2%	Mode Share %	◀ ▶
Ferry	2.8%	2.8%	Mode Share %	◀ ▶
Tram	0.2%	0.2%	Mode Share %	◀ ▶
Car Driver	15.5%	15.5%	Mode Share %	◀ ▶
Car Passenger	3.1%	3.1%	Mode Share %	◀ ▶
Motorbike	1.1%	1.1%	Mode Share %	◀ ▶
Bicycle	1.7%	1.7%	Mode Share %	◀ ▶
Walk	7.7%	7.7%	Mode Share %	◀ ▶
Avoided trips	2.0%	2.0%	%	◀ ▶
Ave Trip Length	18.3	18.3	km	◀ ▶
Work weeks	48	48	weeks / annum	◀ ▶
trips per annum	470	470	trips / annum	
Emissions per trip	2523	2523	g CO _{2-e} / trip	
Total emissions	1.19	1.19	tonnes / person / annum	
Total vkt	1334	1334	vkt / person / annum	
Active modes	9.4%	9.4%	Mode Share % for Active Modes	

Figure 3: Step 4: Adjust mode share, avoided trips, average trip length and work weeks data for the building being assessed

Source: Transport Calculator

Step 5: The emissions intensity of each transport mode is automatically calculated. The Train and Tram emissions intensities are based on the emissions intensity of the local electricity grid and therefore vary by state. The green cells containing the emissions intensity of car drivers and motorbikes can be modified. Note that car emissions intensity is per VKT and is applied to the driver only, not to passengers.

Refer to Section 8.0 for guidance on how to justify improvements in vehicle emissions intensities.

Emissions Intensity	Reference	Current	Unit	
Train	141	141	g CO _{2-e} / passenger km	
Bus	131	131	g CO _{2-e} / passenger km	
Ferry	131	131	g CO _{2-e} / passenger km	
Tram	152	152	g CO _{2-e} / passenger km	
Car Driver	258	258	g CO _{2-e} / vehicle km	◀ ▶
Car Passenger	0	0	g CO _{2-e} / passenger km	
Motorbike	104	104	g CO _{2-e} / passenger km	◀ ▶
Bicycle	0	0	g CO _{2-e} / passenger km	
Walk	0	0	g CO _{2-e} / passenger km	
Total	138	138	g CO_{2-e} / passenger km	

Figure 4: Step 5: the emissions intensity of each mode is used to calculate transport emissions

Source: Transport Calculator

DRAFT

6.0 Determining the reference case

This Section describes how the reference case emissions, VKT and active mode benchmarks are determined.

6.1 Mode share

Mode share data is determined using SA2 level data from the ABS 2011 Census Method of Travel to Work (MTWP) data. The building being assessed is compared to a reference building which is defined as a building which has the average mode share characteristics of places of employment within the SA2 area with its centroid closest to the location of the building being assessed.

6.2 Avoided trips

Avoided trips refer to the propensity of employees to work from home or otherwise not take a commuting trip during a work week. Avoided trips are not differentiated by SA2 due to the large fluctuations and the difficulty of separating working from home data in the Census between employees who work from occasionally compared to self-employed persons who work from home the majority of the time. The standard value for avoided trips is 2% which is the 2011 Census value for working from home for all of Australia.

6.3 Average trip length

Average trip length for the reference building is determined using the same data as described above. Using transport network analyst along the public road network combined with the number of employees who travel to a given SA2 from every other SA2, it is possible to determine the average trip length for employees who commute to the SA2 of interest. This work was undertaken by AECOM and applied to the tool.

6.4 Work weeks

Work weeks refers to the number of normal working weeks per annum for employees of the reference building. This is assumed to be 48 weeks (assuming 4 weeks of annual leave). Healthcare workers are assumed to work 47 weeks per annum and Education workers assumed to work 40 weeks per annum. This is separate from avoided trips (see Section 6.2) which only refers to additional avoided trips.

6.5 Walk Score®

The publicly available "Walk Score®" website (<http://www.walkscore.com>) is used to determine the walkability of the building's location. Unlike Criteria 1, 2 and 3, Criterion 4 is not calculated by comparison with a reference building. Walk Score® is available for every address in Australia and is automatically calculated within the spreadsheet tool. The Walk Score® is updated directly from the Walk Score® website and therefore always represents the most recently available data.

6.6 Emissions intensity

Emissions intensity is estimated using a report prepared by SKM MMA in 2011 for the former Department of Energy Efficiency and Climate Change². For ferry and bus, supplementary data is used from the United Kingdom Government 2012 greenhouse gas conversion factors for company reporting from the Department for Environment, Food and Rural Affairs (DEFRA)³. Finally, the Australian National Greenhouse Factors (July 2013) are used to represent the emissions intensity of electricity used to power trains and trams.

² Accessed from <http://www.climatechange.gov.au/sites/climatechange/files/files/climate-change/skmmma-transport-modelling-pdf.pdf>, 21st March 2014

³ Accessed from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69554/pb13773-ghg-conversion-factors-2012.pdf, 21st March 2014

DRAFT

Table 1: Emissions intensity values

Mode	GJ per km	g CO ₂ -e per GJ	g CO ₂ -e per km
Car Driver	0.00370 ^A	69,600 ^C	257.5 ^D
Motorcycle Driver	0.00150 ^A	69,600 ^C	104.4 ^D
Bus Passenger	0.01130 ^A	69,600 ^C	123.8 ^F
Tram Passenger	0.00052 ^B	Varies with each state ^E	Calculated from the two cells to the left of this one ^D
Train Passenger	0.00048 ^B		
Ferry Passenger	-		19.3 ^F

Source: SKM MMA Report

^A: Shown as MJ / vehicle kilometre (2008) in Table 6-4 of the SKM MMA report.

^B: Shown as MJ / passenger kilometre (2006) in Table 6-7 of the SKM MMA report. Values are urban, heavy rail (Train) and urban, light rail (Tram).

^C: Shown as kg CO₂-e per GJ of energy in Table 3-3 of the SKM MMA report for Gasoline (other than for use in an aircraft).

^D: Calculated from the two cells to the left of this one. These values are per VKT – the calculation assigns all of the vehicle emissions to the driver and none to the passengers.

^E: This value varies according to the emissions intensity of the local electricity grid. See Table 2 for values.

^F: Calculated from the two cells to the left of this one. Bus occupancy of 6.36 (calculated as an average across a day) was assumed, in order to produce a similar result to the table in Annex 6, DEFRA 2012 (Local bus, not London). Ferry was set to the same value as Annex 6, DEFRA 2012 (foot passengers).

Table 2: Emissions intensity of grid

State	kg CO ₂ -e per GJ
Australian Capital Territory	293
Northern Territory	213
New South Wales	293
Queensland	265
South Australia	202
Tasmania	61
Victoria	368
Western Australia	234

Source: National Greenhouse Accounts (NGA) factors, July 2013

DRAFT

7.0 Determining points from the Transport Calculator

Points are awarded according to Table 3. Emissions reduction points (up to five) are awarded for reducing commuting transport emissions relative to the reference case. The VKT reduction point (one available) is awarded for reducing VKT by more than 10% relative to the reference case. The active mode encouragement point (one available) is awarded for increasing active mode share by more than 50%. Up to three points are awarded for walkable location, with a minimum score of 70 out of 100 required to receive any points.

Table 3: Point assignment

Credit guide	1	2	3	4	5
Emissions reduction	5-15%	15-25%	25-35%	35-45%	>45%
VKT reduction	> 10%				
Active mode encouragement	> 50%				
Walkable location	71 - 80	81 - 90	91 - 100		

Points are automatically calculated from the inputs and are displayed in a table in the format demonstrated in Figure 5.

0.0% reduction in carbon emissions 0 / 5 points for emissions reduction
0.0% reduction in vehicle kilometres travelled 0 / 1 point for vkt reduction
0.0% increase in active mode use 0 / 1 point for active mode encouragement
83 WalkScore 2 / 3 points for walkable location
2 / 10 credits achieved

Figure 5: Point calculations

DRAFT

8.0 Claiming improvements from the reference case

This Section outlines the documentation required to claim improvements against the reference case.

For both Design and As Built ratings, the justifications must be included in a site-specific Travel Plan developed early in the design phase (i.e. Schematic Design phase). The Travel Plan must include a site-specific transport assessment, and the recommendations of the Plan should be included in the design and operation of the building. Refer to the Alternative Transport credit of Green Star Design and As Built for specific requirements of the Travel Plan.

8.1 Design and As Built Rating Requirements

8.1.1 Mode share changes

Making changes to mode share automatically adjusts other mode shares proportionally to their existing mode share to ensure that all modes sum to one hundred.

For projects targeting a Design rating, the following justifications are required:

Walk: Demonstrate that the claimed percentage of building users live (or in the case of a residential building, work) within walking distance of the building. The definition of walking distance depends on the building type. For example, students at a tertiary institution may have a higher tolerance for walking distance compared with office staff. Students at a primary school are likely to have the lowest tolerance for walking distance. It is the responsibility of the project team to justify the definition of walking distance appropriate to the project.

The project team must also justify the assumption that building users live nearby. For example, education or healthcare institutions with associated student or staff accommodation may be able to justify this. The project team is encouraged to submit a Credit Interpretation Request to provide justification of their assumptions.

Cycle: Demonstrate that cycle facilities in accordance with the Green Star Design and As Built Alternative Transport credit criteria are available for the claimed proportion of the building users. The number of cyclist facilities is not required to match the Alternative Transport credit criteria. However, the facilities must meet the requirements for security, weather protection, privacy, provision of showers and lockers etc. as outlined in the Alternative Transport credit.

Car (Driver, Passenger): Demonstrate that car parking is only available for the claimed proportion of car drivers and parking is not freely and readily available near the site for employees to use. An incentive scheme for carpooling or to give up a parking space may also be claimed with documentation of how the scheme works and a justification for the proportion of reduced car trips claimed.

Public Transport (Train, Tram, Bus, and Ferry): Demonstrate that a scheme has been developed for incentivising public transport use. The claimed increase must be proportional to the incentive scheme.

8.1.2 Trip length changes

Evidence must be produced that the workforce for this building commutes shorter distances than the reference case. For example, education or healthcare institutions with associated student or staff accommodation may be able to justify this. This could also apply to a primary or secondary school with a zoning policy for enrolments. The project team is encouraged to submit a Credit Interpretation Request to provide justification of their assumptions.

8.1.3 Avoided trips changes

An incentive scheme must be demonstrated or evidence of past rates of working from home must be produced to justifying increasing the avoided trips percentage for the company or workers/residents in the building. This does not apply to populations such as students, who would not typically receive incentives for working from home.

8.1.4 Work weeks changes

Evidence must be produced of a company policy with a higher than standard allowance for annual leave (i.e. greater than four weeks per annum)

8.1.5 Emissions intensity changes

Evidence must be produced of a company provided green fleet including vehicle specifications demonstrating the grams of CO₂-e per VKT. The vehicles must be available for staff travel between home and work. A fleet made

DRAFT

available solely for staff transport during working hours cannot meet the requirements of this credit, as the credit covers only travel between home and the building.

8.2 Documentation Requirements

Refer to the Technical Manual for Documentation Requirements for Design and As Built submissions.

DRAFT

Appendix A

Project Examples

DRAFT

Example #1

This example is for an office building in a regional town in Victoria. The building's employees are offered small financial incentives for participating in a carpooling program and a larger incentive for cycling to work. Cycling facilities are sufficient to accommodate 5.3% of the building's employees, and are designed to meet the requirements of the Alternative Transport credit in Green Star Design and As Built. This evidence allows the building to claim higher rates of car passenger and bicycle mode share relative to the reference case. Other mode shares are automatically adjusted downwards by the Transport Calculator proportionally to maintain a total mode share of 100%.

	Reference	Current	Unit
Train	0.5%	0.5%	Mode Share %
Bus	1.2%	1.1%	Mode Share %
Ferry	0.0%	0.0%	Mode Share %
Tram	0.1%	0.1%	Mode Share %
Car Driver	83.4%	77.5%	Mode Share %
Car Passenger	7.4%	10.0%	Mode Share % Altered
Motorbike	0.7%	0.6%	Mode Share %
Bicycle	1.4%	5.3%	Mode Share % Altered
Walk	5.2%	4.9%	Mode Share %
Avoided trips	2.0%	2.0%	%
Ave Trip Length	10.5	10.5	km
Work weeks	48	48	weeks / annum
trips per annum	470	470	trips / annum
Emissions per trip	2296	1659	g CO _{2-e} / trip
Total emissions	1.08	0.78	tonnes / person / annum
Total vkt	4129	3833	vkt / person / annum
Active modes	6.6%	10.2%	Mode Share % for Active Modes

In addition, the company that occupies the building supplies company cars that are low emissions and is able to verify that with documentation. As such, they are able to claim lower emissions intensity for those who drive to work.

DRAFT

Emissions Intensity	Reference	Current	Unit	
Train	177	177	g CO _{2-e} / passenger km	
Bus	131	131	g CO _{2-e} / passenger km	
Ferry	131	131	g CO _{2-e} / passenger km	
Tram	191	191	g CO _{2-e} / passenger km	
Car Driver	258	200	g CO _{2-e} / vehicle km	◀ ▶ Altered
Car Passenger	0	0	g CO _{2-e} / passenger km	
Motorbike	104	104	g CO _{2-e} / passenger km	◀ ▶
Bicycle	0	0	g CO _{2-e} / passenger km	
Walk	0	0	g CO _{2-e} / passenger km	
Total	218	158	g CO_{2-e} / passenger km	

Credit guide	1	2	3	4	5
Emissions reduction	5-15%	15-25%	25-35%	35-45%	>45%
VKT reduction	> 10%				
Active mode encouragement	> 50%				
Walkable location	71 - 80	81 - 90	91 - 100		

This building is able to claim 4 out of 10 points, as shown below.

27.7% reduction in carbon emissions	Criterion 1
3 / 5 points for emissions reduction	
7.2% reduction in vehicle kilometres travelled	Criterion 2
0 / 1 point for vkt reduction	
52.2% increase in active mode use	Criterion 3
1 / 1 point for active mode encouragement	
68 WalkScore	Criterion 4
0 / 3 points for walkable location	
4 / 10 credits achieved	

DRAFT

Example #2

This example is an industrial site in suburban Sydney. The building occupier offers subsidised train passes to employees. The site also has excellent cycle facilities and offers small financial incentives for employees that cycle to work. Due to staff accommodation managed by the company, the occupier is also able to demonstrate that their employees are more likely to live locally than the reference case. The project is therefore able to claim shorter trip lengths.

	Reference	Current	Unit	
Train	19.3%	24.4%	Mode Share %	◀▶ Altered
Bus	8.3%	7.6%	Mode Share %	◀▶
Ferry	0.0%	0.0%	Mode Share %	◀▶
Tram	0.0%	0.0%	Mode Share %	◀▶
Car Driver	60.2%	55.2%	Mode Share %	◀▶
Car Passenger	6.3%	5.8%	Mode Share %	◀▶
Motorbike	0.6%	0.6%	Mode Share %	◀▶
Bicycle	0.6%	2.1%	Mode Share %	◀▶ Altered
Walk	4.7%	4.3%	Mode Share %	◀▶
Avoided trips	2.0%	2.0%	%	◀▶
Ave Trip Length	19.4	17.4	km	◀▶ Altered
Work weeks	48	48	weeks / annum	◀▶
trips per annum	470	470	trips / annum	
Emissions per trip	3755	3255	g CO _{2-e} / trip	
Total emissions	1.77	1.53	tonnes / person / annum	
Total vkt	5488	4517	vkt / person / annum	
Active modes	5.3%	6.4%	Mode Share % for Active Modes	

The occupier is not able to demonstrate that their employees drive lower emissions cars than the reference case, so no change in emissions intensity is claimed.

DRAFT

Emissions Intensity	Reference	Current	Unit	
Train	141	141	g CO _{2-e} / passenger km	
Bus	131	131	g CO _{2-e} / passenger km	
Ferry	131	131	g CO _{2-e} / passenger km	
Tram	152	152	g CO _{2-e} / passenger km	
Car Driver	258	258	g CO _{2-e} / vehicle km	◀ ▶
Car Passenger	0	0	g CO _{2-e} / passenger km	
Motorbike	104	104	g CO _{2-e} / passenger km	◀ ▶
Bicycle	0	0	g CO _{2-e} / passenger km	
Walk	0	0	g CO _{2-e} / passenger km	
Total	194	187	g CO_{2-e} / passenger km	

Credit guide	1	2	3	4	5
Emissions reduction	5-15%	15-25%	25-35%	35-45%	>45%
VKT reduction	> 10%				
Active mode encouragement	> 50%				
Walkable location	71 - 80	81 - 90	91 - 100		

The site is located in a highly walkable location, so three points are achieved for Criterion 4. Overall, the building is able to claim five out of ten points, as shown below.

13.3% reduction in carbon emissions	Criterion 1
1 / 5 points for emissions reduction	
17.7% reduction in vehicle kilometres travelled	Criterion 2
1 / 1 point for vkt reduction	
20.3% increase in active mode use	Criterion 3
0 / 1 point for active mode encouragement	
92 WalkScore	Criterion 4
3 / 3 points for walkable location	
5 / 10 credits achieved	