# Movement and Place

## Places

**Credit: 27**

**Points: 3**

## Outcome

The building's design and location encourage occupants and visitors to use active, low carbon, and public transport options instead of private vehicles.

## Criteria

| | | |
|---|---|---|
| **Minimum Expectation** | **Nil** | • The building includes showers and changing facilities for building occupants.<br>• The facilities are accessible, inclusive, and located in a safe and protected space. |
| **Credit Achievement** | **3 points** | In addition to the *Minimum Expectation*:<br>• The building's access prioritises cycling and includes bicycle parking facilities.<br>• A Sustainable Transport Plan has been prepared and implemented.<br>• The building has EV charging capabilities.<br>• Transport options that reduce the need for private fossil fuel powered vehicles are prioritised.<br>• The building's design and location prioritise walking. |

## Additional information

### Stage implementation

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Strategy** | **Brief** | **Concept** | **Design** | **Tender** | **Construction** | Handover | Use |

### Synergies with other credits

- Community Resilience

### Sustainable Development Goals

- Goal 3 (Good Health and Wellbeing)
- Goal 11 (Sustainable Cities and Communities)

### Relevant reporting initiatives

- None

# Requirements

## Minimum Expectation

The project must comply with **both** of the following criteria:

- Changing Facilities
- Accessible, Inclusive, and Located in a Safe and Protected Place

Larger boarding house, hostel, care-type facilities, hospitals, assembly buildings and aged care buildings, are required to comply for staff only, not for short or long-term residents, visitors, or patients. Office, retail, industrial and hospitability buildings are required to comply for regular occupants, not for visitors.

## Changing Facilities

### Showers

The design of the shower facilities must be appropriate to encourage their use. The project team is expected to justify how their location, locker sizes, privacy requirements, and size meet this aim.

The building must install showers based on the regular occupancy of the building:

| Occupants | Showers |
|---|---|
| 0 - 49 | 1 Unisex |
| 50-99 | 2 |
| 100 - 200 | 4 |
| 200+ | Additional 1 per 200 occupants above 200 |

All showers must be at least 900 mm x 900 mm to enhance usability. Showers and bathrooms provided to meet statutory accessibility requirements do not count towards the minimum showers required to meet this *Minimum Expectation*.

Facilities should be located within easy access of the building and close to cycle parking (where provided).

### Lockers

One locker must be provided for every eight regular building occupants or staff. The lockers must be secure and located in the changing rooms.

Lockers provided within tenancies, not in changing rooms, do not count toward this credit.

## Accessible, Inclusive, and Located in a Safe and Protected Place

Upon accessing, pedestrians and cyclists must be protected from the elements and other vehicles. Access must be safe, with consideration given to avoiding steep gradients, surface grip levels, and visibility around tight corners.

Access to the facilities must be well lit between entryway to bike parking, all amenities and lift lobbies and main access points to the building.

All regular building occupants or staff must have easy access to lockers, showers, and building entry. Occupants must be able to find the facilities thanks to clear signage throughout the building and access points.

# Credit Achievement

In addition to the *Minimum Expectation*, the project must comply with **all four** of the following criteria:

- Bicycle Parking Facilities
- Sustainable Transport
- Reducing Private Vehicle Use
- Encouraging Walkability

## Bicycle Parking Facilities

The building's access must prioritise cycling. This means the building's access must be well lit, weather protected, and separated from vehicles. The building must also include access to bicycle parking facilities that are separated from the primary vehicle entrance to ensure safety.

Bicycle parking facilities must have signposted access to the changing rooms amenities as per the *Minimum Expectation*. The bicycle parking facilities must ensure the cycling equipment is safely secured and have easy to use bike racks that suit a variety of bikes to ensure accessible use for all. The amount of bicycle parking facilities is to be informed by the Sustainable Transport Plan.

In a building with residential areas, the access points must connect to the relevant bicycle storage facilities. If these are at a unit level, the project team must show how the access won't be blocked by strata at a later date.

## Sustainable Transport

### Sustainable Transport Plan

The project team must prepare and implement a Sustainable Transport Plan. The requirements or recommendations made in the Sustainable Transport Plan must then be reflected in the design of the building's facilities and ongoing operational processes.

As a minimum, the Sustainable Transport Plan must include all the following:

- A definition of the typical mode share of the development location and development type
- A target mode share for the development that prioritises active and public transport modes, and recommendations on how to achieve them
- Outline of how other modes of transport (carpooling, electric vehicles, and drop-off points) will be encouraged over private vehicle use
- Outline of how Travel Demand Management will be used, where appropriate, to reduce travel demand
- Identification of future projects which may change or influence mode share (such as planned, or under construction infrastructure) and the year of completion for the new infrastructure.
- Roles and responsibilities for implementing, monitoring, and auditing the Sustainable Transport Plan in the building's operational phase
- Outline how on-site cycling safety is achieved, including managing conflict points and maintaining mode separation
- Illustrate, if possible, that the project has considered the site location in the context of safe cycling and has taken reasonable steps to ensure safety of visitors who cycle.

The transport plan must be prepared by a suitably qualified Transport Planner or Engineer.

### Electric vehicle charging

As a minimum, if the project scope includes parking, the building must provide:

- Ready to charge EV charging points to at least 5% of all car parking spaces.
- Connections for car sharing parking spaces, regardless of whether the vehicles are electric at the time of practical completion (in addition to the 5% provided)

- Electrical infrastructure and a load management plan prepared to allow for future installation of EV charging to 25% of all car parking spaces (including the minimum 5% and car share spaces already provided). The mix of EV chargers assumed (e.g., 7kW v 22 kW) must be stated.
- A dedicated, safe, unobstructed route from the electrical supply point which allows for the future provision of all necessary electrical cabling without the need for substantial builders work in connection to the electrical cabling installation.

As part of the Sustainable Transport Plan, the project team must outline how spatial and electrical barriers to the roll out of future provisions have been considered and addressed.

## Reducing Private Vehicle Use

Using the inputs from the Sustainable Transport Plan to complete the NZGBC's *Movement and Place calculator*, the building's design and location must be shown to reduce emissions from transport, encourage public transport use, and reduce vehicle kilometres travelled compared to a reference building. The changes must be at least as follows:

- Emission reduction: 40%
- Active mode encouragement: 90%
- Vehicle Kilometres Travelled (VKT) reduction: 20%

## Encouraging Walkability

The building's design and location must prioritise walking to and from a number of amenities. This means designing roads within the site boundary to prioritise pedestrians, and either providing within, or being located close to, a number of amenities. Walkability is also encouraged through Transit Oriented Design (also called Transit Oriented Development, or TOD), in which the building considers local transit networks in its location and Design. A building following good TOD principles will make it easy for pedestrians arriving by transit to access the building safely and pleasantly.

### Roads

If there are roads within the site boundary, the design must prioritise pedestrians over vehicles. Roads should be designed to be low speed (10km/hr). Pedestrians must have the right of way, and road design must encourage this.

### Amenity diversity

Occupants should have access to a diversity of amenities across the below ten categories. There must be at least 10 amenities across five categories within 400m of the building, as determined by the *Movement and Place calculator*.

- Grocery: e.g., Convenience stores, supermarkets
- Health and wellbeing e.g., dentist, doctor, psychologist
- Food and Beverage: e.g., cafes, restaurants, bars
- Retail: e.g., clothing, homeware, hardware, book, gift stores
- Bank Services: e.g., banks, credit unions
- Education and Childcare: e.g., Primary, secondary, tertiary, or childcare facilities
- Recreation: e.g., movie theatres, fitness centres, swimming pools
- Public facilities: e.g., Libraries, local or state government service centres, post office
- Outdoor facilities: e.g., Playgrounds, parks
- Banking Services: e.g., ATM, bank branch

# Submission content

## Submissions for this credit must contain:

- **Submission form**
- **Evidence** to support claims made in the submission
- **Movement and Place calculator**

## Recommended evidence:

- Transport Drawings showing the provision and location of changing facilities
- As built drawings showing the number and size of showers, and of lockers
- Site drawings or as built drawings showing how the changing facilities are safe and protected
- Sustainable transport Plan including a site-specific transport assessment
- Site plans showing how pedestrian access has been prioritised
- As built drawings showing the number and location of bicycle parking facilities
- Manual calculations showing proximity to amenities

Alternate documentation can also be used by project teams to demonstrate compliance.

The recommended evidence listed above is applicable to the as built submission. See the Design Assessment section in the Introduction for more information on submitting evidence for the Design assessment.

The key requirement is that evidence is provided to support each claim made within the Submission form.

# Guidance

**Occupancy rates**

When calculating occupancy rates, if the project design occupancy values are available prior to issuing of Tender documentation, these take precedence. When these are not available, the project should use the design occupancy (staff) estimation for their Development Application.

**Location of changing facilities**

Facilities can be provided within the building's boundary, or outside. If the facilities are outside the site boundary, they must be within a reasonable walking distance, under the control of the building owner and be accessible to all building occupants (depending on the users being served by those facilities). Reasonable walking distance is defined as a five-minute walk or less.

**Changing facilities**

The design of the shower facilities must be appropriate to encourage their use. The building should consider features such as ironing boards, iron, hanging racks, power points, mirrors, facial lighting, and any other facilities to encourage uptake. The project team is expected to justify how their location, locker sizes, privacy requirements, and size meet this aim.

**Load management plan & system**

Load management systems should be hardware agnostic and localised to prevent building trips when communications drop out. The load management system should manage both AC and DC charging stations.

**Reference project**

A hypothetical building of a similar type located within the same Statistical Areas Level 2 (SA2) as that of the proposed project.

**Cabling route for EVs**

This may be achieved using any combination of electrical containment systems, such as electric cable ducting including drawstrings, electric cable trunking or conduits, or electric cable trays and cable ladders.

**Provision for EVs at practical completion**

EV infrastructure should comply with all relevant Standards and health and safety legislation, be easily accessible and be located undercover. It is noted that trickle chargers, also referred to as occasional use chargers/ emergency chargers/ portable EV chargers which use a standard (three-prong) 220V plug are only recommended in urgent cases and therefore unsuitable to provide as a permanent EV charging solution for staff and visitors.

**Car share spaces**

Car share spaces are dedicated to car share programs and cannot be used by private EVs. They require cables and a power outlet run to these spaces as a minimum. Kiosk (if required) can be installed once EVs are used in the car space.

A Recognised Car Sharing Scheme is one that provides shared vehicles. From Auckland Transport, *shared vehicles are vehicles available to the public (specifically for scheme members) for short term hire which provide a mobility option to mitigate the use of personally owned private motor vehicles*[1].

**Transit orientated design**

Transit (public transport) oriented design is design that encourages transit and active mode travel as default through making it easy to move on foot, particularly around transit stations. This means walkable design with pedestrian as the highest priority, high density development, bicycle friendly design including bicycle parking areas, and reduced and managed parking.

A building following transit-oriented design principles will consider the local transit network, and the context of surrounding buildings, to enhance the walkability of the area especially to and from transit stops.

**Distance from neighbouring buildings**

Walkability is also impacted by the proximity of neighbouring buildings. A building situated in the middle of a large site with no neighbouring buildings, for example a supermarket with a large carpark, is not pedestrian friendly. Buildings should consider the context of neighbouring buildings to provide pedestrian-friendly access where possible, ideally through appropriate location of the building within the site.

**Suitably qualified transport planner**

The suitably qualified transport planner shall hold a relevant tertiary qualification (including, but not limited to, architecture, engineering, sustainability, and planning) and comply with at least one of the following:

- Minimum five years' experience in transport planning
- Has co-authored at least five building Sustainable Transport Plans / Green Travel Plans or similar

# Definitions

**Regular occupants**

For the purpose of this credit, regular occupants are defined as staff or residents. Showers and lockers do not need to be provided for visitors.

Customers or clientele are defined as visitors.

Students in education facilities do not need to be included in the shower calculations but must have bicycle parking and lockers provided.

**Electric vehicle charging Infrastructure.**

The provision of a standard domestic, commercial or industrial power outlet, or wiring to enable the future installation of electric vehicle charging equipment without the electric vehicle charging equipment itself being installed at the time of practical completion, thus making the project electric vehicle ready in the future.

For projects registered under the Green Star Buildings rating tool, it is expected all 5% of the car parking spaces provided with the electric vehicle charging infrastructure are provided with an electric vehicle charging unit at the time of practical completion. Please refer to the Green Star Building - Movement and Place credit for further details.

[1] Auckland Transport Car Share Framework - https://at.govt.nz/media/1991869/auckland-transport-shared-vehicle-car-share-framework-version-2-2023.pdf

# Supporting information

The following resources support this credit:

- SNZ PAS 6011:2021 EV chargers for residential use https://www.standards.govt.nz/shop/snz-pas-60112021/
- SNZ PAS 6010:2021 EV chargers for commercial applications https://www.standards.govt.nz/shop/snz-pas-60102021/
- Waka Kotahi National guidance for public EV charging infrastructure https://www.nzta.govt.nz/planning-and-investment/planning/transport-planning/planning-for-electric-vehicles/national-guidance-for-public-electric-vehicle-charging-infrastructure/
- Electric Vehicle (EV) Charging Infrastructure Practice Note Nov 2018, Economic Development Queensland – QLD Government
- Electric Vehicle Council https://electricvehiclecouncil.com.au/
- Green Star Movement and Place calculator
- Green Star Movement and Place calculation guide