Tra 02 Sustainable transport measures

(All buildings)

Aim

To maximise the potential for people to choose public, active and lower-emission private transport by providing the site with convenient, sustainable options.

Overview

Assessment type	Available credits	Applicable assessment criteria
Fully fitted	10	All
Shell and core	10	All
Shell only	10	All
Residential: Fully fitted	10	All
Residential: Partially fitted	10	All
EU Taxonomy	-	None

Minimum standards

Rating level	Criteria
-	None

Assessment type specific notes

Reference	Assessment type specific note
-	None

Building type specific notes

Reference	Building type specific note
-	None

Assessment criteria

This issue is split into two parts:

- Prerequisite – Transport assessment and travel plan
- Transport options implementation – ten credits

Prerequisite – Transport assessment and travel plan

1 Complete a transport assessment and travel plan in line with Tra 01. If these documents are completed after Concept Design, they can still be used to meet this prerequisite.

Transport options implementation – ten credits

2 Credits are awarded for each sustainable transport measure implemented from Table 48. The selected measures generate credits which are aggregated to a maximum of 10 credits.

Checklists and tables

Table 48: Summary of sustainable transport measures and credits

Option	Sustainable transport measures	Credits
Public transport measures		
1	The existing PTAI calculated as per Tra 01 is worth one point if it is: • ≥ 4 for rural location buildings, and further and higher education buildings. • ≥ 8 for all other building types.	1
2	Improve the existing PTAI by at least 1.00 – any successful intervention receives the full three points. For example: • Negotiating with local public transport companies to increase service provision for the development. • Providing a diverted bus route, a new bus stop, or similar. • Providing a dedicated transport service, such as a bus route.	3
3	Provide up-to-date local public transport information in a convenient, accessible area to help building users plan journeys by public transport.	1
Private transport measures		
4	Provide electric vehicle charging infrastructure, ≥ 7 kW EV charging points and associated cable routes, see M1.	1 or 2
Active travel measures		
5	• Engage with the local authority at the earliest (brief) stage to review public cycle and pedestrian routes. • Agree on possible improvements to the local active travel network that supplement existing plans and are relevant to the site/project. • Select at least one such improvement and carry it out.	2
6	Install at least the minimum number of cycle storage spaces as set out in Table 53 (see M2).	1 or 2

Option	Sustainable transport measures	Credits
7	Having supplied cycle storage space as per Option 7 above, provide building users with at least two of the following facilities: • Showers • Changing facilities • Lockers • Drying spaces. Where facilities are combined – e.g. showers and changing facilities – it must be possible for different people to use them at the same time if they are to count as more than one facility.	1 (non-residential only)
8	Existing amenities: Ensure at least three relevant amenity types within less than or equal to 500 m of proximity (see M4).	1 or 2
9	New or enhanced amenities: Provide relevant and accessible new amenities within less than or equal to 500 m of the building entrance. These can be an enhanced existing amenity, or a new type of amenity (see M4).	2 or 3
Alternative transport measures		
10	Carry out one site-specific improvement measure in line with the travel plan not listed as an option in Tra 02. Submit this for BRE review.	1 to 3

Example

Options 1, 2, 7 and 8 have been successfully implemented = 1 + 3 + 1 + 1 = 6 credits for sustainable transport measures.

Methodology

M1: Electric vehicle charging infrastructure

M1.1: Credits for electric vehicle charging infrastructure for Non-residential

- **1 credit:** Minimum requirements for EV charging infrastructure have been met (see below).
- **2 credits:** Minimum requirements have been met, and the EV charging score is 20 or above, as calculated using all EV charging infrastructure combined (i.e. active and passive). OR, 30% of total parking spaces must be provided as active EV charging spaces, each with a charging point of ≥ 7 kW.

M1.1.1: Minimum requirements

EV charging infrastructure requirements apply exclusively to the parking spaces associated with the assessed building. At least 30% of total parking spaces must have EV charging infrastructure comprising:

- **At least 10% active EV charging:** A minimum of 10% of the total parking spaces must have fully operational EV charging point providing a minimum capacity of ≥ 7 kW.
- **Remaining 20% as passive EV charging: The** remaining 30% requirement must have the necessary infrastructure (e.g., cable routes, electrical supply) to support future demand.

EV charging places must be accessible to all building users. The design team should consider designating a proportion of EV charging spaces to priority parking.

M1.1.2: Calculation method

The EV charging score is calculated as follows:

$$EV\ charging\ score = \frac{\sum(PSxPST)}{TS} x100$$

Where:

PS = Provision score (see Table 50)

PST = Number of parking spaces with the same provision score

TS = Total number of parking spaces associated with the assessed development

Table 50: Provision score for EV charging infrastructure

Provision	Provision score
Active EV charging infrastructure (>7 kW)	0,5
Active EV charging infrastructure (>22 kW)	1
Passive EV charging infrastructure	0,5

Example calculation

For 2 points:

As stated above, a result of ≥ 20 is needed to achieve the maximum 2 points available for providing EV charging infrastructure. This example shows how a building with 100 parking spaces would achieve a result of 20 using the EV calculation method (see Table 51 and Table 52).

Table 51: Example of the provision score for EV charging infrastructure

Example 1	Qty	% total space allocated
Parking spaces	100	-
Active EV charging infrastructure (>7 kW)	0	0%
Active EV charging infrastructure (>22 kW)	10	10%
Passive EV charging infrastructure	20	20%

Table 52: Example score calculation for EV charging infrastructure

Provision	Calculation	Subtotal
Active EV charging infrastructure (>7 kW)	0*0,5=	0
Active EV charging infrastructure (>22 kW)	10+1=	10
Passive EV charging infrastructure	20*0,5=	10

EV charging score = (20 / 100) × 100 = 20

The assessed building meets the minimum requirement that 30% of its parking spaces have EV charging infrastructure, comprising at least 10% active and 20% passive EV charging. Therefore, it receives **2 points**.

M1.2: Credits for electric vehicle charging infrastructure for residentials

Table XX: Credits for electric vehicle charging infrastructure for residentials

EV charging infrastructure	Credits
All parking spaces must be equipped with passive EV charging infrastructure in place, such as cable routes and electrical supply capacity to support future installation of EV charging points.	1
Individual parking: Each new dwelling must have access to at least one active EV charging space (minimum 7 kW). All remaining parking spaces must have passive EV charging infrastructure.	2
Communal parking: At least 20% of the total parking spaces must be equipped with active EV charging infrastructure (minimum 7 kW). All remaining parking spaces must have passive EV charging infrastructure.	2

Accessibility: EV charging places must be accessible to all building users. The design team should consider designating a proportion of EV charging spaces to priority parking.

M1.3: Communal car parking and site-wide campus

Where the assessed building uses a communal car park or is part of a campus:

- The provision for EV charging infrastructure is calculated based solely on the parking spaces (existing and new) associated with the assessed building.

- Where the overall parking area(s) are shared with other buildings, the proportion of communal parking spaces associated with the assessed building should be calculated pro rata. For this calculation, use the building's occupancy relative to the occupancy of the entire site. If occupancy is unknown, use the building's relative floor area.
- The EV charging spaces must be conveniently located near the building and managed to ensure availability for its users.
- Where visitor parking spaces are designated for short-term use only (a maximum of 15 minutes), such as for order collection or drop-off at retail outlets, they can be excluded from the calculation for EV spaces. Other scenarios may be considered where appropriately justified.

M1.4: Phased development

Where phases of a project are assessed at different times:

- Calculations relating to EV charging provision should be based on the spaces associated with the assessed building.
- Pro-rata calculations can include EV infrastructure completed in the current and previous phases, provided it aligns with the phasing plan.
- EV infrastructure from future phases may count if a binding contract ensures delivery, with clear timelines and alignment with the phasing plan.

M1.5: Extensions

Where parking is integrated with the main building:

- The EV infrastructure requirement applies only to the parking spaces associated with the assessed extension.
- Calculate the proportion of the building's total floor area or occupancy represented by the extension.
- Apply this proportion to the total parking provision (new and existing) to determine the number of spaces associated with the extension.
- Use this number of spaces to determine the EV infrastructure requirements based on the relevant criteria.

M2: Cycle storage spaces and cyclists' facilities

Option 6 (1 or 2 credits) and Option 7 (1 credit) from Table 48

Table 53 summarises the minimum number of cycle storage spaces required for each type of non-residential building and table 60 the minimum number of cycle spaces for residential builings. See compliant cycle storage in Definitions.

The number of cyclist facilities required is based solely on the number of cycle storage spaces provided for staff. Cycle storage for visitors, clients or patients does not affect the number of related facilities required (for example, visitors arriving by bicycle don't need facilities to take a shower).

1 The calculation for the required cycle storage spaces and facilities must always be rounded up. For example, a calculated minimum of 5.3 cycle spaces means that 6 spaces must be provided.
2 Minimum cycle space provision:
2.a 4 cycle spaces for all building types.
2.b 10 cycle spaces for large retail assets.
2.c One space per user
2.d 4 cycle spaces OR 1 space per residential
3 These rules apply regardless of any reduction permitted under M2.3 (PTAI=Option 1), M2.4 (rural location), or M2.5 (sliding scale).

Table 53: Cycle storage spaces required for non-residential buildings (Option 7) (Non-residential – 1 credit available)

Building type	Number of spaces	Unit of measure	Notes
Type A	1 per	10 staff	A building predominantly occupied by staff or employees with occasional business-related visitors, e.g. office, industrial, fire station, police station. This includes hospitality, where visitors typically stay for less than one month.
Type B	1 per	10 building users (Staff and visitors)	A building occupied by core staff or employees with a consistently frequent visitors or users (either resident or nonresident). This includes cafés, restaurants, culture and entertainment, sports and leisure and secure accommodations. Compliant cyclists' facilities are required for staff only.
Specific building types			
Retail			
Large retail	1 per 1 per	10 staff AND 20 public car parking spaces	For staff calculation, use the maximum number of staff at any one time or shift. Provide a minimum 10 cycle spaces for building users.
Small retail	4	In total	Spaces are publicly accessible within proximity of a main building entrance. Compliant cyclists' facilities are required for staff only.
Education			
When an educational facility consists of buildings in more than one category (e.g. nursery and primary school), select the dominant building type in the BREEAM Platform. Calculate the requirement separately for each user group and combine the results. For instance, a combined preschool and primary school will need to meet both 1 space per 10 staff and 5 spaces per class in year group requirements.			
Preschool	1 per	10 staff	-
Primary school	5 per	Class in the largest year group	Where the number of classes varies across year groups. For example, a primary school with five classes in its biggest year group would provide 25 cycle storage spaces for the whole school.
Secondary school or higher education	1 per 1 per	10 staff AND 10 students	Secondary school covers education from ages 11–18. Higher education: all students accounted for: • Undergraduates • Post-graduates • PhD students • Post-doctorates

Healthcare			
All healthcare building types	1 per	10 beds OR	Use the largest unit of measure for the building type. For example: • Use beds for a hospital. • Use consulting rooms for a doctor's surgery. • Use staff where this is the largest unit of measure, based on the maximum number at any time or shift.
	1 per	2 consulting rooms OR	
	1 per	10 staff	
Residential institution			
Student accommodation (Halls of residence), key worker accommodation, military barracks, local authority secure residential accommodation	1 per	10 staff AND	-
	1 per	2 residents	
Residential care home, sheltered housing	1 per	10 staff AND	-
	1 per	10 visitors or beds	
Sliding scale of compliance Where the number of building users (based upon the unit of measure) exceeds 200, the sliding scale of compliance can be used to identify the appropriate number of cycle spaces required (see M2.5).			

Tabell 60: Number of cycle storage spaces per dwelling and number of credits available

Size of dwelling	1 cycle storage space for every 2 dwelling	1 cycle storage space per dwelling	2 cycle storage spaces per dwelling	4 cycle storage spaces per dwelling
Studio or one bedroom	1 credit	2 credits	2 credits	2 credits
2-3 bedrooms	0	1 credit	2 credits	2 credits
4 or more bedrooms	0	0	1 credit	2 credits

M2.1: Estimating provision – Unknown building occupancy

If building occupancy is unknown, estimates must be based on either:

- Default occupancy rates (see Table 56), or
- Rates from a comparable building type and size

Justifications must be included in the assessor's report.

M2.2: Cyclists' facilities requirements (Non-residential only)

Cyclists' facilities (e.g., showers, lockers, drying spaces, changing rooms) must be provided based on the number of staff cycle storage spaces. Visitors, clients, and patients are excluded from this calculation.

Facilities must meet the specifications outlined in the Definitions section for compliant facilities.

M2.3: Adjustment for high Public Transport Accessibility Index (PTAI)

Where the site achieves a PTAI score in accordance with Option 1 (from Table 48), the number of required cycle storage spaces and associated cyclist facilities may be reduced by 50%.

Note: This reduction cannot be combined with those in M2.4 (rural location), M2.5 (sliding scale), or M2.6 (public bicycle sharing systems).

M2.4: Rural locations

Cycle storage and associated facility requirements are reduced for rural sites, based on their distance from the nearest urban centre. The applicable reductions are shown in Table 54 below.

Table 54: Rural location distance to reduce the number of cycle storage spaces and cyclists' facilities

Distance to nearest urban location	Cycle storage and cyclist facility requirement adjustment
>15 km	Reduced by 50%
>30 km	Reduced by 70%
>50 km	Reduced by 90%

M2.5: Adjustment for large user assets – Sliding scale

Option 7 from Table 48

Where the number of building users exceeds 200, a sliding scale can be used to reduce the required number of cycle storage spaces, as set out in Table 55 below.

This scale applies up to 5,000 users. Beyond 5,000 users no further cycle storage is required.

The sliding scale of compliance does not apply to the following building types:

- Large retail
- Primary schools
- Residential institutions and military residential buildings

Table 55: Sliding scale of compliance – multiplier based on number of users

Number of users	Multiplier for standard unit of measure
1-200 users	X 1,0
201-300 users	X 1,5
301-400 users	X 2,0
401+ users	X 2,5

Example calculation

For example, an office building with 800 users:

- 1–200 users -> 1 space per 10 users = 20 spaces
- 201–300 users -> 1 space per 15 users (unit of measure × 1.5) = 6.7, rounded up to 7 spaces
- 301–400 users -> 1 space per 20 users (unit of measure × 2) = 5 spaces
- 401+ users -> 1 space per 25 users (unit of measure × 2.5) = 16 spaces

Total compliant cycle storage spaces required = 48 spaces.

M2.6: Public bicycle sharing systems – Partial compliance option

Public bicycle sharing systems and cycle storage

Up to half (50%) of the required cycle spaces for staff (see “Customers and visitors”, below) may be provided by a public bicycle sharing system if the system is:

1. Implemented by the local government through a public-private partnership.
2. Open to casual users who wish to use it for one-way rides.
3. Available at unattended urban locations throughout the city.
4. Supplied with service terminals at maximum 500 m (on average) distance from each other in inner city areas.
5. Available within 500 m of the main building entrance.

Unlike all other cycle storage spaces referred to in this issue, the bicycle terminals of a public cycle sharing system do not need to be compliant as described in the Definitions.

Cyclists' facilities and public bicycle-sharing systems

Using public bicycle-sharing systems to supply cycle spaces does not reduce the requirement for cyclists’ facilities. This is still based on the total number of spaces, including public cycle spaces.

Cycle spaces for customers and visitors for retail assets

For most types of building, shared/public bicycle spaces can only be used to offset the staff cycle space requirement. However, for retail projects, public bicycles count towards up to 50% of customer cycle spaces as well.

M3: Cycle storage spaces and cyclists' facilities on sites with multiple buildings

Option 7 (1 or 2 credits) and Option 8 (1 credit) from Table 48

Where:

- A new or infill building is constructed on an existing site or
- Multiple new buildings are to be constructed on the same site,

Compliance can be assessed either for one building or for the whole site, depending on the configuration and location of the proposed cycle storage and associated facilities. Whichever approach is chosen, the assessor must justify this choice in their report.

M3.1: Standalone approach

The guidance for calculating the cycle storage requirement and associated facilities for a building on a multi-building site is the same as for any single building.

In this case, the location, signage and access must make clear that the cycle spaces assigned to users of the assessed building are for their specific use.

M3.2: Site-wide approach

Where a group of buildings are on a site sharing cycle storage spaces and/ or facilities, the requirement can be calculated based on all site users.

Cyclists' facilities may be located in designated areas to ensure easy access and usability, and existing compliant facilities can be included in the calculation. However, the route to the cycle storage and facilities must be within 500 metres of the main entrance of the assessed buildings, measured along a safe and convenient path.

For sites with strict security protocols, where all staff are required to pass through a centralized facility (e.g., staff room or security checkpoint) before proceeding to their work areas, it is acceptable to calculate the distance only between the cycle storage and the centralized cyclist facilities. Evidence should include a site plan and confirmation of staff movement through the centralized location.

M3.3: Combination of the two approaches

Where appropriate, cycle storage can be provided based on a site-wide assessment, with facilities provided on a building-by-building basis.

In the opposite instance, where cycle storage spaces are provided for a single building, but associated facilities are shared by buildings across the site, the number of facilities must be based on the number of site users rather than on cycle spaces for the single building. Such facilities must be close to cycle storage for all users.

M3.4: Provision for extensions

When assessing an extension to a building, partial refurbishment, or a stand-alone building that extends an existing facility for the same building users, the site-wide approach can be used to determine the number of cycle spaces required.

M3.5: Phasing or pending demolition works

Where cycle storage cannot be installed at the construction stage due to phasing or pending demolition works, compliance can still be shown, provided that:

- Context and justification are given for why the storage is unavailable.
- A written contractual agreement is in place to provide BREEAM-compliant storage within a clear and justifiable time scale, accounting for related works that could reasonably delay the final installation of facilities related to the development.
- In the meantime, alternative storage is provided that allows bikes to be easily stored, removed and locked securely against a fixed structure.

These temporary measures apply to cycle storage spaces only. Provision of cyclists' facilities must be assessed in the usual way.

M4: Existing and new amenities

Option 8 (1 or 2 credits) and Option 9 (2 or 3 credits) from Table 48

To achieve credits under Option 9 or Option 10, the building must have access to relevant amenities. All amenities, whether new or existing, must be within 500 m of the assessed building's main entrance via a safe pedestrian route (see Definitions). The relevant types of amenities are listed in table 46 in Tra 01.

Notes:

1. An amenity can be provided by the assessed building itself if it includes that function, for example, if it provides an appropriate food outlet or a pharmacy.
2. Amenities may be within an assessed building or on-site, for example as part of a campus, retail or business park or centre.
3. Amenities may be part of a masterplan where this has been produced by a single developer, and such amenities may be assessed as new, rather than existing, for building-level assessments on the site.
4. More than one amenity may be provided at a single location, for example, an ATM and a pharmacy within a supermarket development could be considered as three amenities.

M4.1: Existing amenities

M4.1.1: Credits awarded for non-residential buildings

Option 8 (1 credit) from Table 48

One credit can be awarded for providing at least three accessible types of amenities ≤ 500 m via a safe pedestrian route.

M4.1.2: For residentials only

For residential buildings two credits can be awarded meeting the following requirements:

At least two accessible core amenity types must be located within the stated proximity. The remaining number of amenities required must be met using any other applicable amenities.

- **1 credit:** Sites with 4 amenity types within 500 metres or 7 amenity types within 1000 metres, including at least 2 core amenity types.
- **2 credit:** Sites with 4 amenity types within 500 metres and the remaining 3 within 1000 metres, including at least 2 core amenity types.

For residential buildings the following are core amenities:

- Food retail
- School or childcare facility
- Public park or green space
- Postal and parcel services

M4.2: New or enhanced amenities

Option 9 (2 or 3 credits) from Table 48

Two or three credits can be awarded for providing new or enhanced amenities ≤ 500 m via a safe pedestrian route.

An existing amenity that has been enhanced to significantly improve the user experience counts as new and should be assessed as such.

If new amenities duplicate the services provided by existing amenities, this is still recognised. This is because these duplicate amenities still create additional choices for users in terms of services offered and location.

- **2 credits:** at least one new or enhanced amenity type.
- **3 credits:** two or more new or enhanced amenities type.

Compliance notes

Reference	Terms	Description
CN1	PTAI calculation – Changes to public transport services during the assessment	The PTAI is calculated as part of the design stage transport analysis described in Tra 01. It serves as a benchmark from that time and should not be updated at the postconstruction certification stage.
CN2	More onerous requirements	Where the local authority's requirements are more onerous than BREEAM (e.g., number of electric recharging points or cycle storage spaces), these must be met for credits to be awarded.
CN3	Cycle spaces – Public realm provision	Where it is not possible to locate short-term visitor or customer cycle storage spaces within the assessment boundary, these may be provided in a suitable and convenient location within the public realm. The assessor must be satisfied that there is a legal agreement and a long-term commitment to maintain these spaces. Overhead covering may be waived if justified. Existing public spaces do not count toward compliance.
CN4	Cycle spaces – Specialist education assessments	For specialist educational institutions (for example non-acute SEN facilities) assessors should use their judgment on how to base their cycle storage calculations. Supporting evidence needs to be provided, along with the assessor's comments or notes, to clarify the calculations used to demonstrate compliance.
CN5	Cyclists' facilities – Education: Primary schools	Additional facilities for pupils can include adequate cloakroom space for storing outdoor clothing and cycle helmets. For staff, facilities should include 1 locker per 10 staff members and 1 shower per 10 lockers, with at least one shower provided. Primary school pupils are not expected to have private showers or cyclist facilities.
CN6	Cyclists' facilities – Education: Secondary schools	In secondary schools with sports facilities, compliance is met for students by providing lockers, as showers and changing spaces are assumed to be included with the sports facilities and do not need separate assessments. For staff, separate showers and changing facilities must be provided. While locker facilities can be shared with students if appropriately located, staff lockers should be conveniently situated near other staff facilities. The number of showers for staff should be based on the total number of staff, with a minimum of one shower for every 100 staff members.
CN7	Cyclists' facilities – Residential institution (long term stay)	Where there is a BREEAM requirement for residents, compliant facilities within their accommodation can be considered as cyclists' facilities. Separate facilities for staff must be provided as required to achieve compliance.
CN8	Cycle facilities – Shell only or shell and core assessments	Developers must provide all aspects of additional cyclists' facilities within their scope of work and enable future completion of any remaining aspects. For example: if core areas lack facilities such as showers, drying space, or internal walls to tenanted areas, these must be noted on design drawings, with necessary services provided for future installation by tenants. Developers must show that they are enabling future installation of BREEAM compliant facilities within their scope of work. Where internal walls are within scope, a compliant changing area must be provided, however for lockers, compliance can be achieved by providing a design drawing showing that there is an adequately sized and suitably located space for the required number of compliant lockers.
CN9	Limiting or restricting car parking capacity	Compliance typically relies on external requirements such as site constraints, planning restrictions, or nearby public parking, which are not active efforts to reduce private car reliance. Restricting parking is not generally an alternative sustainable transport measure, except when meeting specific criteria: • The travel plan recommends the absence of standard parking. • The development has and Public Transport Accessibility Index ≥ 25. • There is adequate site access, but parking has been deliberately omitted to promote alternative transport. Please submit this as assessment Option 11 for BRE to review.

Reference	Terms	Description
CN10	Phased developments	Where new sustainable transport measures will be provided but at a later stage than the completion of the assessed building, they can still count toward BREEAM compliance provided there is a formal commitment to deliver them within the shorter of: • When 25% of all phases are complete and occupied, or • Within 25% of the total build time for the phase of the assessed building (measured from that phase's completion). Importantly, if these transport measures will not be available within five years of the building's occupation, they cannot be considered for compliance.
CN11	Storage space within the dwelling	Where cycles are to be stored inside the dwelling, the credit cannot be achieved (unless within a porch of adequate size as defined in minimum space requirements).
CN12	EV charging point future provision - residentials	Active EV charging points must be installed. Providing only the infrastructure for future provision is not sufficient. However, compliance could be achieved if the developer covered the cost of the charger and its installation – either by supplying and fitting a charger of the buyer's choice or installing a generic one if the buyer has no preference. If the developer commits to funding the charger and installation while allowing buyers to select a suitable option, they must provide documentary evidence of this arrangement to meet compliance requirements.

Evidence

Criteria	Interim design stage	Post construction stage
1	A copy of the transport assessment or statement. A copy of the travel plan.	No further actions required post-construction; no additional evidence is required other than that listed for the design stage.
2	Documentary supporting evidence to verify how the assessment options have been or will be achieved. Evidence may include: • Design drawings • Clauses of building specifications • Contracts • Commitment letters See individual options for more details.	Robust post-construction evidence to verify measures have been implemented. See individual options for more details.
Sustainable transport options		
Option 1	Submit the PTAI calculation inputs to the BREEAM Platform. Scale map highlighting the location of the building and all public transport nodes in the proximity of the building. Timetables for each service at each public transport node are considered. Calculations to show average services per hour for each node. Where applicable, information about on-demand bus services.	No further actions required post-construction; no additional evidence is required other than that listed for the design stage.

Criteria	Interim design stage	Post construction stage
Option 2	Documentary supporting evidence showing how the PTAI improvement will be achieved i.e. meeting minutes, correspondence with local public transport companies or contractual agreements. PTAI calculations demonstrating the improvement over the existing PTAI.	Final PTAI calculations confirming improvement. Updated evidence, including public transport services, timetables, and maps, submitted for final assessment.
Option 3	Specifications for the public transport information system (e.g., digital displays or online tools). Proposed location and accessibility plan for the information system.	Assessor's site inspection report and photographic evidence of the installed public transport information system. Documentation showing the system is fully operational and provides real-time updates.
Option 4	Design drawings showing the planned EV charging parking spaces (passive and active) and total number of parking spaces provided. Specifications for the EV charging points (e.g., ≥ 7 kW). Submit the calculation inputs to the BREEAM Platform. Contractual agreements or purchase orders for EV charging infrastructure.	Assessor's site inspection report and photographic evidence of the EV charging infrastructure. Final construction drawings or equivalent showing the location of EV charging parking spaces (passive and active) and total number of parking spaces provided. Confirmation of installation of EV charging points (minimum 7 kW) such as manufacturer's data sheets and electrical capacity verification.
Option 6	Correspondence, meeting minutes, or contractual agreements showing consultation with the local authority on cycling and pedestrian routes.	Assessor's site inspection report and photographic evidence confirming the implementation of agreed cycle or pedestrian route improvements. Final construction drawings or equivalent where required.
Option 7, Option 8	Assumptions and calculations used to determine the number of building users for cycle storage and facilities required. Design drawings, relevant sections of the building specifications or contract clauses to confirm compliant cycle storage and facilities will be provided.	Assessor's inspection and photographic evidence confirming the installation of compliant cycle storage and associated cyclist facilities (e.g., showers, changing facilities, lockers). Final construction drawings or equivalent showing the installed cycle storage and facilities.

Criteria	Interim design stage	Post construction stage
Option 9, Option 10	Marked-up site plan or web-based map viewer highlighting: • Building location • Location and type of amenities • Route to amenities • Plan/map scale. For amenities under development, a letter from the client or developer confirming: • Location and type of amenities • Timescale for development	Assessor's site inspection and photographic evidence confirming: • The existence of local amenities. • Route and distance to amenities. OR Updated and dated marked-up site plan or a web-based navigation map viewer highlighting: • Current location and type of local amenities. • Current route and distance from the building via a safe pedestrian route. • Plan or map scale. OR Where amenities are under development, evidence such as the developer's letter outlining progress and timescale for amenities being available.
Option 11	Submitted proposal and confirmation from BRE.	Will be dependent on the proposed improvement measures. General requirements might include: • Assessor's site inspection and photographic evidence. • Final construction drawings or equivalent.

Definitions

Accessible amenities

See Tra 01Building user

Building users are those who will utilize the cycle storage and facilities. Depending on the type of building being assessed, this includes specific groups based on the building's function, such as office staff, commercial staff and visitors, or school staff and students.

Compliant cycle storage spaces

Cycle storage must be secure, protected, conveniently located, safe to use and sufficiently spacious to manoeuvre. The cycle storage spaces must meet the following criteria:

1 Cycle storage spaces must provide with the means to secure one or more cycles with fixings that allow both the wheel and frame to be locked securely. Cycle spaces must be set in or fixed to a permanent structure (building or hardstanding) and covered overhead. Alternatively, they may be located in a locked structure fixed to, or part of, a permanent structure with appropriate surveillance.
2 The distance between each cycle rack, and between cycle racks and other obstructions such as walls, must allow cyclists to access storage easily.
3 Cycle storage spaces must be in a prominent location that is easily seen, either from an occupied building or from the main access to a building. Where cycle storage

spaces are within the building, prominent signage should indicate their location to building users.
4 The cycle storage spaces must have adequate lighting, demonstrated by meeting the lighting criteria in Hea 02 Artificial light. Shell only to demonstrate evidence of future provision.
5 Lighting must be controlled to avoid out-of-hours use and operation during daylight hours when natural light suffices.
6 Cycle storage that is only suitable for folding bicycles or scooters is not compliant.

BREEAM New Construction is not prescriptive about the cycle storage dimensions and type required to demonstrate compliance. The assessor is expected to exercise their professional judgement to determine whether the cycle parking spaces meet the aims of Tra 02a and the requirements listed.

Compliant changing facilities

Compliant changing facilities are defined as those that meet the following:

1 Changing areas must be appropriately sized for the likely or required number of users. The assessor should judge whether the changing area is sufficient based on the number of showers or number of cycle storage spaces provided.
2 Private spaces (not toilets or showers – see 4 below) must be provided for cyclists of any gender to change.
3 Changing areas must include adequate space and facilities to hang or store clothing and equipment while changing or showering, e.g. bench seat or hooks.
4 Toilet or shower cubicles cannot be counted as changing facilities

Compliant drying spaces

A compliant drying space is defined as one that is specifically designed and designated for this purpose. It should have suitable finishes, adequate heating and ventilation, and the facility to hang wet clothes with sufficient air movement around them to dry effectively.

Examples of non-compliant spaces include:

- Plant rooms: their use as a drying space may create a health and safety hazard.
- Coat hooks in cloakrooms or staff changing areas are unlikely to provide adequate ventilation to dry clothing effectively.

Compliant lockers

Compliant lockers are defined as:

1 Sized appropriately for the storage of cyclists' equipment.
2 Adjacent to compliant changing rooms, where provided.
3 The number of lockers is at least equal to the number of cycle spaces required.

Compliant showers

Compliant showers are defined as follows:

1. One shower is provided for every 10 cycle storage spaces, subject to a minimum of one. Any building with eight or more showers complies regardless of the number of cycle storage spaces provided.
2. Showers must cater for both male and female users. Either separate showers within gender-specific facilities (required split 50:50) or single shower cubicles and mixed-use changing spaces. The assessor can consider a deviation from the 50:50 split guidance if justified by occupancy data, or if design teams want a flexible shower arrangement for all users.
3. The showers do not need to be dedicated to cyclists and can be shared with other users or uses.

Dedicated transport service

A dedicated transport service, such as a dedicated bus, provided or managed by the building owner or its management can be considered for any building type with a fixed shift pattern. Examples could include schools, offices, retail, factories, prisons, etc. The dedicated transport must provide a transfer to the local population centre or public transport interchange or be a door-to-door service.

Electric vehicle (EV) charging infrastructure

EV charging infrastructure refers to the network of facilities and equipment designed for charging EVs. This includes:

1. **Active EV charging infrastructure:** specifically designated locations within a parking space with fully installed and functional EV charging points.
2. **Passive EV charging infrastructure:** parking spaces that have the necessary groundwork in place, including cable routes, electrical conduits, and electrical supply capacity in the distribution system to accommodate the future installation of cables and EV charging points.

Large retail

This refers to large retail developments, such as shopping centres, retail parks and supermarkets, which typically will have covered or uncovered parking, or external areas, and therefore scope to provide their own dedicated cyclists' storage.

Priority spaces

Priority spaces are parking spaces designated for users with specific needs, such as people with disabilities, parents with young children, or others who require enhanced accessibility and convenience.

Rural location

This includes any building type for which a rural population has a demonstrable social or economic local need. A rural location is defined as an area outside an urban cluster. Sparse settlements and low population density commonly characterise these areas. Rural locations may face challenges due to limited infrastructure and transportation options. People living in rural areas may be content with longer travel distances and limited access to services and amenities, necessitating greater distances for essential needs. You may refer to the local government's guidance on classifying rural locations.

Small retail

Smaller retail units or shops that may form part of a wider retail or business district, city or town centre, or mixed-use sites, and typically do not have the scope to provide their own dedicated cyclists' storage.

Additional information

Default occupancy rates by building type

Table 56 below provides default occupancy rates for various building types if the number of building occupants commuting to the development cannot be confirmed (see M2.1). Select the most appropriate.

Table 56: Default occupancy rates by building type

Building type and function area	Occupant density
Business	
Office area (including reception areas)	0,111
Food preparation area (staffed)	0,108
Small workshop or category lab space	0,050
Industrial	
Food preparation area	0,213
Industrial process area	0,050
Laboratory	0,050
Reception	0,111
Warehouse storage	0,050
Generic office area	0,108
Hospitals, care homes	
Reception	0,152
Post-mortem facility	0,050
Food preparation area	0,161
Physiotherapy studio	0,200
Bedroom unit	0,105
Laundry	0,117
24-hours consulting or treatment areas	0,070
Assembly areas or halls	1,000
Hydrotherapy pool hall	0,100

Building type and function area	Occupant density
Industrial process area	0,124
Laboratory	0,080
Operating theatre	0,125
Classroom	1,000
Diagnostic imaging	0,100
Generic ward	0,175
Office and consulting area	0,195
Primary healthcare	
Reception	0,110
Office and consulting areas	0,082
Further and higher education	
Residents bedroom	0,120
Classroom	0,203
Food preparation area	0,096
Hall, lecture theathre or assembly area	0,202
Computer laboratory	0,231
Laboratory	0,106
Laundry	0,105
Reception	0,112
Workshop – small scale	0,068
Office and consulting area	0,103
Hotels	
Bedroom	0,050
Food preparation area	0,108
Reception	0,105
Generic office area	0,106
Secure residential institution	
Cell	0,190
Reception	0,121
Hall, lecture theatre or assembly area	0,183
Eating and drinking area	0,141
Workshop – small-scale	0,048
Laundry	0,086
Classroom	0,183
Office and consulting area	0,093
Food preparation area	0,111
Libraries, museums, galleries	
Reception	0,095
Food preparation area	0,176
Hall, lecture theatre or assembly area	0,150
Laboratory	0,098
Workshop – small-scale	0,062
Display and public areas	0,150
Generic office area	0,099
General assembly and leisure, clubs, theatres	
Dry sports hall	0,047
Fitness studio	0,132
Fitness suite or gym	0,170
Food preparation area	0,131

Hall, lecture theatre or assembly area	0,175
Building type and function area	**Occupant density**
Auditorium	0,341
Ice rink	0,225
Performance area (Stage)	0,049
Public circulation areas	0,241
Reception	0,126
Sales area – general	0,102
Swimming pool	0,163
Workshop – small-scale	0,067
Generic office area	0,116
Community or day centres	
Reception	0,108
Dry sports hall	0,047
Food preparation area	0,143
Workshop – small scale	0,064
Hall, lecture theatre or assembly area	0,169
Office and consulting areas	0,106
Other	
Data centre	0,096
Server room	0,096
Heavy plant room	0,096

Notes

- The net floor area for each function must be multiplied by the equivalent occupant density to determine an overall occupancy for the function area.
- Not all potential building areas are listed, only those required to reflect estimated building occupancy for the building type. For example, an office building may have a canteen, but it will be the staff that predominantly use the canteen. The office staff numbers will be estimated using the default occupancy rate for the office area; therefore, to include the canteen would result in double counting of occupancy.
- If a building type is not listed, occupancy rates for a similar building type or function area may be used.
- The above occupancy rates have been sourced from the activity database of the Simplified Building Energy Model (SBEM), v.5.4a.
- If the occupancy rates produced are unrealistic, please refer to the alternative option to provide the number of occupants (see M2.1).