Tra 01 Transport assessment and travel plan

(All buildings)

Aim

To enhance awareness of existing local transport and identify opportunities for sustainable transport improvements.

Overview

Assessment type	Available credits	Applicable assessment criteria
Fully fitted	2	All
Shell and core	2	All
Shell only	2	All
Residential: Fully fitted	2	All
Residential: Partially fitted	2	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

Transport assessment and travel plan – Two credits

1 Conduct a site-specific transport assessment by the end of the Concept Design stage; see M1.
2 Develop a site-specific travel plan following the transport assessment recommendations by the end of the Concept Design stage; see M3.
3 Demonstrate that the travel plan can guide the appropriate implementation of sustainable transport measures during the design, construction, and occupancy stages and be supported by the building's management during operation.

Checklists and tables

None

Methodology

M1: Transport assessment

Compliance with criterion 1 can be achieved by either a transport assessment or a transport statement, depending on the expected impact of the proposed development:

1 Transport assessment: a comprehensive evaluation is required where the proposed development is expected to impact the transport network significantly.
2 OR
3 Transport statement: a less detailed report suitable when the development is expected to have limited impact and will implement minimal sustainable transport measures from Tra 02.

The transport assessment or statement must cover the following elements as a minimum:

1 **Development description:** An overview of the proposed development, including its size, type, location, and intended use.
2 **Existing transport infrastructure:** An analysis of current transport infrastructure and services to identify relevant constraints and opportunities. This must include the travel patterns of existing building users in relation to:
   2.a Walking infrastructure: sidewalks, paths and crossings
   2.b Cycle infrastructure: cycling lanes and cycle parking
   2.c Public transport: the site’s connectivity to public transport services
3 **Inclusive design:** Evaluation of transport infrastructure for people with disabilities, such as mobility, visual, and age related requirements.

4 **Accessible amenities:** The number and type of existing accessible amenities within 500 m of the site. The distance to an amenity must be measured via a safe pedestrian route from the main building entrance. See Definitions and Table 46.
5 Public Transport Accessibility Index (PTAI): Calculate the existing PTAI, see M2.
6 **Future travel patterns:** Predicted travel patterns and transport impacts of future building or site users.
7 **Stakeholder engagement:** Consultation with local authorities, building users, and the surrounding community to ensure the travel plan aligns with local needs.

When certain elements may not be applicable or relevant, a brief justification can be provided for each consideration, explaining why it is not relevant to the project's scope or scale.

For further guidance on transport assessment and travel plans, it is essential to consult the relevant local transportation authorities, as regulations and guidelines can vary at federal, state, national, and local levels.

Table 46: Amenities in proximity to the site

Amenities
Food retail
Restaurant or Café
Pharmacy
Primary healthcare facility
School or childcare facility
Fitness or Sports facility
Public park or Green space
Health and treatment clinics
Postal and parcel services
Personal and convenience services
Civic or community facilities

M2: Public Transport Accessibility Inex (PTAI)

The Public Transport Accessibility Index (PTAI) is calculated as part of the transport assessment. Its value relates to the site location and informs transport-related design decisions. The PTAI must be based on current information, including any planned and publicly notified changes during the transport assessment, and should be used as the benchmark for the assessment.

Where unforeseen changes to public transport availability are later implemented before post-construction certification, the PTAI should not be updated at the post-construction stage.

M2.1: Calculating the PTAI

Enter the following information into BGO platform to determine the PTAI of the assessed building:

1. Public transport type (bus, rail, tube/metro, tram, other services).
2. Distance (m) from the main building entrance to each compliant public transport node.
3. Average number of services per hour at each node during the building's operating hours.

Compliant public transport node criteria:

- A bus stop within 650 m or a railway station (or other transport service) within 1000 m of the main entrance, measured via a safe pedestrian route.
- The service must connect to an urban centre, major transport node, or community focal point (e.g., school, library, doctor's surgery).
- Only local services are assessed; national services are excluded unless they function as local commuter routes.

M2.2: Calculating the average number of services for PTAI

Follow the steps below to calculate the average number of services:

1. For each public transport node (e.g., bus stop, train station), count the total number of services stopping during the identified operating hours.
2. Determine the building's operating hours: Identify the building's peak arrival and departure times or its typical daily operating hours (e.g., 08:00–19:00, a total of 11 hours). If the building operates 24/7 or the hours are unknown, use Table 47 below.
3. Calculate the average number of services per hour: Divide the total number of stopping services by the total operating hours.
4. Repeat this calculation for each public transport node associated with the assessment project

Example calculation: Operating hours: 08:00–19:00 (11 hours) Stopping services: 35 services during this period Average services per hour: 35/11 = 3.2 services per hour

Table 47: Default hours of operation by building type for a typical day

Building type	Default hours
Education: Preschool, school, sixth form college	07.30-10.00, 15.00-17.30
Education: Further education and higher education institutions	08.00-19.00
Healthcare	07.00-20.00 (Encompassing visitor hours and the typical daytime shift pattern)
Retail: Shopping centre	09.00-19.00
Retail: Supermarket	08.00-22.00
Retail: Retail services	09.00-18.00
Retail: Convenience store	07.00-22.00
Retail: Retail park or warehouse	08.00-20.00
Retail: Retail store	08.30-17.30
Residential	08.00-19.00
Government services: Law court	08.00-19.00
Other	08.00-19.00 Or use any of the above hours, as appropriate to the building type
24-hours building	07.00-20.00

M2.3: On-demand public bus services

Demand-based bus services operated by public transport providers can be included in the PTAI calculation. The project team must determine an average number of stops per hour to allow input into the BREEAM Platform.

These can be recognised as follows:

- The location of the transport node should be determined as the nearest available pick-up point to the assessed building.
- The frequency of the service should be considered as the published maximum wait time (or actual average wait time if the service is established and this data is available).
- Such services, while serving multiple destinations, should be considered as a single route.
- It must be demonstrated that information on the availability and how to access the service is made available to building users.

This is limited to genuine on-demand bus services, which are operated as public transport with multiple pick-up and drop-off points. It does not extend to private hire, taxis, or other similar operations.

M2.4: Multiple services

Services that operate from more than one node within proximity of the building must be considered only once, at the node closest to the building. Different services at the same node count as separate services.

M2.5: Bi-directional routes

Routes may be bi-directional; however, for the purpose of calculating the index, consider only the direction with the highest frequency.

M3: Travel plan measures

A travel plan should demonstrate how the transport assessment has influenced its development, outlining the specific required outcomes, targets, and measures while setting out plans for future monitoring and management. It guides the implementation of sustainable transport measures during the design, construction, and occupancy stages. It is also intended to be a live document adopted by building management to support an ongoing sustainable transport strategy.

Measures to consider

When developing the travel plan, consider the following measures as a minimum:

1. Engaging with local authorities, building users, and the surrounding community to ensure the travel plan aligns with local needs.
2. Considering all types of users, ensuring equitable access and inclusivity.
3. Negotiating with public transport companies to increase the local service for the development.
4. Providing a public transport information system in a publicly accessible area.
5. Providing electric vehicle charging infrastructure.
6. Designating priority parking spaces for individuals with disabilities.
7. Designating priority parking spaces for families with children
8. Reducing parking spaces or implementing parking charges.
9. Consulting with the local authority on the state of, and improvements to, the local cycling network.
10. Providing a pedestrian and cyclist-friendly environment. This includes providing:
    - 10.a Cycle lanes.
    - 10.b Safe crossing points.
    - 10.c Direct routes.
    - 10.d Appropriate tactile surfaces.
    - 10.e Landscaping and shelter for public transport waiting areas.
    - 10.f Good lighting, signposting to other amenities, public transport nodes, and adjoining off-site pedestrian and cycle routes.
11. Providing dedicated and convenient cycle storage.
12. Providing cyclists' facilities.
13. Identifying existing amenities and assessing potential enhancements.
14. Providing suitable taxi drop-off or waiting areas.
15. Ensuring rural buildings have appropriate access to transport to serve the local community adequately.

Consider the following scenarios regarding the building occupiers:

Building occupier is known

- Confirm that the building occupier has been actively involved in developing the travel plan.
- Ensure that the building owner agrees to implement the travel plan to support their transport strategy.

Building occupier is unknown

- A travel plan is still required, even if the end-user or occupier is unknown.
- The developer must confirm that the travel plan will be handed over to the building owner or future occupier.
- Include provisions in the handover documentation to ensure the future implementation of the travel plan.

When certain measures may not be applicable or relevant, a brief justification can be provided for each consideration, explaining why it is not relevant to the project's scope or scale.

Evidence of the implementation of specific travel plan measures is not required for Tra 01 (this is addressed under Tra 02).

Compliance notes

Reference	Terms	Description
CN1	Transport assessment included in the travel plan	The transport assessment can be incorporated into the travel plan instead of a separate report. Relevant information must be distinctly identified between the transport assessment and the travel plan document. The travel plan must effectively showcase how the transport/travel assessment has informed the strategic elements of the plan.
CN2	Travel plan – Existing travel plan	An up-to-date organisational travel plan for a site on which an assessed building is located can be used to meet the relevant criteria. The existing plan must comply with the requirements in M3. All building users (in existing and new buildings) and additional travel resulting from users of the new building must be considered.
CN3	Accessible amenities and PTAI – Main building entrance to consider for campus style developments	When 80% or more of the buildings are within 1 km of the campus main entrance; the campus main entrance can be used to determine the distance to an accessible amenity or compliant node. When less than 80% of the buildings are within 1 km of the campus's main entrance, the assessed building's main entrance must be used as the reference point to determine the distance to an accessible amenity or compliant node. This rule implies that for large campus developments, where distances are too great to be comfortably covered on foot, the needs of building users are better served by locating public transport nodes within or on the periphery of the campus. When the site has multiple main entrances, the most convenient main entrance can be used for the calculation. For buildings that are not part of a centralized campus, the building's main entrance must be used as the reference point for this assessment.
CN4	PTAI – Community transport schemes in rural areas	In rural areas, where scheduled public services may be limited, community transport schemes, including 'on-demand services', should be noted in the 'Transport assessment and travel plan'; however, unscheduled services cannot be accounted for when calculating the PTAI.

Reference	Terms	Description
CN5	PTAI – Future transport nodes	Where a transport node is currently inactive but will become active soon after project completion, it can be included when calculating the existing PTAI. To demonstrate this, the appropriate public transport authority or company must confirm the start of service date and frequency.
CN6	PTAI – Park and Ride services	Park-and-ride bus services run from one or more car parks to a city centre or other destination. They allow travellers to park their cars at a convenient location and complete their journey by bus. These generally stop at transport nodes *en route* to allow passengers to board or alight. In such cases, where appropriate, this can be considered as contributing to the PTAI.

Evidence

Criteria	Interim design stage	Post construction stage
1	A copy of the transport assessment or statement. Justification of why transport statement was chosen over transport assessment (if applicable).	No further actions required post-construction; no additional evidence is required other than that listed for the design stage.
	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 via a safe pedestrian route; updated digital sources such as online mapping services may be used. Timetables for each service at each public transport node are considered. Calculations to show average services per hour for each node. When applicable, information about the on-demand bus service. To-scale maps or drawings to show the location and type of key local amenities present and their distance from the assessed development via a safe pedestrian route; digital sources such as online mapping services may be used.	When web-based maps are outdated, the Assessor's site inspection and photographic evidence are needed to confirm: • Location of public transport nodes. • Location of key local amenities. • Key areas of safe pedestrian route.
2	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, 3	Where the building occupier is known, documentation confirming the building occupier's involvement in the travel plan. Where the building user is not known, documentation confirming provided that the travel plan will be handed by the developer to the building owner.	Written agreement from the building owner to implement the travel plan to support their transport strategy. Handover documentation to ensure the travel plan's future implementation.

Definitions

Accessible amenities

Amenities are accessible via safe pedestrian routes. All listed amenities must be open during typical working hours for the asset type and when employees benefit from them.

- **Food retail:** A fixed retail outlet providing a range of everyday food and household products intended to meet routine needs of building users. This includes supermarkets and convenience stores. Specialist shops (e.g. confectionery-only shops or alcohol-only retailers) would not normally qualify unless they clearly provide essential daily goods.
- **Restaurant or café:** A permanent food and beverage outlet serving prepared meals or refreshments for on-site consumption or takeaway. The outlet must operate from a fixed location with regular opening hours. Temporary food trucks or mobile catering services do not meet the criteria.
- **Pharmacy:** An accessible pharmacy that provides prescribed and over-the-counter medicines for building users. An internal pharmacy within a hospital may qualify if it is publicly accessible and operates during suitable hours.
- **Primary healthcare facility:** A healthcare facility providing general medical services and primary care to the community, such as a medical centre, general practitioner (GP) clinic or equivalent public healthcare practice. Specialist-only clinics would not qualify under this category.
- **Health and treatment clinic:** A fixed outpatient healthcare or wellbeing practice providing therapeutic or diagnostic services, such as an optician, physiotherapy clinic, naprapathic practice or massage therapy clinic. The facility must operate from a permanent location with regular opening hours.
- **Fitness or sports facility:** A building or designated facility enabling building users to exercise and maintain a healthy lifestyle. Examples include gyms, swimming pools, sports halls, tennis courts or organised fitness centres. Informal open spaces without defined facilities would not qualify under this category.
- **Suitable outdoor open space:** A publicly accessible outdoor area that allows building users to sit, relax or undertake informal recreation. This may include a park, landscaped square, courtyard or pedestrianised public space. The area must be appropriately sized for likely use and must not form part of the public highway.
- **School or childcare facility:** A dedicated educational or childcare institution providing services such as nursery, preschool, primary or secondary education. The facility must be permanently established and operational.
- **Publicly available postal facility:** A physical location accessible to the public for sending, receiving or managing postal items. This includes post offices and postal counters. Automated parcel lockers may qualify only if publicly accessible and not restricted to a specific private operator’s customers. Mailboxes would not qualify under this category.
- **Civic or community facility:** A publicly accessible space facilitating civic or community activities for building users. Examples include libraries, civic centres,

municipal service offices or community halls. Suitability depends on the building type and likely user profile.
- **Personal an convenience services:** A fixed commercial service meeting routine personal or household needs of building users, such as a hairdresser, dry cleaner, bank, ATM, key-cutting service or shoe repair shop. The service must operate from a permanent location with regular opening hours.

Building users

This can be any of the following, as appropriate to the building type:

1 Staff (commuter journeys and business travel)
2 Pupils and students
3 Visitors
4 Patients
5 Customers
6 Community users
7 Delivery workers, contractors, or service providers who regularly work at or access the building
8 Residents.

Main building entrance

The main building entrance is the entrance to the assessed building, which is directly connected to the main building reception, circulation routes, lifts, or stairs. It is available to most of the building's staff and visitors on arrival. It is not the site entrance (unless the site entrance is also the building entrance, e.g., a building with a boundary on a public highway). In the context of campus style developments, the site entrance may serve as the building entrance (see CN3).

Operating hours in a typical day

Operating hours refer to the period during which a building is in use on a typical day. In choosing a typical day, the assessor should check that timetabled information for that day is, within reason, representative of the public transport provision for the entire operating week. In most cases, the building's normal operating hours can be used.

Where shift patterns see most building users (≥ 80%) arriving or leaving during a certain period, that period can be used as an alternative to the operating hours of the building.

For example, this could be an office building where most office workers arrive between 08:00 and 10:00. This accounts for some building types that operate a 24-hour day and on shifts.

During late night hours, when there is little public transport, such periods do not need to be accounted for when assessing this issue.

Public Transport Accessibility Index (PTAI)

An indicator of the accessibility and density of the public transport network at a point of interest (the BREEAM-assessed building). The BREEAM PTAI is adapted from the Public Transport Access Level method. The index is influenced by the proximity and diversity of the public transport network and the frequency of services at the accessible nodes. The greater the number of compliant nodes, services, and their proximity to the building, the higher the PTAI.

Safe pedestrian route

Safe pedestrian routes include pavements, paths and safe crossing points. The distance should not be measured in a straight line but along the actual walking route.

Transport assessment

Transport assessments and transport statements evaluate potential transport impacts of development and may propose measures to promote sustainable development. To be effective, they must be carried out during the early design stages to influence time-critical aspects of the design.

Travel plan

A travel plan is a strategy for managing all travel and transport within an organisation. It contains physical and behavioural measures to increase sustainable travel choices to a site or development. It must be developed at the early design stage closely collaborated with, and informed by, a transport assessment or statement.

Additional information

None