Movement
and Place

NSW GOVERNMENT

Evaluator's Guide

A guide to evaluating built environment projects and plans that balance movement and place in NSW

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Contents

About this guide

This guide is for decision-makers (Part 1), project managers (Part 2), and members of design review panels (Part 3) involved in reviewing and assessing place-based built environment projects with a significant land use and transport component.

The aim of this guide is to support government agencies in applying the Movement and Place approach to built environment projects and plans and to collaborate and produce more consistent, higher quality outcomes for movement and place across NSW.

In this context, ‘decision-makers’ refers to those responsible for evaluating and approving built environment projects, including assessing their benefits and financial feasibility.

The guide provides a common structure for consistent evaluation of a range of decisions and project types, at various scales, and throughout the life cycle of a plan, project, or asset.

This guide has been prepared collaboratively by Government Architect NSW (GANSW) and Transport for NSW (TfNSW) with input from a range of NSW Government agencies and local government representatives.

Application of this guide

Decision-makers, project managers, and design reviewers can use this guide when reviewing the planning, design, and delivery of capital and operational projects on our transport networks and improvements to the areas around them.

The guide can be used in formal assessment and appraisal processes, as well as informal design review sessions and to guide discussions among project collaborators.

The guide supplements but does not replace existing processes for review and approval including design review, gateway assessment, delivery of project objectives or agency project assessment criteria.

Accompanying this guide

Accompanying this Evaluator's Guide, the Practitioner's Guide to Movement and Place (GANSW 2020) outlines a process for measuring and evaluating movement and place to set targets, understand existing conditions, generate and compare future options, and recommend a preferred solution.

01

Guidance for decision-makers

Decisions about transport networks are inseparable from decisions about making better places when planning and budgeting infrastructure for the people of NSW.

In 2019, ‘Successful places’, as a budget outcome for the NSW Government transport cluster, accounted for over 80% of government capital spending on transport infrastructure and services. Planning cluster outcomes ‘Create a strong and liveable NSW’ and ‘Maximise community benefit from government land and property’ accounted for 45% of capital spending on planning services.

Taking an integrated approach

The Movement and Place Framework facilitates an iterative and collaborative process for the planning and design of movement systems and successful places. This approach applies throughout a project life cycle. It provides practitioners and decision-makers working across agencies in multiple disciplines with a common language for understanding the role of transport networks in local communities – this is the starting point for achieving successful, shared outcomes based on agreed visions.

This integrated approach requires decision-makers to:

Be strategic.

- Make decisions in line with the long-term vision for a place, based on a clear understanding of both the present situation and the factors that will influence future generations.
- Tackle the broad challenges facing our communities by better understanding the physical, overall built environment and the competing forces that impact its development.
- Establish strong governance and leadership that balances the needs of communities and individuals alongside planning and development requirements.
- Be rigorous and account for quality.

Think spatially.

- Use spatial thinking and representation to communicate ideas effectively and generate innovative approaches to policy and practice.
- Analyse and spatially interpret the broad political, geographic, economic and cultural contexts as well as the local factors that influence them, for current and future scenarios.

Work collaboratively.

- Build a culture of trust and collaboration between diverse points of view and multiple areas of expertise.

Alignment with policy

Movement and Place is aimed at achieving efficient investment by thinking about the built environment holistically including the social, environmental, and economic context.

The *Practitioner's Guide to Movement and Place* sets out the desired alignment of projects relating to roads and streets and their adjacent land uses. It provides a method and common language that can help practitioners to deliver the shared outcomes set out in the *Future Transport* Strategy, *Connecting to the future: Our 10 Year Blueprint* and *Better Placed: An integrated design policy for the built environment of NSW*.

Projects aiming to support the policies set out in these strategic documents need to demonstrate how they contribute to achieving these shared outcomes. Project teams are encouraged to document their process in an assessment report and provide supporting analysis, including listing the features or actions that support the outcomes. Using the Movement and Place reporting template to document the process can help project teams with subsequent assurance and development assessment processes.

Understanding the broader context

Understanding the broader context can help practitioners and decision-makers to ensure the vision and objectives of a project or plan are strategically aligned and deliver intended outcomes.

For evaluating the alignment of a plan or project with strategic policy, decision-makers need to be given sufficient information to understand:

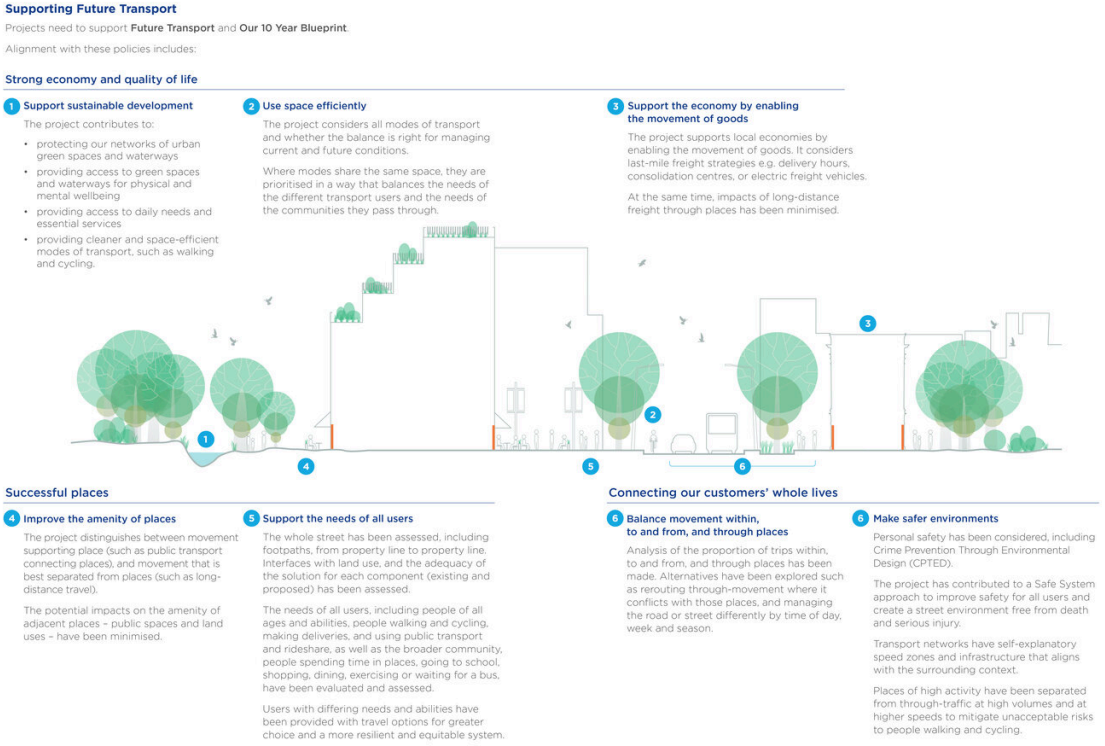
- the strategic and geographic context of the study area, including spatial constraints
- the social and cultural, environmental, and economic factors that influence the study area
- existing documented aspirations, policies, strategies, and plans relevant to the study area
- the planning intent and case for major investment in the study area
- the current local policy context for the area, and any changes in the local context that may have occurred since the plan or policy was created.

Information and scrutiny should be proportional to the long-term permanent impacts of projects. A reversible temporary intervention to test a response, or local intervention, may be less rigorously evaluated than a large-scale permanent change.

Maps are a vital method of communicating complex spatial information. Emphasis should be given to mapping strategic information at the same scale and, where possible, overlaying that information to reveal considerations, conflicts and confluences. For example, a single map that overlays current and future precincts (for instance growth areas or clusters set out in a local strategic planning statement), and current and proposed transport routes across the project boundary, will help to identify key issues and considerations relating to local integration of movement and place.

Supporting Future Transport

Projects need to support the policies presented in *Future Transport* and *Our 10 Year Blueprint*:



Understanding the Movement and Place core process

This is an overview for evaluators. For more detail on overseeing or participating in the core process refer to the Practitioner's Guide to Movement and Place.

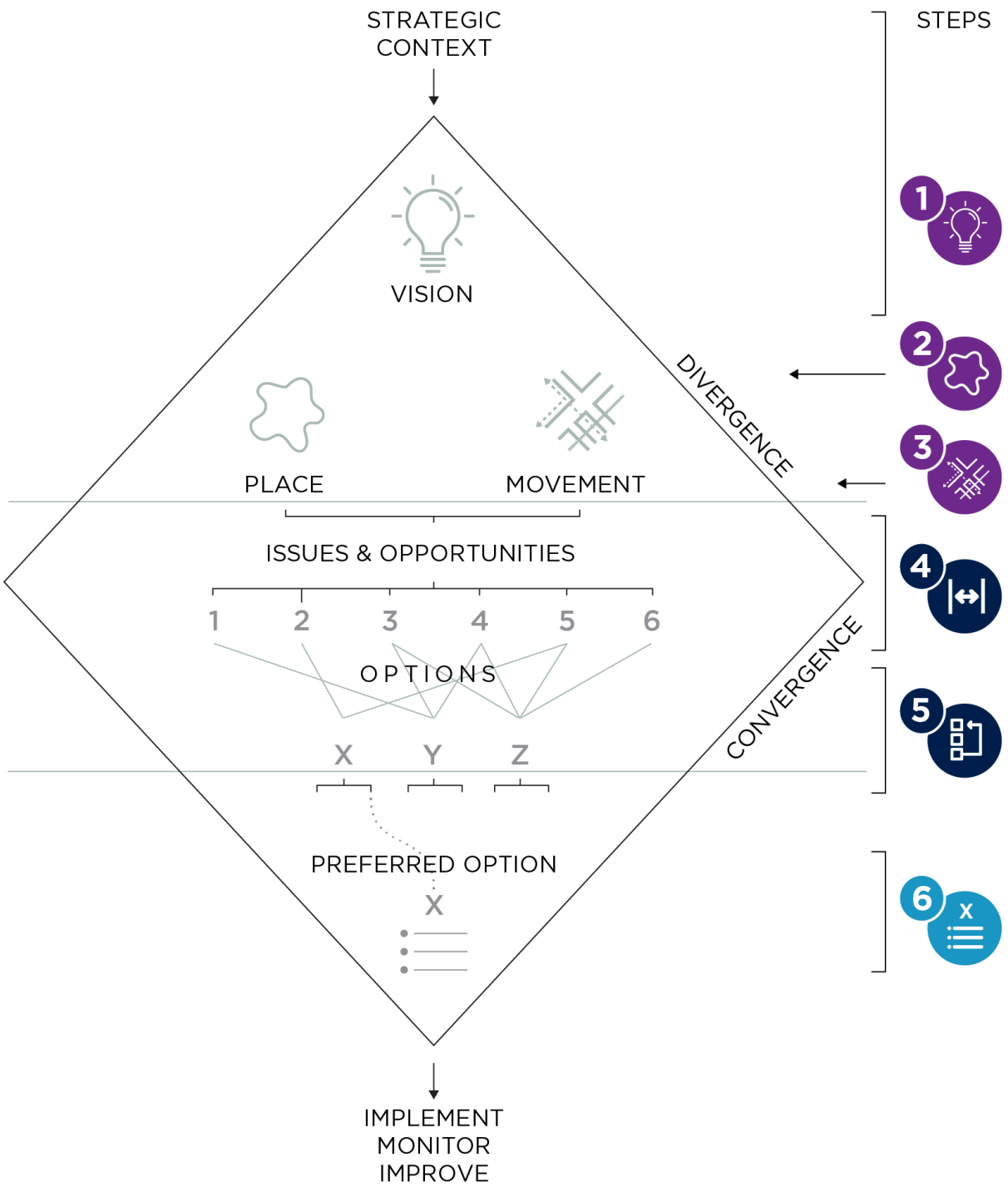
The objective of Movement and Place is to plan, design, and deliver roads and streets that:

- contribute to the network of public space within a location, where people can live healthy, productive lives, meet each other, interact, and go about their daily activities
- are enhanced by transport and have the appropriate space allocation to move people and goods safely and efficiently, and connect places together.

The Movement and Place core process is a method for achieving these objectives through informed conversations, working collaboratively towards a shared vision, identifying a range of options to determine the best approach, considering multiple points of view, and consulting with multiple disciplines and stakeholders.

Movement and Place core process

The Movement and Place core process has six steps, which may be iterative:



This is the spectrum of activities that constitutes ‘taking a Movement and Place approach’ – from setting a vision to determining a preferred option for implementation.

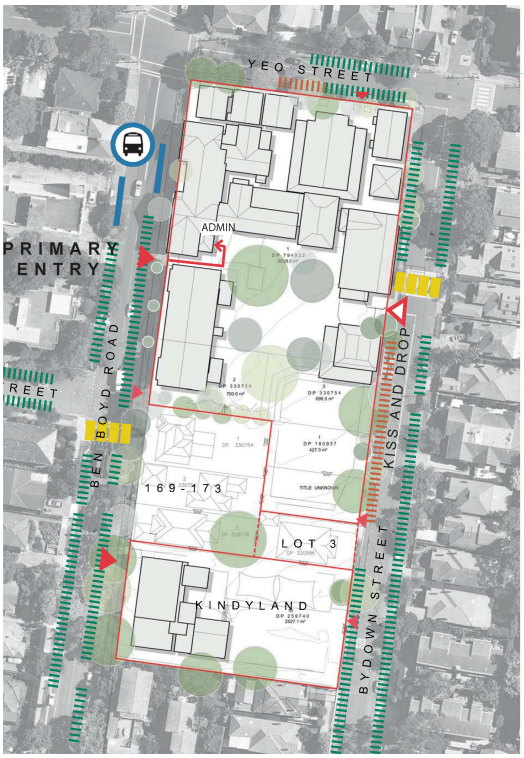
Step 1: Vision, objectives, and evaluation criteria

Decision-makers should be able to clearly identify:

- a place-based vision for the place or each place affected by the project (in the case of corridors or large precincts)
- a list of objectives for each
- a summary of performance indicators used to evaluate the options
- targets and benchmarks used by project teams for gap analysis and to compare options.

Steps 2 and 3: Spatial information in the form of network and place maps, overlays, comparisons or scaled options

Using the documentation provided by the project team, decision-makers should gain an evidence-based, shared understanding of the places that will be affected by the project or plan, and how the multimodal transport networks are integrated with land use and public space within the study area. The spatial information should document the current state, the planned intent and the implications of achieving the vision and objectives.



Master Planning Guidelines for Schools
A framework for efficient project planning and school design

1.1 Site analysis

Conducting a site visit, followed by the preparation of a site analysis is a crucial initial stage in the development of a master plan.

The site analysis should be presented as a series of graphics that explore the following items, at a minimum:

- Site context
- Planning overlay
- Environmental constraints
- Critical infrastructure services
- Safety and security
- Existing school assets & function

These key analysis areas are outlined iv n detail in the following sections.

The analysis should conclude with a graphic demonstration of potential opportunities and a summary of site constraints that indicates the 'developable area' of the site.

All maps are to be drawn with north facing up the page to a measurable scale and include a north point, scale bar and legend that dictates all significant elements within the image.

IMPORTANT NOTE: In the case that certain expert technical advice or information is not available for inclusion at this stage of the project, it is important to highlight this as a risk, recommend a way forward and document the outcome within the master plan report.

← Example of site analysis, Neutral Bay PS
BVN architects

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Draft May 2020

Figure: Recommended site analysis, Master Planning Guidelines for Schools (DET May 2020)

While maps and information differ depending on context and purpose, they should contain enough basic spatial information for decisions to be evaluated.

Step 4: Map of issues and opportunities in the study area

Based on the evidence and understanding gained in the previous steps, evaluate the core process map of Movement and Place issues and opportunities. Confirm this was prepared and communicated with a range of stakeholders in a workshop or meeting (as described in Step 3.2 of the Practitioner's Guide to Movement and Place).

This includes a list of key issues and opportunities the intervention will seek to address (the 'problem definition') and an overview of the method that informed the selection of the intervention. If applicable, the list will be complemented by a range of scenarios that highlight the circumstances external to the plan or project that will have informed the development of options.

Step 5: Scenarios, assumptions and options considered

A set of validated design options should be presented that respond to the ‘problem’, including the vision and objectives, issues and opportunities and the scenarios. Options are not restricted to capital investment. For example, they could include operational improvements (including different operations by time of day/month/year) or behaviour change. Best practice will consider at least two options (preferred and alternative) in addition to the baseline (minimal intervention) case.

Step 6: Preferred option, risks, sensitivities and trade-offs as well as the implementation strategy or actions, and who is responsible for each action

To make a decision on the preferred option presented by the project team, the rationale behind the options, as well as the scale of impact, cost, complexity and risks associated with the solution, needs to be clearly understood.

Project teams may have prepared an implementation plan to accompany their outcomes report, which may include further information on strategic actions related to programs, operational budgets, a review of project proposal or business case funding, or regulatory changes.

Key considerations

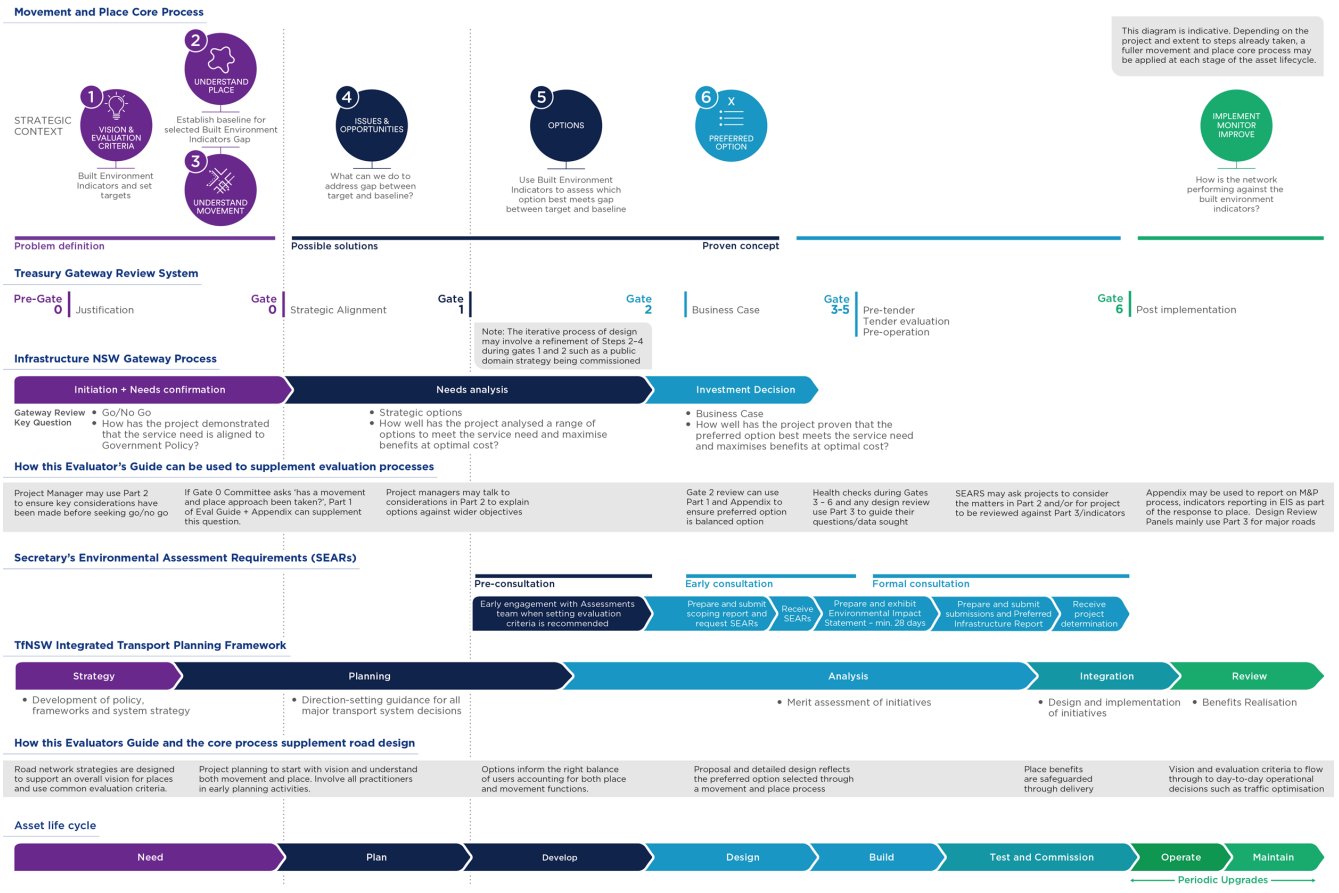
Practitioners should draw upon existing studies and policies where possible, using the core process to elaborate on the land use and transport interface within places, particularly on streets and roads. Some of the required analysis or decisions may already have been completed as part of a previous strategic planning activity. For example, a business case needs assessment would cover Steps 1 and 4, while a strategic business case would complete Step 5, and a final business case, Step 6.

The core process supplements other processes (such as business case processes) and should be used for practitioners working together in taking a Movement and Place approach. The process is not intended to discourage or replace other integrated methods of working including interdisciplinary practitioners, more workshops, co-design with joint practitioner teams, or co-design with the community.

Additional considerations

Additional considerations for decision-makers when evaluating projects or plans include:

- the location and size of the place or project
- anticipated demographics and potential catchment for the place or project
- capabilities of the agency, project team, government project partners, and whether external consultants or experts are required
- wider interventions outside the study area, to be explored through engagement with other project teams or agencies.



Documenting the process

Project teams are encouraged to document the outcomes of each step of the Movement and Place process. The Movement and Place collaboration report template provides a convenient format for documenting outcomes at each step. Documentation of assumptions, trade-offs and sensitivities is particularly relevant where the Movement and Place process is split between projects or owners. It is important these underlying factors are well-understood by decision-makers throughout the project life cycle, so they can inform more detailed investigation, changes over time, or changes in approach.

Decision-makers can evaluate individual steps based on a holistic understanding of the inputs and outputs that informed the outcomes. The template has been developed to help project teams report these outcomes to decision-makers and teams are encouraged to use it.

Monitoring and continuous improvement

The outcomes of Movement and Place plans and projects need to be monitored and reviewed by agencies. During delivery phases, reviews should be annual. During operational phases, reviews might be less frequent, e.g. five-yearly.

Reviews should aim to identify:

- the progress of benefits being realised
- further place improvements
- opportunities to increase active transport
- unexpected impacts (both greater and less than anticipated).

Teams should use their best efforts to implement the outcomes including, where relevant, the spatial arrangement proposed through the Movement and Place process.

Where a Movement and Place approach is applied to a portfolio of work or a program – because small, similar projects have been packaged into a single funding stream – individual projects would be required to align to the outcomes of that process at the higher level.

Evaluating engagement and collaboration

Working collaboratively towards a shared vision requires considering multiple points of view and consulting with multiple disciplines and stakeholders. The Movement and Place core process uses a workshop model with a core team of practitioners leading the process and preparing analysis for discussion and refinement at those workshops. The process is scalable to smaller meetings or larger forums with break-out sessions.

The following factors should be considered by decision-makers when evaluating projects or plans:

- Have the right people been involved?
- Have different viewpoints been expressed?
- Has this process has been documented, to demonstrate this engagement and collaboration?

Have the right people been involved?

Those who need to be involved in projects and plans will generally depend on the location, stage and scale of projects and plans. However, this should include a balance of practitioners specialising in movement (e.g. transport planning and traffic engineering) and place (e.g. strategic planning, urban design, architecture, and landscape architecture, place managers and owners). The core team composition may vary from individuals with interdisciplinary skills and ‘design thinking’, through to specialist teams coordinated by a project manager.

Early involvement of all stakeholders, including those responsible for later stages such as designers, assessors and managers, can benefit the project by ensuring alignment to expectations.

Workshops and meetings need to involve key stakeholders pertinent to the plan or project, communities involved, location, extent of work already completed, and potential future governance arrangements. Decision-makers should be able to identify a mix of stakeholders as

part of the core process, including representatives from all relevant local government organisations and State government agencies; industry, business, education and community groups; and members of local communities including Traditional Custodians and knowledge holders.

Have different viewpoints been expressed?

A good process is one where:

- everyone has expressed their needs and viewpoints clearly
- subject matter experts have been allowed to disagree
- points of agreement are used to arrive at a solution on common ground.

Decision-makers may need to weigh up the merits of different options presented to them based on differing viewpoints. They could look for how common ground was found to reach a solution that is most aligned to strategic objectives and the community's vision for the place. Where there is no common ground, or option selection is based solely on other criteria, such as cost and program, decision-makers may wish to ask project managers to supplement their options assessment and reporting with these matters or convene further workshops. This is particularly important in relation to major place-based outcomes that may otherwise be tangential to the core project objectives, such as a land bridge or pedestrian signal improvements.

Documenting collaboration

Decision-makers should have access to evidence that documents who was involved in the collaborative process, as well as what their views were, and what trade-offs were made. Reporting could take the form of a table as shown in Figure 6. Reporting needs to:

- identify the common ground between stakeholders
- identify any areas of difference, objections raised and decisions made
- list any criteria for re-assessment of those decisions, or areas for decision-makers to consider
- provide minutes of meetings that select the preferred scenario.

Consensus

Position	Consultees	Assumption/trigger for review
Lane width of 3.2m	All (list?)	Buses use link Speed 50km/h - if traffic calming adopted, review

Trade-offs

Supported view	Alternate view	Assumption/trigger for review
50km/h speed limit to enable efficient freight traffic	40km/h speed limit to enable tree planting and improve pedestrian safety (List people)	Tier 1 freight route Signal timing at X junction prefers this route over XYZ

Measuring built environment performance

Measuring built environment performance

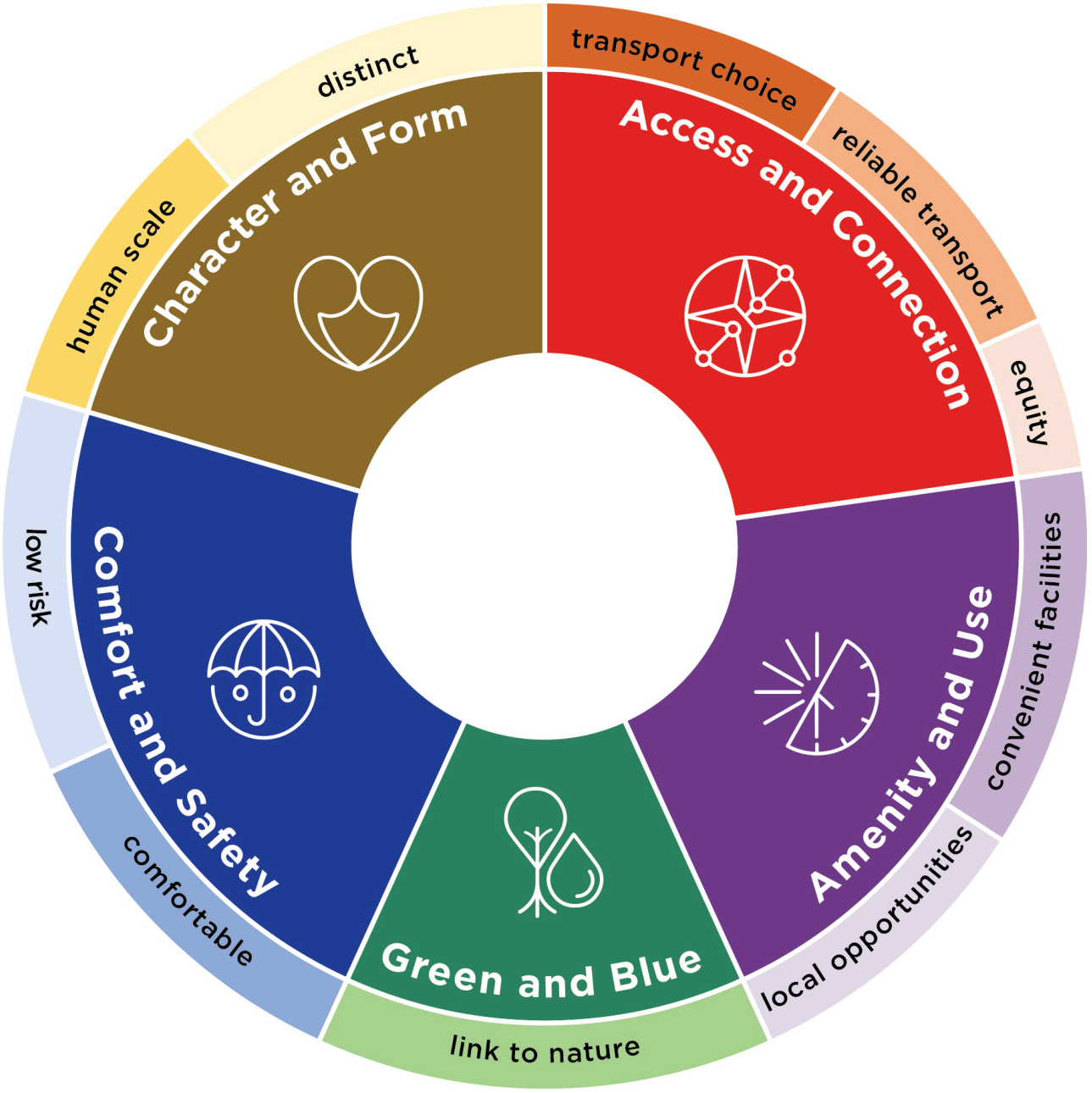
The Movement and Place Framework has established a set of built environment performance indicators for evaluating Movement and Place projects. The indicators are based on qualities that contribute to a well-designed built environment, and are grouped under themes relating to user outcomes. Project teams are required to use these indicators for measuring and evaluating options.

Core indicators

The nine core built environment indicators (mode share, public transport accessibility, freight network accessibility, public space, mix of uses, tree canopy, road safety, air quality and noise, permeability) are the minimum data inputs for each relevant theme for all projects to report against, ensuring that they are focused on both movement and place outcomes.

These have been selected based on available public and government data, or new data sets currently under development, that are good proxies for the outcomes that are sought under each theme. Each has a measurable direction for improvement (for example increase in tree canopy, increase in sustainable mode share) and they can be cumulatively used to compare whether outcomes are balanced across all aspects of the built environment.

These indicators will be refined and updated over time. Data sets are being prepared by Transport for NSW to support projects using the core indicators on areas and links – some indicators and datasets may vary depending on use (for example, an indicator of street tree canopy for link-based projects, and overall tree canopy for area-based projects).


distinct
transport choice
human scale
Character and Form
Access and Connection
reliable transport
equity
low risk
Comfort and Safety
Amenity and Use
convenient facilities
comfortable
Green and Blue
local opportunities
link to nature

Supplementary and project-specific indicators

Supplementary indicators are not required for every project but are selected by the project team according to the context and objectives. Supplementary indicators should be selected from the NSW Movement and Place Framework standard list to enable similar projects to be compared.

Similarly, project-specific indicators can be adopted (in addition to the core and supplementary indicators) where the context and objectives cannot be addressed from the indicators included in the standard list.

For example, within a metropolitan centre, average speed is a supplementary indicator to journey time reliability in order to determine not only that public transport trips are reliable, but also that they are reliably fast (or faster than a benchmark rate). This is not a substitute for JTR but a complement.

The performance indicators selected by the project team are used at three different stages of the core process:

- Step 1: establish evaluation criteria for the project objectives
- Step 4: present a gap analysis including the current, baseline (planned intent), and desired future performance of the study area
- Steps 5 and 6: develop and compare options, and assess the preferred option.

For more information, including measures and data sources, see built environment indicators, or refer to the Practitioner's Guide to Movement and Place.

Establishing evaluation criteria for the project objectives

Decision-makers should be able to identify the set of performance indicators that were selected by the project team at the beginning of the project life cycle (Step 1) and ascertain why and how they apply to the plan or project. The selection of performance indicators should be a result of working as a group with the core team and stakeholders and be focused on both movement and place outcomes.

Decision-makers should be able to identify the evaluation criteria used to measure the objectives of the project and to achieve the shared vision. Where project teams have identified thresholds or targets for some of the indicators, these should be set to quantify the minimum desired outcome and demonstrate an improvement compared to the existing state. A target or threshold may be either a project-specific target or a pre-determined benchmark establishing a minimum standard that the project team chose to adopt.

Establishing a baseline

Decision-makers should be able to identify the lowest-performing element in the current performance indicators, and identify gaps between the current performance, baseline (planned intent), and desired future performance. This gap between the baseline and the target is the problem definition. Decision-makers could check whether projects:

- Have used indicators to compare current performance with baseline and desired future performance of the built environment.
- Measured this baseline performance against targets (desired future performance).
- Have linked the project’s problem definition to the measures they have selected using the built environment indicators.

Developing and assessing options

When assessing an option's relative merit and value against the existing state, all projects, as a minimum, should aim to improve on each aspect of the built environment themes. In addition, an option should neither degrade any indicator nor focus improvements solely on one indicator where more holistic outcomes have been identified. However, acknowledging trade-offs may required to achieve a best fit for the objectives of projects or plans, if a particular outcome worsens one indicator in delivering another, decision-makers should refer to the project team's supporting documentation about how the collaborative process established the preferred solution.

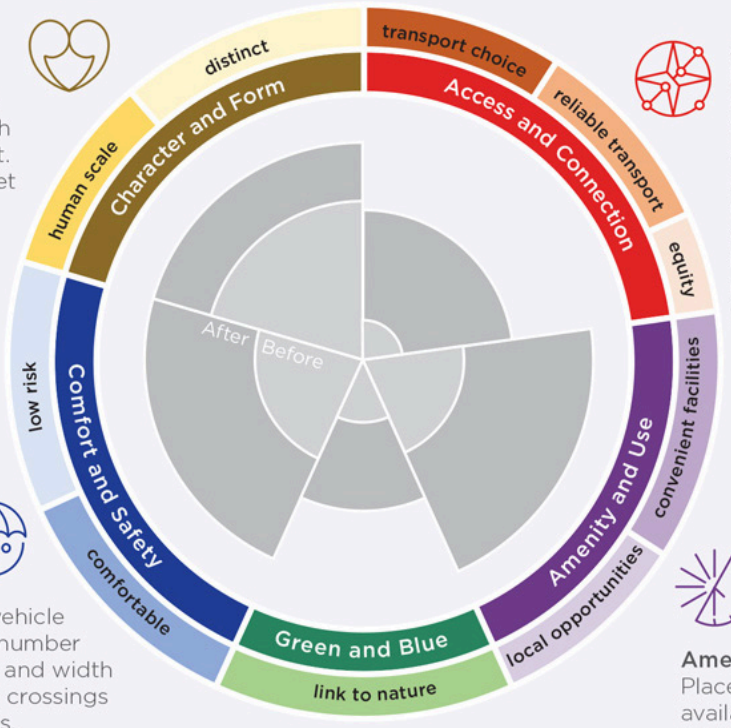
Decision-makers could also look to the gap between the target and current state to assess the level of improvement to look for against each indicator. It may be appropriate for projects to select an option that gives a slight improvement against one indicator if it aligns with the overarching vision for the place as reflected in the target. On the other hand decision-makers may need to ask projects for further justification if the recommended option only shows a slight improvement against an indicator and the target shows a much greater gap from the baseline.

Case study Smith Street, Kempsey Pacific Highway before and after demonstrates how a project can use the built environment indicators to establish a preferred option to better match a typical street layout to its Movement and Place function.

Case Study: Smith Street, Kempsey Pacific Highway before and after

Performance against Built Environment Indicators

Character and Form
Greater kerbside space for retail uses to spill out, and people to rest, better reflecting the role of Smith Street as an activity street. New elements within street – pergolas, benches – contribute to the distinctive character of the area.



Access and Connection
Footpaths are widened on either side of Smith Street with facilities supporting equitable access. An upgrade to existing bus stops to accommodate regular bus services supports reliability and choice for customers.

Comfort and Safety
Reduction in pedestrian/vehicle conflicts by reducing the number of lanes for though traffic and width of carriageway and raised crossings make street easier to cross.

Green and Blue
Street tree planting with canopy trees that offer attractive foliage and crown form creates a distinctive avenue.

Amenity and Use
Places to stop and rest are available on either side of Smith Street. A diverse mix of land uses makes Smith Street an attractive place to visit. Outdoor dining and stalls create new local opportunities.

Reviewing trade-offs

Each project objective may have several acceptable options. Some options that meet one objective may produce outcomes that conflict with other objectives. The process of evaluating options will involve determining which is best for the particular context, and this may require making trade-offs between the objectives.

To determine whether a trade-off is desirable in a given circumstance, consider:

1. Do the objectives favour one option over another? Could the less-favoured option be done differently (in a different location, or in a different way) that would be more aligned to the objectives?
2. Which objectives does each option align with, and what are the networks and systems underpinning those objectives? Are there alternatives for achieving each objective or is this the only option?
3. Consider the principles that apply to the desired street environment for the project (in Step 4), or the relative performance against the core indicators (in Steps 5 and 6) to determine which option is preferable.
4. Consider the evaluation criteria used to measure the objective – does a particular option worsen one indicator in delivering another? If so, is it justified? For example: a lower level of service for vehicles may be justified due to reprioritisation of road users. Does one option improve multiple indicators? Options that result in no worsening of indicators and an even spread of improvements are generally favoured over options that improve one indicator at the expense of others.

Options may need to be short-listed and evaluated before they can be eliminated.

Alignment with design and transport policies

The Movement and Place built environment performance indicators can be mapped to both the *Better Placed* and *Future Transport* policies as follows:

		Better Placed							Future Transport					
Built environment performance indicators		Better fit	Better performance	Better for community	Better for people	Better working	Better value	Better look and feel	Customer focused	Successful places	A strong economy	Safety and performance	Accessible services	Sustainability
Access and Connection	**Mode share**					●							●	
	Walking attractiveness					●						●		
	Cycling attractiveness					●						●		
	PT attractiveness					●						●		
	Journey time reliability (freight and PT)			●							●			
	Public transport frequency			●							●			
	Equitable access			●									●	
	Steepness			●									●	
Amenity and Use	Local living				●					●				
	Public space						●			●				
	Primary schools						●				●			
	End of trip facilities (by mode)			●									●	
	Places to stop and rest					●							●	
	Population density	●								●				
	Local jobs	●								●				
	Mix of uses	●									●			
	Housing diversity	●								●				
	Economic development and regeneration						●				●			

		Better Placed							Future Transport					
Built environment performance indicators		Better fit	Better performance	Better for community	Better for people	Better working	Better value	Better look and feel	Customer focused	Successful places	A strong economy	Safety and performance	Accessible services	Sustainability
Green and Blue	**Tree canopy**		●											●
	Biodiversity		●											●
	Vegetation cover/ pervious surface		●											●
	Waterways		●											●
	On-site water management		●											●
Comfort and Safety	Urban heat				●							●		
	Solar access		●											●
	Environmental quality		●											●
	Heavy vehicle separation	●								●				
	Pedestrian crowding				●							●		
	Safe Systems Assessment				●							●		
	Casualty Crash Rate				●							●		
	Community safety and security				●							●		
	Safe speed for environment				●					●				
Character and Form	**Permeability (walking and cycling)**	●								●				
	Building height							●	●					
	Street enclosure							●	●					
	Dwelling street space					●							●	
	Culture & heritage							●	●					
	Land division							●	●					
	Legibility							●	●					
	Building density							●	●					

These indicators have also been mapped to Transport for London's *Healthy Streets Approach* at a street level, and to Greater Sydney Commission's *The Pulse* at a district or regional level, so the indicators can be used at the appropriate scale without needing to map alignment in each project.

02

Guidance for project managers

This section presents commonly recurring issues relevant to both place-based transport projects and precinct planning projects with a major transport component.

Grouped under 18 themes, these issues are not intended as assessment criteria, but rather prompts that project managers and project teams can use at key stages to consider whether all aspects of movement and place have been balanced.

The themes are:

- A Good engagement processes
- B Local living needs
- C Social value
- D Travel choice and adaptability
- E Benefit delivery
- F Local movement
- G Connectivity to and from other destinations
- H Through-movement
- I Movement impacts on place
- J Deliveries and servicing
- K Considering large freight
- L Natural system context and human impact
- M Change over time
- N Resilience by design
- O Speed and safety
- P Visual interest and impact
- Q Measuring success
- R Life cycle and technology change

Good engagement processes

Better placed: Better for community

Future Transport: Customer Focused

Implementing a Movement and Place approach requires collaboration between a range of practitioners and the community, embracing diverse views to forge a common vision. A collaborative process allows diverse views, negotiation and trade-offs – and documents those trade-offs to create a transparent decision-making process, leading to robust, defensible outcomes. An outcome that aligns movement and place is also likely to receive broader community support.

Key questions

1. Has the process involved practitioners from both movement and place, and local communities or their representatives?
2. Have local communities been engaged in the design process? Do community needs (community strategic plans and local strategic planning statements) articulate place needs and aspirations? Do strategies and actions address those needs?
3. Have a variety of views been taken into account? Have trade-offs been documented to lead to transparent decision-making and defensible outcomes?
4. Has a governance group been established or existing governance group repurposed for community engagement or social resilience?

Performance indicators

Access and Connection

- Equitable access

Comfort and Safety

- Community safety

Local living needs

Better Placed: Better for People

Future Transport: Safety and Performance

Many attributes of great places can be related to people and liveability. The presence of people of different cultures, ages and abilities gathering for social activities or recreation can indicate that a place is providing a safe, comfortable and active environment for those people.

Liveability starts with health and wellbeing – people's daily physical, mental and social needs. Physical activity plays a critical role in preventing obesity, depression and heart disease. For most people, the best forms of physical activity are those they can incorporate into everyday life. Walking and cycling to and from key destinations enables individuals to attain their daily physical activity needs as part of their regular commute. By providing a local environment that caters for walking and cycling, transport networks can play a vital role in this key component of community health.

Equally, streets and transport stops provide spaces where people can engage with each other, reducing social isolation. Liveable places also provide for peoples' daily needs within walking distance of where they live.

Key questions

1. Can daily needs be comfortably met on foot? For example, can people safely walk to access fresh food, local services like pharmacies, social spaces like cafes, public transport, open space for recreation and respite, and primary schools?
2. Can workers access food, services, and parks within their area during breaks and at lunch?
3. Is bicycle use enabled and encouraged?

Performance indicators

Comfort and Safety

- Road Safety
- Community safety
- Pedestrian crowding
- Safe speed for environment
- Urban heat

Amenity and Use

- Local living

Access and Connection

- Cycling accessibility
- Walking paths

Social value

Better Placed: Better Value

Future Transport: A Strong Economy

To optimise how (investment) decisions are made to facilitate movement across our vast transport networks and the nurturing of thriving communities we serve, we need to start with social value. This allows us to unlock the wellbeing potential for people and planet by design, through our every-day ways of working. Operations, infrastructure, technology and services should be pre-wired to generate immediate and long-range social outcomes. Social value, informed by the communities we serve, encompasses tangible (economic) and intangible (externalities) social, cultural, and environmental values.

Unlocking social value can occur in any number of ways, but it has to start with understanding and embedding the needs and aspirations of the communities and local systems we serve, into our governance structures.

At a local level, it can be the co-design and collaborative practice with local communities and economies. The sense of value and safety that people feel in their communities, or when out and about at night. Walkable communities offer opportunities for personal interaction and participation in public life. Leisure time spent walking and being physically active can lead to higher levels of wellbeing and emotional intelligence. By partnering, rather than engaging with local community – especially in areas under-represented - projects can facilitate capacity in community and as a result, contribute to adaptive capacity and resilience. Some of these opportunities include community economic development, community led place making, local procurement, skilling and meaningful jobs, and of course a shared understanding that when we care for Country, Country cares for us.

Key questions

1. Has the project team started by walking on Country to understand the ongoing wisdom of traditional knowledge systems and historic engagement already carried out?
2. Is there a mix of local and community services close to homes or as a part of a trip chain to or from work? If not, could the project facilitate this?
3. Are there under-represented or vulnerable members of community that our project can proactively nurture in place during market condition changes?
4. Is the amount of street space available for dwelling without the need for economic transaction increased, or access to off-street public space improved?
5. Does the project co-design and embed social value objectives into governance and build accountability for how it is delivering against these targets? (for example, meaningful engagement, equitable public spaces, locally primed partnerships, meaningful jobs, education, apprenticeships, cultural wayfinding or cultivating of entrepreneurs?)
6. Are there opportunities for the project to embed early community enabled governance? Has it investigated various models to understand which is most appropriate for long term capacity of community? (e.g. Citizen assemblies, Traffic Committee, Local Health District)? If a new governance arrangement is required, could scope incorporate whole of government collaboration to help manage the place in the long term with social equity as a primary driver?
7. With long term wellbeing of people and planet in mind, is the environment itself seen as a stakeholder, and how is this proactively facilitated beyond minimum requirements? Can the Valuing Nature framework be of assistance in cost benefit analysis? Is there an opportunity to proactively start with Country by prioritising natural ecosystems around and within project footprint to set the scope of with significant trees, conservation areas, heritage items as a minimum, protected? Respected? Enhanced? Is the project response to this place and its history authentic?
8. Is walking enabled and encouraged?

Some of the performance indicators

Amenity and Use

- Public space
- Local living
- Primary schools
- Housing diversity
- Local jobs
- Economic development and regeneration

Character and Form

- Culture and heritage
- Permeability
- Street space for pedestrians

Comfort and Safety

- Community safety

Access and Connection

- Walking paths

Travel choice and adaptability

Better Working

Better Placed: Better working

Better for Community

Better Placed: Better for Community

Customer Focused

Future Transport: Customer Focused

Accessible Services

Future Transport: Accessible Services

Providing sustainable transport systems is a key indicator of sustainable cities and communities globally. Sustainable modes – walking, cycling and public transport – serve people of all ages and abilities. Sustainable modes can be made the easy and natural choice for all by:

- not over-catering to vehicle movement and parking
- serving key attractors (e.g. jobs, shops, schools) with multiple modes
- providing frequent and reliable public transport services, access to public transport stops, and seamless interchanges
- making active transport available and attractive to users by design, e.g. providing shaded paths and regular places to stop.

Key questions

1. Does the project contribute to an increase in public transport patronage, walking, or cycling? Were public transport operators consulted and are new services and routes required? Does the street environment support walking to local attractors along major desire lines safely? Are ambient qualities like air quality, shade and noise conducive to walking?
2. Is walking priority delivered by design, e.g. through filtered permeability, pedestrian priority streets? Has safe access to and between public transport services been considered for people from all walks of life?
3. Are existing strategies and plans for cycling embedded in the project, particularly the principal bicycle network and major council routes? Are there any gaps in the bicycle grid?
4. Does the project deliver greater transport choice, particularly on most-travelled routes (such as the top-three origins and destinations by car)?

Performance indicators

Access and Connection

- Bus and strategic freight reliability (core indicator)
- Mode share (core indicator)
- Public transport accessibility
- Equitable access
- Cycling accessibility
- Walking paths

Amenity and Use

- Places to stop and rest
- Transport node facilities

Character and Form

- Permeability (walking, cycling) (core indicator)
- Street space for pedestrians

Comfort and Safety

- Community safety
- Pedestrian crowding

Benefit delivery

Better Placed: Better Value

Future Transport: Successful places

Future Transport: A Strong Economy

Economic value can be measured directly in higher property values, urban regeneration, the turnover of local businesses, and vacancy rates. Economic value can also be indirect, such as creating places that attract global talent or delivering health benefits from active transport options. Streets can make their greatest contribution to economic value through providing quality public space and better access to it.

Benefits also extend to costs avoided – e.g. through long-term ‘virtuous circles’, where more people using active and public transport benefit not only themselves and others like them, but also reduce the number of cars (and congestion) on the road and provide long-term healthcare cost savings from higher physical activity participation rates.

Processes like design quality frameworks or design reviews can ensure that design and place benefits are not eroded over time and projects live up to initial expectations.

Delivering place benefits early in the project also adds value, offsetting construction impact on business and showing goodwill to the community via ‘best public purpose’ use of surplus land

and redundant infrastructure. Long-term place benefits can also be achieved such as establishing tree nurseries, or co-ordinating ‘offline’ work sites with land required for future schools or hospitals.

Ensuring these secondary benefits are embedded in the project definition and funded is key to benefits being counted. Aim to co-design redundant (or ‘detrunked’) infrastructure with councils and the local community so that projects can hand these over fit-for-purpose.

Key questions

1. How is the funding and delivery of place benefits aligned with the project? Are a range of direct and indirect benefits considered including health benefits? If assigned to other entities or projects, how has the delivery by others been secured or safeguarded, such as through interim works?
2. Is there a strategy for repurposing of any redundant infrastructure? (Will part or all be repurposed to active transport? Will the infrastructure be divested to local authorities? Will the project deliver that existing infrastructure fit for purpose?)
3. Is there a target overall journey time between major origins and destinations? Are general traffic speeds well-matched to speed zones, prevailing road conditions and the speed of other modes? Has time ‘saved’ while reducing variability been ‘spent’ on places – e.g. crossing time and speed? (Do traffic control signal plans demonstrate precinct priorities?)

Performance indicators

Access and Connection

- Bus and strategic freight reliability
- Public transport accessibility
- Equitable access

Amenity and Use

- Public space
- Primary schools
- Local jobs
- Economic development and regeneration

Local movement

Better Placed: Better Fit

Future Transport: Successful places

People experience places at a fine-grained scale. The design of places can shape demand for movement. Where an area is more permeable for pedestrians and cyclists than vehicles, getting around on foot or by bike becomes the natural choice for short trips, including deliveries (couriers and cargo bikes). Clusters of local shops, schools, stations and stops provide an efficient trip chain for daily visits from home to work and back. Considering the future context is also critical for areas undergoing change or where change is likely.

Key questions

1. Is there a mix of local and community services close to homes or as a part of a trip chain to and from work, and if not, could the project facilitate this?
2. Are all walking and cycling desire lines accommodated within the project boundary and all adjacent networks connected together? Has any footpath crowding, and shared path over-subscription been addressed? Are these staged for delivery on Day 1?
3. Can residents access all their daily needs such as shops, schools and jobs safely without a car?

4. Is there a precinct-wide strategy for loading and deliveries (delivery bots, cargo bikes, freight consolidation, laneways), parking, and kerbside activities?
5. Are streetscapes designed to be attractive, interesting and welcoming to people walking and cycling, with appropriate amenities and shelter?

Performance indicators

Amenity and Use

- Mix of uses (core indicator)
- Population density
- Local living
- Places to stop and rest
- Transport node facilities

Character and Form

- Permeability
- Street space for pedestrians

Comfort and Safety

- Road safety
- Pedestrian crowding
- Safe speed for environment
- Community safety

Connectivity to and from other destinations

Better Placed: Better for Community

Future Transport: Customer Focused

Future Transport: Accessible services

Places do not exist in isolation from each other, and people within them form part of a wider community of people with whom they share values or common services across town, the city or region. Sustainable transport modes can join these together, particularly for people of all ages and abilities and requires public transport to be the obvious choice for places that are further afield.

Physically connected communities support social cohesion and positive health outcomes.

Consider not only typical destinations like jobs and shops, but also connecting people with similar interests – places of worship, cultural centres or parklands, and access to essential services that are key to a community thriving – hospitals, high schools, and universities.

Public transport provides equitable and efficient access to and from more distant places. Projects need to identify the existing and future public transport network and incorporate this network in the overall design, with the appropriate priority to their frequency and service type (e.g. rapid services). Where public transport passes through places, consider how services affect that place (e.g. severance, speed). Where the project proposes re-routing of public transport, this must be done in close collaboration with operators.

It may be necessary to adapt speed limits and road space allocation for greater sustainable transport priority, including space for public transport stops, bicycle racks, and benches for resting.

Key questions

1. Is there a known pinch point for freight or public transport, and if so, how is it being resolved?
2. Can people, especially those with lower incomes or most socially disadvantaged, easily access important destinations such as shops, health services, schools, and jobs by public transport?
3. Are there sufficient end-of-trip facilities to serve the place – parking, loading, bicycle racks, bus waiting space, and shelters? Are they aligned with the desired mode share?
4. Are public transport nodes safe and easy to approach on foot and bicycle, clearly signed and well-lit with direct routes and safe and convenient crossing points?
5. Are all intensive land uses within a frequent (rapid or turn-up-and-go) public transport corridor?
6. Have suitable priority measures been identified for frequent public transport routes?

Performance indicators

Access and Connection

- Bus and strategic freight reliability
- Mode share (core indicator)
- Public transport accessibility
- Equitable access

Amenity and Use

- Transport node facilities
- Economic development and regeneration
- Places to stop and rest

Through-movement

Better Working

Better Placed: Better Working

Safety and Performance

Future Transport: Safety and Performance

A Strong Economy

Future Transport: A Strong economy

Through-movement is important for wider connections and needs to be accommodated within the transport network. Successful networks provide for movement through places in locations that are appropriate to land uses (minimising impact on high-place-intensity areas and sensitive land uses). Vibrant streets concentrate through-movement at the centre of the carriageway to allow access to and from places at the edges, and movement within places to happen at the interface of buildings. For example, a boulevard with service roads, or a main street with local bus stops and loading bays along the kerb.

Through-movement should be prioritised to cater for longer distance trips between origins and destinations outside the place that people and goods need to travel, while maximising people efficiency and sustainable travel choices. Public transport is a sustainable mode – but if a large proportion of those public transport trips are through-movement, consider whether a different configuration (such as centre-running buses) may be more complementary to place.

In some instances it may be appropriate to identify an alternative route away from a high-intensity place to accommodate through-movement, where the speed, volume or type (such as freight) is inconsistent with vibrant street life. If an alternate route is required consider how the function of any existing streets would change, and recalibrate road space to align with this change in function. Retain those longer distance modes that support place (such as public transport and cycling).

Key questions

1. Are there origins and destinations outside of the place that require people and goods to travel through the place?
2. Would it be possible to cater for this through movement by sustainable modes (public transport, cycling)? If so, have these been prioritised?
3. Does through movement conflict with kerbside uses, walking, cycling or on-street place activity?
4. Could an alternative route accommodate the through movement and better support the vision for the place?
5. If an alternative is being built or intensified, have existing streets been recalibrated to give space (and time) to place and local movement? Will it be detrunked and handed back to council? Has the alternative route considered the impact on places that it travels through?

Performance indicators

Access and Connection

- Bus and strategic freight reliability
- Mode share (core indicator)
- Equitable access

Character and Form

- Land division
- Building density

Comfort and Safety

- Road safety
- Pedestrian crowding

Amenity and Use

- Population density
- Local jobs
- Economic development and regeneration

Movement impacts on place

Better Placed: Better Fit

Future Transport: Successful places

Movement infrastructure needs to be calibrated to impacts at a local scale. Activities associated with large freight can affect places, just as places can impact the movement of freight. We need to provide safe, direct, and comfortable walking and cycling routes as the backbone of active travel, including to school and other places of interest, linking local activities to local recreation, giving priority to car-free arrival points and providing minimal parking.

Road speed and geometry, lighting, and footpath crowding all affect the community. Movement can shape how comfortable people feel in places both negatively and positively – providing a pleasant ambience, passive surveillance, and visual interest. Good design can increase the distances people are willing to walk. Impacts may be mitigated by setting lower expectations of the level of service of vehicles (such as freight journey time reliability during school hours, where freight re-moding to other times is preferred).

There are many ways of measuring movement's impact on places – property values, urban regeneration, the turnover of local businesses, and vacancy rates – but equally, movement can improve the liveability of places and attract people to live and work nearby.

Key questions

1. Does the street design change to reflect the needs and users of the places the street passes through? Is it activated throughout the day?
2. What is the grain of local movement? Are blocks, major roads and rail lines permeable – can people move across every 150–200 metres? Can two wheelchair users or prams pass each other?
3. Are street connections integrated with adjacent areas, existing development and open space networks?
4. Does large freight or do hazardous goods pass through places? Can this be relocated? If not, how are the impacts mitigated?

Performance indicators

Character and Form

- Permeability
- Street space for pedestrians

Access and Connection

- Mode share (core indicator)

Amenity and Use

- Public space (core indicator)
- Mix of Uses (core indicator)
- Population density
- Local living
- Places to stop and rest

Comfort and Safety

- Air quality and noise
- Pedestrian crowding
- Safe speed for environment

Deliveries and servicing

Better Value

Better Placed: Better Value

A Strong Economy

Future Transport: A Strong Economy

Deliveries and servicing are essential to creating vibrant places. Centres and main streets' kerbside loading zones are best used for essential delivery, service and maintenance vehicle access outside pedestrian peaks. Shifting regular or bulky deliveries off-street or outside peaks can reduce conflict between these essential functions and the place amenity.

To maximise the benefit of off-street facilities, new large residential and commercial complexes should incorporate facilities for a diverse range of vehicles: from small delivery and trade vans through to semi-trailers and other large articulated vehicles, appropriate to their delivery and service demands. These should be located to minimise the impact on primary streets by using underground loading, access via laneways or a local area consolidation centre. The location of, and interaction at, footpath crossovers should be carefully considered.

Special arrangements may be required for historic buildings and during construction to ensure loading and place activity are safely and conveniently accommodated.

All streets and buildings in vibrant places should consider the 'last metre' (on-foot delivery carts, cargo bike access) as part of their general accessibility design. Deliveries on foot can be designed using similar principles to designing for people with mobility needs, such as safe ramps, accessible lifts, and excellent wayfinding to reduce distances travelled and to save time.

Key questions

1. Have options for mitigating delivery impact been considered such as freight consolidation facilities, laneway access and shared loading bays?

2. Have all aspects of last-mile deliveries and servicing been considered? Does the design cater for access by the types of delivery vehicles anticipated? Is there a plan to manage deliveries and servicing by time of day? Has waste collection been considered?
3. Has accessible ‘last metre’ access on foot or cargo bike been considered?

Performance indicators

Access and Connection

- Freight network accessibility
- Bus and strategic freight reliability
- Equitable access

Amenity and Use

- Transport node facilities
- Economic development and regeneration

Comfort and Safety

- Pedestrian crowding
- Air quality and noise
- Community safety

Considering large freight

Better Placed: Better Value

Future Transport: A Strong economy

Future Transport: Successful places

The broader economy, including the smaller local economies of successful places, relies on goods. Catering for the movement of large freight (including heavy vehicles and hazardous goods) to distribution centres and logistics hubs needs to be considered as part of the delivery chain. Projects need to identify freight corridors, networks and significant freight land uses and provide for these in the overall design.

Large freight travels on designated routes and is often restricted on other roads. These designated routes need to be protected, or alternatives identified if they are to be changed. Separating areas of place intensity and sensitive land uses from large freight routes is desirable. Truck lanes or restricted access roads could be considered in and around important freight and logistics precincts like ports and intermodal facilities to separate freight from general traffic and improve reliability. Large freight drivers often travel long distances and require places to stop and rest.

Key questions

1. Has the project identified freight corridors, networks and significant freight land uses?
2. Does the project affect a designated route? If so, are separate lanes or access roads required? Is the project on a long-distance freight route that requires a rest area?

Performance indicators

Access and Connection

- Bus and strategic freight reliability
- Freight network accessibility

Amenity and Use

- Places to stop and rest (heavy vehicle rest stops)
- Economic development and regeneration

Comfort and Safety

- Air quality and noise

Natural system context and human impacts

Better Placed: Better Performance

Future Transport: Sustainable

The built environment sits within a wider environmental context that is affected by human impacts: if we care for Country, it will care for us.

Natural systems can complement both movement and place, such as trees reducing urban heat, offering shade, and providing visual interest. Projects need not only to preserve green infrastructure, but to repair green networks – e.g. focusing on new canopy cover in areas of urban heat, low vegetation cover, and high walking potential. Projects can respond to local climate conditions and use efficient, passive approaches and systems to provide shade, shelter, heating, and cooling, or capture on-site water for vegetation.

Key questions

1. Does the project contribute to increased tree canopy cover, particularly for walking and cycling paths? Does the design provide the conditions for new trees to contribute to the street from the outset, and mature fully?
2. Does air quality or noise affect users of the street or adjacent land uses?
3. Has environmental performance been considered e.g. managing stormwater run-off and surface temperatures in extreme weather events? Has water-sensitive urban design been incorporated in the project?

4. Is street space efficiently allocated? Is the space given to each mode proportionate to the number of people using the mode (rather than their passenger-car unit equivalents)?
5. Have project outcomes been adapted to maximise both movement and place benefits?
6. Have projects considered local native tree species and food trees appropriate for the local context?

Performance indicators

Green and Blue

- Tree canopy
- Biodiversity
- Waterways

Comfort and Safety

- Air quality and noise
- Urban heat

Character and Form

- Culture and heritage
- Street space for pedestrians

Change over time

Project gestation and construction can take months or years, and projects must be appropriately staged to manage value. Corridor reservation, and the ‘meanwhile’ use of corridors to support place, (and ‘meanwhile’ transport services along corridors, such as pre-metro bus rapid transit) are some examples. Delivering place benefits early in a project can add value, offsetting construction impact on business and showing goodwill to the community via ‘best public purpose’ use of surplus land and redundant infrastructure. Staging can incorporate project efficiencies (such as establishing tree nurseries) as well as long-term place benefits such as coordinating ‘off-line’ work sites with land required for future schools or hospitals.

Processes like design quality frameworks or design review can ensure that design and place benefits are not eroded over time, to ensuring that projects live up to initial expectations.

Key questions

1. Does the design of the street or road enhance the place? Does the design support greater amenity, arrest any decline, and offer the potential to sustain future local communities?
2. Is the street capacity fit for the future growth (if desired) and character of the place, particularly the desired density?
3. How are corridors reserved? What “meanwhile” uses or services are proposed to establish desired character or travel patterns? How is induced demand avoided?
4. Does the project demonstrate “good faith” by delivering place benefits early and minimising impacts of construction? (e.g. footpaths maintained during construction, CTMP maintains direct desire lines)

Performance indicators

Amenity and Use

- Public space
- Local living
- Economic development and regeneration
- Local jobs

Resilience by design

Better Placed: Better Performance

Future Transport: Sustainable

Environmental sustainability and resilience are no longer optional but fundamental aspects of functional, whole-of-life design.

We can minimise resource consumption (energy, water, materials) by responding to local climate conditions using efficient passive approaches to provide shade, shelter, heating, and cooling.

Good design can prioritise the use of robust, locally sourced materials and resilient, climate responsive plant species. Resource efficiency includes minimising consumption of land – streets need to be ‘hard working’, accommodating more people efficiently as well as making room for place, and the vibrancy that comes from proximity. Inclusive zoning can allow complementary uses to cluster together, with appropriate density and housing diversity. Resilience can be low tech – for example using local materials or low albedo surfaces to reduce emissions and urban heat respectively.

Resilience includes social resilience – delivering local community facilities that enable people to come together both regularly or in times of crisis, and street space that can be used temporally to host social events such as weekly markets or seasonal concerts. Like all good projects, this requires a combination of physical infrastructure (space to host the activity), governance (to enable that activity) and regular funding (to sustain that activity).

Key questions

1. Is the design resilient – does it minimise resource consumption and emissions, and contribute to the NSW net zero emissions goal? Could an 8-year-old use this area independently (community resilience)?
2. Does the project contribute to a permeable, compact and connected urban environment?
3. Are sustainable modes incorporated into the project?
4. Is there flexibility in design so various uses of a place or space can occur over a day, week or year?

Performance indicators

Green and Blue

- Tree canopy
- Impervious surface
- Biodiversity
- Waterways

Amenity and Use

- Mix of Uses (core indicator)
- Population density
- Housing diversity

Comfort and Safety

- Air quality and noise
- Urban heat

Speed and safety

Better Placed: Better for People

Future Transport: Safety and Performance

A healthy environment is one where the road is safe – reducing the risk of injury by design, where the speed and street environment both minimise the risk of serious injury. Factors like road speed and geometry, lighting and footpath crowding all affect the safety of the community.

Safety also forms a part of a community's wider wellbeing, including the perception of safety, comfort, physical exercise, and mental health. Layout, landscaping, natural surveillance and wayfinding can make places feel safe. The presence of people of different cultures, ages and abilities gathering for social activities can indicate that a place is a safe, comfortable, and active environment.

Key questions

1. Is the intended speed zone for key roads safe for all users of that road? Does the physical design fit that design speed? (e.g. default urban speed limit of 50 kmh or lower)
2. Has a Safe System approach been taken? Are the road design and speed self-explanatory for both movement and place?

3. Are streets comfortable and easy to walk along – not too crowded, buffered from high-speed or high-volume traffic, shaded from summer heat? Is there a simple and logical layout with appropriate signs and wayfinding? Does the landscape encourage direct routes with clear lines of sight?
4. Has personal safety been considered? Is there an evening or night-time economy? How do people move to and from the area, and between nodes? Is the lighting and activation strategy aligned?

Performance indicators

Comfort and Safety

- Road safety
- Pedestrian crowding
- Community safety
- Safe speed for environment
- Urban heat

Amenity and Use

- Public space
- Local living
- Places to stop and rest
- Housing diversity

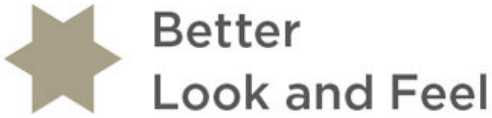
Access and Connection

- Steepness
- Walking paths

Character and Form

- Permeability

Visual interest and impact



Better Placed: Better Look and Feel

Future Transport: Customer Focused

Better design of our streets can enhance visual interest for all users, contributing to their enjoyment, comfort, and sense of safety, social connection, and wellbeing. As well as providing buffers from fast-moving vehicles, a well-designed street can provide a visual and tactile environment that feels connected to nature, engages all the senses, provides opportunities to linger, socialise, or rest, and reveals layers of history and a deeper understanding of the place. Public lighting is an important contributor to a safe, secure and attractive visual environment.

Engaging with local councils, local communities including Traditional Custodians, and urban and landscape designers to work on these issues has the potential to deliver a range of place benefits that are specific to their context and local aspirations for that place.

Key questions

1. Has the comfort and visual interest of all users of the streets been considered and catered for? Are all visual impacts understood?
2. Has the connection to Country be understood and expressed through the planning and design process?

Performance indicators

Character and Form

- Street enclosure
- Building height
- Building density
- Legibility
- Culture and heritage
- Land division (grain)

Amenity and Use

- Public space
- Places to stop and rest

Green and Blue

- Tree canopy
- Biodiversity
- Waterways

Measuring success

Better Value

A Strong Economy

Better Placed: Better Value

Future Transport: A Strong economy

Movement and Place can support efficient investment in the right movement networks, services and habits, and it can also support local economies and the network effects of places.

Success can be measured in terms of social, environmental, and economic value, as well as user satisfaction and meeting community expectations. Social value includes participation and social contact and cohesion. Economic success can be broadly understood, including creating jobs and new opportunities, attracting people to live or work in an area, as well as positive impacts on population health. Costs avoided also contribute to economic success. Environmental success can extend to preserving and repairing green infrastructure, as well as mitigating factors such as urban heat and stormwater run-off.

Key questions

1. Does the project minimise or mitigate externalities that the government will be required to fund, such as increased stormwater run-off, loss of tree canopy cover, etc.?
2. Is the wider economic value of the project considered, including local employment, impact on property values, business prosperity, vacancy rates, attractiveness to investors and visitors?

3. How does walkability affect the productivity of the place itself? Consider, for example, the permeability, effective job density and impact of crossing delay.
4. Does the project or business case value virtuous circles? E.g. increased health benefits due to walking or cycling, decongestion, and improved air quality?

Performance indicators

Amenity and Use

- Public space
- Economic development and regeneration

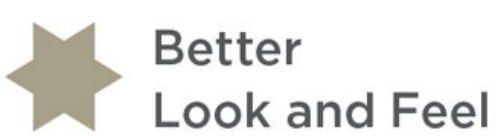
Green and Blue

- Tree canopy (core indicator)
- Biodiversity
- Waterways

Comfort and Safety

- Road safety (core indicator)
- Community safety
- Urban heat

Life cycle and technology change



Better Placed: Better Look and Feel

Future Transport: Customer Focused

Considering the full life cycle of a project – including its maintenance cycle – is an important aspect of ensuring the long-term attractiveness of places – from materials selection and the cleaning regime through to scheduled maintenance and replacement of assets at the end of their design life.

Maintenance of green infrastructure requires the same consideration, such as programming the succession planting of trees to mitigate against sudden changes to the tree canopy cover at the end of a species' lifespan.

Good design can be inconspicuous – it anticipates the user and their needs both current and in the foreseeable future. Transport projects should anticipate emerging future technology and cater for adaptation. In the case of interchanges (i.e. changing from one mode to another), projects need to provide a good basic environment that connects people from node to node and enable users to engage with the place if they choose to, as part of a seamless experience.

Key questions

1. Is the amount of street space available for lingering increased or access to off-street public space improved?
2. Has maintenance of all elements of the project been considered? What governance or programs are in place to ensure design integrity during the relevant asset's life? Has future technology been considered? Is the project fit for the future? Does the design support emerging technology such as electric bicycles or electric vehicle charging?

Performance indicators

Character and Form

- Culture and heritage

Amenity and Use

- Local living
- Transport node facilities
- Economic development and regeneration

03

Guidance for design review panels

Evaluating projects against the Better Placed objectives

***Better Placed* (GANSW 2017) outlines seven distinct objectives to define the key considerations in the design of the built environment.**

- Better fit – contextual, local, and of its place
- Better performance – sustainable, adaptable, and durable
- Better for community – inclusive, connected, and diverse
- Better for people – safe, comfortable, and liveable
- Better working – functional, efficient, and fit for purpose
- Better value – creating and adding value
- Better look and feel – engaging, inviting, and attractive

As part of design and design review processes, these objectives can help us to evaluate how well movement and place are aligned. Aligning movement and place is essential to creating better places that will enable people of all ages and abilities to stay connected, access the places they need, and thrive in high-performing quality public spaces.

Achieving these objectives will ensure our cities and towns, public realm, landscapes, buildings and open spaces will be healthy, responsive, integrated, equitable, and resilient.

Better fit

Better fit
contextual, local,
and of its place

The process of balancing movement and place needs to be based on an authentic understanding of local context – what constitutes a place, where are these elements located, how do they perform, and what do they need to be successful?

Integrated design of land use and transport should encompass an appropriate contextual fit:

1. Is there a mix of local and community services close to homes or as a part of a trip chain to and from work? If not, could the project facilitate this?
2. Are all walking and cycling desire lines accommodated within the project boundary and all adjacent networks connected together? Are these staged for delivery on Day 1?
3. Can residents access all their daily needs such as shops, schools, and jobs without a car?
4. Is there a precinct-wide strategy for loading and deliveries, (delivery bots, cargo bikes, freight consolidation, laneways, rideshare pick-up), parking, and kerbside activities?

5. Does the street design change to reflect the needs and users of the places it passes through? Is it activated throughout the day?
6. What is the grain of local movement – are blocks, major roads and rail lines permeable – can people move across every 150–200 metres? Can two wheelchair users pass each other?
7. Does large freight or do hazardous goods pass through places? Can this be relocated? If not how is this mitigated?

Better performance

Environmental sustainability and resilience are fundamental aspects of functional, whole-of-life design.

Good built environment design that considers place and movement achieves high performance standards:

1. Does the project contribute to increased tree canopy cover, particularly for walking and cycling paths? Does the design provide the conditions for new trees to mature fully?
2. Does air quality or noise affect users of the street or adjacent land uses?
3. Has environmental performance been considered (e.g. managing stormwater, run-off and surface temperature in extreme weather events)? Has water-sensitive urban design been incorporated in the project?
4. Is street space efficiently allocated? Is the space given to each mode proportionate to the number of people using the mode (rather than their passenger-car unit equivalents)?
5. Have project outcomes been adapted to maximise both movement and place benefits?

6. Is the design resilient – does it minimise resource consumption and emissions, and contribute to the NSW net zero emissions goal? Could an 8-year-old use this area independently (community resilience)?
7. Does the project contribute to a compact, permeable and connected urban environment?

Better for community

Better for community
inclusive, connected, and diverse

The process of aligning movement and place requires input from the local community through engagement and inclusive methods of project design and development.

Community participation, with a focus on delivering better connectivity for communities to their surroundings, contributes to more robust, defensible outcomes and broader community support.

1. Is there a known pinch point for people walking, bicycle riders, freight or public transport? If so, how is it being resolved?
2. Can people, especially those with lower incomes or socially disadvantaged, easily access destinations such as hospitals, schools and jobs by public transport?
3. Are there sufficient end-of-trip facilities to serve the place: parking, deliveries, passenger and parcel loading, bicycle parking, bus waiting space and slimline departure bus shelters? Are they balanced to the desired mode share?
4. Has the process involved practitioners from both movement and place, and the local community or its representatives? Has this collaboration and decision-making been well-

documented?

5. Have local communities been engaged in the design process – has this been well-documented? Have community needs been articulated as place needs and aspirations (e.g. through a community strategic plan or local strategic planning statement)? Do strategies and actions address those needs?
6. Have a variety of views been taken into account? Have trade-offs been documented to lead to transparent decision-making and defensible outcomes?

Better for people

Better for people
safe, comfortable,
and liveable

The built environment is a foundation for community health, providing opportunities for physical activity (active and passive) and social interaction which supports mental wellbeing.

A local environment that caters to walking and cycling encourages healthy daily activity and social interaction:

1. Is the intended speed zone for key roads safe for all users of that road? Does the physical design fit that design speed? Is the speed zone the default urban speed limit of 50km/h or less?
2. Has a Safe System approach been taken? Is both the road design and speed 'self explanatory' for both movement and place?
3. Are streets comfortable to walk along – not too crowded, buffered from high-speed or high-volume traffic, and shaded from summer heat?
4. Has personal safety been considered? Is there an evening or night-time economy? How do people move to and from the area and nodes within it? Is the lighting aligned with the

activation strategy?

5. Can daily needs be met on foot (access to fresh food, local services like pharmacies, social spaces like cafes, primary schools)?
6. Can workers access food, services and parks within their area during breaks and at lunch?

Better working

Better working
functional, efficient,
and fit for purpose

Providing sustainable transport systems is a key indicator of sustainable cities and communities globally.

Built environments that function well make sustainable modes – walking, cycling and public transport – the easy and natural choice:

1. Does the project contribute to an increase in public transport patronage, walking or cycling? Have public transport operators been consulted, and are any new services and routes required being provided?
2. Does the street environment support walking to local attractors along key desire lines? Is walking priority delivered-by-design (e.g. filtered permeability, pedestrian priority streets)? Are ambient qualities like air quality and noise conducive to walking?
3. Are existing strategies and plans for cycling embedded in the project, particularly the principal bicycle network and key council routes? Are there any gaps in the bicycle grid?
4. Does the project deliver greater transport choice, particularly on most-travelled routes (such as top-three origins and destinations by car)?

Better value

Aligning movement and place stands to provide better value – both in terms of direct social, environmental, and economic value as well as in user satisfaction and reflection of community standards.

Often there is an asymmetry in the cost and benefit of integrated projects where wider benefits may be omitted or inadequately safeguarded due to their impact on a predefined cost envelope. Projects that assess net community benefit, and total cost to government, are better able to address this asymmetry and avoid value-engineering or contingency eroding those benefits.

Value can be measured in broad terms, including how well movement and place supports social interaction and delivers wider environmental benefits:

1. Is the amount of street space available for lingering increased or access to off-street public space improved?
2. Does the project foster social coherence (e.g. by providing public space supporting participation, local partnerships, jobs, education or microbusiness)?

3. Does the project require a local place governance body? If so, could this be made permanent to help support the place in the long term?
4. Are the parts of the place that are known to be valued – significant trees, conservation areas, heritage items – respected? Enhanced? Is the response to this place and its history authentic?
5. Does the project minimise or mitigate externalities that government will be required to fund, such as increased stormwater run-off, loss of tree canopy cover, etc.?
6. Is the wider economic value of the project considered, including local employment, impact on property values, business prosperity, vacancy rates, attractiveness to investors and visitors. How does walkability affect the productivity of the place (e.g. permeability, effective job density and impact of crossing delay)?
7. Does the project proposal or business case value virtuous circles? (E.g. increased cycling health benefits to individuals plus decongestion and improved air quality.)
8. Does the design support greater amenity, arrest any decline, and sustain local communities in future? Does the design of the street or road enhance the place?
9. Is the infrastructure capacity fit for the future (growth and character) of the place, particularly the desired density? How are corridors reserved and what ‘meanwhile’ uses or services are proposed to establish desired character or travel patterns?
10. Does the project demonstrate good faith by delivering place benefits early and minimising impacts of construction? (E.g. footpaths maintained during construction, Construction Pedestrian Management Plan (CTMP) maintains direct pedestrian desire lines.)
11. How is the funding and delivery of place benefits aligned with the project? If assigned to other entities or projects, how has the delivery by others been secured or safeguarded, such as through interim works?

12. Is there a strategy for repurposing any redundant infrastructure? Will part or all be repurposed to active transport? Will the infrastructure be divested to local authorities? Will the project deliver that existing infrastructure fit for purpose?
13. Is there a target overall journey time between key origins and destinations? Are travel times well-matched to speed zones, prevailing road conditions, and the speed of other modes? Has time ‘saved’ while reducing variability been ‘spent’ on places – e.g. crossing time and speed? (e.g. traffic control signal plans reviewed and precinct priorities demonstrated.)

Better look and feel

A well-designed outcome responds to character, materials, landscape, and other key design components.

Better design of our streets can enhance visual interest for all users, contributing to their comfort and enjoyment. Good design anticipates the user and their needs both current and in the foreseeable future.

1. Has the comfort and visual interest of all users of the streets been considered and catered for? Are all visual impacts understood?
2. Has maintenance of all elements of the project been considered? What governance or programs are in place to ensure design integrity during the relevant asset's life?
3. Has future technology been considered? Is the project fit for the future? Does the design support emerging technology such as rideable or electric vehicle charging?

4. Has safety by design been considered (crime prevention through environmental design), such as avoiding blind corners, passive surveillance and activation?
5. Has the design for all ages and abilities been well integrated to minimise impacts on users and the public domain (such as switchbacks)?

Appendix

Movement and Place alignment with design and transport policies

The Movement and Place built environment performance indicators can be mapped to both the Better Placed and Future Transport policies as follows:

		Better Placed							Future Transport					
Built environment performance indicators		Better fit	Better performance	Better for community	Better for people	Better working	Better value	Better look and feel	Customer focused	Successful places	A strong economy	Safety and performance	Accessible services	Sustainability
Access and Connection	**Mode share**					●							●	
	Walking attractiveness					●						●		
	Cycling attractiveness					●						●		
	PT attractiveness					●						●		
	Journey time reliability (freight and PT)			●							●			
	Public transport frequency			●							●			
	Equitable access			●									●	
	Steepness			●									●	
Amenity and Use	Local living				●					●				
	Public space						●			●				
	Primary schools						●				●			
	End of trip facilities (by mode)			●									●	
	Places to stop and rest					●							●	
	Population density	●								●				
	Local jobs	●								●				
	Mix of uses	●									●			
	Housing diversity	●								●				
	Economic development and regeneration						●				●			

		Better Placed								Future Transport					
Built environment performance indicators		Better fit	Better performance	Better for community	Better for people	Better working	Better value	Better look and feel	Customer focused	Successful places	A strong economy	Safety and performance	Accessible services	Sustainability
Green and Blue	**Tree canopy**		●											●
	Biodiversity		●											●
	Vegetation cover/ pervious surface		●											●
	Waterways		●											●
	On-site water management		●											●
Comfort and Safety	Urban heat				●							●		
	Solar access		●											●
	Environmental quality		●											●
	Heavy vehicle separation	●								●				
	Pedestrian crowding				●							●		
	Safe Systems Assessment				●							●		
	Casualty Crash Rate				●							●		
	Community safety and security				●							●		
	Safe speed for environment				●					●				
Character and Form	**Permeability (walking and cycling)**	●								●				
	Building height							●	●					
	Street enclosure							●	●					
	Dwelling street space					●							●	
	Culture & heritage							●	●					
	Land division							●	●					
	Legibility							●	●					
	Building density							●	●					

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