

# Road User Space Allocation Procedure



**Procedure Number:** CPr21038  
**Effective Date:** 16 December 2021  
**Review Date:** 16 December 2023

## Who is this for?

All Ongoing/Temporary/Seconded/Casual staff of Transport for NSW, including Transport Service Senior Managers and Executives, Labour Hire, Consultants and Professional Service Contractors involved in the planning, design, scheme approval, building, management or operation of roads in NSW.

**YES**

## Disclaimer

This document has been prepared by Transport for NSW (TfNSW) specifically for its own use and is also available for use by NSW public transport agencies for transport assets.

Any third parties considering use of this document should obtain their own independent professional advice about the appropriateness of using this document and the accuracy of its contents. TfNSW disclaims all responsibility and liability arising whether directly or indirectly out of or in connection with the contents or use of this document.

TfNSW makes no warranty or representation in relation to the accuracy, currency or adequacy of this document or that the document is fit for purpose.

The inclusion of any third party material in this document, does not represent an endorsement by TfNSW of any third party product or service.

## Contents

Disclaimer .....	1
1. Introduction.....	3
1.1 Purpose.....	3
1.2 Scope.....	3
1.3 Strategic context .....	5
1.4 Movement and Place .....	5
1.5 Roles and responsibilities .....	6
2. The Procedure.....	8
2.1 Overview.....	8
2.2 Considerations for each mode .....	10
2.3 Governance and Decision Making .....	12
2.4 Where to start .....	12
2.5 How to use this Procedure.....	13
3. Network planning.....	14
3.1 Snapshot.....	14
3.2 Making decisions .....	15
3.3 Tasks .....	16
4. Precinct and corridor planning.....	18
4.1 Snapshot.....	18
4.2 Making Decisions.....	18
4.3 Tasks .....	19
5. Road and street design .....	22
5.1 Snapshot.....	22
5.2 Making Decisions.....	22
5.3 Tasks .....	23
6. Terms and definitions .....	25
7. Appendix A – Mode Considerations .....	28
7.1 People spending time .....	28
7.2 Walking .....	29
7.3 Cycling .....	30
7.4 On-street public transport .....	31
7.5 Freight and services.....	32
7.6 Private vehicles and point to point .....	33
8. Appendix B - Related strategy and policies.....	34
9. Appendix C - Relevant guides and standards .....	36
10. Appendix D – Footnotes for Table 1 .....	47

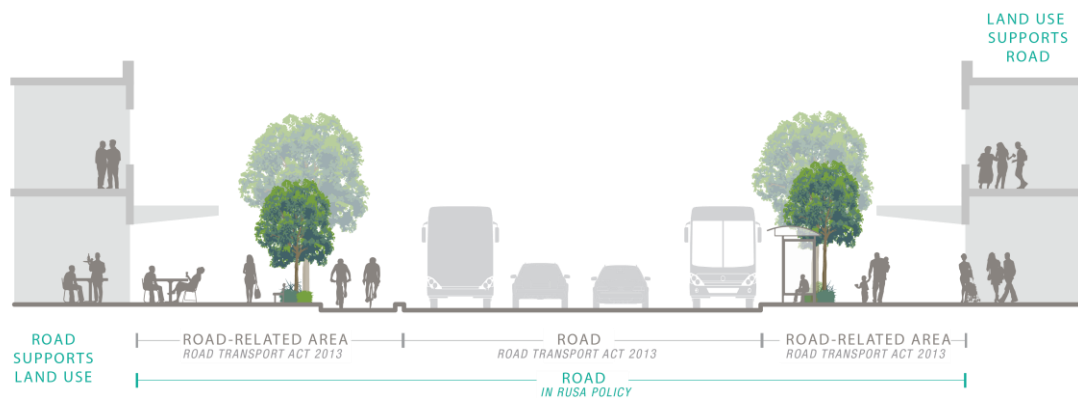
# 1. Introduction

## 1.1 Purpose

The purpose of the *TfNSW Road User Space Allocation Procedure* ('the Procedure') is to provide guidance on the process, roles and responsibilities relevant to the physical and temporal allocation of road user space in NSW. The Procedure supports the *TfNSW Road User Space Allocation Policy* ('the Policy'). The Procedure is a concise guidance note that sets out how Transport for NSW (TfNSW) can deliver the safe and equitable physical and temporal allocation of space on roads to all road users.

Appendices of this Procedure noted as "normative" are key to the application of the Procedure. Appendices noted as "informative" are optional and have been provided to assist users with the application. Appendix A details the considerations for each mode and is to be used throughout the road user space allocation process. Appendix B outlines the related strategies and policies to this Procedure. Appendix C provides the relevant guides and standards to be used at each stage of the road user space allocation process. Appendix D provides direct references for road user space considerations in relevant guides and standards.

In the Policy and the Procedure, the terms 'road user space' and 'road user space allocation' refer to the combined 'road' and 'road-related area' as defined in the *NSW Road Transport Act 2013*. This definition is illustrated in Figure 1.



**Figure 1: Definition of 'road' in the Policy and Procedure**

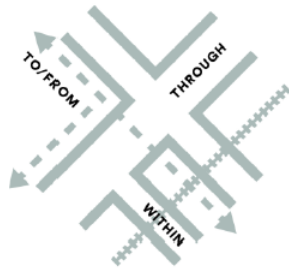
## 1.2 Scope

The Procedure is applicable to all road types in built up areas in regional and metropolitan NSW where TfNSW either is the roads authority or has provided delegated authority to another organisation, except for motorways. It will inform consultation, collaboration and engagement between TfNSW and Local Councils regarding road user space allocation

The Procedure is applicable to anyone within TfNSW involved in the planning, design, scheme approval, management or operation of proposed and existing classified roads that fit the above criteria.

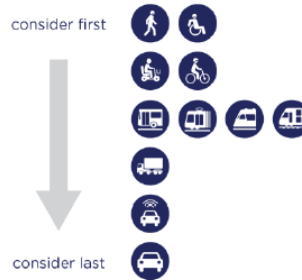
The Procedure considers all road users in the order of consideration outlined in the Policy and illustrated in Figure 2. This takes place in the context of the NSW Movement and Place Framework analysis. When allocating road user space based on the network vision, place intensity and mode-agnostic movement function should be established before considering how they can be supported by each mode. This approach considers all road users, and supports the strategic aim to reduce the mode share of private vehicle trips within built up areas.

**Establish Primary Road Function**



Balance between place and the movement of people and goods based on strategies and plans

**Order of Road User Space Considerations**

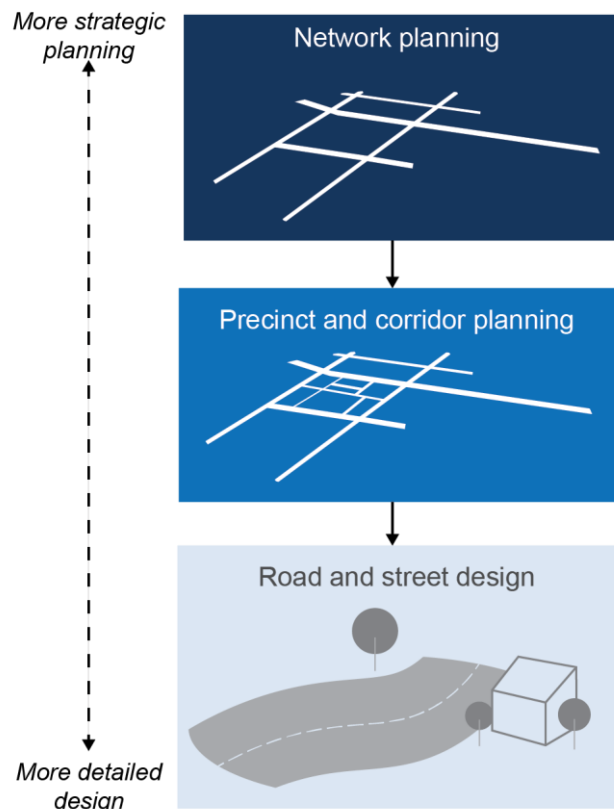


1. People spending time
2. Walking
3. Cycling
4. On-street public transport
5. Freight and services
6. Private vehicles and point to point.

**Figure 2: Order of road user space considerations in the Policy**

As shown in Figure 3, the Procedure encompasses three phases of planning and designing roads:

- Network planning
- Precinct and corridor planning
- Road and street design.



**Figure 3: Phases of road user space allocation**

### 1.3 Strategic context

The Policy and Procedure are intended to support the strategic aims set out in state and metropolitan planning documents, including but not limited to:

- Future Transport 2056
- A Metropolis of Three Cities – The Greater Sydney Regional Plan
- Better Placed – An integrated design policy for the built environment of NSW
- Regional Plans
- Place-Based Transport Strategies
- Local Strategic Planning Statements

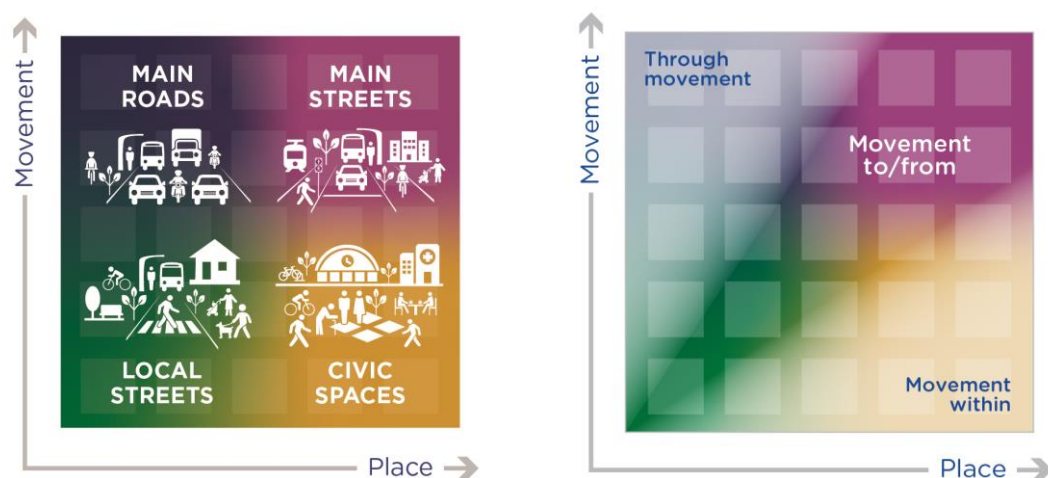
### 1.4 Movement and Place

The Procedure reflects the adoption of the NSW Movement and Place Framework approach to planning, design, delivery and operation of transport networks and their surroundings, as outlined in the Practitioner’s Guide to Movement and Place. Understanding customer needs (movement and place) is a key task in each phase of the Procedure.

#### *The four street environments*

The *Practitioner’s Guide to Movement and Place* defines four types of street environments.

- Main Roads: Routes central to the efficient movement of people and freight.
- Main Streets: Have both significant place intensity and movement function.
- Local Streets: The majority of streets within the transport network, often with important place qualities.
- Civic Spaces: Streets at the hearts of the community, with a significant meaning, activity, or built environment form.



**Figure 4: Movement and Place Street Environments**

Precinct and corridor planning should refer to the NSW Movement and Place Framework to ensure road user space allocation is appropriate for the desired movement and place context in both greenfield and existing areas.

## 1.5 Roles and responsibilities

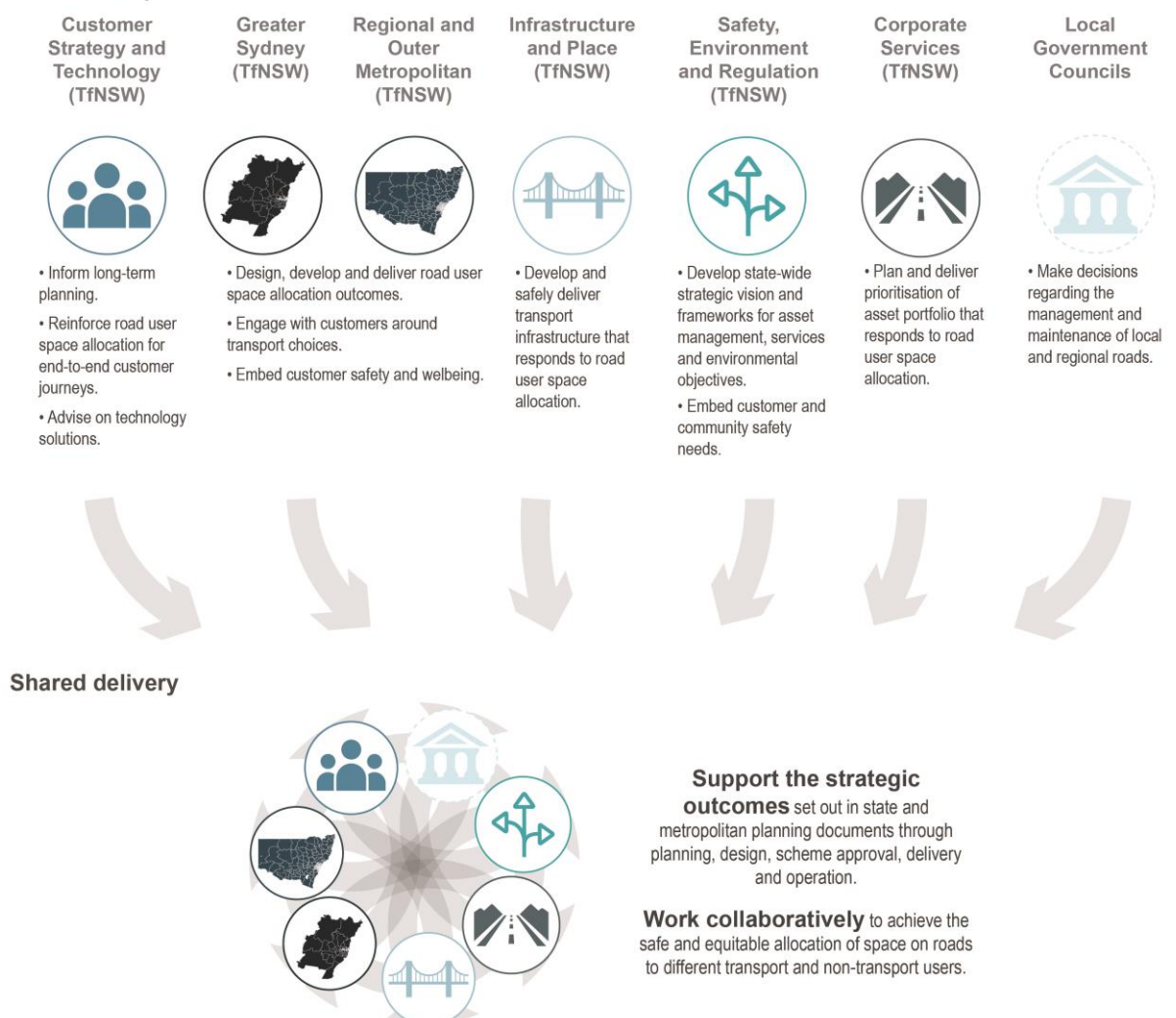
All practitioners involved in the planning, design, scheme approval and operation of classified roads (except for motorways) in built-up areas in regional and metropolitan NSW must implement the objectives and principles set out in this Procedure. Its application is targeted to deliver the Policy’s vision for safe and equitable allocation of physical and temporal road user space in NSW.

Practitioners that are operating in different Divisions of TfNSW share responsibility for road user space allocation. Road user space allocation in built-up areas may occur within a street or neighbourhood, a local government area, or a region in either the city or country.

Collaboration and ongoing consultation between TfNSW Divisions is an expected and essential part of road user space allocation. It is likely that consultation, collaboration and other engagement with Local Government Councils will also be required in relation to existing and future land use planning and development as well as the function and operation of regional and local streets.

The working relationship between the six operating Divisions and Local Government Councils is shown in Figure 5.

### Different responsibilities



**Figure 5: Collaborative working across the six operating Divisions of TfNSW and Local Government Councils**

Key responsibilities for road user space allocation are outlined below:

- Customer Strategy and Technology is responsible for setting road user space allocation priorities in long-term (more than 10 year horizon) place-based transport strategies.
- Greater Sydney / Regional and Outer Metropolitan (Planning and Programs branch) are accountable for short and medium term road user space allocation outcomes in place-based Strategic Business Cases.
- Infrastructure and Place is accountable for delivering road user space allocation outcomes on State Road projects, as well as many Final Business Cases relating to arterial highway upgrades (in Regional and Outer Metropolitan areas) and technology upgrades across NSW.

## 2. The Procedure

### 2.1 Overview

This Procedure has been developed for the three core phases of planning and design that inform road user space allocation. Figure 6 shows the phases of the Procedure.

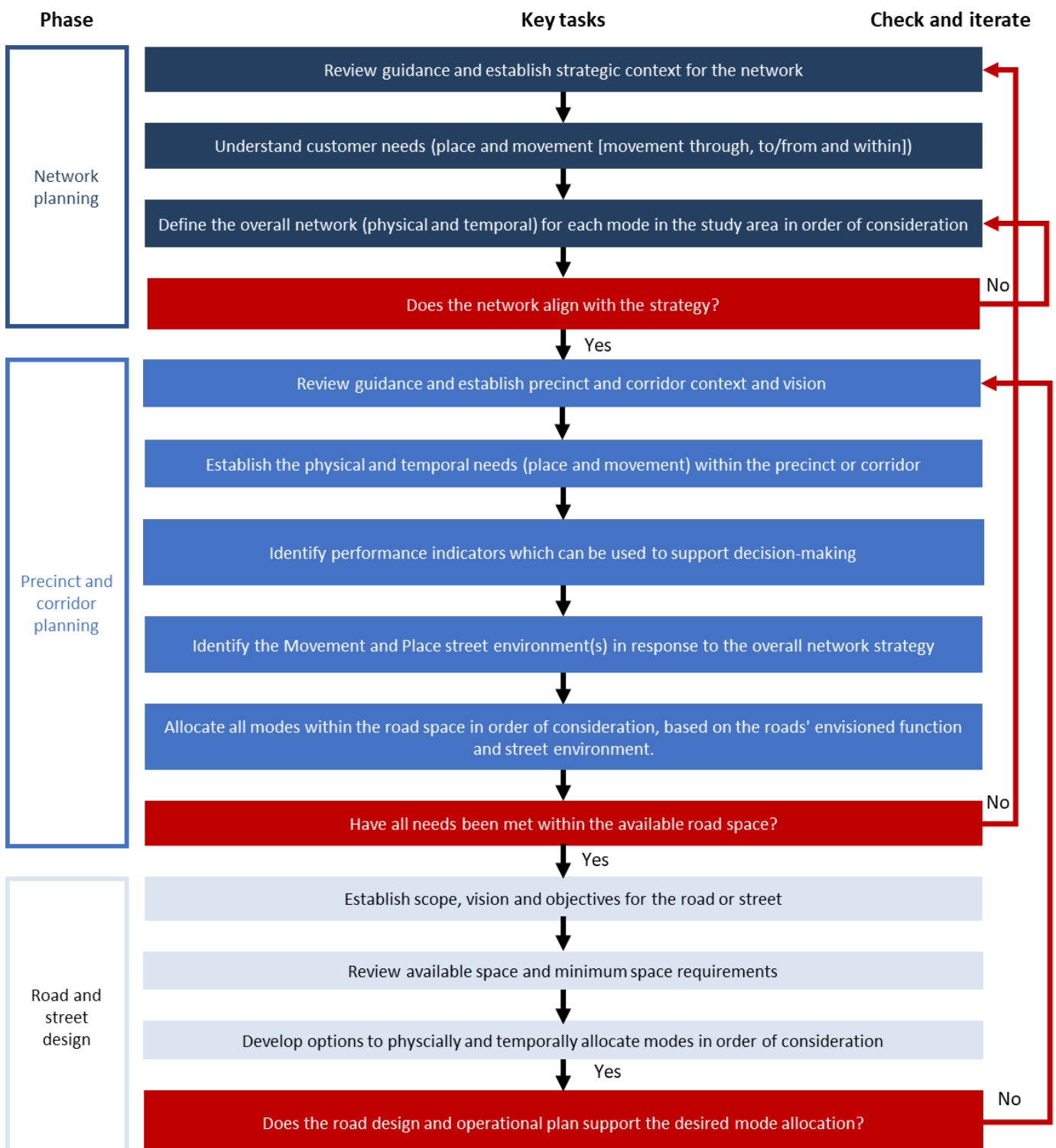
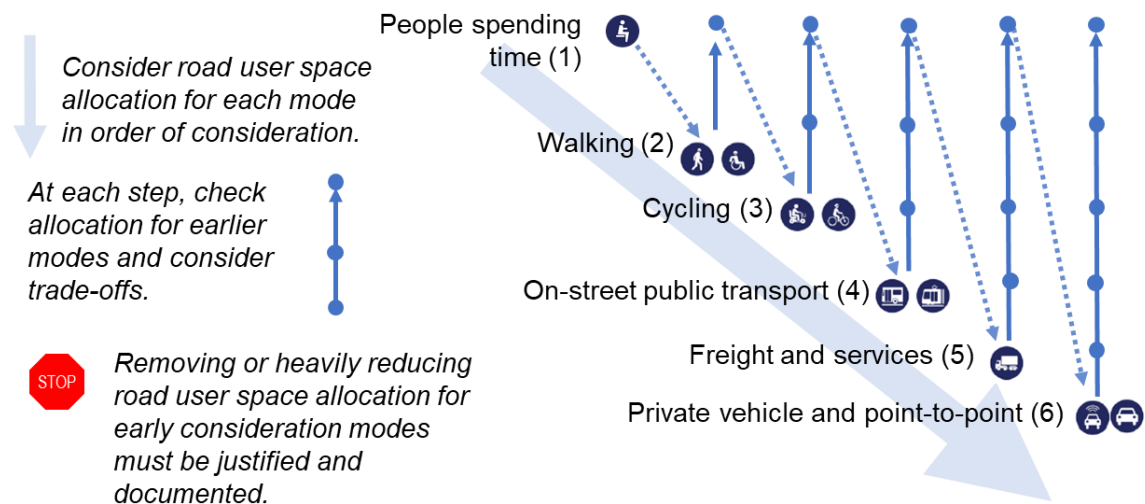


Figure 6: Phases and key tasks of the Procedure



Within each phase, there is a task that explicitly calls on practitioners to allocate road user space. While the nature and detail considered in the road user space allocation will differ in each phase, practitioners need to always use the order of modal consideration outlined in the Policy. Figure 7 illustrates the sequence.



**Figure 7: Iterations of road user space allocation and trade-offs based on the order of consideration**

As each mode is considered, the impact of the road user space allocation for that mode must be considered with respect to the preceding modes. If there is not sufficient road user space (physical and temporal) available, then a series of trade-offs become necessary. In order of preference, these are:

**1. Consider reducing provision for the current mode being allocated.**

**Example 1:** If the desired function of a street is a new Civic Space, and there is only sufficient space for the needs of people spending time (1) and walking (2) to be accommodated, consider providing for people cycling longer distances on a parallel street (3) to reduce the impact of higher-speed cycling through movements on the street with limited space.

**Example 2:** A road is currently one lane in each direction with on-street parking, but the desired function of the road is as a connection for short trips to a local centre. If there is only sufficient space for walking (2), separated cycling (3) and a bus route (4), then reduce the number of private vehicle parking spaces provided on that street and, if necessary, look for other parking opportunities off-street or nearby.

Note that for some modes, minimum provisions may apply so that the road infrastructure and operation support the safety and universal access for all users. Further details can be found in Appendix D - Road User Space Allocation Decision Guidance.

**Example 1:** Sufficient space is required to support a high-speed road environment.

**Example 2:** A minimum provision of universally accessible car parking spaces needs to be retained.

**2. Consider opportunities to share the road space with earlier modes, working backwards in the order of consideration. This may require other interventions such as speed limit reductions or new/modified infrastructure or operational settings.**

**Example:** If the current mode is freight and services (5), consider opportunities to share road space with on-street public transport (4) before cycling (3).

For some modes and places, these opportunities may not be feasible. For example, if a road is designated as a rapid bus route, then it would not be appropriate to adopt a shared lane arrangement with other modes. However, there may be opportunities to share space at/around bus stops.

3. **Consider removing or reallocating provision for earlier modes.** This should only be done if it results in an equivalent or better outcome for those modes.

**Example 1:** Relocating a strategic cycling link (3) to an adjacent street in order to provide space for a shared walking (2) and outdoor dining plaza (1). This is contingent on providing direct and high-quality connections to the cycling link.

**Example 2:** Similarly, a bypass could be constructed around a town to reallocate the through movement of freight (5) and traffic (6) and provide more space for other modes in the town centre.

At all times, it is essential to be aware of the minimum level of provision required for each mode. For example, designing a street with a narrow on-street bike lane between a lane of parking and a traffic lane will produce a sub-optimal outcome for all users. Other options to consider are relocating some on-street parking or reducing speed limits to create a safer environment in which people who cycle could share the space.

## 2.2 Considerations for each mode

Table 1 outlines the primary considerations for each mode across the three phases of road user space allocation in each of the four Movement and Place street environments. These considerations and the relevant policy and guidance referred to in Appendix D should be prioritised when allocating road user space for each mode.

Appendix A of this document also provides a comprehensive list of considerations that should be used as prompts when allocating road user space and when undertaking trade-offs. The suggested artefacts can be developed to support the process and provide a record of the rationale for the decisions made to allocate road user space to particular modes.

**Table 1 Primary considerations for each mode**

Mode	Main Roads	Main Streets	Local Streets	Civic Spaces
<b>People spending time</b>	Support low-priority place function. <sup>1</sup>	Ensure space to support people spending time associated with adjacent land uses. <sup>2</sup>	Ensure space to support people spending time associated with adjacent land uses. <sup>2</sup>	Support high-level of amenity. <sup>3</sup>
<b>Walking</b>	Avoid severance. <sup>4</sup>	Avoid severance. <sup>4</sup>	Support local movements, including crossing. <sup>5, 6</sup>	Provide dedicated/shared and safe walking space. <sup>7, 8</sup>
<b>Cycling</b>	Support through movements and avoid severance. <sup>9</sup>	Separate from general vehicle traffic, where speed limits are greater than 30km/h. <sup>9</sup>	Provide shared spaces, mixed traffic facilities or quietways, where speed limits are greater than 30km/h. <sup>10, 11</sup>	Support local movements and cycle parking for different kinds of bikes. <sup>12, 13</sup>
<b>On-street public transport</b>	Provide dedicated public transport lanes for efficient through movement. <sup>14</sup>	Provide dedicated lanes if demand is sufficient, locate stops close to key destinations. <sup>14, 15</sup>	Share running with general vehicle traffic and provide sufficient space for passengers to alight/disembark safely, particularly when crossing active transport lanes. <sup>16</sup>	Ensure high stop coverage and space for passengers to alight/disembark safely, particularly when crossing active transport lanes. <sup>15, 16</sup>
<b>Freight and services</b>	Support through movements, including turning width for OSOM and large vehicles. <sup>17, 18</sup>	Separate from vulnerable road users except for low-speed modes (such as cargo bikes). <sup>19</sup>	Enable servicing and delivery, limited access for OSOM and large vehicles. <sup>20</sup>	Enable servicing and delivery and time-restricted access. <sup>20, 21</sup>
<b>Private vehicles and point to point</b>	Support efficient through movements. <sup>22</sup>	Ensure access to local functions and places of interest. <sup>23</sup>	Support lower speeds through traffic calming devices. <sup>24</sup>	Limit or restrict access (with the exception of emergency vehicles). <sup>25</sup>

**Note:** See Appendix D – Footnotes for Table 1 for footnotes

## 2.3 Governance and Decision Making

If a decision on road user space allocation or priorities cannot be made due to conflicting modal priorities, then the project or program must be escalated to a higher-order phase. This will enable more strategic decisions to be taken on the section of road under planning or design.

If network, precinct and corridor priorities have not been defined, then the physical and temporal allocation of space on roads and streets cannot be undertaken.

## 2.4 Where to start

The three phases of planning and design range in scale and the level of detail required for road user space allocation. Although specific requirements will vary from project to project, practitioners should use Table 2 to inform which section of the Procedure to refer to for some common project scenarios.

**Table 2 Starting points for road user space allocation**

Phase	Project Type
<b>Network planning</b>	Regional Plan Sub-District Integrated Network Plan / Place-based Transport Plan Local Government Area (LGA) Integrated Transport Strategy LGA Freight Servicing Strategy
<b>Precinct and corridor planning</b>	Business cases for major infrastructure Place or Precinct Plan Network Operations Plan Campus development Greenfield development Subdivision Plan Rapid bus route plan
<b>Road and street design</b>	Cycleway installation Street refurbishment or revitalisation Bus stop and bus/bus-only lane and bus priority installation, upgrade or removal Parklet construction Clearway and transit lane introduction Localised road widening Intersection upgrade Local land use residential or commercial developments that generate additional traffic and change the local movement and place context Changes to local off-street parking availability

## 2.5 How to use this Procedure

Practitioners across TfNSW should use the Procedure with reference to their individual roles and responsibilities. This will look different across Divisions and individual teams within TfNSW, which have different core responsibilities and accountabilities.

Depending on their role, practitioners will either make **TARGETED** or **ONGOING** use of this Procedure.

### *Targeted use*

---

Practitioners responsible for preparing plans, strategies or designs for the NSW road network are also responsible for the associated road use space allocation outcomes. To align with the Policy, they must follow the tasks relevant to their project outlined in this Procedure. The Procedure should be referred to at inception and throughout the life of the project.

During the **network planning** and **precinct and corridor planning** phases, the approach outlined in the Procedure is most likely to apply to Customer Strategy and Technology and the Greater Sydney/Regional Outer Metropolitan and Infrastructure and Place Divisions of TfNSW. Project teams may be collected from a single Division or a partnership. During the **road and street design** phase, specific applications include:

- Greater Sydney/Regional and Outer Metropolitan developing cross-sections and intersection designs that respond to road user priorities and concept designs.
- Infrastructure and Place designing and delivering roads and streets that respond to road user space allocation priorities.

### *Ongoing use*

---

Practitioners provide advice to others in the course of a plan, strategy or design, but are not responsible for project delivery or its road user space allocation outcomes. They should be familiar with the content of the Policy and Procedure to understand potential implications their advice can have on road user space allocation. In particular, they should seek to ensure that their advice aligns with a sound framework of road user priorities for each project.

Specific applications include:

- Customer Strategy and Technology providing high-level advice on technology solutions for roads and streets and advising on and validating road user space allocation outcomes with the lens of end-to-end modal customer journeys.
- Greater Sydney/Regional and Outer Metropolitan providing advice on modal customers, with an emphasis on safety and wellbeing.
- Infrastructure and Place responding to road user priorities in road operation.
- Infrastructure and Place providing advice on the feasibility of road user space allocation priorities and proposed outcomes through consultation in the network planning and precinct and corridor planning phases.
- Safety, Environment and Regulation providing advice on the safety, sustainability and innovation potential of proposed solutions; and the alignment of proposed solutions with safe systems principles and the Towards Zero vision.
- Corporate Services providing project assurance or advice on the preparation of various plans involving road user space allocation, including short term integrated network plans, short to medium term public transport service planning, Strategic Business Cases and Final Business Cases.

### 3. Network planning

#### 3.1 Snapshot

At the network planning phase, the objective is to define the modal networks and their desired operation in response to place intensity and movement function. While the study area is likely to vary in size, it could include one or more adjacent LGAs.

In this phase, not every road and street within a network needs to be considered. However, network planning must ensure that strategic centres are supported and strategically important travel patterns can be achieved by all road users.

Figure 8 outlines the inputs, tasks, key decisions and artefacts associated with road user space allocation at the network planning phase. Further guidance on the allocation of road user space can be found in Appendix A – Mode considerations.

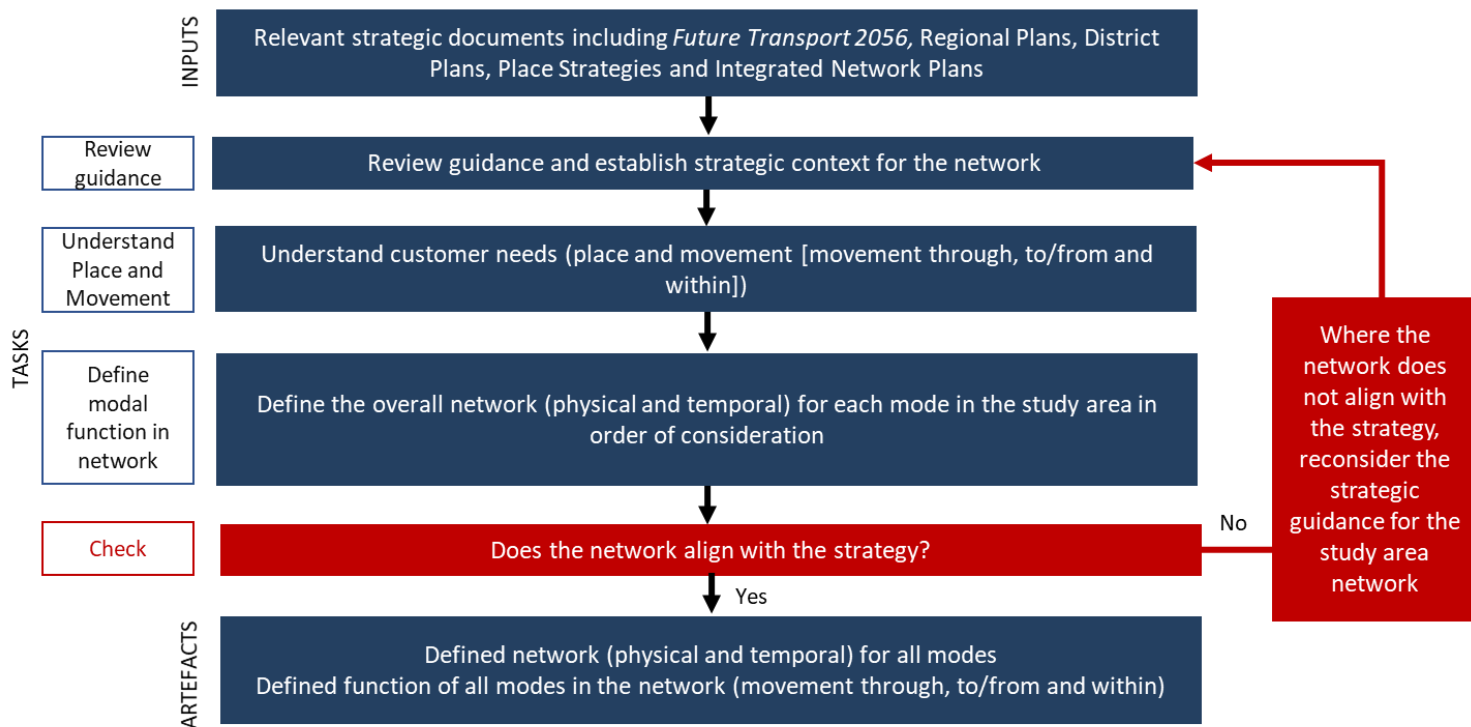


Figure 8: Tasks and inputs at the network planning phase

### 3.2 Making decisions

The planning branches within the TfNSW Planning and Programs workstream make decisions to reflect the road user space allocation vision and principles at a network level, particularly during strategic phases prior to business case development. Key decision-making entities will only be engaged where decisions cannot be made and only require escalating if not resolved at the lower levels. Key decision-making entities are identified in Table 3.

**Table 3 Key decision-making entities**

Entity	Greater Sydney	ROM
<b>The Project Team</b> may be advised by a Project Advisory Group that includes members from different Divisions of TfNSW.	Yes	Yes
<b>Place/Plan/Issue Working Group</b> may be convened for Greater Sydney projects, plans or strategies that are sufficiently complex.	Yes	
City or Regional Coordination Committee or Mode or Issue Coordination Committee	Yes	
<b>District Steering Committees</b> – three separate committees for the Eastern Harbour City, Central River City and Western Parkland City, chaired by the respective Executive Directors.	Yes	
<b>Regional Steering Committees</b> – three separate committees for the North, West and South regions, chaired by the respective Executive Directors.		Yes
<b>Planning and Performance subcommittees</b> responding to issues with a focus horizon of 0-10 years if needed	Yes	
<b>Additional subcommittees</b> (including Capital Programs) responding to issues with a time horizon of 10+ years if needed	Yes	
Strategic Transport Planning and Community Outcomes Assurance Committee ( <b>STPCO</b> ).	Yes	Yes

Where decisions need to be made at the project level for Greater Sydney projects, Place/Plan/Issue Working Groups are to be used as a clearing house that does not require executive-level involvement. Coordination Committees provide a forum to raise and share key strategic decisions for set geographic areas; however, they have no specific decision-making mandate.

When executive level endorsement and approvals are required for key planning products, decisions should be elevated to the relevant District Steering Committee (within Greater Sydney) or Regional Steering Committee (in Regional and Outer Metropolitan NSW).

In some instances, escalation may be required. For example, if a project decision does not accommodate for user groups that are to be considered first under the Policy. These decisions should be referred to the relevant subcommittee, depending on the nature and focus horizon of the road user space allocation.

If a further escalation is required, the Strategic Transport Planning and Community Outcomes Assurance Committee (STPCO) is responsible for ensuring adherence and continuous evolution in the implementation of the Integrated Transport Planning Framework (ITPF). STPCO provides an appropriate review and approvals process to

ensure effective communication of consistent planning outcomes across timeframes and geographies.

This does not replace the formal delegations or management structure of the lead and/or delivery agency.

### 3.3 Tasks

Table 4 outlines the road user space allocation tasks required at the network planning phase. All questions must be considered before moving to the next task. In order to complete each task, Appendix C – Relevant guides and standards must be consulted.

**Table 4: Road user space allocation tasks at the network planning phase**

Task	Considerations	Artefact
Engage with stakeholders	<p><b>Ensure appropriate engagement has been carried out with relevant groups</b></p> <p>Have all internal movement and place stakeholders been consulted?                      Have all internal modal stakeholders been consulted?                      Have Aboriginal and Torres Strait Islander groups been consulted?                      Have disability groups been consulted?                      Has the community been consulted?                      Have the outcomes been checked against the initial engagement?</p>	Engagement Memo summarising the engagement process carried out
Review guidance	<p>Refer to key strategic documents</p> <p>How does the allocation of road user space in this project or place support the vision of <i>Future Transport 2056</i>?                      What road user space guidance is provided in the relevant Regional Plans? District Plans? Place Strategies? Integrated Network Plans?</p>	Guidance Review Memo
Understand Place and Movement	<p><b>Understand the range of modal customers who use / will be using the movement network (moving through, to/from and within places on the network) and the needs of the place.</b></p> <p>Where and what are/will be the key destinations for travel and key places of intensity across the network?                      Have regional travel patterns been assessed? What are/will be the key origins and destinations for people and goods?                      What is the desired future demand for walking, cycling, public transport, freight and private vehicles?                      Has the movement of people between different modes (interchange) been assessed? What are the key priorities around developments such as intermodal terminals?                      Have the locations of utility corridors that could impact how road users use the network been identified?</p>	Defined modal customer needs through and to/from places in the network



Task	Considerations	Artefact
Define the modal function in the network	<p><b>Define the overall network for each mode in the study area and work through them in the order of consideration outlined in the Policy.</b></p> <p>What should be the function of roads within the study area for each mode, considering movement significance and place intensity?</p> <p>What should be the function of roads within the study area for each mode, considering time based (temporal) needs?</p> <p>Does the approach taken align with the road user space allocation priorities of this Procedure?</p>	Defined network for each mode
Check	<p><b>Confirm that all modal customers can be provided for physically and temporally within the available space in the road corridor, supporting the vision for the network.</b></p> <p>If all modal customers can be provided for safely, proceed with Precinct and corridor planning phase.</p> <p>If modal customers cannot be provided for, reconsider physical and temporal allocation.</p> <p>Otherwise, refer to the vision for the network set out in the relevant strategic guidance.</p> <p>Once provision for modal customers has been safely allocated, seek STPCO endorsement of the preferred modal network.</p>	N/A

## 4. Precinct and corridor planning

### 4.1 Snapshot

At the precinct and corridor planning phase, the following considerations are required to be made:

- The function of modes within a precinct or corridor that supports the network plan and user needs
- How much corridor width is available to support the desired form and function of a precinct, and how this impacts the wider network.

It is important to note that corridors are also, in a sense, precincts as they support places along and beside the corridor and are not solely about the end-to-end movement.

Figure 9 outlines the inputs, tasks, key decisions and artefacts associated with road user space allocation at the precinct and corridor planning phase. Further guidance can be found in Appendix A – Mode considerations.

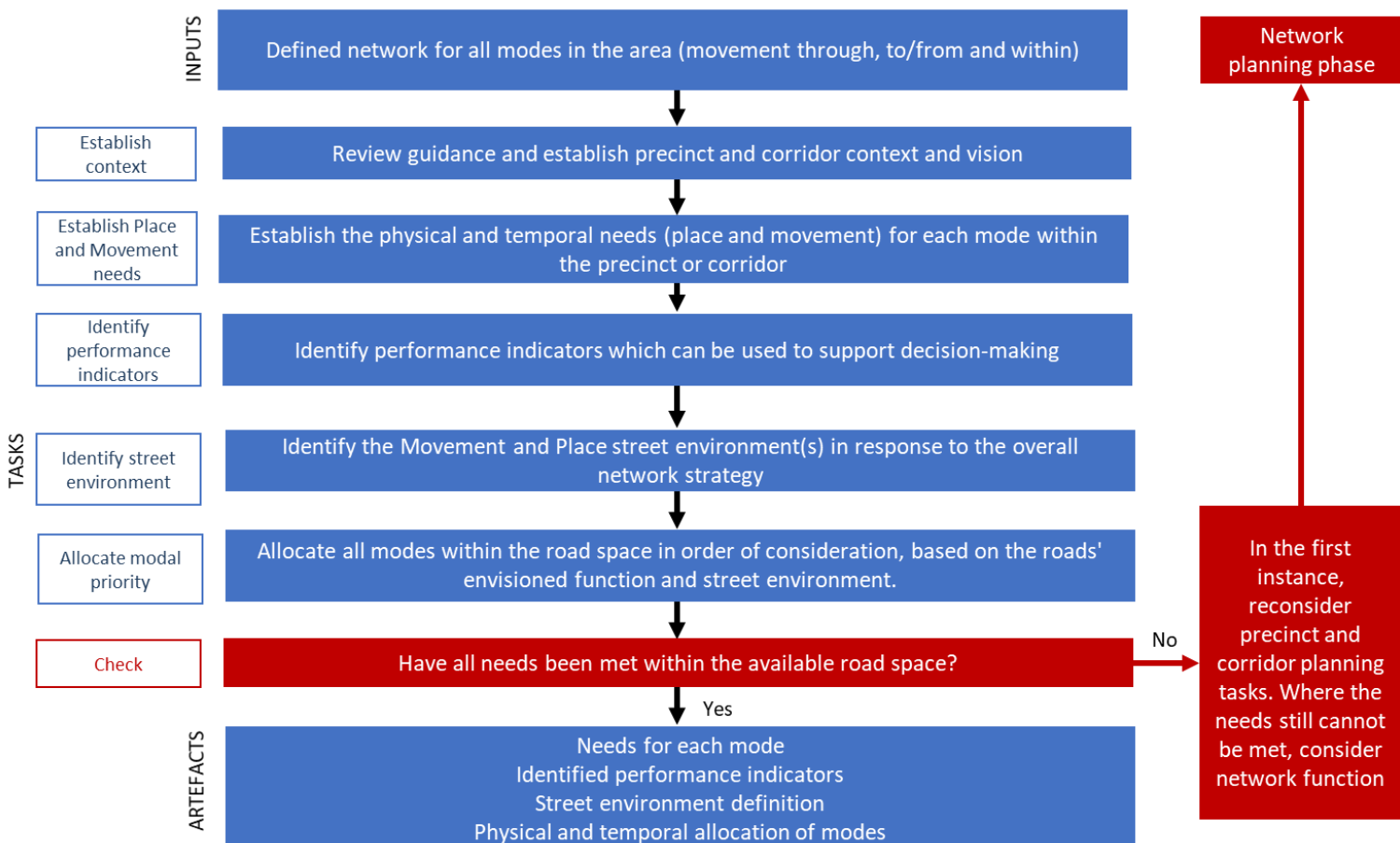


Figure 9: Tasks and inputs at the precinct and corridor planning phase

### 4.2 Making Decisions

Place/Plan/Issue Working Groups, Coordination Committees and Corridor Steering Committees ensure that precinct and corridor planning delivers outcomes that align

with the needs and vision of the network and appropriately address trade-offs within the precinct or corridor. Refer to Table 3 for further detail.

In some instances, a decision may not be resolved at the project level through Plan/Place/Issue working groups. In these instances, the Greater Sydney District Steering Committees or Regional Steering Committees are to be used to resolve conflicting modal priorities and ensure alignment with the network vision and objectives.

### ***The role of performance indicators***

Practitioners should define and apply performance indicators for each modal customer. This enables the project to demonstrate that the needs of all users are being met, providing accountability for the project outcomes. Qualitative or proxy indicators may be used if it is not feasible to obtain quantitative information on the customer experience – particularly for people spending time, walking or cycling.

Critically, if a project places greater weight on indicators that are easily measurable – for example, private vehicle Level of Service, then the decision making process and outcomes are unlikely to reflect the modal priorities outlined in the Policy.

## **4.3 Tasks**

Table 5 outlines the road user space allocation tasks required at the precinct and corridor planning phase. All questions must be considered before moving to the next task. In order to complete each task, Appendix C – Relevant guides and standards must be consulted.

**Table 5: Road user space allocation tasks at the precinct and corridor planning phase**

<b>Task</b>	<b>Considerations</b>	<b>Artefact</b>
Engage with stakeholders	<p><b>Ensure appropriate engagement has been carried out with relevant groups</b></p> <p>Have all relevant internal stakeholders been consulted? Have Aboriginal and Torres Strait Islander groups been consulted? Have disability groups been consulted? Has the community been consulted? Have the outcomes been checked against the initial engagement?</p>	Engagement Memo summarising the engagement process carried out
Establish context	<p>Establish scope, vision and objectives for the precinct or corridor</p> <p>How does the allocation of road user space in this project or place support the vision of the precinct or corridor? What road space guidance is provided in the relevant documents, including a Place or Precinct Plan? Network Operations Plan? Subdivision Plan? Rapid bus route plan?</p>	Precinct or corridor review memo

Task	Considerations	Artefact
Establish needs	<p><b>Establish the modal customer needs based on the agreed future network function (Refer to network planning phase).</b></p> <p>What modal customers are/will be using the precinct or corridor?                      What is the future demand for all modal customers within the precinct or corridor?                      What are the physical requirements for all modes within the precinct or corridor?                      What are the temporal requirements for all modes with the precinct or corridor?</p>	Modal customer needs memo
Identify performance indicators	<p><b>Identify performance indicators that can be used to support decision making.</b></p> <p>Is the appropriate (in terms of quality and quantity) data available to inform the identified indicators?                      If data is not available, what alternative indicators can be developed?</p>	Performance indicators
Identify the street environment	<p><b>Identify the Movement and Place street environment(s) in response to the desired future network function</b></p> <p>What is the movement significance of the street?                      What is the place intensity of the street?</p>	Movement and Place Street Environment definition
Allocate modal priority	<p><b>Assign the modes in the precinct or corridor according to the network function and modal customer needs. This must be done in the order of consideration set out in the Policy.</b></p> <p>Have elements that support the overall street environment, such as green and blue infrastructure, been considered?                      What is the allowable corridor/road width?                      What are the total requirements when all modal allocations are added together?                      Has temporal road space allocation been considered to reduce the physical requirements?                      Has the movement of people between modes (interchange) been considered?                      Have shared spaces been considered where it is safe to do so?                      Has temporal road space allocation at intersections been considered to reflect modal priority?                      Can utilities be provided for in a manner that does not compromise the vision for the precinct or corridor, particularly during maintenance?                      Are any modes not able to be allocated in a way that meets the vision for the precinct or corridor?</p>	Physical and temporal allocation of modes

Task	Considerations	Artefact
Check	<p><b>Confirm that all modal customers can be allocated within the allowable space, considering any opportunities for temporal road user space allocation. At this stage, there should be no conflicts.</b></p> <p>If modal customers can be provided for safely, proceed with Road and street design phase.</p> <p>If modal customers cannot be provided for safely, you must reconsider network function (Network planning phase) and reassign modes based on updated needs.</p> <p>If network function cannot be reconsidered, then a decision on allocation must be referred to the District Steering Committee (Greater Sydney) or Regional Steering Committee (Regional and Outer Metropolitan NSW).</p> <p>This decision should seek to confirm that compromised modes are not able to be fully allocated in the precinct or corridor based on the identified needs.</p>	N/A

## 5. Road and street design

### 5.1 Snapshot

At the road and street design phase, the following decisions are required to be made:

1. How much road width is required to support the modal allocation.
2. What design solution is required to deliver the desired operational overlay.

Figure 10 outlines the inputs, tasks, key decisions and artefacts associated with road user space allocation at the road and street design phase. Further guidance can be found in Appendix A – Mode considerations.

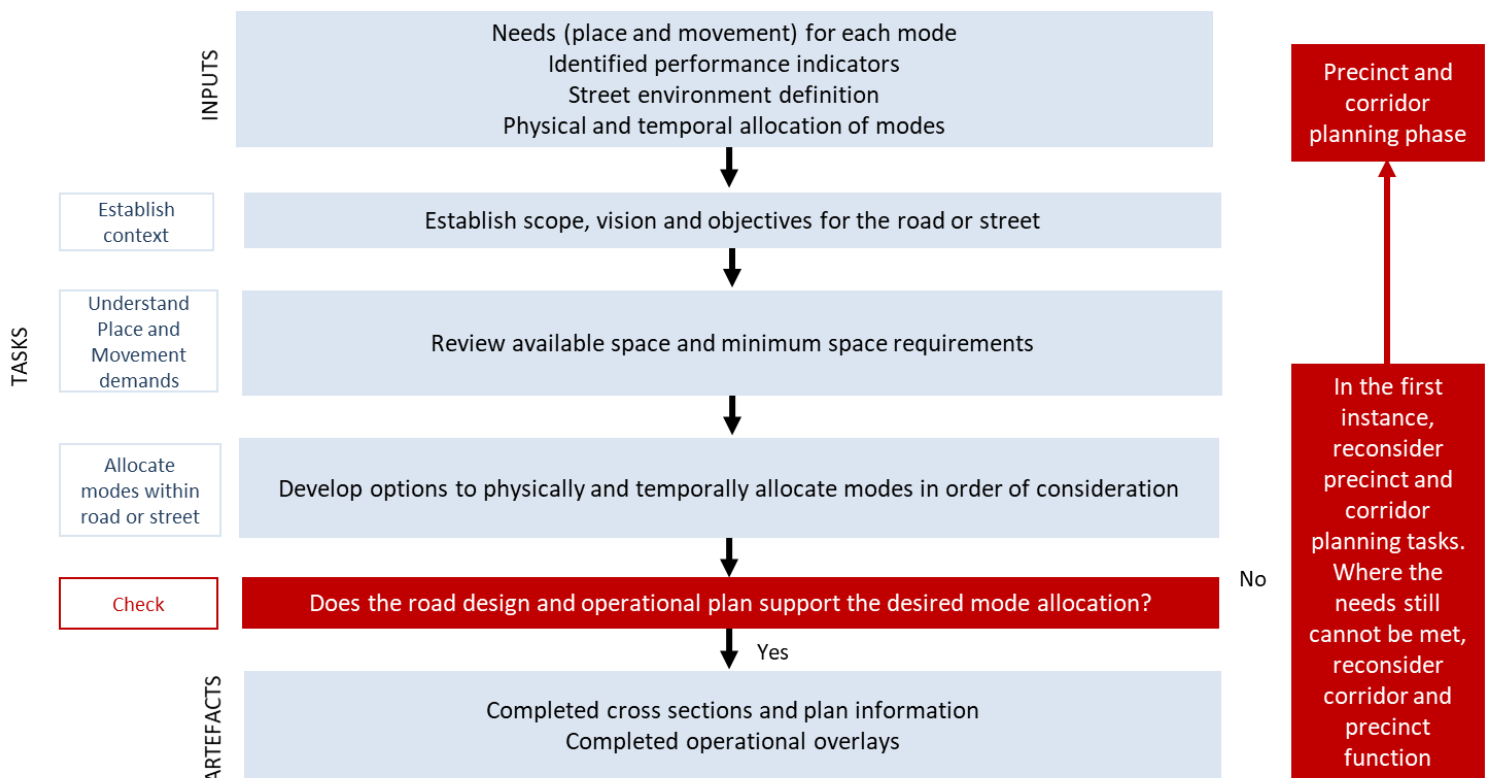


Figure 10: Tasks and inputs at the road and street design phase

### 5.2 Making Decisions

Project Advisory Groups (PAGs) ensure the implementation of road and street design delivers outcomes in line with the project objectives. Senior TfNSW delegates have the responsibility for ensuring PAG decisions are in alignment with the precinct level modal allocation. Refer to Table 3 for further detail.

### 5.3 Tasks

Table 6 outlines the road user space allocation tasks required at the road and street design phase. All questions must be considered before moving to the next task. In order to complete each task, Appendix C – Relevant guides and standards must be consulted.

**Table 6: Road user space allocation tasks at the road and street design phase**

Task	Considerations	Artefact
Engage with stakeholders	<p><b>Ensure appropriate engagement has been carried out with relevant groups</b></p> <p>Have all relevant internal place and movement stakeholders been consulted?</p> <p>Have all relevant internal mode-specific stakeholders been consulted?</p> <p>Have Aboriginal and Torres Strait Islander groups been consulted?</p> <p>Have disability groups been consulted?</p> <p>Has the community been consulted?</p> <p>Have the outcomes been checked against the initial engagement?</p>	Engagement Memo summarising the engagement process carried out
Establish context	<p>Establish scope, vision and objectives for the road and street</p> <p>Have the modal allocations been defined for the road or street?</p> <p>If this has not occurred, then you must reconsider the precinct or corridor function (Precinct and corridor planning phase) and establish endorsed modal allocations</p>	Endorsed modal allocations
Understand the available place and movement demands	<p>Review the space available for the design of the road or street.</p> <p>How much width is available within the road or street?</p> <p>Are there sites where temporal road use space allocation be considered? For example, at intersections, kerb space.</p> <p>In a greenfield environment, what width constraint needs to be established?</p> <p>What are the minimum width requirements for each mode?</p>	Confirmed physical requirements
Allocation of modes within the road/street	<p><b>Develop options to physically and temporally allocate modes within the available width, working in the order of consideration outlined in the policy.</b></p> <p>Ensure that design elements will support the experience of road users and surrounding communities, such as green and blue infrastructure and lighting, are considered.</p> <p>If there is not sufficient space for all modal customers, have shared spaces been considered where safe to do so?</p> <p>Are there opportunities to allocate road user space temporally to reduce physical requirements or facilitate use by high priority modes?</p> <p>Has the movement of people between modes (interchange) been fully allocated for?</p> <p>Have the needs of modal customers at intersections been appropriately accounted for, physically and temporally?</p> <p>Are there any modal customers not able to be fully allocated for?</p>	Cross-sections, plan information and operational overlays

Task	Considerations	Artefact
Check	<p><b>Ensure that the preferred option aligns with the overall allocation set out at a precinct or corridor level within the allowable space. At this stage, there should be no conflicts.</b></p> <p>If modal customers can be provided for safely, confirm the preferred option (seek Project Advisory Group and 'Senior TfNSW delegate' endorsement).</p> <p>If modal customers cannot be provided for safely, you must reconsider precinct and corridor function (Precinct and corridor planning phase) and reassign modes based on updated needs.</p> <p>If network function cannot be reconsidered, then a decision on allocation must be referred to Project Advisory Group and the 'Senior TfNSW delegate'.</p> <p>This decision should seek to confirm that compromised modes are not able to be fully allocated in the road or street based on the identified needs.</p>	N/A



## 6. Terms and definitions

Term	Definition
Active transport	Transport that is human-powered, such as walking or cycling.
Blue-green infrastructure	Infrastructure that provides ecological, hydrological, and amenity value associated with urban greening, water movement and/or retention, and stormwater management, such as street trees and 'rain gardens' for shade and cooling.
Brownfield	Previously developed land that may have an existing road network, land uses and natural and built environment constraints.
Carriageway	The portion of a road improved or designed for use by, or used by, the main body of moving vehicles and does not include any shoulder of a road, breakdown lane or other lateral parts of the road not so improved, designed or used.
Dynamic road user space allocation and priority	Dynamic allocation of road space and priority access in ways that adjust to changing needs, such as by the time of day or in response to real-time needs, such as by the use of technologies.
Freight	Goods or cargo transported by truck, light commercial vehicles (e.g. vans and utes), cycle and walking couriers, rail, aircraft or ship.
Greenfield	A location on which a new road is being built that has not been previously developed.
Guideline	A general set of guidance, statement or plan that can inform, but is not mandatory for, the implementation of a process or approach. This includes Technical Directions.
Kerb	The edge of the carriageway where a level change element provides spatial definition and/or drainage functions.
Intelligent Transport Systems (ITS)	The application of technological solutions to deliver operational and transport management outcomes, as well as contributing to safer roads. ITS equipment ranges from traffic signals and variable message signs to the supporting ITS communication network infrastructure to transport operations centres.
Level of Service (LOS)	LOS is typically used as the measure of performance in network operation planning. It can be applied to each road user group without necessarily having the same underlying metrics. The performance of motorised modes on freeways can use travel speed and reliability to determine LOS, while motorised modes on arterials can utilise delay. In contrast, people walking and cycling may use a combination of delay and separation from motorised traffic to determine LOS.
LGA	Local Government Area
Modal consideration	Physical and temporal aspects that must be considered for each mode in order to achieve contextual planning and/or design solutions.
Micro mobility	Micro mobility includes human or lightweight electric-powered personal mobility devices such as conventional bicycles, tricycles, electric-assist bicycles (e-bikes), kick scooters, cargo bikes (which can carry loads or passengers) as well as share bikes. In the future, it may also include e-scooters, delivery robots and other innovative personal mobility devices.
NSW Movement and Place Framework	Movement and Place is a cross-government framework for planning and managing our roads and streets across NSW. The framework delivers on NSW policy and strategy directions to create successful streets and roads by balancing the movement of people and goods with the amenity and quality of places.

Term	Definition
On-demand services	On-demand services are flexible public transport services designed to improve connections to transport hubs and popular destinations, including shopping centres and hospitals, or from urban areas that are difficult to service with conventional public transport services. Passengers book a service for when and where they want to travel, with buses or smaller vehicles meeting this demand in place of fixed transport services.
On-street parking	On-street parking refers to parking on public road space, also known as kerb or kerbside parking. On-street parking, including clearways, is regulated using time limits, pricing, and allocations to special users such as emergency services, disabled users, or for pick-up and drop-off functions. On-street parking is a question of road user space allocation: it is traded off against general traffic lanes, bus lanes, bicycle lanes, footpaths, street trees and public open space. It can be used for both short-term destination parking (e.g. accessing shops) and allocation to residents for longer-term car storage. On-street parking includes parking for Powered Two Wheel (PTW) vehicles such as motorcycles.
Order of consideration	Order in which modes must be considered when allocating road user space. This is consistent with the order of road user space consideration outlined in the Policy.
Parklet	A temporary or permanent installation that may be a footpath extension, re-use of on-street parking spots or standalone installation that provides space and amenities for people walking, people spending time, parking bicycles, landscaping, or other place-based activities.
People spending time	People of all ages and abilities spending time in the street environment, undertaking activities such as standing, sitting, socialising, playing, dining, and shopping.
Phase of planning	Network planning /Precinct and corridor planning /Road and street design
Pinch point	Points at intersections or segments of roads at which greater traffic congestion is evident relative to the broader network.
Place-based	Involves taking a collaborative, spatial, long-term approach to developing contextual responses that better meet the needs of local people and their environment in a defined geographic location. It aims to support and build thriving communities and is ideally characterised by collaborating in the shared design, shared stewardship, and shared accountability for outcomes and impacts.
Pocket park	A small park, accessible to the general public, often located on small pieces of land or within the street reservation.
Point to point	Point to point transport services include taxis, hire cars, tourist services, rideshare services and other vehicles with 12 seats or less (including the driver) that provide passenger transport services for a fare. This includes the requirements of taxi zones and No Stopping zones.
Policy (the) – Road User Space Allocation	The <i>Road User Space Allocation Policy</i> ('the Policy') sets out how TfNSW can deliver on the safe and equitable allocation of space on roads to different transport and non-transport uses. This policy is for all road types in towns and centres in metropolitan and regional NSW, where TfNSW is the roads authority or has provided delegated authority to another organisation.
Practitioner	The term 'practitioner' refers to anyone involved in the design, planning, scheme approval, management, or operation of roads in NSW.

Term	Definition
Private vehicle	Private vehicle includes motorised transport that is privately owned and not operated for commercial purposes or for use by the general public. This includes cars, vans, trucks and people movers and associated parking requirements. Private vehicle also includes Private Two Wheel (PTW) vehicles which are any motorised vehicles that run on only two wheels, including motorcycles, and motorised scooters and associated parking requirements.
Procedure (the) – Road User Space Allocation	A <i>Road User Space Allocation Procedure</i> is a set of guidelines regarding how to achieve the outcomes defined in and enabled by the <i>Road User Space Allocation Policy</i> .
Public transport	The use of buses, trams or light rail and passenger trains to move passengers from place to place throughout NSW. This includes potential future public transport options such as trackless trams.
Quietway	On-road cycling facility with a low-speed traffic environment (e.g. 30km/h or less) shared with motor vehicles.
Road	The term 'road' refers to the combined 'road' and 'road-related area' as per the NSW Road Transport Act 2013. This includes any footpaths, crossings and landscape elements, as well as any portions of the road that convey motorised vehicles, non-motorised vehicles or animals. Figure 1 shows the interaction of the carriageway and road-related space, recognising the relationship between the road and the land use.
Road User Space Allocation	Road user space allocation is the management, distribution and reallocation of road user space on a road or road network. In this paper, the use of 'road user space allocation' will consider the total area between property boundaries, including the carriageway, footpath and land use.
Shared zone	A public local street or intersection that is intended and designed to be used by people walking and vehicles in a consistently low-speed environment with no obvious physical segregation between various road users in order to create a sense of place and facilitate multi-functions.
Standards	Standards are mandatory and contain technical specifications or other precise criteria designed to be used consistently as a rule, guideline, or definition.
STPCO	Strategic Planning & Community Outcomes Assurance Committee
TfNSW	Transport for NSW
TfNSW Divisions	As the lead agency of the NSW Transport cluster TfNSW is structured across:  Four operational divisions Customer Strategy and Technology Infrastructure and Place Greater Sydney Regional and Outer Metropolitan  Four support divisions Safety, Environment and Regulation Corporate Services People and Culture Office of the Secretary
District Steering Committees	Committees representing the three cities that comprise Eastern Harbour City, Central River City and Western Parkland City, chaired by the respective Executive Directors.

## 7. Appendix A – Mode Considerations

### NORMATIVE

#### 7.1 People spending time

The following considerations apply where it has been determined through the Procedure that people spending time is relevant for the particular road or street environment.

For all modes, the primary consideration is road user safety, particularly for more vulnerable road users such as people who walk and cycle, people with disabilities and motorcyclists. Refer to Appendix B and C for guidance on the relevant standards, frameworks and guides to refer to at each phase of planning and design.

Phase	Consideration	Artefact
<b>Network planning</b>	Identify the extent the study area should support people spending time or other place-based activity, including space and facilities for passive enjoyment of the space.	<ul style="list-style-type: none"> <li>Defined network for people spending time</li> <li>Plan/map of adjacent land use zones</li> </ul>
<b>Precinct and corridor planning</b>	<b>Main Roads:</b> Identify the extent of space needed adjacent to land uses to support people spending time.	<ul style="list-style-type: none"> <li>Defined street environment</li> <li>Blue-green infrastructure strategy for the precinct or corridor in applicable</li> </ul>
	<b>Main Streets:</b> Identify the extent of space needed adjacent to land uses to support people spending time, including sufficient space for blue-green infrastructure.	
	<b>Local Streets:</b> Identify the extent of space needed adjacent to land uses to support people spending time, including sufficient space for blue-green infrastructure.	
	<b>Civic Spaces:</b> Identify the extent of space needed adjacent to land uses to support people spending time, including sufficient space for blue-green infrastructure.	
<b>Road and street design</b>	Ensure footpath width is sufficient that it is not cluttered with utilities and other services. This may include underground power distribution, especially in greenfield areas.	<ul style="list-style-type: none"> <li>Street cross-sections</li> </ul>
	Support flexible use or reuse of on-street parking, especially on streets with a high place intensity, either during the day or on weekends. Consider variable speed limits to support people spending time in this instance.	<ul style="list-style-type: none"> <li>Identified opportunities to provide flexible use or reuse of on-street parking</li> </ul>
	Support car-free zones for walking and cycling thoroughfare and pocket parks, particularly where the movement function of vehicles is low or can be reduced. For example, near key destinations or on primarily residential or commercial streets.	<ul style="list-style-type: none"> <li>Identified opportunities to provide car-free zones</li> </ul>
	Ensure appropriate extent and scale of planting, including species selection and integration into the built environment (planter boxes, ground planting).	<ul style="list-style-type: none"> <li>Blue-green planting plan</li> </ul>

## 7.2 Walking

The following considerations apply where it has been determined through the Procedure that walking is relevant for the particular road or street environment.

For all modes, the primary consideration is road user safety, particularly for more vulnerable road users such as people who walk and cycle, people with disabilities and motorcyclists. Refer to Appendix B and C for guidance on the relevant standards, frameworks and guides to refer to at each phase of planning and design.

Phase	Consideration	Artefact
Network planning	Identify the extent the study area should support safe walking activity.	<ul style="list-style-type: none"> <li>Defined network for walking</li> <li>Plan/map of adjacent land use zones and areas of high place intensity</li> <li>Plan/map of desire lines, public transport routes and pedestrian movements through the study area</li> <li>Blue-green network plan</li> </ul>
	Identify walking desire lines (to, within and from), walking priority at crossings and propensity for walking through the study area.	
	Ensure key walking routes safely connect to public transport routes and areas of high place intensity and key attractors such as schools and shops.	
	Ensure that blue-green infrastructure is provided around significant walking routes.	
Precinct and corridor planning	<b>Main Roads:</b> Identify minimum width or additional to safely support walking demand. Provide safe crossings at all legs on signalised intersections. Additional safe crossing points could be provided where demonstrated desire lines exist.	<ul style="list-style-type: none"> <li>Defined needs for people walking</li> <li>Pedestrian crossing plan</li> </ul>
	<b>Main Streets:</b> Identify minimum width or additional to safely support walking demand. Provide safe crossings at all legs on signalised intersections. Additional safe crossing points could be provided where demonstrated desire lines exist.	
	<b>Local Streets:</b> Identify opportunities for shared zones and slower speeds, especially at local intersections or adjacent to Main Street environments. Provide safe crossings at all legs on signalised intersections. Additional safe crossing points could be provided where demonstrated desire lines exist.	
	<b>Civic Spaces:</b> Identify opportunities to provide a dedicated or shared space. Consider shared zones and slower speed to support local movement if necessary. Provide safe crossings with walking priority at all desire lines, including mid-blocks. Consider raised or traffic-calmed non-signalised crossings in areas of higher place or adjacent to local streets.	
Road and street design	Ensure footpath width is sufficient and is not cluttered with utilities and other services. This may include underground power distribution, especially in greenfield areas.	<ul style="list-style-type: none"> <li>Street cross-sections</li> </ul>
	Locate accessible crossing opportunities on all legs of signalised intersections. Provide additional safe crossing points where demonstrated desire lines exist.	<ul style="list-style-type: none"> <li>Intersection and crossing plan</li> </ul>
	Design traffic signal actuation and phasing that enable people to cross easily, including automatic pedestrian phases, particularly where there is moderate people activity during the day or night.	<ul style="list-style-type: none"> <li>Traffic signal actuation and phasing design for SCATS</li> </ul>
	Identify supporting interventions such as pavement treatments at conflict points (crossings) to illustrate priority movements and signal changing environments.	<ul style="list-style-type: none"> <li>Pedestrian access and mobility plan</li> <li>Walking operational overlay</li> </ul>
	Identify zones where vehicle access should be restricted and determine whether restrictions apply at certain times of the day or only to certain types of vehicles.	<ul style="list-style-type: none"> <li>Vehicle access restriction plan</li> </ul>

## 7.3 Cycling

The following considerations apply where it has been determined through the Procedure that cycling is relevant for the particular road or street environment.

For all modes, the primary consideration is road user safety, particularly for more vulnerable road users such as people who walk and cycle, people with disabilities and motorcyclists. Refer to Appendix B and C for guidance on the relevant standards, frameworks and guides to refer to at each phase of planning and design.

Phase	Consideration	Artefact
Network planning	Ensure strategic cycling routes safely connect to key land uses to support the to/from function and to major destinations.	<ul style="list-style-type: none"> <li>Defined network for cycling</li> <li>Identified opportunities for separated active transport corridors</li> <li>Defined cycling connections to the public transport network and major destinations</li> <li>Plan of as good/ better alternative cycle routes</li> <li>Blue-green network plan</li> </ul>
	Identify opportunities for fully separated active transport corridors, particularly in greenfield contexts.	
	Ensure cycling routes are safely connected to public transport.	
	For areas within significant precincts, ensure that the cycling network is more granular, with more alternative routes to support to/from and within movements.	
	Ensure that blue-green infrastructure is provided around significant cycling routes.	
Precinct and corridor planning	<b>Main Roads:</b> Provide separated cycleways with sufficient width to align with current and desired future demand and allow overtaking. Provide safe crossings at locations that support Main Road movement function. Provide cycle parking to meet demand.	<ul style="list-style-type: none"> <li>Defined needs for people cycling</li> <li>Cycle crossing plan</li> <li>Cycle parking strategy</li> <li>Signal phasing plan (if applicable)</li> <li>Identified opportunities for shared zone treatments (if applicable)</li> </ul>
	<b>Main Streets:</b> Provide separated cycleways where speeds are greater than 30km/h, with sufficient width to align with current and desired future demand and allow overtaking. Ensure sufficient space for the safe provision of green infrastructure. Provide cycle priority over general vehicle traffic at signalised intersections. Provide cycle parking to meet demand.	
	<b>Local Streets:</b> Provide separated cycleways / consider Mixed Traffic facilities or quietways where speed limits are below 30 km/h. Ensure sufficient space for the provision of green infrastructure. Provide cycle priority over general vehicle traffic at signalised intersections and consider shared zone treatments at local unsignalised intersections. Provide parking to meet demand.	
	<b>Civic Spaces:</b> Provide separated cycleways / consider Mixed Traffic facilities or quietways where speed limits are below 30 km/h. Ensure space for the safe provision of green infrastructure. Provide cycle priority over general vehicle traffic at signalised intersections and consider shared zone treatments at local unsignalised intersections. Provide cycle parking throughout.	
Road and street design	Provide physically separated cycling facilities where possible, particularly where traffic speeds are greater than 30 km/h.	<ul style="list-style-type: none"> <li>Street cross-sections</li> <li>Cycling operational overlay</li> <li>Signal actuation and phasing design for SCATS</li> <li>Cycle parking plan</li> </ul>
	Provide sufficient width on cycleways to cater for future demands, particularly connecting to key destinations.	
	Provide sufficient width behind bus stops for walking or cycling movement, with supporting treatments such as shared zones, separated cycleways or relocating the bus stop as an in-lane stop.	
	Ensure traffic calming does not unintentionally impede cycling movement, including at entry to vehicle-restricted spaces.	
	Reduce delay for people cycling at intersections by providing bike detection, cycle signal priority over general vehicles and timing.	
	Provide space to park different kinds of bicycles, including cargo bikes, bikes with child seats and scooters.	

## 7.4 On-street public transport

The following considerations apply where it has been determined through the Procedure that on-street public transport is relevant for the particular road or street environment.

For all modes, the primary consideration is road user safety, particularly for more vulnerable road users such as people who walk and cycle, people with disabilities and motorcyclists. Refer to Appendix B and C for guidance on the relevant standards, frameworks and guides to refer to at each phase of planning and design.

Phase	Consideration	Artefact
<b>Network planning</b>	Provide high priority public transport routes between key centres and destinations to support the safe movement to/from and through places in the area.	<ul style="list-style-type: none"> <li>Defined network for on-street public transport</li> <li>The defined function of public transport modes within the network</li> <li>Major trip generators identified</li> </ul>
	Provide local public transport routes to support to/from and within movements. These connect the high priority public transport routes to other areas on the network.	
	Identify what mode of public transport is most appropriate and its movement function.	
	Locate public transport zones as close as possible to major trip generators.	
<b>Precinct and corridor planning</b>	<b>Main Roads:</b> Provide a dedicated lane where demand is sufficient. Provide stops outside of the running lane at key interchanges. Locate stops close to destinations at intervals that reflect local context to achieve desired customer access outcomes. Use bus stop bays where possible.	<ul style="list-style-type: none"> <li>Defined needs for on-street public transport</li> <li>On-street public transport stop plan/map</li> <li>Public transport connections to key destinations mapped</li> </ul>
	<b>Main Streets:</b> Provide a dedicated lane where demand is sufficient. Provide stops outside of the running lane at key interchanges. Locate stops close to destinations at intervals that reflect local context to achieve desired customer access outcomes. Use bus stop bays where possible.	
	<b>Local Streets:</b> Shared running with general traffic. Ensure that stops have high coverage of local areas and access to key destinations, such as train stations.	
	<b>Civic Spaces:</b> Low-priority movement function. Provide dedicated lane, transit-only street or shared running with general traffic as appropriate. Ensure that stops have high coverage of local areas.	
<b>Road and street design</b>	Provide dedicated bus lanes for frequent and rapid bus services operating on Main Roads.	<ul style="list-style-type: none"> <li>Street cross-section</li> <li>On-street public transport operational overlay</li> <li>Signal actuation and phasing design for SCATS</li> <li>Pedestrian access and mobility plan</li> </ul>
	Ensure enough space at bus stops such that people alighting and boarding do not block the footpath and identify supporting interventions such as kerb build-outs to increase space if necessary.	
	Ensure traffic calming such as chicanes do not impede the efficient movement of buses, particularly on local streets in residential areas.	
	Provide bus stops with sufficient space if multiple buses are expected to be queued.	
	Support lowering speed limits to reinforce safe use of narrower traffic lanes, particularly where road space is constrained (by context or design in greenfield areas).	
	Consider public transport priority traffic signalling and bus jumps, especially frequent services or on a designated rapid bus route.	
	Provide pedestrian crossings close to stops to ensure safe access and priority.	

## 7.5 Freight and services

The following considerations apply where it has been determined through the Procedure that freight and services are relevant for the particular road or street environment.

For all modes, the primary consideration is road user safety, particularly for more vulnerable road users such as people who walk and cycle, people with disabilities and motorcyclists. Refer to Appendix B and C for guidance on the relevant standards, frameworks and guides to refer to at each phase of planning and design.

Phase	Consideration	Artefact
Network planning	Identify links to carry long-distance freight through the study area, minimising impacts to other modes and place. This may include links outside the network.	<ul style="list-style-type: none"> <li>Defined network for freight and services</li> <li>Strategic freight plan</li> <li>Opportunities and constraints plan</li> </ul>
	Allocate to/from freight movements to preferred corridors servicing high activity places – such as local centres.	
	Where possible, separate heavy vehicles and Over Size Over Mass (OSOM) and Special Purpose Vehicles (SPV) from other modes.	
	Provide a strategic freight network that safely connects key freight destinations with regard to opportunities for connections to rail.	
	Identify opportunities for micro-freight hubs for local distribution.	
	Identify locations that will attract a higher level of freight movements within the network, such as a logistics hub.	
Precinct and corridor planning	<b>Main Roads:</b> Provide sufficient width to allow freight, including OSOM and SPV, to mix safely with general traffic and temporal dedicated or shared loading bays.	<ul style="list-style-type: none"> <li>Defined needs for freight, including micro mobility freight activities and time of day freight servicing needs</li> <li>Physical and temporal freight access and loading plan</li> </ul>
	<b>Main Streets:</b> Provide sufficient width to allow freight, including OSOM and SPV, to mix safely with general traffic. Separate low-speed freight, such as cargo bikes, from general vehicle traffic, cycling and walking where possible. Provide temporal dedicated or shared loading bays.	
	<b>Local Streets:</b> Provide sufficient width to allow servicing and delivery and light or micro mobility freight vehicle access. Provide short stay parking or temporal dedicated or shared loading bays.	
	<b>Civic Spaces:</b> Low-priority movement function. Consider restricting freight access at most times of the day. Provide short stay parking or temporal dedicated or shared loading bays.	
Road and street design	Provide extra footpath space in denser urban environments where delivery carts/trolleys can be used.	<ul style="list-style-type: none"> <li>Street cross-section</li> <li>Freight operational overlay</li> <li>Freight access and mobility plan</li> <li>Designed signage and wayfinding</li> </ul>
	Ensure street furnishings do not conflict with loading/unloading.	
	Provide locations for freight loading, including micro mobility freight, and assess the impact on businesses and footpath congestion.	
	Provide dedicated freight loading zones in residential areas with narrow streets where double-parked delivery vans will impede traffic.	
	Ensure there is sufficient space (physical and/or temporal) for OSOM or SPV.	
	Resolve points where loading dock entry/exit conflicts with other users and identify locations where restricted freight entry is desirable.	
	Support time of day restrictions on freight operations.	
	Support lowering speed limits to reinforce safe use of narrower traffic lanes, particularly where road space is constrained (by context or by design in greenfield areas).	
	Identify impacts on the width of turning lanes at intersections and in medians and carry out the detailed design of signage to guide freight users along designated freight routes with sufficient road user space to support large vehicles safely. This is a strong consideration for streets with high demand for freight and servicing and those streets connecting to them.	



## 7.6 Private vehicles and point to point

The following considerations apply where it has been determined through the Procedure that private vehicles and point to point is relevant for the particular road or street environment.

For all modes, the primary consideration is road user safety, particularly for more vulnerable road users such as people who walk and cycle, people with disabilities and motorcyclists. Refer to Appendix B and C for guidance on the relevant standards, frameworks and guides to refer to at each phase of planning and design.

Phase	Consideration	Artefact
Network planning	In areas of high place intensity, ensure that private vehicle movements to/from do not detract from the place amenity, contribute to high value for money use of kerbside space, and provide access for less mobile customers.	<ul style="list-style-type: none"> <li>Defined network for private vehicles and point to point</li> <li>Study area parking plan</li> <li>Vehicle access and traffic management plan</li> </ul>
	Support private vehicle through movements, minimising movements through areas with high Place intensity or on transit corridors.	
	Consider accessible parking provision close to key trip generators for less mobile customers and people with physical disabilities.	
	Develop on-street parking strategies to manage demand.	
	Identify areas where on-street parking can be reallocated to higher-value uses or to support other road users.	
	Ensure private vehicles have access to motorways and regional gateways.	
Precinct and corridor planning	<b>Main Roads:</b> Provide sufficient width to support safe private vehicle movement without detracting road user space from other, higher priority users and achieving desired mode shift. Provide on-street parking at places of interest and significant destinations. Maintain emergency vehicle access.	<ul style="list-style-type: none"> <li>Defined needs for private vehicles and point to point</li> <li>Parking plan</li> <li>Places of interest and destinations mapped</li> <li>Emergency vehicle access plan</li> <li>Speed management plan</li> </ul>
	<b>Main Streets:</b> Provide sufficient width to support safe private vehicle movement without detracting road user space from other, higher priority users and achieving desired mode shift. Provide on-street parking at places of interest and significant destinations. Maintain emergency vehicle access.	
	<b>Local Streets:</b> Low-priority through movement function. Provide sufficient width to support safe private vehicle movement without detracting road user space from other, higher priority users and achieving desired mode shift. Consider narrow lanes with safe places for passing to encourage slower speeds. Consider providing on-street parking at places of interest and significant destinations. Maintain emergency vehicle access.	
	<b>Civic Spaces:</b> Low-priority movement function. Consider shared environments or restricting private vehicle access. Provide sufficient width to support safe private vehicle movement without detracting road user space from other, higher priority users and achieving desired mode shift. Limit on-street parking quantity and stay-length and aim to provide off-street parking where possible. Maintain emergency vehicle access.	
Road and street design	Ensure traffic calming measures align with context, particularly a high place function or where the movement function of vehicles is low.	<ul style="list-style-type: none"> <li>Private vehicle and point to point operational overlay</li> <li>Parking access management plan</li> <li>Detailed design of pavements and surface treatments</li> </ul>
	Support lower speed limits to reinforce safe use of narrow lanes, particularly where road space is constrained (by context or design in greenfield areas).	
	Provide dedicated accessible parking spaces close to key land uses.	
	Minimise parking removal after other modes have been considered; if on-street parking is lost, then the reduction in demand will need to be determined and catered for locally, considering disability parking needs first.	
	Identify a suitable location of drop-off/pick-up points, point to point mobility, mobility parking, electric vehicle charging and motorcycle parking on the street and determine space requirements.	
	Provide surface treatments and different pavements to mark different types of areas and to prompt vehicles to travel slower.	

## 8. Appendix B - Related strategy and policies

### NORMATIVE

The following table lists relevant strategies and policies for the allocation of road user space. These are either **required** or **recommended**, as defined below.

1	<b>Required.</b> These documents are essential reference material that is aligned to the Road User Space Allocation Policy. Therefore, they must be reviewed and applied to the road context being studied.
0	<b>Recommended.</b> These documents are good reference material that is aligned with the Road User Space Allocation Policy. They may provide additional guidance to the required documents.

Document	Usage	Phase		
		Network planning	Precinct and corridor planning	Road and street design
<b>Strategy</b>				
Future Transport 2056	To guide future transport planning, helping NSW to respond to and adapt to changes as they arise. The strategy considers the allocation of road space that responds to movement and place needs, safety, sustainability and network optimisation and advocates for taking a Movement and Place approach.	1	1	1
The Greater Sydney Regional Plan – A Metropolis of Three Cities	To rebalance growth and align land use, transport and infrastructure planning to reshape Greater Sydney as three unique but connected cities. The document encourages road user space allocation that balances multi-modal transport needs with social opportunities.	0		
Regional Plans	To set a framework, vision and direction for strategic transport planning and land use, including infrastructure, connected communities, healthy environments, housing and jobs.	1		
Local Strategic Planning Statements	To set out the 20-year vision for land-use, special character, special values to be preserved and how change will be managed in Local Government Areas. This includes managing changes in the road-related area.	1	1	
State Infrastructure Strategy 2018 - 2039	To set out the NSW Government's priorities for the next 20 years, and combined with <i>Future Transport Strategy 2056</i> , the <i>Greater Sydney Region Plan</i> and the <i>Regional Development Framework</i> brings together infrastructure investment and land-use planning for our cities and regions. The strategy makes recommendations on how to re-allocate road space in order to best balance the needs of modes, make better use of road space, improve operational efficiency and encourage the uptake of sustainable and productive transport modes.	0	0	1
Road Safety Plan 2021	The Road Safety Plan 2021 sets out priority areas and actions to move towards the NSW Government's goal to reduce road fatalities by 30 per cent by 2021. The Plan sets out a long term goal of zero trauma on the NSW road network. TfNSW is currently developing the 2026 Road Safety Action Plan, which will be based on a Safe Systems approach to road safety.	1	1	1

Document	Usage	Phase		
		Network planning	Precinct and corridor planning	Road and street design
<b>Policy</b>				
TfNSW Road User Space Allocation Policy	To provide guidance on how TfNSW can deliver safe and equitable allocation of space on roads to different transport and non-transport users. This policy applies to the entirety of the public road reserve from boundary to boundary on proposed and existing classified roads in built-up areas in regional and metropolitan NSW except for motorways.	1	1	1
Better Placed	To advise on how TfNSW can deliver integrated designs for the built environment in NSW. It establishes design outcomes that ensure public spaces, including roads, are healthy, responsive, integrated, equitable and resilient. <i>Better Placed</i> enhances all aspects of the built environment by placing good design at the centre of all development processes.		0	0
<b>Guidance</b>				
NSW Practitioner's Guide to Movement and Place	To provide a consistent common structure for place-based transport and planning across NSW and to support practitioners by explaining how to apply the movement and place approach to projects and plans.	0	0	1
Beyond the Pavement	The purpose of <i>Beyond the Pavement</i> is to ensure that the qualities of the landscape are understood and protected, that projects contribute to the quality of the built environment and that the quality of life of communities is protected or improved. The guide establishes design principles that create streets and boulevards that provide a sense of place and consider the potential opportunities of a reduction in traffic volume on road user space allocation.	0	0	1
Landscape Design Guideline	To guide the provision of landscape and green infrastructure in NSW road corridors. The document has been published as part of the <i>Beyond the Pavement</i> urban design policy and sets out a best practice approach to the design and management of planting and revegetation to ensure a green road corridor is established safely and cost-effectively.		1	1
Design of Roads and Streets	<i>To be updated once the Design of Roads and Streets becomes active.</i>			1
<b>Frameworks</b>				
Network Operation Framework	The Network Operation Framework provides guidance on how to establish the order of priority for road space users, either where there are opportunities to do so or where place-movement and movement-movement conflicts need to be resolved. The Framework also supports the <i>Policy</i> .	1	1	1

## 9. Appendix C - Relevant guides and standards

### NORMATIVE

The following table lists relevant standards, guidelines and rules for the allocation of road user space. These are either **required** or **recommended**, as defined below.

1	<b>Required.</b> These documents are essential reference material that is aligned to the Road User Space Allocation Policy. Therefore, they must be reviewed and applied to the road context being studied.
0	<b>Recommended.</b> These documents are good reference material that is aligned with the Road User Space Allocation Policy. They may provide additional guidance to the required documents.
Supporting references	These documents provide additional information on the primary document to be used.

Document	Usage	Phase		
		Network planning	Precinct and corridor planning	Road and street design
<b>TfNSW Guides</b>				
<a href="#">Walking Space Guide</a>	To provide a set of standards and processes to be applied in designing, planning and implementing the amount of space to be provided according to the intensity of use. It does not provide space standards for street trees, outdoor dining or street furniture.  <b>Supporting references:</b> <i>Austrroads Guide to Road Design Part 6B: Roadside Environment and Part 6A: Paths for Walking and Cycling</i>		1	0
<a href="#">Traffic Signal Design Guide Section 1: Investigation</a>	To provide the criteria for investigating the suitability of installing traffic signals at an intersection.  <b>Supporting references:</b> <i>Traffic Signal Design Guide Section 2, Section 3, Section 5 and Section 6</i>	0		1
<a href="#">Traffic Signal Design Guide Section 2: Warrants</a>	To provide guidance on the general warrants for the installation of traffic signals.  <b>Supporting references:</b> <i>Traffic Signal Design Guide Section 1</i>	0		1
<a href="#">Traffic Signal Design Guide Section 3: Design Process</a>	To provide the steps involved in the traffic signal design process.  <b>Supporting references:</b> <i>Traffic Signal Design Guide Section 1</i>	0		1
<a href="#">Traffic Signal Design Guide Section 5: Geometry</a>	To provide the geometric requirements specific to signalised intersections.  <b>Supporting references:</b> <i>Traffic Signal Design Guide Section 1, Section 2, Section 3 and Section 6</i>	0		1

Document	Usage	Phase		
		Network planning	Precinct and corridor planning	Road and street design
<a href="#">Traffic Signal Design Guide Section 6: Pavement marking</a>	To provide some of the pavement marking requirements specific to signalised intersections. <b>Supporting references:</b> <i>Delineation Manual, Traffic Signal Design Guide Section 1</i>		0	1
<a href="#">Traffic Signal Design Guide Section 14: Signalised mid-block marked foot crossings</a>	To provide the location on the phasing of one-stage, two-stage and pelican crossings at mid-block. <b>Supporting references:</b> <i>Traffic Signal Design Guide Section 1 and Section 3</i>	0		1
<a href="#">Traffic Modelling Guidelines RMS 13.184</a>	To provide guidance on modelling in order to develop consistency in traffic modelling practice and promote high-quality model outputs that will lead to high-quality project design. The Guidelines state that when assessing the level of modelling to be used, consideration must be given to traffic, on-road public transport, pedestrians, cyclists, road network features, traffic control systems, ITS applications and the environment.	0	0	0
<a href="#">Pedestrian Access and Mobility Plan - How to Prepare</a>	To provide guidance to take a coordinated and strategic approach to delivering pedestrian infrastructure, especially by helping to inform key routes, areas of deficiency or redundancy in the walking network. <b>Refer to with caution</b> , as this was developed prior to Movement and Place or vision and validate approach being adopted in NSW.	0	0	
<a href="#">Moving More with Less - The NSW Heavy Vehicle Access Policy Framework</a>	To provide a strategic approach to opening heavy vehicle access in the context of urban network congestion, maintaining road infrastructure assets and NSW transport strategic plans.	0	0	
<a href="#">Identifying and Implementing 40km/h Speed Limits in High Volume Pedestrian Areas</a>	To provide a guide to identifying and implementing 40 km/h speed limits in high volume pedestrian areas. The use of 40 km/h speed limits at work sites, outside schools and adjacent to school buses is not addressed by this document. To provide specific guidance on speed management to respond to land use.		0	1
<a href="#">How to Prepare a Bike Plan</a>	To provide a coordinated and strategic approach to delivering cycling infrastructure.	0	0	
<a href="#">Delineation Guidelines</a>	To provide details on the requirements for delineation devices - at intersections, between intersections and at a number of specific situations. <b>Supporting references:</b> <i>AS 1742.2 Manual of Uniform Traffic Control Devices Part 2, Traffic control devices for general use; Traffic Signal Design Guide Section 6, TTD 2014/002 and TDT 2002/12c</i>			1
<a href="#">Speed Zoning Guidelines</a>			1	1

Document	Usage	Phase		
		Network planning	Precinct and corridor planning	Road and street design
<a href="#">Guide Signposting</a>	To provide guidance on signposting included in the allocation of road user space.			1
<a href="#">Tourist Signposting</a>	To provide guidance on tourist signposting included in the allocation of road user space.			1
<a href="#">Service Signposting</a>	To provide guidance on service signposting included in the allocation of road user space.			1
<a href="#">Traffic Control at Work Sites</a>	To provide guidance on traffic control during construction, maintenance and operation activities associated with road user space allocation.			0

Document	Usage	Stage		
		Network planning	Precinct and corridor planning	Road and street design
<b>TfNSW Technical Directions</b>				
<a href="#">TTD 2020/02, Bus Lane Delineation</a>	To provide signposting and line marking requirements of Bus Lanes in NSW.			1
<a href="#">TTD 2020/03, Shared environment intersection treatment</a>	To provide the key concepts for implementing shared environment intersection treatments.  Caution – review whether pedestrian and cyclist priority is implemented at raised thresholds / continuous path treatments at intersections.  <b>Supporting references:</b> <i>Austroads Guide to Road Design Part 3 and Part 4</i>	1		1
<a href="#">TTD 2018/001, Guidelines for on-street fixed space car share parking</a>	To provide guiding principles for implementing on-street car share parking facilities for fixed space car share parking.  <b>Supporting references:</b> <i>AS2890.5 On-Street Parking, AS1742 Manual of Uniform Traffic Control Devices, Austroads Guide to Traffic Management Part 11 and RMS Permit Parking Guidelines</i>		0	1
<a href="#">TTD 2016/001, Design and implementation of shared zones including provision for parking</a>	To provide technical guidance for the provision of parking in shared zones.  <b>Supporting references:</b> <i>TTD 2013/05, Continuous footpath treatments, AS2890.5 On-Street Parking + RMS Supplement and AS2890.6 Off-Street Parking for People with Disabilities + RMS Supplement</i>	0	0	1
<a href="#">TTD 2014/004, Off-road parking provision on narrow roads</a>	To provide technical guidance on the provision of off-road parking while maintaining footpath requirements and traffic access along narrow roads which are not shared zones.			1
<a href="#">TTD 2014/002, Signposting for Contra-flow Bicycle Facilities</a>	To provide technical guidance on the regulatory and supplementary devices used to regulate and manage contra-flow bicycle facilities.  <b>Supporting references:</b> <i>Austroads Guide to Traffic Management Part 8, Austroads Guide to Road Design Part 3, Delineation Manual Part 12 and AS1742 Manual of Uniform Traffic Control Devices Part 2, Part 9 and Part 13</i>			1
<a href="#">TDT 2016/001, Design and Implementation of Shared Zones Including Provision for Parking</a>	To provide technical guidance on the design and implementation of shared zones in a road or road-related area (Category 1) and for shared zones in a road with footpath parking (Category 2).	0		1
<a href="#">TDT 2013/07 Bus Layover Parking</a>	To provide technical guidance on bus and coach layover parking.			1

Document	Usage	Stage		
		Network planning	Precinct and corridor planning	Road and street design
<a href="#">TDT 2013/05, Continuous footpath treatments</a>	<p>To provide technical guidance on the design of continuous footpath treatments (a continuation of the footpath parallel with the main street, at grade, without colour or texture change, across side street intersections - where vehicle traffic volumes are relatively low, therefore potential conflicts are also relatively low).</p> <p>Apply with consideration for priority to pedestrians and cyclists through continuous footpath treatments.</p> <p><b>Supporting references:</b> <i>AS1742 Manual of Uniform Traffic Control Devices, Austroads Guide to Road Design Part 6A, Austroads Guide to Traffic Management Part 7 and TTD 2016/001</i></p>			1
<a href="#">TDT 2013/04a, Guide to Traffic Generating Developments Updated traffic surveys</a>	<p>To provide technical guidance on demands resulting from developments. There is also some guidance on the design of residential subdivisions in terms of road and street design.</p> <p>Caution – strict adherence to this guidance is likely to produce outcomes that do not fully realise the strategic intent of a project. This guidance also takes the ‘predict and provide’ approach, basing design decisions on existing and anticipated traffic volumes rather than the desired future outcome for a section of road.</p>	0	0	0
<a href="#">TDT 2011/01a, Pedestrian Refuges</a>	<p>To provide technical guidance on pedestrian refuge design, incorporating options for road widening or road narrowing (kerb extension) at refuge islands as appropriate and can be applied consistently to a variety of road cross-sections.</p> <p><b>Supporting references:</b> <i>AS1742 Manual for Uniform Traffic Control Devices Part 10 + RMS Supplements for Part 6 and Part 4</i></p>			1
<a href="#">TDT 2009/06, Bicycle Storage Areas and Advanced Bicycle Stop Lines</a>	<p>To provide technical guidance for bicycle storage areas (expanded bicycle storage areas and bicycle hook turn storage areas) and advanced bicycle stop lines at intersections.</p> <p><b>Supporting references:</b> <i>NSW Bicycle Guidelines, Austroads Guide to Traffic Management Part 6 and Austroads Guide to Road Design Part 4</i></p>			1
<a href="#">TDT 2004/02, Motor Bike Parking</a>	<p>To provide technical guidance for the provision of motorbike parking in road-related areas.</p> <p><b>Supporting references:</b> <i>AS2890.5 On-Street Parking + RMS Supplement</i></p>			1
<a href="#">TDT 2002/12c, Stopping and Parking Restrictions at Intersections and Crossings</a>	<p>To provide technical guidance on the installation of 'no stopping' and 'no parking' signs at intersections.</p> <p><b>Supporting references:</b> <i>AS1742 Manual of Uniform Traffic Control Devices, Delineation Manual and TDT 2011/01a Pedestrian Refuges</i></p>			1



Document	Usage	Stage		
		Network planning	Precinct and corridor planning	Road and street design
<b>Australian Standards and TfNSW Supplements</b>				
<a href="#">AS2890.5-1993 On-Street Parking</a>	To provide technical guidance on the location, arrangement and dimensions of on-street parking facilities. It includes provisions for special classes of vehicles and for people with disabilities, together with guidelines for the control of parking.			1
<a href="#">AS1742.2-2009 Manual of Uniform Traffic Control Devices Part 2: Traffic Control Devices for General Use</a>	To provide specifications on the requirements for regulatory and warning signs, pavement markings and other devices for general use on roads, including expressway type roads, and sets out the way they are applied at intersections and interchanges, between intersections, and at a number of specific situations including substandard horizontal and vertical curves, approaches to structures and obstructions, changes in pavement width, climbing and overtaking lanes, steep grades and water crossings.			1
<a href="#">AS1742.4-2008 Manual of Uniform Traffic Control Devices Part 4: Speed Controls</a>	To provide specifications on the traffic control devices to be used for the regulatory control of traffic speed and give guidance on how speed limits should be determined and applied in various situations.  The Standard does not cover temporary speed limits, the use of advisory speed signs, or speed limits applicable to certain classes of vehicle or driver.			1
<a href="#">AS1742.7-2016 Manual of Uniform Traffic Control Devices Part 7: Railway Crossings</a>	To provide specifications on traffic control devices to be used to control and warn traffic at and in advance of railway crossings at grade. It specifies the way in which these devices are used to achieve the level of traffic control required for the safety of rail traffic and road users, including pedestrians  Requirements and guidance are also given in appendices on the illumination and reflectorisation of signs, on their installation and location, and on the selection of the appropriate sign size.			1
<a href="#">AS1742.9-2018 Manual of Uniform Traffic Control Devices Part 9: Bicycle Facilities</a>	To provide requirements for the signs, pavement markings, and other devices to be applied to bicycle facilities both on the road and on paths separate from the road, either for the exclusive use of bicycles or joint use with other users. The Standard includes recommendations for guide signs and other navigational information for cyclists.			1
<a href="#">AS1742.10-2009 Manual of Uniform Traffic Control Devices Part 10: Pedestrian Control and Protection</a>	To provide requirements for traffic control devices for the control and protection of pedestrians at facilities on roads, including pedestrian and children's crossings, mid-block pedestrian actuated traffic signals, pedestrian refuges and malls.			1
<a href="#">AS1742.11-2016 Manual of Uniform Traffic Control Devices Part 11: Parking Controls</a>	To provide specifications on the signs and pavement markings to be used for indicating areas of a road available or reserved for parking, where parking is restricted or prohibited and where stopping is restricted or prohibited.			1

Document	Usage	Stage		
		Network planning	Precinct and corridor planning	Road and street design
<a href="#">AS1742.12-2017 Manual of Uniform Traffic Control Devices Part 12: Bus, Transit, Tram and Truck Lanes</a>	To provide specifications on the traffic control devices required to designate traffic lanes as bus lanes, bus-only lanes, transit lanes, tram lanes, tram only lanes or truck lanes. It also specifies devices for the control or prohibition of truck or bus traffic where required on roadways.			1
<a href="#">AS1742.13-2009 Manual of Uniform Traffic Control Devices Part 13: Local Area Traffic Management</a>	To provide specifications on the devices commonly used in Local Area Traffic Management schemes.			1
<a href="#">AS1428.1-2009 Design for Access and Mobility Part 1: General Requirements for Access - New Building Work</a>	To provide the design requirements for new building work, as required by the Building Code of Australia (BCA) and the Disability (Access to Premises— Buildings) Standards (Premises Standards), to provide access for people with disabilities.			1
<b>Austrroads Guides and TfNSW Supplements</b>				
<a href="#">Guide to Traffic Management Part 3: Transport Study and Analysis Methods</a>	To provide guidance on traffic analysis for uninterrupted and interrupted flow facilities and for various types of intersections. Sets out the level of service (LOS), referring to the <i>Highway Capacity Manual</i> (2016). This includes Performance measures used for defining LOS, focussing on vehicles.	1		0
<a href="#">Guide to Traffic Management Part 4: Network Management</a>	To provide guidance on how to manage the road corridor network at the strategic level. It provides an overview of the network needs for various categories of road users, the characteristics of various types of networks, and describes a planning process for balancing or prioritising the competing needs of different users. It refers to transport management solutions and tools discussed in other parts of the guide.	1	0	
<a href="#">Guide to Traffic Management Part 5: Link Management</a>	To provide guidance on how to manage road corridor links (i.e. sections between intersections). This part is focussed on the road corridor links of arterials, collectors and distributors as opposed to the management of intersections or local roads, which is covered in other parts. Road corridor link management includes access management, road corridor space allocation for users of the road, lane management and setting speed limits.	1	0	0
<a href="#">Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings</a>	To provide guidance on how to manage intersections, interchanges and crossings. This part does not discuss road corridor links or the management of local road intersections, which are covered in other parts. Part 6 covers the selection of intersection type, roundabouts, signalised and unsignalised intersections, road corridor interchanges, rail crossings and pedestrian and cyclist crossings. Part 6 focuses on the types of crossing in these categories, the functional layouts and road corridor space allocation with respect to these. It excludes their operation considerations which are covered in Part 9.	1		1

Document	Usage	Stage		
		Network planning	Precinct and corridor planning	Road and street design
<a href="#">Guide to Traffic Management Part 7: Traffic Management in Activity Centres</a>	To provide guidance on how to manage the movement of people and goods within activity centres. This part is focussed on the management of road corridors within activity centres as opposed to managing road corridors (including local roads) away from activity centres which is covered in other parts.  <b>Supporting references:</b> <i>TD 2013/05</i>	1	1	
<a href="#">Guide to Traffic Management Part 8: Local Street Management</a>	To provide guidance on the planning and management of road space usage within a local area to planners and engineers associated with the design, development and management of residential precincts. Identifies principles and practices to influence driver behaviour, including physical changes to the road space environment.  <b>Supporting references:</b> <i>TTD 2014/002</i>	0	1	1
<a href="#">Guide to Traffic Management Part 9: Transport Control Systems - Strategies and Operations</a>	To provide guidance on the techniques used for operating transport control systems to manage the road corridor network. This part is focused on these systems as opposed to the principles for managing the physical aspects of the road corridor network (e.g. layout and space allocation), which is covered in other parts.	1		
<a href="#">Guide to Traffic Management Part 10: Traffic Control and Communications Devices</a>	To provide guidance on the types of transport control devices (signals, signs, pavement markings and islands) available for the operational management of roads. This part is focused on devices as opposed to the operation of transport control devices which is covered in Part 9.  <b>Supporting references:</b> <i>TTD 2017/002</i>	1		1
<a href="#">Guide to Traffic Management Part 11: Parking Management Techniques</a>	To provide guidance on how on-street and off-street parking can be managed in the context of transport management. Part 11 provides guidance on parking policy, demand and supply, data and surveys, on-street and off-street parking, as well as types of parking and parking controls.  <b>Supporting references:</b> <i>TTD 2018/001</i>	0		0
<a href="#">Guide to Traffic Management Part 12: Traffic Impacts of Developments</a>	To provide guidance on the process to identify and assess potential impacts of land developments on road corridor management through the preparation of an integrated transport assessment (sometimes referred to as a transport impact assessment or traffic impact assessment).	0	0	0
<a href="#">Guide to Traffic Management Part 13: Road Environment Safety</a>	To provide guiding principles for a safe road corridor environment as it relates to transport management practice. This is not intended as a comprehensive document but forms a useful link between the Guide to Traffic Management and other Guides from a safety perspective, particularly the Guide to Road Safety and the Guide to Road Design.	0		1

Document	Usage	Stage		
		Network planning	Precinct and corridor planning	Road and street design
<a href="#">Guide to Temporary Traffic Management</a>	To provide guidance on the planning, design and implementation of safe, economical and efficient temporary traffic management designs. Details broad strategies and objectives to provide effective temporary traffic management that ensures the safety of all road users and workers is maintained and provides example worksite layouts in the road space.	1		1
<a href="#">Guide to Road Safety</a>	To provide guidance on road crash costs and road agencies' duty of care to provide safe travel. It provides advantages and disadvantages of different ways of measuring road safety.	1		1
<a href="#">Guide to Road Design Part 3: Geometric Design</a>	To provide guidance on the horizontal (and vertical) geometric design, along with the cross-section standards that are appropriate for the functional class of the road. It also provides information relating to cycling, public transport and parking facilities as they apply in an on-road situation.  <b>Supporting references:</b> <i>Austrroads Guide to Road Design Part 6A, Part 6B and Part 4, TTD 2020/03 and TTD 2014/002</i>	1	1	1
<a href="#">Guide to Road Design Part 4: Intersections and Crossings: General</a>	To provide clear guidance on design layout and considerations.  <b>Supporting references:</b> <i>Austrroads Guide to Traffic Management Part 6, Austrroads Guide to Road Design (other Parts), TDT 2009/06 and TTD 2020/03</i>	1	1	1
<a href="#">Guide to Road Design Part 4A: Unsignalised and Signalised Intersections</a>	To provide clear guidance on design layout and considerations.  <b>Supporting references:</b> <i>Austrroads Guide to Traffic Management Part 6, Austrroads Guide to Road Design (other Parts), TDT 2009/06 and TTD 2020/03</i>	1	1	1
<a href="#">Guide to Road Design Part 6: Roadside Design, Safety and Barriers</a>	To provide guidance on the safeguarding of space for elements of road safety.  <b>Supporting references:</b> <i>Austrroads Guide to Road Design Part 6A and Part 6B and TDT 2009/06</i>			0
<a href="#">Guide to Road Design Part 6A: Paths for Walking and Cycling</a>	To provide guidance on the types of paths and their location provides guidance on alignment, width and other geometric requirements, and information on the design of treatments such as path intersections and terminals.  <b>Supporting references:</b> <i>TDT 2013/05</i>			1

Document	Usage	Stage		
		Network planning	Precinct and corridor planning	Road and street design
<a href="#">Guide to Road Design Part 6B: Roadside Environment</a>	To provide guidance on the type of features and facilities that may need to be accommodated within a roadside area. Guides where utilities should be located within the road space to avoid or minimise a range of impacts, including disruption to infrastructure, traffic and community.  <b>Supporting references:</b> <i>Walking Space Guide</i>			1
<b>Austrroads Research Reports</b>				
<a href="#">Safe System Assessment Framework</a>	To provide an assessment framework to help methodically consider Safe System objectives in road infrastructure projects. It can be used to assess how closely road design and operation align with the Safe System objectives and to clarify which elements need to be modified to achieve closer alignment with Safe System objectives.	1	1	1
<a href="#">Prioritising On-Road Public Transport</a>	To provide techniques to improve travel time and travel time reliability of on-road public transport. Provides a best practice evaluation of priority measures for the provision of road-based facilities for public transport systems.  <b>Supporting references:</b> <i>Austrroads Guide to Traffic Management and any NSW bus priority guidelines</i>	1		
<a href="#">Level of Service Metrics (for Network Operations Planning)</a>	To provide guidance on how road agencies can undertake integrated planning and decision making within the context of network operation planning. Allows road agencies to observe trade-offs in Level of Service, which can assist them in better balancing the competing demand for road space.	0		
<a href="#">Integrating Safe System with Movement and Place for Vulnerable Road Users</a>	To provide guidance for Australasian jurisdictions in ensuring, or transitioning to, safe use of roads and streets by pedestrians and cyclists. Road designers and system operators are encouraged to apply the guidance when designing new or redesigning existing roads and streets and when making decisions about how these roads and streets will operate.	1	1	1
<b>Council specifications</b>				
Council technical drawing sets and specifications, and Development Control Plans	To provide guidance on setbacks, driveway profiles, kerb ramps, pavement types, context-specific specifications applicable to an area, etc.			1

Document	Usage	Stage		
		Network planning	Precinct and corridor planning	Road and street design
<a href="#">NSW Streets Opening Coordination Council: Guide to Codes and Practices for Streets Opening</a>	This guide is an authoritative reference for Local Councils, utility and service providers and contractors throughout NSW. It provides guidelines and recommendations on managing street openings for the provision of underground utility services. This includes guidelines and recommendations relating to the allocation of space in pathways, provision and selection of trees, provision for traffic and pedestrians and reinstatement of carriageways and pathways.		1	1
<b>Toolkits</b>				
<a href="#">Last Mile Toolkit</a>	To assist urban planners, developers and government to give greater consideration to freight and servicing demands for new buildings and precincts as part of the planning process. It also promotes better management of freight and servicing for existing buildings. The Toolkit includes guiding principles, measurement and forecasting tools, design and management solutions, and future approaches.	0	0	0
<a href="#">Cycleway Design Toolbox</a>	To provide guidance on how to design for cycling and micro-mobility in the context of NSW and Greater Sydney. It can be used to justify the planning, design and delivery of high-quality cycling infrastructure by demonstrating the positive impact on the level of service for people cycling.	1	1	1
<a href="#">Guidelines for Public Transport Capable Infrastructure in Greenfield Sites</a>	This document provides guidance to planners and developers to support good road design in greenfield sites so that public transport can be successfully delivered now and into the future. The guidelines address both the road network design and the road infrastructure requirement. The document sets out the components of road network design that will allow for efficient and reliable public transport service delivery that can be integrated into the broader transport network and the road infrastructure requirements, which allow for the provision of a safe and sustainable public transport service.	1	1	1
<a href="#">Bus Priority Infrastructure Planning Toolbox</a>	To provide strategic planning guidance on bus priority infrastructure that improves the overall travel time and reliability outcomes for bus customers, particularly on the Rapid Bus Network. The document provides advice on effective bus priority infrastructure to suit different road and street, and land use contexts, including schematic layout examples.	1	1	1
<a href="#">Guidelines for the Planning of Bus Layover Parking</a>	To provide guidance to support the design and location of layovers so that public transport can be successfully delivered now and into the future. The guidelines address the types of layover, design and location considerations and baseline information for calculating costs associated with a layover.		0	1

## 10. Appendix D – Footnotes for Table 1

### INFORMATIVE

1 [Classifying Street Environments](#) “These roads and routes are central to the efficient movement of people and goods...Place activity levels are less intense. However, these roads and routes can have significant meaning to local people.”

2 [Movement and Place Objectives](#) “A well-designed street environment considers not only transport users but also the role of the street within the network of public space, and the interface between the street and adjacent land uses and public space.”

3 [Movement and Place Objectives](#) “The design, planning, and management of roads and streets need to consider potential impacts on the amenity of adjacent places – public spaces and land uses.”

*For further guidance on the process and language that sets the conditions for successful places for people to dwell around roads and streets, refer to the NSW Movement and Place Framework suite of tools and guidance ([Practitioner’s Guide to Movement and Place](#), [Aligning Movement and Place](#), [Evaluator’s Guide to Movement and Place](#)).*

4 Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings Management, Austroads, 2020. Pg. 118 “The location and spacing of interchanges in urban road networks are influenced by many factors including reducing community severance, and provision for walking and cycling at interchanges.”

5 Guide to Traffic Management Part 8: Local Street Management, Austroads, 2020. Pg. 136 “The design of local area transport management (LATM) treatments and street changes should, as much as possible, aim to improve pedestrian amenity, convenience, and safety...principles are: reduce roadway widths at points where pedestrians may cross, and other places where pedestrians are exposed to traffic, provide clear sight lines between drivers and pedestrians, avoid confusion and make clear who has priority and what behaviour is expected of both pedestrians and drivers at points of conflict (e.g. where to cross and where not to cross, etc.).”

6 Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings Management, Austroads, 2020. Pg. 58 “Consideration should be given to ensure that appropriate pedestrian facilities are provided in the mid-block, on the approach to intersections and at intersections, taking into account the types of pedestrians (in terms of age and ability)...”

7 [Walking Space Guide](#), TfNSW, 2020. Pg. 6 “Suitably sized, well-designed comfortable footpaths will encourage more people to walk.”

8 [Walking Space Guide](#), TfNSW, 2020. Pg. Pg. 7 “Enough walking space is a key determinant of the quality of places.”

For further guidance on pedestrian treatments, refer to Australian Standards, Parts 4 and 6A of the Guide to Road Design (Austroads) and Parts 4, 5 and 10 of the Guide to Traffic Management (Austroads). The Australasian Facility Selection Tool (Austroads) also provides guidance on the selection of pedestrian treatments.

9 [Cycleway Design Toolbox](#), TfNSW, 2020. Pgs. 20, 30 “The preferred facility for priority cycling routes is a bicycle path, especially where on-road operating speeds exceed 30 km/h. A bicycle path is an off-road facility that is physically separated from motor vehicle traffic and pedestrians, and is exclusively for use by bicycles and potentially other micromobility devices...To further increase level of service, bicycle paths should ideally be continued through intersections with crossing side streets, prioritising flow along the bicycle path.”

10 [Cycleway Design Toolbox](#), TfNSW, 2020. Pg. 40 “A quietway is a high-quality mixed traffic treatment where bicycle riders travel in a mixed traffic environment with motorised traffic, and are positioned in the centre of the traffic lane... they can be applied to quiet local streets and laneways with low volumes and speed of motorised traffic, and the implementation of quietways must always be delivered in conjunction with a reduction in speed limits.”

11 [Cycleway Design Toolbox](#), TfNSW, 2020. Pg. 52 “A shared zone is a segment or network of road(s) that is shared safely by pedestrians, bicycles and motorised traffic. Priority is given to pedestrians, and safety is achieved through close interaction between all road users... shared zones should not be implemented as part of high-quality high-priority routes that aim to facilitate movement of riders.”

12 [Cycleway Design Toolbox](#), TfNSW, 2020. Pg. 56 “The provision of bike parking should accommodate all types of bicycles and micromobility devices.”

13 Guide to Traffic Management Part 8: Local Street Management, Austroads, 2020. Pg.132 “The purpose of a bicycle network is to provide the facility for cyclists of a wide range of abilities and experience to move safely and conveniently to chosen destinations via suitable routes.”

### OFFICIAL

NOTE! If printed, this may not be the latest version. Check the TfNSW intranet or corporate website for the current version.

*For further guidance on cycling treatments, refer to Australian Standards, the cited references specific to issues noted in Table 3.14, and Parts 4 and 6A of the Guide to Road Design and Part 10 of the Guide to Traffic Management (Austroads), and TfNSW TTD 2016/001 Design and implementation of shared zones. Further guidance on bicycle parking can also be found in Bicycle Parking Facilities: Guidelines for Design and Installation (Austroads).*

14 [Bus Priority Infrastructure Planning Toolbox](#), TfNSW, 2021. Pg. 26 “Bus lanes allow for bus priority within general traffic lanes and may also include signal priority but there is no physical separation from the other lanes. They can be ‘bus-only’ to allow for exclusive bus use or otherwise ‘bus lane’, which is shared with other vehicles such as taxis, hire cars, emergency vehicles, motorcycles and bicycles...They are suitable for a range of street environments from Main Road to Local Street...This type is preferred along corridors with a high through-movement significance for buses.”

15 [Bus Priority Infrastructure Planning Toolbox](#), TfNSW, 2021. Pg. 28 “The design and location of stops influence the effectiveness of bus priority measures as well as customers’ comfort and the overall street environment... Bus stop location and spacing also affect overall travel time, so these aspects should be considered to suit a bus route’s network hierarchy.”

16 [Bus Priority Infrastructure Planning Toolbox](#), TfNSW, 2021. Pg. 18 “Safe, easy and unobstructed access to and from the stops is critical in ensuring a smooth end-to-end journey.”

*For further guidance on the selection of on-road public transport priority treatments, refer to the On-Road Public Transport Priority Tool (Austroads). Further guidance on the design of bus lanes and bus stop facilities can also be found in Part 3 of the Guide to Road Design (Austroads). Other useful guidance may include Austroads Guide to Traffic Management: Part 5 (bus and tram lanes; bus and tram stops), Part 9 (bus priority at signals) and Part 8 (buses in the context of local area traffic management).*

17 Austroads Design Vehicles and Turning Path Templates Guide, Austroads, 2013. Pg. 10. Table 4.2: Guide to selection of the appropriate design and checking vehicle and the recommended turning radii.

18 Guide to Traffic Management Part 4: Network Management, Austroads, 2016. Pg. 39 “They [truck routes] should serve the major generators of truck traffic in a convenient and direct manner...be in good condition, with adequate geometric layout and pavement strength for truck operation...should have good connectivity throughout the network and as few sharp turns as practicable.”

19 Guide to Traffic Management Part 4: Network Management, Austroads, 2016. Pg. 42 “Truck [local] access routes should be located so that conflict with pedestrian movements is eliminated, or at least minimised.”

20 [Freight and Servicing Last Mile Toolkit](#), TfNSW, 2020. Pg. 12 “...planners need to balance the needs of freight and servicing movements against placemaking objectives...planners designing buildings and precincts must be aware of the demand for freight vehicle movements that these developments are likely to generate.”

21 [Freight and Servicing Last Mile Toolkit](#), TfNSW, 2020. Pg. 13 “...separate freight access points from public spaces; optimise loading spaces to accommodate the most efficient vehicle types; minimise total movements; and provide ancillary facilities to support freight consolidation and after-hours servicing.”

For further guidance on freight network considerations, refer to the NSW Heavy Vehicle Access Policy Framework and the NSW Freight and Ports Plan 2018 – 2023. For further guidance on road design considerations for heavy vehicles, refer to Guide to Road Design (Austroads).

22 Guide to Traffic Management Part 4: Network Management, Austroads, 2016. Pg. 23 “Achieve an equitable balance of traffic flow efficiency across the network.”

23 Guide to Traffic Management Part 4: Network Management, Austroads, 2016. Pg. 22 “Provide vehicular access to abutting property, to other properties within a local area, to other local streets, such as cul-de-sacs and provide access for emergency and service vehicles.”

24 Guide to Traffic Management Part 8: Local Street Management, Austroads, 2020. This part of the Guide focuses on the use of traffic calming on local streets to reduce traffic volumes on speeds.

25 [Classifying Street Environments](#) “These streets [civic spaces] are often pedestrian priority, shared spaces.”