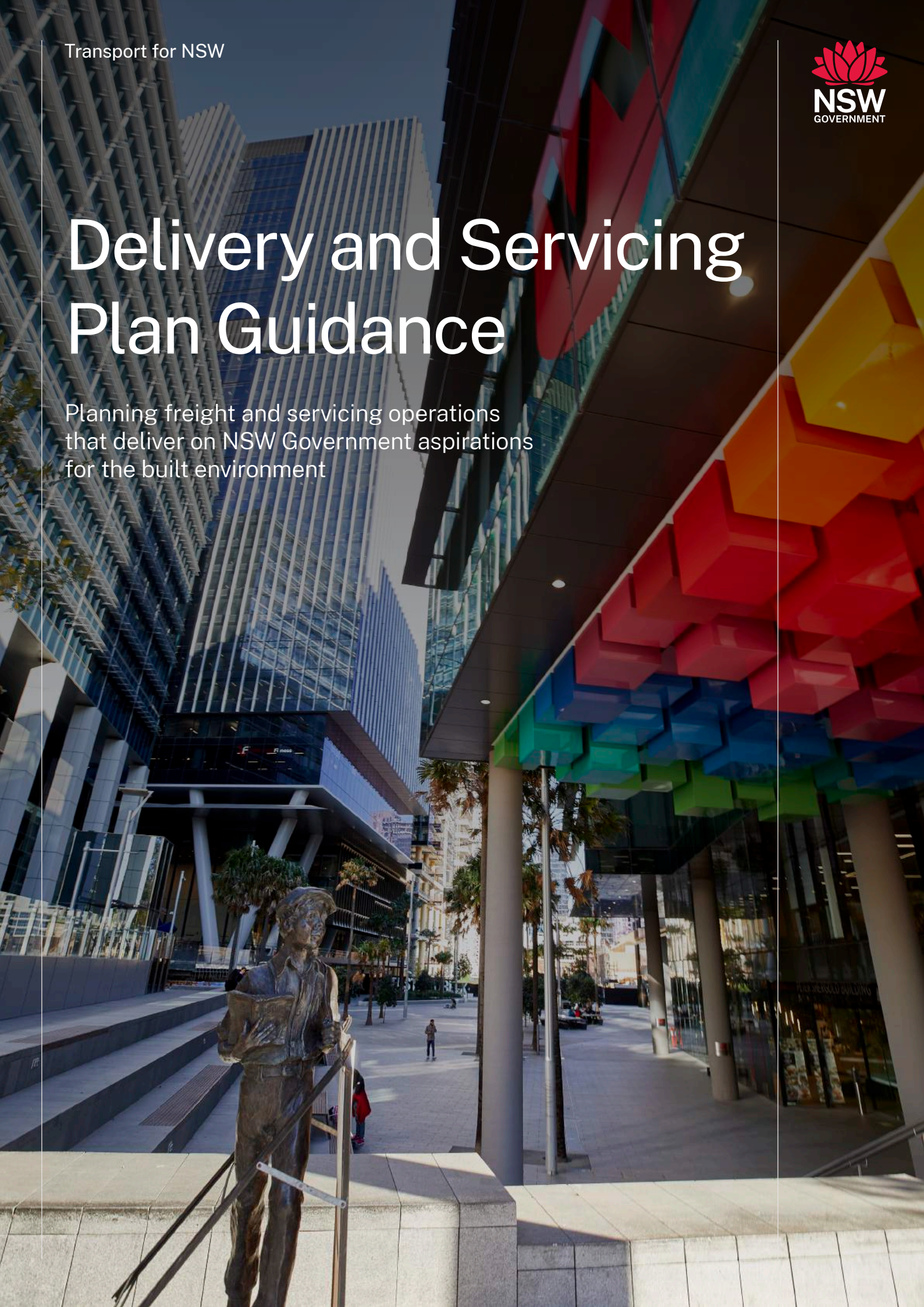
Transport for NSW

NSW GOVERNMENT

Delivery and Servicing Plan Guidance

Planning freight and servicing operations that deliver on NSW Government aspirations for the built environment



Content

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Foreword

The supply of goods and services to consumers, businesses, workers, and residents in dense urban centres is a vital component of what makes cities and places function. This is most evident by the number of trucks and vans in our streetscape. When planned well, these activities can be less impactful on the people using public and private spaces, by providing less congestion on roads and kerbsides, cleaner air, less noise, and safer environments.

Inefficient vehicle movements enter a city without a clear plan of where they will park or how challenges of the environment will be managed. Efficient commercial vehicles purposefully travel into a city and safely travel into loading docks to deliver goods or services to the customer in that location. Good building or precinct design and management will support efficient freight and help to achieve urban environmental objectives.

As street networks transform to be more focused on planning for people and places rather than road traffic capacity, it is still vital to consider how the freight task will be achieved efficiently. Incorporating good planning for freight and servicing activity into a facility rather than relying on on-street servicing, aims at making places more desirable for people. The development of efficient Delivery and Servicing Plans (DSPs) will support better planning and achieve place-making objectives for our urban centres. A DSP will achieve these by encouraging progressive and innovative approaches for better management of freight and servicing activity.

Susie Harwood
Executive Director Freight
Customer Strategy & Technology

01

Purpose

What is a Delivery and Servicing Plan?

A Delivery and Servicing Plan (DSP) identifies the delivery and servicing tasks relating to a development and the management measures that will be used as part of site operations. These plans will usually apply to new developments or if there are significant usage changes within existing buildings.

A DSP will need to encompass all types of delivery and servicing (business, waste, personal deliveries, collections etc.), facilities management and consider the wider supply chain supporting these activities. It will address considered, progressive and innovative approaches to the management of this activity.

What is the value of a DSP?

Delivery and servicing activities play a significant role in urban centres and street environments. This is where high density land uses demand high frequency servicing activity on a daily basis.

A DSP can be used to better understand the relationship between deliveries, servicing and other functions occurring in urban environments. A DSP is a tool for managing operations to help achieve New South Wales (NSW) Government policy goals including:

- Reduced congestion
- Improved air quality
- Safe and equitable road user space allocation.

A DSP will also provide support to developers in establishing operational management measures for delivery and servicing within their sites' parameters.

Management measures within a DSP will consider the wider supply chain for various services, while benefiting the wider transport network and local community and environment.

Gaining an understanding of the likely delivery and servicing requirements of a development early in the planning process allows for greater flexibility in the management measures available to drive improved outcomes in major urban centres.

It is vital that the measures developed as part of a DSP are applied and adjusted as necessary throughout the life cycle of a development for the benefits to be realised. Where possible, operators inheriting these plans at each stage of the life cycle should be included in the process.

Who is the guidance for?

This document has been prepared by Transport for NSW (TfNSW). TfNSW will continue to act as a referral agency, working to support the consent authority as required. This document is intended for all stakeholders involved in the design, planning, operation, and maintenance of a development:

- Developers, consultants, and operators can use this guidance to understand the process for developing a DSP and best practices relating to the management and reduction of delivery and servicing vehicles.
- Consent Authorities can use the guidance to aid with the review of DSPs and understand key elements in the planning process to request and monitor these plans.

When is a DSP required?

Consent Authorities will decide if a DSP is required as part of a project. This may not be immediately apparent until details of the development are made available.

A DSP will allow Consent Authorities to understand the delivery and servicing requirements and constraints of different developments in more detail to guide the approvals process.

A DSP can be requested by Consent Authorities to support a Development Application (DA) for a new development or significant changes within an existing development. It will be referred to throughout the project life cycle, using planning conditions, to ensure it is a live document.

Where would a DSP apply?

A DSP could be required for substantial developments of all land use types in major urban centres. Some smaller developments may require a DSP if they have complex logistics or servicing requirements due to constraints such as heritage frontages, limited loading spaces, special events, public transport routes etc.

Consent Authorities should issue guidelines for when a DSP will be required.

Scope of a DSP

A DSP needs to address the entirety of delivery and servicing to all businesses and tenants occupying the subject development. A DSP will form and detail the key factors and best practices for the operations of a development.

A DSP should include:

- Site parameters, building policies and objectives driving the strategy for delivery and servicing.
- Demand and profiling of services forecasted for all uses within the development when in operation.
- Practices and measures which will be implemented so that deliveries and servicing are appropriately managed.
- Detail on how the measures deliver on operational and environmental objectives.
- Identification and descriptions of the servicing arrangement(s) and a proposed management strategy for loading and unloading activities. This will include consideration of wider supply chains and coordination with existing on-site businesses and services.
- The physical design and layout of the loading dock, goods lifts, storage rooms and distribution routes, and how these provide adequate provision for delivery and servicing activity when in operation.
- Appropriate targets that enable continuous improvement through consistent monitoring over time.

The DSP is expected to evolve as it is developed during the DA phase and refined throughout the planning and occupancy life cycle of a development.

Environmental benefits of a DSP

By considering progressive and innovative approaches a DSP can enable environmental benefits and placemaking outcomes to a range of different public and private stakeholders.

Successful places

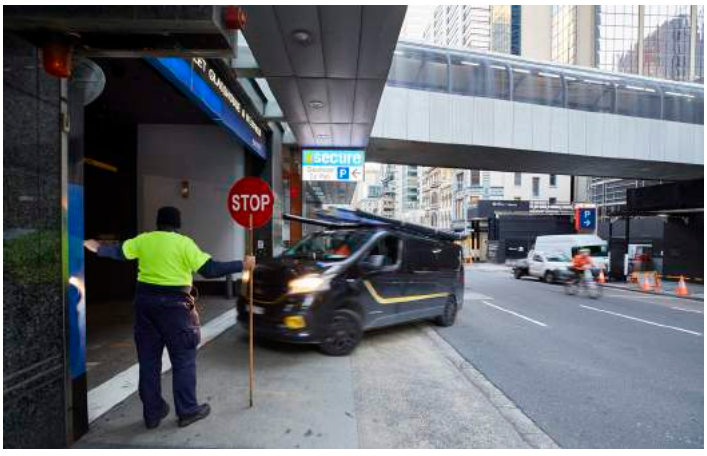
Planning delivery and servicing can support the NSW Government's aspirations to create functional, vibrant, and beautiful places. Balancing the delivery and servicing requirements with placemaking guided by the NSW Movement and Place Framework, should be a key consideration of a DSP.

Sustainability

Improving freight and servicing management through a DSP can reduce overall vehicle kilometres and encourage an uptake in innovative measures and emerging technologies to manage deliveries and servicing. This can support sustainable outcomes such as improved air quality, reduced emissions, reduced noise pollution and the ability to influence the supply chain with circular economy principles.

Network efficiency and safety

Road networks in major urban centres are tasked with accommodating demand for a range of trip types and uses, of which deliveries and servicing contribute a significant proportion. A DSP can reduce the number of delivery and servicing trips through a range of management measures that can lead to better road safety. This can release road space for alternate use and minimise delivery and servicing impacts at a local scale.



Stakeholders' benefits of a DSP

Consent Authorities

A DSP will inform the relevant transport agencies and consent authorities' understanding of the servicing requirements and constraints of a development. This will support the assessment process for the site and provide increased detail around delivery and servicing activity in major urban centres. Consent Authorities may request for the plan to align with wider policy objectives and visions.

Developers

Understanding delivery and servicing requirements at an early stage in the design process can help developers produce efficient systems for managing the delivery and servicing needs of a development, including maintenance and distribution of goods. Measures can be implemented to reduce operational costs, improve marketability, minimise the space required for operational systems or complement public realm outcomes.

Transport consultants

As part of a Transport Impact Assessment, transport consultants can use a DSP to overlay the delivery and servicing demand onto the multimodal trip generation for a development to identify conflicts with other modes. A greater understanding of the operational procedures and management measures will aid with the design of loading docks and other operational spaces.

Building managers

A DSP will set out the operational requirements and measures for building managers to implement. Setting out clear data collection requirements, systems, processes, and practices will support efficient operations and provides opportunity for continual improvements over time.

Building managers will be tasked with aligning the aspirations of the DSP with the needs all tenants.

DSP vs. LDMP

A Loading Dock Management Plan (LDMP) or Freight and Servicing Management Plan (FSMP) is already an established document in the planning process. An LDMP is usually requested by the Consent Authority as part of conditions of consent for developments in urban centres.

An LDMP focuses on the operations and traffic management within the loading dock once a design has been developed. By comparison, the development of a DSP should commence at the inception of the design and will be required for more substantial or complex developments.

A DSP should consider the delivery and servicing demands and management measures that extend beyond the curtilage of the development and to the wider supply chain. All information contained in an LDMP would be presented in a DSP with more detailed delivery and servicing requirements refined as the design progresses.

Consent Authorities should issue guidance on when a DSP or LDMP approach will apply.

The contrasting content of a DSP and an LDMP is outlined on **Table 1.**

Item	DSP	LDMP/ FSMP
Introduction	✓	
Site and development overview	✓	✓
Objectives, constraints and principles	✓	
Consultation	✓	
Delivery and Servicing Demand	✓	
Data collection	✓	
Initial demand profile	✓	
Initial loading dock requirements	✓	
Targets	✓	
Delivery and Servicing Management Measures	✓	
Delivery and Servicing Strategy	✓	✓
Updated demand profile	✓	✓
Loading dock and waste requirements	✓	✓
Operational measures	✓	✓
Access and distribution routes	✓	✓
Swept path analysis	✓	✓
Hours of operation	✓	✓
Governance	✓	✓
Monitoring	✓	

Table 1: Comparing a DSP and LDMP

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Policy and Principles

Relevant policies

This guidance sits within a wider NSW Government policy framework (**Figure 1**). A DSP should aim to deliver on the various objectives and outcomes presented in overarching policy such as Future Transport and the NSW Freight and Ports Plan.

Linking the NSW Movement and Place Framework to the measures and targets within a DSP supports delivering the broader aims for urban environments within New South Wales. Further details on this process are outlined on the Movement and Place website (www.movementandplace.nsw.gov.au).

All designs for loading docks and operational areas should comply with Australian Standards and Consent Authorities' Development Control Plans. Designs will need to be tested for adequacy as part of developing a DSP particularly where variance from planning controls is requested.

Information within the Freight and Servicing Last Mile Toolkit **(www.mysydney.nsw.gov.au/lastmilefreight)** can be used to support this guidance and provide additional detail on objectives, case studies and data relating to deliveries and servicing.

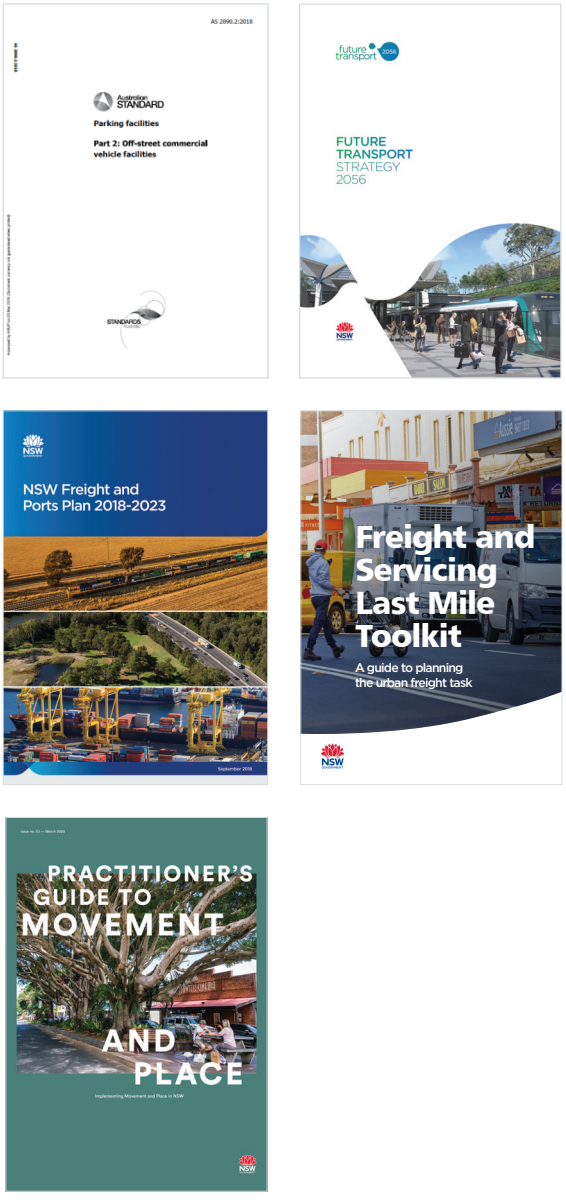


Figure 1: NSW Government Policy Framework

Key principles

The development of a DSP is linked to five guiding principles, also described in greater detail in the Freight and Servicing Last Mile Toolkit (**Figure 2**).

Commercial activity and derived demand

A DSP must address the delivery and servicing vehicle movements a development is forecast to generate.

Promoting self-sufficient building and precincts

A DSP should demonstrate a building or precinct has sufficient off-street capacity to accommodate the delivery and servicing demand generated and the building or precinct is able to become self-sufficient. Conversely, a DSP may demonstrate capacity is sufficient by deploying measures to reduce the size of the development's freight task or quantity of vehicles arriving at site.

Enabling placemaking objectives

While essential, delivery and servicing movements are often regarded as a risk to safety, amenity and placemaking objectives due to the sharing of spaces with people who walk and cycle as well as visual, noise and air pollution. A DSP should aim to plan delivery and servicing operations in a way that enables good place and amenity outcomes and mitigates risks.

Balancing amenity, transport and building efficiency

The approach should strike the right balance between amenity, transport needs and building efficiency when planning for freight and servicing demands. This means that a DSP should consider designing and integrating operations in a building or precinct that also achieves desired place outcomes.

Delivering economic, social, and environmental benefits

Measures within a DSP should ensure delivery and servicing movements are well-planned and managed by enabling the use of the most efficient vehicle types to:

- Reducing operating costs
- Facilitating consolidation to reduce total journeys
- Encouraging off-peak movements
- Providing alternative last mile delivery options.

Figure 2: Delivery and Servicing principles

Global best practice

In cities worldwide, there is growing pressure to increase the sustainability of delivery and servicing activity. The delivery of goods and services are essential to the functioning of all businesses and residents within a city.

However, the rise of café culture and e-commerce has increased the drive for more frequent deliveries to meet consumer demand within these urban centres. This is contrasting to logistics operators competing for ever more restricted kerbside space, restrictive loading hours and compulsory reduction in vehicle numbers accessing commercial centres.

To achieve wider built environment aspirations, it is recognised that a structured approach to managing delivery and servicing trips that encourages innovation in management approaches is required. This can be linked to objectives related to congestion, economics, safety, emissions and placemaking. It is recommended that a DSP achieve these objectives.

Table 2 compares the key delivery and servicing objectives from several global city freight plans presented in **Figure 3.**

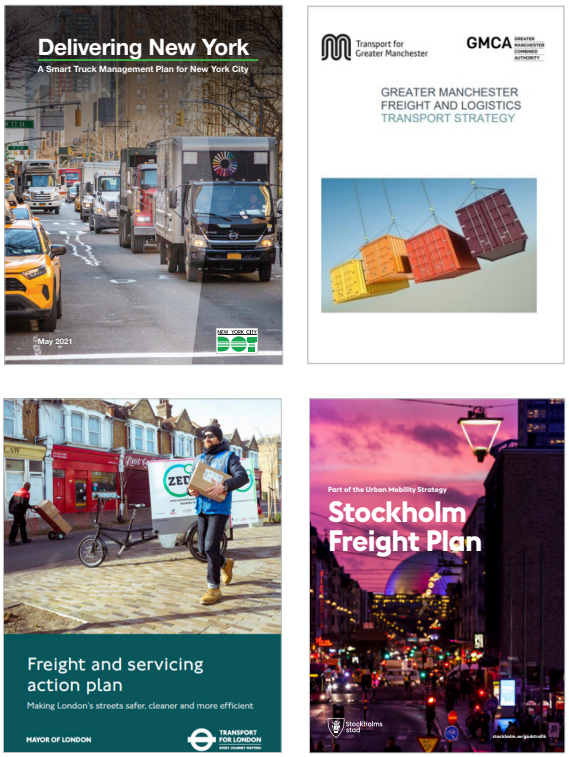


Figure 3: Global delivery and servicing guidance

Table 2: Global delivery and servicing objectives

Freight Objectives	London	Manchester	Stockholm	New York
Driving economic success	✓	✓		✓
Road safety	✓	✓	✓	✓
Reducing congestion	✓	✓	✓	✓
Supporting placemaking	✓			
Reducing emissions and improving air quality	✓	✓	✓	✓
Use of emerging technologies	✓		✓	

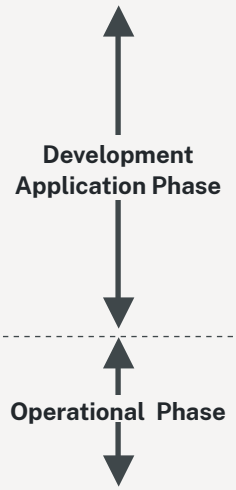
03

DSP Methodology

Methodology

The best practice methodology for developing a DSP involves six steps.

1. Define the delivery and servicing objectives and constraints
2. Develop an initial demand profile without management measures
3. Review baseline requirements and develop management measures
4. Present an updated demand profile and the delivery and servicing strategy
5. Outline the governance structure and responsibilities
6. Present a monitoring strategy to support review and update



Steps 1-4 will be undertaken during the Development Application (DA) phase. Steps 5 and 6 are ongoing feedback loops which will enable updates to the DSP to address planning conditions throughout the occupancy of the building.

Step 1: Define delivery and servicing objectives and constraints

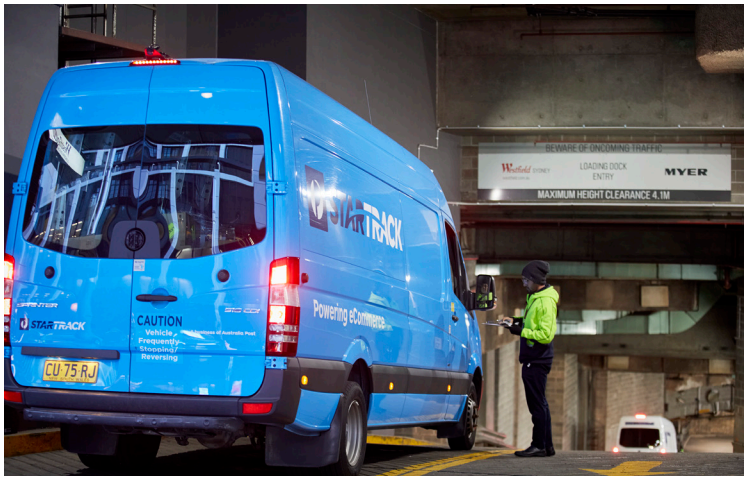
Set out the site context, both within the site boundary as well as the wider transport network. This will include a summary of the development, including land use types and areas.

Relevant objectives and constraints relating to delivery and servicing should be considered and explained. These should link to the need for a DSP, overarching policy objectives and the guiding principles in **Figure 2**.

The most common objective for a DSP is to manage the delivery and servicing task within a constrained site. Some other examples of objectives for a DSP are provided below:

- To identify the expected number of delivery and servicing trips associated with the development.
- To demonstrate that goods and services can be delivered, and waste removed, in a safe and efficient manner.
- To identify ways to reduce the number of deliveries, use out of hours deliveries and consolidate goods wherever possible.
- To ensure delivery activities do not negatively impact the local environment of the development.
- To use innovation and emerging technologies to address the delivery and servicing constraints associated with the development.
- To minimise vehicles waiting or parking at loading areas to ensure a free flow of goods to the end user and avoid queuing onto the road network.

- To provide design guidance for accommodating service and delivery vehicles, waste storage and refuse collection vehicles.
- To minimise impacts on public transport, walking and cycling on surrounding streets.
- To manage the complexity relating to the delivery and servicing of a constrained or large site.



Step 2: Develop an initial demand profile

Develop a baseline delivery and servicing, i.e., no management measures demand profile for the development.

The demand will identify the following:

- Typical vehicle types and volumes
- Understanding of traffic accessing the site over a 24-hour period
- Number, size and location of loading bays
- Number and location of goods lifts
- Access points and internal vehicle routes, including required headroom.

Several tools can be used to develop the demand profile, including:

- Survey of an existing/similar development. An example survey is presented in Appendix A.
- Freight forecasting tools such as the TfNSW Urban Freight Forecasting Model (UFFM) (https://www.mysydney.nsw.gov.au/lastmilefreight#UFFM).

The baseline demand profile should cover a peak 24-hour period, vehicle types and land uses. The profile should also differentiate between deliveries, servicing and waste collection due to their different operational demands. An example baseline demand profile from the TfNSW Urban Freight Forecasting Tool is presented on **Figure 4**.

The output from the demand profile will be used to influence the initial design of a new development or identify additional delivery and servicing requirements after refurbishments.

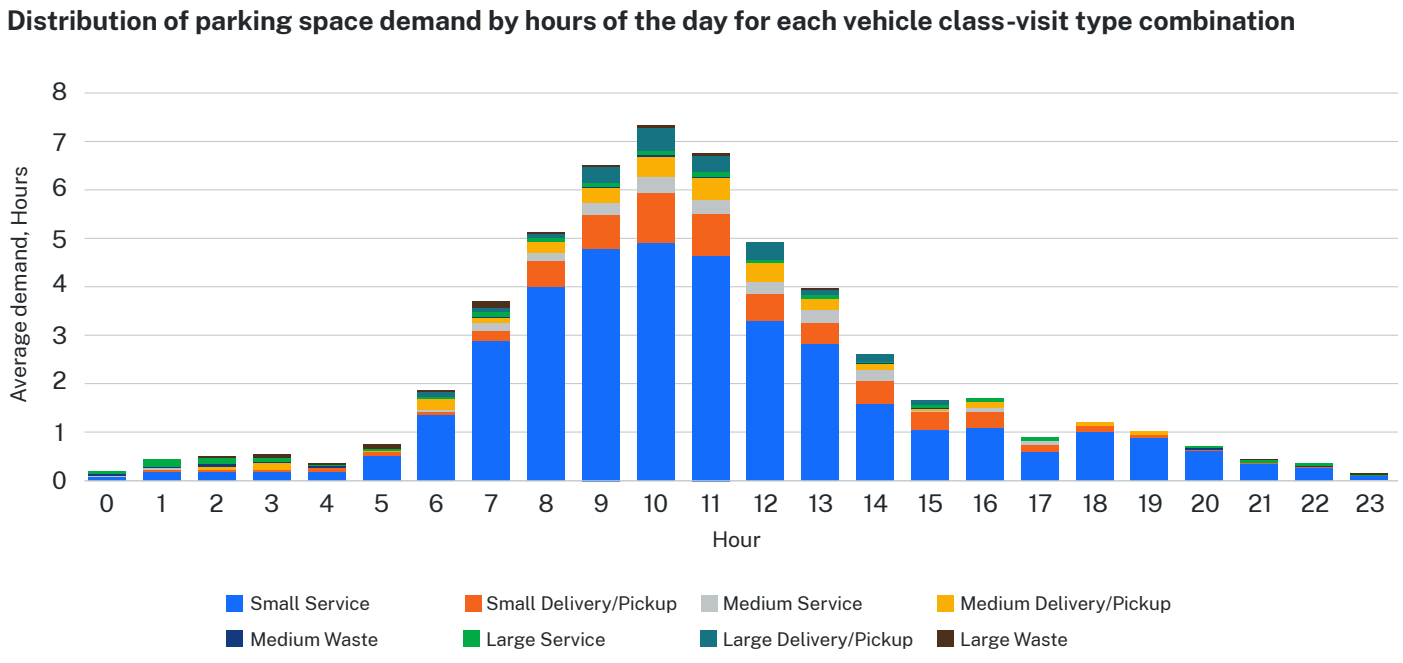


Figure 4: Example baseline delivery and servicing profile generated from the Urban Freight Forecasting Model (UFFM)

Step 3: Review baseline profile and develop management measures

Review the baseline demand profile and servicing requirements to identify conflicts or constraints.

This review should identify times of day or certain operations where demand or dwell times will need to be managed. Management measures are to be developed, driven by a travel demand management approach: Retime, Remode, Reroute, Reduce. Details on potential measures are provided in **Section 4**.

Management measures should not be limited to the curtilage of the development and will need to consider the wider supply chain for various services. Further details on best practice examples of management measures and their impacts can be found in the Freight and Servicing Last Mile Toolkit. (https://www.mysydney.nsw.gov.au/lastmilefreight).

The demand profile should include an overlay on the designs for the development (loading dock spaces, turntables, vehicle lifts etc.) to identify impacts on access and be compared to the multimodal trip generation in the Transport Impact Assessment to ascertain any conflict with other modes.

Step 4: Present an updated demand profile and the delivery and servicing strategy

The delivery and servicing demand profile should be updated with reference to the management measures developed in Step 3 and their associated impact on the timing, efficiency, routing and delivery and servicing requirements.

The operations strategy for the development should complement the adjusted demand profile. Minimum requirements include:

- Loading dock requirements including number of bays, bay sizes, goods lift and storage rooms
- Waste management, requirements, and storage
- Delivery and servicing management measures
- Access and distribution routes, including signage, for all modes and operators
- Swept path analysis for the expected design vehicles
- Minimum height restrictions for access by service vehicles
- Hours of operation.

Step 5: Outline governance structure and responsibilities

Clearly identify key parties responsible for the implementation of the DSP. The DSP will evolve over time and therefore will likely be owned by different agencies, i.e. from developer to building manager upon occupation.

The governance arrangements outlined must, as a minimum:

- Designate responsibility for the overall DSP
- Assign responsibility for each measure
- Detail the arrangements for transfer of responsibility of the DSP throughout different stages of the planning process, management and occupancy.

If the use of a development changes, Consent Authorities may request an update to the DSP which must be passed on to the new building managers.

Step 6: Present a monitoring strategy

The person(s) designated responsibility for the DSP in Step 5 will be required to monitor the development's performance and to regularly assess the potential for refinements to the DSP.

A clearly defined monitoring process must be included in the DSP, outlining the proposed mechanism for undertaking this monitoring. This should include:

- How the achievement of the objectives of the DSP will be determined and tracked
- How the success of each measure will be determined and tracked
- Description of the process to be undertaken if any of the objectives are not being achieved or if the measures are not having their intended effect
- Documentation of any changes (occupancy, management, other) that relates to the DSP and its governance
- The frequency of monitoring and assessment coordinated with the Consent Authority.

The Consent Authority will designate the monitoring frequency and how reporting is to be conducted as part of their conditions. The monitoring process should be data-driven where possible.

The DSP is to be updated throughout occupancy by referring to the baseline and targets as well as assessing measures.

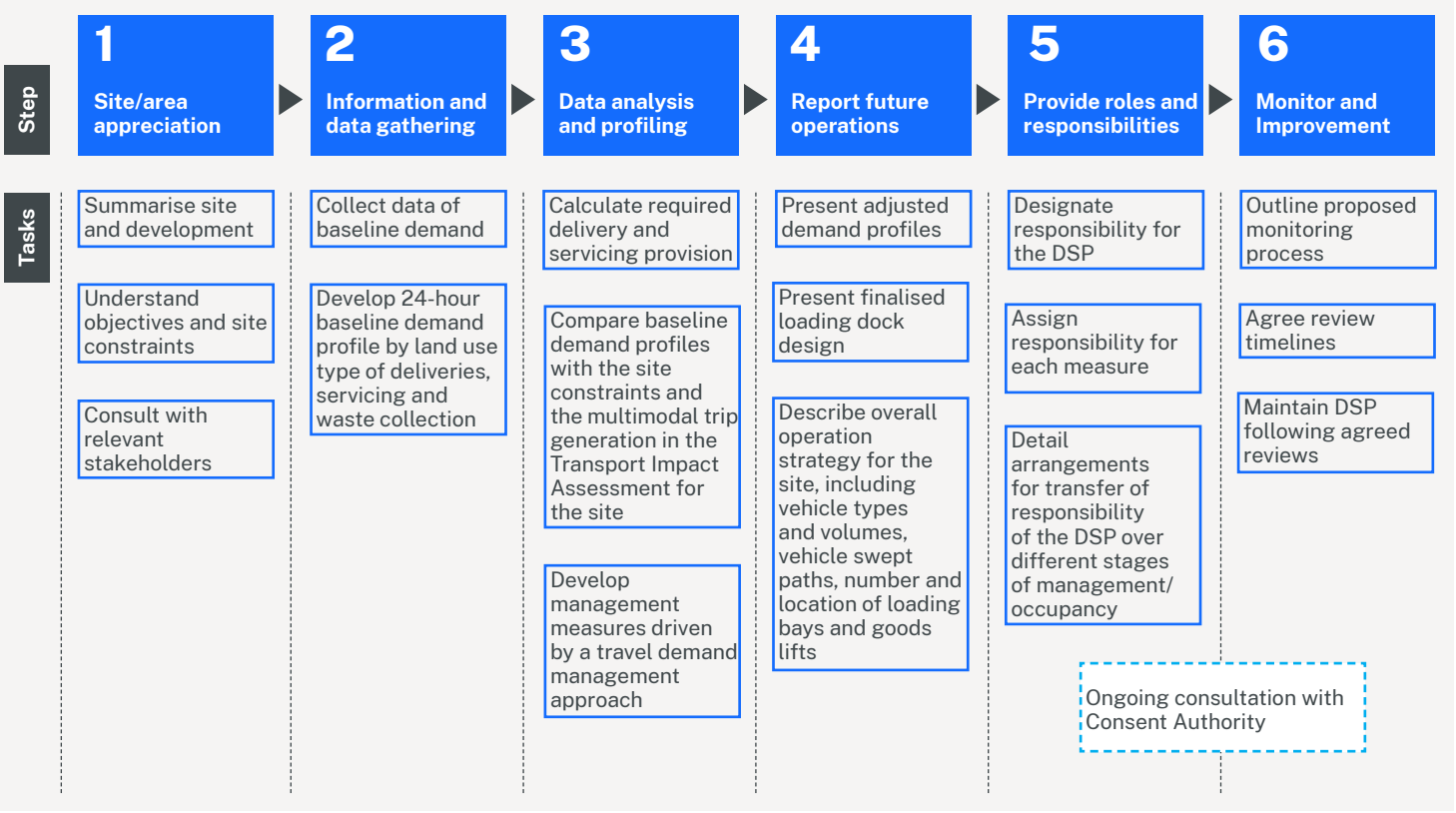
Example Table of Contents of a DSP

A typical Table of Contents for a DSP (**Table 3**) is provided below. Applicants should aim for their DSP to reflect this structure as closely as possible.

1	**Introduction**
1.1	Site and development overview
1.2	Objectives and constraints
1.3	Principles of a DSP
1.4	Consultation
2	**Delivery and Servicing Demand**
2.1	Data collection
2.2	Initial demand profile
2.3	Initial loading dock requirement
2.4	Targets
3	**Delivery and Servicing Management Measures**
4	**Delivery and Servicing Strategy**
4.1	Updated demand profile
4.2	Loading dock requirements
4.3	Waste requirements and storage
4.4	Access and distribution routes
4.5	Swept path analysis
4.6	Hours of operation
5	**Governance**
6	**Monitoring**

Table 3: Example DSP Table of Contents

DSP Methodology Map



04

Potential Measures

Appropriate progressive and innovative management measures should be considered and applied to manage the delivery and servicing demands of a development. The measures included in the DSP need to be appropriate for the site and its occupants and may need to evolve over time.

As noted in Step 3 of the methodology, measures will typically be focused on travel demand management approaches as a broader means to reduce the impact of traffic activity on a city. TfNSW's Freight and Servicing Last Mile Toolkit outlines solutions in four categories: Retime, Remode, Reroute, Reduce (the 4Rs).

Retime

- Delivery and servicing booking system for use by all tenants
- Shift activities outside peak times
- Flexible / digital kerbside management

Remode

- Pedestrian porters
- Cycle freight including e-bikes
- Electric vehicles
- Hydrogen vehicles
- Autonomous vehicles
- Cold rooms for activities in standard work hours

Reroute

- Delivery point assessments – provides drivers with clear instructions on where and how to access the development to avoid causing disruption to other road users and pedestrians

Reduce

- Collective procurement and nominated courier schemes
- Collaboration/sharing of resources
- Off-site freight consolidation
- Waste consolidation through a single waste contractor for all tenants
- Improve turnaround time of vehicles on site

● = Neutral impact ● = Minor positive impact ● = Highly positive impact

Management Measure	Relative cost to implement	Trip reduction	Peak trip impact	Placemaking	Environment
Extended loading dock hours of operation	$	●	●	●	●
Freight consolidation scheme	$$$	●	●	●	●
Building procurement scheme (reduced freight)	$$	●	●	●	●
Revised loading design	$$$$	●	●	●	●
Booking schemes	$$	●	●	●	●
On-site logistics management	$$$	●	●	●	●

05

Governance

Who is responsible for the development of a DSP?

The ownership of the DSP will change as the development progresses from design to operation. In the case of a new build, initial ownership will be the design team until the development approaches occupation, when the responsibility passes to the building management team. The owner of the DSP will also be responsible for training personnel involved in building operations. **Figure 6** shows how a DSP will evolve through the planning process.

1

Pre-lodgement:

Meeting with Consent Authority to discuss delivery and servicing constraints and the need for a DSP

2

Lodgement:

Develop and submit DSP as part of the planning application

3

Assessment:

Consent Authorities may request changes or further information if not presented clearly in the DSP

4

Determination:

Conditions of consent may specify updates to the DSP or requirements for monitoring

5

Occupation and Operation:

Final DSP is submitted for approval and should be handed over to the building manager.

Figure 6: Planning process steps for a DSP

Lifecycle of a DSP

A DSP is a document that should evolve throughout the life cycle of a development. At each stage of the design, construction and operation of the development, the DSP reflects the current understanding of how the delivery and servicing operations will be managed.

Figure 7 shows the transition of ownership of a DSP should undergo. Where possible, building managers should be consulted before finalising a DSP to support an Occupation Certificate.

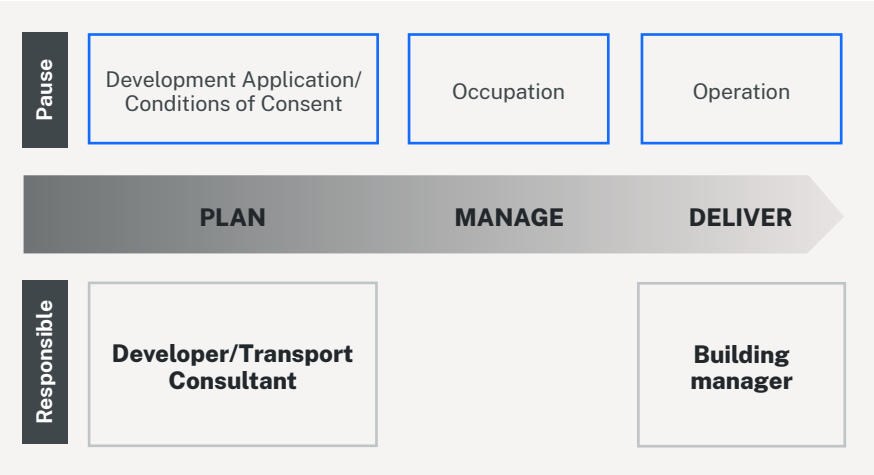


Figure 7: Transition of ownership of a DSP

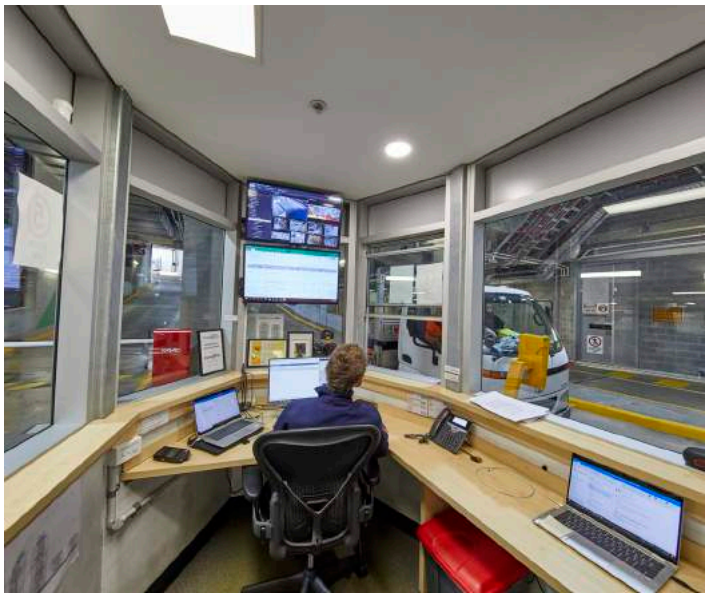
Monitoring

The information collected by the delivery scheduling system is the most cost effective, accessible and relevant data available for monitoring delivery and servicing activity. Other data could be collected that aligns with the objectives of the DSP, such as traffic incidents within the site or queuing onto the road network.

The responsible party will provide the delivery and servicing reports to the Consenting Authority at each review period. These reports will allow the data to be reviewed against defined objectives (vehicle reduction targets, timing of vehicle arrivals etc). Continuous improvement plans for future periods may be agreed between parties.

Where significant changes to the DSP are required, such as a change to the supply chain arrangements, then it will be appropriate to inform the Consent Authority. This will enable collaboration between all parties to ensure measures are introduced to minimise any impacts of the changes to other businesses or residents.

Consenting Authorities can enforce monitoring or regular updates to DSPs through consent conditions that apply beyond the Occupation Certificate for a building.



A

Appendix – Example Data Collection Survey

Date	Time in	Time out	Where has the driver parked? (on or off street)	Inbound or Outbound	Vehicle type (pedestrian, bicycle, motorbike, van, SRV, MRV)	Fuel type (petrol, diesel, electric, hybrid, no fuel)	Use delivering to or collecting from	How many suppliers in the delivery?	Type of goods? (eg. office supplies, food, waste)
14/10/2020	7:11am	7:45am	Off street	Inbound	Van	Petrol	F&B retail store	1	Food

For further information please contact the Freight Branch via email at: **freight@transport.nsw.gov.au**

May 2022

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