Gold Coast
City Freight Plan
2018–2028

Partnering with industry to develop a safer, more efficient and sustainable freight network for the Gold Coast.
Mayor’s message

The City of Gold Coast (City) recognises that keeping the city’s road network flowing is a social and economic driver. Maintaining our unique and enviable Gold Coast lifestyle is an increasingly important priority as our city grows.

Infrastructure and transport play significant roles in upholding and evolving the liveability of our city.

The freight industry contributes an estimated $1.47 billion to the Gold Coast economy annually and employs over 6200 people locally. This important industry ensures the safe and efficient delivery of thousands of vital goods and services – including building supplies, fuel, medicine, groceries, postal, and waste removal.

To ensure we can service our population growth we must plan for a future freight network that is fit for purpose. The City Freight Plan is a contemporary and long-term plan that helps deliver a safe and sustainable freight network.

We have taken the time to speak with the freight industry, to develop a plan that provides certainty for the operators with better freight access and opportunities.

As our population, tourism and economy continues to grow, the City Freight Plan plays a critical role in prioritising the actions required to ensure freight continues to service and support our vibrant and connected city.

Our focus is on ensuring we keep the city moving, and this plan will help us to get there.

TOM TATE
MAYOR
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The freight industry is a key component of the Gold Coast’s multi-modal transport system. It contributes an estimated $1.47 billion annually to the regional economy and generates around 6000 local jobs. The city is reliant upon the industry for the delivery of essential goods and services every day, and our population, tourism and industrial growth depends on its long-term effectiveness.

To ensure such growth and efficiency, proper planning, regular monitoring and careful management of the freight network must be undertaken. Industrial precincts, such as the Yatala Enterprise Area, need to be managed in ways that maximise capacity and ensure easy access for heavy vehicles, while amenity and liveability in other parts of the network need to be maintained.

Freight has a broad range of commercial applications including the delivery of goods (e.g. fresh foods, building materials, fuel) and the provision of services (e.g. linen laundering and waste removal). The freight and transport industry business models rely heavily upon good levels of road access and reliability and these industries are more disadvantaged than most by traffic congestion.

Increased demand on transport networks in growth cities like the Gold Coast is inevitable, but with collaboration and support from government and industry, impacts on the efficiency of the network can be minimised, thereby protecting our economy and improving productivity.

The Gold Coast City Freight Plan 2018–2028 (City Freight Plan) vision is to improve the efficiency, safety and sustainability of freight movements into, out of and around the Gold Coast.

The plan has four priority strategies.

**P1 Priority 1: Planning to build the future**
Ensuring freight-related trips on Gold Coast roads are managed by promoting integrated land use and transport planning.

**P2 Priority 2: Optimising our freight network**
Improving the operation and development of the City of Gold Coast (City) freight network to improve traffic flows and reduce costs to the City, businesses and the community.

**P3 Priority 3: Supporting smart freight**
Embracing technology and innovation that will influence behaviour to ensure the long-term sustainability of the freight network.

**P4 Priority 4: Connecting with the freight industry**
Engaging and partnering with the freight industry across the city to achieve greater efficiencies.

The plan identifies 34 actions and initiatives across the four priority strategies.

The outcomes for the Gold Coast include:

- better freight access to key delivery and distribution points
- transport infrastructure that is planned, designed, built and maintained to suit existing and future freight needs
- a City of Gold Coast City Plan that considers the freight needs of the future and appropriately protects land for this purpose
- an investment program for the upgrade of roads and intersections for Performance-Based Standards Level 2 heavy vehicles in the Yatala Enterprise Area
- a management plan for traffic congestion that considers freight
- better-designed intersections and corridors in industrial areas to provide for freight
- ongoing implementation of travel demand management initiatives from the 2018 Gold Coast Commonwealth Games (GC2018)
- more options for delivering freight outside peak travel times
- more opportunities for different vehicles to deliver freight into city centres
- new locations for distribution and collection centres
- better kerb-side management, including changes to loading zones
- partnerships with the freight industry to achieve greater efficiencies.

1 Draft City of Gold Coast Freight Services – Scale and Policy (Macroplan Dimasi)
2 Draft City of Gold Coast Freight Services – Scale and Policy
Purpose

The Gold Coast City Freight Plan 2018–2028 (City Freight Plan) recognises the role the freight industry has in delivering goods and services across the Gold Coast. This sector also plays a role in the import and export of goods and services throughout Queensland, interstate and overseas.

The City Freight Plan identifies and addresses the growing and diverse needs of the freight industry. It outlines priority actions to assist and improve the efficiency, safety and long-term sustainability of freight activity on the Gold Coast.

The City Freight Plan will help meet the objectives identified in the Gold Coast City Transport Strategy 2031 (Transport Strategy).
Our context

A growing, multi-functional city

The Gold Coast is a vibrant and growing city, inspired by lifestyle and driven by opportunity.

Home to nearly 600,000 residents and a holiday destination for almost 12 million people each year, the city boasts a diverse, multicultural population and provides a warm welcome to all.

Our connectivity, forward thinking and growing population has made the Gold Coast a popular choice for businesses and consumers alike.

With forecast population growth of approximately 351,000 (67 per cent) by 2041 and visitor numbers expected to rise by 5 per cent every year, demand for goods, services and facilities will continue to increase.

Anticipated construction of nearly 160,000 additional dwellings over the next 25 years will also stimulate growth in building and manufacturing sectors.

Unlike most cities, the Gold Coast has evolved in a linear pattern, running parallel to the coastline. The Pacific Motorway (M1) runs the length of the city (north/south), linking the hierarchy of business and industrial centres along its route.

There are significant warehousing and distribution centres for national retailers and our industrial sector exports products locally, interstate and overseas.
What is freight?

Freight is the movement of goods and services from one location to another as part of a collection, production or distribution and logistics chain. Goods can include core goods for sale to customers and ancillary goods such as stationery or packaging materials used within a business.

Freight services are integral to the building industry, most industrial activities and the retail sector.

Goods transported as freight can be broadly classified into two categories:

1. **Bulk freight** includes cargo in larger loads that are carried loose or loaded directly into the hold of a ship for overseas export. These loads can be unpackaged to become non-bulk freight. This bulk freight is not common on the Gold Coast.

2. **Non-bulk freight** is broken down into smaller sizes, loaded into a pallet or container and includes ready-for-market consumer goods. These non-bulk or smaller freight loads are transported by light freight vehicles and can be consolidated into larger mixed-freight loads to be transported by heavy freight vehicles. This is the majority of freight on the Gold Coast.

The movement of freight requires service areas or end-of-route facilities for the manoeuvring, parking, loading and unloading of vehicles.

Waste removal and servicing is also a critical component of freight movement across the city.

What moves freight?

Freight is moved by heavy and light vehicles. In Gold Coast city centres freight is more frequently moved by smaller vehicles like bicycles, micro-vans, light-weight trucks and hand trolleys to provide greater flexibility.

Commercial freight transport vehicles are licensed and registered to carry freight on our road network.

General access vehicles include some light and heavy vehicles. Light commercial vehicles weigh no more than 4.5 tonnes gross vehicle mass (GVM). Vehicles that weigh more than this are considered heavy commercial vehicles. These vehicles have a maximum length of 19 metres and, subject to weight restrictions, can use any road unless otherwise indicated. Heavy vehicles consistent with the general access mass and dimension requirements, do not require permits to operate on any road.

Restricted access vehicles include Class 1, 2 and 3 vehicles that operate under permit or notice. These include special and heavy vehicles that have high mass limits and dimensions and can only access approved roads.

All heavy vehicles over 4.5 tonnes GVM (including general and restricted access vehicles) are managed in Australia by the National Heavy Vehicle Regulator (NHVR).

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The movement of freight underpins most economic activity on the Gold Coast.

- 6200 people are directly employed in freight-related services in the city
- 3.3% of the city’s workforce is employed by the freight industry
- Freight transport in the city has a gross value added (GVA) of $1.47 billion
- Freight contributes 7.2% of the gross regional product (GRP)

Source: Data from the Australian Bureau of Statistics (ABS)

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1 South East Queensland Regional Plan 2017 – Shaping SEQ (Queensland Government)
2 Gold Coast Tourism Industry Report – year ending June 2015 (Griffith University)
3 Gold Coast Strategic Transport Model – multi-modal (City of Gold Coast)
4 Planning for freight in urban areas, AustRoads, 2003
Major freight generators

Industrial precincts
The Gold Coast’s largest industrial and commercial precinct is located in Yatala/Stapylton. The Yatala Industrial Park contributes approximately $365 million\(^7\) to the South East Queensland (SEQ) economy. This contribution to GRP is comprised of approximately $203 million in direct contribution and approximately $162 million indirectly\(^8\).

Other established industrial areas with major freight movements are typically located close to the M1. These include Arundel, Biggera Waters, Molendinar, Ashmore, Nerang, Burleigh and Currumbin Waters. Some of these locations, along with other major freight-generating activity centres are illustrated in Figure 2.

Industrial precincts generally attract freight-generating businesses like manufacturing, warehouse and distribution centres and wholesale suppliers. Their locations tend to be influenced by travel times and distances to their customers. A number of industrial precincts with large cement plants are located near quarries where the resource is extracted.

The Gold Coast has a small but healthy manufacturing industry based around food, beverage and marine products. Such businesses often depend on delivery of raw materials by road freight and delays can negatively impact production.

City centres (local deliveries)
All Gold Coast suburbs have freight-receiving businesses. Major city centres such as Southport, Surfers Paradise, Bundall, Broadbeach, Burleigh Heads, Coolangatta, Helensvale and Robina have more such businesses and subsequently higher freight movements, than other suburbs on the Gold Coast. Coomera Town Centre is an emerging centre and is expected to increase in significance as residential and commercial development progresses.

Businesses in major city centres commonly rely on ‘just in time’ freight deliveries as there is not enough on-site storage for large consignments of stock. These businesses are increasingly reliant on receiving deliveries exactly when they are needed. Delays, caused by a congested road network for instance, will affect their bottom line.

Freight services
All businesses are serviced and receive freight differently. Some businesses are serviced in the Gold Coast from Brisbane, while others use single or multiple Gold Coast delivery locations. Businesses are increasingly looking at ways to reduce costs. This has seen reduced on-site storage and an increase in the use of distribution centres and logistics operations to provide deliveries when needed.

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\(^7\) In 2015 dollars
Figure 3: Gold Coast preapproved heavy freight network

Legend
- Preapproved B-double 23 metre network
- Preapproved B-double 25/26 metre network

Map not to scale
On the road

Most Gold Coast freight is transported on the existing road network. There is a small air-freight component but generally freight travels on roads shared with buses, cyclists, taxis, private vehicles and pedestrians.

The city has a network of approved heavy freight roads that are suitable for large, articulated vehicles like semi-trailers and B-doubles (see Figure 3).

The M1 is the primary freight route for the Gold Coast as well as the main freight corridor for heavy freight vehicles travelling between Brisbane and southern states.

Around 5 per cent of all traffic using the M1 are commercial vehicles bigger than 4.5 tonnes GVM. This demonstrates the importance of this road corridor, particularly to freight logistics companies.

However, most local freight movement in the city is driven by medium and light commercial vehicles, with heavy vehicle movements less common.

The freight industry uses the city’s arterial, sub-arterial and collector roads to service multiple centres.

There are currently 1.8 million trips on the Gold Coast road network every day, with this figure forecast to rise by 35 per cent to 2.4 million by 2031 (see Figure 4).

The roads in industrial areas cater for a greater number of commercial vehicles than other roads. For example, commercial vehicles account for nearly 30 per cent of traffic on roads in Yatala and Stapylton, compared to around 7 per cent in other areas of the city.

With freight vehicles sharing the road with other users, increased congestion is impacting the ability of logistic companies to distribute freight efficiently.

Figure 4: City daily vehicle trips 2016–2031 including Northern Tweed Shire (Source: Gold Coast Multi-Modal Strategic Transport Model)

*Includes commercial vehicles <4.5 tonnes GVM

Gold Coast Airport Preliminary Draft Master Plan 2017 (Gold Coast Airport)
In the air

Gold Coast Airport is uniquely located to serve both northern New South Wales and the Gold Coast, with the service providing high value and time-sensitive freight.

The airport has two major freight forwarders on site for both domestic and international markets. International freight exports in 2015 amounted to 3764 tonnes or 0.4% of all international freight movements in Australia.

This figure is expected to increase by 4.7% by 2037 in line with anticipated increases in aircraft movements.

The Gold Coast Airport Master Plan has identified an area in the terminal precinct to expand the current freight facilities. This expansion would provide a multiple-use facility to respond to market requirements. The Ground Transport Plan (in the Gold Coast Airport Master Plan) recognises that efficient, reliable, safe and convenient access to the airport by various ground transport modes is crucial to support growth. The transport modelling undertaken to support such expansion anticipates that roads leading to and from the airport will continue to operate within capacity. Any future growth in freight has not been considered.
Tasks and trends

Freight driven by demand

Demand on the freight network to provide timely delivery of goods and services will increase in response to the Gold Coast’s growth. Yatala and Stapylton are established, important and strategic industrial precincts and with more development, will experience increased freight activity.

As more land is developed in the area and further pressure is placed on the M1 interchanges, Yatala’s and Stapylton’s strategic location will attract additional freight demand.

The need for roads

The higher-order roads (highways, arterial and sub-arterials) carry 80 per cent of all vehicle movements in the city although they only form about 20 per cent of the total road network.

The Gold Coast has a distinctive layout, with multiple centres stretched out along the coastline with warehousing and distribution centres generally situated along the M1. This unique linear layout means freight movements will continue to rely on the north-south M1 as well as east-west urban arterial roads. The proximity of distribution centres close to key city centres will be an important consideration into the future.

Scarce funding

Funding new infrastructure projects presents challenges for all levels of government. Competing demands from other government sectors could mean sufficient funding is not available for transport.

Road projects, like the six-lane upgrade of the M1 (between Varsity Lakes Exit 85 and Tugun Exit 95) will provide relief to some congested roads. But it remains unlikely that sufficient funding will extend to arterial, sub-arterial and collector roads throughout the city. For this reason, there is a greater emphasis on the freight industry to ‘do things smarter’ rather than relying on funding to make improvements.

Safely transporting dangerous goods

The safe transportation of dangerous goods across our city is important. Dangerous goods include fuel (for aviation, buses, trucks and cars), propane and acetylene gas cylinders and chemicals. While the transportation of dangerous goods is strictly regulated, it is important to recognise that the city’s population growth will mean an increase in the movement of this type of freight.

The impact of road congestion

Peak period congestion has associated delays and costs for the freight network. Many businesses in major city centres rely on ‘just in time’ freight deliveries as there is not enough on-site storage for large consignments of stock. Delays caused by a congested road network can have a major flow-on effect to business and be very costly.

The M1 is the main connection between our city centres and is a major interstate freight corridor connecting north to south. Traffic congestion and incidents are common and significantly impact businesses that rely on roads for freight.

Government and industry must work to reduce such congestion and associated costs.

Emerging trends like online shopping and on-demand ride-share options (e.g. Uber) have provided an increase in light vehicle delivery trips – further congesting roads.

The exact scale of such trends is difficult to quantify as most light freight vehicles are indistinguishable from other cars and are identified as general traffic.
Road safety

Urban roads are used by a broad range of vehicles. Many private vehicle drivers believe sharing the road with heavy articulated freight vehicles is dangerous. The reality is that crashes involving vehicles greater than 4.5 tonnes are in proportion nationally to the number of heavy vehicles on our roads.

Nationally only 16 per cent of road fatalities and 4 per cent of injuries involve heavy trucks and fatalities involving articulated trucks are decreasing at approximately 5 per cent each year. Whilst light vehicle occupants are more likely to be killed or injured in multiple-vehicle crashes involving a truck, recent research indicates 80 per cent of incidents are not the fault of the truck driver.\(^1\)

Competing for space

There are competing demands for limited road space across the city, particularly in city centres where businesses rely on freight for servicing and deliveries.

The redevelopment of centres such as Southport, Surfers Paradise and Broadbeach has created more vibrant and successful spaces for pedestrians however this has seen loading zones relocated and removed. In the future, as city centres evolve and the need for freight grows, loading zones will need to be incorporated into planning and streetscape improvements and new developments.

Loading zones in city centres

Loading zones in city centres are rarely vacant resulting in delayed delivery times. The freight industry has advised that this is one of the most common delays experienced.

Although intended for the loading and unloading of freight vehicles, loading zones are often occupied illegally by non-commercial vehicles. Freight vehicles must then circle the area awaiting a vacancy. They sometimes resort to double-parking to gain the access they require to make a delivery. This can cause disruption to other road users and pedestrians. Delays add considerable costs to delivery, which are often passed on to the customer.

Noise and pollution emissions

Freight transport contributes to air and noise pollution. Older trucks have outdated technology and their diesel engines contribute to a variety of emissions, including carbon monoxide, nitrogen oxides, sulphur oxides, suspended particulate matters and volatile organic compounds. Trucks generate noise, vibration and pollution from exhausts, engines, reversing beepers, tyres and during the unloading of goods.

In some areas of the city scheduled operations and restricted delivery times are in place to protect the amenity of neighbours. These restrictions can force deliveries and collections into time periods that are not the most efficient or time effective. Although freight restrictions in a busy Gold Coast suburb may successfully minimise noise pollution, the permitted freight activity time is often during peak travel times which contributes to other issues such as road congestion.

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\(^1\) Gold Coast Strategic Transport Model – Multi-Modal (City of Gold Coast)

\(^2\) Heavy Truck Safety: Crash Analysis and Trends – Information Sheet 78 (Bureau of Infrastructure, Transport and Regional Economics)
Future freight influences

Future traffic modelling for 2041 shows that congestion will most likely be widespread across the Gold Coast and in particular on the M1. Projected increases in population and tourism will also mean a significant increase in demand for freight. To meet this demand changes to the way freight is handled and managed will be required.

Shopping online

Direct marketing has resulted in an increase in business-to-business and business-to-customer transactions. In 2016 20 per cent of Australians shopped online for groceries. Delivery of these goods to customers necessitates increased freight movements. Bulk deliveries to supermarket distribution

What the industry had to say

During the development of the City Freight Plan, the City of Gold Coast (City) actively engaged with industry and other stakeholders. The dominant issues that emerged from stakeholder engagement included:

- increasing traffic congestion on the M1 and in city centres including Southport, Surfers Paradise, Bundall and Broadbeach
- the need for improved access opportunities for A-double and B-double vehicles within the Yatala Enterprise Area
- increasing travel times caused by traffic signal phasing and the lack of coordination of adjacent traffic signals along arterial and sub-arterial roads
- the limited number of loading zones, failure to meet industry needs in relation to time of stay and size of vehicle, and the utilisation of loading zones by vehicles not loading and unloading in city centres
- development application approvals that do not incorporate adequate waste vehicle operations
- the need for better off-set areas, call-up areas and loading zones to better service construction sites
- the need for better communication and data exchange between industry and government.

Other stakeholder suggestions included:

- Removal of some turns including U-turns at signals and replacement with mid-block turns. This was investigated and discussed with City traffic engineers. It was found that U-turns are already prohibited at many intersections in the City and that installing additional mid-block U-turn facilities was not seen as a safe alternative.
- Left turn on red. A trial for legalised left turn on red was undertaken by the City in 2013. The Department of Transport and Main Roads (TMR) is currently undertaking its own evaluation of left turn on red signal options.
Future influences on freight

Future traffic modelling for 2041 shows that congestion will most likely be widespread across the Gold Coast and in particular on the M1 if current road network conditions prevail.

Projected increases in population and tourism will also mean a significant increase in demand for freight.

To meet this demand, changes to the way freight is handled and managed will be required.

Shopping online

Direct marketing has resulted in an increase in business-to-business and business-to-customer transactions with 20 per cent of Australians shopping online for groceries in 201612.

Delivery of these goods to customers increases freight movements. Bulk deliveries to supermarket distribution centres and then to supermarkets still have to be made and additional deliveries need to be made to centralised collection points or homes.

The emergence of online giants such as Amazon in the Australian market will see the smaller load directly dispatched from the distribution centre. Similarly, the increase in e-parcel deliveries has meant significant increases in courier movements around the city.

These online trends are likely to lead to an increase in freight per tonne-kilometres and more deliveries for urban areas. Current traffic monitoring strategies are not able to adequately track or monitor growth in this area.

The Bromelton connection

The Bromelton Intermodal Terminal (BIT) is a major multi-modal freight terminal located west of Beaudesert on the interstate rail line. BIT provides additional capacity to the Acacia Ridge container terminal facility and will connect to any future inland freight rail line. There is currently access for B-doubles using both Mt Lindsay Highway and Beaudesert Beenleigh Road. There has recently been a heavy vehicle bypass added, which provides direct access to the Bromelton area from the Mt Lindsay Highway.

The first private train carrying 2682 tonnes of freight arrived at BIT from Melbourne in January 2017. The train was run by a private, national, multi-modal transport and logistics company, SCT Logistics, which is investing $30 million in the Bromelton Industrial estate. When at full operation, Bromelton will be able to support 1.3 million tonnes of rail freight movement each year and is expected to remove around 18,500 truck journeys from metropolitan highways13.

Given the strategic importance of the Yatala Enterprise Area and its proximity to the M1, greater demand for road connections linking Bromelton and Yatala is anticipated.

Around the world

Only a few cities around the world have designated freight plans. These cities are leaders in sustainable transport and land use planning and include Stockholm (Sweden), Seattle and Portland (United States of America). Like the Gold Coast, they recognise the need to work with industry to address freight issues and improve productivity.

Performance-Based-Standards (PBS) vehicles

Interest in the use of PBS vehicles in the city is growing. PBS vehicles are heavy freight vehicles tested to safety standards that ensure they fit the existing road network. The basic principle of PBS is matching the right vehicles to the right tasks. These vehicle standards allow the industry to achieve higher productivity and safety outcomes through innovative and optimised vehicle design.

The number of permits for PBS vehicles requested on the Gold Coast is increasing. Between January and October 2016 an average of 52 applications per month were processed. Since November 2016 that figure has increased to 71 (average) per month.

Technology

Technology for freight delivery is constantly changing the freight and logistics task. Systems which fully integrate customers with suppliers and manufacturers in the logistics supply chain are becoming increasingly available. This improved communication allows for more time-sensitive deliveries to meet varied and changing customer demands.

Innovative technologies are being developed and implemented that improve destination matching and real-time tracking of deliveries. These technologies will support more efficient delivery strategies.

The Queensland Transport and Logistics Council, in partnership with the Department of State Development, TMR and the City, is currently developing a freight application to provide real-time information on the road network for freight operators.

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Yatala – industrial success story

The suburb of Yatala is thriving as the Gold Coast’s largest dedicated commercial and industrial precinct.

Situated on one of Australia’s busiest road transport corridors, the M1 Pacific Motorway, Yatala is located south of Brisbane, on the fringe of the Gold Coast. It is a 30-minute drive to the Port of Brisbane and Brisbane International Airport.

Yatala is primarily a manufacturing region with businesses in food and beverage, construction materials, machinery and equipment, plastics and chemicals, as well as warehousing, transport and distribution.

Yatala is the largest zoned industrial land area in the Gold Coast and one of the largest in Queensland.

With its logistic advantages and room to grow, numerous domestic and international businesses are relocating to Yatala. Road construction company, Global Road Technology, opened its headquarters in Yatala to take advantage of the precinct’s proximity to the Port of Brisbane, and the larger lot, to accommodate a growing workforce.

Yatala offers a range of lot sizes for low, medium and high impact industry, with both greenfield and brownfield sites to allow for a range of purpose-built uses.

Another business utilising space at Yatala is Caterpillar Logistics Inc (CAT) which purpose built a 60,000 square metres facility on a 20 hectare site. It includes 55,500 square metres of warehouse space, 2200 square metres of office space, a chemical storage building, a gatehouse, 159 car spaces, 29,000 square metres of heavy and light duty access road pavements, and 23,000 square metres of pavement hardstand and loading docks. Approximately 150 people are employed at the site in operations and administration roles.

More recently, Cope Sensitive Freight, Australia’s largest independent, specialist freight carrier, constructed a distribution centre on a 3.6 hectare site within the Empire Industrial Estate. They enjoy direct access to the M1 and proximity to both Brisbane and the Gold Coast.

As Yatala develops and the Gold Coast grows, the importance of maintaining access for heavy vehicles to and through this significant industrial precinct will need to be prioritised.
A structured approach

The major players in freight

Nationally

The National Land Freight Strategy represents an agreed approach by federal, state, territory and local governments to ensure an efficient and sustainable national land freight system that responds to growth. It also ensures policies affecting land freight are aligned and coherent across governments.

The Australian Federal Government, through the National Land Transport Act 2014 (administered by the Department of Infrastructure and Regional Development) funds the National Highway Land Transport program and other major infrastructure programs including Roads to Recovery Program and Black Spot Program for road safety. The Australian Federal Government also has responsibility for the nation’s principal environmental legislation, the Environmental Protection and Biodiversity Conservation Act 1999.

Infrastructure Australia is an independent statutory body that prioritises the development of major infrastructure projects for the Federal Government.

The National Heavy Vehicle Regulator (NHVR) is responsible for administering the Heavy Vehicle National Law (HVNL) which regulates all heavy vehicles over 4.5 tonnes in all Australian states and territories, excluding Northern Territory and Western Australia. The HVNL regulates matters around the operation of heavy vehicles, such as mass and dimensions, vehicle safety standards, driver fatigue management, speed compliance and chain of responsibility. It also provides for heavy vehicle accreditation, the use of intelligent transport systems, enforcement powers and administrative provisions.

In Queensland

TMR is responsible for planning, managing and overseeing the delivery of a safe, efficient and integrated transport system for Queensland roads. Specifically, TMR is responsible for the upgrade, maintenance and operations of Queensland State Government (State)-controlled roads. They are also responsible for developing and administering Queensland legislation regulating freight transport, including the Transport Infrastructure Act 1994 and the Transport Operations (Road Use Management) Act 1995. TMR provides advice to the NHVR on the suitability of state-controlled roads for higher mass and/or oversized vehicles.

Locally

The City is responsible for the safe and efficient operation of the local (non-state) road network and the provision of sustainable transport solutions. The City funds transport infrastructure by maintaining existing assets, undertaking upgrades and providing new infrastructure.

The City is also responsible for land-use planning across the city, including development conditions and the administration of local laws, like those relating to waste and kerbside management.

The City and TMR work in partnership and jointly resource the Traffic Management Centre which manages and coordinates traffic movements across the city for improved network performance.

The City provides advice to the NHVR on the suitability of local roads for high mass and/or oversized vehicles along with identification of roads to be included within the preapproved network (see Figure 3). The City is also responsible for providing input on applications for non-standard heavy vehicles to use roads that are not part of this approved network.

Gold Coast industry

The Gold Coast is home to thousands of small, medium and large businesses that generate freight trips. These include:

- manufacturing industries that export goods throughout the city, region, state, interstate and overseas
- businesses that receive freight including accommodation, restaurants, wholesalers, retail outlets, service stations and construction suppliers
- the logistics and supply chain businesses that have responsibility for transporting goods to businesses and residents
- sole operators and small to medium sized businesses supplying services to new and existing developments across the city
- industry associations including the Queensland Transport and Logistics Council (QTLC), Queensland Trucking Association and the National Road Transport Association
- Gold Coast Airport, which has two freight forwarders (private operators that help businesses move products) and is a major generator of heavy vehicle trips (fuel tankers and tour buses).
City of Gold Coast (City) plans

The City Freight Plan has been developed to align with three primary strategic City plans.

**Gold Coast 2022 (Corporate Plan)**

"Inspired by lifestyle. Driven by opportunity," is the road map to guide transformational initiatives for the city. It is structured around the themes of Place, Prosperity and People.

The Corporate Plan identifies short to medium-term objectives of the City between now and 2022.

The Corporate Plan is based around the objectives of the other strategic plans like the Culture Strategy, the Economic Development Strategy, the Ocean Beaches Strategy, the Transport Strategy, the Solid Waste Strategy and the City Plan.

The City vision includes a program of work for infrastructure that supports productivity and growth. It identifies that businesses need good access for deliveries and services as the movement of freight is critical for their productivity and growth. These initiatives and goals are set out in Figure 5.

**Figure 5: Corporate Plan – City of Gold Coast employment-related initiatives and goals (Source: City of Gold Coast Corporate Plan 2022)**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our city’s economy is diverse and innovative</td>
<td>• Increased number of businesses employing people in the city.  • Growth in the number of knowledge based jobs (non-population serving employment).</td>
</tr>
<tr>
<td>We are a thriving, cultural economy</td>
<td>• Growth in the number of people employed in creative industries.  • Increase in GDP relating to creative industries.</td>
</tr>
<tr>
<td>We have infrastructure that supports productivity and growth</td>
<td>• Percentage increase of business growth in key economic zones.</td>
</tr>
<tr>
<td>We are a city with a strong and globally competitive business environment</td>
<td>• Number of people employed in the city.</td>
</tr>
<tr>
<td>We have a positive global reputation</td>
<td>• Increase in favourable environment for doing business.</td>
</tr>
</tbody>
</table>

**Figure 6: Where the City Freight Plan sits within the City’s plans and strategies**
Gold Coast City Transport Strategy 2031 (Transport Strategy)

The Transport Strategy is the City's blueprint for the Gold Coast's transport network over the next 15 years. The Transport Strategy seeks to provide improved public transport services and infrastructure as well as enabling efficient and effective freight transport movement around the Gold Coast.

The Transport Strategy aims to develop and manage an efficient road network that meets the City's needs for the movement of people and goods and can be safely shared by all users.

As shown in Figure 6, the City Freight Plan is one of a suite of seven transport implementation plans that work toward achieving the objectives of the Transport Strategy.

The Transport Strategy contains several themes and actions for the road and freight network (as shown in Figure 7).

Gold Coast – City Plan (City Plan)

The City Plan sets out the approach to managing, supporting and shaping the long-term growth and development of the City.

It identifies six city-shaping themes including strengthening and diversifying the economy and improving transport outcomes.

Improved transport outcomes in an integrated transport system includes the provision of freight corridors and haulage routes. These routes efficiently connect people and businesses with places of economic, social and environmental value.

The City Plan supports land uses that require heavy vehicle servicing (such as industry, freight and logistics activities) to be located with efficient and easy access to major roads. It also identifies that freight routes and freight-generating activities should be protected from incompatible land uses.

The Transport Code in the City Plan identifies the requirements for loading and servicing development sites. The Driveways and Vehicle Access Crossings Code within the City Plan includes design standards for driveways and vehicular crossings.

Figure 7: Themes and actions of the Gold Coast City Transport Strategy 2031 (Source: Gold Coast City Transport Strategy 2031)

### THEME 17
Plan and manage the Gold Coast road network as one network, regardless of ownership.

### THEME 18
Plan, invest in and manage the road network to provide a match between the transport function of each road with the places it goes and the users who need priority.

### THEME 19
Make the most of existing infrastructure and promote greater use of public and active transport.

### THEME 20
Improve the legibility of the Gold Coast road network so motorists take preferred traffic routes and avoid unnecessary trips through activity centres, strip shopping areas and beachside areas.

### THEME 21
Provide adequate loading zones and off-street loading facilities for freight.

### THEME 22
Maintain the local road network to a high standard.
Planning is key

The effective movement of freight around the city depends on the freight industry coexisting with other road users. The Transport Strategy is supported by seven transport implementation plans to help achieve this (see Figure 6).

Gold Coast Road Network Plan 2018-2028
(Road Network Plan)

The Road Network Plan seeks to identify the main roads in the context of a modern strategic road network (SRN). It is anticipated that by 2031 a reliable, resilient and sustainable road network will operate on the Gold Coast to enhance transport efficiency and maximise the economic potential of the city.

Elements of the plan include:
- a road classification system to ensure appropriate use of the network
- a pinch-point strategy to relieve existing congested infrastructure
- a major road upgrade program to keep arterial roads flowing
- a concept of operations to better position the city for inevitable technological change
- a one network approach to ensure integration between the City and the State.

Gold Coast Public Transport Plan 2018-2028
(Public Transport Plan)

The city’s road network has finite capacity. It is essential that the presence of private vehicles on Gold Coast roads (88 per cent of road users), is reduced. Increased use of public transport will mean freight movements are less impacted by congestion on the M1, key arterials and sub-arterials, and in our busy city centres.

The Public Transport Plan highlights how we will increase public transport use. Elements of the plan include:
- extension of the Gold Coast Light Rail (G:Link)
- development of the public transport network to provide fast, frequent and reliable services with better coverage
- connecting and coordinating regional rail, light rail and the bus network
- making public transport inclusive and equitable for all
- providing facilities and information that make public transport easy to use and understand.

Gold Coast Active Transport Plan 2017-2027
(Active Transport Plan)

More people using active modes of transport (like cycling and walking) will reduce the number of vehicles on the roads. Fewer vehicles means fewer delays for freight vehicles.

Elements of the plan include:
- completion of the city-wide active transport network
- investment in major destinations and public transport nodes
- design and delivery of quality facilities that maximise safety
- provision of supporting facilities that make it more attractive and convenient to walk and cycle
- promoting the use of bicycles for short trips.

Unfortunately heavy vehicles, even at low speeds, do not mix well with lighter, more vulnerable active transport modes. This will create challenges on the transport network where freight and active transport networks align and space for separation is not available. The City Freight Plan supports the retiming of freight movements to late night or early morning when active users are fewer.

Gold Coast City Parking Plan 2015 (City Parking Plan)

The City Parking Plan outlines five programs to enhance parking in city centres. These include:
- ParkInCentre Scheme
- parking technology program
- demand-responsive pricing policy
- parking investment policy
- Parking Assets Strategic Plan.

The ParkInCentre Scheme and parking technology program will benefit the City Freight Plan by improving parking in busy city centres for private vehicles and freight vehicles. The ParkInCentre Scheme aims to achieve efficient and equitable parking outcomes through local parking plans for selected centres.

The parking technology program realises a ‘smarter’ approach to parking through smart parking meters and sensors that provide real-time and place data to ensure the efficient use of finite kerbside parking spaces.

This technology provides opportunities for the City to better manage use of loading zones so that freight vehicles do not waste time circling city streets waiting for bays to become available.
Gold Coast Road Safety Plan 2015-2020
(Road Safety Plan)
The safe coexistence of heavy vehicles and private vehicles on our roads is every driver’s responsibility.

The Road Safety Plan provides a local framework to enable the City, key stakeholders and community, to each play their part in improving road safety. The proposed road safety initiatives will be delivered in four areas: our people, our transport system, our places, and our shared responsibility.

A safer road network that reduces the frequency and severity of road accidents will also reduce the magnitude of the disruption that incidents can have on the freight network.

Gold Coast Travel Behaviour Change Plan 2017-2022
(Travel Behaviour Change Plan)
The Travel Behaviour Change Plan encourages sustainable travel by residents and visitors to reduce car dependency and significantly increase levels of walking, cycling, carpooling and public transport.

The Travel Behaviour Change Plan proposes transport solutions that move beyond the use of a car as the main mode of travel. As a result, there will be:

• reduced congestion on city roads
• improved wellbeing for residents and visitors
• improvement in our environment.

The Travel Behaviour Change Plan aims to change travel behaviours through delivery of four targeted programs focusing on:

• community
• workplaces
• schools (and tertiary education centres)
• events.

Hosting the 2018 Gold Coast Commonwealth Games (GC2018) was a great opportunity for the City to build a travel behaviour program tailored for major events.

Local Laws
The Local Government Act 2009 authorises the City to make and enforce local laws. These laws reflect community needs and administrative matters including parking and loading zones.

The City’s management of freight is limited to commercial vehicles and public loading zones including:

• Local Law No.2 and Subordinate Local Law No.2 (Regulated Parking) 2006 provides a variety of regulations for on and off-road parking regulations. The local law includes provisions for issuing commercial vehicles with labels and permits, along with the management of loading zones. Commercial vehicles that display a current commercial vehicle identification label can lawfully use a commercial loading zone in accordance with the signage.

• Local Law No.8 and Subordinate Local Law No.8.1 (Public Health, Safety and Amenity) 2008 includes provisions that relate to noise standards and permits for regulated activities including building work and building deliveries. A permit is required to undertake building work noise or building site delivery noise between 6.30pm and 6.30am on Monday through until Saturday and anytime on Sundays.

• Local Law No.11 (Roads and Malls) 2008 makes provision for the construction, maintenance, improvement and management of roads within the local government area. It allows for the closure of local roads to all traffic or particular classes of traffic and temporary or permanent restrictions on classes of vehicles on local roads.

• Subordinate Local Law No.11.3 (Roadside Vending) provides for the management of roadside vending from stationary vehicles through the issuing of permits.

• Local Law No.44 (Heavy Vehicle Parking) 2007 ensures that the parking of heavy vehicles on residential or rural premises does not have adverse effects. The local law provides licenses to park heavy vehicles on residential and rural premises.
Our opportunity
Our vision

The vision of the City Freight Plan is to improve the efficiency, safety and long-term sustainability of road and air freight movements into, out of and around the Gold Coast.

Implementation of the City Freight Plan will result in:

- better freight access to key delivery and distribution points
- transport infrastructure that is planned, designed, built and maintained to suit existing and future freight needs
- a City Plan that considers the freight needs of the future and appropriately protects land for this purpose
- an investment program for the upgrade of roads and intersections for PBS level 2 heavy vehicles in the Yatala Enterprise Area
- a management plan for traffic congestion that considers freight
- intersections and corridors in industrial areas designed to provide for freight
- ongoing implementation of travel demand management initiatives from GC2018
- more options for delivering freight outside peak travel times
- more opportunities for different vehicles to deliver freight into city centres
- new locations for distribution and collection centres
- better kerbside management, including changes to loading zones
- partnering with the freight industry to develop greater efficiencies.

Freight now and in the future

The City Freight Plan recognises issues and challenges currently facing the Gold Coast freight network. It also identifies how freight trips in the future can be better and more safely managed across the city.

There are short, medium and long-term opportunities within the plan. Road network upgrades, traffic movement management and better kerbside management in city centres can be initiated in the near future. Reducing private and freight vehicle congestion (particularly during peak periods) will require a more long-term approach, supported by initiatives such as:

- increasing the number of centrally located freight businesses
- the implementation of travel demand initiatives
- the upgrade of the freight vehicle fleet.
Major events

The City uses major events as an opportunity to change the way people travel. During major events the transport network is often challenged with road closures and restrictions. These changes provide an opportunity to travel differently.

Major events generate more visitors to the city with increased demand for goods and services, like food, beverages, fuel and waste collection. Initiatives to manage freight differently were trialled during GC2018 to address these challenges.

GC2018 provided the city with a once-in-a-lifetime opportunity to leverage positive and sustainable benefits of being the host of a major international multi-sport event. Significant planning for the transport network was undertaken in preparation for GC2018. This planning created a legacy for future large-scale events with improvements to the road network and the testing of various initiatives.

During GC2018, the local road network was challenged by significantly reduced road capacity due to road closures and the introduction of the Games Route Network. Access to local roads was restricted around venues and key event destinations. Local area traffic and transport plans changed how transport operated around venues. The changes affected how all vehicles serviced and accessed the city centres and precinct areas. During the games, visitors, residents and businesses responded by changing the way they moved around the city.

To address the challenges, trial initiatives were undertaken to see if freight could be managed differently. The travel behaviour change measures successfully trialled for GC2018 can be used for other large-scale events and on an ongoing basis.

They included:

- reducing the number of freight movements by encouraging freight receivers to order larger quantities of goods and to stockpile non-perishable goods
- receiving deliveries from multiple suppliers on the outskirts of city centres and making consolidated deliveries into city centres after hours
- using alternative delivery modes for essential last-kilometre deliveries in peak pedestrian periods
- rerouting freight trips to avoid congested areas or restrictions on the road network
- retiming freight movements to avoid the most congested times
- a Pacific Motorway Management Plan for the M1 where trucks over 4.5 tonnes GVM were restricted to the two left lanes from the M1/M3 merge at Logan Road, Springwood (Exit 20) to Robina Parkway/Somerset Drive, Robina (Exit 82)
- providing of real-time transport network information and advice for planning deliveries
- implementing travel behavioural change strategies that provided GC2018 spectators, residents, businesses, visitors and workforce with the information, tools and resources to encourage the use of public and active transport
- ensuring timely communication of road network changes and public transport service changes associated with GC2018
- advising businesses early of changes to the transport system to support their operations throughout GC2018.

The ongoing application of GC2018 initiatives for major events is a legacy for the city.
Our targets

The city's transport and freight network operates in a complex legislative, regulatory and policy environment across federal, state and local governments. The industry also has a responsibility for the long-term sustainability of the freight network.

The success of the City Freight Plan will depend on all stakeholders’ ability to work collaboratively and support its vision. It will also depend upon transport network developments and travel behaviour changes of residents and tourists.

The City Freight Plan reinforces the targets of the Transport Strategy and other relevant targets for the seven implementation plans.

Transport Strategy targets

The Transport Strategy targets are shown in Figure 8. The city relies on freight and the city's freight task is expanding. This means reductions in the motor vehicle mode share will primarily need to come from reduced passenger car movements, rather than freight movements.

While each of the implementation plans share the same targets as those stipulated in the Transport Strategy, the Road Safety Plan contains an additional target to reduce the number of deaths and serious injuries on city roads by at least 30 per cent annually.

It is proposed this be included as a City Freight Plan target.

Figure 8: Gold Coast City Transport Strategy 2031 targets (Source: City of Gold Coast)

Mode share targets

TOTAL DAILY TRIPS

<table>
<thead>
<tr>
<th>Mode</th>
<th>2011 Baseline</th>
<th>2016 Observed</th>
<th>2031 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking</td>
<td>7.1%</td>
<td>9.2%</td>
<td>8%</td>
</tr>
<tr>
<td>Cycling</td>
<td>1.9%</td>
<td>1.3%</td>
<td>6%</td>
</tr>
<tr>
<td>Public transport</td>
<td>3.1%</td>
<td>4.7%</td>
<td>12%</td>
</tr>
<tr>
<td>Private motor vehicle</td>
<td>87.9%</td>
<td>87.7%</td>
<td>74%</td>
</tr>
</tbody>
</table>
Our freight network

The City Freight Plan identifies roads across the city that carry the highest volumes of freight and which need to be recognised in the management of our roads.

Figure 9 shows the primary, secondary and approved B-double heavy freight roads across the city. The map highlights the difference between the existing freight network and approved B-double vehicle routes.

Yatala/Stapylton has also been identified as part of the freight network. This area is dependent on freight and needs to have good-quality freight provision. It is appropriate within such areas to provide for more highly productive freight vehicles.

Figure 9 also shows the location of industrial areas in the Gold Coast, highlighting the importance of the north-south M1 in major freight movements, and the east-west arterials that link the M1 to other industrial areas. The city’s arterial and sub-arterial roads are available to all articulated semi-trailers and B-doubles with a length no greater than 19 metres without the need for any approvals or permits.

The secondary network is located in areas that require higher levels of amenity. These are usually urban areas containing residential properties and other sensitive uses. These routes are for deliveries and collections for last-kilometre freight. These routes are most appropriate for a destination in the urban area but not to be used as through routes.
Figure 9: Gold Coast freight network (subject to review)
Our plan for the future

In collaboration with stakeholders the City has established four over-arching priorities which will help to achieve a more efficient local freight system on the Gold Coast.

**Priority 1:** Planning to build our city by integrating land use and transport planning to ensure impacts of freight on Gold Coast roads are minimised.

**Priority 2:** Improving the operation of our freight network to enhance traffic flows and reduce costs to the City, business, and the community.

**Priority 3:** Influencing operations to ensure the long-term sustainability of the freight network.

**Priority 4:** Partnering with the Gold Coast freight industry to generate greater cooperation and efficiencies.
Priority 1: Planning to build our city

Ensuring freight-related trips on Gold Coast roads are managed by promoting integrated land use and transport planning.

The City Freight Plan identifies the specific needs of the freight industry to be considered as the city grows into the future. It also identifies mechanisms to manage the anticipated growth in freight on Gold Coast roads. They are:

- protecting land suitable for high and medium impact industrial uses, warehousing and distribution facilities near important freight routes
- ensuring new developments are designed and built with capacity to accommodate large, after-hours freight movements without negatively impacting other stakeholders, and increased on-site, short-term parking for parcel deliveries
- supporting the establishment of out-of-centre consolidation and collection sites
- establishing construction management plan requirements for deliveries to construction sites
- ensuring roads have capacity for higher performance freight vehicles, where necessary
- incorporating city freight network mapping into the City Plan to ensure development is designed and located to mitigate freight traffic impacts
- gathering new information on current freight demand in the region.

Protecting land for freight

The City needs to continue to meet the growing demand for warehousing and distribution facilities in the central and southern Gold Coast to service centres in the city and Northern Region of New South Wales.

Delays on the M1 are impacting the reliability of deliveries. Some sectors of the freight industry (particularly larger operators) are finding it easier to service the Gold Coast and Northern Region from distribution centres located in existing industrial precincts in the central and southern parts of the Gold Coast. However, other than the Gold Coast Airport, there is very little vacant land at the southern end of the city that could be earmarked for future industrial use (including transport and logistics).

The City Freight Plan supports planning for the protection of the limited land currently suitable for high impact industrial use in this area, from the infiltration of lower impact uses.

Consolidate and collect

The need to reduce trips on busy streets in city centres will require more work to determine the demand for alternative consolidation and collection sites.

The consolidation of deliveries as well as alternative last-kilometre delivery options will reduce the need for every vehicle to access the city centre. Similarly, out-of-centre collection centres will allow residents and businesses to collect goods at their convenience outside peak times. These methods will be particularly important during traditionally busy periods (i.e. Christmas) and during major events.

Near-side consolidation centres and out-of-centre collection sites are discussed further in Priority 3.

Out-of-hours in city centres

Traffic congestion in city centres is resulting in more deliveries being made outside peak trading hours (out-of-hours). As with all major cities across the world, this trend will continue.

Where possible, the City Freight Plan needs to influence centre development to ensure essential freight movements and the servicing of businesses and accommodation are not restricted by the time of operation. It is anticipated, that in the future, some centres will operate 24 hours a day, seven days a week. Deliveries and servicing will need to be done when the transport network has capacity, possibly during hours currently subject to restrictions (e.g. 6pm to 6am).

Specifically, new developments within those centres should include innovative solutions to:

- accommodate larger trucks with larger payloads to reduce the number of trips by smaller vehicles accessing the centre
- reduce the number of waste removal trips servicing developments while ensuring noise and odour impacts are managed (e.g. using waste compactors instead of bins to reduce the number of collections)
- unload deliveries on site to reduce the demand for on-street loading zones
- incorporate noise mitigation measures into the design of new residential towers to minimise the impact of out-of-hours deliveries on surrounding residential properties and other sensitive activities.

Growth in online retailing has led to increased courier traffic in busy centres. The City Freight Plan supports provision of on-site, short-term parking for courier vehicles in new centre developments.
Construction site safety
As the city grows, more and more construction is occurring in already-developed areas. Many new developments in city centres have small street frontages. As a result, there are safety challenges with larger freight vehicles unable to access construction sites or safely offload their vehicle during times when other site deliveries are being made. Often larger trucks are forced to double-park to make deliveries, which impacts other road users and pedestrians.

Although freight can be broken down into smaller loads for easier access and manoeuvrability, there is a significant cost to the construction industry. This also results in more vehicles on the road and adds to the problem of congestion.

Construction management plans (CMP) are a way to manage the delivery of materials and other products during the construction stage of developments.

Even a small shop fit-out can generate numerous deliveries of materials and equipment and has the potential to interrupt vehicle and pedestrian traffic.

The City Freight Plan will contribute to the development of requirements for CMPs. These will include a review of international best practice for centres, along with medium and high density development applications. More consideration needs to be made on the specification of how deliveries to development sites will be coordinated and where lay-over areas will be located in the case of multiple vehicles arriving on site at the same time.

Roads fit for purpose
Designated heavy vehicle freight routes are important for the growth of the city’s economy. There are currently locations within the city that restrict heavy vehicle access when servicing industrial, extractive industry and special purpose areas.

New activities establishing in these areas often request access for higher performance vehicles. However if the road is unable to provide safe movement for these larger vehicles the City must decline requests. Businesses require certainty for the types of vehicle access they require for their establishment on specific sites.

In areas outside the declared B-double network where an industrial activity would like to operate B-double vehicles, businesses may be responsible for upgrades to the existing pavement or intersection geometry. Such upgrades would be necessary for these higher productivity vehicles to operate safely.

The City Freight Plan will support the development of material to identify any changes and amendments to the City Plan. This may include amendments to the Land Development Guidelines, Local Government Infrastructure Priority Plan along with the design standards for roads to support the ongoing management and development of the city’s freight network.

Priority 2 contains an action to upgrade road infrastructure when the need arises and funding becomes available. These upgrades, along with others proposed in the suite of transport infrastructure plans, will be informed by engagement with the freight industry and identification of its needs (Priority 4).

Amenity
The City Plan already has provisions to protect more sensitive land uses (like residential) from other activities. These other activities can cause amenity issues like noise associated with freight vehicles using roads or unloading near residential areas. Some land uses, such as residential, can also impact freight network operations by restricting hours of operation.

The freight network mapping may be incorporated into the City Plan to ensure development is appropriately located and suitably designed on sites to mitigate impacts from freight traffic. How this mapping is incorporated will need to be considered with other road mapping.

Information availability
The lack of consistent and robust information to understand current and future freight demand makes understanding the significance of current and future freight issues challenging.

The biggest challenge is the quality of the freight data and information available from the strategic transport model. The strategic transport model assigns freight trips determined by the base year of the model to future years (i.e. if the base year model identified that 7 per cent of all trips on the network are heavy vehicle trips, at any future year there will still only be 7 per cent anticipated). The current transport model is unable to predict growth or reductions in freight trips as the city’s industry and employment grows and changes. Additional modelling incorporating the prediction of such changes within South East Queensland is required to more accurately forecast our future freight demand.

Whilst relevant industry data is available, methods of utilising that data to improve understanding of freight and modify planning is the challenge. The City will need to look at ways this data can be used for future updates of this plan.
Waste removal no waste of time

Creating logistical efficiencies that minimise road congestion and prioritise safety is a key focus for the City. That’s why waste services to the majority of our 232,000 residential properties and in all designated waste precincts are provided by a single contractor.

By working closely with this contractor, we can ensure better safety measures and more efficient waste management strategies are implemented.

For example, designated collection times have been established to improve amenity of our suburbs and avoid peak activity periods in busy areas like Surfers Paradise, Broadbeach, Burleigh Heads, Coolangatta and along the light rail corridor.

Other efficiency measures include provision of a second person as a “runner” to put bins in place in time-pressured areas and the use of waste collection precincts. Each precinct has set waste removal timeframes, with collections generally completed by 11am to ensure heavy vehicles, such as those used for waste collection, have restricted movements during peak periods.

It is important to have fewer heavy vehicles on the road in high density areas where parking and loading zone availability is restricted and pedestrian and traffic volumes fluctuate significantly.

These strategies help reduce road congestion and minimise disruptions to visitors and residents, but they would be difficult to guarantee if numerous contractors were operating.

With our population only set to grow, working with the freight industry to create further efficiencies such as these remains our priority.
Yatala – the economic engine of the city

The Yatala Enterprise Area is the economic engine of the city. A supportive freight network for Yatala will support increased productivity, greater employment and the establishment of new business for the city. Yatala is a significant industrial precinct for both the Gold Coast and the South East Queensland region and as such, requires transport network improvements to support the efficient movement of goods and services by heavy vehicles. Yatala has large areas of land zoned for future development of high and medium impact industries including transportation, freight and logistics and warehousing activities that require heavy vehicle access.

Yatala in the plan

Yatala and other industrial areas require roads fit for heavy vehicles to service current and future land uses. The City Freight Plan supports the need for roads to be designed for higher performance vehicles (e.g. B-doubles and A-doubles) through actions such as:

- identifying changes required to the City Plan to support appropriate heavy vehicle access and to protect the city freight network
- advocating for improvements for freight priority on the M1 ramps in Yatala (north and south)
- adopting a priority freight route program to identify B-double routes, priority freight routes and infrastructure requirements which will be reviewed annually
- developing a program of pavement and intersection upgrades for enhancement of industrial routes in Yatala
- investigating the feasibility of allowing PBS vehicles (including A-double PBS-2B vehicles) on part or all of the B-double network.

In addition to these actions the City will continue to work with industry to prioritise routes and develop the city freight network.

Investing in the network

Prior to the upgrade of the M1 in the early 2000’s, only the brewery and a handful of minor industrial operatives were located at Yatala. Today the area is heavily developed and is rapidly expanding. To keep pace with development the City has invested heavily in the strategic road network, with over $34 million spent on upgrades over the past three years. These upgrades include:

- Stanmore Road
- Darlington Drive
- Nyholt Drive
- Stanmore Road/M1 interchange roundabout
- Peachey Road/Woolworths access intersection
- Burnside Road.

TMR has also played, and will continue to play, a significant role in provision and upgrade of the state-controlled road network, primarily on the M1 and Stapylton-Jacobs Well Road.
Future upgrades

The Yatala road network is experiencing a number of emerging pressures. In addition to development traffic generated by the area, Stanmore Road provides a vital connection to emerging residential and industrial areas outside the city such as Yarrabilba and Bromelton. The state-controlled M1 experiences regular congestion and needs more investment. Completion of the Coomera Connector (formerly the Intra Regional Transport Connector (IRTC)) is also essential in managing pressure on the M1.

The City has recently developed a draft Local Government Infrastructure Plan (LGIP) that proposes new road infrastructure to meet growth challenges. For the Yatala area over the next 15 years this will include:

1. Stanmore Road Stage 4
2. Stanmore Road Stage 5
3. completion of Burnside Road
4. completion of Christensen Road over Sandy Creek
5. completion of the Sandy Creek Road/Pearson Road connector over Sandy Creek
6. Peachey Road/Sandy Creek Road intersection upgrade
7. Peachey Road/Pascoe Road intersection upgrade.

The City will continue to work collaboratively with the TMR to ensure vital upgrades for state-controlled roads continue to keep Yatala moving.

More productive vehicles

The current approved PBS heavy vehicle network provides limited coverage for Yatala. Parts of the network are not constructed to appropriate standards in terms of pavement strength and intersection geometry.

In Yatala, nearly 40 intersections have been evaluated including those already on the approved network. A swept path assessment was undertaken and a large number of intersections were found not to provide for the safe turning of two left-turning B-doubles into and out of the same road. The assessment also identified two additional corridors (Link Drive and Darlington Drive) to be included in the pre-approved B-double network. The two corridors require no additional works to provide for B-doubles. As the Yatala network expands, further upgrades to intersections, corridors and pavements will be required to address safety concerns.

The City Freight Plan will support the expansion of the PBS heavy vehicle network in the industrial areas of the city, with Yatala being the highest priority. The intent of the program will be to allow for a pre-approved network to facilitate and encourage industrial development.

Bringing it together for Yatala

The City has developed a range of initiatives for Yatala to support industrial activity in our primary industrial area. These initiatives, including investment in infrastructure and the management of freight, will ensure the Yatala area realises its economic potential.
### Actions

Ensuring freight-related trips on Gold Coast roads are managed by promoting integrated land use and transport planning.

<table>
<thead>
<tr>
<th>No.</th>
<th>Action</th>
<th>Purpose</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Investigate provision of prime warehousing and distribution land uses in appropriate locations within the existing low, medium and high impact industrial zones.</td>
<td>Alleviates delays to freight movements on the M1 and brings efficiencies to the transportation of freight into and from the city. The City is to actively facilitate establishment of major warehouses and distribution centres, in suitable central and southern Gold Coast locations. These locations can service major centres in the city and northern New South Wales more effectively and efficiently than similar facilities located at Yatala, and areas to the north and west in Logan, Ipswich and Brisbane.</td>
<td>2-3 years</td>
</tr>
<tr>
<td>1.2</td>
<td>Work with Gold Coast Airport Corporation regarding potential for vacant airport land adjacent to the M1 to be set aside for freight logistic facilities and improve understanding of future air freight demands.</td>
<td>Allows the establishment of distribution centres and warehouses that can more effectively and efficiently service major centres in the Northern Rivers Region of New South Wales.</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
| 1.3 | Investigate potential planning scheme amendments for new developments to incorporate innovative freight measures. | Reduces the impact and number of freight movements associated with new developments that have capacity to:  
- received larger deliveries  
- unload deliveries on site (rather than on the street)  
- compact waste on site (reducing collection frequency)  
- receive out-of-hours deliveries (reducing demand on the transport network during peak periods). | 2-3 years |
| 1.4 | Identify future amendments to City Plan provisions and policy that support servicing and freight movements, including provision for new large-scale developments in centre loading zones to sign at least one visitor parking bay specifically as a short-term parking bay for small delivery vehicles (i.e. couriers). | Accommodates the growing e-parcel demand for access to centres whilst reducing the demand for on-street loading zones. | 2-3 years |

### Common rigid truck and trailer combinations

(maximum length less than or equal to 19 metres)

- Rigid truck
- Twinsteer rigid truck
- Semitrailer
- Truck and pig trailer
- Truck and dog trailer
<table>
<thead>
<tr>
<th>No.</th>
<th>Action</th>
<th>Purpose</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td>Prepare a study to determine the demand by industry for near-centre consolidation and out-of-centre collection sites including permanent and temporary locations. The study will include actions to support the implementation including any City Plan amendments.</td>
<td>Alleviates delay and cost associated with large numbers of small delivery vehicles accessing centres daily. Consolidation centres combined with last-kilometre delivery enables centre freight to be delivered out of peak congestion times. Out-of-centre collection sites allow businesses and residents to pick up their goods outside peak congestion periods.</td>
<td>2-3 years</td>
</tr>
<tr>
<td>1.6</td>
<td>Investigate and develop guidelines for future CMPs to address kerbside management, coordination of delivery vehicles, delivery hours etc. along with other matters.</td>
<td>Alleviates delays and associated costs of construction vehicles accessing development sites in centres and reduces localised impacts to road users and pedestrians.</td>
<td>1-2 years</td>
</tr>
<tr>
<td>1.7</td>
<td>Review the City Plan provisions and policies to identify appropriate provisions for PBS level 2 heavy vehicles within the city freight network for industrial zones.</td>
<td>Ensures road infrastructure is suitable for PBS level 2 vehicles including B-double and A-double vehicle access in industrial zones.</td>
<td>2-3 years</td>
</tr>
<tr>
<td>1.8</td>
<td>Ensure the city’s road freight network is safe, protected and developed appropriately, in particular within the City Plan.</td>
<td>Ensures developments along freight corridors are established and managed in ways that will mitigate noise and safety impacts on nearby residents and other road users.</td>
<td>2-3 years</td>
</tr>
<tr>
<td>1.9</td>
<td>Establish a program to collect freight-related data and identify appropriate reporting measures and targets.</td>
<td>Allows decisions to be made, reports to be prepared and targets to be set for future freight management and safety based on reliable data.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>1.10</td>
<td>Produce a consolidated investment strategy for Yatala to bring together all investment programs.</td>
<td>Provides a comprehensive program to support the delivery of an ultimate road network for Yatala through a range of mechanisms (Local Government Infrastructure Plan trunk infrastructure, the City and developers non-trunk infrastructure).</td>
<td>1-2 years</td>
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**Performance-Based-Standards level 2 vehicles**

- B-double
- A-double
Priority 2: Optimising our freight network

Improving the operation of our freight network to enhance traffic flows and reduce costs to the City, business, and the community.

The efficiency of freight movements across the city will be improved over the next decade through targeted road upgrades and operational improvements including:

- M1 upgrades such as acceleration of the six-lane extension to the NSW border
- the use of intelligent transport systems and upgrading of significant interchanges
- establishment of priority freight routes where traffic signals and other measures maximise traffic flow at intersections and road use efficiency
- reducing traffic and the impacts of incidents on the M1 by identifying and providing alternative routes and communicating incident information efficiently to road users
- support for the development of freight information delivered through a smart device application (for example, QLD freight application)
- reviewing, evaluating and upgrading approved routes for B-doubles and other higher productivity vehicles to facilitate greater use and increased safety
- investigating the potential for extension of the B-double network to accommodate A-double-PBS 2B vehicles
- expanding the B-double network in Yatala Enterprise Area and other industrial areas of the city
- reviewing road limitations in northern growth areas to develop a prioritised program of infrastructure upgrades to open more direct links to new urban areas
- amending loading zone management across the city to ensure greater access for freight vehicles and reductions in lost productivity awaiting loading zone vacancies.

The Pacific Motorway (M1)

Freight operators are highly dependent on the State motorways in the Gold Coast. Most freight traffic will encounter motorway congestion given the elongated layout of city centres and dependency on the M1. This motorway forms a critical piece of the city's freight network. Congestion, associated travel delays and lack of reliably has flow-on costs to freight operators, businesses and consumers.

Delays on the M1 south of Robina to the New South Wales border need to be addressed. The State and Federal Government have committed to upgrade the M1 between Mudgeeraba (Exit 79) and Varsity Lakes (Exit 85) to six lanes. However the full benefits of this will not be realised until the M1 between Varsity Lakes and Tugun (Exit 95) is completed. This section of works is proposed to start after 2020.

Recent residential and industrial growth in the city's north has placed increasing pressure on existing interchanges along the M1. The Coomera Connector is one such corridor that will provide an alternative to the M1. Investigations are currently underway to determine its design.

While in the short term, ramp and roundabout meters will assist freight vehicles move more freely through interchanges, major upgrades, particularly to the Yatala (north and south) and Oxenford interchanges are required.

Modelling indicates delays on the motorway network will continue to grow unless a range of management strategies are implemented.
Incidents

The frequency of incidents on the M1 is increasing along with traffic volumes, and there are limited alternative freight routes available.

Incidents on the M1 result in long delays for freight. Sometimes alternative local road diversions are unsuitable for heavy freight vehicles because of restrictions in residential areas, travelling near schools and aged care facilities, or roads with steep gradients. Pavements tend to be lighter on local roads and are also subject to damage from heavy vehicles.

Further work on contingency plans, for times when the M1 is blocked, need to be developed. These include identifying alternative routes that can accommodate large articulated freight vehicles and providing variable message signs (VMS) with accident details and expected delay time, so that drivers can make alternative arrangements.

The lack of north-south urban arterial alternatives to the M1 results in many local trips using these alternative routes and contributing to congestion.

Connecting SEQ 2031\textsuperscript{14} acknowledges the need for alternative arterials parallel to the M1. It also identifies the following projects:

- establishment of an intra-regional transport corridor
  - to provide an additional Coomera River crossing to the east of the M1 and alternative route to the M1 for local trips
  - to preserve the extended corridor between Stapylton and Coomera (complete).

- investigate urban arterial network to service local trips west of the M1
  - from Beenleigh to Oxenford
  - from Oxenford to Nerang.

\textsuperscript{14} Queensland Government, Connecting SEQ 2031 – An integrated Regional Transport Plan for South East Queensland, 2011
Priority freight routes

Many Gold Coast city centres are situated along the coastline. This generates significant freight traffic on east-west arterials connecting to the M1. Most of these arterials are state-controlled roads managed by TMR. The capacity at signalised intersections and the phasing and coordination of adjacent traffic signals continues to be a major problem for the city's freight network.

Further work needs to be undertaken to incorporate intelligent technology to support improvements to traffic flows. This will include investment in important corridors and locations, the implementation of modal plans and the investigation of ‘green waves’ where all vehicles in a group can drive through a sequence of traffic signals at a certain speed without having to stop.

Signalised intersections identified by the freight industry as having substandard performance include:

- Olsen Avenue and Southport-Nerang Road (upgrade completed 2018 by TMR)
- Pine Ridge Road and Gold Coast Highway
- Robina Parkway and Markeri Street
- Gooding Drive, Robina Parkway and Hooker Boulevard roundabout (upgrade completed 2018 by TMR).

Similarly key freight corridors raised as being particularly congested and slow to navigate include:

- Smith Street Motorway
- Old Pacific Highway at Oxenford
- Tallebudgera Creek Road
- Olsen Avenue, Molendinar
- Gold Coast Highway
- Tsipura Drive, Burleigh.

Further work is required to determine the most appropriate connection or upgrades to link Yatala with the west including Bromelton and Yarrabilba.

The actions identified within the City Freight Plan will support the investigation of those intersections and freight corridors that require potential improvements to support freight and are designed to protect vulnerable road users.

One network approach

The City and TMR have a one network approach to the management of the Gold Coast road network. The Traffic Management Centre (TMC) is resourced and funded by both organisations. The TMC manages TMR’s 270 traffic signals on state-controlled roads and the City’s 240 traffic signals on the local road network.

A joint congestion management group with the City and TMR was established to examine congestion hotspots in the lead-up to GC2018. This group made a valuable contribution prior to and during GC2018 by supporting the management of the transport network across the City as one network. The City Freight Plan recommends ongoing operation of this group, with the need to ensure proactive operational management of major corridors that are primary freight routes.

QLD freight application

The knowledge of incidents on the freight network, road closures and other restrictions and the location of loading bays are all useful tools for freight operators.

The Department of State Development, Manufacturing, Infrastructure and Planning (DSD) and the Queensland Transport and Logistics Council (QTLC) developed a freight application, QLD freight application. The application provided freight specific network information such as loading locations, bridge location warnings and heavy vehicle restrictions.

The purpose of the application was to support efficient deliveries of goods for the Gold Coast, and was first released for testing for the Gold Coast and GC2018. It aimed to provide transport operators with information on road closures, congestion and restrictions (time and place) to enable them to deliver goods more efficiently to loadings zones and precincts.

All data sets used by the QLD freight application used existing open data platforms (including the existing QLD traffic data feed) and include freight functionality from the City.

The application supported the delivery of more information and real-time data to freight operators and could be expanded to include additional datasets should they become available (i.e. loading zone occupation or availability).
PBS level 2 vehicles – B-doubles

There are approved routes across the city for PBS vehicles including A-doubles and B-doubles of certain sizes. The B-double network is shown in Figure 3.

National provisions allow for the identification of areas, not only corridors, for inclusion within the preapproved higher performance vehicle networks. This is only possible if the transport corridors are built for the appropriate vehicle size.

There are sections of the existing network, that aren’t constructed to PBS standard, particularly in the areas of pavement strength and intersection geometry. These corridors within industrial areas are only suitable for semi-trailers and will require improvements to allow for the higher productivity vehicle types.

The City is aware of this issue and will implement a program to review access provisions within industrial areas across the city. It is likely that a new capital works program will be required to facilitate the upgrade of pavements and intersections so that higher productivity vehicle movements are possible.

In areas outside the declared network where an industrial activity would like to operate higher performance vehicles, business may be responsible for upgrades to the existing pavement or intersection geometry.

A-double PBS 2B

Freight operators and businesses are becoming increasingly interested in using A-double-PBS-2B and other PBS articulated trucks as they provide even greater efficiencies for container freight to and from the Port of Brisbane. They allow for two full-sized shipping containers to be carried on one vehicle with a length of 30 metres.

A-double PBS 2B vehicles are currently in use on the Warrego Highway for transporting grain to the port. Given that the geometrical characteristics of some of these vehicles are similar to a B-double, it is feasible that the B-double network could safely accommodate A-double PBS 2B vehicles.

The City will undertake further investigation in this regard and identify where the existing B-double network can be extended to provide greater efficiencies and certainty for industry.

Access to growth areas

The freight industry has raised concerns over the number of roads in the northern growth suburbs where load restrictions are resulting in delivery vehicles (mostly for construction) having to travel excess kilometres to reach new housing developments.

These load restrictions often reflect deficiencies in the structural capacity of bridges, culverts and pavements along a certain section of road. Other times, it can be narrow rural pavements that are unsafe for wide trucks to pass each other.

The City will undertake a review of roads with load limitations in growth areas and develop a prioritised program of infrastructure upgrades to open up more direct links to housing subdivisions, where suitable.
Loading zone law

While past studies have identified that there are adequate loading zones in the major city centres, utilisation and turnover of the bays is an issue. This results in delays, additional costs and frustration for drivers of commercial vehicles as they wait for bays to become vacant.

Existing rules governing loading zones dictate that only one infringement notice can be issued in any 24-hour period for a vehicle that overstays the allocated time. This results in some vehicles parking all day in a loading zone for the cost of one fine.

To address the issue, the City Freight Plan proposes a review of loading zone operations and the piloting of the following initiatives:

- ‘All vehicle’ loading zones will be removed and replaced with light commercial vehicle loading zones, truck loading zones, passenger loading zones and short-term parking spaces.
- Light commercial vehicle loading zones will cater for short duration deliveries by couriers, taxis and delivery vans and will be line-marked as standard length parking bays. Duration of stays will be reduced to 15 minutes to ensure greater turnover.
- Truck loading zones would be restricted to trucks larger than GVM 4.5 tonnes allowing time for larger payloads to be delivered. Bays for trucks could be up to 14 metres long to cater for 12.5 metre rigid vehicles with rear tail lift. Duration of stay will be extended to 60 minutes.
- All loading zone bays will have technology to support improved turnover so that overstays can be automatically detected and real-time information is available for occupation, availability and potentially bookings.
- All commercial vehicles will need to be registered with the City and display a sticker on the windscreen.
- Commercial vehicles will be charged to park in on-street loading zones with fees applicable for that area. As part of the commercial vehicle registration, access will be provided to an electronic application so that freight operators can pay for parking in the loading zone without the need to interact with street meters.
- There will be increased availability and turnover of short-term parking spaces for pickups, passenger drop-offs and small deliveries.

The initiatives proposed and subsequent changes to the City’s local laws will empower local law officers to issue infringement notices for multiple fines including:

a) non-commercial vehicles using a loading zone
b) failure to pay
c) overstaying duration.

This will enable City officers to issue multiple fines on the same day and eliminate present behaviour exploiting the loading zone availability. The delivery of this program will be undertaken and coordinated with the implementation of the City Parking Plan.

The City will also implement a small number of passenger set-down areas for taxis, ride-share services and private vehicles in areas where there is a high volume of passenger drop-offs. Typical locations would be near Gold Coast Light Rail stations and centres such as Scarborough Street outside Australia Fair Shopping Centre and Broadbeach.

Set-down areas would be accompanied by an increase in the availability of short-term parking spaces throughout the city centres for private vehicles and taxis that are loading and unloading. This plan does not propose any changes to the management of taxi ranks.
## Actions

Improving the operation of our freight network to enhance traffic flows and reduce costs to the City, business, and the community.

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| 2.1 | Lobby both State and Federal Governments, for funding to urgently complete upgrades to the M1, specifically:  
• the six-lane upgrade between Varsity Lakes (Exit 85) and Stewart Road, Tugun (Exit 95)  
• interchanges at Yatala north (Exit 38), Yatala south (Exit 41), Ormeau (Exit 45) and Oxenford (Exit 57). | Reduces delays and associated costs to freight movements using the M1. Restores reliability to delivery times. | Ongoing |
<p>| 2.2 | Work with TMR on the upgrade of the M1 from Mudgeeraba to Varsity from four to six and seven lanes. | Reduces the delays and associated costs to freight movements using the M1. Provides for improved reliability to delivery times. | 1-5 years |
| 2.3 | Advocate for additional freight priority measures (such as freight lanes and freight priority signals) from TMR on the M1 ramps at Yatala (north and south), Ormeau, Nerang, Worongary and Bermuda Street as identified in the Transport Strategy. | Regulates and better manages the operation of the ramps, associated roundabouts and access roads, and the M1. | Ongoing |
| 2.4 | Work with TMR to identify secondary north-south routes that would allow heavy freight vehicles using the M1 to be diverted when incidents cause the motorway to be blocked. | Allows limited access for essential freight movements during times of motorway blockage. | Ongoing |
| 2.5 | In partnership with TMR prioritise and support the delivery of alternative parallel routes to the M1, such as the Coomera Connector and urban arterials west of the motorway. | Enables some lower-order freight vehicles to use alternative north-south routes and in doing so, relieve the M1. | Ongoing |
| 2.6 | Continue to jointly fund the City/TMR congestion management group to identify traffic operational improvements including ‘green wave’ priority to freight routes across the city. | Continues the work to date in investigating and resolving industry concerns with the prioritisation of freight movements along primary and secondary city freight routes. | Ongoing |
| 2.7 | In partnership with QTLT, TMR and DSD, support the development of freight information delivered through a smart device application with real time road closures, incidents, safety concerns and road works. | Allows freight operators to make timely assessment as to the optimum route for deliveries. | Underway |
| 2.8 | Investigate local roads with load restrictions in the northern growth areas of the city that are impacting on the construction industry and develop a program of upgrades to better manage the demands by construction freight operators in these areas. | Reduces the travel distance and time delays in deliveries of construction materials to northern growth areas and will provide an updated freight access map as identified in Action 1.7. | 1-5 years |</p>
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| 2.9  | Adopt a priority freight route program for the city that identifies PBS level 2B network, priority freight routes and infrastructure requirements to be reviewed annually. The priority freight route map will include:  
• a freight route network hierarchy that identifies the core network, supporting corridors and network areas  
• the standard of infrastructure to be delivered across the network  
• areas of overlap with the proposed cycle network and potential treatment options  
• a prioritised list of upgrades and costs. | Provides certainty to industry prior to purchasing vacant industrial land across the city. Supports the City to work with industry to prioritise these routes and provide for the safety of vulnerable users. | Ongoing   |
| 2.10 | Develop a program of pavement and intersection upgrades for enhancement of industrial roads in the Yatala area (followed by upgrades to other industrial roads in the city) to ensure the PBS level 2B network can accommodate higher productivity vehicles safely and without damage to the City’s assets. | Provides greater certainty to industry regarding rectification works. The City will work with industry to identify the prioritisation of these enhancements. | Ongoing   |
| 2.11 | Investigate permitting PBS vehicles including A-double PBS 2B vehicles on part of or the entire B-double network and recommend changes to expand the approved network. | Enables greater efficiencies whilst maintaining strict safety standards. | Ongoing   |
| 2.12 | Undertake a review of loading zone operations to pilot and implement new kerbside initiatives for commercial vehicles collaboratively with the City Parking Plan. | Tailors the operation of loading zones to the needs of varying commercial users, taxis and ride-share services. It provides the City’s local law officers with the power to enforce the efficient utilisation of loading zones. | 1-2 years |
| 2.13 | Identify and investigate intersections and corridors on the city freight network requiring freight enhancements and safety improvements, and establish a process for incorporation within the City’s existing maintenance and upgrade programs. | Ensures the freight network can provide appropriately for various types of vehicles and vulnerable users. | Ongoing   |
| 2.14 | Work in partnership with TMR to continue monitoring and identifying any new or improved ways for modelling freight and freight demand more accurately. | Continues to identify and develop improved modelling and information dissemination for freight. | Ongoing   |
| 2.15 | Prepare a freight corridor and demand study to identify future network connections between Yatala/Stapylton and Bromelton/Yarrabilba along with other Gold Coast destinations. | Identifies how best to link the Yatala Enterprise Area with Bromelton and Yarrabilba as significant inland residential and employment growth areas. Bromelton will provide connections to southern New South Wales, Victoria, South and Western Australia and may change the way goods are delivered and transported from the Gold Coast. | 3-5 years |
Priority 3: Supporting smart freight

Influencing operations to ensure the sustainability of the freight network.

The Gold Coast has an opportunity to grow a sustainable freight network that enhances the city's amenity and lifestyle through fewer and cleaner road freight movements. Proposed initiatives include:

- trialling retiming of freight deliveries to provide cost-effective and efficiency gains for businesses
- establishing consolidation centres, out-of-centre collection sites, alternative last-kilometre delivery vehicles and higher-mass freight vehicle access to reduce the number of freight trips in the city
- undertaking research to determine the potential benefits of utilising quieter freight vehicles in city centres and extending delivery hours
- implementing initiatives of the Road Safety Plan and the City Freight Plan along with broader education programs to increase awareness of issues associated with freight movements, in order to improve safety outcomes on our city's road network.

Retiming deliveries

Retiming of freight deliveries was trialled in major city centres during GC2018. Previous host cities have successfully minimised the impact on freight deliveries during major sporting events by retiming freight movements. Retiming of deliveries during and post the 2012 London Olympic Games was so successful that it is considered a legacy.

Retiming freight deliveries has clear benefits for logistic companies and receiving businesses. However, a clear constraint for receiving businesses is the additional cost for working outside of usual business hours, mainly to pay staff overtime to receive the goods. Monetary incentives have been trialled by some overseas governments to offset the additional cost, however they proved unsustainable.

During GC2018, the City supported retiming initiatives that provided cost-effective and efficiency gains for businesses. This included providing night time deliveries where practical into major city centres.

Reducing freight trips

Retiming deliveries to outside of normal business hours helps to evenly redistribute the frequency and timing of trips to city centres. The City will also work with industry to implement strategies to reduce the physical number of freight trips, and in doing so, assist with the long-term sustainability of freight deliveries to city centres.

Strategies to reduce freight trips include:

- near-side consolidation centres
- out-of-centre collection sites
- alternative delivery vehicles (last-kilometre)
- higher-mass freight vehicle access.

GC2018 planning included the trial of consolidation centres for deliveries to venues.

Near-side consolidation centres

Near-side consolidation centres can be a permanent warehouse, a temporary mobile facility or something between the two. The facility is usually operated by a sole distributor but it provides greater benefits when operated by a third party as a multi-user facility. The strategic land use requirements associated with permanent consolidation centres have previously been outlined in Priority 1 – Planning for our future.

These types of centres are used to consolidate multiple delivery items destined for a city centre into sizeable loads. In doing so, multiple trips into the centre carrying smaller loads can be replaced by a single trip carrying multiple goods.

Out-of-centre collection sites

Out-of-centre collection sites are already in use by some delivery companies on the Gold Coast to consolidate smaller e-parcel deliveries. Similarly, larger supermarkets are using selected service stations for the collection of grocery orders.

Out-of-centre collection facilities alleviate the need to deliver goods during peak periods and reduce the number of delivery vehicles accessing busy city centres. These collection points provide the added advantage that recipients can collect their parcel or groceries in their own time (usually outside of peak periods) and are likely to increase trade at the third-party collection centres, such as stores and service stations.

The City will support the identification of appropriate locations for these activities.
Alternative freight mode

Last-kilometre delivery strategies using smaller alternative transport vehicles is increasing as centres get busier. Bicycles, motorbikes, small electric vehicles and even drones are increasing in popularity and will be the way of the future. Small-scale bicycle deliveries for takeaway food, are already occurring in city centres like Broadbeach and Surfers Paradise. While these vehicles will never replace higher-mass trucks, they are an ideal transport alternative for smaller items in congested centres.

At the other end of the spectrum larger payloads carried by long, flat-tray rigid trucks, will reduce smaller freight trips in city centres and reduce congestion and emissions. Larger businesses, like supermarkets, have their own off-street loading docks so they can receive major loads by long-wheel based trucks or articulated semi-trailers.

Smaller businesses, without on-site facilities, unload deliveries on the street. The combination of large trucks unloading in high-volume pedestrian areas is a safety risk and needs to be carefully managed. The provision of on-site unloading facilities eliminates some of this risk.

Easing environmental impact

The current Australian Design Rule covering exhaust emissions is ADR 80/03, which became mandatory for trucks built after 1 January 2011. ADR 80/03 allows compliance of either EURO5, US EPA 2007 or Japan New Long Term 05 standards.

Euro 6 are the next generation of compliant trucks and are on sale in Australia. No formal decision has been made by the Australian Federal Government to mandate the more stringent emission standards of these trucks. Electric and diesel hybrid freight vehicles are also in production and are far quieter and cleaner than conventional diesel trucks. Quieter truck operation could see curfews lifted in noise-sensitive communities.

The City has the ability through local laws, the City Plan and development application processes to establish noise standards different to the Environmental Protection Act 1993. However a better understanding of the actual background noise and noise generated by delivery activities needs to be understood to manage the impact on other activities. A study will be undertaken to provide evidence to support the use of quieter vehicles in city centres and to extend delivery hours.

Prioritising safety

From a safety perspective it would be ideal to separate heavy freight road vehicles from other road users. However this is not always possible, particularly where heavy freight vehicle volumes are comparatively low. The identification of the freight network will allow the City to identify potential conflicts and solutions particularly with the City’s proposed cycle network and road safety black spot program.

The City Freight Plan actions provide opportunities to reduce and retime trips, and to improve the existing freight network and road infrastructure. This will benefit all road users including private vehicles, buses, taxis, cyclists and pedestrians. Education programs for road users on how to drive safely and share the road with heavy vehicles will assist in making city roads safer. They will include education on safety gaps between vehicles and longer stopping distances.

New technologies are providing other opportunities for safety including speed limiters, intelligent speed assistance technologies and semi-automated vehicle functions (like blind spot monitoring).

The Road Safety Plan includes a range of objectives and actions to support the safety of all road users and pedestrians. The actions proposed within the City Freight Plan will be aligned and delivered with consideration of the objectives of the Road Safety Plan.

15 The City’s proposed cycle network incorporates the South East Queensland Principal Cycle Network contained within the South East Queensland Principal Cycle Network Plan.
**CASE STUDY**

**International**

**Hybrid waste vehicles**

Ian Wright, co-founder of Tesla Motors, is presently developing a hybrid waste truck that uses an electric drivetrain. The electric motors provide 400 horsepower and enough torque to drive a fully laden vehicle up a 40 per cent gradient slope. The motors double as generators, capturing energy as the truck slows. As electric power is used up, a smaller turbine motor (similar to a jet engine) generates electricity to top up the battery. An overnight charge provides 35 kilometres of range before the turbine is activated. The trucks run on electricity 70 per cent of the time, and even with the turbine running, they are far quieter than diesel trucks.

**Consignity, Paris (France)**

Consignity is a new delivery service based on a network of out-of-centre collection sites with automatic lockers for pick up and deliveries. The automatic lockers are generally located in underground car parking areas. The system is based on three main concepts:

- a delivery in the absence of the receiver
- night time supply of depots
- the final consolidation of vehicle trips.

Stocklands Burleigh, has a new parcel collection point outside the building. This allows customers to collect parcels outside normal shopping centre operating hours. These collection facilities are likely to continue to appear across the city.

**Cityporto, Padua (Italy)**

Cityporto uses a freight distribution service using an urban consolidation centre (UCC) and a fleet of low-polluting vehicles. The 55 operators who joined the project deliver their goods to a dedicated logistics centre in Interporto Padova. The Cityporto service has a fleet of 10 low-impact vehicles to cover the last-kilometre in the most amenable conditions, (both in terms of loading capacity and number of delivery trips) using ITS technologies to support managing of the daily delivery plans.

Unlike other commercial vehicles, Cityporto vehicles are allowed to enter the city 24 hours a day; use reserved public transport lanes; and use dedicated loading bays for their load/unload operations. When the service began in 2005 approximately 190,000 parcels were delivered per annum. By 2008 this figure had doubled and today continues to grow. The Cityporto fleet has reduced the total amount of kilometres covered by freight vehicles and contributed to a reduction in pollutant emissions.

As the Gold Coast grows we need to support innovative ways to continue to service businesses, visitors and residents.

**Mobile waste transfer stations**

The concept of near-side consolidation can be reversed in the case of waste management.

The Gold Coast currently designates specific centres as waste precincts with a single waste collection contractor, thereby eliminating many trips by other operators into that centre.

All waste vehicles must currently travel up to Stapylton to unload when full. The journey of waste vehicles between their collection area and Stapylton to unload (and vice versa) results in a large volume of heavy vehicle trips up and down the M1 each day.

A mobile transfer facility close to centres could allow a conventional tandem-axle waste vehicle to transfer its load to a larger articulated vehicle for the trip to Stapylton, reducing the number of trips by smaller capacity vehicles up and down the M1 and the time waste vehicles need to access centres.
Customer service out-of-hours

West Burleigh business, Coastal Fresh, deliver whole and processed fresh fruit and vegetables to food retailers throughout South East Queensland.

With 10 trucks delivering fruit and vegetable to cafés, restaurants, resorts, clubs and pubs from Tweed Heads to Runaway Bay, Coastal Fresh Manager, Dave Bratina, said it has become increasingly difficult to service the busier locations on the Gold Coast.

“Traffic on the Gold Coast, particularly in places like Broadbeach and Surfers Paradise, is busier than ever and when delivering fresh food and vegetables, seven days a week, 363 days a year, we can’t afford to be held up and neither can our customers,” Mr Bratina said.

“To avoid traffic congestion, we now deliver a lot of our fruit and vegetables out-of-hours, mainly during the night, when the roads are a lot quieter and so our trucks are spending less time in transit to and from the depot.”

A family-run business spanning 20 years, Coastal Fresh has also invested heavily in state-of-the-art, climate controlled facilities to allow for the retrieval and storage of major consignments of stock, which are then stored, processed and distributed to their customers.
## Actions

Influencing operations to ensure the sustainability of the freight network.

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| 3.1 | Support industry to implement retiming initiatives by:  
  • consolidating and reporting learnings and actions from retiming trials to support future retiming of deliveries  
  • using the learnings to develop business legacy recommendations. | Provides the industry with information on the benefits of after-hours deliveries enabling the City to facilitate initiatives for the expansion of such deliveries. | 1 year |
| 3.2 | Analyse opportunities to remove delivery time restrictions for certain vehicles and certain locations, including the establishment of noise baselines, case studies, acceptable vehicle types and operational procedures and implementation options. This work will need to be undertaken in partnership with State and Federal governments. | Develops empirical evidence to support changes to perceptions of after-hours deliveries. With the adoption of new technologies it may be possible to service city centres without noise impacts. | 2-5 years |
| 3.3 | Undertake a study to identify suitable planning scheme zoning for near-centre consolidation and out-of-centre collection facilities. | Provides information to industry on potential locations and the number of freight vehicles trying to access centres during daytime hours. | Ongoing |
| 3.4 | In conjunction with industry, state and federal authorities, identify and investigate opportunities for and barriers to alternative last-kilometre delivery modes such as bicycles, scooters, small electric vehicles, drones and other alternatives. | Reduces the number of conventional freight vehicles accessing centres during peak periods. | Ongoing |
| 3.5 | Identify appropriate locations, design standards, operational hours and land uses that can support higher mass delivery vehicles (including on-site unloading areas). | Improves the safety of pedestrians, motorists and other road users by reducing freight vehicle movements in heavy traffic areas of city centres during daylight hours. | Ongoing |
| 3.6 | Ensure the review of the Road Safety Plan includes freight safety matters such as how other road users can safely share the road with freight vehicles and how freight vehicles can share the road with other road users. | Ensures all road users (including freight operators) operate vehicles safely (with consideration of one another) to reduce the risk of incidents. | 1-2 years |
The City will establish strong partnerships with the freight industry and assist where possible to bring increased efficiencies to the supply chains servicing the city.

Significant industry engagement and consultation has been undertaken during the development of this City Freight Plan and it is proposed this will continue as part of the City Freight Plan implementation phase.

Consultation was conducted with manufacturers, suppliers, logistics and receiving businesses, as well as industry agencies.

The feedback from the freight industry has been instrumental in moulding the priority actions outlined in this plan.

**Partnering with the freight industry**

The City is eager to continue building on the strong, positive momentum of industry engagement and to continue this relationship well into the future.

The feedback on the development of the City Freight Plan indicates that the stakeholder engagement process was successful and that the City was willing to listen to the freight industry.

It was recognised that increased congestion on major freight routes and in centres will not be managed by government alone. We must work in partnership with business/industry to find solutions.

The Austroads Research Report AP-R520-16 reflects opportunities for governments to successfully work with industry to specifically overcome barriers to off-peak movements of freight in urban areas. More generally, it covers the importance of a Freight Quality Partnership (FQP) or Road Freight Transport Management (RFTM) partnership to gain support for urban freight transport measures. It includes examples of FQP models from East Osaka, Japan, as shown in Figure 10. The FQP in Japan saw approximately 20 stakeholders meeting five times a year to discuss ways of tackling problems and finding solutions to freight issues.

Data sharing between industry, subject matter experts, other areas of government and the City will go a long way toward ensuring the policies and actions outlined in the City Freight Plan are successfully implemented. Positive and proactive partnerships, formed between the City and the freight industry, and between individual industry representatives, will further contribute to the success of the future freight task. The City will establish an ongoing reference group to continue working closely with industry and undertake targeted business/industry engagement on specific projects. To support the diversity of the city’s freight industry, meetings will alternate in location to allow easier access for industry to address relevant issues, including urban freight and heavy freight.

Many of the actions outlined in the City Freight Plan involve industry taking the initiative to trial innovative ideas. The City will work with businesses where possible to progress opportunities.

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16 Austroads Research Report AP-R520-16 (Austroads)
## Actions

Partnering with the Gold Coast freight industry to generate greater cooperation and efficiencies.

<table>
<thead>
<tr>
<th>No.</th>
<th>Action</th>
<th>Purpose</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Establish a freight reference group to partner with industry and enhance industry partnerships with each other to improve safety, environmental performance and economic efficiency and to reduce community impact from freight movements. The group will meet alternately in the north of the city and in the south to allow for meetings to address more specific localised issues.</td>
<td>Provides a forum where concerns of the industry, community and governments can be identified and addressed. The freight group is likely to be a subset of the original group consulted in preparation of this plan.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>4.2</td>
<td>Investigate opportunities for wider industry partnerships/collaboration to better manage freight movements and improve the City’s ability to monitor implementation of this plan across the Gold Coast.</td>
<td>Allows both government and wider industry to share data and together, to consider (and trial) initiatives to improve freight movements across the city.</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
| 4.3 | Work with wider industry and other government agencies to gather and share data. This will be both with industry under Action 4.1 but also with other bodies including the Port of Brisbane, TMR, Gold Coast Airport and related industries. | Provides the City with a better understanding of the freight task to:  
- assist parties to understand the quantum of freight movements across the city  
- enable the wider industry to work cooperatively to bring about greater sustainability of logistics. | Ongoing |
| 4.4 | Undertake targeted business/industry engagement on specific freight projects and programs where these may impact certain sectors or industries on an as-needed basis. | Ensures information is relevant to specific industries or locations. | Ongoing |

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Figure 10: Example of Freight Quality Partnership (East Osaka, Japan) Source: Taniguchi et al. (2012)
Implementing the plan

Monitoring and evaluation

To be effective, the City Freight Plan needs to be regularly monitored, reviewed and modified (if necessary) to reflect changing circumstances over time.

A monitoring program will be established to track progress towards:

- implementation of priority actions
- the achievement of strategic directions set out in the Transport Strategy.

The City Freight Plan outlines four priority strategies and associated actions to ensure the impact of freight-related trips on the city’s road network are mitigated.

The city freight network is road-based and the performance of the freight network will depend on the performance of the road network as determined by the Road Network Plan.

The key performance indicators (KPIs) of the Road Network Plan are:

- road user satisfaction levels
- traffic flows on primary routes
- origin/destination patterns of heavy vehicles
- traffic speeds on selected roads
- proportion of trips by mode of travel
- accident rates.

These KPIs will be periodically monitored and evaluated.

The City Freight Plan also depends on the implementation of actions from other transport implementation plans including the:

- Road Safety Plan
- Public Transport Plan
- Active Transport Plan
- City Parking Plan
- Travel Behaviour Change Plan.

Each transport implementation plan will benefit the freight industry. For example, reduction of private vehicles on city roads will reduce congestion and increase safety, which will expedite freight efficiency and lower cost to industry. However, the suite of strategies outlined in the City Freight Plan also attempts to influence the freight industry to try new, innovative ways of delivering freight. As such, some intangible benefits from industry initiatives will be difficult to monitor. We will, however, continue to work with industry and partners to determine appropriate indicators.

Rather than list another set of network performance targets on which to assess the City Freight Plan’s influence we will monitor the timely delivery of actions from each of the four priority strategies. We will also provide case studies from local industries on the financial, environmental and safety benefits of these actions along with feedback and input from the freight reference group.

The outcomes of this monitoring will be fed into the annual State of the Network report prepared to track the Transport Strategy’s implementation progress.

Funding and delivery

The City Freight Plan will be delivered through a range of City-led mechanisms and through investment by the public sector.

Annual transport capital and operational programs

The City’s Transport and Traffic Branch completes annual capital and operational delivery programs that contain 10 and four-year budget allocations to projects. Projects are subjected to a prioritisation process to ensure that improvements are delivered to areas of greatest need.

Gold Coast City Plan

The City Plan identifies new residential areas, promotes employment growth, provides for good transport connections and defines urban development areas. It contains code provisions for certain types of development to provide direct, safe and high-quality networks. The identification of the freight network within the City Plan, as well as locations for various freight-related initiatives, will contribute to the overall objectives of the City Freight Plan.

Partnering with industry and State on joint initiatives

Through effective partnerships and communication, opportunities will be sought to collaborate on joint initiatives where benefits can be realised across different organisations and functional areas.

City operations

The City Freight Plan cuts across City operational areas including traffic operations and the Traffic Management Centre, waste management, kerbside management, environmental management, land use and development planning. Each of these functional areas over the next decade will continue to review their specific policies, operations and implementation plans to contribute to the efficiency of our freight network.

Review

The City Freight Plan will feed into future reviews of the City Transport Strategy to support and manage freight and improve the operation of city freight networks. The City Freight Plan will be reviewed within five years of adoption.
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