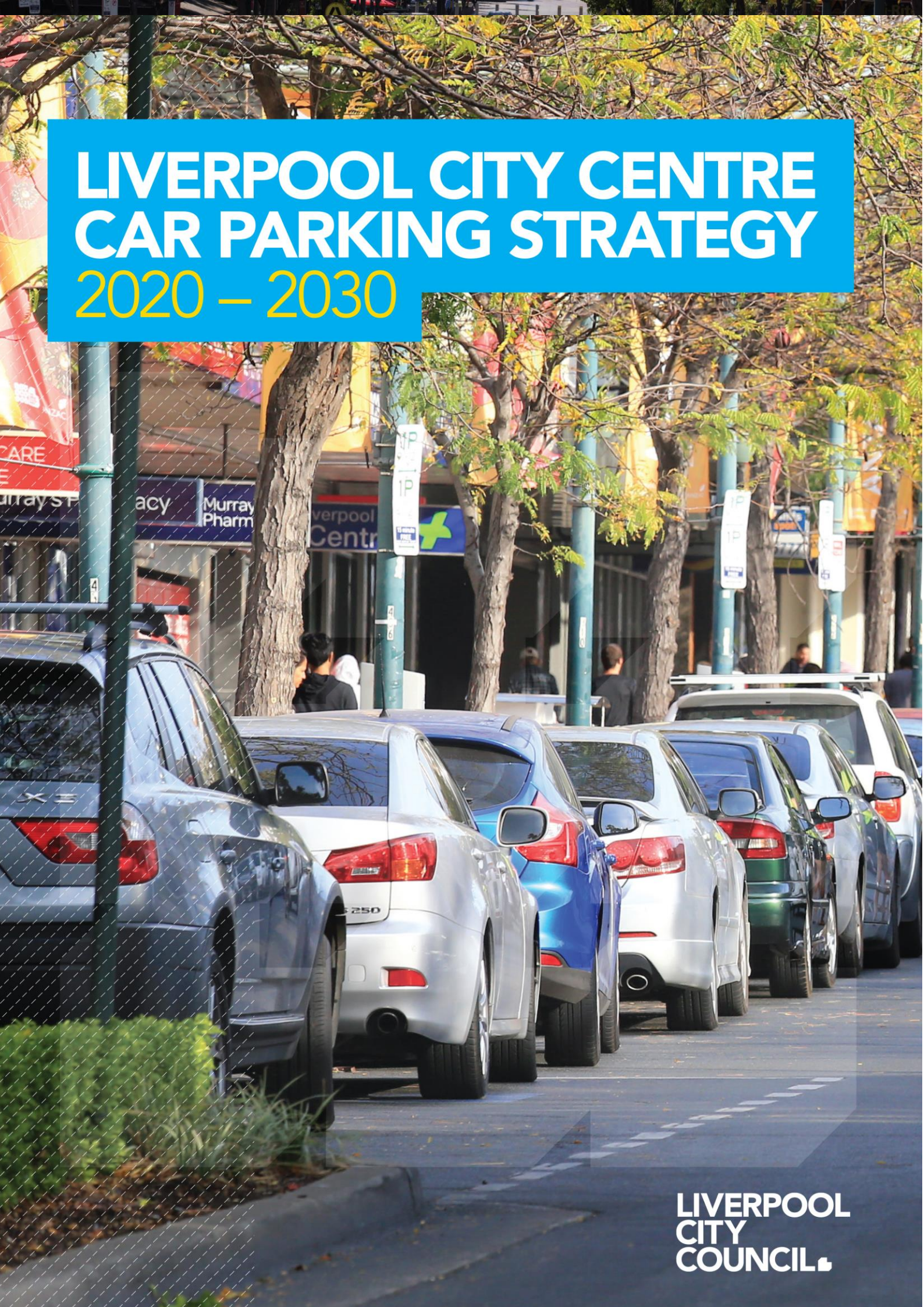


LIVERPOOL CITY CENTRE CAR PARKING STRATEGY 2020 – 2030



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AUTHORISED BY

The Liverpool City Centre Car Parking Strategy was authorised as a policy of Council by Council resolution on 26 February 2020.

EFFECTIVE FROM

The Liverpool City Centre Car Parking Strategy became an effective policy of Council on 26 February 2020.

DEPARTMENT RESPONSIBLE

The directorate and unit of Council that is responsible or accountable for the administration of the policy:
Planning and Transport Strategy

REVIEW DATE

This document is intended to be a live document that can be updated as conditions change, or as certain actions are completed. However, the policy must be reviewed at minimum, every five years. It must be revoked and replaced with a new strategy 10 years from its effective date.

Executive Summary

The Liverpool City Centre Car Parking Strategy outlines car parking provision and management measures within the Liverpool City Centre. In addition to outlining methods to increasing parking supply, the strategy demonstrates the need to provide residents and visitors with high-quality alternative travel choices, to reduce parking demand.

Since 2010, Council has adopted parking strategies and undertaken a number of projects to optimise parking in the Liverpool City Centre. Some of the notable examples are as follows:

- February 2010: Adopt Liverpool City Centre Car Parking Strategy;
- January 2011 - August 2012: Construction of Collimore car park (496 spaces);
- January 2012: Introduced parking meters in the city centre core;
- February 2013: Adopt Update Liverpool City Centre Car Parking Strategy
- March 2015: Refurbishment of the Northumberland Street car park, to extend building life;
- August 2015: Introduced a Residential Parking Permit Scheme;
- November 2019: Construction of additional parking at Whitlam Centre, Woodward Park;
- October 2019: Introduction of the 'Park n Pay' app in the city centre.

The Strategy is consistent and aligns with State Government policies, including the Sydney Region Plan, Western City District Plan, as well as Liverpool Local Strategic Planning Statement, which are used to inform the principles, objectives and actions of the strategy.

The Strategy objectives include optimising existing parking provision, providing new parking, improving parking signage, identifying funding sources, and development of benchmarks for public car parking management.

The Strategy includes ten deliverables designed to increase parking availability and provide a better customer experience for visitors to the Liverpool City Centre.

The deliverables include projects which Council has a commitment to deliver, including:

- Construction of a new multi-storey parking structure on the city periphery and identification of other suitable locations for additional parking;
- Investigation of opportunities to provide simplified parking signage easier to understand; and
- Provision of parking improvements consistent with the Liverpool City Centre Public Domain Master Plan.



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1. About the Strategy

The purpose of the Liverpool City Centre Car Parking Strategy (the Strategy) is to address and manage existing and future parking demand and supply in the Liverpool City Centre over the next 10 years.

The Strategy establishes a baseline of the city's parking environment, acknowledges current and future issues, and includes a Delivery Plan to manage these issues based on current research, land/funding availability, and planning principles.

The Strategy has been developed to:

- Improve the effectiveness of current parking provision;
- Seek opportunities to increase parking and repurpose existing parking where there is a benefit in doing so;
- Reduce the demand for parking where viable; and
- Suggest practical methods to increase capacity where warranted.

1.1 Principles

To ensure that the parking strategy does not undermine the intent of other policies and strategies, a series of fundamental principles have been developed. These are:

- P1. Optimise the capacity of short-term and long-term parking within the Liverpool City Centre.
- P2. Strike an appropriate balance between parking provision and demand for public space by ensuring that pedestrian priority and amenity is maintained on all streets.
- P3. Ensure that significant disruptions and decisions that may cause negative economic impacts on local businesses are minimised.
- P4. Provide an urban environment and transport network which provides for public and active transport choices to reduce parking demand.
- P5. Provide a clear, accessible car-parking environment.
- P6. Ensure adequate provisions are made for motorcycle, bicycle and mobility impaired users.
- P7. Ensure that management of parking responds to changing transport systems and services and is adaptable to disruption technologies such as car-sharing and Mobility as a Service (MaaS).
- P8. Align with other relevant NSW Government policies and Council strategies.

Mobility as a Service: Moving beyond focusing on infrastructure and assets, the future of mobility is customer-focused, data-enabled and dynamic. Personal mobility includes traditional 'modes' supplemented with technology platforms and new service offerings like on-demand, car share, rideshare and smart parking. (TfNSW, *Future Transport 2056*, 2018)

1.2 Strategic objectives

To fulfil the purpose of the Strategy, and in keeping with the principles, the following objectives have been identified:

- O1. Identify the appropriateness of providing increased car parking within the Liverpool City Centre.
 - i. Identify the theoretical and desirable parking capacity within the Liverpool City Centre to achieve best practice urban design, mode-shift and congestion reduction outcomes.
 - ii. Explore locations suited to an increase in on-street parking with angled parking.
 - iii. Advise on the best approach and preferred locations to accommodate a clustering of motorcycle parking areas to service this transport mode.
- O2. Further evaluate the concept of concentrating public parking on the fringe of the Liverpool City Centre, including complementary transportation, impacts on passing trade, effectiveness, and user acceptance of this approach.
 - i. Devise a project plan to implement this approach.
- O3. Provide parking infrastructure that responds to land use changes, population and economic growth in the Liverpool City Centre over the next 10 years.
 - i. To create a vibrant city centre which prioritises pedestrian amenity, maximises the productivity of the city, and makes the city centre a safe walking and cycling environment.
 - ii. To support public domain improvements, access to public open space and landscaping.
 - iii. Identify future trends in public transport and ensure that infrastructure is adaptable to be redeveloped for other uses if the demand for parking falls.
- O4. Improve parking accessibility (general and special needs) for shoppers, visitors, trades people and local businesses to support economic growth.
 - i. To increase the number of accessible parking spaces at key destinations in the Liverpool City Centre.
 - ii. To reduce parking demand and increase active transport and public transport mode share.
- O5. Explore and deploy smart parking technologies to support an efficient and innovative city centre
- O6. Provide a delivery framework to improve parking over the next 10 years, including a recommended number and location of car spaces.

1.3 The study area

The Strategy primarily focuses on the Liverpool City Centre as defined by the Liverpool Development Control Plan 2008 (outlined in Figure 1), as well as opportunities for commuter parking on the periphery of the city centre. The Liverpool City Centre is divided into three sub-precincts, the CBD core area (where most retail activity occurs), the public use precinct (dominated by schools and hospitals), and the non-core area which is predominately residential.

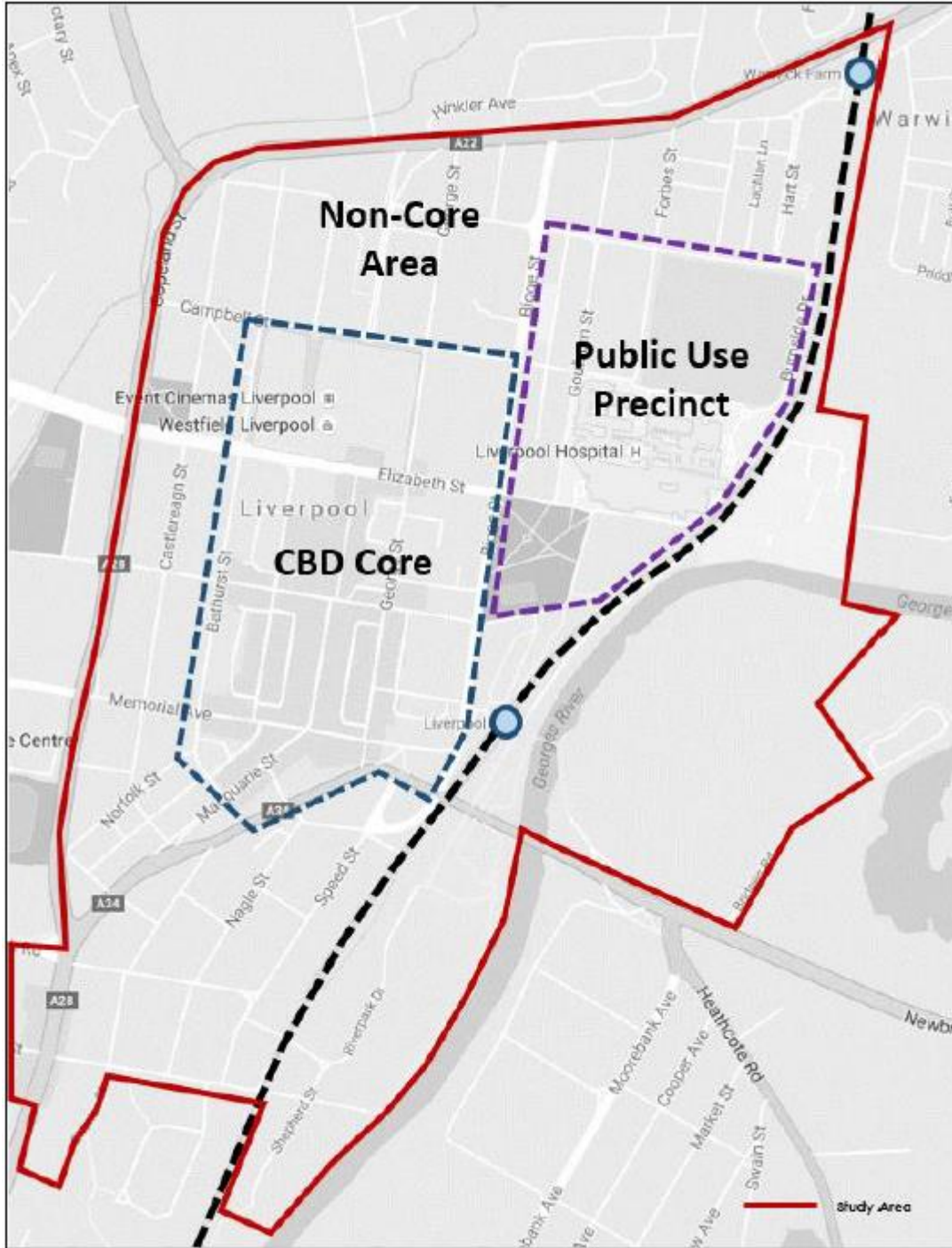


Figure 1: Study area – Liverpool City Centre

1.4 Related strategies and studies

The Strategy addresses endorsed Council strategies, State government policies, and other relevant information, including the following:

- Western Sydney City Deal;
- Future Transport 2056;
- A Metropolis of Three Cities – Sydney Region Plan;
- Western City District Plan;
- Liverpool Community Strategic Plan;
- Liverpool Local Strategic Planning Statement Connected Liverpool 2040;
- Liverpool City Centre Collaboration Area Place Strategy 2018;
- A Transport Strategy for Liverpool City Centre 2017;
- Liverpool City Centre Precinct Car Parking Strategy 2017;
- Liverpool City Centre Parking Strategy 2013;
- Liverpool City Centre Open Space Analysis Report (November 2018 Draft);
- Draft Liverpool City Centre Public Domain Master Plan; and
- Destination Management Plan 2019-2023.

Table 1 summarises links between State government policies and Council strategies; and specific actions in the Liverpool City Centre Car Parking Strategy.

Table 1: Consistency with key strategic plans

Strategy	Directives	Link to Actions/Deliverables
Metropolis of Three Cities: Greater Sydney Region Plan	<u>Objective 3:</u> Infrastructure adapts to meet future needs.	<p>A1: Provide a benchmark for the appropriate supply of public parking;</p> <p>A2: Improve and simplify parking signage;</p> <p>A3: Optimise existing on-street parking provision;</p> <p>A4: Investigate opportunities to move long-term parking to the City Centre periphery; and</p> <p>A8: Investigate and identify alternative uses for car parks.</p>
	<p><u>Examples:</u></p> <ul style="list-style-type: none"> - Design transport and infrastructure that responds to demand for use; - Promote digital technology to improve the provisions of services such as (commercial uses, storage, logistics hubs, depots or community uses) in the event that autonomous vehicles reduce the requirements for car parking. 	<p>D1: Public parking rate benchmarks;</p> <p>D2: Construct new car park at 68 Speed Street.</p> <p>D7: Collimore/Woodward Park carpark upgrades;</p> <p>D9: Dynamic parking guidance system;</p> <p>D10: Optimising usage of car parking spaces;</p>

Strategy	Directives	Link to Actions/Deliverables
	<p><u>Objective 4:</u> Infrastructure use is optimised.</p>	<p>A2: Improve and simplify parking signage;</p> <p>A3: Optimise existing on-street parking provision;</p> <p>A6: Review Council’s parking prices; and</p> <p>A7: Investigate all funding sources for additional parking in the City Centre.</p>
	<p><u>Examples:</u></p> <ul style="list-style-type: none"> - Adopting new technologies such as smart traffic management systems; - Changing user behaviours by flexible pricing and other policies; and - Developing and implementing travel plans to encourage the use of sustainable transport choices. 	<p>D2: Construct new car park at 68 Speed Street.</p> <p>D6: Review of car parking pricing and on-street free parking</p> <p>D9: Dynamic parking guidance system;</p> <p>D10: Optimising usage of car parking spaces; and</p>
	<p><u>Objective 12:</u> Great places that bring people together.</p>	<p>A2: Improve and simplify parking signage;</p> <p>A5: Investigate the potential for ride-sharing facilities in residential areas; and</p> <p>A8: Investigate and identify alternative uses for car parks.</p>
	<p><u>Strategy 12.2:</u></p> <ul style="list-style-type: none"> - Investigating opportunities for precinct-based provisions of adaptable car parking and infrastructure in lieu of private provision of car parking; - Ensuring parking availability considers the level of access by public transport; and - Incorporating facilities to encourage the use of car sharing, electric and hybrid vehicles including charging stations. 	<p>D2: Construct new car park at 68 Speed Street.</p> <p>D3: Introduce a car share scheme into Liverpool City Centre;</p> <p>D7: Collimore/Woodward Park carpark upgrades;</p> <p>D9: Dynamic parking guidance system;</p> <p>D10: Optimising usage of car parking spaces; and</p>
<p>Western City District Plan</p>	<p><u>Planning Priority W1:</u> Planning for a city supported by infrastructure.</p>	<p>A1: Provide a benchmark for the appropriate supply of public parking;</p> <p>A4: Investigate opportunities for long-term parking to be located at the periphery of the city centre; and</p> <p>A8: Investigate and identify alternative uses for car parks.</p>

Strategy	Directives	Link to Actions/Deliverables
	<p><u>Actions:</u></p> <ul style="list-style-type: none"> -Align forecast growth with infrastructure; -Sequence infrastructure provisions using a place-based approach; -Consider the adaptability of infrastructure and its potential shared use when preparing infrastructure strategies and plans; and - Maximise the utilities of existing infrastructure assets and consider strategies to influence behaviour changes, to reduce the demand for new infrastructure, including supporting the development of adaptive and flexible regulations to allow decentralised utilities. 	<p>D1: Public parking rate benchmarks;</p> <p>D7: Collimore/Woodward Park carpark upgrades; and</p> <p>D10: Optimising usage of car parking spaces.</p>
	<p><u>Planning Priority W7:</u> Establishing the land use and transport structure to deliver a liveable, productive and sustainable Western Parkland City.</p>	<p>A3: Optimise existing on-street parking provision; and</p> <p>A8: Investigate and identify alternative uses for car parks</p>
	<p><u>Actions:</u></p> <ul style="list-style-type: none"> -Designing adaptable infrastructure such as more flexible design of streets and public spaces, for example through car parking strategies. 	<p>D7: Collimore/Woodward Park carpark upgrades;</p> <p>D8: Provide angled parking;and</p> <p>D10: Optimising usage of car parking spaces.</p>
Liverpool Community Strategic Plan	<p><u>Direction 3:</u> Generating Opportunity.</p>	<p>A2: Improve and simplify parking signage; and</p> <p>A3: Optimise existing on-street parking provision.</p>
	<p><u>Community wants:</u> Improved traffic management.</p>	<p>D5: Provide simplified parking signage;</p> <p>D9: Dynamic parking guidance system; and</p> <p>D10: Optimising usage of car parking spaces.</p>
Liverpool Local Strategic Planning Statement:	<p><u>Planning Priority 1:</u> Active and public transport.</p>	<p>A1: Provide a benchmark for the appropriate supply of public parking.</p>



Strategy	Directives	Link to Actions/Deliverables
Connected Liverpool 2040	<u>Action 1.1:</u> Update the Liverpool City Centre Parking Strategy.	D1: Public parking rate benchmarks.

2. Background

Council has prepared and adopted the following parking strategies, since 2010:

- Liverpool City Centre Parking Strategy (adopted February 2010)
- Liverpool City Centre Parking Strategy (amended 26 June 2013)

In addition, as part of the 2017 Liverpool City Centre Traffic and Transport study, a 'Liverpool City Centre Precinct (LCCP) Car Parking Strategy Report' was carried out.

Implementation of the deliverables of the above strategies are outlined in Appendix B.

2.1 Initiatives undertaken

Council has successfully implemented the following demand management measures:

- **July 2010:** Introduced "Pay and Display" ticket parking in the Northumberland Street and Bathurst Street car parks
- **January 2011-Aug 2012:** Upgraded Collimore park to provide 496 parking spaces
- **January 2012:** Introduced parking meters (including ticketing via number plate recognition) on streets in the inner core for on-street parking, in the area bounded by Bathurst, Elizabeth, Bigge, Scott and Macquarie Streets, and Macquarie Street North to Lachlan Street
- **March 2015:** Refurbished the Northumberland Street Car Park to rectify structural issues and prolong its life
- **August 2015:** Introduced a Residential Parking Permit Scheme in suitable and defined parking zones close to homes
- **March 2019:** Resolved to increase the number of parking spaces within proximity of the Liverpool City Centre at 68 Speed Street and the Whitlam Leisure Centre at Woodward Park.
- **October 2019:** Collaborated with the NSW Government to introduce a 'Park n Pay' smartphone app which allows drivers to pay for parking and top up using their smart phones

2.2 Initiatives not completed

Some major car park infrastructure projects from previous strategies are yet to be completed, have been altered, or are no longer necessary. The proposed demolition of the Northumberland Street car park and construction of replacement parking on the same site (or in a new location) has not been undertaken as the car park was refurbished in 2015.

A multi-storey car park has yet to be constructed at Collimore Park. Council is in the early planning phase for this project, involving amendments to the Liverpool Local Environmental Plan (LLEP) 2008 to permit construction of a multi-level car parking building on the site. Subject to further investigation, it is also recommended that a multi-storey carpark is considered at Woodward Park in conjunction with any redevelopment of that site, with the Woodward Place master plan identifying suitable locations.

3. Current issues

To effectively manage parking in the Liverpool City Centre, the underlying factors surrounding demand must be understood. Most people travelling to the Liverpool City Centre by car, do so because of one or more of the following factors:

- It is convenient;

- It is faster than alternative transport modes;
- It is cheaper than using public transport;
- Amenity of using active transport is poor;
- The benefits of active transport are not realised;
- Travelling via public or active transport is not an option or too difficult;
- A mobility or other impairment makes travel other than by private vehicle not feasible;
- Perceptions of poor safety or feeling uncomfortable using active or public transport; and
- There is a perception of availability of parking (even if constrained).

The management of car parking supply and demand involves prioritising parking for users who require it the most and providing viable alternatives for others, whilst addressing the factors listed above.

3.1 Journey patterns

Travel patterns can assist in analysing whether areas have a car parking demand or car parking supply issue (or both).

Journey to work by location

Current Australian Bureau of Statistics (ABS) Journey to Work data indicates that approximately 37.8% of persons employed within the Liverpool LGA live within the Liverpool LGA. Of the remaining 62.2% of the workforce, many come from neighbouring LGAs (as shown in Figure 2) including:

- Campbelltown 10.9%
- Fairfield 10%
- Camden 6.3%
- Bankstown 6.0%
- Sutherland Shire 3.2%
- Penrith 2.8%
- Wollondilly Shire 2.2%

Residential locations of local workers by LGA, 2016

Liverpool City

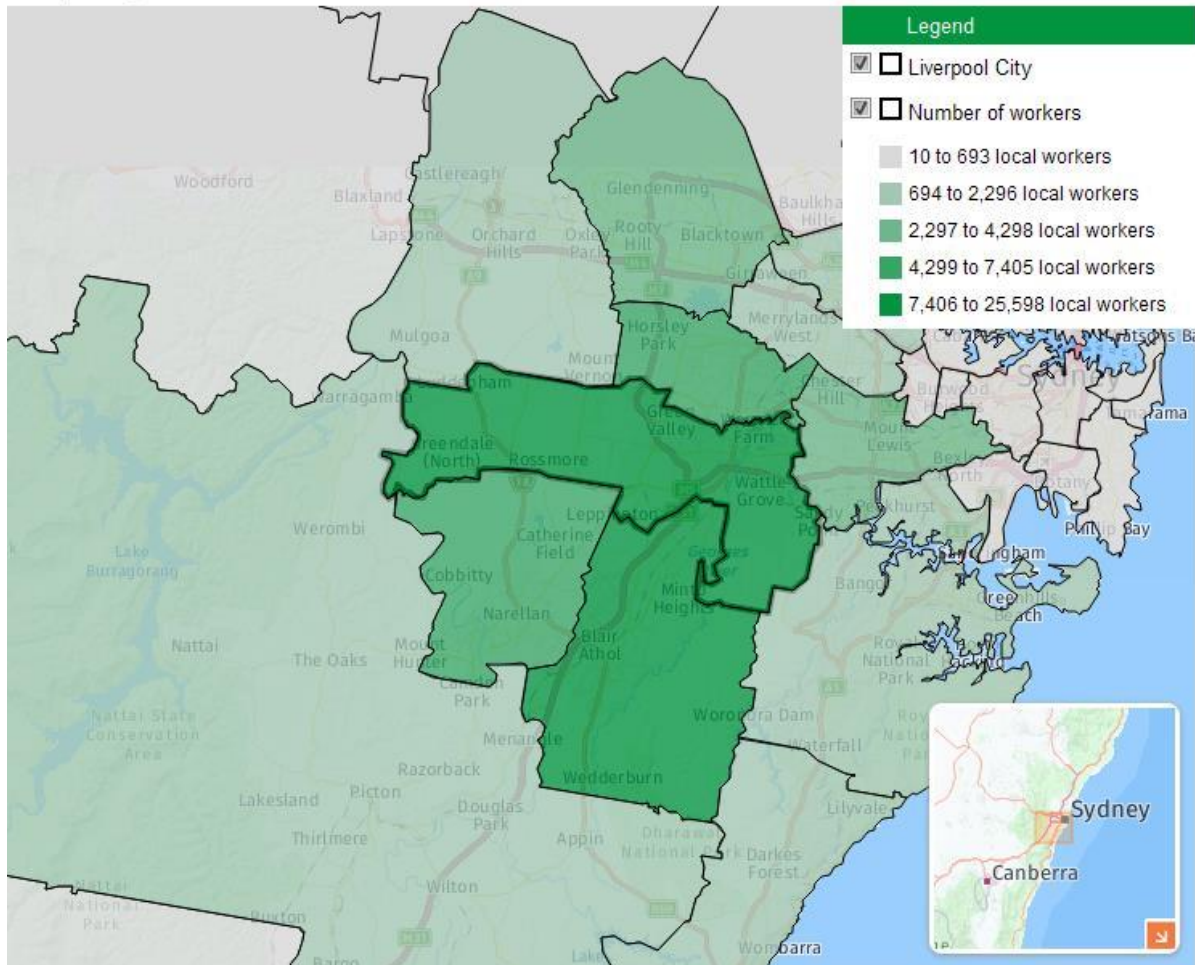


Figure 2: Residential location of workers working in the Liverpool LGA

Given that a large portion of Liverpool workers are travelling from urban areas within the LGA, or from neighbouring Council areas, it is reasonable to assume that a commute into the Liverpool City Centre by public transport would be possible. As such, it is important to also consider improvements to public/active transport to improve patronage and reduce parking demand and congestion.

Journey to work by mode

Data from the ABS reveals that approximately 73% of workers accessing the Liverpool City Centre are doing so via private vehicle. Approximately 11.5% of workers are using public transport and 3.5% are using active transport. Table 2 demonstrates that while the proportion of workers accessing the city by car (and presumably parking in the city centre) is lower than Fairfield, it is still higher than that of Parramatta, and substantially higher than that of the Sydney CBD. As Sydney's next CBD, the proportion of workers accessing the Liverpool City Centre by cars must steadily decline to provide for sustainable transport choices and to avoid further congestion in the Liverpool City Centre.

Table 2: Journey to work: Place of work

	Liverpool	Fairfield	Parramatta	Sydney
Travel Mode	Count (%)	Count (%)	Count (%)	Count (%)
Public Transport	2,251 (11.53)	399 (7.17)	18,445 (36.72)	227,512 (70.91)
Vehicle	14,268 (73.08)	4,585 (82.45)	24,628 (49.03)	43,212 (13.47)
Active Transport	701 (3.59)	101 (1.82)	2,076 (4.13)	21,708 (6.77)
Other Mode	45 (0.23)	33 (0.59)	119 (0.24)	1,136 (0.35)
Worked at home*	2,052 (10.51)	385 (6.92)	4,487 (8.93)	24,812 (7.73)
Mode not stated	222 (1.14)	63 (1.13)	470 (0.94)	2,456 (0.77)
Total	19,523	5,561	50,228	320,828

* Includes persons who stated they 'Did not go to work'. (Source: ABS, 2016, Journey to Work)

Data from the Warren Serviceway carpark

The Warren Serviceway carpark is a multi-storey parking facility located in the centre of the Liverpool City Centre on Warren Serviceway. It provides all day parking in the city centre for a fee of \$16.00/day or a 1-month pass can be purchased for \$130.00.

Operation of the car park includes the collection of the post codes of those who use it. The data is a small sample of commuters accessing the Liverpool City Centre and has been analysed to determine the distance and direction in which motorists are travelling. This data is tabulated below:

Table 3: Warren Serviceway data

Proximity to Liverpool	Direction of Travel to Liverpool				Total
	North	South	East	West	
Less than 1.5km	- (0%)	- (0%)	- (0%)	6 (2.6%)	6 (2.6%)
1.5 – 5 km	5 (2.2%)	1 (0.4%)	14 (6.2%)	30 (13.2%)	58 (25.6%)
5 – 10km or direct rail	4 (1.8%)	9 (4%)	13 (5.7%)	51 (22.5%)	77 (33.9%)
10km +	16 (7%)	39 (17.2%)	24 (10.6%)	15 (6.6%)	94 (41.4%)
Total	25 (11%)	49 (21.6%)	51 (22.5%)	102 (44.9%)	227 (100%)

- 2.6% of drivers using this parking facility are people who reside in the suburb of Liverpool.
- 25.6% of users live within a 5km radius of the Warren Serviceway Carpark.
- 33.9% of users live within 5 – 10km of the carpark.

While active transport will not be desired or viable for a large number of these users (those travelling over 5km), if high quality and frequent public transport is available, mode shift from private vehicles to public transport can become a reality.

The Sydney Region Plan, the Western City District Plan and the Liverpool Local Strategic Planning Statement contain objectives and actions to achieve a 30-minute city. Given that the average speed of

a Sydney bus (including stops) is 35km/h, 10km represents a catchment in which people can likely walk to a bus stop, catch a bus and reach their destination in about 30 minutes (provided the bus achieves these average speeds, and provided a bus stop is convenient to homes). Trains are substantially faster, so have a larger catchment.

To effectively manage car parking demand, more emphasis is needed on encouraging mode shift from cars to public transport.

3.2 Off-street parking

Approximately 10,500 car parking spaces are provided within the Liverpool City Centre. This includes 7,900 off-street spaces, including hospital spaces, Council-controlled facilities, and commercially operated facilities.

On-site observations indicate that current parking demands within off-street car parking areas is high, with facilities in the CBD core typically reaching capacity in the early morning (i.e. prior to approx. 10am).

Off-street parking numbers within the city centre and associated time restrictions and fees are summarised in Table 4.

Table 4: Total existing publicly accessible off-street parking supply

Number	Parking Station	Payment Method	Type of Restriction	Owner (Operator)	Supply** (No. of Spaces)
1	33 Moore Street	Paid	Permit Parking only	Liverpool City Council	51 ^[1]
2	Liverpool Plaza	Limited free parking, then paid parking	1.5-hour free parking, paid parking thereafter	Perpetual Trustee Company (Point Parking)	230
3	Westfield	Limited free parking, then paid parking	3-hour free parking, paid parking thereafter	Westfield	3438 (incl. 500 leased)
4	Norfolk Serviceway	Paid	1-hour limit	Liverpool City Council	26
5	52 Scott Street (Crunch Gym)	Limited free parking, then paid parking	2-hours free parking and fee thereafter	Liverpool City Council (Elders Real Estate)	179
6	Warren Serviceway	Paid	Unlimited	Liverpool City Council	640 (incl. 120 reserved spaces)

Number	Parking Station	Payment Method	Type of Restriction	Owner (Operator)	Supply** (No. of Spaces)
7	Northumberland Street	Limited free parking, then paid parking	2-hr ground floor All day Level 1 & 2, All day and 3-hour free Levels 3 & 4	Liverpool City Council	440
8	Bathurst Street (North)	Paid	3-hour limit	Liverpool City Council	240
9	Bathurst Street (South)	Free	2-hour limit (M-F) 1-hour limit (Sat)	Liverpool City Council	49
10	Collimore Park	Free	Unlimited	Liverpool City Council	496
11	Speed Street	Free	3-hour limit	Liverpool City Council	87
12	Warwick Farm	Free	Unlimited	Rail Corporation NSW	328
13	Liverpool Railway Station	Free	1-hour limit (15-min limit in peak times)	Rail Corporation NSW	124
14	Liverpool Hospital	Paid	Unlimited	NSW Health	324 ^[2]
15	Sydney Southwest Private Hospital	Paid	Unlimited	Healthscope Ltd (Wilson Parking)	87
16	Lighthorse Park	Free	Unlimited	Liverpool City Council	50
17	Whitlam Leisure Centre/Woodward Park	Free	Unlimited	Liverpool City Council	1051
Overall					7900 spaces

= Council-owned car parks
 = Privately owned car parks

** Information relating to parking supply dated as of 2019.

[1]A total of 274 spaces are provided at 33 Moore Street, with 223 spaces allocated to Council and UOW and 51 spaces available to the public (subject to parking permit).

[2]A total of 1343 spaces are provided at the Hospital on-site, with 1019 spaces allocated to Hospital staff and employees and 324 spaces available to the public.

The existing off-street parking spaces are considered to be generally satisfactory for their intended use (i.e. city or town centre parking).

Appropriate pedestrian amenity within the car parks is limited, typically with no separated paths between pedestrians and vehicles. In some instances, where internal stairs are not provided, pedestrians were observed to travel via the internal car park ramps to access/exit the car park.

A summary of the key off-street car parks are documented in Table 5.

Table 5: Summary of off-street car parking design issues

Car Park	Access points	Internal vehicle circulation	Pedestrian access	Recommendation / Comments
Bathurst Street	<ul style="list-style-type: none"> Main access provided from Northumberland Street via single two-way driveway Separate entry and exit provided from/to Bathurst Street 	<ul style="list-style-type: none"> Line marking to indicate circulation Signage outlining entry and exit points 	No dedicated pedestrian path	<ul style="list-style-type: none"> Parking demand at capacity Difficult to locate available parking easily Prime City Centre location with restricted access Recommend installing wayfinding signage to indicate multiple exit locations (e.g. "Exit via Bathurst Street/Exit onto Northumberland Street")
Warren Serviceway	<ul style="list-style-type: none"> Single driveway access off Warren Serviceway (via Bigge Street and George Street) Single egress into Warren Serviceway 	<ul style="list-style-type: none"> One-way internal circulation Reversed ingress/egress movements on lower ground floor Express exit lane 	No dedicated pedestrian path	<ul style="list-style-type: none"> Narrow internal ramps, difficult to circulate with larger vehicles Parking spaces are narrow Inconsistent wayfinding signage on approach
52 Scott Street (Crunch Gym)	<ul style="list-style-type: none"> Single 11.3m wide two-way driveway, with access off Terminus Street Boom-gate ticketed control upon entry and exit 		No dedicated pedestrian path	<ul style="list-style-type: none"> Poor public domain interface with Terminus Street

Car Park	Access points	Internal vehicle circulation	Pedestrian access	Recommendation / Comments
Northumberland Street	<ul style="list-style-type: none"> Four single one-way access points (two “in” and two “out”) Ground floor – one entry and one exit point Upper levels – one entry and one exit point 	<ul style="list-style-type: none"> One-way internal circulation Reversed ingress/egress movements within internal ramps Line marking to indicate “in” and “out” movement 	No dedicated pedestrian path	<ul style="list-style-type: none"> Parking spaces are narrow Poor visibility at exit (vehicle/pedestrian conflicts) Additional signage indicating vehicle circulation recommended
Collimore Park	<ul style="list-style-type: none"> Two driveway access points off Moore Street and Collimore Avenue 	<ul style="list-style-type: none"> Two-way circulation Several parking sections 	No dedicated pedestrian path	<ul style="list-style-type: none"> Low parking occupancy of disabled parking spaces Large area, multiple intersection points within car park – potential vehicle conflict points Tight turn around bends Occupies public open space Located in a residential neighbourhood

(GTA Consultants, 2017)

Expansion of existing multi-storey car parks

The expansion of existing multilevel car parking structures will need to account for the updated Australian Standard AS3600:2018 for concrete structures. This standard requires any modified multi-level car parking structures to be strengthened. Implementation of the Australian Standard has potential implications, as additional bracing could result in the removal of multiple existing car spaces.

For example, it was proposed to add two additional levels to the Warren Service Way car park, however modelling showed that around 100 existing car spaces would need to be removed as a result of strengthening work requiring to comply with AS3600:2018. The additional two levels were intended to provide for 160 parking spaces, therefore the loss of 100 spaces meant the upgrade was not considered to be viable. Due to the new standard requirements, the cost of providing additional spaces in an existing car park could be higher than the construction of a new car park.

3.3 On-street parking

Liverpool City Centre has approximately 10,500 car parking spaces including 2,600 on-street spaces. The majority of on-street car parking spaces are in high demand, with only isolated areas of moderate to low occupancies recorded in the south-eastern part of the city centre.

Parking observations indicate an existing demand of approximately 9,660 spaces during the typical weekday peak period (92% occupancy). This demand includes 2,230 on-street spaces (86% occupancy) and 7,900 off-street spaces (93% occupancy). (GTA Consultants 2017 and updated parking survey 2019)

Of the existing parking provision, a number of 'speciality spaces' exist and were observed to experience the following occupancies during the peak period as follows:

- Disabled: 37 spaces (97% occupied)
- Loading: 9 spaces (100% occupied)
- Mail: 1 space (0% occupied)
- No Parking (Police Excepted): 15 spaces (93% occupied)
- Taxi: 12 spaces (92% occupied)

(GTA Consultants, 2017)

Most parking areas within the city centre reach typical capacity by 10am. Existing peak parking demands generally comprise of people visiting retail shops, commercial and services precincts (including the library and hospitals). As a result, short-term parking is at a premium. This is exacerbated by allowing for all day parking within the city centre core.

Demand exceeding capacity results in excessive circulation for users attempting to locate a vacant space. All other modes of transport in the network are subsequently impacted by the increased traffic movements, which impacts traffic efficiency and the amenity of the city. Parking management intervention is required to manage existing demand for car parking.

Broadly, spaces closest to the CBD core are restricted to stays of one hour or less, with two-hour restrictions around the retail and services precincts and unrestricted parking provided in non-core and residential areas.

Existing car parking demands across the city centre are high, with an overall occupancy rate of 86% at peak times. This represents a typical demand of approximately 2,234 vehicles, with approximately 368 vacancies being available. *(GTA Consultants, 2017)*

It is noted that a large portion of these vacancies exist within the outer periphery of the city centre, generally within the non-core area which largely comprises residential land uses.

3.4 Parking permits

The purpose of a parking permit scheme is to provide a parking demand management mechanism for homes and businesses in the area during times of peak parking demand whilst minimising adverse impacts on commercial activities, particularly during peak business hours. It also serves to provide exemptions from parking restrictions.

Careful planning is required to ensure that applications for permits do not exceed car parking supply, and that any permits are only issued in extenuating circumstances (i.e. there are no off-street parking spaces in the vicinity).

3.5 Car park pricing

Like other major central business districts, paid parking in the Liverpool City Centre has fee structure for on-street and off-street parking.

The parking fees in Liverpool are much lower than the applicable fees in the Sydney CBD but are comparable to the Parramatta CBD fees.

Table 6 provides a comparison of the minimum and maximum parking fees for Parramatta CBD and Liverpool CBD Council controlled off-street and on street parking.

Table 6: Parking fare comparison

	Parramatta		Liverpool	
	Off Street	On Street	Off Street	On Street
Maximum all-day	\$26.00	\$9.50	\$16.00	N/A
Minimum all-day	\$14.00	\$8.00	\$11.00	N/A
Maximum per-hour	\$3.00	\$4.00	\$3.00	\$2.70
Minimum per hour	N/A	\$2.00	\$2.20	N/A

The parking fees are reviewed annually as part of Councils Revenue Pricing Policy. If required, the parking fee can be revised to moderate parking demand in the City Centre as part of an approach to encourage public and active transport. Such an approach will moderate traffic growth and support sustainable growth of the City Centre. Any fee changes will need to be balanced with the need to provide appropriate parking taking into consideration available transport.

Additionally, increasing parking fees also represents a tangible reflection of local policy and attitudes towards private vehicle travel and mode choice, prioritising amenity over vehicle movement and aligns Council policy with other state and district policies.

Council currently provides 15-minutes free on-street parking on the road sections with paid parking in the city centre. The free parking will be increased to 30 minutes to meet the needs of local business(s) and short-term visitors.

3.6 Wayfinding signage

Wayfinding signage is located along key roads to provide directional guidance for motorists to major off-street car parking areas within the city centre, as shown in Figure 3.

It is noted that wayfinding signage for privately operated off-street car parks has not been reviewed i.e. Westfield Shopping Centre, Liverpool Plaza and Hospital etc.



Figure 3: Existing wayfinding signage locations to key off-street car parking areas (Council Owned)

While the broad strategic location of wayfinding parking signage (as nominated in Figure 3) is generally considered satisfactory, the adequacy of specific sign placement is investigated further in Table 7. Another notable issue is the consistency of the design of wayfinding signage. Signs should be coordinated with similar styles and colours so that they are easily recognisable.

Table 7: Existing car park wayfinding signage

Photograph	Car Park (CP)	Issue/Status
	<p>Bathurst Street CP via Bathurst Street access</p>	<p>This sign is located just before a traffic signal and may block motorists' view of the signal on approach.</p>
	<p>Bathurst Street CP via Northumberland Street access</p>	<p>There is relatively little advanced warning of this car park.</p>
	<p>Liverpool Plaza & Northumberland Street CPs</p>	<p>Multiple off-street car parks have been included on the sign. This may cause some confusion for motorists who are not familiar with the area.</p>
	<p>Liverpool Plaza & Bathurst Street & Warren Serviceway & Northumberland Street</p>	<p>Similarly, multiple parking locations have been included in the wayfinding sign, which may cause confusion for motorists unfamiliar with the area.</p>

Photograph	Car Park (CP)	Issue/Status
	<p>Warren Servisway CP</p>	<p>Sign is difficult to see due to the presence of an existing tree on Bigge Street.</p>
	<p>Northumberland Street CP</p>	<p>Wayfinding sign is not made apparent due to the significant signage clutter on this post, particularly due to the sign positioned in conjunction with two larger road signs.</p>
	<p>Liverpool Plaza, Warren Servisway & Northumberland St CPs</p>	<p>Multiple parking locations have been included in the wayfinding sign, which may cause confusion for motorists unfamiliar with the area.</p>
	<p>Northumberland Street CP</p>	<p>Sign is located on the opposite side of the street to the carpark entry, despite being a one-way street.</p>

(GTA Consultants, 2017)

4. Future Issues

4.1 Growth of Liverpool

The Liverpool City Centre is positioned as Sydney's third CBD - an active and mixed-use city. Significant development opportunities are now being taken up for high rise commercial and mixed-use developments, including the redevelopment of the Westfield Liverpool shopping centre.

The Western City District Plan has also identified the Liverpool City Centre as a Health, Research and Education Precinct. The University of New South Wales has had a teaching presence at Liverpool Hospital for 30 years, and the University of Wollongong and Western Sydney University have established campuses in the City Centre and will continue to grow.

Future Transport 2056 (Transport for NSW) has identified a number of public transport upgrades over the next 20 years and beyond, to encourage increased public transport use and to reduce private vehicle dependency, including the following:

- Express train services between the Liverpool City Centre and the Sydney CBD and beyond;
- The Sydney Southwest Metro extension from Bankstown to Liverpool;
- A rapid bus route between the Liverpool City Centre and the Western Sydney (Nancy-Bird Walton) International Airport (WSIA);
- A safe cycleway network between 10km of Greater Penrith, Liverpool, Campbelltown-Macarthur and Western Sydney Aerotropolis; and
- The Leppington to Western Sydney Aerotropolis and Western Sydney Aerotropolis to Campbelltown-Macarthur train links.

A business-as-usual approach that provides for all parking to meet demand linked to forecast growth will limit the achievement of broader objectives for a liveable, vibrant, innovative, accessible and green city centre.

4.2 Land use and parking supply

The current B4 Mixed Use zoning within the Liverpool City Centre is expected to generate an increase in development within the city centre as follows:

Table 8: Future land uses

Land Use	Retail	Commercial	Residential
Existing	68,054 m ²	146,915 m ²	5485 dwellings
Future	107,788 m ²	322,177 m ²	12,385 dwellings
Difference	+39,734m²	+175,262m²	+6900 dwellings

(Greater Sydney Commission, 2017)

Given the projected future development yields within the Liverpool City Centre, car parking supply is also expected to increase dramatically under a business-as-usual approach. The estimated existing and future parking supply within the city centre is summarised in the table below:

Table 9: Future parking demand

Land Use	Parking Rate	Minimum Parking Requirements		Net Difference (Future – Existing)
		Existing	Future	
Retail	1 space per 100m ²	681 spaces	1078 spaces	+397 spaces (58%)
Commercial	1 space per 150m ²	980 spaces	2148 spaces	+1168 spaces (119%)
Residential	<ul style="list-style-type: none"> ○ 0.4 spaces per 1-bedroom ○ 0.7 spaces per 2-bedroom ○ 1.2 spaces per 3-bedroom ○ 1 space per 7 units (visitor parking) 	3664 spaces	10,775 spaces	+7111 spaces (194%)
Total		5325 spaces	14,001 spaces	+8676 spaces (163%)

For the purpose of estimating parking supply, residential parking rates have been assumed based on high density residential development with an apartment mix of 10% 1-bedroom, 80% 2-bedroom and 10% 3-bedroom or more.

Parking rates for non-residential uses have been based from the Liverpool LEP 2008, with residential uses based off the Roads and Maritime Services' Guide to Traffic Generating Developments

Taking into consideration the above parking rates within the city centre, parking supply is expected to increase by 163%.

The modelling above has not considered the impacts of increased parking on the amenity and congestion on local streets in Liverpool, rather it highlights a substantial increase in off-street parking that will be provided in the Liverpool City Centre under current policy settings.

4.3 Collaboration Area

The Greater Sydney Commission has adopted a Place Strategy for the Liverpool Collaboration Area which includes the Liverpool City Centre. It is estimated that the Liverpool Collaboration Area will cater for approximately 18,800 additional dwellings.

4.4 Liverpool Civic Place

Located at 52 Scott Street, Council's proposed mixed-use Liverpool Civic Place development will anchor and activate the southern end of Liverpool City Centre by providing new public spaces, community facilities and job opportunities. Liverpool Civic Place will include:

- A 24-level mixed-use tower combining commercial, retail and educational spaces
- A nine-level 126 room hotel or student accommodation building
- New council offices
- A new 5,000sqm city library

The site will provide 285 car spaces (of which, approximately half would be used for Council staff / vehicles during business hours).

4.5 Technology impacts

Technological advances in parking guidance technology have improved the ability for car parking users to be matched with available spaces, therefore reducing the gap between car parking demand and perceived supply. Dynamic signage and in-ground sensors can guide users to vacant spaces and reduce circulation. New technologies such as number plate recognition in Westfield Liverpool shopping centre will increase the efficiency of vehicles entering and exiting the car park. Phone based parking apps can also help users to identify places to park and view costs.

Some operators enable users to view the availability of parking, pay for parking, or pre-book a space via an app before the user leaves their point of origin. The data collected from smart technologies can provide parking operators with the information they need to optimise the use of their space, and reduce customer frustration, and aligns with principles of Mobility as a Service.

4.6 Demand for recreational areas

As the population within the city centre increases, the location of recreational areas will need to be considered in conjunction with the location of any proposed car parking. Car parking spaces should not impede upon existing recreational areas such as public open space and other areas where people congregate. Parking spaces should be adaptable to meet the increased demand for open space and ensure that they can also be used to host various events when needed. Opportunities should be undertaken to incorporate public open space into any new parking structures (i.e. roof top open space on multi-deck parking).

4.7 Public Domain Masterplan

The Liverpool City Centre Public Domain Master Plan outlines a ten-year plan of improvements for the public domain (streets, plazas and service ways) across the city centre. The plan specifies improvements to encourage pedestrian movements into and out of the city centre, with improved pedestrian pavements, improved connectivity, additional shade through street trees and vegetative separation along busy thoroughfares. Additionally, improved bicycle infrastructure will encourage mode shift, particularly for short distance journeys within and into the city centre.

The master plan has been developed collaboratively to ensure proposed outcomes align with community needs. Study findings of the Liverpool City Centre Traffic and Transport Study (2017) have been considered in the development of the master plan. Accordingly, any parking initiatives within the city centre should not compromise the implementation of the masterplan.

4.8 Potential redevelopment of key sites

Council is considering potential redevelopment options at a number of key sites in the city centre. These include:

- Council owned car parks at Northumberland and Bathurst Street
- Liverpool Train Station and Bus Interchange
- Liverpool City Library and Council Administration Building - 33 Moore Street
- Liverpool Civic Place

Although substantial plans have yet to be prepared for some of these sites, parking would need to be reorganised to accommodate any proposed land use changes. Any potential redevelopment should not result in the net loss of parking spaces in the city centre.

5. Actions

For this Strategy to be successful, it must manage parking demand by creating additional capacity where appropriate and reducing demand through mode shift to active and public transport. The Strategy proposes eight actions as follows:

Table 10: Actions

	Action	Description
A1	Provide a benchmark on the appropriate supply of public parking	A benchmark is to be developed to determine how much public car parking should be supplied by Council in the Liverpool City Centre.
A2	Improve and simplify parking signage	Improve signage for parking in the Liverpool City Centre to reduce confusion and the number of drivers circulating local streets in search of parking.
A3	Optimise existing on-street parking provision	Increase the availability of on-street parking by utilising methods to increase turn-over. Investigate a range of methods to reduce demand and increase supply if warranted.
A4	Investigate opportunities for long-term parking to be located at the periphery of the city centre	Investigate suitable sites for long-term car parking, to allow City Centre core parking to be repurposed for short-term parking or other suitable purposes.
A5	Investigate the potential for ride-sharing facilities in residential areas	Work with a car-share operator to carry out a service trial in the Liverpool City Centre and develop a guideline to establish the services. The guidelines will include the approval process to allocate parking spaces for car-share service and applicable fees.
A6	Review Council's parking prices.	Council reviews parking prices as part of its annual review of Fees and Charges to manage demand whilst respecting social equity.
A7	Investigate funding sources for the provision of additional parking in and around the city centre;	Identify the source of funding for all projects, including user pay systems, development contributions, grant funding, general revenue, or redevelopment opportunities. Funding of parking must assess whole-of-life costs including construction, maintenance, demolition/conversion to other uses and the cost of doing nothing.
A8	Investigate and identify alternative uses for car parks	Investigate and prioritise opportunities for parking infrastructure to cater for multiple user groups, are adaptable to pop-up/temporary events, and which provide for other public benefits in addition to parking.



A9	Investigate the provision of additional parking in the city centre	Investigate for additional parking in the city centre, to cater for increasing short term car park demand
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6. Delivery Plan

To fulfil the actions above, Council will need to explore a number of options to reduce demand, increase appropriate supply and consider other projects which will assist in addressing parking issues. The deliverables identified below represent individual projects which can address one or more of the actions above, whilst noting how they relate to the strategic objectives and actions identified in the Strategy.

A summary of the Delivery Plan can be found in Appendix A.

D1: Public parking rate benchmarking

Link to Actions

A1: Provide a benchmark for the appropriate supply of public parking.

A4: Investigate opportunities to move long-term parking to the city centre periphery.

A7: Investigate all funding sources for additional parking in the city centre.

Link to Strategic Objectives

O1: Identify the appropriateness of providing additional parking within the Liverpool City Centre.

O3: Provide parking infrastructure that responds to land use changes, population and economic growth in the centre over the next 10 years.

O4: Improve parking accessibility (general and special needs) for shoppers, visitors, trades people and local businesses to support economic growth.

O6: Provide a delivery framework to improve parking over the next 10 years, including recommended number and location of car spaces.

Project Objectives

- To provide a numerical benchmark for the provision of public car parking spaces to support businesses and other uses in the City Centre.
- To provide guidance for additional car parking provision to facilitate economic development

Project Description

Liverpool City Council has an ambitious goal of becoming Sydney's third CBD. The Liverpool Local Environmental Plan includes parking rates that new development must comply with. Alternatively, a developer may propose a monetary contribution to Council for the provision of parking elsewhere in the city centre.

To provide the optimal amount of public car parking in the Liverpool City Centre, a benchmark must be developed, by using current research on the supply and demand of public parking (for short-term and all-day parking) in modern, vibrant city centres.

The benchmarking would consider and recognise:

- How other similar cities are responding to pressures to increase available public parking, particularly given some historic developments did not provide parking or cannot accommodate parking on-site.
- The source of public parking demand (such as the hospital, commuters, and retail premises which cannot provide parking), the mobility of the local population, and availability of alternate transport modes.
- Constraints in the regional road network and how additional parking facilities within the city centre will impact the efficiency of the road network.

The benchmark can be utilised to determine the number of public parking spaces which Council needs to provide to meet existing and future parking demands.

Project Timeline

2020-2021

D2: Construct car park at 68 Speed Street

Link to Actions

A4: Investigate opportunities for long-term parking to be located at the periphery of the city centre.

A7: Investigate all funding sources for additional parking in the city centre.

A8: Investigate and identify alternative uses for car parks.

Link to Strategic Objectives

O2: Further evaluate the concept of concentrating public parking at the outer fringe of the city centre.

O3: Provide parking infrastructure that responds to land use changes, population and economic growth in the centre over the next 10 years.

O4: Improve parking accessibility (general and special needs) for shoppers, visitors, trades people and local businesses to support economic growth.

Project Objectives

- Increase parking availability at the southern end of the city centre.

Project Location

68 Speed Street, Liverpool

Project Description

Demolish an existing disused community facility and construct an at-grade carpark comprising of approximately 75 car spaces.

Project Costs and Considerations

Approximately \$450,000-\$500,000.

Project Timeline

2020-2021



D3: Introduce a car share scheme into Liverpool City Centre

Link to Actions

A5: Implement car-share services

Link to Strategic Objectives

O1: Identify the appropriateness of providing additional parking within the Liverpool City Centre.

O3: Provide parking infrastructure that responds to land use changes, population and economic growth in the city centre over the next 10 years.

O4: Improve parking accessibility (general and special needs) for shoppers, visitors, trades people and local businesses to support economic growth.

O5: Explore and deploy smart parking technologies to support an efficient and innovative city centre.

Project Objectives

- Encourage Mobility as a Service (MaaS).
- Reduce the demand for parking and car ownership in the city centre.
- Promote alternate transport options for residents within the city centre by reducing motor vehicle ownership/dependence.
- To encourage public and active transport use and facilitate interaction facilitating cohesive residential communities.

Project Location

Liverpool City Centre

Project Description

Council will work with car-share operators to trial car-sharing services within the Liverpool City Centre. The initial trial includes 10 new locations on streets in the City Centre.

Council will review usage of car-share services at the trial locations to monitor demand and ensure that the services meet the community's needs.

Once the trial is completed, Council will develop a Car-share Service Guide to establish the approval process to allocate parking spaces for car-share service and applicable fees.

Project Costs and Considerations

There is no cost to Council for the car-share service trial.

Car-share operators will bear costs associated with converting regular spaces to car share spaces (painting and signage).

Council may need to revise its parking permit policy as a result of implementation and develop a Car-share Service Guide for on-going operation of the service and applicable fees.



Project Timeline

2020-2021

D4: Identify a location within 100m of Liverpool train station, for a carpark

Link to Actions

A7: Investigate all funding sources for additional parking in the city centre

A9: Investigate for the provision of additional parking in the city centre.

Link to Strategic Objectives

O3: Provide parking infrastructure that responds to land use changes, population and economic growth in the centre over the next 10 years.

O4: Improve parking accessibility (general and special needs) for shoppers, visitors, trades people and local businesses to support economic growth.

Project Objectives

- Increase parking availability in the Liverpool City Centre.

Project Location

Liverpool City Centre

Project Description

Identify a location within 100m of Liverpool train station, for a carpark, if Pirie Street cannot be closed to accommodate a future car park

Project Costs and Considerations

Investigations - approximately \$50,000.

Project Timeline

2020-2021

D5: Provide simplified parking signage

Link to Actions

A2: Improve and simplify parking signage.

Link to Strategic Objectives

O5: Explore and deploy smart parking technologies to support an efficient and innovative city centre.

O6: Provide a delivery framework to improve parking over the next 10 years, including recommended number and location of car spaces.

Project Objectives

- Provide simple parking restriction signs within the Liverpool City Centre
- Reduce driver frustration.
- Provide signage that is consistent in design with other signage in the Liverpool City Centre

Project Location

New signage would need to replace all existing wall and pole mounted signs.


Project Description

Many motorists and residents can be confused by standard parking restriction signage. This can lead to vehicles parked in areas that are prohibited, causing congestion and/or dangerous road conditions. Visitors are also fined when parking contrary to these regulatory signs, some of which could be avoided by replacing such signage with clearer directions. Beginning in Los Angeles, several cities have begun using clearer and easier to understand signs.



PARKING SCHEDULE			
	M-F	SAT	SUN
7am	FREE	FREE	FREE
8am	Ⓡ	1 HR	
9am	1 HR		
4pm	Ⓡ		
7pm	FREE		
8pm		FREE	

(Source: nikkisylianteng.com)



It is recommended that signage design be considered as part of the Liverpool City Centre Public Domain Master Plan. However, due to current regulations, the simplified signage could only be used in conjunction with the current regulatory signage and cannot replace the existing signs. Continued advocacy to allow new signage should be explored.

Project Costs and Considerations

The costs associated with implementation of simplified parking signage is estimated to be approximately \$10,000 (assumes 400 signs throughout the city centre). The signs should be consistent with the Liverpool City Centre Public Domain Master Plan, and consideration should be given to collaborating with TfNSW to permit such signs in Liverpool.

Project Timeline

2020-2022

D6: Review of car parking pricing and on-street free parking

Link to Actions

A1: Provide a benchmark for the appropriate supply of public parking.

A3: Optimise existing on-street parking provision.

A4: Investigate opportunities to move long-term parking to the city centre periphery.

A6: Review Council's parking prices as part of Council's annual review of Fees and Charges.

A7: Investigate all funding sources for additional parking in the city centre.

Link to Strategic Objectives

O1: Identify the appropriateness of providing additional parking within the Liverpool City Centre.

O2: Further evaluate the concept of concentrating public parking at the outer fringe of the city centre.

O3: Provide parking infrastructure that responds to land use changes, population and economic growth in the city centre over the next 10 years.

O4: Improve parking accessibility (general and special needs) for shoppers, visitors, trades people and local businesses to support economic growth.

O5: Explore and deploy smart parking technologies to support an efficient and innovative city centre.

Project Objective

- Ensure parking pricing manages parking demands in the city centre.
- Provide an evidence-based approach to identify a minimum parking charge required to recover Council's costs while catering for competitive public transport pricing.
- Find a balance between meeting the community's expectations regarding parking prices and using prices to increase turnover of parking spaces while encouraging mode-shift.

Project Location

On-street and off-street parking areas in Liverpool City Centre.

Project Description

A review of current parking prices for on street and off-street parking areas. The review will set up a short to long-term pricing framework which guides Council's set up for parking fees over the next 10 years.

Council will review and increase 15 minutes free parking to 30 minutes along some streets in the City Centre.

Project Costs and Considerations

While there is no direct cost to Council in reviewing parking prices, there may be secondary costs if patronage reduces due to prices increase, or reduced income should prices decrease significantly.

Consideration should be given to how this will align with Council's Parking Permit Policy, contributions plan and other funding mechanisms.

Project Timeline

2020-2025

D7: Collimore/Woodward Park carpark upgrades

Link to Actions

A4: Investigate opportunities for long-term parking to be located at the periphery of the city centre.

A7: Investigate all funding sources for additional parking in the city centre.

A8: Investigate and identify alternative uses for car parks.

Link to Strategic Objectives

O2: Further evaluate the concept of concentrating public parking at the outer fringe of the city centre.

O3: Provide parking infrastructure that responds to land use changes, population and economic growth in the centre over the next 10 years.

O6: Provide a parking improvement delivery framework, to guide Council to carry out parking improvement works over next 10 years.

Project Objectives

- Provide long-term parking outside of the city centre in at-grade or multi-storey car parking facilities.
- Improve accessibility to the city centre from satellite parking facilities via upgraded pedestrian and cycling infrastructure and a permanent shuttle bus.
- Ensure that the quality of existing public open space and other elements of the public domain is not decreased but enhanced.
- Maintain residential amenity.

Project Location

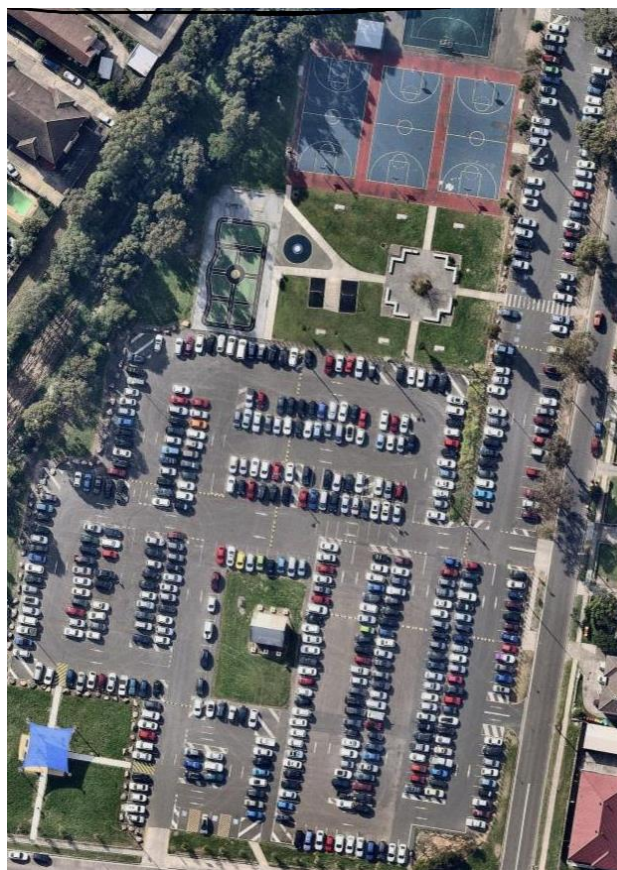
Collimore Park is located to the west, outside of the city centre, and is bounded by Elizabeth Drive, Collimore Avenue, Moore Street, and Brickmakers Creek.

Woodward Park is located to the west, outside of the city centre, and is bounded by Memorial Avenue, the Hume Highway, Hoxton Park Road and the T-way

Project Description

Establish a multi-deck car park at Collimore Park and/or Woodward Park to provide all-day parking for city centre employees and university students, in addition to providing timed parking for motorists who attend appointments in the medical precinct.

The present at-grade car park in Collimore Park provides a total of 496 spaces, including (9) nine accessible parking spaces.



The potential for Woodward Park to accommodate additional commuter parking is another option, as the site is currently subject to a master planning exercise. The park currently includes the Whitlam Centre, several sporting fields, and car parking.

Project Costs and Considerations

The cost of a single at-grade parking bay (including costs for drainage, circulation space, design, etc.) is approximately \$6000; this rises to \$30,000 for above ground facilities or \$60,000 per bay for basement parking. As such, an additional 1000 spaces on Collimore Park or Woodward Park would likely cost approximately \$30 million. This does not include operational costs.

Council's contributions plan currently has approximately \$6 million allocated for city centre parking improvements. Part of the construction costs could be derived from development contributions, although these funds are also committed to projects such as the Speed Street car park and improvements at Woodward Park. Council would likely need to source additional funding from general revenue. User-pay systems could be provided to cover the costs of operation and potentially offset costs of construction. A revised contributions plan for the city centre may be required to raise additional funds.

The parking facilities at Collimore Park and Woodward Park are located on land that is zoned for public open space. There is a Council resolution and planning proposal to facilitate the construction of a multi-level parking facility at Collimore Park. Several Council events and sporting clubs utilise Woodward Park on weekends, which generates demand for parking. The site is bound by heavily trafficked roads such as the Hume Highway and Hoxton Park Road.

Whilst located near the city centre, construction of a multi-storey carpark at Collimore Park will concentrate additional traffic on residential streets, as accessibility into Collimore Park is severely restricted by turn-bans from the Hume Highway and Elizabeth Drive. Woodward Park has more opportunities to cater for alternative users, given weekend demand, compared to Collimore Park, and has better access to higher-order streets, reducing traffic movements on residential streets. Integration of a commuter car park on this site in association with a broader masterplan may result in no net loss of open space whilst providing additional parking and the potential for better connectivity to the city centre via a pedestrian bridge.

Project Timeline

2020-2025

D8: Investigate further opportunities to provide angle parking

Link to Actions

A3: Optimise existing on-street parking provision.

A7: Investigate all funding sources for additional parking in the City Centre.

A8: Investigate and identify alternative uses for car parks.

Link to Strategic Objectives

O1: Identify the appropriateness of providing additional parking within the Liverpool City Centre.

O3: Provide parking infrastructure that responds to land use changes, population and economic growth in the centre over the next 10 years.

O4: Improve parking accessibility (general and special needs) for shoppers, visitors, trades people and local businesses to support economic growth.

O6: Provide a delivery framework to improve parking over the next 10 years, including recommended number and location of car spaces.

Project Objectives

- Indicate where angled car parking bays can be located in accordance with the City Centre Public Domain Masterplan and car parking rate benchmarks.

Project Location

Streets within the Liverpool City Centre

Project Description

The Liverpool City Centre is generally devoid of angled parking bays, except for the portion of Macquarie Street north of Westfield. Angled parking, where the carriageway is sufficiently wide, provides a higher parking capacity than parallel parking and cars can more quickly enter or exit spaces (depending on whether vehicles drive in forward or in reverse). Where streets are sufficiently wide to be able to be reconfigured, angled parking can provide for additional parking bays. The decision to include angled parking bays must reflect the Liverpool City Centre Public Domain Masterplan and be consistent with the benchmarks provided in Deliverable 1. The benchmarks can be used to determine if it is feasible to use the parking bays for alternate purposes such as outdoor seating after hours.

Project Costs and Considerations

The cost of implementing this action depends on whether the work is limited to changing line-marking or whether kerbs and landscaping bays require reconstruction. Cost will be determined on a project-by-project basis. Any new car spaces should be consistent with the Liverpool City Centre Public Domain Master Plan.

Project Timeline

2020-2030



D9: Investigate and Install dynamic parking guidance system

Link to Actions

A2: Improve and simplify parking signage.

A7: Investigate all funding sources for additional parking in the city centre.

Link to Strategic Objectives

O5: Explore and deploy smart parking technologies to support an efficient and innovative city centre.

O6: Provide a delivery framework to improve parking over the next 10 years, including recommended number and location of car spaces.

Project Objectives

- Minimise vehicle circulation which contributes to congestion.
- Reduction noise and air pollution.
- Reduce driver frustration.
- Provide signage that is consistent in design with other signage in the Liverpool City Centre.

Project Location

Wayfinding would be provided at the main entry points to and from and within the city centre, directing motorists to car parks and primary businesses and medical facilities.

Project Description

Provide motorists with electronic/dynamic directional wayfinding to off-street parking facilities (with the potential to include on-street facilities as this becomes available) including the number of available parking spaces. The signs will be linked to a mobile phone app to alert drivers of parking opportunities.

Project Costs and Considerations

The costs associated with the initial installation of a dynamic parking guidance system (with signage) is estimated to be approximately \$1 million. This assumes that 20% of all parking spaces in the city centre will be fitted with sensors. However, there may be potential additional monthly costs for ongoing maintenance of the system.

NB: It will need to be investigated whether it is feasible to roll out such technology in older facilities such as the Northumberland Street car park.

Project Timeline

2020-2030



D10: Optimising usage of car parking spaces

Link to Actions

A3: Optimise existing on-street parking provision.

A7: Investigate all funding sources for additional parking in the city centre.

A8: Investigate and identify alternative uses for car parks.

Link to Strategic Objectives

O1: Identify the appropriateness of providing additional parking within the Liverpool City Centre.

O2: Further evaluate the concept of concentrating public parking at the outer fringe of the city centre.

O3: Provide parking infrastructure that responds to land use changes, population and economic growth in the centre over the next 10 years.

O4: Improve parking accessibility (general and special needs) for shoppers, visitors, trades people and local businesses to support economic growth.

Project Objectives

- To increase turnover of on-street parking spaces in the city centre.
- To support local business and the night time economy.
- To promote short-term stay (business and shopping trips) in the city centre core area and long-term stay (employee and commuter trips) in designated parking areas such as Council-owned car parks.
- Discourage all day parking in areas where there is a demand for higher parking turn-over.
- Ensure alternative options are provided for all-day parkers to offset a loss in all day parking.

Project Location

On-street parking spaces in the Liverpool City Centre.

Project Description

The projects include:

- Prioritising parking near health facilities;
- Introducing timed parking restrictions (three- or four-hour parking) to unrestricted parking areas; and
- Re-evaluating parking restrictions in the city centre core (change from one hour to 30min).

Council will carry out surveys and demand analysis to identify suitable locations where parking turnover can be increased to cater for short-term and medium-term parking demands.

Project Costs and Considerations

The costs associated with implementing this initiative would be approximately \$10,000. Consideration must be given to the availability of parking for disabled permit holders and reviewing the Parking Permit Policy to minimise conflicts.

Project Timeline

2020 - 2030

Appendix A – Delivery Plan summary

Deliverable	Description	Time frame	
D1	Public parking rate benchmarking	Benchmarking will inform assessment and provision of public car parking in the city. A benchmark for car parking provision in the city centre, would be developed using current research on demand and public parking provision (for short-term and all-day parking) in modern, vibrant city centres, taking into consideration measures to encourage higher public transport use and reduce car parking in the centre core.	Short term 2020/2021
D2	Construct a new car park at 68 Speed Street	Demolish and construct an at-grade carpark comprising approximately 75 car spaces, at 68 Speed Street.	Short term 2020-2021
D3	Introduce car share scheme into Liverpool city centre	Work with car share companies to introduce car share scheme into Liverpool city centre, with annual fee for the required parking spaces after a trial period.	Short term 2020/2021
D4	Identify a location within 100m of Liverpool train station, for a carpark	Identify a location within 100m of Liverpool train station, for a carpark, if Pirie Street cannot be closed to accommodate a car park	Short term 2020/2021
D5	Provide simplified parking signage	Installation of new signs to simplify and clarify parking restrictions and improve traffic flow.	Short term 2020/2022
D6	Review of car parking pricing and on-street free parking	Ongoing annual review of on-street and off-street parking fees.	Short term 2020/2025
D7	Collimore/Woodward Park carpark – Additional Car Parking	Construct a multi-deck car park at Collimore Park with approximately 1000 spaces; or alternatively increase the number of new spaces at Woodward Park (as part of the Woodward Place masterplan) to provide all-day parking for city centre	Short to Medium term 2020/2025

		employees, visitors and university students.	
D8	Investigate further opportunities to provide angled parking	Investigate where angled parking bays can be provided, in accordance with the measures outlined the City Centre Public Domain Masterplan and parking rate benchmarks.	Short to long term 2019/2030
D9	Investigate and install Dynamic parking guidance system	Investigate and install electronic and /dynamic directional way finding to car parks (with the potential to include on-street facilities). The signage information could include the number of available parking spaces, and possible link to a mobile phone app to alert drivers of available parking.	Short to long term 2020/2030
D10	Optimising usage of car parking spaces	<ul style="list-style-type: none"> • Encourage turnover of parking spaces by reviewing parking fees for on-street parking (longer than 2 hours) • Prioritising short term parking near health facilities • Introduce timed parking restrictions (3 or 4 hour parking) to unrestricted parking areas. • Investigate locations where ½ P can be installed. 	Short to long term 2020/2030

Appendix B – Previous implementation plans 2010 - 2017

Action	Timeline	Outcome
2010		
1	Establish one free all day at-grade car park at Collimore Park outside the city centre.	Short-term (0-2 years) Completed
2	Increase the number of available on-street spaces throughout the city centre.	Short-term (0-2 years) Completed
3	Increase parking turnover by rationalising existing time limits with increasing time allocations allowed further away from the inner core.	Short-term (0-2 years) Completed
4	Reduce driver confusion by providing one consistent duration of timed restrictions applying throughout the City Centre.	Short-term (0-2 years) Completed
5	Introduce 'pay and display' ticket parking in the Northumberland Street and Bathurst Street car parks; and Devote city centre revenue from the parking fees for a period of five years exclusively to measures which improve car parking and transport in the city centre.	Short-term (0-2 years) Completed
6	Introduce parking meters on streets in the Inner Core for on-street parking, in the area bounded by Bathurst, Elizabeth, Bigge, Scott and Macquarie Streets, and Macquarie Street north to Lachlan Street.	Short-term (0-2 years) Completed
7	Undertake a comprehensive investigation into the practical and commercial feasibility of locating a new car park to replace the existing Northumberland Street car park in an appropriate location either on the same site, or more preferably in the peripheral areas of the southern city centre; Develop a financial model for a new multi-story car park in the southern city centre area to permanently replace and if possible significantly supplement the car park currently located in Northumberland Street; and Commence the design process for the new car park.	Short-term (0-2 years) Not completed
8	Introduce a Residential Parking Permit Scheme in suitable and defined parking zones close to residences.	Short-term (0-2 years) Completed
9	Improve entry into the periphery of the city centre by removing the bottleneck caused by the interchange of Terminus Street, Hoxton Park Road and the Hume Highway.	Short-term (0-2 years) Work in Progress Council is working with RMS to identify improvement works at Hume Highway/Hoxton

Action	Timeline	Outcome
		Park/Terminus Street intersection.
10	Commence investigations to locate as many temporary car parking spaces in, or in proximity to the city centre as possible to offset the loss of parking during the construction of the replacement for the existing Northumberland Street car park.	Short-term (0-2 years) Not completed Northumberland Street car park was not demolished
11	Undertake the demolition of the Northumberland Street car park and commence construction of its replacement, either on the same site or in a new location at the earliest opportunity.	Medium-term (2-4 years) Not completed Refurbishment works have been completed, car park to be maintained in the short/medium term.
12	Introduce a five hour parking restriction after the construction of the multi-deck car park at Warwick Farm.	Medium-term (2-4 years) TfNSW will not allow Council to restrict parking
13	Improve infrastructure conditions for cyclists so that more people use cycling to travel to work and undertake simple shopping trips.	Medium-term (2-4 years) Work in progress Shared path has been constructed surrounding the city centre. More improvements are required within the city centre.
14	Investigate opportunities to implement two-storey parking structure at Collimore Park.	Long-term (4-6 years) Work in progress
15	Investigate improvements to the Southern City Centre Ring Road.	Long-term (4-6 years) Completed Studies completed, however Council has resolved to consider construction of a car park on land identified for the Bathurst Street extension.
15	Investigate the potential for an overhead shared pedestrian and cycleway over the Hume Highway.	Long-term (4-6 years) Completed Investigations identified locations for a potential bridge. To be further considered in the Woodward Place Master Plan.
16	Investigate the potential for improved traffic light phasing at Moore Street and Hume Highway to enable better connectivity to the city centre from the Collimore Car Park for buses. This would also enable better bus priority into the city centre as this is the main bus access point.	Long-term (4-6 years) Not Completed The project will be part of Moore Street Transit Boulevard.
17	Investigate traffic improvements to the arterial road network in conjunction with the RMS: <ul style="list-style-type: none"> • Grade separation of Hoxton Park Rd/Macquarie St/Hume Highway intersection; • Alternative bypass of Liverpool; and 	Long-term (4-6 years) Work in progress Council has made presentations to RMS for the proposed grade separation, Liverpool bypass and additional Georges River bridge.

Action	Timeline	Outcome
<ul style="list-style-type: none"> Investigate the potential for another Georges River bridge crossing into the City Centre to reduce traffic congestion. 		
2013		
1	Multi-storey car park at Collimore Park -1200 free all day parking spaces.	Short term (2 years) Work in progress Planning proposal submitted to DPIE seeking Gateway Determination.
2	Provide electronic/dynamic wayfinding signage to on and off-street parking facilities.	Short term (2 years) Partially completed.
3	Rationalise existing time limits with increased time allocations, further away from the core.	After Collimore Park Not Completed Relies on progression on multi-storey parking at Collimore Park.
4	Develop pricing strategy for on/off street parking.	-- Not Completed No timeframes provided for completion.
5	Provide standard parking time restrictions throughout CBD.	-- Not Completed No timeframes provided for completion



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