

**Item:** ENV022-19 Hurstville City Centre Transport Management and Accessibility Plan - TMAP 2018

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**Directorate:** Environment and Planning

**Matter Type:** Committee Reports

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### Recommendation

- (a) That Council endorse the Hurstville City Centre Transport Management and Accessibility Plan 2018 as a strategic planning document, which will inform the preparation of development contributions plans, assessment of planning proposals / development applications and negotiations of Voluntary Planning Agreements.
- (b) That Council work with the transport authorities in relation to specific recommendations in the Hurstville City Centre Transport Management and Accessibility Plan 2018 Report.
- (c) That Council inform the Department of Planning, Industry and Environment, Transport for NSW and Roads and Maritime Services of Council's decision.

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### Executive Summary

1. Council engaged the consultant GHD in September 2017 to update the Hurstville City Centre Transport Management and Accessibility Plan, originally prepared in 2013.
2. The purpose of the Hurstville City Centre Transport Management and Accessibility Plan 2018 (TMAP 2018) (refer **Attachment 1**) is to:
  - a. assess the proposed land use changes from development applications, planning proposals and the Hurstville City Centre Urban Design Strategy (HCCUDS);
  - b. provide a comprehensive assessment of the transport impacts of forecast land use development; and
  - c. identify a package of appropriate transport measures for the Hurstville City Centre, which would help manage the future demand for travel.
3. The TMAP 2018 states that demand for travel is expected to increase in Hurstville, due to its status as a Strategic Centre and significant land use densification under the South District Plan 2018. Although Hurstville has good public transport links, it has a high car-based mode share.
4. The TMAP 2018 notes that overall, the proposed changes from the development applications, planning proposals and the HCCUDS are considered suitable within the context of Sydney's growing population. Travel Demand Management (*TDM - Encourage travel patterns that are tailored to the capacity of the network and help manage congestion with mobility pricing reform and demand management initiatives*), enhanced active transport facilities and fast, efficient and reliable public transport services will be key to managing the additional demand and limiting the overall impact on the road network.

5. The TMAP proposes an Action Plan that details a range of suggested measures across 5 categories: Land Use, Road Network, Public Transport, Active Transport and Travel Demand Management.
6. It is recommended that Council endorse the Hurstville City Centre TMAP 2018 as a strategic planning document. The TMAP will be used to inform the preparation of development contribution plans, assessment of planning proposals / development applications and discussions / negotiations relating to Voluntary Planning Agreements.

## Background

7. Council engaged the consultant GHD in September 2017 to update the Hurstville City Centre Transport Management and Accessibility Plan (TMAP) building on work carried out for the original TMAP in 2013.
8. The TMAP 2013 informed the planning controls contained in the Hurstville City Centre LEP (Amendment No. 3 to HLEP 2012) in response to the vision for Hurstville as a major Centre for the South District. Since the TMAP was finalised in 2013, a number of changes to the planning controls and significant development has occurred within the Hurstville City Centre; inconsistent with the original modelling. As the cumulative effect of these developments is greater than the sum of its parts, the TMAP 2013 was required to be updated.
9. The key objectives of the Hurstville City Centre TMAP 2018 (refer **Attachment 1**) include:
  - modelling the current major development applications and planning proposals and their implications for traffic management in the Hurstville City Centre;
  - modelling the Hurstville City Centre Urban Design Strategy recommendations and proposed changes to the development standards; and
  - identifying a package of transport measures which could help manage the future travel demand for the Hurstville City Centre.
10. The Sydney metropolitan plan, *The Greater Sydney Region Plan – A Metropolis of three Cities* and the *South District Plan* nominate Hurstville as a Strategic Centre. Over the next 20 years, Council will need to make provision for approximately 14,000 new homes and 13,000 additional jobs to support growth within the Georges River LGA. Council has a housing supply target of 4,800 additional homes within the LGA, up to 2021.
11. The South District Plan estimates that the City Centre had 11,600 jobs in 2016, with a forecast at 2036 of 15,000 and 20,000 (baseline and higher target respectively), indicating a significant increase.
12. This additional growth will lead to capacity constraints on the existing road network, principally on King Georges Road, which although outside the City Centre itself, acts as a pinch point for the network and may inhibit access to and from Hurstville. Other locations also lead to traffic delays, including Railway Parade, Woniora Road, Treacy Street, Queens Road and Park Street. The constraints at these locations are likely to worsen with increased development and mitigation measures need to be considered.

13. The transport infrastructure will require some capacity enhancements to cater for the additional demands, with travel demand management, enhanced active transport facilities and fast, efficient and reliable public transport services being key. Encouraging public transport, active transport use and travel demand management are critical to limiting the overall impact on the road network. This will subsequently limit the requirements for significant amounts of additional road capacity.
14. The TMAP 2018 identifies a package of appropriate transport measures for the Hurstville City Centre, which would help manage the future travel demand. These measures; which are discussed later in this report, relate to land use, road network, public transport, active transport and travel demand management.
15. The TMAP 2018 is set over a 20 year planning horizon (up to 2036) and it is recognised that some of the development potential within the HCCUDS may be realised beyond this date. The delivery of land use is likely to be driven by the needs of the market that Hurstville serves and is likely to be influenced by the development applications and Planning Proposals within the City Centre. The current building block arrangement and the accessibility of the centre to areas planned for significant employment growth will also play a part in how and the rate at which Hurstville grows as a Strategic Centre.

### **TMAP 2018 Methodology**

16. The methodology adopted for TMAP 2018 included the following:

#### Policy review, data collection and modelling

17. Review of State and Local level strategy and advice to ensure the land use development proposals for Hurstville are not inconsistent with the wider policy environment.
18. Collection and analysis of a range of data including traffic counts, opal ticketing data, journey to work and household travel surveys. This data shows:
  - a. a high level of car use for trips accessing Hurstville City Centre;
  - b. the train is an important mode for commuting;
  - c. cycling use is relatively low; and
  - d. traffic congestion on the roads surrounding the City Centre, specifically Queens Road, Railway Parade and King Georges Road.

Note: Council is currently in the process of preparing the Georges River Car Parking Strategy which provides recommendations for Council's key business centres and proposes amended car parking rates for Council's business centres. Refer to the Environment and Planning Report of 13 May 2019. The draft Georges River Car Parking Strategy will be placed on community consultation by July 2019.

19. The collected data has been used to develop a traffic modelling framework (Refer **Table 1**) within and around the study area, through a three tier approach, encompassing:
  - Strategic modelling using available data from the Roads and Maritime Services' Strategic Traffic Forecasting Model (STFM);

- Detailed micro-simulation modelling to provide future traffic movements on road links; and
- Intersection movement analysis; to assess level of service and queue length per approach.

Step	Modelling Step	Purpose
1	STFM	To capture regional changes in land use, large scale infrastructure changes, both road and public transport
1a	Cordoning STFM	STFM is too large to efficiently add further detail into the Hurstville area, as is required for the TMAP, so a sub-area network is extracted as the basis for the Hurstville Strategic Model.
2	Hurstville Strategic Model (HSM)	More detail to correctly reflect the more granular information available from the land use assessment is added to the 'sub-area' model. For efficiency, a sub-area model is extrapolated from the STFM for AM and PM peaks, for each modelled year, 2016, 2026, 2036, which enables more detailed work to be carried out.  The model is then calibrated in detail using observed traffic volumes in accordance with the RMS <i>Traffic Generating Guidelines 2013</i> .
2a	Cordoning the Hurstville Strategic Model	A further sub-area process is carried out to extract information for the micro simulation model
3	Micro simulation model	Provides a detailed representation of individual vehicles on the road network, allowing for in depth analysis.
4	SIDRA models	Used for detailed modelling of individual intersections or small networks. An efficient tool for optimising intersection configurations and signal timings
5	Final micro simulation models	Incorporate suggested changes to the road infrastructure to assess the impact of the changes.

**Table 1: Modelling Framework**

20. These modelling outcomes capture sub-regional trends as well as the performance of individual intersections.
21. Proposed land use changes from development applications, planning proposals and the Hurstville City Centre Urban Design Strategy have been assessed and quantified to produce forecast traffic demands for 2026 and 2036. A range of sensitivity tests relating to background growth assumptions, the take-up of public and active transport and the rate of the proposed development build-out have also been tested.

### Analysis

22. A range of traffic forecasts have been produced, with peak period traffic movements in Hurstville City Centre forecast to increase by 25% to 29% by 2036, through background traffic growth and additional trip generation from within Hurstville.

23. The modelling suggests that this level of traffic could double the amount of time people spend in their cars in Hurstville City Centre by 2036, although a significant proportion of this extra delay derives from King Georges Road. The modelling has also been used to pinpoint locations where the road network may come under strain in future years. Mitigation measures for these locations have been identified and tested.

#### Action Plan

24. Based on the increased level of traffic, it is likely that the transport infrastructure will require some capacity enhancements to cater for the additional demands. The TMAP proposes an Action Plan that details a range of suggested measures across 5 categories: Land Use, Road Network, Public Transport, Active Transport and Travel Demand Management as discussed further.

### Key Recommendations

The key recommendations of the TMAP 2018 are provided under the following five themes:

#### Land Use

25. Land Use (LU) policies that recommend (Refer **Table 2**):

ID	Item Description	Purpose	Council comment
LU1	Support the Hurstville City Centre Urban Design Strategy (adopted June 2018) recommendations.	To establish a sustainable growth strategy for the future development of Hurstville City Centre.	Council endorsed the Hurstville City Centre Urban Design Strategy in June 2018.  The implementation of the Urban Design Strategy will take place through the Council's Planning Agreement Policy and the work on the planning controls in the comprehensive LEP.
LU2	Establish a working group to manage the planning of transport corridors and regional growth – this will include the transport authorities and the Department of Planning, Industry and Environment.	To establish a consistent regional planning framework for establishing parking controls in centres and employment lands and managing associated growth in regional traffic demand.	Council has been working with RMS and TfNSW on both the Hurstville TMAP and the Kogarah LEP Traffic Assessment. The recommendation by GHD seeks to formalise this working arrangement.
LU3	Monitor and Review Hurstville City Centre and Regional Development.	To provide a structured process for reviewing planning controls and network performance against progress in City Centre and regional	Council was required to review and amend their Local Environmental Plans (LEPs) after the South District Plan was released in March 2018.

ID	Item Description	Purpose	Council comment
		development.	This included the preparation of the Local Strategic Planning Statement (LSPS), the comprehensive LEP and Development Control Plan (DCP).  The LEP is being developed in a staged manner and is anticipated to be reviewed every 5 years.
LU4	Build compact communities.	Communities should have sufficient density to support high-service standards of public transport (frequency, span of services and better stop and road space priority infrastructure standards). This means planning for high density areas should aim to provide these services when the demand is sufficient.	The Council's Local Strategic Planning Statement (LSPS) is to guide land use planning and the delivery of significant infrastructure for the Georges River Local Government Area (LGA) until 2040. The LSPS is the mechanism to build compact communities.

**Table 2: Land use Recommendations**

26. Overall, the modelling carried out for the TMAP update concludes that the planned level of development, as detailed in the Hurstville City Centre Urban Design Strategy can be accommodated without significant infrastructure upgrades.

### Road Network

27. Road Network (RN) policies that recommend (Refer **Table 3**):

ID	Item Description	Purpose	Council comment
RN1	Supporting the delivery of committed road infrastructure improvements.	To ensure that the road network can operate efficiently for the forecast levels of traffic while maintaining public transport priority and a walkable environment that supports Hurstville as a major centre.	Support GHD recommendation.  Council needs to establish a framework to facilitate collaboration with RMS aimed at achieving this Road Network recommendation.
RN2	Consider upgrades to King Georges Road intersections with Forest Road, Bridge Street, and	Long term to ensure King Georges Road does not impede access to/from the Hurstville City Centre.	Support GHD recommendation.  RMS is proposing to widen King Georges Road, between Stoney Creek Road (at Beverly Hills) and Forest Road

ID	Item Description	Purpose	Council comment
	Woniara Road.		(Hurstville) as part of the “Gateway to the South Pinch Points Program”. These upgrades are anticipated to be covered under this program which is scheduled to commence in late 2019.
RN3	Consider the options for upgrading the Treacy Street/West Street/Railway Parade intersection	Long term to ensure the intersection operates without negatively impacting on access to the Hurstville City Centre.	Support GHD recommendation. Council needs to investigate options for upgrade in consultation with RMS.
RN4	Consider expanding clearways to ease accessibility during peak periods: <ul style="list-style-type: none"> <li>• Railway Parade,</li> <li>• Treacy Street,</li> <li>• Forest Road and</li> <li>• Queens Road.</li> </ul> Community consultation will be carried out prior to developing detailed recommendations.	Removing on-street parking during peak periods increases the capacity of the road network without additional infrastructure. This will need to be carefully managed to ensure that amenity and viability of the centre are not negatively impacted.	Support GHD recommendation. Council needs to investigate options for upgrade in consultation with RMS.
RN5	Continued review of traffic signal timing and coordination throughout the Hurstville City Centre.	Traffic modelling for future years noted a number of changes required to green times and coordination to optimise network operation. Ongoing signal timing maintenance can reduce the traffic impacts on amenity.	Support GHD recommendation. Council needs to investigate options for upgrade in consultation with RMS.
RN6	Consider upgrading the Park Road / Queens Road intersection to provide bus facilities and improve capacity.	Traffic modelling suggests benefits would accrue from this upgrade for bus users and general traffic on Park Road through providing additional capacity as well as a dedicated bus lane.	Support GHD recommendation. Council needs to investigate options for upgrade in consultation with RMS. Also refer to Row 2 of <b>Table 4</b> for detail below.

ID	Item Description	Purpose	Council comment
RN7	Consider upgrading the Dora Street / Queens Road intersection to improve capacity.	Traffic modelling suggests benefits would accrue from this upgrade through providing additional capacity for road users to exit from Dora Street. This is expected to be of particular benefit in the PM peak period with the expected future densification of development.	Support GHD recommendation. Council needs to investigate options for upgrade in consultation with RMS. Also refer to Row 1 of <b>Table 4</b> for detail below.
RN8	Consider upgrading the Forest Road / The Avenue intersection to improve capacity.	Traffic modelling suggests benefits would accrue from this upgrade with the expected future densification of development. The upgrade provides additional capacity for the left turn movement from The Avenue to Forest Road.	Support GHD recommendation. Council needs to investigate options for upgrade in consultation with RMS. Also refer to Row 3 of <b>Table 4</b> for detail below.
RN9	Consider signalisation of the Forest Road / Durham Street intersection.	Traffic modelling suggests benefits would accrue from this upgrade, particularly with the expected future densification of development. Hudson Street is expected to form the access point to some high density residential developments. Without the upgrade, delays accessing Forest Road could be considerable.	Support GHD recommendation. Council needs to investigate options for upgrade in consultation with RMS. Also refer to Row 4 of <b>Table 4</b> for detail below.

**Table 3: Road Network Recommendations**

28. **Table 3** details a number of proposed road infrastructure upgrades. Whilst included in future traffic models, they do not reflect any current Government policy or commitment. They are suggested by GHD for consideration of Roads and Maritime Services in the medium to long term. In this regard, they are assumptions for modelling purposes only.
29. A range of road network schemes can improve the function of the network overall, particularly at locations identified as being bottlenecks in future year as listed in Table 3. A number of mitigation measures at these intersections are detailed **Table 4** below:

No	Intersection	Issue	Mitigation Measure
1	Queens Road / Dora Street	Forecasts show that the demand egressing from Dora Street onto Queens Road,	To improve the egress capacity from Dora Street into Queens Road, Option 1 adds a right

No	Intersection	Issue	Mitigation Measure
		<p>particularly the left turn in the PM peak, will lead to increasing delays.</p>	<p>turn bay on the south approach of Dora Street by removing one of the two Dora Street southbound lanes exiting the intersection.</p> <p>Similarly, on the north approach, a dedicated right turn bay and a through/left lane would be required.</p> <p>Refer to <b>Figure 6-1</b> on p68 of the TMAP Report for the potential layout.</p> <p>The potential for a double-diamond signalised intersection arrangement was investigated. It was found that the intersection geometry did not allow for the two opposing right turns from Dora Street to operate at the same time. As such, GHD have concluded that the double-diamond arrangement would not be feasible at this intersection.</p> <p>There may be opportunities to deliver improved intersection details with further investigations and detailed modelling as part of the redevelopment of the Civic Centre site.</p>
2	Park Road / Queens Road	<p>The Park Road approach to Queens Road is to be affected by additional delays as further development in Hurstville occurs. In addition, Park Road carries the 490, 491 and M41 bus services out of Hurstville, providing a bus approximately every 6.5 minutes in the PM peak. All of these buses stop on Park Road and then turn right into Queens Road.</p> <p>In seeking to improve capacity and to provide bus infrastructure and dedicated signal priority to improve bus travel time and reliability, two</p>	<p><u>Mitigation Option 1</u></p> <p>Option 1 (Refer <b>Figure 6-2</b> on p69 of the TMAP Report) provides a bus only lane, suitable to accommodate one bus, and provides a left turn slip lane for general traffic.</p> <p>Option 1 will require the removal of approximately 8 car parking spaces from the adjacent car park to accommodate the high capacity left turn lane. It may also require land on the southwest corner of the intersection, and potentially impinge on</p>

No	Intersection	Issue	Mitigation Measure
		<p>schemes proposed by Roads and Maritime Services at this intersection have been considered within the context of this TMAP.</p>	<p>development plans for this parcel of land and degrade the pedestrian environment within the City Centre.</p> <p><u>Mitigation Option 2</u></p> <p>Option 2 will require the loss of 15 permanent parking spaces and 19 AM and PM peak period spaces to accommodate the bus lane and three general traffic lanes between Cross Street and Queens Road (Refer <b>Figure 6-3</b> on p70 of the TMAP Report).</p> <p>Each of these options has been tested in terms of overall intersection capacity. However, the optimal arrangement of this intersection, balancing the needs of car and public transport usage, needs to be investigated further and addressed as part of the redevelopment of the Civic Centre site and changes should be subject to community consultation.</p>
3	Forest Road / The Avenue	<p>Delays were observed in the forecast modelling on the northern approach on The Avenue. This is an issue in the PM peak, particularly when Westfield produces a substantial number of vehicle movements. Currently, there is one left turn lane which will not support the traffic growth.</p> <p>By changing the lane configuration to the north approach at The Avenue, this may improve capacity.</p> <p>Furthermore, this intersection will be impacted if the widening of The Avenue underpass between Treacy Street and Railway Parade is carried out. For the purposes of the TMAP, this intersection has been</p>	<p><u>Mitigation Option 1</u></p> <p>Option 1 (Refer <b>Figure 6-4</b> on p71 of the TMAP Report) tests the conversion of the existing through middle lane to a shared through / left lane. In addition, the right turn movement is banned to aid the through vehicle movements. The volume of traffic currently turning right is less than 20 vehicles per hour so the ban will not have a significant effect. Local access on that section of Forest Road is likely to be minor, and through movements are directed to Park Road (northbound) so would not be expected to make up a significant proportion of southbound traffic on The</p>

No	Intersection	Issue	Mitigation Measure
		<p>tested using forecast traffic volumes without the underpass widening.</p>	<p>Avenue.</p> <p><u>Mitigation Option 2</u></p> <p>The second option (Refer <b>Figure 6-5</b> on p73 of the TMAP Report) investigates an additional left turn lane at the north approach of The Avenue to improve capacity. This would require removing existing kerbside parking and modifying kerb line infrastructure.</p> <p>In investigating the feasibility of the Forest Road/The Avenue options, turn path assessments were made for the dual left turn from The Avenue into Forest Road, where two B85 cars can turn side-by-side. However, two 8.8m service vehicles would not be able to turn side-by-side. Further investigation would therefore be required for these options.</p>
4	Forest Road / Wright Street / Durham Street	<p>The intersection of Forest Road / Wright Street / Durham Street is expected to operate within capacity. However, as infrastructure provided to facilitate local developments, this intersection is expected to be signalised, to provide increased safety for right turn movements from Forest Road into Durham Street during peak periods. Due to the poor sight distance caused by the acute angle of approach experienced by right turning vehicles from the south west, a signalised controlled intersection would provide an improved level of safety by reducing the potential for crashes with vehicles from the opposing north eastern approach. Refer Figure 6-8 on p73 of the TMAP Report.</p>	<p>The intersection of Forest Road / Wright Street / Durham Street is expected to operate within capacity. However, as infrastructure provided to facilitate local developments, the East Quarter Stage 3 development aims to signalise this intersection, to provide increased safety for right turn movements from Forest Road into Durham Street during peak periods. Due to the poor sight distance caused by the acute angle of approach experienced by right turning vehicles from the south west, a signalised controlled intersection would provide an improved level of safety by reducing the potential for crashes with vehicles from the opposing north eastern approach. <b>Figure 6-8</b> on page 73 of the TMAP Report provides the proposed signalised layout.</p>

No	Intersection	Issue	Mitigation Measure
			<p>The Railway Parade, Ormonde Parade / West Street and Treacy Street intersection has capacity constraints and long delays, particularly for the side roads approaching Railway Parade. This intersection has complex road geometry and competing movements from five approaches. Combined with significant physical constraints, it is difficult to provide an optimal solution to mitigate traffic impacts from additional development traffic.</p> <p>GHD have considered a range of options for an upgrade at this intersection, with only one considered feasible at a strategic level. However, this option requires the banning of the left turn from Ormonde Parade and was not considered feasible due to community disruption. Others were discounted due to a combination of the topography of the area, land take, disruption to the existing network or intersection operation considerations and were not investigated further as a result.</p> <p>Without further investigations combined with the Hillcrest / Woniora intersection, it is not possible to make a recommendation at this stage.</p> <p>Therefore, this intersection and the surrounding network require further detailed investigation.</p>

**Table 4: Mitigation measures**

### **Public Transport**

30. Public Transport (PT) policies that recommend (Refer **Table 5**):

ID	Item Description	Purpose	Council comment
PT1	Adopt a target for increasing public transport mode share to 25% of trips accessing Hurstville City Centre.	To target improvements in public transport mode share, growth in public transport patronage and help manage travel demand across the transport network.	Support GHD recommendation.  The Georges River community has expressed a strong support for both active and passive recreation spaces, supported by pedestrian links and public transport as part of the preparation of Council's draft LSPS.  Council's City Strategy and Innovation section is anticipated to work on this recommendation.
PT2	Rail and Bus Service Capacity Improvements.	To support public transport mode share targets and growth in public transport usage for travel to Hurstville City Centre.	See comment above.
PT3	Rail Network Reliability Improvements.	To promote the reliability of using public transport services and attract additional people from private vehicles to public transport for travel to Hurstville City Centre.	See comment above.
PT4	Prioritise on-road public transport through enhanced signal and road space priority.	Improve travel time and reliability to enhance the attractiveness of the services.	Support GHD recommendation.  Council establish a framework to facilitate collaboration with TfNSW aimed at achieving this Public Transport recommendation.
PT5	Investigate the feasibility of introducing bus priority on strategic bus corridors.	To prioritise bus service movements and avoid congested sections of the road network with an aim of attracting additional people from private vehicles to public transport for travel to Hurstville City Centre.	See comment above.
PT6	Investigate the bus priority measures proposed at Park Road and Queens	To assist with improving bus travel times.	Support GHD recommendation.  See comment above.

ID	Item Description	Purpose	Council comment
	Road.		
PT7	Consider introducing more local area bus services.	Local services could be more frequent and reliable, and so more attractive for users.	See comment above.

**Table 5: Public Transport Recommendations**

### Trains

31. Hurstville benefits from being on the T4 Eastern Suburbs/Illawarra Line from Sutherland to Bondi Junction via the CBD, providing frequent direct access to Redfern/Central/Town Hall and Martin Place, including express services. The *NSW State Infrastructure Strategy 2018-2038: Building Momentum* recommends the upgrade of the T4 line under the Smart Rail program in three stages as follows:
- Stage 1 – unlock capacity in Central Sydney which would benefit the T4 and T8 Airport line services.
  - Stage 2 – Further uplift capacity on the T4 line. Stage 1 and Stage 2 would include the deployment of the New Intercity Fleet of trains.
  - Stage 3 – Further enhancements and automation.
32. Stage 1 and Stage 2 are recommended for completion within the next 10 years and would lead to a more efficient, reliable network.
33. To maximise this opportunity, public and active transport links to the station should be safe and integrated to encourage a shift away from car access.

### Bus and other rapid transit

34. As a strategic centre, Hurstville has a high provision of bus services. However, in general, these services are not well used. The time taken and the level of choice and accessibility offered means that it is challenging to compete with the private car for mode share.
35. However, moving people onto buses will free up road space for everyone, and in a capacity constrained network, this is important. Another opportunity is that the rail line passes through Hurstville in a south to north direction. This provides an opportunity for bus services to improve connectivity, travel times and frequencies to locations not served by rail and conversely, to form an integrated feeder service to the rail stations in the area.
36. *Future Transport 2056* seeks to enhance rapid public transport corridors between strategic centres. The document identifies strategic transport corridors linking strategic centres like Parramatta, Campsie, Kingsgrove and Liverpool with Hurstville through a hub-and-spoke approach; with a timeframe for delivery of beyond 20 years.
37. Bus services can be supported by providing bus-specific infrastructure which improves journey times and reliability.

**Active Transport**38. Active Transport (AT) policies that recommend (Refer **Table 6**):

ID	Item Description	Purpose	Council comment
AT1	Target a Hurstville City Centre Active Transport Mode Share of 20%.	To target improvements in active transport mode share, growth in the number of people walking and cycling in Hurstville City Centre and help manage travel demand across the transport network.	Support GHD recommendation.  Council's LSP includes an action in relation to preparing a Bike Plan to expand across the entire Georges River LGA and a Pedestrian Access and Mobility Plan (PAMP) for each local centre (B2) and strategic centre.
AT2	Pedestrian and Cycling Safety Improvements along the Hurstville City Centre Routes.	To remove road network conflict points.	Support GHD recommendation.
AT3	Develop a 2036 City Centre Bike Plan.	To establish a comprehensive cycle network that offers an attractive and safe environment to encourage people to cycle to and around the City Centre and help to manage growth in travel demand.	Support GHD recommendation.  Council needs to update its Bike Plan to expand across the entire Georges River LGA and develop a Pedestrian Access and Mobility Plan (PAMP) for each local centre (B2) and strategic centre.
AT4	Develop a 2036 City Centre Pedestrian Access and Mobility Plan (PAMP).	To support the development of a pedestrian friendly City Centre network that offers an attractive and safe environment and encourages street activity. To support planned growth in walking and to help manage growth in vehicle travel demand.	Support GHD recommendation.  Council needs to update its Bike Plan to expand across the entire Georges River LGA and develop a Pedestrian Access and Mobility Plan (PAMP) for each local centre (B2) and strategic centre.
AT5	Ensure all new major road infrastructure includes a provision for cyclists and pedestrians (via DCP specifications).	To promote a pedestrian and cycle friendly City Centre, which safely enhances the sustainability of the transport network through reducing car travel, congestion and emissions and promoting healthy physical activity.	<i>Section 5.4.3.3. Bicycle Facilities</i> of DCP 2 Hurstville City Centre provides requirements for Bicycle Facilities.  The proposed Georges River comprehensive DCP needs to incorporate enhanced provisions for cyclists and pedestrians.  The proposed DCP needs to promote linkages and

ID	Item Description	Purpose	Council comment
			connections.
AT6	Review and update way finding and signage within the study area, including to adjoining local government areas.	To promote a pedestrian and cycle friendly City Centre, which safely enhances the sustainability of the transport network through reducing car travel, congestion and emissions and promoting healthy physical activity.	Support GHD recommendation.  The Georges River comprehensive DCP needs to incorporate way finding and signage within the centres and to adjoining local government areas.
AT7	Provide guidance and advice for the provision of end of trips facilities for new developments.	To encourage cycling use; which enhances the sustainability of the transport network and reduces car travel, congestion and emissions.	Support GHD recommendation.  Council needs to update its Bike Plan to expand across the entire Georges River LGA and develop a Pedestrian Access and Mobility Plan (PAMP) for each local centre (B2) and strategic centre.
AT8	Audit pedestrian and cycle networks to major trips attractors (existing and proposed).	To be used as a tool to assist in developing policies that encourages the adoption of active transport and to monitor the prevalence and usage of pedestrian and cycle infrastructure.	Support GHD recommendation – this will assist in updating Council's Bike Plan and develop a Pedestrian Access and Mobility Plan (PAMP) for each local centre (B2) and strategic centre.
AT9	Integrate bus stops and train stations with well-connected networks and provide bicycle parking at major stops and stations.	To promote a pedestrian and cycle access to public transport, encouraging the use of active transport modes through facility design, making the transport network safer, more efficient and more enjoyable.	Support GHD recommendation.  The proposed Georges River comprehensive DCP needs to incorporate enhanced provisions for cyclists and pedestrians.
AT10	Monitor and analyse bicycle riding demand.	To assist in planning and prioritising bicycle riding network upgrades and development.	Support GHD recommendation.

**Table 6: Active Transport Recommendations**

39. It is critical to encourage walking and cycling, as this improves the health of the population, frees up road space by removing more trips that are less than 2-10 km in length and provides environmental benefits. Future work on Hurstville City Centre Public Domain Plan and the DCP needs to include clauses in relation to improved connections and linkages.

40. There are currently very few cycling facilities and designated routes in Hurstville, with a low level of cycle use observed.
41. A Pedestrian Access and Mobility Plan (PAMP) and Cycling strategy documents are recommended to further analyse the best options for delivering active transport infrastructure.
42. These documents should include the following:
- Consideration of infrastructure improvements to encourage the active modes and to improve safety
  - Consideration of the management of dockless bike schemes as an aid to improving cycling mode share

### Travel Demand Management

43. Travel Demand Management (TDM) policies that recommend (Refer **Table 7**):

ID	Item Description	Purpose	Council comment
TDM1	Adopt recommendations from the ongoing Georges River Car Parking Study.	Parking demand management can ensure the parking requirement is met, and control available parking.  This will protect road network capacity and encourage more people to access by active and public transport.	At its meeting in May 2019, Council endorsed the Georges River Car Parking Strategy for exhibition. The public exhibition will commence in July 2019.
TDM2	Investigate the feasibility of introducing Car-Sharing Schemes. Promote and provide on-street car parking spaces for car sharing in neighbourhoods - car sharing providers generally need density and mixed uses to be viable.	To optimise the use of car parking and road space and help to better manage regional road network capacity.	<i>Section 5.4.3.1 Car Share Schemes</i> of DCP 2 – Hurstville City Centre has provisions to enhance sustainable transport modes.  The Georges River Car Parking Strategy has recommended car sharing zones adjacent to major train stations.  Car-Sharing Schemes to be investigated for both on-street and off-street car parks in Council's strategic centres and high density areas.
TDM3	Investigate the feasibility of introducing Alternative Work Schedule.	Through encouraging travel outside of peak periods, the demand for travel may be spread more widely, reducing the number of vehicles on the road in the peak period, whilst utilising spare capacity in	<i>Section 5.4 of DCP 2 - Hurstville City Centre</i> includes provisions from the TMAP 2013 with regard to investigating the feasibility of introducing Alternative Work Schedules.  As part of the comprehensive

ID	Item Description	Purpose	Council comment
		shoulder-peak or off peak periods. This can help to better manage regional road network capacity.	DCP process, Council needs to investigate the encouragement of Alternative Work Schedule in consultation with various businesses and workplaces.
TDM4	<p>Incorporate Workplace and Green Travel Plans into Planning Agreements.</p> <p>Update the DCP to mandate GTPs as part of the development applications for major new developments.</p> <p>Develop a standard GTP template for developers and other organisations.</p> <p>Designate a staff member to monitor the application of GTP and provide advice to the public on an ad-hoc basis.</p>	To support and encourage active and public transport for accessing Hurstville City Centre and help to manage growth in regional traffic demand.	<p><i>Section 5.4 of DCP 2 - Hurstville City Centre</i> includes provisions from the TMAP 2013 with regard to incorporating Workplace and Green Travel Plans into Planning Agreements.</p> <p>As part of the comprehensive DCP process, these provisions need to be strengthened.</p>
TDM5	Investigate the Feasibility of Implementing 'Smarter Choices'.	To support and encourage active and public transport for accessing Hurstville City Centre and help to manage growth in regional traffic demand.	<p><i>Section 5.4 of DCP 2 - Hurstville City Centre</i> includes provisions from the TMAP 2013 with regard to incorporating Workplace and Green Travel Plans into Planning Agreements.</p> <p>As part of the comprehensive DCP process, these provisions need to be strengthened.</p>
TDM6	Investigate the Feasibility of Introducing Workplace Parking Levy.	To protect road network capacity by introducing costs associated with the convenience of parking in Hurstville City Centre and helping to rebalance the cost of travel towards active and public transport.	Council to investigate the feasibility of introducing a Workplace Parking Levy as part of the preparation of the comprehensive DCP.

ID	Item Description	Purpose	Council comment

**Table 7: Travel Demand Management Recommendations**

44. The *State Infrastructure Strategy* recommends travel demand management, “Encourage travel patterns that are tailored to the capacity of the network and help manage congestion with mobility pricing reform and demand management initiatives” (p121).
45. Although the parking provision rate constraints and parking management and controls should be reviewed as part of the Parking Study currently being undertaken by GRC, the proposed travel demand management measures in the 2013 TMAP largely remain relevant. These proposed measures include incorporating the following into the DCP:
- Workplace and Green Travel Plans; and
  - Car sharing schemes, alternative work schedules, ‘Smarter Choices’, workplace parking levies, and park and ride sites.
46. In addition, the opportunity for car-sharing technologies such as Uber Pool and other services should be included in the toolbox of measures available.

### **Roads and Maritime Comments**

47. Consultation with RMS and TfNSW was undertaken in two stages over the preparation of the TMAP 2018 – 24 October 2018 and 4 March 2019.

#### Summary of RMS comments – 24 October 2018

48. The key comments from Roads and Maritime Services (RMS) were in relation to the Micro simulation and SIDRA Modelling undertaken for the Hurstville City Centre TMAP. RMS provided detailed modelling comments in relation to a number of intersections in the City Centre. RMS offered to arrange a meeting to discuss the modelling comments in further detail.

#### *Council response*

49. Council arranged a meeting between RMS, TfNSW, Council’s Strategic Planning staff and Council’s Traffic Engineers and GHD modellers on 1 November 2018. At the meeting, issues raised by RMS and a way forward were discussed. GHD agreed to update a majority of the issues raised as advised. For the remainder, GHD advised that the issues raised were either as a result of using a different plug-in or a different assumption and would not impact the report conclusions. RMS found this approach satisfactory. The updated TMAP 2018 Report was sent to RMS and TfNSW in December 2018 for a second review.

#### Summary of RMS comments – 4 March 2019

50. RMS forwarded a joint response from TfNSW and Roads & Maritime Services on their position on the TMAP 2018. RMS noted “...since the TMAP was finalised, a number of changes to the planning controls and significant development has occurred within the

*Hurstville City Centre and Council has commenced an update to the TMAP to identify the transport infrastructure required to support future growth. Roads and Maritime appreciates Council's initiative to undertake a comprehensive assessment of the cumulative growth envisaged for the City Centre.*

51. *TfNSW advises that a cycling strategy and Pedestrian Access and Mobility Plan (PAMP) with an appropriate parking policy should be developed and implemented by Georges River Council to help achieve the target level of active and public transport mode shares. It is also advised that the Future Transport Strategy 2056 provides the vision for future expansion of the City Serving and City Shaping corridors which includes investigation of Parramatta — Bankstown — Hurstville — Kogarah Rapid Bus Link and Macquarie Park — Hurstville via Rhodes Train/Mass Transit Link.”*
52. *“...With regard to the road network improvements recommended by the TMAP, some feasibility constraints have been identified by Roads and Maritime. In this regard, it is recommended that additional information/assessment is provided or alternative improvements are considered and investigated.*
53. *Roads and Maritime seeks clarification of the proposed funding/delivery mechanisms proposed by Council to ensure the delivery of the suggested infrastructure upgrades. It is strongly recommended that Developer Contribution Plans are developed / amended to ensure that equitable contributions are obtained for the delivery of the works. Roads and Maritime advises that it does not currently have plans or funding in its forward works program for the road network upgrade items proposed. As a number of the improvements primarily benefit local/side streets, Council should give consideration to including these upgrades within its Section 7.11 Plan for the town centre and identifying local road reservations within LEP maps with developer incentives for dedication of land to facilitate these improvements where possible.”*
54. *RMS note “...TMAP recommendations include ongoing involvement for TfNSW and RMS in relation to implementation of some of recommendations. TfNSW and RMS would welcome the opportunity to work with Council to support its planning process where required.”*

#### *Council response*

55. *Council arranged a meeting between RMS, Council's Strategic Planning staff and GHD on 21 March 2019 to discuss issues raised by RMS and confirm on a way forward. At the meeting, GHD responses to RMS issues, actions required and a position / way forward was confirmed and agreed to amongst the stakeholders. GHD updated the TMAP 2018 in light of this agreed position and submitted the final TMAP 2018 Report in April 2019.*

#### **Next Steps**

56. *It is recommended that Council endorses the TMAP 2018 as a strategic planning document that will help in informing the development contributions framework and the assessment of major development applications and planning proposals in the Hurstville City Centre.*

57. Council informs the Department of Planning, Industry and Environment, Transport for NSW and Roads and Maritime Services of Council's decision.
58. Council liaises with the state transport authorities in relation to implementing a number of TMAP recommendations.

### **Financial Implications**

59. Within budget allocation.

### **Risk Implications**

60. No risks identified.

### **Community Engagement**

61. Community engagement was conducted with the transport authorities including Transport for NSW and Roads and Maritime Services during the development of the TMAP 2018.
62. The TMAP 2018 will be not be exhibited, but placed on Council's website and used as part of the assessment of development applications, negotiations of voluntary planning agreements and the preparation of the development contributions framework.

### **File Reference**

17/2198

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### **ATTACHMENTS**

Attachment 1 Final - Hurstville City Centre TMAP 2018 - *published in separate document*