ATTACHMENT 3 – PROPOSED TRAFFIC AND TRANSPORT IMPROVEMENTS

The tables in this attachment list the major and minor proposed traffic and access infrastructure improvements and policy requirements that are recommended for progression given the faster-than-planned residential growth within the Epping Town Centre Study Area. Table 1 lists the <u>major</u> improvements whilst Table 2 lists the <u>minor</u> improvements including policy amendments.

Pr	oposed Road Improvement	Responsibility	Exhibition comments	Council Officers' comments
W	estern side of Epping Railway line	1		
1.	Widen Epping Station bridge at Epping Road (westbound) by adding an additional lane to connect with existing northbound lane up to existing blister.	State Government	Two submitters do not support the bridge widening as it was assumed it would provide no benefits. Despite this view, generally, there has been overwhelming support for this road improvement (expressed at the Community Information Session, the Drop-in Session and throughout the Epping Planning Review process to date).	 This improvement would constitute Beecroft Road Works – Stage 1. This improvement has \$50.04 million of State government funding and will be delivered by RMS. This improvement will improve traffic flow but have little to no impact on the westbound PM peak. However, it would have a greater benefit if it was undertaken in conjunction with Item 2, below. The <i>Central City District Plan</i> actions relevant to this proposed upgrade are Actions A1, A2 and A3.
2.	Widen Beecroft Road (westbound) between Carlingford Road and Bridge Street - involves removing the blister north of Bridge Street in front of the Commonwealth Bank building and relocation of the pedestrian bridge stairway landing and lift shaft in front of 49-58 Beecroft Road. (Note: these improvements are also likely to require replacement of the pedestrian bridge to the Epping Railway Station).	State Government	Some submitters and attendees from the Community Information Session/Drop-in Session see that this widening is a critical element of the Epping Station Bridge widening. RMS raises no objection to this widening but notes that this widening may not be feasible due to insufficient width in the road reserveto fit the required lane, media and footways.	These improvements would constitute Beecroft Road Works – Stage 2. These improvements were not modelled in either the Land Use Report and the Link/Tunnel Report. However, if in place, these improvements would bring <i>significant improvements</i> to the traffic flow. Given RMS's response, further consultation with RMS and feasibility would need to be undertaken which would be recommended in the Transport Delivery Plan. The <i>Central City District Plan</i> actions relevant to this proposed upgrade are Actions A1, A2, A3, A4 and A26.
3.	Tidal flow between the widened Epping Station Bridge and Beecroft Road (westbound) where Beecroft Road extends into four lanes, south of Carlingford Road which enables:	State Government	(No comment was received on this proposed improvement).	This improvement would constitute Beecroft Road Works – Stage 3. While this road improvement was not tested in the Epping Town Centre Traffic Analysis, the Land Use Report concluded <i>if the bridge were to operate with future tidal flow traffic conditions such as four lanes eastbound during the morning peak periods with two</i>

Proposed Road Improvement	Responsibility	Exhibition comments	Council Officers' comments
 a) four lanes eastbound and two lanes westbound during AM peak; and b) three lanes in each direction 			lanes westbound and three lanes in each direction during the afternoon peak periods, this future improvement could provide significant travel flow benefits during both these peak periods (p.48).
during the PM peak.			The <i>Central City District Plan</i> actions relevant to this proposed upgrade are Actions A1, A2, A3 and A6.
4. Re-open the former bus tunnel link connecting Cambridge Street with Beecroft Road (westbound traffic only).	State Government	Some North Epping residents are of the view that they would benefit from this improvement but believe that it would only work provided there was appropriate traffic calming in place to stop rat running. RMS note that the link is currently used as an active transport link which RMS support and sees that there is minimal benefit to reopening the tunnel as alternative egress for general traffic.	The Link/Tunnel Report concluded that while the reopening of the tunnel (and through link) has some merit <i>that further additional traffic capacity improvements also need to be identified and examined for the Carlingford Road/Beecroft Road and Epping Road/Blaxland Road intersections in order for the Council proposed road improvements to achieve improvements in local traffic movement in 2026 and 2036</i> (p.30). Also, given RMS's response, further consultation with RMS would need to be undertaken as the Link/Tunnel Report says that there may be benefits if the reopening of the bus tunnel is done in conjunction with other upgrades. The <i>Central City District Plan</i> actions relevant to this proposed
		general i zner	upgrade are Actions A3 and A5.
5. East west link through 240-244 Beecroft Road – create a new local road through this site connecting Ray Road to Beecroft Road. Left-in and left-out only at connection with Beecroft Road and all turning movements permitted at Ray Road. This includes a pedestrian through	create a new local site connecting Ray Road. Left-in and all turningCorporation (Landcom and Sydney Metro Northwest) and TfNSWInformation Session expressed concern that this proposed road improvement would increase traffic along Ray Road north of the through link.d all turningTfNSWBMS recommend that Council liaise	This through link was tested in both the Land Use Report and the Link/Tunnel Report. The latter report concluded that while the through link (and reopening of the tunnel) has some merit <i>that</i> <i>further</i> additional traffic capacity improvements also need to be identified and examined for the Carlingford Road/Beecroft Road and Epping Road/Blaxland Road intersections in order for the Council proposed road improvements to achieve improvements in local traffic movement in 2026 and 2036 (p.30).	
link		this matter.	This through link should also provide a pedestrian through link which is consistent with the 'Public Domain' section of the Epping Planning Review Discussion Paper.
			Council Officers continue to liaise with Landcom and Sydney Metro Northwest to ensure a vehicle/pedestrian through link is provided through the site.
			The <i>Central City District Plan</i> actions relevant to this proposed upgrade are Actions A1, A2, A3 and A26.
6. New link road between Rawson Street and Carlingford Road – as	Council	RMS raises no objection to the creation of this new road. (See also comments at Item 7).	This upgrade was tested in the Land Use Options Testing Report in the 2036 growth scenario and is proposed in the Parramatta

Proposed Road Im	nprovement	Responsibility	Exhibition comments	Council Officers' comments
	5.3 in Parramatta Control Plan 2011			DCP 2011 (refer to Figure 4.1.5.3 'Pedestrian Connections and Laneways'). This upgrade works in conjunction with Item 7, below.
				Council to explore options for a connection from the Rawson Street car park site to Carlingford Road. This could potentially occur as part of an EOI process for the civic hub on the Rawson Street car park site. Any supporting traffic analysis to an EOI could test a range of options. This would happen in liaison with RMS.
				Council's objection for Rawson Street is to create a civic hub which has a village type environment.
				The <i>Central City District Plan</i> actions relevant to this proposed upgrade are Actions A1, A2 and A3.
7. Install traffic s Road/DCP road enable:	ignals at Cliff d intersection – to	State Government and Council	RMS provides in principle support for this upgrade (which is dependent on Item 6, above) provided it is contingent on the removal of traffic signals at the interaction of Carlingford Road / Ray Road, / Rawson Street and would only support one set of traffic signals of	These intersection upgrades were tested in the Land Use Options Testing Report in the 2036 growth scenario. This upgrade works in conjunction with Item 6, above.
a) Left in/Left o Road/DCP r				These upgrades are recommended for further discussion with the relevant State Agencies and State Corporations for progression
b) Straight ahe Cliff Road/D	ead movement from DCP road.			for the purpose of Transport Delivery Plan which would include State Infrastructure (including State Corporations infrastructure) and Local (Council) infrastructure. It will also involve coordination
c) Right out fro road.	om Cliff Road/DCP		these two intersections. RMS approval would be required on the	with the land owners of 53 Rawson Street. The <i>Central City District Plan</i> actions relevant to this proposed
d) Right in to C (outside of p	Cliff Road/DCP road peak, only).		layout and operation of the traffic signals.	upgrade are Actions A1, A2, A3 and A26.
	Ray Road/Carlingford Road State intersection upgrades: Government	One of the predominant criticisms received in on intersection	These intersection upgrades were tested in the Epping Town Centre Traffic Analysis.	
a) Remove tra barrier on C restrict mov out from bot Rawson Str	Fire lights and install Carlingford Road to rements to left-in/left- th Ray Road and reet as well as		performance during the exhibition phase was regarding the poor function of the Ray Road/Carlingford Road and Beecroft Road/Carlingford Road intersection because of their proximity to one another. These residents want to see an improvement to the performance of these intersections. This feedback was received via submissions, the CIS and the Drop-in Session.	These upgrades are recommended for further discussion with the relevant State Agencies and State Corporations for progression for the purpose of a Transport Delivery Plan which would include State Infrastructure (including State Corporations infrastructure) and Local (Council) infrastructure.
construct; a b) Construct n on western Rawson Str	ew pedestrian bridge side of Ray Road and			The <i>Central City District Plan</i> actions relevant to this proposed upgrade are Actions A1, A2, A3, A4 and A26.
			Some community sentiment disapproves of this intersection upgrade.	

Proposed Road Improvement	Responsibility	Exhibition comments	Council Officers' comments
		RMS raises no objection to the median barrier on Carlingford Road to restrict movements provided it is implemented in conjunction with the proposed signalisation of Carlingford Road and Cliff Road / DCP Road. Further, any pedestrian bridge would need to comply with all relevant Standards, Guidelines and RMS requirements.	
9. Kent Street/Cliff Rd intersection – install a roundabout	Council	Some nearby residents have expressed concern (via submissions and the CIS) that any intersection re- configurations undertaken to increase the amount of traffic travelling in this vicinity were not supported.	This upgrade was tested in the principal traffic study for the 2036 growth scenario and is a low priority and subject to Items 7 and 8 proceeding.
			This upgrade is recommended for further discussion with the relevant State Agencies and State Corporations for progression for the purpose of a Transport Delivery Plan which would include State Infrastructure (including State Corporations infrastructure) and Local (Council) infrastructure.
			The <i>Central City District Plan</i> actions relevant to this proposed upgrade are Actions A1, A2 and A3.
. Kent Street/Carlingford Road intersection – Install traffic signals.	Council / State Government	Some residents have expressed concern that any signalisation of this intersection will turn Kent Street into a <i>main road.</i> This feedback was received via the CIS and submissions.	This upgrade was tested in the East West Link/Bus Tunnel Options Supplementary Report for the 2036 growth scenario.
(Note: This upgrade retains the existing right turn movements that are permitted at the intersection. Traffic signals could be installed if			Given RMS's response, further consultation with RMS would need to be undertaken which would be recommended in the Transport Delivery Plan. With regards to funding, Carlingford Road is a State owned road and it would be re
traffic volumes increase substantially).		RMS would be willing to give further consideration to this intersection provided further analysis is undertaken. RMS also note that any design would be subject to RMS sign- off and seek funding that involves <i>no</i> <i>cost to RMS</i> .	The <i>Central City District Plan</i> actions relevant to this proposed upgrade are Actions A3 and A5.
 11. Increase the capacity of the intersection at Carlingford Road / Beecroft Road by: a) Lengthen queuing for right turn movement from Beecroft Road into Carlingford Road. 	State Government and State Corporation (Landcom)	RMS sees some benefit in the widening of Beecroft Road, (northbound) – on the northern side of Carlingford Road – however recognises that this would require the provision of privately owned land (road widening) from the Service	This upgrade is only part of proposed works within the conclusion of the East West Link/Bus Tunnel Option Supplementary study which states that some additional traffic capacity will also be required at the two most critical road capacity intersections for the Epping town centre - Carlingford Road/Beecroft Road and Epping Road/Blaxland Road - in order to prevent any potential

Proposed Road Improvement	Responsibility	Exhibition comments	Council Officers' comments
 b) Add an additional left turn lane from Carlingford Road into Beecroft Road and lengthen left turn queuing. This involves partial acquisition of: 		Station and the Sydney Metro Northwest site at 240-244 Beecroft Road.	adverse flow on traffic diversion impacts for the existing major road traffic delays at these intersections (p.30).
			These improvements at the intersection of Carlingford/Beecroft Road may be essential to improve the future performance of Item 4 - Re-open the former bus tunnel link. Also, given RMS's
i. 240-244 Beecroft Road;			response, further consultation with RMS would need to be undertaken.
ii. 1-5 Ray Road; and			The Central City District Plan actions relevant to this proposed
iii. 8 Cliff Road.			upgrade are Actions A3 and A5.
East side of Epping Railway line	'		
12. Epping Road – Set a Level of Service for motorists exiting from the east side of Epping, north of Epping Road so that motorists do not wait for	State Government	RMS noted that due to the dynamic nature of traffic demands RMS are unable to guarantee that motorists would not wait for more than 2 cycles of the traffic signals to get onto, or south of, Epping Road.	This improvement was tested within the Epping Town Centre traffic model. However, Council Officers' see that this upgrade can be replaced with alternate improvements in Essex Street and Langston Place. Refer to new items 11, 12 and 13, below.
more than 2 cycles of the traffic signals to get onto, or south of, Epping Road.			Therefore it recommended that this upgrade is not progressed into the Transport Delivery Plan.
Epping Road.			The <i>Central City District Plan</i> actions relevant to this proposed upgrade are Actions A2, A3 and A6.
13. Extend lane lines and 'No Parking' restrictions in Essex Street near	Council	N/A	This upgrade replaces Item 12 and works in conjunction with Item 14 and 15.
Epping Road			The <i>Central City District Plan</i> actions relevant to this proposed upgrade are Actions A2, A3 and A6.
14. Remove bus lane in Langston Place at Epping Road and replace	Council	N/A	This upgrade replaces Item 12 and works in conjunction with Item 13 and 15.
it with straight through lane.			The <i>Central City District Plan</i> actions relevant to this proposed upgrade are Actions A2, A3 and A6.
15. Install raised pedestrian crossing in Essex Street immediately north	Council	N/A	This upgrade replaces Item 12 and works in conjunction with Item 13 and 14.
of Pembroke Street			The <i>Central City District Plan</i> actions relevant to this proposed upgrade are Actions A2, A3 and A6.

TABLE 2 – Proposed Traffic and Transport Improvements and Policy Amend	ments – Minor
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Proposed Road Improvement	Responsibility	Exhibition comments	Council Officers' comments
16. Improve amenity of the pedestrian footpath at Carlingford Road	State Government	This upgrade is also consistent with feedback from residents regarding the existing poor pedestrian amenity and safety concerns.	This upgrade is recommended by Council Officers to improve the walkability between Kent Street and the Epping Railway Station.
between Kent Street and Beecroft Road (north and south footpaths)			This section of Carlingford Road has seen a dramatic increase in population since 2016 as a result of new residential flat buildings on the northern side of Carlingford Road between Kent Street and Cliff Road (east).
			The <i>Central City District Plan</i> actions relevant to this proposed upgrade are Actions A3, A4, A5 and A26 (b).
17. Improve amenity of the pedestrian footpath at Beecroft Road (east) between the bus stop and Carlingford	State Government	This upgrade is also consistent with feedback from residents regarding the existing poor pedestrian amenity and safety concerns.	This upgrade is recommended by Council Officers to improve the walkability at Beecroft Road between Carlingford Road and Epping Station Bridge (east).
Road and Epping Station Bridge (east)			This proposed upgrade is consistent with feedback from residents regarding the existing poor pedestrian amenity and safety concerns on State road infrastructure that link residents to the Epping Railway Station.
			The <i>Central City District Plan</i> actions relevant to this proposed upgrade are Actions A3, A4, A5 and A26 (b).
18. Improve amenity of the pedestrian footpath along Blaxland Road between Maida Road and Epping	State Government	This proposed upgrade is consistent with feedback from residents regarding the existing poor pedestrian amenity and safety concerns on State road infrastructure that link residents to the Epping Railway Station.	This upgrade is recommended by Council Officers to improve the walkability along Blaxland Road between Maida Road and Epping Road).
Road			The <i>Central City District Plan</i> actions relevant to this proposed upgrade are Actions A3, A4, A5 and A26 (b).
19. Update parking controls for residential development within 800m of the Epping Railway Station that:	in 800m n that: es in	The community is split on this issue. Some residents are of the view that reducing car parking rates will place on on-street parking. Other residents are of the view that if car parking rates are not reduced now, it will only worsen the on-street car parking pressures in the future.	Council has prepared a Draft development control plan to reduce car parking rates within the Epping Town Centre (affecting both Parramatta Development Control Plan 2011 and Hornsby Development Control
 Reduces car parking rates in residential development 			Plan 2013) which is also scheduled for the 26 November 2018 Council meeting.
 Provides car share facilities in new development 			When assessing new development applications for residential development, these initiatives will assist with reducing the parking demand from the site and the traffic generated by it.
Enables more stringent Green Travel Plans			The Central City District Plan action relevant to this proposed upgrade is Action A27.

Proposed Road Improvement	Responsibility	Exhibition comments	Council Officers' comments
De-couples apartment lots from car parking lots.			
20. Improve through block	Council	The community have noted that the walkability of the Town Centre Study area could be improved, including through links. This feedback was received via submissions and the CIS.	Council is undertaking a number of initiatives to deliver this via:
connections (existing and new) within and around the town centre			• a fast-tracked amendment to Parramatta DCP 2011 involving footpath widening that came into effect in April 2018.
			• Intervention over a site at 19-21 Forest Grove delivered the widening of a footpath. A future PP will deliver the rest of the widening to Essex Street.
			Also, future planning proposal and development control plan amendments will identify the opportunities for future through links consistent with resolutions of 2017.
			With regards to cycling infrastructure Council's <i>Bike Plan</i> (May 2017) identifies bike routes through the Town Centre Study area that are proposed for upgrading or proposed new routes. These routes connect the centre from the north, south, east and west.
			The <i>Central City District Plan</i> actions relevant to this proposed upgrade are Actions A3, A4, A5 and A26 (b) and (c).
21. Review existing public transport services - particularly buses - that	State Government	Some residents have raised the issue of the inadequacy of the PM bus services. This feedback was received via submissions and the CIS.	This review is recommended by Council Officers given the faster-than- planned growth that has occurred in the last 3 years.
service the Epping Town Centre Study Area			The <i>Central City District Plan</i> action relevant to this proposed upgrade is Action A32.
22. M2 Motorway Tolling Regime – introduce distanced based tolling regime similar to the M7, to encourage non-local through traffic to use the M2 rather than driving through Epping to avoid the M2.	State Government (in conjunction with The Hills Motorways Limited)	sentiment that some form of new pricing regime is required on the M2 Motorway. This is to entice the sub-regional traffic that	A letter dated 30 August 2018) from the Minster for Roads, Maritime and Freight advised that changing the tolling regime would require commercial negotiationsto achieve favorable termsandwould need to be supported by detailed traffic modelling and project scoping to assess the traffic and financial impact of this change (Letter from Minister for RMS, 30 August 2018).
		would switch to using the M2 Motorway if the tolling regime made travel more affordable for this traffic. This feedback was received via submissions and the CIS and the Drop-in session.	The Epping Town Centre Traffic Analysis provides the justification for a review of the tolling regime. Any further analysis to assess the <i>financial impact of this change</i> would need to be undertaken by the State Government as it is a State asset and has district implications outside Parramatta LGA.
			The <i>Central City District Plan</i> actions relevant to this proposed upgrade are Actions A3, A5 and A6.

Proposed Road Improvement	Responsibility	Exhibition comments	Council Officers' comments
23. A pedestrian refuge island in Brigg Road	Council	This road improvement was proposed by a local resident submission.	This item is already on list for consideration of funding. It would ensure pedestrian safety when cars turn right from Blaxland Road into Brigg Road.
			The <i>Central City District Plan</i> actions relevant to this proposed upgrade are Action A26, A27 and A32.
24. A pedestrian refuge island in Maida Road near Blaxland Road	Council	This road improvement was proposed by a local resident submission.	This item is already on list for consideration of funding. It would ensure pedestrian safety owing to the amount of traffic at Blaxland Road with Maida Road.
			The <i>Central City District Plan</i> actions relevant to this proposed upgrade are Action A26, A27 and A32.
25. A roundabout at the intersection of Forest Grove/Maida Road	Council	This road improvement was proposed by a local resident	This item may not be a priority for council but this will be further investigated in terms of accident history.
		submission.	The Central City District Plan action relevant to this proposed upgrade is Action A27.
26. A pedestrian refuge island or	Council	This road improvement was proposed by a local resident submission.	This suggested road improvement requires further investigation.
pedestrian crossing in at Chester Street			The <i>Central City District Plan</i> actions relevant to this proposed upgrade are Action A26, A27 and A32.

The above tables do not constitute a full and comprehensive list of the future traffic and transport improvements recommended for progression into the Transport Delivery Plan. However, they are a first step in progressing relevant traffic and transport improvements to improve the Epping traffic environment.

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The proposed improvements are visually shown in Attachment 4 – Map of proposed works.