

Traffic and Parking Assessment

Queanbeyan Civic and Cultural
Precinct

Prepared for Cox Architecture / 10th February 2020

179094

Contents

1.0	Introduction	4
2.0	The Site	4
3.0	Description of the Development	5
4.0	Existing and Proposed Car Parking Facilities	7
5.0	Parking Demand	7
6.0	Parking Provisions	9
7.0	Existing Traffic Conditions	9
8.0	Peak Traffic Generation and Volumes	9
9.0	Comparison of Pre and Post Development Traffic Volumes	10
10.0	Lowe Street Pedestrian Upgrades	11
11.0	Anticipated Traffic Impact on Surrounding Road Network	12
12.0	Conclusion	12

Revision Register

Rev	Date	Prepared By	Approved By	Remarks
1	11/12/19	CP	RMD	For DA
2	20/12/19	CP	RMD	QPRC Comments Addressed. Lowe Street Changes Added
3	10/02/20	CP	RMD	QPRC Comments Addressed.

1.0 Introduction

Taylor Thomson Whitting has been engaged by COX Architecture to prepare a Traffic Impact and Parking Assessment Report for the proposed development of the Queanbeyan Civil and Cultural Precinct. The development consists of a commercial building for use by council and another tenant as a public administration building of nominal 8836m² GFA, external street scape works and 111 basement car parks accessed off Rutledge Street.

Further to the works on the Queanbeyan Civil and Cultural Precinct, TTW has been requested to consider the likely traffic impacts an upgrade to the pedestrian crossing on Lowe Street to operate as a Children's Crossing during school hours would have on traffic existing the Lowe Street Car Park onto Lowe Street during the peak AM and PM pick up and drop off periods.

This Traffic Impact and Parking Assessment Report has been prepared to support the development application for the Queanbeyan Civil and Cultural Precinct Project and shall be read in conjunction with the Architectural and Civil Engineering Plans accompanying the development application.

The report focusses on determining:

- The peak traffic expected to be generated by the development
- The parking demand of the development
- The compliance of the developments parking arrangements
- The suitability of parking to be provided by the development
- Likely impact of Lowe Street pedestrian crossing upgrades on traffic existing the Lowe Street Car Park, and identify any remedial measures to alleviate potential capacity or safety issues.

The report utilises information from a previous traffic impact assessment to determine the likely impact of the development on the surrounding road network.

This report shall be read in conjunction with the existing traffic report prepared by Sellick Consultants Sellick Consultants PTY LTD Traffic Report, Job Reference - 170279, 21st September 2017 (Sellick Report) that describes the surrounding road network.

2.0 The Site

The development site is located on Crawford Street in the Queanbeyan CBD, nominally in the same position where the old Queanbeyan City Council Administration Building was located (257 Crawford Street).

The development includes works on the following Lots:

- Lot 1 DP 1179998,
- Lot 2 DP 1179998,
- Lot 5 DP 1179998,
- Lot 1 DP 784338, and
- Lot 2 DP 748338.



Figure 1: Locality Plan and Associated Lots

3.0 Description of the Development

The proposed building portion of the Queanbeyan Civil and Cultural Precinct Project consists of a commercial building for use by council and another tenant as an office and administration building, and comprises:

- 5151m2 of Commercial Office Space and Public Administration (Total building area 8836m2)
- 111 basement car parks accessed off Rutledge Street
- A service vehicle lane accessed off Crawford Street (access restricted to service vehicles)



4.0 Existing and Proposed Car Parking Facilities

This section describes the existing and proposed parking provisions associated with the proposed development.

The development requires the temporary removal of 88 existing on grade car spaces from the 148 space Lowe Street car park to the west of the existing council building, and four on street car spaces from Crawford Street. There is no impact on the 71 car spaces located adjacent the Lowe Street car park. On completion of the works a total of 56 on grade car spaces will be reinstated within the Lowe Street car park to the west of the proposed Queanbeyan Civil and Cultural Precinct. A total of 111 basement car spaces are provided as part of the development for use by tenants and visitors.

The development results in a net increase of 71 car spaces available within the area of the proposed development.

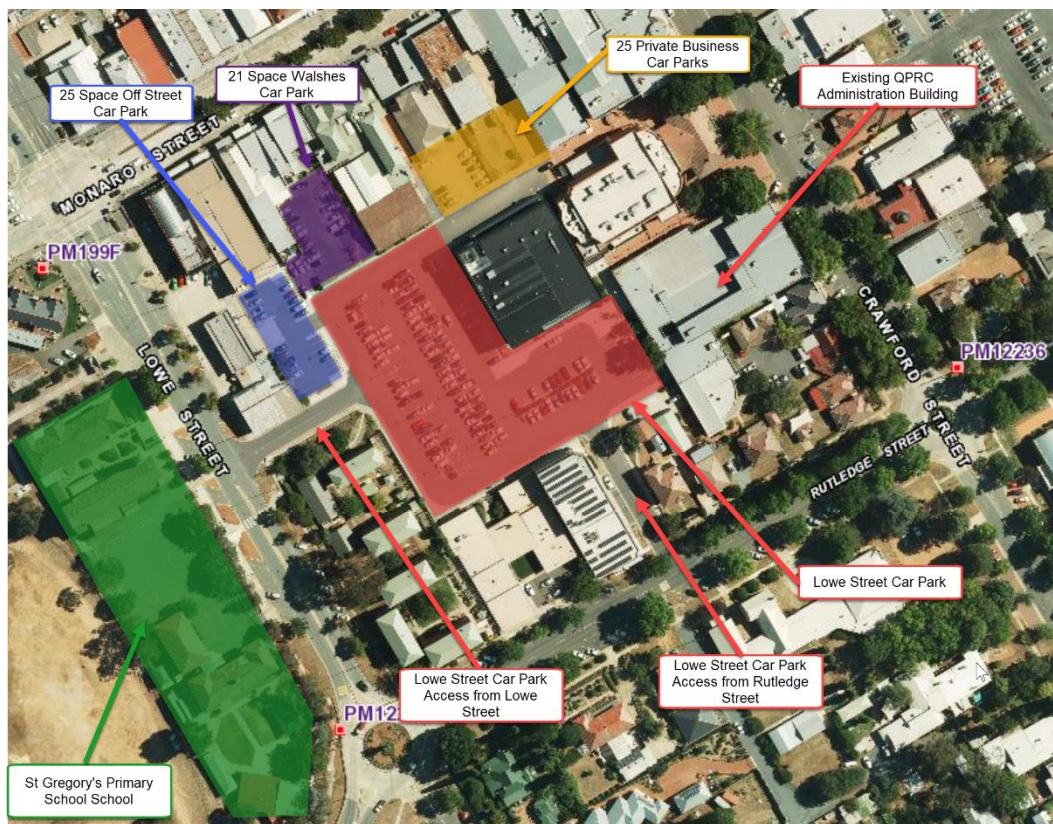


Figure 4: Existing Parking Conditions

5.0 Parking Demand

The following peak parking requirements associated with the development have been determined in accordance with the QRPC Development Control Plan (Part 2).

The DCP states the following parking provisions:

Office Space: 1 space/60m² < 120m², 1 space/40m² (120m² to 1000m²) and 1 space/ 20m² >1000m²,

- Service Vehicles: 1 space per 4000m²
- Replacement of Existing Public Car Spaces: 1 for 1

Public Administration: 1 space per 100m²

The parking requirements for the proposed development are summarised in the following table.

Description	GFA (m ²)	Parking Provision Rates	Required Car Spaces	Number of Car Spaces Provided	Comments
4342m² Public Admin,	4342	1 space per 100m ²	44	58	Only NLA area used for calculations in accordance with commentary provided by the RMS Guide to Traffic Generating Developments
809m² Office,	809	1 space per 60m ² < 120m ² 1 space per 40m ² (120m ² to 1000m ²) 1 space per 20m ² >1000m ²	20	20	Only NLA area used for calculations in accordance with commentary provided by the RMS Guide to Traffic Generating Developments
Service vehicles	8836	1/4000m ²	4	4	Parking for service vehicles is available in the service lane accessed off Crawford Street
Replacement of Existing Public Spaces	N/A	1 for 1	88	88	
Totals			156	170	Parking provisions meet the basic DCP requirements. Refer to Section 6.0 for discussion on parking provisions

Table 1: Summary of Parking Requirements and Provisions

6.0 Parking Provisions

QPRC has carried out a CBD Parking Masterplan that caters for the parking needs of the community to suit continued revitalisation of the CBD and to bring the parking facilities up to current standards. This proposed development caters for the parking requirements of the development for the specific uses of the various areas of the building. The development also replaces parking lost to the area with a surplus of 14 car spaces being provided.

7.0 Existing Traffic Conditions

The following observations on traffic flows and general performance of Lowe Street, Rutledge Street and Crawford Street during the peak am traffic period of 8am and 9.15am on Wednesday 4th December.

- Lowe Street generally functioned at an acceptable level considering that the observations were carried out during peak school drop off period. There were minor delays for vehicles travelling on Lowe Street to allow children and parents to cross the road and to facilitate vehicles entering and existing on street car spaces. Generally, traffic from Monaro Street was able to enter the existing on grade car park from Lowe Street without delay.
- Rutledge Street had a consistent traffic flow for the majority of the survey period, and was generally observed as a more efficient travel route to the CBD and its surrounding areas than Lowe Street as there were no delays caused by on street parking or pedestrian activity within a school zone.
- Crawford Street was observed to generally operate with a seemingly suitable level of service, with only minor delays to right turning traffic onto Monaro Street at the signalized intersection.

8.0 Peak Traffic Generation and Volumes

The peak traffic volumes for the development have been calculated in accordance with the RMS Guide to Traffic Generating Developments and the traffic distributions relating to the operation of the existing on grade car park observed on site.

The peak traffic volumes and vehicle trips per day expected from the proposed development are summarised in the following table.

Description	Peak Hour Generation Rate (V/Hr)	Vehicles Per Day Generation Rate	Units	Peak Hour Traffic Volumes	Daily Vehicle Trips	Comments on Traffic Distribution
Commercial Use	2/100m ²	10/100m ²	8836	220	884	10/20/70 (Crawford Street/Lowe Street/Rutledge Street)
Public Car Parks	2/car space	20/car space	56	112	1120	Assumed split of 40/60 (Lowe Street/Rutledge Street)

Table 2: Peak Traffic Volume Summary

9.0 Comparison of Pre and Post Development Traffic Volumes

This section compares the current total daily traffic volumes of the surrounding road network to those predicted once the development is completed. Table 3 summarises the existing traffic volumes

Road	Average Daily Vehicle Trips	Comments
Rutledge Street	9896	Based on 7 day traffic survey results from Sellick Report
Lowe Street	7808	Based on 7 day traffic survey results from Sellick Report
Crawford Street	7783	Based on 7 day traffic survey results from Sellick Report
Rutledge Street Car Park Access	1342	Based on a weekday average
Lowe Street Car Park Access	1342	Based on the weekday average of Rutledge Street Car Park Access. i.e. assuming a 50% traffic split

Table 3: Existing Traffic Volumes

Table 4 illustrates the anticipated average daily vehicle trips generated by the development and the public car parking accessed via Rutledge and Lowe Streets.

Road	Average Daily Vehicle Trips	Comments
Rutledge Street	1291	Based on the traffic splits nominated in Table 2.
Lowe Street	624	Based on the traffic splits nominated in Table 2.
Crawford Street	N/A	No access to Crawford Street proposed
Rutledge Street Car Park Access	1291	Based on a weekday average
Lowe Street Car Park Access	624	Assumes a 50% traffic split between Lowe and Rutledge Street Accesses

Table 4 indicates a reduction in the overall daily traffic volumes into and out of the site from the Lowe Street and Rutledge Street access ways, and thus a reduction in the traffic on Rutledge and Lowe Street.

The reason for the reduction in total traffic volumes is due to the reduction in overall public parking available in the on-grade car park accessed off Lowe and Rutledge Streets.

10.0 Lowe Street Pedestrian Upgrades

TTW has carried out an assessment of the proposed works to the existing pedestrian crossing on Lowe Street that predominantly services the St Gregory's Primary School. The alterations to the existing crossing involve converting the existing crossing to a flagged childrens crossing during school hours.

The conversion of the existing pedestrian crossing to a flagged childrens crossing will increase the delays to vehicles on Lowe Street as the nominated stopping locations on approach to the flagged crossing will be offset further than the current arrangement.

It is not anticipated that the frequency of pedestrians crossing the road will increase significantly, and only a slight increase in traffic delays are anticipated and should not adversely affect the existing capacity of this section of Lowe Street.

QPRC have requested that TTW investigate options relating to the impact of closing the Rutledge Street access to the Lowe Street car park to allow a dedicated access to the Queanbeyan Civil and Cultural Precinct car park to be provided from Rutledge Street.

Closing of the Rutledge Street access will result in the 127 on grade car parks located in the Lowe Street car park and the adjoining private and public car parks only being accessed via Lowe Street. This arrangement will require right and left turn movements into the Lowe Street car park from Lowe Street necessary.

A number of options for improving the connection between the Lowe Street car park and Lowe Street once the flagged crossing has been implemented and the connection of the Lowe Street car park to Rutledge Street is removed were investigated. Options included:

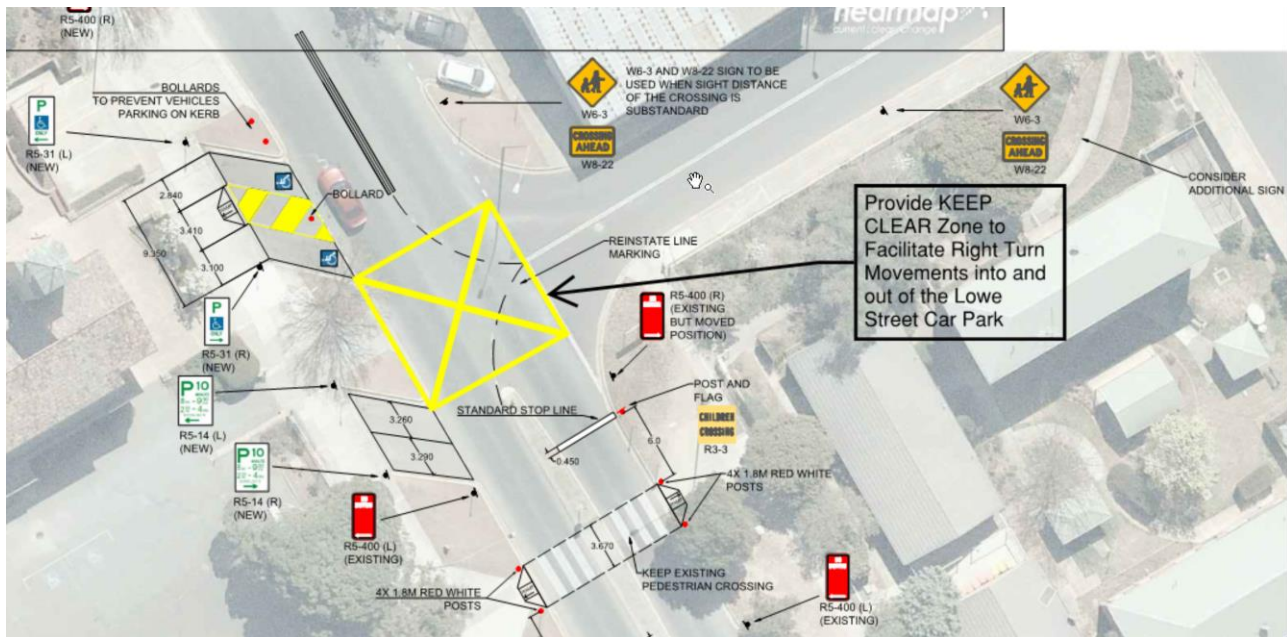
- Option 1: Providing dedicated left and right turn exist lanes to prevent delays to the left turn entry movement to Lowe Street caused by the flagged childrens crossing from delaying the right turn movement onto Lowe Street.
- Option 2: Restricting the movements from the Lowe Street car park to Lowe Street to left turn only.
- Option 3: Providing a central median aisle to restrict movements to and from the Lowe Street car park to left in and out movements.
- Option 4: Providing a keep clear zone within the intersection to permit right turn in and out movements to and from the Lowe Street car park when pedestrians are crossing the flagged childrens crossing.

The first three options were discounted for the following reasons:

- Option 1: This option was discounted as there is insufficient room in the road reserve to accommodate three traffic lanes and two pedestrian paths without having to acquire additional land.
- Option 2: This option was discounted as we believe that drivers will carry out right turn exit movements onto Lowe Street unless there is a physical median barrier installed. Drivers carrying out these movements would pose a significant risk to pedestrians and vehicles travelling north towards Monaro Street.
- Option 3: This option was discounted as it does not allow for the right turn movement into the Lowe

Street car park from Lowe Street. Restricting access to the car park from the Monaro Street direction is not considered appropriate, nor is the delay expected for vehicles exiting the car park during peak pm school pick up and drop off periods.

- Option 4: This option is considered the most appropriate to assist in improving traffic flows over and above the arrangement proposed by QPRC. It is considered appropriate as it facilitates all existing vehicle movements, however the keep clear zone assists in facilitating the right turn into and out of the Lowe Street car park in a more safe and efficient manner.



11.0 Anticipated Traffic Impact on Surrounding Road Network

It has been determined that the average daily traffic volumes for the study area will reduce once the proposed development is completed. The reduction in the average daily traffic volumes relates to the reduction in public parking from 148 to 88.

Whilst the reduction in public parking is not generally in accordance with the QPRC DCP requirements, TTW understands that parking within the CBD area is subject to an overall masterplan strategy and that the reduction of 32 public car spaces associated with the development is able to be offset by existing capacities of other car parks in the CBD.

The reduction in average daily traffic volumes will ensure the development does not have any adverse effects on the overall performance of the surrounding road network.

12.0 Conclusion

A Traffic Impact and Parking Assessment has been carried out for the proposed development of the Queanbeyan Civil and Cultural Precinct. The report determined:

- The peak traffic expected to be generated by the development is expected to be comparable to the existing traffic conditions, however average daily traffic volumes are expected to be reduced.
- The parking associated with the Queanbeyan Civil and Cultural Precinct satisfies the requirements for minimum parking provisions in accordance with the QPRC DCP.

- TTW generally supports the proposed upgrade to the Lowe Street pedestrian crossing to a flagged childrens crossing, however recommends that a keep clear zone be installed within the intersection to improve access for vehicles turning right into and out of the Lowe Street car park.

TTW recommends that the parking and traffic impacts of the proposed development are palatable and should not result in adverse effects to existing traffic and safety conditions.

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