# NORTH SHORE MIXED USE PRECINT

## 30-38 NORTH SHORE BOULEVARD, 6-10 MARKET & 1/6 MARKET STREET, BURDELL QLD 4818

**OneFin Burdell Pty Ltd**

L+R ENGINEERS MANAGERS SCIENTISTS

ENGINEERS MANAGERS SCIENTISTS

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| Revision | Date | Description | Author | Verifier | Approver |
|---|---|---|---|---|---|
| Rev A | 23/07/2024 | RevA | ZN | MB | AG |
| Rev B | 26/7/2024 | RevB | II | MB | AG |
| Rev C | 5/08/2024 | Final | II | MB | AG |
| | | | | | |

Authorised by:

**A.W.GREEN** BE(Civil & Construction) (Hons), RPEQ, CPEng

PRINCIPAL TRAFFIC ENGINEER

# 1 INTRODUCTION

Lambert & Rehbein has been commissioned by OneFin Burdell Pty Ltd to undertake a Traffic Impact Assessment for a proposed new application to alter the approved North Shore Mixed Use Precinct. The development site is located at 30-38 North Shore Boulevard, 6-10 Market Street & 1/6 Market Street, Burdell QLD 4818, the development footprint covers the lots formally described as Lot 843 on SP233011, Lot 2844 on SP253500 and Lot 850 on SP240571, with a total site area of 19,427m$^2$. This new development application is best summarised below.

There is a *Current Approval* over the site (MCU22/0033.01) which includes the following uses:

- Showroom – 4,306m$^2$ GFA
- Food and drink outlet 1 – 300m$^2$ GFA
- Food and drink outlet 2 – 270m$^2$ GFA
- Childcare centre – 832.5m$^2$ GFA (120 children, 21 staff)

There is a live, properly made *Change Application* over the site (MCU22/0033.04) seeking to alter the existing development approval to include the following uses:

- Showroom (Large Format Retail) – 2,166m$^2$ GFA
- Supermarket – 1,797m$^2$ GFA
- Food and drink outlet 1 – 300m$^2$ GFA
- Food and drink outlet 2 – 270m$^2$ GFA
- Childcare centre – 832.5m$^2$ GFA (120 children, 21 staff)

This *New Application* seeks to make further changes to the approved uses to include the following use breakdown:

- Supermarket– 1,797m$^2$ GFA
- My Car Service Centre (Light Industrial) – 400m$^2$ GFA
- Food and drink outlet 1 – 300m$^2$ GFA
- Food and drink outlet 2 – 270m$^2$ GFA
- Childcare centre 832.5m$^2$ GFA (120 children, 21 staff)
- Unassigned Floor Space – 2,516m$^2$ GFA (including Mezzanine Level – 750m$^2$ GFA)

In regards to the "Unassigned Floor Space", a review was completed across the site to determine possible tenancy sizes and land uses that the remaining 2,516m$^2$ GFA could be reconfigured to. See **Section 4** for this assessment.

This report will establish Traffic Engineering compliance, supporting this New Application against both baseline cases; (MCU22/0033.01) and (MCU22/0033.04).

There is no change to the proposed access arrangement to the development site which will access the external road network at three (3) existing accesses - one (1) access on Nexus Drive, and two (2) on Market Street.

The proposed site layout, prepared by Thomson Adsett has been included in **Appendix A**.

This report has been undertaken to assess the potential impact that the proposed development could have on the external road network surrounding the site, and is set out as follows:

**Section 2** discusses the existing land use and traffic arrangements in the vicinity of the proposed development site.

**Section 3** provides details of the proposed development, including an assessment of the site layout, access, and servicing arrangements.

**Section 4** displays the calculations and assumptions used to establish the forecast generation and distribution of the proposed development traffic.

**Section 5** summarises the key outcomes of the traffic investigations.

Lambert & Rehbein has derived the data in this report primarily from the data provided by the Client, and a desktop site investigation undertaken in February 2024.

This report has been prepared on behalf of and for the exclusive use of the Client, and is subject to and issued in connection with the provisions of the agreement between Lambert & Rehbein and the Client. Lambert & Rehbein accepts no liability or responsibility whatsoever for or in respect of any use of or reliance upon this report by any third party.

# 2 CONTEXT OF THE DEVELOPMENT SITE

This section of the report describes the context of the proposed development and includes a description of the existing road network, adjacent land uses, and existing public transport facilities servicing the site.

## 2.1 DEVELOPMENT SITE

The development site is located at 30-38 North Shore Boulevard, 6-10 Market Street & 1/6 Market Street, Burdell QLD 4818, the development footprint covers the lots formally described as Lot 843 on SP233011, Lot 2844 on SP253500 and Lot 850 on SP240571.

The development site forms part of the Stockland's North Shore Master Plan / Plan of Development Area and is located within the Commercial Planning Area – Neighbourhood Centre sub planning area. The development site is zoned as an 'Emerging Community' as per the Townsville City Council's (TCC) City Plan.

The site is generally surrounded by residential dwellings to the east, a retail precinct to the west, and a recreation centre to the north. **Figure 2-1** below shows the proposed development site in the context of the surrounding road network and the linkages to the external network.


*Figure 2-1: Proposed Development Site*

## 2.2 EXISTING APPROVALS

We understand that the site's original approval was for the following uses:

- Showroom (Large Format Retail) – 4,306m$^2$ GFA
- Food and drink outlet 1 – 300m$^2$ GFA
- Food and drink outlet 2 – 270m$^2$ GFA
- Childcare centre – 108 children, 6 staff (999m$^2$ GFA)

Subsequent to this approval, a minor change has been submitted to increase the Childcare from 108 children, 6 staff (999m$^2$ GFA) to 120 children, 21 staff (832.5m$^2$ GFA). As per the approved conditions for the minor change, a minimum of 172 parking spaces must be provided across the whole site.


## 2.3 CURRENT APPLICATIONS

We understand that there is a live, properly made change application that was lodged with Townsville City Council over the site (MCU22/0033.04) on 19 June, 2024. This current application seeks to alter the existing development approval over the site to change the land use of a tenancy from a Showroom to a Shopping Centre (Supermarket). This change comes with minimal changes to the approved building footprint that results in a slight reduction in GFA. The proposed development generally operates in a similar manner to the approved development. This application currently remains under assessment with Townsville City Council and is currently within the public notification period, which is due to conclude on 15 August, 2024.

## 2.4 ADJACENT ROAD NETWORK

A desktop inspection of the land use, road condition, intersection characteristics, public transport facilities, pedestrian access, and cyclist provisions surrounding the proposed development site has been undertaken in preparation of this assessment. This was completed to collect information about the road network form, safety characteristics, public transport network and specific network / land-use factors potentially of influence to the proposed development.

### 2.4.1 Market Street

Market Street runs along the north-western frontage of the development site and is identified as a 'Local Road' as per the TCC Planning scheme. Market Street has the following characteristics at the site frontage, as illustrated in **Figure 2-2**:

- Four-lane, two-way median divided road;
- Kerb and channel on both sides of the road;
- No posted speed limit, assume 50km/hr;
- No cycle lanes provided;
- Road reserve width of approximately 20m; and
- Footpaths provided along both sides of road.


*Figure 2-2 Market Street (Facing Northeast)*

### 2.4.2 North Shore Boulevard

North Shore Boulevard runs along the south-western frontage of the development site and is identified as an 'Arterial Road' as per the TCC Planning scheme. North Shore Boulevard has the following characteristics at the site frontage, as illustrated in **Figure 2-3**:

- Five-lane, two-way median divided road, with localised widening at intersections;
- Kerb and channel on both sides of the road;
- Posted speed limit of 60km/hr;
- No cycle lanes provided;
- Road reserve width of approximately 27m at narrowest section of the site frontage; and
- Footpaths provided along both sides of road.


*Figure 2-3 North Shore Boulevard (Facing Northeast)*

## 2.5 PUBLIC AND ACTIVE TRANSPORT FACILITIES

The development site is reasonably well connected to the surrounding active transport facilities, with existing pedestrian pathways provided along both sides of the development boundary, connecting the site to the wider active transport network.

The subject site is well serviced by public transport facilities with four (4) Translink bus stops within a typical 400 metre walking catchment, as seen in **Figure 2-4**. The publicly available routes that service the aforementioned bus stops are detailed in **Table 2-1**.


*Figure 2-4 Surrounding Bus Services*

*Table 2-1 Translink Bus Services*

| Translink Stop ID | Translink Route ID | Description |
|---|---|---|
| #890658 | 233 | Stockland, North Shore, Bushland Beach North |
| | 295 | North Shore, Bushland Beach Inbound Pick up only |
| | 232 | Stockland, North Shore, Burdell North |
| #890657 | 233 | Stockland, North Shore, Bushland Beach North |
| | 232 | Burdell, North Shore, Stockland South |
| | 274 | Jensen, Deeragun, Bushland Beach Inbound Pick up only |
| | 298 | Bushland Beach, Deeragun, North Shore Inbound Pick up only |
| | 297 | Deeragun, North Shore Outbound Drop-off only |
| | 295 | Bushland Beach Outbound Drop-off only |
| | 273 | Jensen, Deeragun Inbound Pick up only |
| #891071 | 232 | Burdell, North Shore, Stockland South |
| #891070 | 232 | Stockland, North Shore, Burdell North |

## 2.6 FUTURE INFRASTRUCTURE UPGRADES

The following resources were reviewed to determine if there are any future transport infrastructure upgrades within close proximity of the development site:

- TCC's Local Government Infrastructure Plan (LGIP)
- Queensland Transport and Road Investment Program (QTRIP)
- Queensland Government's Development Assessment Mapping System (DAMS)

A review of these sources found three (3) future trunk transport infrastructure upgrades in close proximity to the subject site as shown in **Figure 2-5**. The schedule of works for these projects is described in **Table 2-2**.

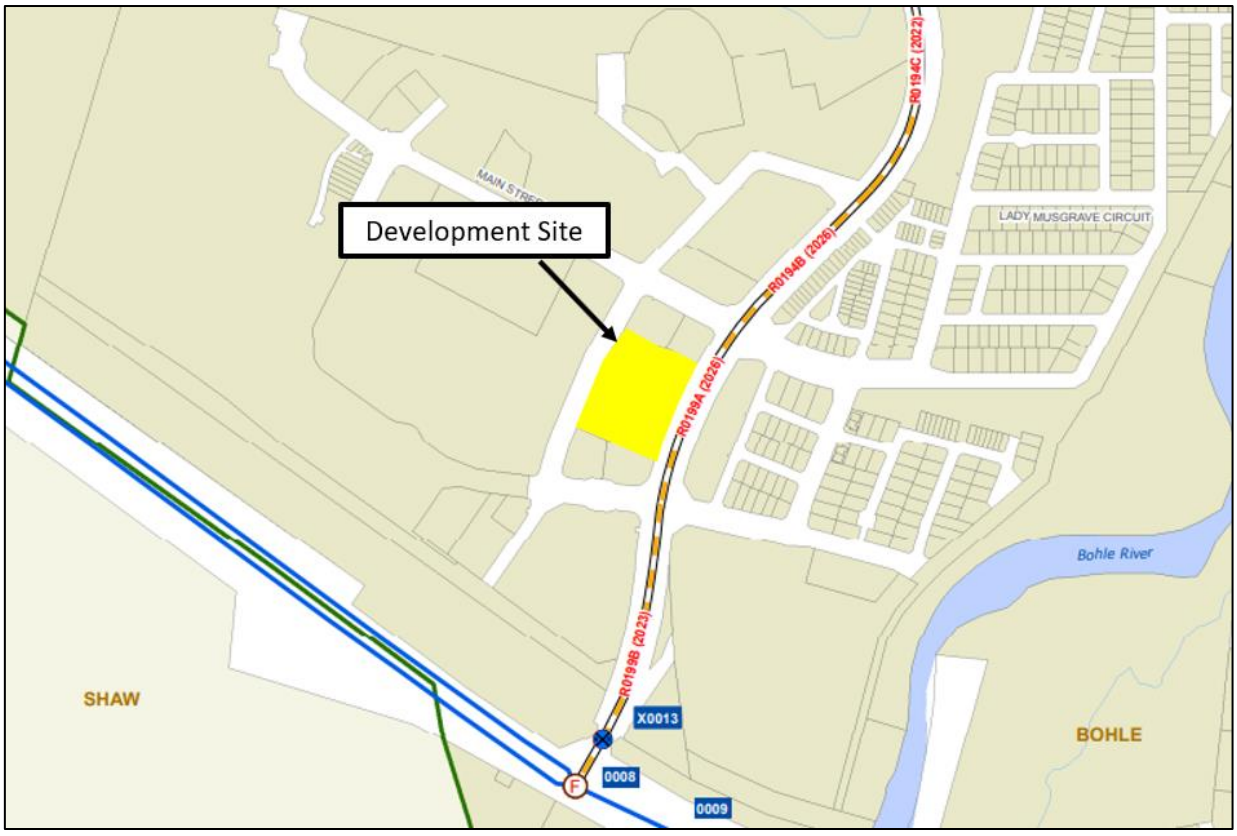



*Figure 2-5 Map of Future Trunk Infrastructure Upgrades*

*Table 2-2 Logan City Council Local Government Infrastructure Plan (LGIP) Movement Network Schedule of Works*

| Map Reference | Trunk Infrastructure | Year | Establishment Cost Total ($) |
|---|---|---|---|
| R0194B | Bayliss Road Extension (Green Road to Park Ridge Road) (2 lane urban collector) | 2026 | $3,823,456 |
| RO199A | Park Ridge UA4 (Kantenna Street / UA1 / UA3 to Park Ridge Road) (2 lane urban collector) | 2026 | $1,104,161 |
| RO199B | Park Ridge UA1 (Green Road to Kantenna Street/UA 3) (2 lane urban collector) | 2023 | $1,758,771 |

# 3 DETAILS OF THE PROPOSED DEVELOPMENT

This section of the report describes the nature of the proposed development, the proposed access arrangements, servicing arrangements and on-site manoeuvrability.

## 3.1 EXISTING APPROVED DEVELOPMENT

As outlined in **Section 3**, the existing approved mixed-use development contains a variety of different uses and associated car parking, the proposed uses include:

- Showroom (Large Format Retail) – 4,306m$^2$ GFA
- Food and drink outlet 1 – 300m$^2$ GFA
- Food and drink outlet 2 – 270m$^2$ GFA
- Childcare centre – 120 children, 21 staff (832.5m$^2$ GFA)

## 3.2 PROPOSED DEVELOPMENT

The proposed development with associated parking is for a change to the Large Format Retail (showroom) land use, with the site to now include the following uses:

- Unassigned Floor Space – 2,516m$^2$ GFA (including Mezzanine Level – 750m$^2$ GFA)
- Supermarket– 1,797m$^2$ GFA
- My Care Service Centre– 400m$^2$ GFA
- Food and drink outlet 1 – 300m$^2$ GFA
- Food and drink outlet 2 – 270m$^2$ GFA
- Childcare centre 832.5m$^2$ GFA (120 children, 21 staff)

Regarding the "Unassigned Floor Space," an assessment was conducted to explore potential tenancies and land uses for the remaining 2,516m² GFA. Potential land uses include:

- Showroom
- Indoor Entertainment
- Commercial Premises
- Shop
- Medical Centre

Although specific tenancies have not yet been determined, for the purpose of this assessment, the following three (3) tenancies with their assigned GFA have been assumed:

- Showroom – 1,300m$^2$ GFA
- Indoor Entertainment – 750m$^2$ GFA (maximum)
- Other– 466m$^2$ GFA (maximum)

For the purposes of this assessment, "Other" has been designated as Medical Centre, given that this land use generates higher parking and traffic demand compared to other options such as Showroom, Indoor Entertainment, Commercial premises, and Shop.

The car parking assessment outlined in **Section 4.4** should therefore be considered a 'worst-case scenario.' This conservative approach ensures a thorough evaluation of the maximum potential impact on parking and traffic while providing future flexibility for the site regarding land uses.

The proposed development site plan and architectural drawings, prepared by Thomson Adsett, have been included in **Appendix A**.

We understand that in comparison to the approved development total site GFA, this new application results in an increase of 557m$^2$ of GFA across the site.

## 3.3 PROPOSED ACCESS ARRANGEMENTS

The proposed development site gains access to the road network at three (3) existing accesses - one (1) access on Nexus Drive, and two (2) on Market Street. These accesses have the following movement provisions:

- A left-in only slip lane to the adjacent McDonald's and Caltex stores on Nexus Drive; and
- Two (2) existing all-movement crossovers on Market Street.

## 3.4 CARPARKING REQUIREMENTS AND PROVISIONS

We understand that the existing approved development is conditioned to provide 172 parking spaces for the land uses outlined in **Section 3.0** and illustrated below in **Table 3-1**.

*Table 3-1 Existing Approved Development Parking Requirements*

| Use | Required Parking Rate | Yield | Car Parking Spaces |
|---|---|---|---|
| **Showroom (Large Format Retail)** | **1 space per 40m² of GFA** | **4,306 m2** | Conditioned to provide **172 parking spaces** |
| Food and Drink Outlet 1 | 1 space per 10m² of GFA available to the public (including outdoor dining) | 300 m$^2$ | |
| Food and Drink Outlet 2 | 1 space per 10m² of GFA available to the public (including outdoor dining) | 270 m$^2$ | |
| Childcare Centre | 1 space for every 6 children | 120 children | |
| | 1 space per employee (FTE) | 21 staff | |

**Table 3-2** below calculates the change in parking requirements for the live Change Application based on TCC's *Parking Rates Planning Scheme Policy*.

*Table 3-2 Change Application Parking Requirements*

| Use | Required Parking Rate | Yield | Car Parking Spaces |
|---|---|---|---|
| Previous Approval Including 4,306m$^2$ of LFR | | | |
| Childcare Centre | 1 space for every 6 children | 120 children | Conditioned to provide **172 parking spaces** |
| | 1 space per employee (FTE) | 12 staff | |
| Food and Drink Outlet 1 | 1 space per 10m² of GFA available to the public (including outdoor dining) | 300 m$^2$ | |
| Food and Drink Outlet 2 | 1 space per 10m² of GFA available to the public (including outdoor dining) | 270 m$^2$ | |
| **Large Format Retail** | **1 space per 40m² of GFA.** | **4,306 m2** | |
| Change Application (Reallocation of LFR 4,306m$^2$) | | | |
| Childcare Centre | 1 space for every 6 children | **No Net Change** | |
| | 1 space per employee (FTE) | | |
| Food and Drink Outlet 1 | 1 space per 10m² of GFA available to the public (including outdoor dining) | | |
| Food and Drink Outlet 2 | 1 space per 10m² of GFA available to the public (including outdoor dining) | | |
| **Large Format Retail (approved)** | **1 space per 40m² of GFA** | **-4,306m2** | **-108** |
| Large Format Retail | 1 space per 40m² of GFA | +2,166m2 | +55 |
| Shop | 1 space per 25m² of total retail area available to the public and 1 space for each 100m² of total storage GFA. | +1,110 m2 | +45 |
| | | +687 m2 | +7 |
| **Difference in Parking Requirement** | | | **-1** |
| **Change Application Parking Requirement** | | | **171** |

As summarised in **Table 3-2**, the minimum parking requirement for the live Change application is 171 parking spaces which is one (1) less than the previous approved development.

**Table 3-3** below calculates the change in parking requirements for the New application based on TCC's *Parking Rates Planning Scheme Policy*.

*Table 3-3 New Application Parking Requirements*

| Use | Required Parking Rate | Yield | Car Parking Spaces |
|---|---|---|---|
| Previous Approval Including 4,306m$^2$ of LFR | | | |
| Childcare Centre | 1 space for every 6 children | 120 children | Conditioned to provide **172 parking spaces** |
| | 1 space per employee (FTE) | 12 staff | |
| Food and Drink Outlet 1 | 1 space per 10m² of GFA available to the public (including outdoor dining) | 300 m$^2$ | |
| Food and Drink Outlet 2 | 1 space per 10m² of GFA available to the public (including outdoor dining) | 270 m$^2$ | |
| **Large Format Retail** | **1 space per 40m² of GFA.** | **4,306 m2** | |
| New Application (Reallocation of LFR 4,306m$^2$) | | | |
| Childcare Centre | 1 space for every 6 children | **No Net Change** | |
| | 1 space per employee (FTE) | | |
| Food and Drink Outlet 1 | 1 space per 10m² of GFA available to the public (including outdoor dining) | | |
| Food and Drink Outlet 2 | 1 space per 10m² of GFA available to the public (including outdoor dining) | | |
| **Large Format Retail (approved)** | **1 space per 40m² of GFA** | **-4,306m2** | **-108** |
| Shop | 1 space per 25m² of total retail area available to the public and 1 space for each 100m² of total storage GFA. | +1,110 m2 | +45 |
| | | +687 m2 | +7 |
| Light Industrial | 1 space per 100m² of GFA | +400 m2 | +4 |
| Indoor Sport and Recreation | Sufficient spaces to accommodate the amount of vehicle traffic likely to be generated by the particular use* | +750 m2 | +21 |
| Large Format Retail | 1 space per 40m² of GFA | +1,300m2 | +33 |
| Health care services | 1 space per 20m² of GFA | +466 m2 | +23 |
| **Difference in Parking Requirement** | | | **25** |
| **New Development Application Parking Requirement** | | | **197** |

* TCC doesn't specify a parking rate for indoor space and recreation, a rate of 1 space per 35 m$^2$ has been assumed based off anticipated demand at previous accepted developments

As summarised in **Table 3-3**, the minimum parking requirement for the proposed development is 197 parking spaces. As shown on the architectural plans included in **Appendix A**, the proposed development provides 187 parking spaces, including seven (7) PWD spaces, plus three (3) internal parking bays within the My Car Service Centre, equating to a total of 190 car parking spaces. This results in a shortfall of 7 parking spaces when compared with Councils' minimum parking requirements, equivalent to a 3.5% shortfall.

As a mixed-use development, it is expected that there will be a reasonable portion of visitors from each of the various uses that will visit more than one (1) use during the same trip. As such, a 3.5% cross-utilisation discount rate could reasonably be applied to the overall parking requirements for the site resulting in 190 carparks meeting Council's minimum requirements.

This short fall of 7 car spaces is not expected to be an issue as we expect a significant portion of crossutilisation on-site given the number of tenancies and differing land uses. The operating hours of the various tenancies on site have non concurrent peak periods and as such have varying demands throughout the day. Therefore, we believe that the carparking provisions are sufficient for the anticipated demand. Again, we note that the above analysis should be considered as a 'worst case scenario' as the assessment has been completed assuming the 'unassigned GFA' against the highest parking generating land uses.

## 3.5 INTERNAL CAR PARKING DESIGN

**Table 3-4** presents the traffic engineering elements of the proposed car park area and the respective level of compliance with *AS2890.1*.

*Table 3-4 Carpark Design*

| Design Aspect | Proposed Provision | AS2890.1 Requirement | Compliance |
|---|---|---|---|
| Visitor Parking Bay<br>- Length | 5.4m | 5.4m | AS2890.1 Compliant |
| Visitor Parking Bay<br>- Width | 2.6m | 2.6m | AS2890.1 Compliant |
| PWD Parking Bay<br>- Length | 5.4m | 5.4m | AS2890.1 Compliant |
| PWD Parking Bay<br>- Width | 2.6m + 2.6m shared area | 2.4m + 2.4m shared area | AS2890.1 Compliant |
| Two way Parking Aisle Minimum Width | 6.6m | 5.8m | AS2890.1 Compliant |

As outlined in **Table 3-4** above, the proposed car parking area layout is generally in accordance with the requirements of *AS2890.1*.

## 3.6 VEHICLE SERVICING REQUIREMENTS

All servicing for the proposed development is to occur on-site in the dedicated loading bays throughout the site associated with the individual land uses. The proposed development provides a service vehicle access road and loading area partially around the perimeter of the showroom tenancy building as marked out by yellow diagonal lines in **Figure 3-1**. The development also provides an independent loading bay for each food and drink outlet.

The development makes adequate on-site provision for the access, loading, unloading and manoeuvring of service vehicles which are sufficient to cater for the demand generated by the development and the service vehicles utilised. TCC's planning scheme does not provide service vehicles for different land uses. Therefore, the largest vehicles to service the site have been adopted as follows:

- Showroom Tenancies and Supermarket– Articulated Vehicle (AV);
- Food and Drink Outlets– Medium Rigid Vehicle (MRV); and
- Child Care Centre– Van;
- Low Impact Industry– Medium Rigid Vehicle (MRV)

Refuse collection has been assumed to be undertaken by a Heavy Rigid Vehicle (HRV) – which has a 12.5m turning radius in accordance with the TCC Planning Scheme.

The largest anticipated service vehicles (AV) are able to enter and exit the site in forward gear. Swept paths demonstrating these manoeuvres are included in **Appendix D**.

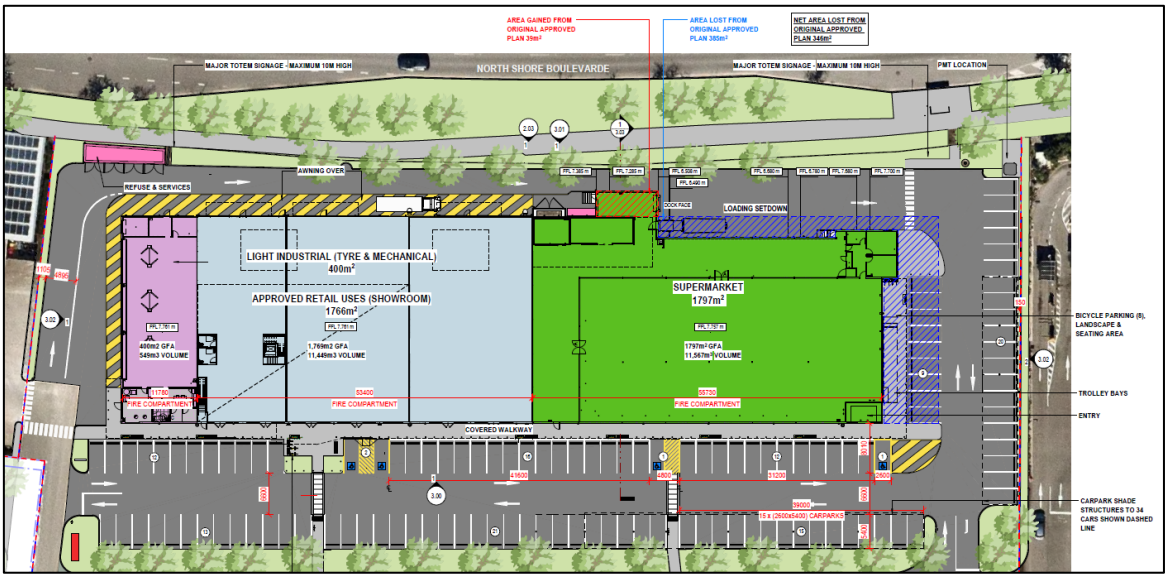



*Figure 3-1 Loading Area for Service Vehicles*

## 3.7 INTERNAL PEDESTRIAN PATHWAYS

The proposed development contains pedestrian pathways throughout the site and a pedestrian route is established along all existing road frontages. The internal pathway system connecting proposed buildings is clear and legible, connecting pedestrians back to the established network. Details of the proposed internal pedestrian pathways are illustrated on the architectural drawings included in **Appendix A**.

# 4 IMPACT ASSESSMENT

This section of the report provides details of the potential impact that the development generated traffic volumes could have on the operation of the surrounding road network. We note that the majority of assumptions made in regards to background traffic and development traffic remains unchanged from the original traffic analysis provided to Council.

## 4.1 BACKGROUND TRAFFIC

Vehicle movement survey data was collected at the Nexus Drive / Market Street / Galaxy Entrance roundabout and the Main Street / Market Street signalised intersection on Thursday 26th May and Saturday 28th May 2022.

The intersection count data was collected from 6:00 AM to 9:00 AM and 2:00 PM to 6:00 PM during the weekday and 9:00 AM to 1:00 PM during the weekend and presented in 15-minute intervals to capture peak periods.

The peak hours for the network were found to be as follows:

- 8:00 AM to 9:00 AM for the weekday morning peak;
- 4:30 PM to 5:30 PM for the weekday afternoon peak; and
- 10:45 AM to 11:45 AM for the weekend midday peak.

A summary of the traffic survey data is displayed in **Figure B1** and **Figure B1**, with detailed traffic survey data included in Appendix **B**.

The predicted opening year for the proposed development is forecast to be 2024 as per the original traffic assessment. To assess the future background traffic a linear growth rate of 2% per annum has been applied to all movements at the analysed intersections. The predicted background traffic in 2024 and 2034 (10-year design horizon) has been presented in **Figure A2, Figure A3**, **Figure B2 and Figure B3**.

We note that the traffic coming in and out of the development site at the existing access on Market Street has been estimated using first principal calculations for the existing adjacent uses on site, based on the trip generation rates outlined in the RMS (formally RTA) Guide to Traffic generation developments. The existing development traffic rates, directionality and anticipated traffic is displayed in **Table 4-1** for the Site's two critical peaks (weekday PM Peak and Weekend Midday Peak), as per the original Council IR response. The GFA of the service station and gymnasium have been taken from aerial imagery.

The traffic associated with the adjacent development (service station and food and drink outlet) has been sourced from the TTM development application (Approved subject to conditions MCU21/0003, dated 22/03/2021) and has been included in the background traffic for this assessment. The background traffic associated with the existing developments has been displayed in **Table 4-2**.

*Table 4-1 Existing Development Traffic Rates and Directionality- Background Traffic*

| Land Use | Generation Rate | | Directionality (% in / % out) | |
|---|---|---|---|---|
| | PM Peak | Weekend Peak | PM Peak | Weekend Peak |
| McDonald's (Food and Drink - tier 1) | 180 trips /hr | 180 trips /hr | 50% In / 50% Out | 50% In / 50% Out |
| Service Station | 66 trips/ 100m$^2$ GFA | 66 trips/ 100m$^2$ GFA | 50% In / 50% Out | 50% In / 50% Out |
| Gym | 9 trips / 100m$^2$ GFA | 9 trips / 100m$^2$ GFA | 50% In / 50% Out | 50% In / 50% Out |
| Food and Drink Outlet | 160 trips /hr | 160 trips /hr | 50% In / 50% Out | 50% In / 50% Out |
| Service Station | 66 trips/ 100m$^2$ GFA | 66 trips/ 100m$^2$ GFA | 50% In / 50% Out | 50% In / 50% Out |

As such, based on the above guidelines and assumptions, the estimated traffic generated by the existing developments, is documented in **Table 4-2.**

*Table 4-2 Existing Development Traffic generation – Background Traffic*

| Land Use | Yield | Pm Peak In | Pm Peak Out | W/e Peak In | W/e Peak Out |
|---|---|---|---|---|---|
| McDonald's (Food and Drink - tier 1) | - | 90 | 90 | 90 | 90 |
| Service Station | 366m$^2$ | 121 | 121 | 121 | 121 |
| Gymnasium | 1,077m$^2$ | 49 | 49 | 49 | 49 |
| Food and Drink Outlet | - | 80 | 80 | 80 | 80 |
| Service Station | 240 | 79 | 79 | 79 | 79 |
| Total Traffic Generation | | 837 | | 837 | |

## 4.2 DEVELOPMENT TRAFFIC

Additional traffic associated with the proposed development has been forecasted using the RMS (formally RTA) Guide to Traffic generation developments – Updated traffic surveys (2013) and traffic generation surveys of existing developments. All uses in the development have been adopted in both peak hours for this analysis. The traffic generation rates, and in / out directionality splits adopted for the analysis have been documented in **Table 4-3**.

*Table 4-3 Traffic Generation Rates*

| Land Use | Generation Rate | | Directionality (% In / % Out) | |
|---|---|---|---|---|
| | W/E Peak | PM Peak | W/E Peak | PM Peak |
| Childcare Centre | - | 0.7/child | - | 20% IN / 80% OUT |
| Large Format Retail* | 3.9 veh/hr/100m2 | 2.7 veh/hr/100m2 | 50% IN / 50% OUT | 50% IN / 50% OUT |
| Indoor Entertainment | 9 trips / 100m2 GFA | 9 trips / 100m2 GFA | 50% In / 50% Out | 50% In / 50% Out |
| Medical Centre | 8.8 / 100m2 GFA | 8.8 / 100m2 GFA | -50% In / 50% Out | 50% In / 50% Out |
| Shop (Aldi)** | 16.14 veh/hr/100m2 | 15.59 veh/hr/100m2 | 50% IN / 50% OUT | 50% IN / 50% OUT |
| Food and Drink Outlet 1 (Krispy Kreme) | 100veh/hr | 100veh/hr | 50% IN / 50% OUT | 50% IN / 50% OUT |
| Food and Drink Outlet 2 (KFC) | 100veh/hr | 100veh/hr | 50% IN / 50% OUT | 50% IN / 50% OUT |
| MyCar Service Centre | 1 veh/hr/100m$^2$ | 1 veh/hr/100m$^2$ | 50% IN / 50% OUT | 50% IN / 50% OUT |

** Trip Generation sourced Guide to Traffic Generating Developments 04a Updated traffic surveys*

*** Trip Generation sourced from similar North Queensland supermarkets from DTMR Open source data*

As such, based on the above guidelines and assumptions, the estimated traffic generated by the proposed development, is documented below in **Table 4-4**.

*Table 4-4 Trip Generation*

| Land Use | Yield | W/E Peak (In) | W/E Peak (Out) | PM Peak (In) | PM Peak (Out) |
|---|---|---|---|---|---|
| Childcare Centre | 120 children | - | - | 17 | 67 |
| Large Format Retail | 1,300m$^2$ | 25 | 25 | 18 | 18 |
| Indoor Entertainment | 750 m$^2$ | 15 | 15 | 15 | 15 |
| Medical Centre | 466 m$^2$ | 21 | 21 | 21 | 21 |
| Shop (Aldi) | 1,797m$^2$ | 145 | 145 | 140 | 140 |
| Food and Drink Outlet 1 | 300m$^2$ | 50 | 50 | 50 | 50 |
| Food and Drink Outlet 2 | 270m$^2$ | 50 | 50 | 50 | 50 |
| MyCar Service Centre | 400m$^2$ | 2 | 2 | 2 | 2 |
| **Proposed Total Trips per Peak Hour** | | **327** | **327** | **331** | **381** |
| | | **653** | | **712** | |

As illustrated in **Table 4-4,** the site is anticipated to generate 653 AM peak and 712 PM peak trips.

## 4.3 TRIP DISTRIBUTION

The adopted distribution of the existing and proposed development trips to and from the surrounding road network are displayed in **Figure A4**. We have assumed that a vehicle travelling from Nexus Drive (south of the development site) is likely to take the routes highlighted in blue in **Figure 4-1**, to access the site. A vehicle travelling from Main Street (north of the development site) is likely to take the routes highlighted in yellow in **Figure 4-1** to access the site. It should be noted that while we anticipate that it will be an unlikely occurrence, we have provided allowance for a small percentage of vehicles to take the routes highlighted in red in **Figure 4-1** below.


*Figure 4-1 Likely Vehicle Routes*

## 4.4 DESIGN TRAFFIC

The design traffic (background traffic plus the development generated traffic) in 2024 and 2034 is displayed in **Figure A7** and **Figure A8**.

## 4.5 INTERSECTION ANALYSIS

SIDRA intersection assessment has been undertaken at the following intersections during the W/E and PM peak periods:

- Main Street / Market Street signalised intersection;
- Nexus Drive / Market Street / Galax Entrance roundabout;
- Market Street / Northern Access;
- Market Street / Southern Access

For the purpose of this analysis, we have considered the following design scenarios:

- 2024 Background;
- 2034 Background;
- 2024 Design (Background + Development Traffic); and
- 2034 Design (Background + Development Traffic).

### 4.5.1 SIDRA model Assumptions

The following parameters have been applied to the SIDRA models:

- A Saturation Flow of 1,950 through car units per hour;
- A Peak Flow Period of 30 minutes, with a conservative Peak Flow Factor of 95%;
- Intersection geometry based on measurements of aerial imagery; and
- Gap acceptance parameters based on default SIDRA values.

We note that all intersections have been analysed using conservative values for both peak flow factors and peak flow periods. These values effectively inflate the design traffic volumes, producing a more conservative assessment of each intersection.

### 4.5.2 Main Street / Market Street Signalised intersection;

The existing configuration of the Main Street / Market Street intersection can be seen in **Figure 4-2**.

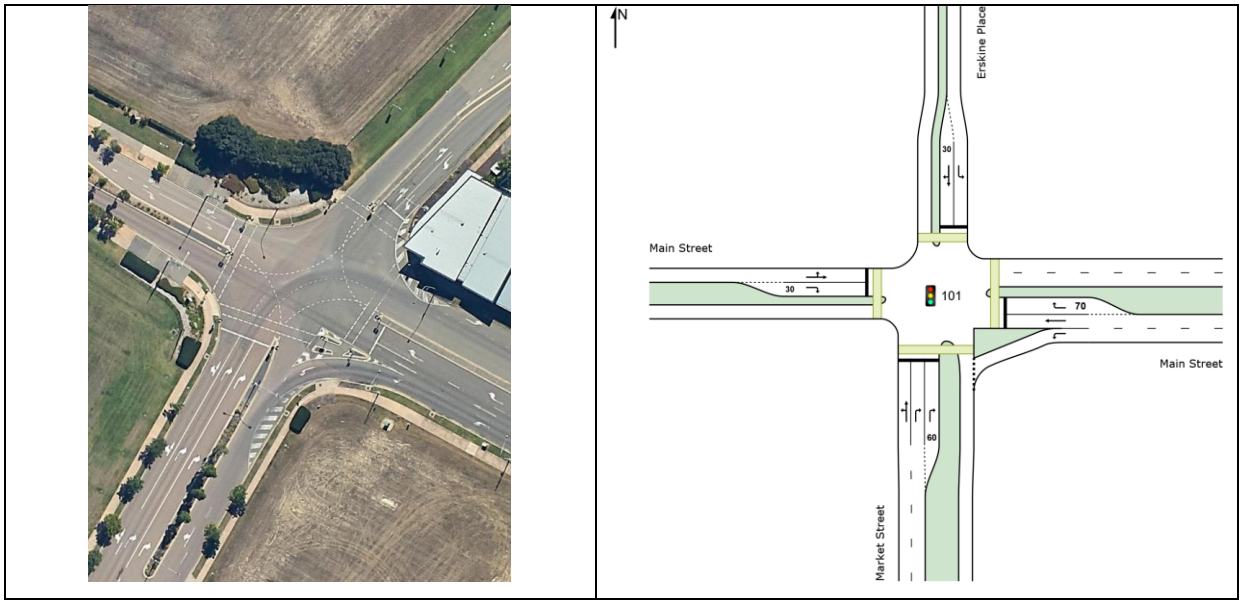



*Figure 4-2 Main Street / Market Street Signalised Intersection Layout*

The signal phasing plan used in the assessment is shown in **Figure 4-3**, sourced from video footage. A cycle time of 80s has been adopted for the W/E peak and PM peak scenarios.

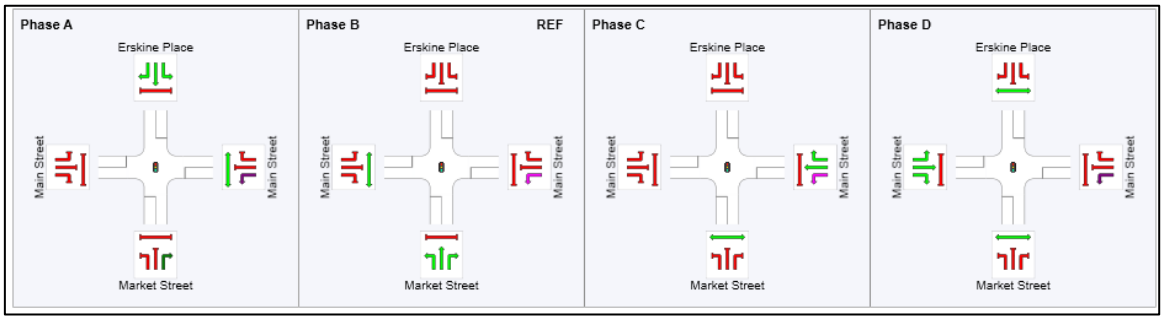



*Figure 4-3 Signal Phasing for the Main Street / Market Street Signalised Intersection*

**Table 4-5** presents the results of the SIDRA analysis for the 2024 and 2034 background and design traffic scenarios with detailed SIDRA outputs attached in **Appendix C**.

*Table 4-5 Market Street / Main Street Signalised Intersection SIDRA Results*

| SCENARIO | APPROACH | W/E Peak | | | | PM Peak | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | DOS | Avg Delay (s) | LoS | 95% Back of Queue (m) | DOS | Avg Delay (s) | LoS | 95% Back of Queue (m) |
| 2024 Background Volumes | Market Street (S) | 0.313 | 24.2 | LOS C | 27.3 | 0.208 | 20.8 | LOS C | 17.7 |
| | Main Street (E) | 0.433 | 33.2 | LOS C | 18 | 0.69 | 30.6 | LOS C | 30 |
| | Erksine Place (N) | 0.263 | 29.2 | LOS C | 27.2 | 0.112 | 28.7 | LOS C | 11 |
| | Main Street (W) | 0.357 | 33.6 | LOS C | 31.6 | 0.559 | 33.1 | LOS C | 52.5 |
| 2034 Background Volumes | Market Street (S) | 0.38 | 24.5 | LOS C | 33.6 | 0.256 | 21.5 | LOS C | 22 |
| | Main Street (E) | 0.528 | 33.8 | LOS C | 22.2 | 0.837 | 32.3 | LOS C | 38.5 |
| | Erksine Place (N) | 0.32 | 29.6 | LOS C | 33.6 | 0.135 | 28.9 | LOS C | 13.4 |
| | Main Street (W) | 0.432 | 34.1 | LOS C | 38.9 | 0.693 | 40.1 | LOS D | 67.8 |
| 2024 Background + Development Volumes | Market Street (S) | 0.343 | 26.2 | LOS C | 28.6 | 0.271 | 25.2 | LOS C | 28.9 |
| | Main Street (E) | 0.347 | 21 | LOS C | 20.4 | 0.473 | 22.3 | LOS C | 31.1 |
| | Erksine Place (N) | 0.316 | 31.7 | LOS C | 30.6 | 0.167 | 32.8 | LOS C | 14.2 |
| | Main Street (W) | 0.339 | 33.1 | LOS C | 31.5 | 0.449 | 29.6 | LOS C | 49.8 |
| 2034 Background + Development Volumes | Market Street (S) | 0.391 | 25.2 | LOS C | 34.8 | 0.303 | 25.5 | LOS C | 32.9 |
| | Main Street (E) | 0.406 | 22.5 | LOS C | 24.1 | 0.562 | 23.2 | LOS C | 37.5 |
| | Erksine Place (N) | 0.407 | 33.3 | LOS C | 38.5 | 0.215 | 34.1 | LOS C | 17.5 |
| | Main Street (W) | 0.416 | 33.7 | LOS C | 39.4 | 0.558 | 34.1 | LOS C | 62.7 |

As illustrated in **Table 4-5**, the Market Street / Main Street Signalised intersection will theoretically operate well below the practical capacity (DoS<0.95) for a signalised intersection for both peak periods in all scenarios. Additionally, the development generated traffic will clearly have negligible impact on the intersection during both peak hours, resulting in negligible increases in degree of saturation, average delay and queue length on all approaches. It should also be noted that the queuing on Market Street (southern approach) in the right turn pocket does not extend beyond the site access or right turn pocket in any of the design scenarios. Therefore, there should be no access restriction for the right turn movement into and out of the site.

### 4.5.3 Nexus Drive / Market Street / Galax Entrance Roundabout

The existing configuration of Nexus Drive / Market Street / Galax Entrance roundabout can be seen in **Figure 2**.

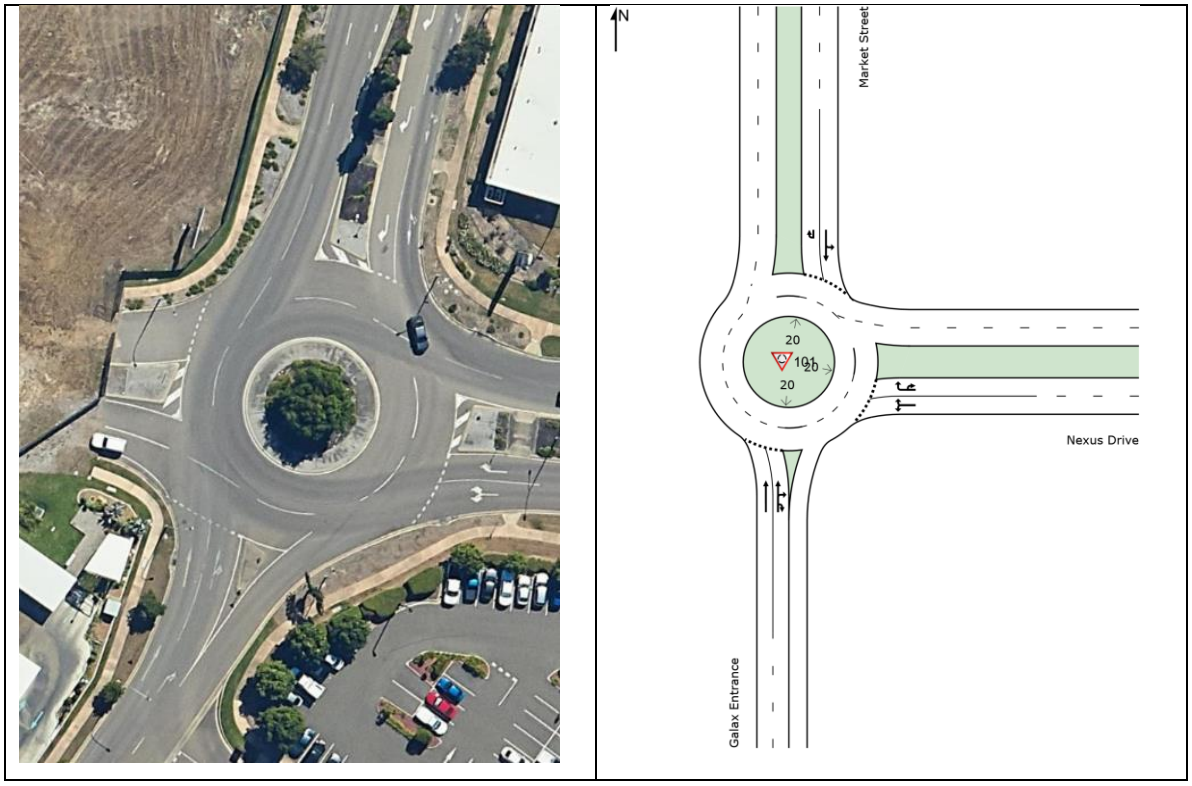



*Figure 4-4 Nexus Drive / Market Street / Galax Entrance Roundabout Layout*

***Table 4-6*** presents the results of the SIDRA analysis for the 2024 and 2034 background and design traffic scenarios with detailed SIDRA outputs attached in **Appendix C**.

*Table 4-6 Nexus Drive / Market Street / Galax Entrance Roundabout Layout Intersection SIDRA Results*

| SCENARIO | APPROACH | W/E Peak | | | | PM Peak | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | DOS | Avg Delay (s) | LoS | 95% Back of Queue (m) | DOS | Avg Delay (s) | LoS | 95% Back of Queue (m) |
| **2024 Background Volumes** | Galax Entrance (S) | 0.111 | 9.2 | LOS A | 3.4 | 0.044 | 9.2 | LOS A | 1.3 |
| | Nexus Drive (E) | 0.198 | 9.4 | LOS A | 7.2 | 0.154 | 9.2 | LOS A | 5.1 |
| | Market Street (N) | 0.327 | 4.7 | LOS A | 12.9 | 0.199 | 3.9 | LOS A | 6.7 |
| **2034 Background Volumes** | Galax Entrance (S) | 0.144 | 9.6 | LOS A | 4.5 | 0.055 | 9.5 | LOS A | 1.6 |
| | Nexus Drive (E) | 0.245 | 9.4 | LOS A | 9.7 | 0.189 | 9.2 | LOS A | 6.5 |
| | Market Street (N) | 0.415 | 5.1 | LOS A | 18 | 0.247 | 4.1 | LOS A | 8.8 |
| **2024 Background + Development Volumes** | Galax Entrance (S) | 0.123 | 9.4 | LOS A | 3.8 | 0.048 | 8.9 | LOS A | 1.4 |
| | Nexus Drive (E) | 0.26 | 9.7 | LOS A | 10.6 | 0.222 | 9.5 | LOS A | 8.3 |
| | Market Street (N) | 0.525 | 5.6 | LOS A | 25.6 | 0.403 | 4.6 | LOS A | 16.7 |
| **2034 Background + Development Volumes** | Galax Entrance (S) | 0.157 | 9.9 | LOS A | 5 | 0.061 | 9.3 | LOS A | 1.8 |
| | Nexus Drive (E) | 0.308 | 9.7 | LOS A | 13.6 | 0.257 | 9.5 | LOS A | 10.2 |
| | Market Street (N) | 0.625 | 7.2 | LOS A | 40 | 0.458 | 4.8 | LOS A | 20.2 |

As illustrated in **Table 4-6**, the Nexus Drive / Market Street / Galax Entrance Roundabout will theoretically operate well below the practical capacity (DoS<0.85) for a roundabout during both peak periods in all scenarios. As documented above, the development generated traffic will have a negligible impact on the intersection during both peak hours, resulting in negligible increases in degree of saturation, average delay and queue length on all approaches.

### 4.5.4 Market Street / Northern SITE Access

As requested by Council during the original development assessment, both site accesses on Market Street have been analysed to assess the right turn queue lengths on Market Street.

The existing configuration of Market Street / Northern Site Access priority-controlled intersection can be seen in **Figure 4-5**.

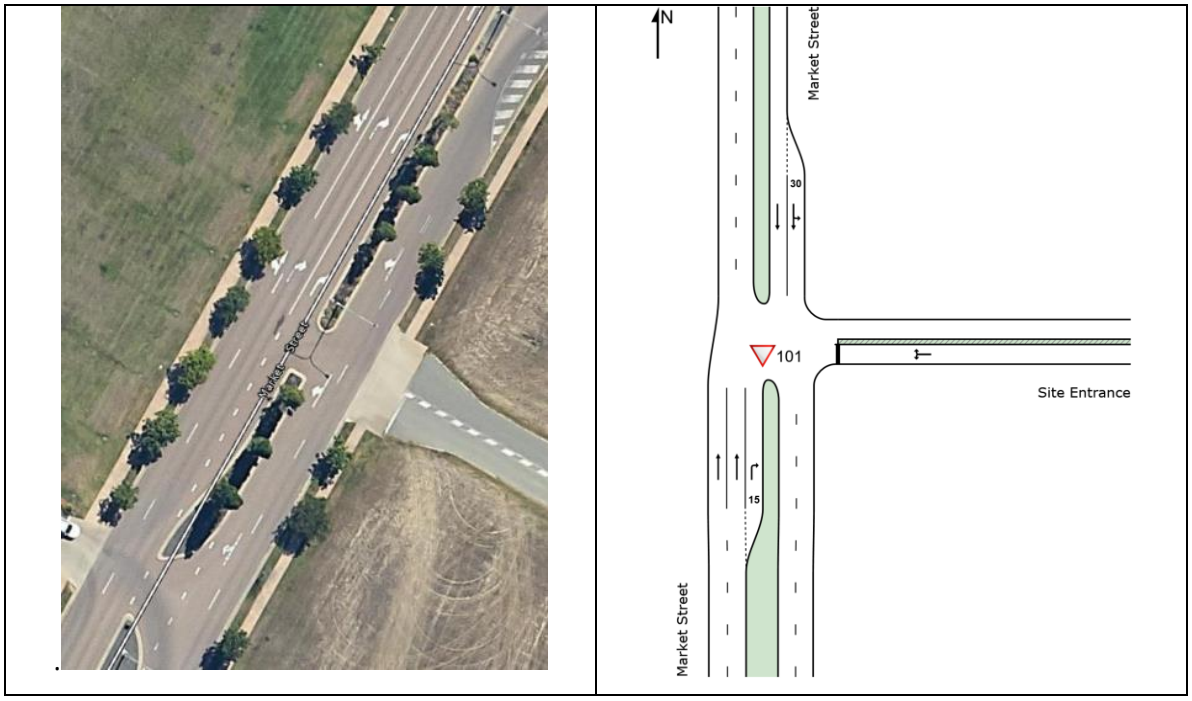



*Figure 4-5 Market Street / Northern Site Access Intersection Layout*

**Table 4-7** presents the results of the SIDRA analysis for the 2024 and 2034 background and design traffic scenarios with detailed SIDRA outputs attached in **Appendix C**

*Table 4-7 Nexus Drive / Market Street / Galax Entrance Roundabout Layout Intersection SIDRA Results*

| SCENARIO | APPROACH | W/E Peak | | | | PM Peak | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | DOS | Avg Delay (s) | LoS | 95% Back of Queue (m) | DOS | Avg Delay (s) | LoS | 95% Back of Queue (m) |
| **2024 Background Volumes** | Market Street (S) | 0.088 | 2.2 | NA | 2.6 | 0.087 | 2.2 | NA | 2.6 |
| | Site Access (E) | 0.077 | 10.2 | LOS B | 2 | 0.076 | 9 | LOS A | 2 |
| | Market Street (N) | 0.033 | 1.9 | NA | 0 | 0.032 | 2 | NA | 0 |
| **2034 Background Volumes** | Market Street (S) | 0.089 | 1.9 | NA | 2.7 | 0.089 | 1.9 | NA | 2.7 |
| | Site Access (E) | 0.082 | 11.1 | LOS B | 2.2 | 0.082 | 11.1 | LOS B | 2.2 |
| | Market Street (N) | 0.037 | 1.7 | NA | 0 | 0.035 | 1.8 | NA | 0 |
| **2024 Background + Development Volumes** | Market Street (S) | 0.129 | 2.6 | NA | 3.9 | 0.134 | 2.6 | NA | 4.1 |
| | Site Access (E) | 0.422 | 8.1 | LOS A | 12.5 | 0.483 | 8.1 | LOS A | 16 |
| | Market Street (N) | 0.069 | 2.4 | NA | 0 | 0.07 | 2.4 | NA | 0 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **2034 Background + Development Volumes** | Market Street (S) | 0.131 | 2.3 | NA | 4 | 0.136 | 2.3 | NA | 4.1 |
| | Site Access (E) | 0.455 | 8.2 | LOS A | 14.5 | 0.521 | 8.2 | LOS A | 18.9 |
| | Market Street (N) | 0.069 | 2.2 | NA | 0 | 0.07 | 2.3 | NA | 0 |

As illustrated in **Table 4-7**, The Market Street / Northern Site Access intersection will theoretically operate well below the practical capacity (DoS<0.80) for a priority-controlled intersection for both peak periods in all scenarios. Additionally, the right turn queue on Market Street is negligible, as highlighted in yellow in **Table 4-7**. The results indicate that theoretically there would not be any more than one (1) car queuing in the right turn pocket at any given time. The right turn pocket has capacity for approximately one (1) vehicle and therefore the right turn traffic associated with the development should have no impact on through movements.

### 4.5.5 Market Street / Southern Site Access

The existing configuration of Market Street / Southern Site Access priority-controlled intersection can be seen in **Figure 4-6**.

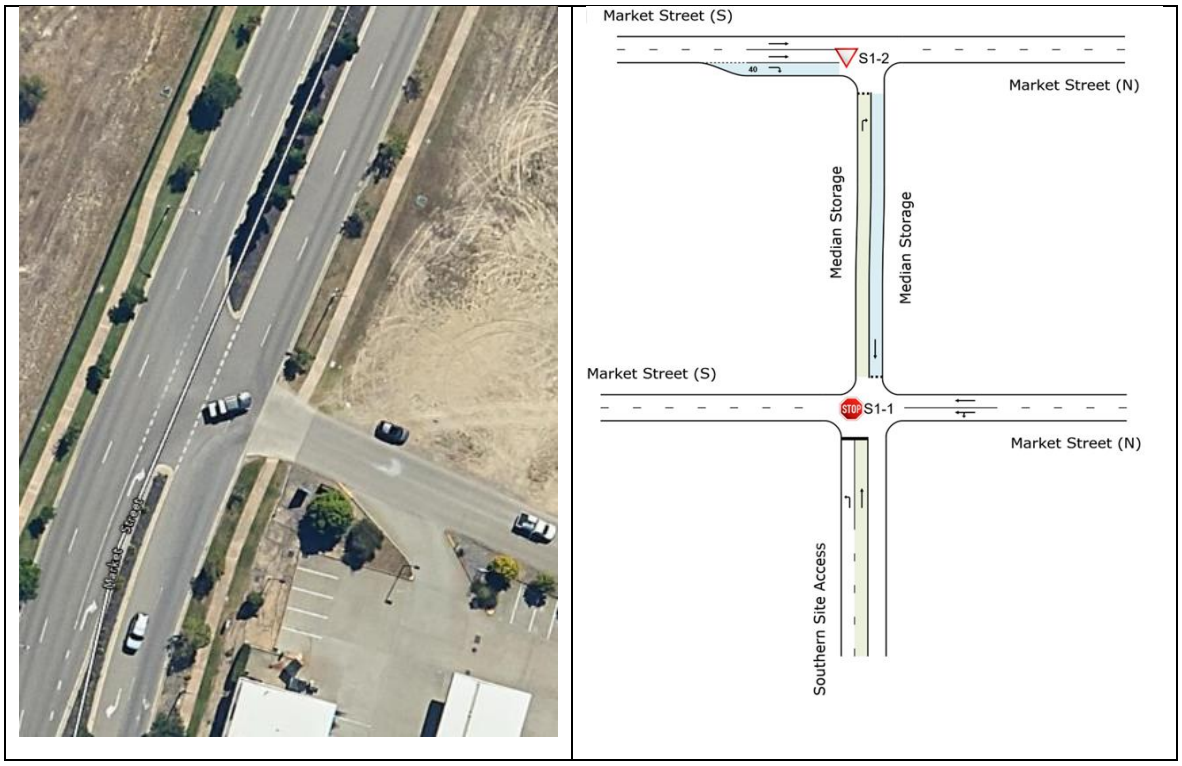



*Figure 4-6 Market Street / Southern Site Access Intersection Layout*

**Table 4-8** presents the results of the SIDRA analysis for the 2024 and 2034 and design traffic scenarios with detailed SIDRA outputs attached in **Appendix C.**

*Table 4-8 Market Street / Southern Site Access Priority-Controlled Intersection SIDRA Results*

| SCENARIO | APPROACH | W/E Peak | | | | PM Peak | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | DOS | Avg Delay (s) | LoS | 95% Back of Queue (m) | DOS | Avg Delay (s) | LoS | 95% Back of Queue (m) |
| **2024 Background Volumes** | Southern Site Access | 0.129 | 8.7 | LOS A | 4 | 0.121 | 8.3 | LOS A | 1.5 |
| | Market Street (N) | 0.075 | 1.1 | NA | 0 | 0.041 | 2 | NA | 0 |
| | Median Storage (S) | 0.097 | 1 | LOS A | 2.6 | 0.086 | 0.5 | LOS A | 0.9 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Median Storage (N) | 0.07 | 3.2 | LOS A | 1.9 | 0.065 | 2.8 | LOS A | 0.7 |
| | Market Street (S) | 0.087 | 1.5 | NA | 0 | 0.071 | 1.7 | NA | 0 |
| **2034 Background Volumes** | Southern Site Access | 0.132 | 8.9 | LOS A | 4.1 | 0.122 | 8.4 | LOS A | 3.8 |
| | Market Street (N) | 0.089 | 1 | NA | 0 | 0.047 | 1.8 | NA | 0 |
| | Median Storage (S) | 0.102 | 1.3 | LOS A | 2.7 | 0.088 | 0.6 | LOS A | 2.4 |
| | Median Storage (N) | 0.077 | 3.8 | LOS A | 2.1 | 0.07 | 3.2 | LOS A | 1.9 |
| | Market Street (S) | 0.106 | 1.3 | NA | 0 | 0.086 | 1.5 | NA | 0 |
| **2024 Background + Development Volumes** | Southern Site Access | 0.217 | 9.1 | LOS A | 7.3 | 0.217 | 8.7 | LOS A | 7.5 |
| | Market Street (N) | 0.113 | 1.2 | NA | 0 | 0.083 | 1.7 | NA | 0 |
| | Median Storage (S) | 0.165 | 1.8 | LOS A | 4.5 | 0.155 | 1.2 | LOS A | 4.3 |
| | Median Storage (N) | 0.126 | 4 | LOS A | 3.6 | 0.126 | 3.7 | LOS A | 3.6 |
| | Market Street (S) | 0.096 | 1.8 | NA | 0 | 0.096 | 2.1 | NA | 0 |
| **2034 Background + Development Volumes** | Southern Site Access | 0.222 | 9.3 | LOS A | 7.5 | 0.22 | 8.8 | LOS A | 7.6 |
| | Market Street (N) | 0.126 | 1.1 | NA | 0 | 0.089 | 1.6 | NA | 0 |
| | Median Storage (S) | 0.174 | 2.1 | LOS A | 4.8 | 0.158 | 1.3 | LOS A | 4.4 |
| | Median Storage (N) | 0.139 | 4.7 | LOS A | 3.9 | 0.136 | 4.2 | LOS A | 3.8 |
| | Market Street (S) | 0.115 | 1.6 | NA | 0 | 0.097 | 1.9 | NA | 0 |

As illustrated in **Table 4-8**, The Market Street / Southern Site Access intersection will theoretically operate well below the practical capacity (DoS<0.80) for a priority-controlled intersection for both peak periods in all scenarios. Additionally, the right turn queue on Market Street is negligible, as highlighted in yellow in **Table 4-8**. The results indicate that theoretically there would not be any more than one (1) car in the right turn pocket at any one time, and therefore should have no impact on through movements.

# 5 Summary

Lambert & Rehbein has been commissioned by OneFin Burdell Pty Ltd to undertake a Traffic Impact Assessment for a proposed new application to alter the approved North Shore Mixed Use Precinct. The development site is located at 30-38 North Shore Boulevard, 6-10 Market Street & 1/6 Market Street, Burdell QLD 4818, the development footprint covers the lots formally described as Lot 843 on SP233011, Lot 2844 on SP253500 and Lot 850 on SP240571, with a total site area of 19,427m$^2$. There is a live change application for the conversion of an approved Large Format Retail space (4,306m$^2$) to a reduced LFR footprint (2,166m$^2$), plus an ALDI supermarket (1,797m$^2$). We understand that in comparison to the approved development total site GFA, this change application results in a reduction of 343m$^2$ of GFA across the site. The site is located within the North Shore Plan of Development (POD) area. The new development is best summarised below:

There is a *Current Approval* over the site (MCU22/0033.01) which includes the following uses:

- Showroom – 4,306m$^2$ GFA
- Food and drink outlet 1 – 300m$^2$ GFA
- Food and drink outlet 2 – 270m$^2$ GFA
- Childcare centre – 832.5m$^2$ GFA (120 children, 21 staff)

There is a live, properly made *Change Application* over the site (MCU22/0033.04) seeking to alter the existing development approval to include the following uses:

- Showroom (Large Format Retail) – 2,166m$^2$ GFA
- Supermarket – 1,797m$^2$ GFA
- Food and drink outlet 1 – 300m$^2$ GFA
- Food and drink outlet 2 – 270m$^2$ GFA
- Childcare centre – 832.5m$^2$ GFA (120 children, 21 staff)

This *New Application* seeks to make further changes to the approved uses to include the following use breakdown:

- Supermarket– 1,797m$^2$ GFA
- My Car Service Centre– 400m$^2$ GFA
- Food and drink outlet 1 – 300m$^2$ GFA
- Food and drink outlet 2 – 270m$^2$ GFA
- Childcare centre 832.5m$^2$ GFA (120 children, 21 staff)
- Unassigned Floor Space – 2,516m$^2$ GFA (including Mezzanine Level – 750m$^2$ GFA)

In regards to the "Unassigned Floor Space", a review was completed across the site to determine possible tenancies sizes and land uses that the remaining 2,516m2 GFA could be reconfigured to. See **Section 4** for this assessment.

We understand that in comparison to the approved development total site GFA, the new application results in an increase of 557m$^2$ of GFA across the site.

The development site proposes to continue to gains access to the external road network at three (3) existing accesses - one (1) access on Nexus Drive, and two (2) on Market Street. These accesses have the following movement provisions:

- A left-in only slip lane to the adjacent McDonald's and Caltex stores on Nexus Drive; and
- Two (2) existing all-movement crossovers on Market Street.

As summarised in **Table 3-3**, the minimum parking requirement for the proposed development is 197 parking spaces. As shown on the architectural plans included in **Appendix A**, the proposed development provides 187 parking spaces, including seven (7) PWD spaces, plus three (3) internal parking bays within the My Car Service Centre, equating to a total of 190 car parking spaces. This results in a shortfall of 7 parking spaces when compared with Councils' minimum parking requirements, equivalent to 3.5% shortfall.

As a mixed-use development, it is expected that there will be a reasonable portion of visitors from each of the various uses that will visit more than one (1) use during the same trip. As such, a 3.5% cross-utilisation discount rate could reasonably be applied to the overall parking requirements for the site resulting in 190 carparks meeting Council's minimum requirements.

This short fall of 7 car spaces is not expected to be an issue as we expect a significant portion of cross utilisation on-site given the number of tenancies and differing land uses. The operating hours of the various tenancies on site have non concurrent peak periods and as such have varying demands throughout the day. Therefore, we believe that the carparking provisions are sufficient for the anticipated demand. Again, we note that the above analysis should be considered as a 'worst case scenario' as the assessment has been completed assuming the 'Unassigned GFA' against the highest parking generating land uses.

The development makes adequate on-site provision for the access, loading, unloading and manoeuvring of service vehicles which are sufficient to cater for the demand generated by the development and the service vehicles utilised. TCC's planning scheme does not provide service vehicles for different land uses. Therefore, the largest vehicles to service the site have been adopted as follows:

- Showroom Tenancies and Supermarket – Articulated Vehicle (AV);
- Food and Drink Outlets– Medium Rigid Vehicle (MRV); and
- Child Care Centre – Van.
- Light Industrial – MRV.

Refuse collection has been assumed to be undertaken by a Heavy Rigid Vehicle (HRV) – which has a 12.5m turning radius in accordance with the TCC Planning Scheme. The largest anticipated service vehicles (AV) are able to enter and exit the site in forward gear, swept paths demonstrating these manoeuvres are included in **Appendix D**.

As illustrated in **Table 4-4,** the site is anticipated to generate 653 AM peak and 712 PM peak trips. As per the intersection analysis completed in **Section 4.5**, the additional traffic will not have an adverse impact on the surrounding road network.

As such, we believe there are no outstanding matters from a traffic engineering perspective that should preclude the approval of this development at this location.

# APPENDIX A – SITE LAYOUT

# NORTH SHORE MIXED USE PRECINCT

30-38 North Shore Boulevard, 6-10 Market Street & 1/6 Market Street,
Burdell QLD 4818

| DRAWING LIST - CONCEPT | | |
|---|---|---|
| A- | 0.00 | COVER SHEET |
| A- | 0.10 | SITE CONTEXT PLAN |
| A- | 1.01 | SITE PLAN EXISTING |
| A- | 1.02 | SITE MASTERPLAN |
| A- | 2.01 | DEVELOPMENT PLAN 01 |
| A- | 2.02 | DEVELOPMENT PLAN 02 |
| A- | 2.03 | STREET ELEVATIONS |
| A- | 3.00 | LFR - ELEVATIONS SHEET 01 |
| A- | 3.01 | LFR - ELEVATIONS SHEET 02 |
| A- | 3.02 | LFR - ELEVATIONS SHEET 03 |

| DRAWING LIST - CONCEPT | | |
|---|---|---|
| A- | 3.03 | LFR - SECTION & FINISHES |
| A- | 3.10 | FAST FOOD 01 - ELEVATIONS SHEET 01 |
| A- | 3.11 | FAST FOOD 01 - ELEVATIONS + SECTION SHEET 02 |
| A- | 3.20 | FAST FOOD 02 - ELEVATIONS SHEET 01 |
| A- | 3.21 | FAST FOOD 02 - ELEVATIONS + SECTION SHEET 02 |
| A- | 4.01 | RENDERED VIEW 1 |
| A- | 4.02 | RENDERED VIEW 2 |
| A- | 4.03 | RENDERED VIEW 3 |
| A- | 4.04 | RENDERED VIEW 4 |
| A- | 4.05 | RENDERED VIEW 5 |
| A- | 5.01 | LFR - PERSPECTIVE/ 3D VIEWS |


AERIAL PERSPECTIVE VIEW

**DEVELOPMENT APPLICATION UPDATE**

onefin

**NORTH SHORE MIXED USE PRECINCT**

30-38 North Shore Boulevard, 6-10 Market Street & 1/6 Market Street,
Burdell QLD 4818

ONEFIN PROPERTY BURDELL PTY. LTD.



Telephone +61 7 3840 9999
bne@thomsonadsett.com
Level 9, 470 St Pauls Terrace
Fortitude Valley
Qld 4006 Australia
thomsonadsett.com

thomson adsett

**TA # 21.0271.17**

**COVER SHEET**

**A-0.00**

2023-02-21

**rev. 10**


1 SITE CONTEXT PLAN
1 : 1500

**DEVELOPMENT APPLICATION UPDATE**

0 15 30 45 75 150 m

onefin

## NORTH SHORE MIXED USE PRECINCT

30-38 North Shore Boulevard, 6-10 Market Street & 1/6 Market Street, Burdell QLD 4818

ONEFIN PROPERTY BURDELL PTY. LTD.



Telephone +61 7 3840 9999
bne@thomsonadsett.com
Level 9, 470 St Pauls Terrace
Fortitude Valley
Qld 4006 Australia
thomsonadsett.com

thomson adsett

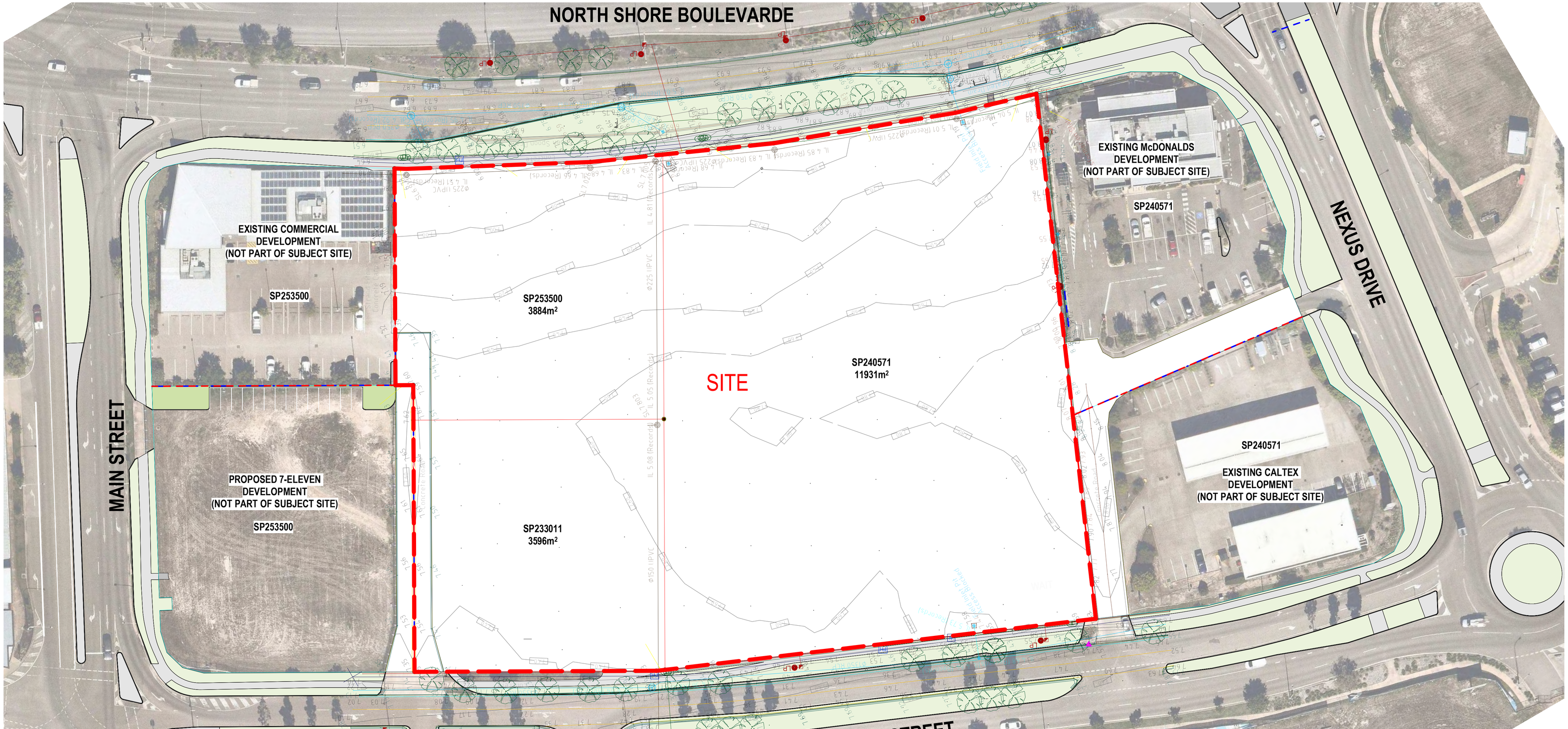
**TA # 21.0271.17**

**SITE CONTEXT PLAN**

1 : 1500 @ A1 | 2023-02-21

**A-0.10** | **rev. 10**

Document Set ID: 26062332
Version: 1, Version Date: 10/09/2024




1 SITE PLAN EXISTING
1 : 500

**DEVELOPMENT APPLICATION UPDATE**

0 5 10 15 25 50 m

onefin

## NORTH SHORE MIXED USE PRECINCT

30-38 North Shore Boulevard, 6-10 Market Street & 1/6 Market Street, Burdell QLD 4818

ONEFIN PROPERTY BURDELL PTY. LTD.



Telephone +61 7 3840 9999
bne@thomsonadsett.com
Level 9, 470 St Pauls Terrace
Fortitude Valley
Qld 4006 Australia
thomsonadsett.com

thomson adsett

**TA # 21.0271.17**

**SITE PLAN EXISTING**

1 : 500 @ A1 2023-02-21

**A-1.01** **rev. 10**