

Proposed Mixed Use Development, 91-95 Canning Highway, East Fremantle

Transport Impact Statement

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1 Introduction

This Transport Impact Statement has been prepared by Transcore on behalf of Builtform Projects with regard to the proposed mixed use development at 91-95 Canning Highway (Lots 418 and 419 Canning Highway, Lot 81 St Peters Road and Lot 423 King Street), in East Fremantle, in the Town of East Fremantle (hereafter the subject site).

The subject site (also known as “roofing 2000” site) is situated at the southwest corner of the existing signalised intersection of Canning Highway and Stirling Highway, as shown in **Figure 1**.



Figure 1: Location of the subject site

The Transport Impact Assessment Guidelines (WAPC, Vol 4 – Individual Developments, August 2016) states: “A Transport Impact Statement is required for

those developments that would be likely to generate moderate volumes of traffic and therefore would have a moderate overall impact on the surrounding land uses and transport networks”.

Section 6.0 of Transcore’s report provides details of the estimated trip generation of the subject site after the scheme amendment. Accordingly, as the net change in peak hour vehicular trips is estimated to be less than 100 trips, a Transport Impact Statement is deemed appropriate for assessment of the proposed scheme amendment.

The site is bounded by Stirling Highway to the east, Canning Highway to the north, St Peters Road to the south and Sewell Street to the west. The site is surrounded by a mix of land uses including retail, residential and commercial, with Tradewinds Hotel complex located immediately across the road to the west.

The site currently accommodates a number of degraded buildings including a commercial building (warehouse/workshop) and associated outbuildings, and a single house. The main buildings and associated outbuildings are predominantly contained within Lots 418 and 419 Canning Highway while Lots 81 and 423 are currently vacant.

2 Development Proposal

The subject site, which occupies an area of approximately 3,840m², is zoned “Mixed Use” under the Town of East Fremantle Town Planning Scheme No.3 (TPS3) and identified within “Canning” Precinct. Consistent with the MRS, a portion of the subject site is reserved for “Primary Regional Road”.

The development proposal contemplates construction of a multi-storey mixed-use development with associated car park facility.

Specifically, the mixed-use development proposal comprises the following key elements:

- A total of 95 residential apartments (mix of single-, two- and three-bed units);
- Commercial tenancies across three levels totalling about 1,158m² of GFA; and,
- A small-scale café at the ground floor of about 95m² GFA.

Parking will be fully accommodated on-site across three levels of underground car parking accessed via a crossover on St Peters Road and ground floor parking for visitors accessed via a crossover on Sewell Street.

The waste collection is proposed to take place off St Peters Road from a newly proposed embayed service bay.

The secured bike storage space is provided at the ground floor. The end-of-trip facilities (showers and lockers) are also provided for café and each of the commercial tenancy separately.

Additional 12 visitor parking bike bays (i.e., rails) are provided at the east side of the development and immediately adjacent to the café (six spaces at each location). These bays are accessible directly from paths surrounding the site.

Pedestrians will access the development from the external footpath network which is in place along all four surrounding roads. Two ground floor lobbies with lifts are provided for the residential development component and a separate one for the commercial. Both residential lobbies are accessible from Sewell Street and St Peters Road while the commercial one is accessible from Canning Highway side.

Refer to **Appendix A** for proposed site plans.

3 Vehicle Access and Parking

As presented in the plans prepared by Spaceagency Architects, the proposed on-site car parking comprises of two elements:

- Ground floor visitor parking totalling seven car and one motorcycle bays; and,
- Three-level basement resident and tenant car park facility totalling 188 car bays and 12 motorcycle bays.

The ground floor parking (including one ACROD bay) is proposed to be accessed by a full-movement crossover on Sewell Street, approximately 15m south of Canning Highway intersection.

The basement car park will be accessible via a single, two-way ramp which connects to St Peters Road proposed full-movement crossover, approximately 20m west of Sewell Street intersection. Internally, the basement car park levels are connected by a system of two-way ramps.

According to the advice provided to Transcore the proposed car parking supply meets the regulatory requirements.

4 Provision for Service Vehicles

A service bay to be located on St Peters Road is proposed to double-up as waste collection/pick-up/delivery parking. The service bay is proposed in form of an embayed parking bay a short distance to the east of the basement car park crossover. It is also located in close proximity to the rubbish bin store for convenience.

A turn path assessment using a 10.0m long rigid truck template was used to confirm the suitability of the proposed service bay. Refer to **Appendix B** for proposed site plans.

5 Hours of Operation

The proposed development will generate heaviest traffic movements during the typical weekday morning and afternoon commuter peaks.

The café is expected to commence its operation later in the morning and close earlier in the afternoon.

Therefore, the combined peak period of development traffic and road network traffic will be during the weekday AM and PM peak hours typically between 8:00-9:00AM and 5:00-6:00PM.

6 Daily Traffic Volumes and Vehicle Types

6.1 Trip Generation

The traffic volumes likely to be generated by the proposed development have been estimated based on the proposed land uses and floorspaces and in accordance with *Transport Roads & Maritime Services Technical Direction TDT 2013/04a* and *RTA New South Wales Guide to Traffic Generating Developments 2002* documents, which provide daily and peak hour trip rates.

The total daily, AM and PM peak hour trip rates of 11.0, 1.6 and 1.2 trips/100m² GFA respectively was adopted for the office component of the development, while the total daily, AM and PM peak hour trip rates of 4.58, 0.53 and 0.32 trips/unit respectively was adopted for the residential component. The relevant trip rate for café applied in this case were 60 and 5.0 trips/100m² GFA for daily and PM peak, respectively. The AM peak was taken to be 10% of PM peak hour corresponding to employee trips only (late morning start).

Accordingly, it is estimated that the proposed development would generate a total of approximately **630** daily vehicle trips with about **71** and **49** trips during the AM and PM peak hour periods. These trips include both inbound and outbound vehicle movements. It is likely that a significant proportion of café trade would originate from the residential component of the development and surrounding land uses within walking distance thus reducing the overall vehicular traffic generation. To allow for a robust assessment no trip adjustments were made due to cross trade between various development land uses.

The traffic distribution detailed in **Table 1** was based on the following directional split assumptions for peak hour periods:

- Morning (AM) peak split estimated at 80%/20%, 80%/20% and 25%/75% for inbound/outbound trips for office, café and residents, respectively; and,
- Afternoon (PM) peak split estimated at 20%/80%, 45%/55% and 66%/34% for inbound/outbound trips for office, café and residents, respectively.

Table 1: Peak hour trips for the development

Peak Period	Direction	Office	Café	Residents	Peak Hour Trips
AM Peak	Inbound	15	1	13	73 cars
	Outbound	4	0	38	
PM Peak	Inbound	3	2	21	49 cars
	Outbound	10	3	10	

6.2 Trip Distribution

Considering the location of the proposed development, the available access and egress routes to and from the development as well as location of key regional attractors the anticipated directional trip distribution of the development-generated traffic is assumed to be as follows:

- 30% of trips to/from the north;
- 20% of trips to/from the east;
- 20% of trips to/from the south-east; and,
- 30% of trips to/from the south.

The directional morning, afternoon and total daily trip distribution of the development-generated traffic is illustrated in **Figure 2**.

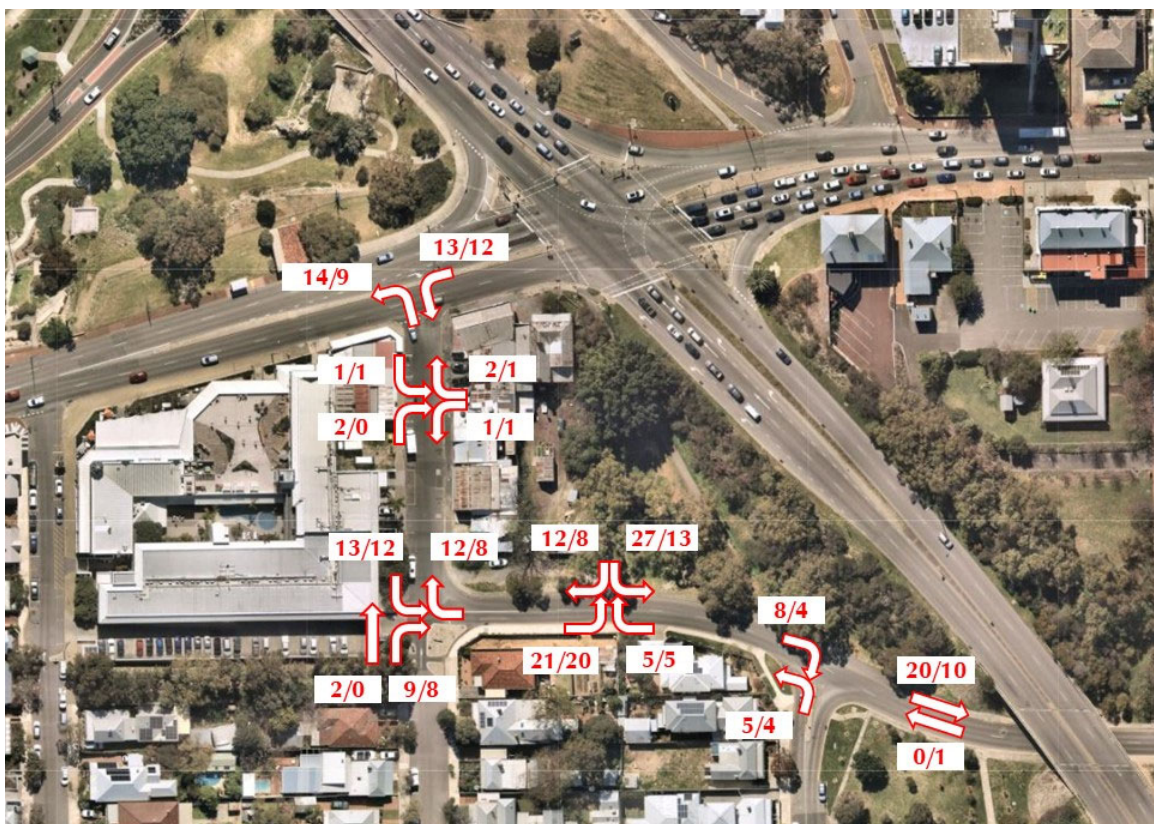


Figure 2. Estimated traffic movements for the subject development – morning peak and afternoon peak

6.3 Impact on Surrounding Roads

The WAPC *Transport Impact Assessment Guidelines* (2016) provides guidance on the assessment of traffic impacts:

“As a general guide, an increase in traffic of less than 10 percent of capacity would not normally be likely to have a material impact on any particular section of road, but increases over 10 percent may. All sections of road with an increase greater than 10 percent of capacity should therefore be included in the analysis. For ease of assessment, an increase of 100 vehicles per hour for any lane can be considered as equating to around 10 percent of capacity. Therefore, any section of road where the development traffic would increase flows by more than 100 vehicles per hour for any lane should be included in the analysis.”

From **Figure 2** it can be seen that the estimated traffic impact from the proposed development would be nowhere near the critical thresholds with the most pronounced traffic increases of 35vph along St Peters Road during AM peak hour (west of crossover), hence the impact on the surrounding road network will be insignificant.

It is considered that the surrounding roads and intersections have capacity to accommodate the relatively low traffic generation of the proposed development.

It should be noted that this traffic assessment disregards the existing and potential traffic generation of the site and land uses and is therefore conservative. This is because the net traffic increase as a result of the proposed development will be less than the development traffic generation outlined in this report.

7 Traffic Management on Frontage Streets

7.1 Context

The subject site is located at the southwest corner of Canning Highway/Stirling Highway intersection and immediately across of the existing Tradewinds Hotel located to the west.

7.2 Existing Road Network

Canning Highway in the vicinity of the subject site forms the western leg of a four-way signalised intersection with Stirling Highway. Accordingly, this section of Canning Highway features three (eastbound) approach lanes to the signals and two westbound traffic lanes. Directional traffic flow is separated by a 110m long raised median island. Refer **Figure 3** for more details.



Figure 3: Eastbound view along Canning Highway from Sewell Street intersection

Canning Highway in this vicinity operates under a sign-posted speed limit of 60km/h with footpaths provided on both sides of the road. Pedestrian crossing facilities are currently in place at the signalised intersection of Canning Highway and Stirling Highway.

Canning Highway, from Sewell Street east, is classified as a *Primary Distributor* road (i.e., “Red Road”) in the Main Roads WA Metropolitan Functional Road Hierarchy document.

Traffic count data obtained from Main Roads WA indicates that Canning Highway carried average weekday traffic flows of 23,320 vehicles per day (vpd) west of Preston Point Road in 2020/21.

Stirling Highway in the vicinity of the subject site forms the southern leg of the four-way signalised intersection with Canning Highway. Accordingly, this section of Stirling Highway features four (northbound) approach lanes to the signals and two southbound traffic lanes. Directional traffic flow is separated by a raised median island.

Stirling Highway operates under a sign-posted speed limit of 60km/h with footpaths provided on both sides of the road. Pedestrian crossing facilities are currently in place at the signalised intersection of Canning Highway and Stirling Highway.

Stirling Highway is classified as a *Primary Distributor* road in the Main Roads WA Metropolitan Functional Road Hierarchy.

Traffic count data obtained from Main Roads WA indicates that Stirling Highway carried average weekday traffic flows of 27,930 vehicles per day (vpd) North of Marmion Street in 2021/22.

Sewell Street, in the vicinity of the subject site is an approximately 10m wide, two-lane undivided road with marked, on-street parking and footpaths provided on both sides of the road. A mixture of loading bays and car parking bays are currently provided on Sewell Street in the vicinity of the site. Refer **Figure 4** and **Figure 5** for more details.

Sewell Street operates under a default build-up area speed limit of 50km/h. It is classified as *Access Street* in Main Roads WA *Functional Road Hierarchy* document. The road is under care and control of local government.

Based on Transcore’s traffic surveys undertaken in October 2021, it is estimated that Sewell Street, immediately south of Canning Highway carries approximately 1,000vpd on a typical weekday.

St Peters Road, is a 7.0m wide, single-carriageway, two-way road with pedestrian paths along both sides of the road. No on-street parking is permitted on either side of the road in the vicinity of the subject site.

St Peters Road operates under a default build-up area speed limit of 50km/h. It is classified as *Access Street* in Main Roads WA *Functional Road Hierarchy* document. The road is under care and control of local government. Refer **Figure 6** and **Figure 7** and for more details.

Based on Transcore’s traffic surveys undertaken in October 2021, it is estimated that St Peters Road, immediately west of King Street carries approximately 1,200vpd on a typical weekday.



Figure 4: Northbound view along Sewell Street from St Peters Road intersection (subject site on the right)



Figure 5: Southbound view along Sewell Street from Canning Highway intersection (subject site on the left)



Figure 6: Westbound view along St Peters Road in the vicinity of the site



Figure 7: Eastbound view along St Peters Road in the vicinity of the site

St Peters Road and Sewell Street form a T-intersection at the southwest corner of the subject site. Sewell Street is configured as one-way northbound through the intersection (south of St Peters Road). The one-way designation is enforced through a raised and kerbed traffic island and painted pavement arrow marking.

Sewell Street forms a priority-controlled left-in/left-out only intersection on its northern approach with Stirling Highway.

8 Public Transport Access

The site is well served by existing bus services operating along Canning Highway. The closest bus stops on Canning Highway are located approximately 100m walking distance to the east and west of the site. Both stops are accessible via existing footpath system in place at this locality. A total of four bus routes are accessible from these bus stops (refer **Table 2** for more details).

Table 2: Bus services operating in vicinity of the site

Bus Service	Route
111	Perth - Fremantle Station via Kwinana Freeway & Canning Highway
148	Applecross - Fremantle Station via Bicton & Attadale
158	Perth - Fremantle Station via Bicton & Attadale
910	Perth - Fremantle Station via Canning Highway

As detailed in the bus routes maps in **Figure 5**, the existing bus services on Canning Highway provide high frequency public transport connectivity between Fremantle, Perth and nearby suburbs.

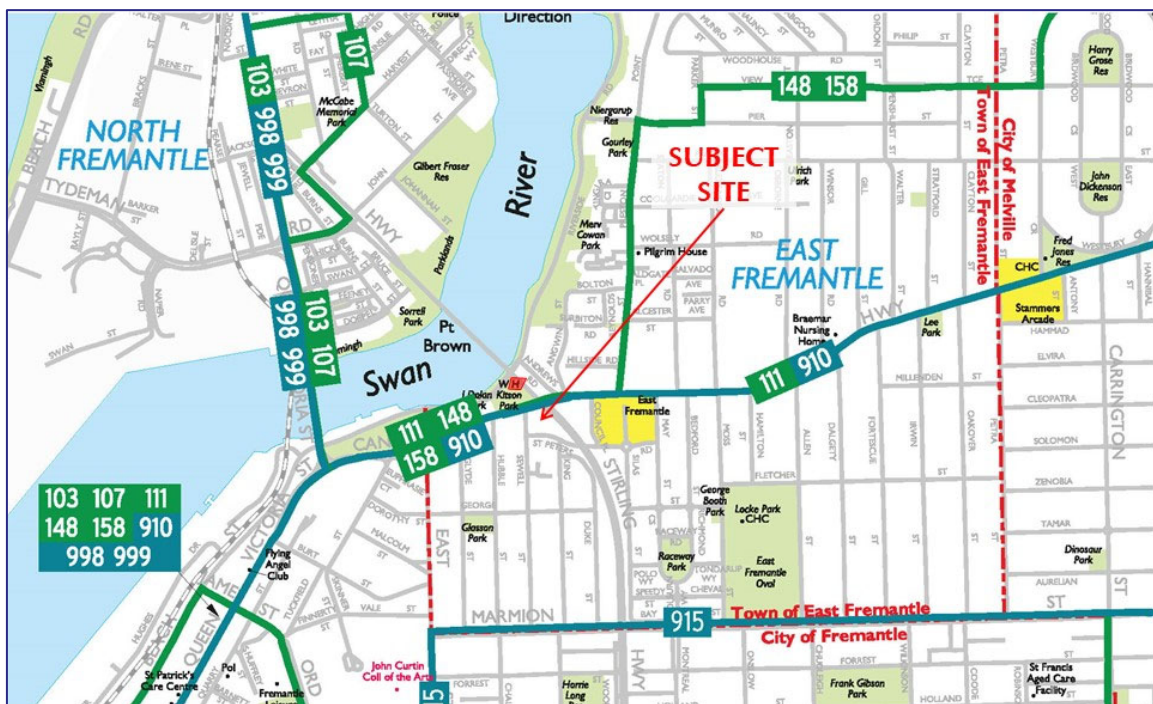


Figure 8: Public transport services (Transperth Map)

9 Pedestrian Access

Pedestrian access to the subject site is via the existing external footpath network comprising paved footpaths on roads adjacent to the subject site.

Pedestrian crossing facilities including drop kerbs and median refuges are currently provided at the signalised intersection of Canning Highway and Stirling Highway.

10 Cyclist Access

The Perth Bicycle Network Map (see **Figure 8**) indicates good pedestrian and cyclist connectivity to the subject site.

Continuous signed route SW6 is accessible on the eastern boundary of the subject site and provides connectivity to the wider shared path and on road cycle lane network including the shared path on Stirling Highway and the recreational shared path along the river.

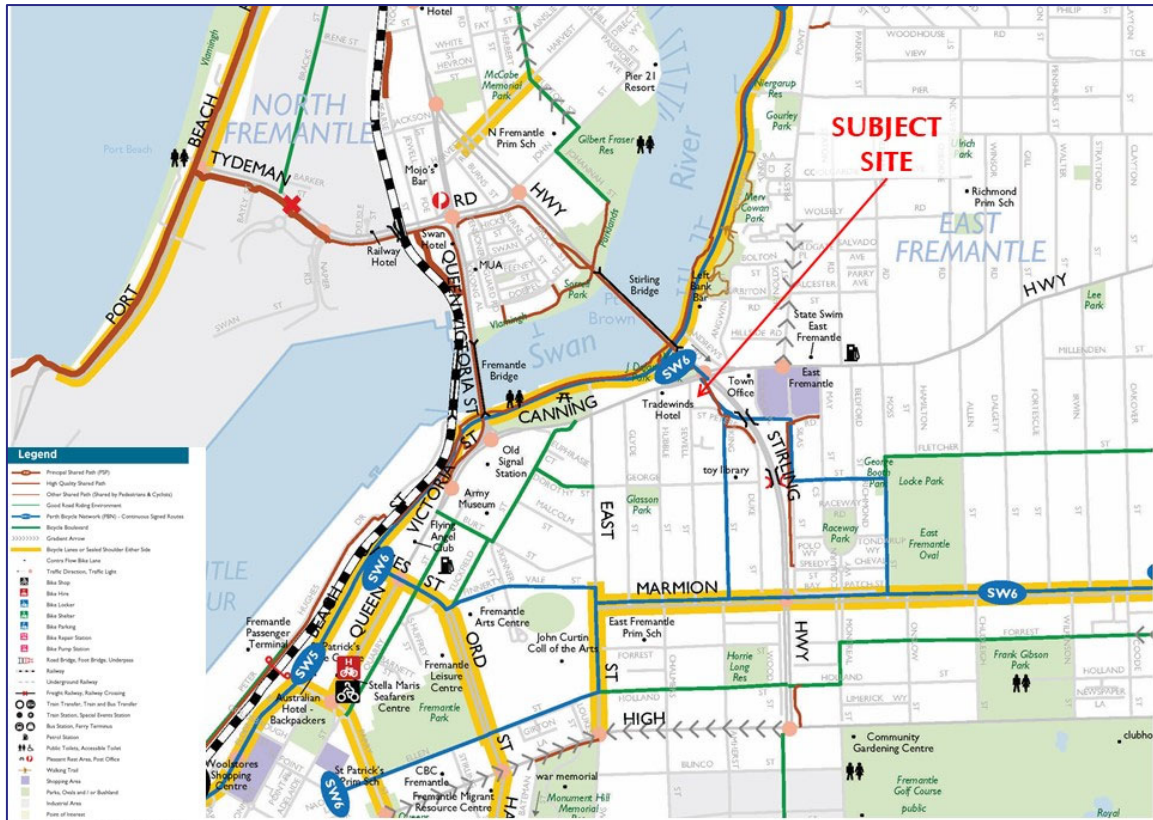


Figure 8: Extract from Perth Bicycle Network (Department of Transport)

11 Site Specific Issues

No site-specific issues were identified within the scope of this assessment.

12 Safety Issues

No safety issues were identified within the scope of this assessment.

13 Conclusions

This Transport Impact Statement has been prepared by Transcore on behalf of Builtform Projects with regard to the proposed mixed-use development at 91-95 Canning Highway (Lots 418 and 419 Canning Highway, Lot 81 St Peters Road and Lot 423 King Street) in East Fremantle, Town of East Fremantle.

The proposal contemplates construction of a multi-storey mixed-use development comprising residential units, commercial tenancies and a café, with three-level basement car park facility (ground and basement).

The traffic modelling undertaken in this report shows that the traffic generation of the proposed development is estimated to be in order of about 630 daily and 71/49 peak hour trips during the typical weekday AM/PM peak, respectively (both inbound and outbound).

The traffic analysis undertaken in this report demonstrates that the estimated development-generated traffic will have minimal impact on the surrounding road network.

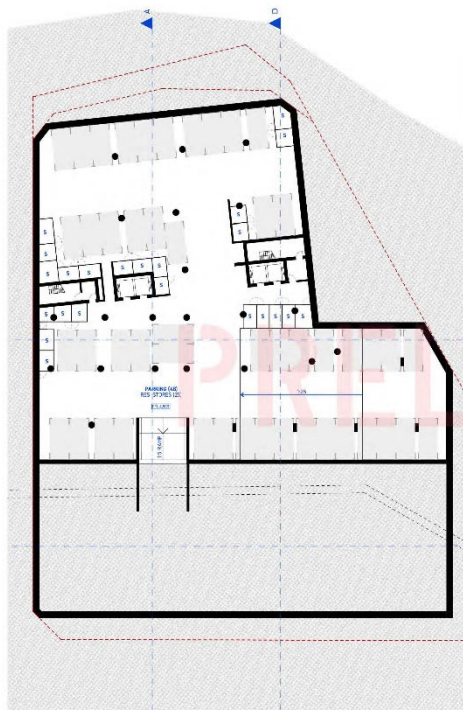
No direct vehicle access is proposed to Canning Highway or Stirling Highway, which are under *Primary Regional Road* reservations. It is proposed that one crossover on Sewell Street and one crossover on St Peters Road service the development.

The subject site has very good accessibility by the existing pedestrian and cyclist networks and enjoys very good public transport coverage through existing bus services available within the close proximity of the site. Bicycle parking and end-of-trip facilities are also accommodated within the development.

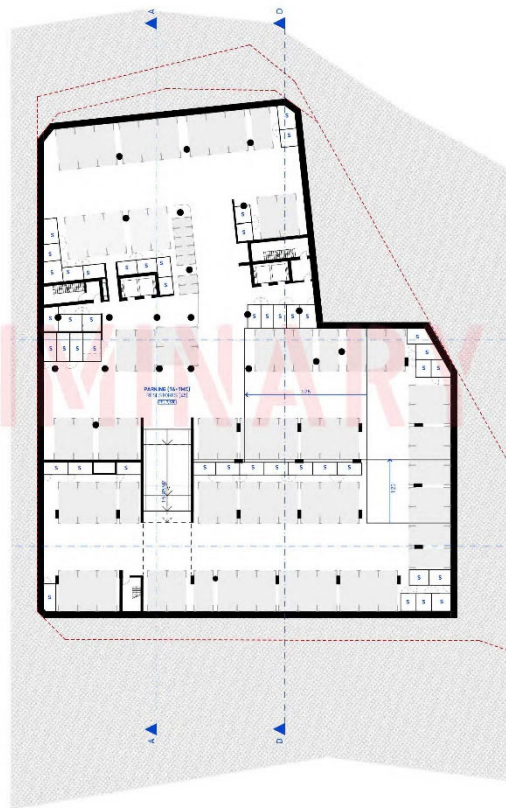
In conclusion, the findings of this Transport Impact Statement are supportive of the proposed mixed-use development.

Appendix A

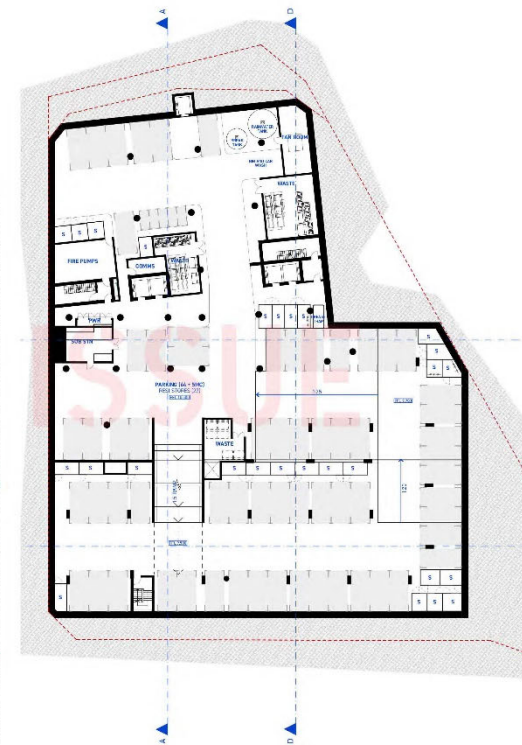
PROPOSED DEVELOPMENT PLANS



BASEMENT 3



BASEMENT 2



BASEMENT 1

spaceagency:
architects

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LEGEND

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Appendix B

TURN PATH PLANS

