407-511 KING GEORGES ROAD, BEVERLY HILLS

TRANSPORT IMPACT ASSESSMENT

PREPARED FOR BEVERLY HILL OWNERS ASSOCIATION INCORPORATED 25 NOVEMBER 2022 | 300303680



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1 Introduction

1.1 Background

A Planning Proposal is to be lodged with Georges River Council (Council) on land at 407-511 King Georges Road to transform the site into a vibrant mixed-use centre. The Planning Proposal will facilitate a range of LEP amendments largely relating to FSR controls and height controls.

Beverly Hills Owners Association Incorporated engaged Stantec to prepare a transport impact assessment to accompany the Planning Proposal.

1.2 Purpose of this Report

This report sets out an assessment of the anticipated transport implications of the planning proposal, including consideration of the following:

- existing traffic conditions surrounding the site
- the traffic generating characteristics of the proposal
- suitability of the proposed access arrangements
- internal road network layout and design
- the transport impact of the proposal on the surrounding road network.

1.3 References

In preparing this report, reference has been made to the following:

- an inspection of the site and its surrounds
- Georges River Council Development Control Plan 2021 (DCP 2021)
- Georges River Council Local Environmental Plan 2021 (LEP 2021)
- Relevant Australian Standard/ New Zealand Standard (AS/NZS 2890.1:2004, AS 2890.2:2018, AS/NZS 2890.6:2009)
- Olsson & Associates Architects Pty Ltd Beverly Hills Town Centre Planning Proposal Stage 1 Preliminary Concept Design, March 2018
- Olsson & Associates Architects Pty Ltd Beverly Hills Town Centre Planning Proposal Urban Design Study, October 2022

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- Beverly Hill Masterplan Transport & Accessibility Assessment, 24 January 2019, prepared by ptc.
- other documents and data as referenced in this report.

2 Existing Conditions

2.1 Site Location

The site is at 407-511 King Georges Road, Beverly Hills and occupies the land on the western side of King Georges Road between Stoney Creek Road to the south and the railway line to the north. It is also bounded by Dumbleton Lane to the west and forms part of Beverly Hills town centre.

Beverly Hills town centre is approximately 16 kilometres southwest of Sydney CBD and eight kilometres west of Sydney airport. The site is currently occupied by various retail and commercial twostorey tenancies including restaurants, a cinema, bar/ pub, cafes, and other public facilities. Surrounding properties primarily consist of residential dwellings, commercial and retail businesses, and educational facilities. Beverly Hills Station is also located north of the site. The site is currently zoned B2 (Local Centre) and primarily includes a floor space ratio (FSR) of 2:1, with the exception of the northern lot (Lot 1 DP 533022) with an FSR of 1.5:1.

The site and surrounding environs are shown in Figure 1 and current land zoning map shown in Figure 2.



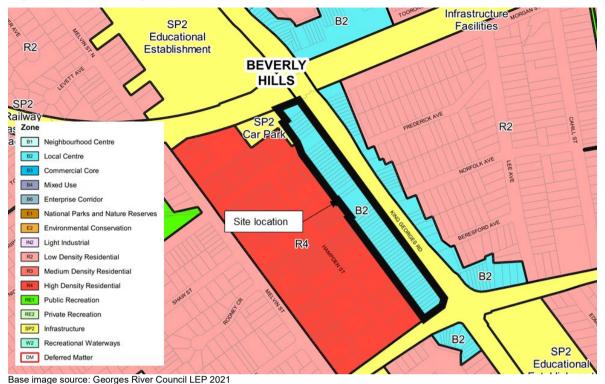
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Figure 1: Subject site and surrounding environs

Base image source: Nearmap

407-511 King Georges Road, Beverly Hills Existing Conditions

Figure 2: Land zoning map



2.2 Transport Network

2.3 Road Hierarchy

Roads are classified according to the functions they perform. The main purpose of defining a road's functional class is to provide a basis for establishing the policies which guide the management of the road according to their intended service or qualities.

In terms of functional road classification, State roads are strategically important as they form the primary network used for the movement of people and goods between regions, and throughout the State. Transport for NSW (TfNSW) is responsible for funding, prioritising and carrying out works on State roads. State roads generally include roads classified as freeways, state highways, and main roads under the Roads Act 1993, and the regulation to manage the road system is stated in the Australian Road Rules.

TfNSW defines four levels in a typical functional road hierarchy, ranking from high mobility and low accessibility to high accessibility and low mobility. These road classes are:

- Arterial Roads Controlled by TfNSW, typically no limit in flow and designed to carry vehicles long distance between regional centres.
- Sub-Arterial Roads Managed by either Council or TfNSW under a joint agreement. Typically, their operating capacity ranges between 10,000 and 20,000 vehicles per day, and their aim is to carry through traffic between specific areas in a sub region or provide connectivity from arterial road routes (regional links).

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- Collector Roads Provide connectivity between local sites and the sub-arterial road network, and typically carry between 2,000 and 10,000 vehicles per day.
- Local Roads Provide direct access to properties and the collector road system and typically carry between 500 and 4,000 vehicles per day.

2.4 Surrounding Road Network

2.4.1 KING GEORGES ROAD

King Georges Road is a classified arterial road that is orientated in a north-south direction to the east of the site. It has three travel lanes in each direction separated by a three-metre-wide central median, set within an approximate 25-metre-wide carriageway. As of December 2019, restrictions have been introduced extending the existing clearway from 6:00am to 7:00pm Monday to Friday and 9:00am to 6:00pm on weekends and public holidays. The clearway restrictions generally apply on both sides of King Georges Road along the frontage of the site except for a small section of the eastern side of the road between Morgan Street and Frederick Avenue where an idented parking lane is provided. Outside clearway hours, kerbside parking is permitted on King Georges Road.

King Georges Road corridor is a primary arterial road travelling through Beverly Hills town centre and would function as the main access route for the future development traffic. King Georges Road has a posted speed limit of 60 kilometres per hour, with a posted school zone active on school days along most of the site frontage.

King Georges Road is shown in Figure 3.

Figure 3: King Georges Road (looking south)



2.4.2 STONEY CREEK ROAD

Stoney Creek Road is a sub-arterial road orientated in an east-west direction south of the site. It generally provides two travel lanes in each direction set within a 14-metre-wide carriageway widening close to the King Georges Road signalised intersection. The same clearway restrictions as King

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407-511 King Georges Road, Beverly Hills Existing Conditions

Georges Road apply east of King Georges Road with 6:00am to 10:00am and 3:00pm to 7:00pm Monday to Friday clearway restrictions in place to the west.

Stoney Creek Road has a posted speed limit of 60 kilometres per hour, with a school zone active on school days between Lee Avenue and Hampden Street, east of King Georges Road.

With Dumbleton Lane being one-way southbound, Stoney Creek Road would accommodate a significant proportion of vehicles when exiting the site. Stoney Creek Road is shown in Figure 4.



Figure 4: Stoney Creek Road (looking east)

2.4.3 DUMBLETON LANE

Dumbleton Lane is a local road orientated in a north-south direction along the western boundary of the site. It intersects with Edgbaston Road to the north and facilitates left turn movements onto Stoney Creek Road at the southern end. It is a one-way southbound road with an approximate five-metre-wide carriageway with a posted 50 kilometre per hour speed limit.

It provides rear access to all retail and commercial properties that make up the subject site. Kerbside parking is not permitted on either side of the road.

With the proposal indicatively including basement car park access via Dumbleton Lane, it would facilitate all vehicle access to and from the site. Dumbleton Lane is shown in Figure 5.

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Rudduck Lane is also located mid-block and facilitates westbound only traffic from Dumbleton Lane. This allows for local area connections through to several local streets to the west, including Hampden Street, McCready Street and Melvin Street.

407-511 King Georges Road, Beverly Hills Existing Conditions

Figure 5: Dumbleton Lane (looking south)



2.4.4 EDGBASTON ROAD

Edgbaston Road is a local road aligned in an east-west direction intersecting with King Georges Road at its eastern end. It is a two-way road with one traffic lane and one parking lane in each direction set within a 12-metre-wide carriageway. Edgbaston Road has a posted speed limit of 50 kilometres per hour.

Right turns are banned from Edgbaston Road onto King Georges Road and with all other turning movements permitted, it would facilitate most traffic on approach to the site. This is further reinforced by Dumbleton Lane being one-way southbound.

2.5 Public Transport Network

The site is well-serviced by public transport services with bus stops located along the site frontage between Norfold Avenue and Frederick Avenue. Beverly Hills Railway Station is also located immediately north of the site. The surrounding public transport services are summarised in Table 1.

Public Transport	Route	Description	Frequency (peak/ off peak)
Train	T8 – Airport & South Line	Macarthur to City via Airport or Sydenham	15 mins
	450	Strathfield to Hurstville	15 mins/ 30 mins
	452	Beverly Hills to Rockdale	20 mins/ 30 mins
Bus	493	Rockdale to Roselands	Limited services approx. 60 mins
	S14	Lakemba to Mount Lewis	2 services per day
	N20	City Town Hall to Riverwood via Airport (Night Service)	4 services per day

Table 1: Beverly Hills public transport network

2.6 Active Transport Network

Footpaths are generally provided on both sides of all surrounding roads and combine to ensure adequate pedestrian facilities in this part of Beverley Hills town centre. Dumbleton Lane does not provide any footpaths due to the limited road reserve width.

There are formalised pedestrian crossings on all legs of the King Georges Road/ Stoney Creek Road intersection. Dedicated pedestrian bridges are also provided on the south and east approaches and ensure safe pedestrian movement, especially students walking to and from Beverly Hills Public School.

There is also a mid-block signalised pedestrian crossing along the site frontage and opposite Norfolk Avenue. Stairs and lifts are also provided on the King Georges Road rail overpass to facilitate pedestrian access to Beverley Hills station.

Cycling infrastructure is limited immediately surrounding the site, however the M5 South Western Motorway is located around 700 metres north of the site which includes shared paths on both sides of the road between King Georges Road and Bexley Road to the east.

The pedestrian facilities are summarised in Figure 6.



Figure 6: Existing formalised pedestrian crossings

Source: ptc. Beverly Hills Masterplan Transport & Accessibility Assessment, 24 January 2019

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2.7 Crash History

An analysis has been undertaken of the most recent five-year period of available crash data between 2016 and 2020 accessed from the Transport for NSW Centre of Road Safety site. The locations and severity of the crash data for the five-year period is shown in Figure 7 and summarised in Table 2.



Figure 7: Crash map from 2016 to 2020

Base image source: Transport for NSW Centre for Road Safety

Location	RUM code(s)	Number of crashes	Injuries
Morgan Street	30	1	2
King Georges Road/ Morgan Street	30 (2), 31, 39 (2), 83	7	3
King Georges Road/ Edgbaston Road	30 (2), 29	3	0
King Georges Road	30 (3), 34 (2), 71	6	8
King Georges Road/ Stoney Creek Road	21, 30 (4), 49, 74, 90	8	7
Τα	otal	25 crashes	20 injuries

Table 2: Recorded crashes

The relevant crash history information is summarised below:

- 25 crashes and 20 injuries were recorded during the five-year recording period.
- No fatalities were recorded during the reporting period.
- Only two of the incidents were serious in nature accounting for eight per cent of crashes.

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• Rear ends were most common with 12 incidents recorded accounting for about 50 per cent of crashes. Rear end crashes are the most common type of crash that occur in metropolitan areas in NSW.

• The Stoney Creek Road and Morgan Street intersections with King Georges Road accounted for 60 per cent of all incidents.

2.8 Recent Changes to Road Conditions

2.8.1 CLEARWAY RESTRICTIONS

On 2 December 2019, clearway restrictions were extended along King Georges Road through Beverly Hills from the M5 South Western Motorway to Stoney Creek Road. The previous clearway restrictions covered the typical 6:00am to 10:00am and 3:00pm to 7:00pm Monday to Friday periods. These have been extended cover 6:00am to 7:00pm (Monday to Friday) and 9:00am to 6:00pm (Saturday, Sunday and Public Holidays). This expands on the previously modified clearway restrictions north of the M5 South Western Motorway and south of Stoney Creek Road that were similarly extended.

The recent changes to clearway restrictions are shown in Figure 8.

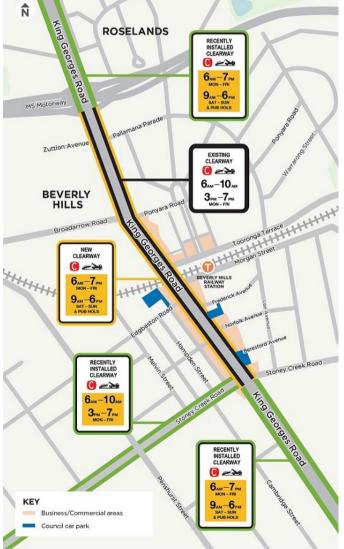


Figure 8: Clearway restrictions on King Georges Road

Source: roads-waterways.transport.nsw.gov.au/projects/, accessed May 2022

407-511 King Georges Road, Beverly Hills Existing Conditions

2.8.2 M8 MOTORWAY

The M8 Motorway connects Kingsgrove to St Peters via a nine-kilometre tunnel. Entry for eastbound traffic is via the King Georges Road Interchange, around 800 metres north of the site, with exit at the St Peters Interchange. The project was completed and opened to public use on 5 July 2020.

The M8 Motorway is shown in Figure 9.

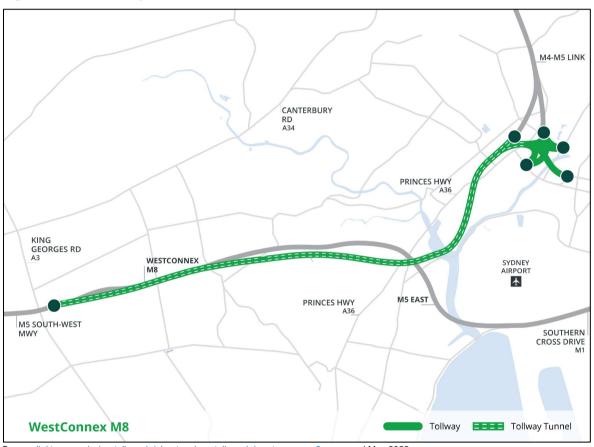


Figure 9: M8 Motorway

Source: linkt.com.au/using-toll-roads/about-sydney-toll-roads/westconnex-m8, accessed May 2022

The opening of the M8 Motorway has changed travel behaviour in the local and regional area and assisted with alleviating demand for east-west roads near the site, particularly Stoney Creek Road. With the M8 Motorway providing a more direct and faster route to the east and various parts of the inner southern suburbs of Sydney this has alleviated some historical road network constraints.

Annual average daily traffic (AADT) has been sourced from the TfNSW Traffic Volume Viewer for the most recent six-year period on Stoney Creek Road, with a summary of the data provided in Table 3.

407-511 King Georges Road, Beverly Hills Existing Conditions

Year	Annual average daily traffic (two-way)	Difference from previous year
2017	36,253	
2018	36,291	+0.1%
2019	35,615	-1.9%
2020 (M8 opened July 2020)	34,554	-3.0%
2021	32,843	-5.0%
2022	27,873	-15.1%

Table 3: Two-way traffic volumes on Stoney Creek Road

The data indicates that there has been a general decline in traffic volumes on Stoney Creek Road since 2019. The AADT data for 2020 indicated a larger decrease of around three per cent from the previous year, much of which could be attributed to the COVID-19 pandemic. The 2021 data however indicates a further five per cent reduction in traffic volumes from 2020 despite lockdown restrictions either being eased or similar. The data for 2022 to date also shows a reduction of around 15 per cent from 2021. The increased rate of reduction in traffic volumes between 2020 and 2022 illustrates the benefits of the M8 Motorway in alleviating traffic congestion on the surface roads in the surrounding area. This trend is important in the context of the site and overall development potential.

3 Planning Proposal

The Planning Proposal relates to land at 407-511 King Georges Road, Beverly Hills and aims to rezone the site to increase the FSR and building heights. The indicative Master Plan for the site indicates the site could accommodate up to 14,016 square metres of retail/ commercial GFA and between 726 and 777 residential apartments with the proposed planning controls. It is understood that the yields for the retail/ commercial GFA are considered conservatively high and represent an absolute maximum achievable GFA.

The location of the site and broader Beverly Hills Town Centre area is shown in Figure 10.



Figure 10: Subject site and broader Beverly Hills Town Centre

Base image source: Beverly Hills Town Centre Planning Proposal Stage 1 - Preliminary Concept Design, March 2018

The subject site is divided into 12 lots, Lot A to Lot L (from south to north) and as shown in Figure 11. Each lot would typically provide ground floor retail and commercial premises with residential apartments on the upper levels located above two basement parking levels and loading facilities with access via Dumbleton Lane.

The indicative basement and ground floor site layouts for each lot are shown in Figure 12, with proposed yields summarised in Table 4.

407-511 King Georges Road, Beverly Hills Planning Proposal

Figure 11: Indicative block analysis



1 2000 @A3 BEVERLY HILLS Source: Olsson & Associates Architects Pty Ltd Beverly Hills Town Centre Planning Proposal Stage 1 – Preliminary Concept Design, March 2018

407-511 King Georges Road, Beverly Hills Planning Proposal

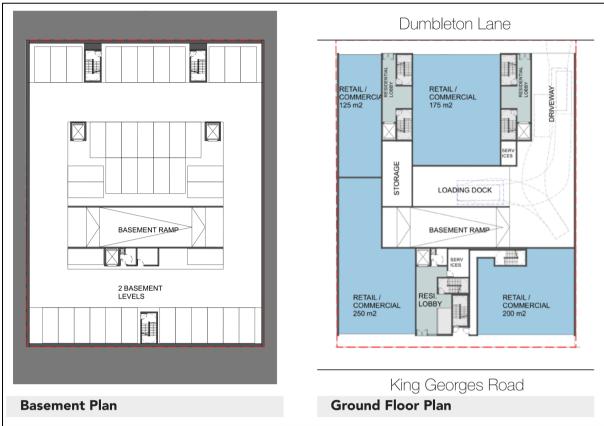


Figure 12: Indicative basement and ground floor layout

Source: Olsson & Associates Architects Pty Ltd Beverly Hills Town Centre Planning Proposal Urban Design Study, October 2022

Table 4: Indicative development yield

		Residential apartments			
Lot	Retail/ Commercial	GFA	No. of apartments		
			Min Yield	Max Yield	
A	1,100	8,192	128	136	
В	755	3,421	40	43	
С	1,032	4,992	58	62	
D	1,140	5,560	65	70	
E	1,085	5,695	67	71	
F	1,120	5,656	66	71	
G	4,345	3,663	43	46	
Н	515	2,953	34	37	
I	901	4,727	55	59	
J	550	2,998	35	38	
К	1,068	7,600	89	95	
L	405	3,923	46	49	
Total	14,016m ² GFA	59,380m² GFA	726 apartments	777 apartments	

4 Parking and Loading Assessment

4.1 Car Parking Requirements

The car parking requirements for different development types are set out in Georges River Council DCP 2021. The following minimum parking rates apply to the proposed land uses for the site:

Retail/ Commercial

• 1 space per 60 square metres GFA.

Residential:

- 1 space per 1 and 2-bedroom apartments
- 2 spaces per 3 or more-bedroom apartments
- 1 visitor space per 5 apartments
- 1 car wash bay (can also be designated as a visitor space).

The car parking requirements of the proposal are summarised in Table 5. The residential parking requirements have been determined based on the maximum apartment yield. An apartment mix of 25 per cent one-bedroom, 50 per cent two-bedroom, and 25 per cent three-bedroom has been assumed for this assessment.

	Si	ze	DCP 2021 minimum parking requirement		
Lot	Commercial/ retail (GFA)	Residential apartments	Commercial/ retail parking	Resident parking	Visitor parking
А	1,100	136	18	170	27
В	755	43	13	54	9
С	1,032	62	17	78	12
D	1,140	70	19	88	14
E	1,085	71	18	89	14
F	1,120	71	19	89	14
G	4,345	46	72	58	9
н	515	37	9	46	7
I	901	59	15	74	12
J	550	38	9	48	8
К	1,068	95	18	119	19
L	405	49	7	61	10
Total	14,016m ² GFA	777 apartments	234 spaces	974 spaces	155 spaces

Table 5: Minimum car parking requirements for residential land uses

Table 5 indicates that the indicative yield would likely result in a minimum parking requirement of around 1,363 car parking spaces including 234 spaces for the retail/ commercial uses, 974 spaces for

residents and 155 spaces for residential visitors. Further detail on the proposed car parking provision and allocation between the various uses would form part of future development applications.

4.2 Bicycle Parking

The bicycle parking requirements for different development types are set out in Georges River Council DCP 2021. The following minimum bicycle parking rates apply to the proposed land uses for the site:

Retail/ Commercial

• 1 space per 5 car parking spaces.

Residential:

- 1 space per 3 dwellings for residents
- 1 space per 10 dwellings for visitors.

Based on the indicative yield of 777 apartments and parking requirement for a minimum 234 retail/ commercial parking spaces, this generates a requirement of around 47 retail/ commercial bicycle spaces, 259 resident bicycle spaces and 78 residential visitor bicycle spaces. Further detail on proposed bicycle parking provision and allocation between the various uses would form part of future development applications.

4.3 Loading Requirements

Georges River Council DCP 2021 indicates the following loading requirements:

Retail/ Commercial

- Floor area >100 square metres to 500 square metres 1 bay
- Floor area > 500 square metres to 1500 square metres 2 bays.

Commercial:

- Floor area 1,000 square metres to 5,000 square metres 1 bay
- Floor area > 5,000 square metres to 10,000 square metres 2 bays.

The indicative basement layout shown in Figure 12 indicates loading is proposed within the basement of each individual lot. Such details would be included as part of future development applications.

5 Transport Assessment

5.1 Traffic Generation

5.1.1 EXISTING ZONING

The existing site has a FSR of 2:1 apart from the 1.5:1 FSR attributed to Lot L (northernmost lot). Georges River LEP 2021 also specifies a minimum non-residential FSR component of 0.5:1.

Assuming that the site is developed to current maximum FSR controls it could potentially provide up to 8,149 square metres GFA of retail/ commercial uses and 24,047 square metres GFA of residential uses, or 301 apartments (assuming 80 square metres per apartment in line with the indicative proposed maximum yield). The potential site breakdown under existing planning controls is shown in Table 6.

			Residential		
Lot	Lot Area	Retail/ Commercial	GFA	Apartments	
A	1,689	845	2,534	32	
В	1,052	526	1,578	20	
С	1,506	753	2,259	28	
D	1,675	838	2,513	31	
E	1,695	848	2,543	32	
F	1,694	847	2,541	32	
G	1,456	728	2,184	27	
Н	868	434	1,302	16	
I	1,407	704	2,111	26	
J	887	444	1,331	17	
К	1,576	788	2,364	30	
L	787	394	787	10	
Total	16,292m ²	8,149m ² GFA	24,047m ² GFA	301 apartments	

Table 6: Potential yield under existing FSR controls

Traffic generation rates for the potential uses and yield under existing FSR controls have been sourced from the Transport for NSW Guide to Traffic Generating Developments 2002 (the Guide) and Technical Direction: Updated Traffic Surveys (TDT 2013/04a).

For the retail and commercial uses, the specialty retail rate of 4.6 vehicle trips per 100 square metres in the weekday PM peak hour has been conservatively assumed together with a 50 per cent reduction factor to reflect the proportion of trips associated with town centre and surrounding local area residents and linked trips between various land uses that make up the town centre. The traffic generation in the weekday AM peak hour has been assumed to be 50 per cent of the PM peak hour.

For the residential uses, the typical 0.19 and 0.15 vehicle trips in the AM and PM peak hours have been adopted as recommended for high density residential apartments in TDT 2013/ 04a.

Considering the above, the potential traffic that could be generated by the site under the existing planning controls is summarised in Table 7.

Use	Size	Traffic generation rate (vehicle trips per hour)		Traffic generation estimates (vehicle trips per hour)	
		AM	РМ	AM	РМ
Retail/ Commercial	8,149m ² GFA 6,110m ² GLFA [1]	2.3 per 100m ² GFA [2]	4.6 per 100m ² GFA [2]	141	281
Residential	301 apartments	0.19 per apt	0.15 per apt	57	45
		198	326		

Table 7: Potential traffic generation under existing planning controls

[1] GLFA assumed to be 75 per cent of GFA as suggested in the Guide 2002

[2] 50 per cent reduction factor applied to consider those that walk to site and linked trips.

Table 7 indicates that under existing planning controls, the site has the potential to generate 198 and 326 vehicle trips during the AM and PM peak hours respectively.

5.1.2 **FUTURE GENERATION**

Traffic generation estimates for the planning proposal have been assessed based on the maximum apartment yield and the same traffic generation rates as those used to assess the likely traffic generation under the existing planning controls. These are summarised in Table 8.

Use	Size	Traffic generation rate (vehicle trips/ hour)		Traffic generation rate (vehicle trips per hour)	
		AM	РМ	AM	РМ
Retail/ Commercial	14,016m² GFA 10,512m² GLFA [1]	2.3 per 100m ² GFA [2]	4.6 per 100m² GFA [2]	242	484
Residential	777 apartments	0.19 per apt	0.15 per apt	148	117
	Tota	390	601		

Table 8: Potential traffic generation under proposed planning controls

[1] GLFA assumed to be 75 per cent of GFA as suggested in the Guide 2002 [2] 50 per cent reduction factor applied to consider those that walk to site and linked trips.

Table 8 indicates that under proposed planning controls, the site could generate 390 and 601 vehicle trips during the AM and PM peak hours respectively. Again, it is noted that the assumed retail/ commercial GFA is considered conservatively high and represents an absolute maximum achievable GFA. As such, the associated vehicle trip estimates are also considered conservative and represent a 'worst-case' scenario.

5.1.3 SUMMARY

Considering the above, it is estimated that the indicative yield generated by the proposed planning controls could potentially result in a net increase in traffic generation of up to 192 and 275 vehicle trips during the AM and PM peak hours respectively compared to the existing planning controls for the site. This is summarised in Table 9.

Planning controls	Potential traffic generation estimate (vehicle trips per hour)	
	АМ	РМ
Existing planning controls	198	326
Proposed planning controls	390	601
Change in traffic generation	+192	+275

Table 9: Estimated change in traffic generation as a result of proposed planning controls

5.2 Traffic Distribution

As discussed, vehicle travel paths to and from the site are relatively limited on account of Dumbleton Lane allowing for one-way southbound only traffic and the left turn only on exit to Stoney Creek Road. Rudduck Lane is also one-way westbound from Dumbleton Lane. Given this, all vehicles would need to enter Dumbleton Lane via Edgbaston Road at the northern end and either exit mid-block via Rudduck Lane or travel south for the length of the site to exit via Stoney Creek Road.

Those exiting the lots north of Rudduck Lane would be afforded other alternative routes when exiting the area to the west and avoid the need to travel through the King Georges Road/ Stoney Creek Road intersection.

Overall, with the split of arrival and departure vehicles between the various land uses, and accounting for the existing road network constraints, the weekday afternoon peak hour will see the most vehicle trips, with up to about 200 vehicle trips likely to exit the site to Stoney Creek Road. This is based on a 50:50 split of retail/ commercial traffic and 80:20 split of residential traffic (dominant exit in the AM, entry in the PM) with 75 per cent estimated to exit via Stoney Creek Road and 25 per cent via Rudduck Lane. On these estimates, it represents an increase of about 90 vehicle trips per hour (or one to two vehicles per minute) over that likely under the existing controls.

The anticipated approach and departure routes are shown in Figure 13 and Figure 14.



Figure 13: Approach routes

Base image source Nearmap

407-511 King Georges Road, Beverly Hills Transport Assessment

Figure 14: Departure routes



Base image source Nearmap

5.3 Traffic Impact

It is anticipated that Stoney Creek Road, Edgbaston Road and Morgan Street intersections at King Georges Road would provide for the key entry and exit routes associated with the site. Specifically, most traffic would use the King Georges Road/ Edgbaston Road intersection on entry and the King Georges Road/ Stoney Creek Road intersection on exit.

Recent changes to clearway restrictions have also effectively provided an additional lane on King Georges Road for much of the day period. In this regard, an additional traffic lane could potentially provide capacity for up to an additional 1,400 vehicles per hour mid-block. The opening of the M8 Motorway has also returned some capacity on the surrounding road network by reducing demand for other east-west roads near the site, including Stoney Creek Road.

Overall, it is anticipated that the potential net increase in traffic generation generated by the site under the proposed planning controls from that estimated for the existing planning controls is expected to be manageable, particularly when considering likely resultant additional road capacity generated by the recent road infrastructure improvements.

Naturally, further detailed traffic modelling would be completed if and as required as part of any future development applications.

5.4 Infrastructure Improvements

Ongoing consultation with Council and TfNSW will be key to implementation of appropriate infrastructure improvements that could be delivered to support future development in line with this planning proposal. Potential improvements that could be implemented to support the precinct could include upgrades to footpaths particularly along the frontages of the study area, together with considering opportunities to improve the laneways amenity (such as Dumbleton Lane and Rudduck Lane) by way of formal shared zones. Such measures would improve pedestrian amenity, provide greater activation and improve the public domain generally along these frontages.

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Other broader opportunities include potential improvements to the cycling connections to better link the Town Centre with existing cycling infrastructure, including those along the M5 Motorway. These potential active transport improvements would not only benefit the precinct, but also the residential catchment surrounding the site and have the potential to reduce the reliance on private vehicle travel, particularly for local trips.

As mentioned, recent changes to clearway restrictions and the opening of the M8 Motorway have likely increased road capacity on the immediate surrounding road network. Further detailed traffic modelling would be completed if and as required as part of any future development applications to assess the operation of the surrounding road network. Modelling would focus on arrival and departure routes to ensure appropriate traffic distribution throughout.

Any potential active transport or road infrastructure improvements identified through future consultation with Council and TfNSW could be funded via development contributions as part of future development applications if and as required.

6 Conclusion

Based on the analysis and discussions presented within this report, the following conclusions are made:

- 1. The planning proposal relates to land at 407-511 King Georges Road, Beverly Hills and proposes changes to the current planning controls to increase the FSR and building heights.
- 2. The indicative Master Plan for the site indicates the site could accommodate up to 14,016 square metres of retail/ commercial GFA and between 726 to 777 residential apartments with the proposed planning controls.
- 3. The indicative yield of the planning proposal would generate a parking requirement of around 1,363 parking spaces including 234 spaces for the retail/ commercial uses, 974 spaces for residents and 155 spaces for residential visitors. Further details on the proposed parking provision and allocation between the various uses would form part of future development applications for the site.
- 4. Under existing planning controls, the site has the potential to accommodate 8,149 square metres GFA of retail/ commercial uses and 24,047 square metres GFA of residential land uses (or around 301 apartments).
- Considering this, development of the site under the existing planning controls could potentially generate up to 198 and 326 vehicle trips during the weekday AM and PM peak hours, respectively.
- 6. Under the proposed planning controls, the site could accommodate around 14,016 square metres GFA of retail/ commercial uses and 59,380 square metres GFA of residential uses (or between 726 and 777 apartments).
- 7. Considering this, development of the site under the proposed planning controls could potentially generate up to 390 and 601 vehicle trips during the weekday AM and PM peak hour, respectively.
- 8. Overall, it is estimated that the indicative yield generated by the proposed planning controls could potentially result in a net increase in traffic generation of up to 192 and 275 vehicle trips during the AM and PM peak hours when compared to the existing planning controls.
- The assumed retail and commercial GFA is considered conservatively high and represents an absolute maximum achievable GFA. This in-turn results in the associated vehicle trip estimates also being considered conservative and represent a worst-case scenario in terms of potential impacts.
- 10. Given surrounding road network that includes one-way traffic flows on Dumbleton Lane and Rudduck Lane, and the left-out only movements to Stoney Creek Road, entry to the site would be via Edgbaston Road to the north with egress via Stoney Creek Road and Rudduck Lane.
- 11. Overall, it is anticipated that the potential net increase in traffic generation generated by the site under the proposed planning controls from that estimated for the existing planning controls is expected to be manageable, particularly when considering the road capacity returns afforded by

the road infrastructure improvements over recent years. This specifically includes changes to clearway conditions and the opening of the M8 Motorway.