Proposed Edward Millen Redevelopment

TRANSPORT IMPACT ASSESSMENT FOR DEVELOPMENT APPLICATION



Updated 2 February 2024

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1. INTRODUCTION

Blackoak Capital is proposing a redevelopment of several historical buildings within Edward Millen Park at Lot 9000 (No. 15) Hill View Terrace in East Victoria Park, which is located on the northern side of Hill View Terrace, west of Albany Highway, as shown in the Locality Plan in Figure 1.

The proposed mixed-use redevelopment includes commercial and specialty retail, various food & beverage eateries, a garden pavilion, an outdoor Market site and a Child Care Centre.

Development plans have been prepared by Benson Studios, and Uloth and Associates has been commissioned to prepare a Transport Impact Assessment report in support of the proposed Development Application.

2. STUDY FINDINGS AND CONCLUSIONS

The study findings and conclusions regarding the proposed Edward Millen redevelopment are presented and discussed in this chapter, with reference to more detailed information documented in the Technical Appendix.

2.1 EXISTING SITUATION

The existing roads and intersections in the vicinity of the proposed development site are shown in the aerial photograph in Figure A.1 in Chapter A.1 in the Technical Appendix, while the existing situation is shown in more detail in Figure A.2.

- It can be seen in Figure A.1 that Edward Millen Park is located west of Albany Highway between Baillie Avenue and Hill View Terrace, with the proposed development site located at the westernmost end of the park. It can also be seen that there are currently 3 access driveways to/from the overall site, including Driveway 1 off Baillie Avenue, Driveway 2 off Hill View Terrace, and Driveway 3 off Albany Highway.
- Hill View Terrace and Berwick Street are both 2-lane divided roads with painted medians, identified as a Distributor A roads under the Main Roads WA Functional Road Hierarchy, and with a posted speed limit of 60 kilometres per hour. Albany Highway is also a 2-lane divided road with a painted median, but is identified as a Distributor B road and has a posted speed limit of 40 kilometres per hour.
- Baillie Avenue, Langler Street, Carson Street and other local roads in the vicinity of the proposed development site are all 2-lane undivided roads, identified as Access Roads, and operating under the default urban speed limit of 50 kilometres per hour. A school speed zone (of 40 kilometres per hour) also operates during school days (from 7.30am to 9am and from 2.30pm to 4pm), at the western end of Baillie Avenue and southern end of Carson Street, respectively, adjacent to Carson Street School.
- Figure A.2 in Chapter A.1 shows that there are several existing (historical) buildings on the proposed development site, including the 'Rotunda' and 'Mildred Creak' buildings, an 'Operating Theatre' building, and three other 'Out-buildings'. It can also be seen that there is an existing 'Department of Communities' building adjacent to the proposed development site, accessed via Driveway 2 off Hill View Terrace; however, this building has recently been demolished.



- Existing weekday traffic flows in vicinity of the proposed development site are shown in Figure A.3 in Chapter A.1 in the Technical Appendix, based on data available from the Main Roads WA Trafficmap website plus additional traffic surveys carried out by Uloth and Associates. It can be seen in Figure A.3 that Berwick Street south of Langler Street carries approximately 15,200 vehicles per average weekday (2021/22), while Albany Highway north of Hill View Terrace carries approximately 14,400 vehicles per weekday (Sept 2023) and Hill View Terrace east of Berwick Street carries 12,800 vehicles per average weekday (2020/21). It can also be seen that Baillie Avenue, Carson Street and Langler Street all currently carry between just 400 to 800 vehicles per day.
- The proposed development site is well serviced by public transport with bus stops nearby in Albany Highway, Berwick Street and Oats Street, as shown in Figure A.4 in Chapter A.2 in the Technical Appendix, and with Routes 177 to 179, 220 and 998/999 providing connections to/from Perth, Armadale Station, Cannington Station and Bull Creek Station.
- Figure A.4 also shows the existing pedestrian/cyclist facilities along Albany Highway, Hill View Terrace and Berwick Street, as well as along local roads in the vicinity of the proposed development site. This includes footpaths along every street and controlled crossings at the 2 signalised intersections, as well as on-street bicycle lanes on both sides of Hill View Terrace.
- It is also important to note that Baillie Avenue, Carson Street and Burlington Street (off Hill View Terrace) have been identified as Bicycle Boulevards within Department of Transport's Perth Active Transport maps, and Albany Highway adjacent to Edward Millen Park has been identified as part of the Tram Stop walking trail, indicating that good pedestrian and cycling facilities are available in the vicinity of the proposed development site.
- Historical crash data was also obtained from Main Roads WA, for the roads immediately adjacent to the proposed development site. A total of 4 crashes were recorded on Hill View Terrace over the past 5 years to December 2022, which included a rear-end collision, a collision due to a reversing vehicle from the driveway, a vehicle collision with a fence and a right-angle crash at the Burlington Street intersection.

2.2 EXISTING PARKING PROVISION AND SURVEYED PARKING DEMANDS

Figures A.5 to A.7 in Chapter A.3 in the Technical Appendix identify the existing public parking provision in the vicinity of the proposed development, while Tables A.1 and A.2 show the existing parking demands (as surveyed by Uloth and Associates on Thursday 21 September and Saturday 23 September 2023), based on the surveyed street sections in Figure A.8.

- It can be seen in Figure A.5 to A.7 that public parking is currently available for approximately 90 vehicles immediately adjacent to the overall development site, comprising marked on-street spaces on both sides of Albany Highway (for 9 vehicles), unmarked on-street parking along the northern side of Baillie Avenue (for 21 vehicles), on-street parking along the southern side of Baillie Avenue (for 6 vehicles, at the eastern end), and informal verge parking along the southern side of Baillie Avenue (for 54 vehicles).
- Tables A.1 and A.2 then show that the surveyed overall peak parking demands were approximately 25 vehicles, during school pick-up time (2³⁰pm) on the Thursday, reducing to approximately 20 vehicles (at 12pm) on the Saturday. This indicates an existing spare capacity for approximately 65 vehicles in close proximity of the proposed development.

2.3 <u>PROPOSED DEVELOPMENT</u>

Figure A.9 in Chapter A.4 in the Technical Appendix shows the previously proposed Edward Millen Park Masterplan (January 2020), while Figures A.10 and A.11 show the latest overall site plans for the redevelopment of the Park, ready for construction. Figures A.12 and A.13 then show the currently

proposed development site plan and ground floor plan, respectively, as prepared by Benson Studio architects.

- It can be seen in Figures A.9 to A.11 that the proposed masterplan includes a new car park mid-way along Hill View Terrace, together with new toilets/change rooms, in place of the recently demolished 'Department of Communities' building and existing private car park.
- Figure A.12 then shows that that same car park (for construction by Town of Victoria Park) will provide 37 car spaces, but will now merge with new on-site parking for the proposed redevelopment. The new car park is shown to provide an additional 51 spaces (plus 4 motorcycle spaces), bringing the total parking provision within the combined car park to 88 car spaces (plus 4 motorcycle spaces).
- Figure A.12 also shows a second new car park, accessed off Baillie Avenue, to service the proposed Child Care Centre. The plan currently shows a total of 30 spaces (including 1 Accessible space); there is also a turn-around bay at the end of the dead-end parking aisle.
- The total on-site parking provision for the proposed development site is therefore 81 spaces, increasing to 118 spaces on the overall Edward Millen Park site. With an existing spare capacity for up to 65 vehicles on the street or verge along Albany Highway and Baillie Avenue (as identified above in Section 2.1), the overall parking provision available for use by the proposed development is therefore 183 spaces.
- Figure A.13 shows a ground floor plan of the proposed redevelopment which includes the 'Rotunda' and 'Mildred Creak' buildings (with indoor and outdoor seating), ancillary buildings (stables, garden pavilion, gelato/servery, greenhouses and art studios) and a Child Care Centre.
- The 'Rotunda' building proposes and a Cafe, Retail tenancy and a Bakery (on the ground floor) plus Offices (on the first floor), while the 'Mildred Creak' building will provide a Bar & Bistro and a Micro-brewery, plus a Museum/Gallery, additional Retail, and a Community Events Space. A 'pop up' Market site (which is expected to be used only at weekends) is also shown adjacent to the 'Rotunda' Building, while gardens and additional seating are proposed between the main buildings and the Child Care Centre and Gelato/Servery.
- It can also be seen in Figure A.13 that there is a service yard proposed behind the 'Mildred Creak' building, with access via the proposed new car park (off Hill View Terrace). There is also a bitumen hardstand area in the south-eastern corner of the site (adjacent to the fire tanks and fire pump room), to be accessed by DFES Fire Service Appliances via an existing paved accessway off Hill View Terrace.
- Figure A.14 then shows a composite development plan for the overall proposed redevelopment in the context of the adjacent roads and intersections.

2.4 <u>CHILD CARE CENTRE</u>

- The development plan for the proposed Child Care Centre is shown on the proposed overall ground floor plan in Figure A.13 in Chapter A.4 in the Technical Appendix, as well as in the composite development plan in Figure A.14. The proposal includes the construction of a purpose-built Child Care Centre (for up to 104 children plus 20 staff), with a gross floor area of 950 square metres plus outdoor play areas of approximately 1,030 square metres.
- It can be seen in Figure A.14 that the proposed car park is located at the western end of the proposed development site, with 2-way access proposed off Baillie Avenue. As also noted above, the car park provides an overall parking provision of 30 spaces (including 1 Accessible space) together with a turnaround bay at the end of the dead-end aisle to ensure that all vehicles accessing the car park can exit the site in forward gear if all parking spaces are full.

- Rubbish collection for the Centre is proposed to occur within the car park, with trucks turning towards the left of the access driveway (when entering) to reverse back into the parking aisle, and with bins to be wheeled out from the bin enclosure into the car park.
- Car parking requirements are specified in Town of Victoria Park's Local Planning Policy No. 23 with a requirement for 'Child Care facilities' to provide 1 space per 5 children. The proposed Child Care Centre (with 104 children) should therefore provide a minimum of 21 car parking spaces. The currently proposed plan therefore results in a parking surplus of 9 spaces.
- On the basis of previous surveys and available data, it is estimated that the proposed Child Care Centre will generate a total of 4 vehicle trips per child per day, with peak hour flows of 0.69 trips per child during the morning peak hour and 0.76 trips per child during the afternoon peak hour. The Child Care Centre is therefore estimated to generate a total of 420 vehicle trips per day, with 72 vehicle trips and 79 vehicle trips, respectively, during the AM and PM peak hours.
- With a trip generation of less than 100 vehicle trips during both the AM and PM peak hours, the proposed Child Care development is therefore expected to have only minimal impact on the overall road network.

2.5 OVERALL PARKING REQUIREMENTS AND SHARED PARKING ANALYSIS

- Overall development zones for the proposed redevelopment are shown in Figure A.15 in Chapter A.5 in the Technical Appendix, while Figure A.16 then shows a detailed plan of the public/seating areas for the overall site.
- Planning Scheme parking requirements for the proposed development are then shown in Table A.3 in Chapter A.5, based on Town of Victoria Park Local Planning Policy No. 23, while Table A.4 shows a 'Shared Parking' analysis for the proposed development.
- It can be seen in Table A.3 that the overall planning scheme parking requirement calculates to a total of 291 spaces. However, with different peak times for different parts of the development, Table A.4 shows that the overall shared parking demands combine for a reduced total of 162 vehicles during a Weekday lunchtime, and 221 vehicles during a Weekend evening (if the Market is running), or 192 vehicles during a Weekend lunchtime (without the proposed Market).
- It is suggested, however, that parking demand on proposed Market days could be managed under a special event parking management plan. The overall peak parking demand for 'normal operations' is therefore 162 vehicles on a weekday, or 192 vehicles on a weekend.
- As noted above in Section 2.3, the overall parking provision available for use by the proposed development (within or immediately adjacent to the overall development site) is 183 spaces. The calculated parking demands therefore translate to an overall parking surplus of 21 spaces during the Weekday peak, and a parking shortfall of 9 spaces during the Weekend peak. However, this just means that parking during the Weekend peak period would simply extend further north along Albany Highway.

2.6 OVERALL FUTURE TRAFFIC FLOWS AND TRAFFIC IMPACTS

- Future traffic generation for the proposed redevelopment (including the Child Care Centre) is calculated in Table A.5 in Chapter A.6 in the Technical Appendix. It can be seen in Table A.5 that the proposed redevelopment is estimated to generate a total of 3,420 vehicle trips per average weekday, with 203 and 402 trips during the weekday AM and PM peak hours, respectively.
- Taking into account the surrounding residential areas and available approach routes, it is estimated that 35 percent of development traffic will travel via the Albany Highway Oats Street intersection

to/from the east and south-east, while 30 percent is expected to travel via Berwick Street to/from the north-west. This leaves 20 percent of development traffic via the Berwick Street - Hill View Terrace intersection to/from the south and south-east, and 15 percent to/from Albany Highway north.

- The resulting overall travel routes for the Weekday AM peak hour, PM peak hour and Daily traffic flows accessing the proposed development are therefore as shown in Figure A.17 in Chapter A.6.
- With parking opportunities available on both Hill View Terrace and Baillie Boulevard, and with multiple approach routes also available, it is clear that development traffic flows will be spread out (rather than being focussed on any one location). The development is therefore not expected to have a significant traffic impact on any single intersection.
- It can also be seen in Figure A.17 that Driveway 2 (off Hillview Terrace) is expected to carry 2,470 vehicles per day (to/from the main on-site parking areas), followed by 530 vehicles per day using the on-street and verge parking along Baillie Avenue, and 420 vehicles per day using Driveway 1 (off Baillie Avenue) to access the Child Care Centre.
- Intersection operational (SIDRA) analysis has been carried out for the Hill View Terrace Driveway 2 junction during the weekday PM peak hour, confirming that the critical right-turn movement out of Driveway 2 will operate at an acceptable Level of Service C (indicating satisfactory operating conditions with average traffic delays).
- Additional analysis was also carried out to reflect the corresponding Saturday peak hour operations, with conservative traffic assumptions adopted, as a sensitivity test. The additional analysis suggests that the right-turn movement out of Driveway 2 could fall to a poor but manageable Level of Service D; however, the resulting delay is still well-below the maximum permitted under the WAPC Transport Assessment Guidelines.

2.7 <u>SWEPT PATH ANALYSIS</u>

As discussed in Section 2.4, rubbish collection for the proposed Child Care Centre is planned to occur within the adjacent car park. Figure A.18 in Chapter A.7 in the Technical Appendix therefore shows the swept path for a 10.0-metre rubbish truck entering the proposed Child Car Centre car park, and reversing back into the parking aisle, while Figure A.19 shows the swept path for the rubbish truck exiting.

- All other general servicing will occur within the proposed service yard, to be accessed via the new car park off Hill View Terrace, with swept path for a 10-metre Rubbish Truck as shown in Figures A.20 and A21, noting that the proposed swept paths require a minor modification to one traffic island within the Town of Victoria Park car park, as indicated in Figures A.18 and A.19.
- Figure A.22 then shows the swept paths for a DFES Fire Truck accessing the proposed hardstand area adjacent to the fire tanks and pump room, via the existing accessway off Hill View Terrace.

3. OVERALL CONCLUSIONS AND RECOMMENDATIONS

The overall conclusions and recommendations regarding the proposed Edward Millen redevelopment are drawn from the study findings and conclusions presented above in Chapter 2, and the additional information documented in the Technical Appendix, as follows:

Parking and Access

- The existing situation provides a total parking capacity for 90 vehicles within Albany Highway and Baillie Avenue, immediately adjacent to the overall Edward Millen Park. With a surveyed peak parking demand of 25 vehicles (at school pick-up time on a weekday), this leaves a spare parking capacity of at least 65 spaces for use during the peak parking periods of the proposed development.
- The currently proposed plans for the overall redevelopment provide a total of 118 off-street parking spaces (including 37 spaces to be constructed by Town of Victoria Park). The total parking capacity available for use by the proposed redevelopment is therefore 183 spaces.
- Planning Scheme parking requirements for the proposed overall development calculate to a total provision of 291 spaces, including 21 spaces for the proposed Child Care Centre. However, the 'Shared Parking' analysis (in Table A.4 in the Technical Appendix) shows that with different peak times for different parts of the development, the actual peak parking demands will be 162 vehicles on a Weekday and 192 vehicles on a Weekend (excluding the pop-up Markets, which should be dealt with separately under a 'special event parking management plan').
- The proposed development therefore provides an overall parking surplus of 21 spaces during the Weekday peak period, but a parking shortfall of 9 spaces during the Weekend peak period. Parking demand during the Weekend peak period will therefore extend further north along Albany Highway.
- However, it is important to note that these overall calculations already assume that when the Child Care Centre is not operating, the car park will be made available as alternative parking for other developments on the overall site.

Development Traffic Flows

- The proposed Child Care Centre trip generation during both the AM and PM peak hours is less than 100 vehicle trips; it is therefore expected to have only minimal impact on the overall road network.
- The overall proposed redevelopment (including the Child Care Centre) is expected to generate 3,420 vehicle trips per average weekday, with 203 trips in the AM peak hour and 402 trips in the weekday PM peak hour. However, with traffic well spread-out on multiple approach routes, the development is not expected to have a significant impact on any single intersection.
- Analysis shows that the critical right-turn-out movement at the Hill View Terrace Driveway 2 junction will operate at an acceptable Level of Service C during the weekday PM peak hour, indicating satisfactory operating conditions with average traffic delays, while additional analysis also confirms acceptable operations during the weekend peak period.

Service Vehicles

- Rubbish collection for the Child Care Centre is proposed to occur within the car park accessed off Baillie Avenue, while all other general servicing will occur within the proposed service yard, to be accessed via the proposed car parks off Hill View Terrace.
- Swept path diagrams in Figures A.18 to A.21 in the Technical Appendix confirm suitable access for a 10-metre Rubbish Truck in both locations.
- A swept path diagram is also provided, in Figure A.22 in the Technical Appendix, for a DFES Fire Truck accessing the proposed fire tanks and pump room.

TECHNICAL APPENDIX

The Technical Appendix documents the existing situation, including existing traffic flows and existing parking demands, together with the proposed development plans, development traffic flows, and swept paths for service vehicles.

A.1 EXISTING ROADS AND INTERSECTIONS

Figures A.1 shows the existing roads and intersections in the vicinity of the proposed development site, while the existing situation within and immediately adjacent to the site is shown in more detail in Figure A.2.

Figure A.3 shows existing weekday traffic flows in the vicinity of the proposed development site.







A.2 EXISTING PEDESTRIANS/CYCLISTS FACILITIES

Figure A.4 shows the existing pedestrian/cyclist facilities in the vicinity of the proposed development site including existing footpaths and controlled crossings, on-street bike lanes, and Bus Stops.



A.3 EXISTING PARKING SURVEYS

Figure A.5 shows the existing public parking provision currently available adjacent to the overall development site, including the assumed capacity for casual parking on the verge along the southern side of Baillie Avenue.

Figures A.6 and A.7 then show a series of photographs (from Google Street View) to show the clear areas available for parking between street lights, sign posts and trees, noting that a minimum spacing of 3 metres has been adopted to ensure that the overall parking capacity calculation is conservative.

Tables A.1 and A.2 then show the results of parking demand surveys carried out by Uloth and Associates on Thursday 21 September and Saturday 23 September 2023, based on the Surveyed Street Sections identified in Figure A.8.



SOURCE: GOOGLE STREET VIEW



PHOTO 1



PHOTO 2

Street View Photos 1 & 2 BAILLIE AVENUE - EASTERN END

FIG. A.6

SOURCE: GOOGLE STREET VIEW



PHOTO 3



PHOTO 4

Street View Photos 3 & 4 BAILLIE AVENUE - WESTERN END

FIG. A.7

TABLE A.1 SURVEYED PARKING DEMANDS – THURSDAY 21 SEPTEMBER 2023 (2³⁰ to 5³⁰pm) BAILLIE AVENUE AND ALBANY HIGHWAY (ADJACENT TO EDWARD MILLEN PARK)

		PARKING	G SURVEYED PARKING DEMAND (VEHICLES)												
	OTREET GEOTION 1)	CAPACITY	230	245	200	215	230	245	400	415	430	445	400	5 15	5 30
	STREET SECTION 19	(SPACES)	250	245	300	315	350	3+5	400	415	450	4*	400	315	350
•	Baillie Avenue, western end														
	- South Side (Section 1)	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	$(+verge)^{2}$	(+31)	(+11)	(+10)	(+8)	(+7)	(+5)	(+4)	(+1)	(+1)	(+0)	(+0)	(+0)	(+0)	(+0)
	- North Side (Section 2)	10	0	0	0	0	0	0	0	0	0	0	0	0	0
•	Baillie Avenue, eastern end														
	- South Side (Section 3)	6	1	1	1	1	0	0	0	0	0	0	0	0	0
	$(+verge)^{2}$	(+23)	(+7)	(+9)	(+8)	(+9)	(+9)	(+10)	(+10)	(+10)	(+9)	(+8)	(+7)	(+6)	(+5)
	- North Side (Section 4) ³⁾	11	4	4	2	2	2	2	2	2	5	5	3	5	3
•	Albany Highway, south of Baillie Ave														
	- West Side (Section 5)	6	2	1	3	4	2	0	1	1	5	3	2	2	1
	- East Side (Section 6)	3	0	0	0	0	0	0	0	1	0	0	0	0	0
•	Total	90	25	25	22	23	18	16	14	15	19	16	12	14	10

Notes: 1) Street Sections as shown in attached Figure A.8.
2) Informal parking on verge shown separately in italics.
3) Includes parking on verge.
Bold figures denote peak parking demand.

Bold lightes denote peak parking den

TABLE A.2 SURVEYED PARKING DEMANDS – SATURDAY 23 SEPTEMBER 2023 (11am to 2pm) BAILLIE AVENUE AND ALBANY HIGHWAY (ADJACENT TO EDWARD MILLEN PARK)

		PARKING	SURVEYED PARKING DEMAND (VEHICLES)												
	STREET SECTION ¹⁾	CAPACITY (SPACES)	1100	1115	11 ³⁰	1145	1200	1215	1230	1245	100	115	1 ³⁰	145	200
•	 Baillie Avenue, western end South Side (Section 1) (+verge)²⁾ 	0 (+31)	0 (+0)	0 (+0)	0 (+0)	0 (+0)	0 (+0)	0 (+0)	0 (+0)	0 (+0)	0 (+0)	0 (+0)	0 (+1)	0 (+1)	0 (+0)
	- North Side (Section 2) ³⁾	10	1	1	1	1	1	2	0	0	0	0	0	0	0
•	 Baillie Avenue, eastern end South Side (Section 3) (+verge)²⁾ North Side (Section 4)³⁾ 	6 (+23) 11	0 (+5) 2	0 (+7) 2	0 (+9) 2		0 (+12) 4	1 (+11) 4	1 (+8) 4	1 (+9) 4	1 (+6) 4	1 (+4) 5	2 (+3) 5	2 (+3) 7	2 (+3) 5
•	 Albany Highway, south of Baillie Ave West Side (Section 5) East Side (Section 6) ³⁾ 	6 3	0	1	2	4 1	2	2 0	3	1 2	2	0	2	2 0	0
•	Total	90	9	12	15	18	20	20	16	17	14	10	14	15	10

Notes: 1) Street Sections as shown in attached Figure A.8.
2) Informal parking on verge shown separately in italics.
3) Includes parking on verge.

Bold figures denote peak parking demand.



A.4 OVERALL MASTERPLAN AND PROPOSED DEVELOPMENT

Figure A.9 shows the Edward Millen Park Masterplan prepared for Town of Victoria Park (in January 2020), while Figures A.10 and A.11 show the latest overall site plans, ready for construction.

Figures A.12 and A.13 show the proposed site plan and corresponding ground floor plan for the currently proposed redevelopment, as prepared by Benson Studio architects.

Figure A.14 then shows the various proposals for the overall development site as a composite development plan (including the proposed car park accessed off Hill View Terrace), in the context of the adjacent roads and intersections.

Master Plan

















BENSON STUDIO

FIG. A.12

EDWARD MILLEN HOME



1 : 500 @ A1 PPA20224 01.02.24

REV-K DA1.1





A.5 SHARED PARKING ANALYSIS

Figure A.15 shows the overall development zones for the proposed Edward Millen redevelopment site, while Table A.3 shows the Local Planning Scheme parking requirements for the proposed redevelopment, based on the detailed public/seating areas shown in Figure A.16.

Table A.4 then shows the 'Shared Parking' analysis for the proposed redevelopment, taking into account the different peak parking periods for each different part of the overall development.

TABLE A.3 PLANNING SCHEME PARKING REQUIREMENTS PROPOSED EDWARD MILLEN REDEVELOPMENT

	SEATING	NO. OF	REQUIRED PARKING ²⁾
LAND USE/ACTIVITY	AREA (m^2)	SEATS/PEOPLE ¹⁾	(SPACES)
 Mildred Creak Building Bar & Bistro/Brewery Community Events Space Museum/Gallery 	858 150	568 seats 72 seats	142 18 0 ³⁾
 Rotunda Building Bakery Cafe Retail Office 	214 204 52 155	60 seats 60 seats - -	15 15 5 ⁴⁾ 4 ⁵⁾
Garden Pavilion	58	46 seats ⁶⁾	11
Gelato/Servery	84	39 seats ⁷⁾	10
• Pop Up Market ⁸⁾	644	200 people	50
Child Care Centre	-	104 children	21 ⁹⁾
• Total			291

Notes:

es: 1) Seat numbers as provided by Benson Studio, for the various seating areas identified in Figure A.16, unless otherwise stated.

- 2) Where number of seats/people are provided, a parking rate of 1 car space per 4 seats/people is assumed, unless otherwise stated.
- 3) Incidental use only, therefore no specific parking requirement.
- 4) Based on Town of Victoria Local Planning Policy 23 parking rate of 1 per 10m² for 'Shop' land use.
- 5) Based on Town of Victoria Local Planning Policy 23 parking rate of 1 per 40m² for 'Office' land use.
- 6) Garden Pavilion seats are calculated based on an assumed 4 seats per 5 square metres.
- 7) Based on 24 seats for the Gelato and 15 seats for Servery, with Servery seats calculated using a seating area of 19m² and an assumed 4 seats per 5 square metres.
- 8) Assumed maximum 200 people in attendance.
- 9) Based on Town of Victoria Local Planning Policy 23 parking rate of 1 per 5 children for 'Child Care' land use.

TABLE A.4 SHARED PARKING ANALYSIS EDWARD MILLEN REDEVELOPMENT

	INITIAL PARKING ¹⁾		PARKING FLUCTUAT	FIONS AND RESULTI	NG SHARED PARKIN	NG REQUIREMENTS ²	2)
	REQUIREMENT		Weekday			Weekend	
LAND USE/ACTIVITY	(SPACES)	Morning	Lunch/Afternoon	Evening	Morning	Lunch/Afternoon	Evening
Mildred Creak Building							
- Bar & Bistro/Brewery	142	-	85 (60 percent)	114 (80 percent)	-	128 (90 percent)	142 (100 percent)
- Community Events Space	18	11 (60 percent)	14 (80 percent)	18 (100 percent)	13 (70 percent)	18 (100 percent)	18 (100 percent)
Rotunda Building							
- Bakery	15	12 (80 percent)	11 (70 percent)	-	15 (100 percent)	12 (80 percent)	-
- Café	15	12 (80 percent)	11 (70 percent)	-	15 (100 percent)	12 (80 percent)	-
- Retail	5	2 (55 percent)	5 (95 percent)	-	2 (55 percent)	5 (100 percent)	-
- Office	4	4 (95 percent)	4 (100 percent)	-	-	-	-
Garden Pavilion	11	-	4 (40 percent)	7 (60 percent)	-	9 (80 percent)	11 (100 percent)
Gelato/Servery	10	8 (80 percent)	7 (70 percent)	-	10 (100 percent)	8 (80 percent)	-
• Pop-up Market Site ³)	50	-	-	-	50 (100 percent)	-	50 (100 percent)
Child Care Centre	21	19 (90 percent)	21 (100 percent)	-	-	-	-
Grand Total	291	68	162	138	105	192	221
Alternative Total (Excl. Pop-up Market)	241	68	162	138	55	192	171

1) Initial parking requirements as shown in Table A.3. Notes:

2) Parking fluctuations initially based on percentage fluctuations published in 'Shared Parking', by the Urban Land Institute, refined based on professional experience where considered appropriate.
 3) Assumes Market events are only held on weekends, but could be either morning or evening. Bold figures denote peak parking demands.





A.6 DEVELOPMENT TRAFFIC FLOWS

Table A.5 shows the land use and trip generation calculations for the proposed development, based on industry standard trip generation rates within the NSW RMS 'Guide to Traffic Generating Developments' handbook and the ITE 'Trip Generation' manual - 11th Edition.

Figure A.17 shows the assignment of weekday AM peak hour, PM peak hour and Daily traffic flows generated by the proposed overall development.

TABLE A.5 PROPOSED LAND USE AND ESTIMATED TRIP GENERATION EDWARD MILLEN REDEVELOPMENT

		A	M Pea	k	I	PM Pea		
		H	our (vp	h)	H	our (vp	<u>h)</u>	
	LAND USE	In	Out	Total	In	Out	Total	Daily (vpd)
•	Mildred Creak Building							
	- Bar & Bistro/Brewery (1,115m ²) ¹⁾	0	0	0	90	46	136	1,100
	- Community Events Space (496m ²) ²⁾	4	4	8	37	30	67	520
	- Museum/Gallery & Retail (59m ²) ³⁾	1	0	1	1	1	2	40
•	Rotunda Building							
	- Bakery (381m ²) ⁴	28	27	55	26	26	52	600
	- Café $(227m^2)^{(4)}$	17	16	33	15	15	30	360
	- Retail $(52m^2)^{(3)}$	1	0	1	1	1	2	20
	- Office $(273m^2)^{-5}$	3	1	4	2	4	6	20
•	Other							
	- Garden Pavilion (58m ²) ⁴⁾	4	4	8	4	4	8	100
	- Gelato/Servery (149m ²) ⁴⁾	11	10	21	10	10	20	240
	- Market Garden Site (644m ²) ⁶⁾	0	0	0	0	0	0	0
	- Child Care Centre (104 children) ⁷⁾	41	31	72	36	43	79	420
•	Total Trip Generation	110	93	203	222	180	402	3,420

Notes: 1) Based on ITE Trip Generation for 'Drinking Place' (#975) - 11th Edition. Daily estimated to be 8 times PM peak.

- 2) Based on ITE Trip Generation for 'Fast Casual Restaurant' (#930) 11th Edition.
- 3) Based on NSW RMS rate for 'Specialty Shops', with AM peak assumed to be 40 percent of PM peak.
- 4) Based on ITE Trip Generation for 'High Turnover (sit-down) Restaurant' (#932) 11th Edition, but increased by 40 percent to reflect 'Fast Casual Restaurant' (#930).
- 5) Based on NSW RMS rate for 'Office and Commercial', with AM peak assumed to be 80 percent of PM peak.
- 6) Assumed to only run on weekends.
- 7) Based on previous surveys and available research.

A.7 SERVICE VEHICLE SWEPT PATHS

Figures A.18 and A.19 show the swept path diagrams for a 10-metre Rubbish Truck accessing the proposed Child Care Centre car park, off Baillie Avenue.

Figures A.20 and A.21 show the swept path diagrams for a 10-metre Rubbish Truck accessing the proposed service yard off Hill View Terrace, via the proposed Town of Victoria Park car park, noting that a minor modification is required to one of the traffic islands within the Town's car park.

Figure A.22 shows the swept path diagram for a DFES Fire Truck accessing the hardstand area adjacent to the proposed fire tanks and pump room, via the existing accessway off Hill View Terrace.

