Submission on 2,4 Larkin St & 1, 3, 5 Pockley Ave
Project ID: SSD-77829461

BUSHFIRE

Figure 1: Remnant Blue Gum High Forest Adjacent to Site

Remnant Blue Gum Gigh Forest extends along Blue Gum Creek. It splits at the junction of Pockley Avenue at he bottom of MacLaurin Parade to form two tributaries – one between Nola Road and Corona Avenue, and the second between the Rifleway and Pockley Avenue up too Larkin Street. The area at the corner of Kings Ave and MacLaurin Pde is Council owned.and well maintained. The vegetation has many significant tall trees consistent with the species found in Blue Gum High Forest. Thus, together with its ground cover it presents a significant bushfire risk as the terrain is steeply sloping towards the Pacific Highway.

BUSHFIRE EVACUATION RISK

The Environmental Impact Statement Infill Affordable Housing, 2,4 Larkin St & 1, 3, 5 Pockley Ave, Roseville dated 17 April 2025 states

> "**7.20 Bushfire Risk**
> The site is not identified as being bushfire prone land. Being located in an urbanised and well established residential suburb, **there is a low risk of bushfire**. Therefore, a Bushfire Impact Assessment has not been prepared for this SSDA."

The risk is real. This statement is contrary to what is clearly shown in the simulation. The consequences would be diabolic. The outcome during and after a bushfire would be similar to the recent experiences in Los Angeles.

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In 1994 a bushfire threatened the area with 12 houses lost. The fire started in Lane Cove National Park east of De Burghs Bridge and spread quickly to the end of Grosvenor Road before advancing up the valley of Blue Gum Creek. On the Friday evening around 8.45pm many residents in Alexander Parade, Roseville were directed to evacuate, and others directed to be prepared for evacuation. There was a lack of water pressure for the fire brigades, multiple helicopters emptied all the swimming pools and insufficient pressure to extinguish embers by hose,so buckets had to be used. Only a wind change late Saturday saved fiurther destruction as it blew back on the fire, thereby helping to contain it. The Mosman Fire Brigade was active on the Sunday morning at the end of Findlay Avenue where fences had been blackened.

Having lived through the 1994 bushfire and with climate change acceterating it's **not a matter of if, but when will it happen again.** It's probably sooner than thought.

The bushfire simulation clearly here shows the evacuation risk as exit roads are blocked by fire. Ember spread is deemed to be 400m but the experiences in Hobart (1967), Canberra (2003) and Los Angeles (2025) show otherwise.

Figure 2: Bushfire Closing Exit Roads Kings Avenue, MacLaurin Parade, Pockley Avenue

Figure 2 clearly shows a bushfire encroaching the devlopment site. At this stage access for emergency vehicles would be denied to housing in Alexander Parade. Evacuation access is closed off.

Access from the Pacific Highway is by narrow two and three lane three roads - Findlay Avenue, Corona Aveue and MacLaurin Parade. Sreet parking reduces the three lanes to single lane roads.The Findlay Avenue link to Alexander Parade will be blocked by fire reducing access to MacLaurin Parade, Kings Avenue and Corona Avenue.

Do assessors want to explain to an enquiry why their decision was made? Or worse stand in fron of the coroner and explain?

The focus of the paper by Thomas Cova (2005) “Public Safety in the Urban-Wildland Interface: Should Fire-Prone Communities Have a Maximum Occupancy?” is evacuation egress or accessibility out of an area in an evacuation.

For areas with 300-600 dwellings the Minimum number of exit roads is 3.

Figure 3: Bushfire Advancing up Nola Rd to Larkin & along Pockley

Figure 4: Bushfire Advancing towards Site, Larkin Closed off at MacLaurin

Action Review Bushfire and Evacuation Risks in light of simulation, past experience and access issues

TRAFFIC CONSIDERATIONS

The Traffic Report is largely based on fiction. Referring to the Pacific Highway states

> "It typically carries three traffic lanes in each direction in the vicinity of the site"

On site inspection would have shown the "expert" that there are only 2 lanes north bound in the vicinity of the site. Inspection of Figures 3 and 6 show only two lanes northbound. There are three lanes on the Pacific Highway starting 20 m before the pedestrian lights for the station and ending 50 m before the Shirley Road intersection.

The Green Travel Plan states

> "Footpaths are generally provided on both sides of all roads in the vicinity of the site..."

There is no footpath in Larkin Street at street level, only 1.8 m to 2 m above street level on the Highway side. The Rifleway connection from Larkin to the Larkin Lane carpark is steep, 15% gradient with 24 steps. Pedestrians with infants in strollers would find this challenging and take the alternative longer route to MacLaurin Parade which is connected to Larkin Street by 9 steps making the street an easier option until Larkin Lane.

Figure 5: Larkin Street - No Footpaths at Road Level

Submission on 2,4 Larkin St & 1, 3, 5 Pockley Ave
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Access to Pacific Highway

Pacific Highway access is via Findlay Avenue, Corona Avenue and MacLaurin Parade. Corona Avenue is left turn only at traffic lighted Boundary Street, Findlay Avenue is unlighted but enables left and right turns on to three laned Pacific Highway. However this intersection is on a blind corner so oncoming traffic is not easily seen. A right turn across three north bound lanes into three lanes of quickly moving south bound traffic on the Highway is hazardous and rarely used.

The intersection of MacLaurin Parade and the Pacific Highway is traffic lighted. However this intersection is blocked by stationary southbound traffic from Boundary Street to MacLaurin Parade. At AM Peak Hour the only way to turn right from MacLaurin Parade is to drive into the intersection partially blocking it for north bound traffic.

The severe failure of the report is to amalgamate the traffic effect of developments under construction and the developments proposed being 2-16 Pockley Avenue, 2,4 Larkin St & 1, 3 5 Pockley Ave **(**SSD-77829461) and 7,9,11 Pockley Ave (Ku-ring-gai Council eDA0189/25). There are 363 existing dwellings with 553 car spaces to which an additional 404 units and 686 car spaces totalling 766 Dwellings and 1,239 car spaces are to be added. (Appendix Table 1).

Existing dwellings in Larkin Street are 83 dwellings and 84 car spaces to which an additional 106 units and 150 car spaces ar eto be added totalling 189 dwellings and 234 car spaces. Larkin Street is a dead end road with access to the Pacific Highway via MacLaurin Parade.

The report merely states

> "That projected change in the traffic generation potential of the site as a consequence of the development proposal is minimal and will clearly **not have any unacceptable traffic implications** in terms of road network capacity."

A traffic count was conducted on 11 June 2025 to establish the current Level of Service of this intersection in the AM Peak, to which the effect of the additional units was evaluated. Thne Report adopted a traffic per dwelling generation factor of 0.19 based on the asumption that residents woukld use public transport. Using public transport to work areas like Forestville, Dee Why, Manly & Borth Ryde is impractical. The ABS 2021Census determined for this part of Ku-ring-gai that the modal split between private vehicle and public transport was 26% .

This factor has been used inevaluating future intersection performance.

The MacLaurin/Highway intersection at AM Peak Hour currently operates with average vehicle delay of 214 seconds - an RTA Level of Service (LOS) F – highly congested conditions.

The additional units will further degrade the operation of this intersection increasing the AM Peak Hour delay. For the first vehicle out of MacLaurin the delay increases to 261 secs (4 min 21 sec) from 231 secs (3 min 51 sec). The Level of Service (LOS) remians at F – highly congested conditions.

These effects are shown in tables in the Appendix.

Figure 6: Blocked AM Peak Hour MacLaurin/Highway Intersection

Findlay Avenue, Alexander Parade, Kings Avenue and MacLaurin Parade are the 565 AM/PM school bus route – another omission in the Traffic Report and Green Travel Plan. If the delays at the MacLaurin/Highway intersection increase the route will be abandoned thereby creating more peak hour traffic exacerbating the traffic congestion at the intersection.

Given the very limited on street parking there needs to be more visitor parking given that residents In two other developments will be scrambling for street parking. Many of the 2 bedroom units will be rented with the occupants unrelated to each, thereby creating a high proportion of 2 cars per unit where the design allowance is 1. Visitor parking is 9% of the total parking – totally inadequate given exceptionally limited on street parking.

Action: Redesign to have the entrance in Pockley Avenue to remove yhr accident promoting arrangemnt.

CONSTRUCTION TRAFFIC

EIS Statement page 10

> “Construction trucks will approach and depart the site via the Pacific Highway, Maclaurin Parade, Larkin Street and Pockley Avenue. Loading and unloading activities will occur entirely within the front setback areas of the site, fronting the Pockley Avenue site frontage and therefore a work zone is not considered necessary.”

Construction traffic must enter the site from Larkin Street and Pockley Avenue. Reversing into the site with trailers will have a serious impact on access to the residential areas especially at peak hours.

Figure 7: Demolished Traffic Light MacLaurin Pacific HIghway Intersection

Currently delays of 21 to 25 minutes with the excavation trucks at the Roseville Memorial Club construction site are not unusual.

DESIGN

The design proposal is an overdevelopment of the site with inadequte deep soil planting – merely 9%. The Landscape plans show tall trees like blue gums and angophoras when mature trees grow to 30 m plus. The setback facing West of 10 m but that is from the site boundary to the internal surface of the facade. As the facade is likely to be 0.5 m deep, the real setback is 9.5m. The tall trees (Blue Gums, Blackbutt, Angophora) are shown on the Landscape Plans as planted midway between the site boundary and facade being 4.5 m leaving 4.5m for canopy. This is quite inadequate and will lead to severe pruning to prevent height, poisoning or removal.

The architectural plans show Communal Open Space (COS) in the deep soil zone whetreas the Landscape Plans show the COS limited to an area to the right of the exit between the towers.

Action: Recalculate deep soil area to validate the claimed deep soil percentage. Amend architectirals to reflect reality shown in the Landscape Plans.

CLAUSE 4.6 VARIATION REQUEST

This is in the nature of an ambit claim to create a building higher than would otherwsie be the case to create more cheap units at lower levels. The top floor for both towers and a significant proportion of the second from the top floor exceed the statutory height limit, by a substantial

margin. Affordable housing won't be cheap as current prices of 2 bed units recently completed or under construction now frange from $1.35mln to $2mln.

ENVIRONMENT

The surrounding area to home to may native species of flora and fauna. Powerful owls visit regularly for their prey, They require tall trees. Possum entrails have been left in gardens many times , and as recently as 15 April 2025. Other avi-fauna include cockatoos, crested pigeons, king parrots, lorrikeets and galahs. A whip bird is often heard at the bottom of Kings Avenue.

Figure 8: Possum Entrails from Powerful Owl

Figure 9: Powerful Owl Sigting 32 Shirley Road

PROPOSED SHIRLEY ROAD – POCKLEY AVENUE LINK

The proposed link between Pocklet Avenue and Shirley road will do little to alleviate traffic issues at the MacLaurin/Highway intersection as the Shirley Road/Pacific Highway intersection is already overburdened. In AM peak hour it takes 2-3, sometimes as many as 4. traffic light changes for a right turn exit. Further it will encourage rat runs through suburbam streets to avoid overburdened intersections, especially for traffic to and from Lady Game Drive and towards North Ryde.

The link is on a blind corner in Shirley Road, down a steep incline around 20% to Pockley Avenue. Opposite this intersection there is a proposal for 58 units at 17-21 Shirley Road for which the vehicle entrance/exit is almost opposite the link exit.

In the event of a bushfire Shirley Road will be used for evacuation and emergency vehicles from the length of Shirley Road adjacent to Blue Gum Creek up to the Rifleway and opposite Alexander Parade and Pockley Avenue.

It will be of little benefit to the precinct in a bushfire evacuation as it crosses the bushfire prone lands in Pockley Avenue.

APPENDIX

WEST ROSEVILLE DWELLINGS – SSDs. under CONSTRUCTION & EXISTING

SUMMARY OF ADDITIONAL DWELLINGS – APPROVAL, UNDER CONSTRUCTION				
Location	**Units in Development**	**Less Demolished**	**Equals Additional Units**	**Car Spaces**
2,4,6,8,10,12,14,16 Pockley Ave	178	8	170	285
2,4 Larkin St & 1, 3, 5 Pockley Ave	111	5	106	150
7,9,11 Pockley Ave	42	3	39	84
4A, 6A, 6, 8, 10 Maclaurin Pde	40	5	35	68
Roseville Memorial Club	33	0	33	57
1 – 3 Corona Avenue (just finished)	23	2	21	42
TOTAL ADDITIONAL DWELLINGS	427	23	404	686

SUMMARY OF EXISTING SINGLE DWELLINGS & UNITS			
Precinct	**Single Dwellings & Units**	**Unit Car Spaces**	**Single Dwelling Cars**
Nola Road Precinct excluding Nola Lane	56	93	6
Kings Avenue Precinct	26	41	10
MacLaurin Parade Precinct	7	0	8
Alexander Parade Precinct	37	0	72
Corona Avenue including Nola Lane Precinct	46	42	29
Pockley Avenue Precinct	2	0	4
Larkin Street Precinct (Car Spaces Estimated from Unit Numbers)	83	78	6
Findlay Avenue Precinct (Car Spaces Estimated from Unit Numbers)	105	30	134
TOTAL EXISTING DWELLINGS & UNITS	362	284	269

GRAND TOTALS				
	Dwellings	**Unit Car Spaces**	**Single Dwelling Cars**	**Car Spaces + Cars**
ADDITIONAL DWELLINGS UNDER CONSTRUCTION AND APROVAL	404	686	0	686
EXISTING DWELLINGS & UNITS	362	284	269	553
GRAND TOTALS	**766**	**970**	**269**	**1,239**

TABLE 1

MACLAURIN PARADE PACIFIC HIGHWAY INTERSECTION - CURRENT TRAFFIC CONDITIONS

Level of Service (LOS)

(RTA Definition) Average Delay per Vehicle (s)

A	**< 14.5**	**very good**
B	**14.5 ≤ 28.5**	
C	**28.5 ≤ 42.5**	
D	**42.5 ≤ 56.5**	
E	**56.5 ≤ 70.5**	
F	**≥ 70.5**	**highly congested conditions**

MCLAURIN PARADE TO PACIFIC HIGHWAY TRAFFIC COUNT - EXISTING DWELLINGS Count Date 11/06/2025

LEVEL OF SERVICE = F

	TURNING FROM MACLAURIN INTO PACIFIC HWY																	
CYCLE NUMBER	**TIME WHEN MACLAURIN EXIT LIGHT TURNS GREEN (AM)**			**TIME WHEN MACLAURIN EXIT LIGHT TURNS RED (AM)**			**HIGHWAY ELAPSED CYCLE TIME = HIGHWAY LIGHT GREEN TO GREEN**		**MACLAURIN ELAPSED CYCLE TIME = TIME FOR MACLAURIN CARS TO EXIT**		**CARS WAITING FOR MACLAURIN GREEN EXIT LIGHT**	**CARS TURNED LEFT FROM MACLAURIN**	**CARS TURNED RIGHT FROM MACLAURIN**	**CARS OUT OF MACLAURIN**	**CARS LEFT IN MACLAURIN WHEN GREEN GOES RED**	**DELAY FIRST CAR OUT SECS**	**DELAY LAST CAR OUT SECS**	**AVERAGE DELAY PER CYCLE SECS**
	HR	**MIN**	**SEC**	**HR**	**MIN**	**SEC**	**MIN**	**SEC**	**MIN**	**SEC**								
1	8	8	11	8	8	35			0	24	14	1	9	10	4			
2	8	10	44	8	11	5	2	33	0	21	8	0	4	4	8	145	166	156
3	8	13	9	8	13	30	2	25	0	21	14	2	2	4	10	150	171	161
4	8	15	39	8	16	5	2	30	0	26	7	0	9	9	6	153	179	166
5	8	18	12	8	18	35	2	33	0	23	12	2	4	6	12	149	172	161
6	8	20	41	8	20	58	2	29	0	17	27	0	0	0	15	149	166	158
7	8	23	10	8	23	40	2	29	0	30	30	0	1	1	16	299	299	299
8	8	25	40	8	25	58	2	30	0	18	20	5	5	10	14	449	467	458
9	8	28	10	8	28	40	2	30	0	30	11	3	8	11	8	599	180	390
10	8	30	40	8	31	5	2	30	0	25	6	0	5	5	3	153	178	166
11	8	33	13	8	33	36	2	33	0	23	3	1	3	4	4	148	23	86
12	8	35	41	8	36	2	2	28	0	21	4	0	4	4	4	152	169	161
13	8	38	13	8	38	35	2	32	0	22	0	0	4	4	0			
	AVERAGE CYCLE & DELAY TIMES						**2**	**32**	**0**	**23**						**AVERAGE DELAYS secs**		
									TOTALS		**156**	**14**	**58**	**72**	**104**	**FIRST CAR**	**LAST CAR**	**PER CYCLE**
							AVERAGES PER CYCLE				**12**	**1**	**4**	**6**	**8**	**231**	**197**	**214**

TABLE 2

MACLAURIN PARADE PACIFIC HIGHWAY INTERSECTION - EXPECTED TRAFFIC CONDITIONS WITH ADDITIONAL UNITS

Modal Percentage between Vehicle and Public Transport for Ku-ring-gai (2021 Census Data)

Factor for Traffic Generated per New Unit 0.26	AM Peak Hour Traffic Generated			AM Peak Traffic Existing House			AM Peak Hour Traffic Increase	AVERAGE HIGHWAY CYCLE TIME SECS	NUMBER OF CYCLES PER HOUR	ADDITIONAL NUMBER OF CARS PER HIGHWAY CYCLE	Number of Cycles	Additional Cars for Count Period
	New Units	Car Trips per New Unit	AM Cars per Hour	Houses Lost	Car Trips per House Lost	AM Cars (vph) per Hour	Increase in Vehivles per hour (vph)					
2,4,6,8,10,12,14,16 Pockley Ave	178	0.26	46.00	8	0.68	5.00	41.00	150	24	4	13	52
2,4 Larkin St & 1, 3, 5 Pockley Ave	111	0.26	29.00	5	0.68	3.00	26.00	Note: Add additional cars to Cars Waiting for MacLaurin Green Exit Light as Cars out of MacLaurin limited by Highway traffic occupying Highway to Boundary Street				
7,9,11 Pockley Ave	42	0.26	11.00	3	0.68	2.00	9.00					
4A, 6A, 6, 8, 10 Maclaurin Pde	40	0.26	10.00	5	0.68	3.00	7.00					
Roseville Memorial Club	33	0.26	9.00	0	0.68	0	9.00					
1 – 3 Corona Avenue	23	0.26	6.00	2	0.68	1.00	5.00					
Total Increase -Traffic Generated by New Units AM Peak Hour							**97**					

Level of Service (LOS)

(RTA Definition) Average Delay per Vehicle (sec)

A	**< 14.5**	**very good**
B	**14.5 ≤ 28.5**	
C	**28.5 ≤ 42.5**	
D	**42.5 ≤ 56.5**	
E	**56.5 ≤ 70.5**	
F	**≥ 70.5**	**highly congested conditions**

MCLAURIN PARADE TO PACIFIC HIGHWAY TRAFFIC COUNT - NEW & EXISTING DWELLINGS

Count Date 11/06/2025

LEVEL OF SERVICE = F

TURNING FROM MACLAURIN INTO PACIFIC HWY

CYCLE NUMBER	TIME WHEN MACLAURIN EXIT LIGHT TURNS GREEN (AM)			TIME WHEN MACLAURIN EXIT LIGHT TURNS RED (AM)			HIGHWAY ELAPSED CYCLE TIME = HIGHWAY LIGHT GREEN TO GREEN		MACLAURIN ELAPSED CYCLE TIME = TIME FOR MACLAURIN CARS TO EXIT		CARS WAITING FOR MACLAURIN GREEN EXIT LIGHT	CARS TURNED LEFT FROM MACLAURIN	CARS TURNED RIGHT FROM MACLAURIN	CARS OUT OF MACLAURIN	CARS LEFT IN MACLAURIN WHEN GREEN GOES RED	DELAY FIRST CAR OUT SECS	DELAY LAST CAR OUT SECS	AVERAGE DELAY PER CYCLE SECS
	HR	MIN	SEC	HR	MIN	SEC	MIN	SEC	MIN	SEC								
1	8	8	11	8	8	35			0	24	14	1	9	10	8			
2	8	10	44	8	11	5	2	33	0	21	16	0	4	4	12	145	166	156
3	8	13	9	8	13	30	2	25	0	21	22	2	2	4	14	150	171	161
4	8	15	39	8	16	5	2	30	0	26	15	0	9	9	10	153	179	166
5	8	18	12	8	18	35	2	33	0	23	20	2	4	6	16	149	172	161
6	8	20	41	8	20	58	2	29	0	17	35	0	0	0	19	149	166	158
7	8	23	10	8	23	40	2	29	0	30	38	0	1	1	20	299	299	299
8	8	25	40	8	25	58	2	30	0	18	28	5	5	10	18	449	367	408
9	8	28	10	8	28	40	2	30	0	30	19	3	8	11	12	599	180	390
10	8	30	40	8	31	5	2	30	0	25	14	0	5	5	7	303	178	241
11	8	33	13	8	33	36	2	33	0	23	11	1	3	4	8	326	23	175
12	8	35	41	8	36	2	2	28	0	21	12	0	4	4	8	152	21	87
13	8	38	13	8	38	35	2	32	0	22	8	0	4	4	4			
AVERAGE CYCLE & DELAY TIMES							**2**	**30**	**0**	**23**						**AVERAGE DELAYS secs**		
									TOTALS		**252**	**14**	**58**	**72**	**156**	**FIRST CAR**	**LAST CAR**	**PER CYCLE**
							AVERAGES PER CYCLE				**19**	**1**	**4**	**6**	**12**	**261**	**175**	**218**

TABLE 3