

Transport Response to Section 92 Request

PREPARED FOR BAYSWATER MARINA HOLDINGS LIMITED | MAY 2021

We design with community in mind

Revision Schedule

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1.0 TRANSPORT RESPONSE TO SECTION 92 REQUEST

Following submission of the resource consent application (BUN60373319 dated 15 April 2021) for the above development, Auckland Council have issued a request for further information under Section 92 of the Resource Management Act 1991 (**s92 request**). The following responses address Transport related matters within the s92 request. These queries are cited in italics for ease of reference and responded to below.

1.1 ITEM 14: LAKE ROAD / BAYSWATER ROAD INTERSECTION

“The Lake Road / Bayswater Road intersection has been modelled with SIDRA using 2018 traffic volumes. The SIDRA model outputs show that the intersection is operating at an overall LOS of C in peak times. A LOS of C is considered to operate well with minimal delay or congestion. It is well understood that Lake Road can experience heavy congestion at peak times and this is confirmed by looking at the google maps traffic layer in peak times. It is acknowledged that the addition of the development traffic to the intersection is relatively low and will not have a significant effect on how the intersection operates. However, it is also important to understand how the intersection currently operates so we can assess the application accurately.

Please calibrate the Lake Road / Bayswater Road SIDRA base model with delay/ queue surveys to give confidence that the intersection is modelled accurately. It is also recommended that up-to-date traffic volumes are utilised and recommend that SCATS data (traffic volumes and signal phasing data) is obtained from Auckland Transport.”

The SIDRA model of the Lake Road / Bayswater Road intersection has been updated and calibrated based on the additional data obtain from the below listed sources:

1. SCATS data of the Lake Road / Bayswater Avenue and Bardia Street / Winscombe Street intersections for the whole month of March 2021;
2. Traffic survey data of the Lake Road / Egremont Street intersection dated Tuesday 8 December 2020; and
3. Visual collection of queue lengths from Google Maps during the peak periods.

The SCATS data was used to derive pedestrian phase activation counts and update the phasing sequence. Traffic volumes from SCATS were in general lower than those captured in traffic surveys.

The 2018 and 2020 traffic volumes were compared, and it was found that the 2020 traffic volumes were either above (in the morning peak hour) or marginally below (in the afternoon peak hour) the data collected in 2018. It can be concluded that there are no discrepancies between these two data sets (or is small in nature).

It was however acknowledged that these traffic volumes do not represent the actual demand. As such, Google Maps were used the estimate the queue lengths during each peak period on each approach to the intersection. The average queue lengths are summarised in **Table 1** below.

Table 1: Average Queue Lengths (source: Google Maps)

Approach	Average Queue Length (meters / vehicles)		
	Morning Peak Hour	Afternoon Peak Hour	Saturday Peak Hour
Lake Road Northbound	554m / 79 veh	554m / 79 veh	545m / 78 veh
Lake Road Southbound	1610m / 230 veh	1610m / 230 veh	1610m / 230 veh
Bayswater Avenue Eastbound	50m / 7 veh	60m / 9 veh	1080m / 154 veh
Williamson Avenue Westbound	466m / 67 veh	285m / 41 veh	257m / 37 veh

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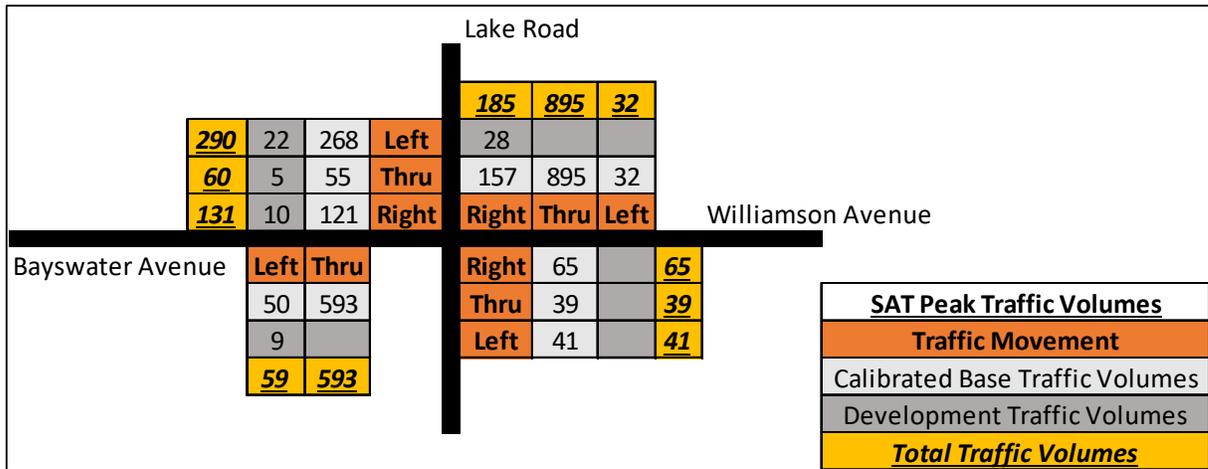


Figure 3: Weekend Peak Hour Traffic Volumes

The SIDRA model has been updated to reflect these volume changes as well as the phasing as per the SCATS data. The summary of the SIDRA results is in the following **Figure 4** to **Figure 9**.

BAYSWATER MARINA HOLDINGS LIMITED
BAYSWATER MARITIME PRECINCT TRANSPORTATION ASSESSMENT – TRANSPORT RESPONSE TO
S92 REQUEST

MOVEMENT SUMMARY

Site: 101 [Bayswater Weekday AM Peak (Site Folder: General)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 128 seconds (Site Optimum Cycle Time - Minimum Delay)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	HV %	[Total veh/h]	HV %				[Veh. veh]	Dist m				
South: Lake Road														
1	L2	30	3.7	32	3.7	0.880	68.3	LOS E	14.6	105.6	1.00	1.03	1.23	26.5
2	T1	628	4.0	661	4.0	0.880	63.8	LOS E	14.7	106.1	1.00	1.04	1.23	24.7
Approach		658	4.0	693	4.0	0.880	64.0	LOS E	14.7	106.1	1.00	1.04	1.23	24.8
East: Williamson Avenue														
4	L2	5	0.0	5	0.0	0.009	22.4	LOS C	0.1	0.7	0.57	0.60	0.57	38.5
5	T1	27	0.0	28	0.0	*1.000	105.4	LOS F	6.0	43.4	1.00	1.18	1.81	20.1
6	R2	82	5.9	86	5.9	1.000	110.1	LOS F	6.0	43.4	1.00	1.18	1.81	18.1
Approach		114	4.2	120	4.2	1.000	105.2	LOS F	6.0	43.4	0.98	1.15	1.75	19.1
North: Lake Road														
7	L2	6	0.0	6	0.0	*0.989	78.7	LOS E	35.4	256.0	0.78	1.05	1.21	22.7
8	T1	1070	3.8	1126	3.8	0.989	62.5	LOS E	35.4	256.0	0.84	1.02	1.15	24.9
9	R2	153	8.9	161	8.9	0.841	42.9	LOS D	17.6	129.1	0.95	0.95	1.04	30.4
Approach		1229	4.4	1294	4.4	0.989	60.2	LOS E	35.4	256.0	0.85	1.01	1.14	25.5
West: Bayswater Ave														
10	L2	189	3.2	199	3.2	0.164	10.6	LOS B	2.3	16.5	0.38	0.63	0.38	43.0
11	T1	19	0.0	20	0.0	*0.924	80.3	LOS F	5.5	39.4	1.00	1.06	1.52	23.2
12	R2	98	2.1	103	2.1	0.924	85.5	LOS F	5.5	39.4	1.00	1.06	1.52	23.1
Approach		306	2.7	322	2.7	0.924	38.9	LOS D	5.5	39.4	0.62	0.79	0.82	31.6
All Vehicles		2307	4.0	2428	4.0	1.000	60.7	LOS E	35.4	256.0	0.87	1.00	1.15	25.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akapelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Figure 4: SIDRA Results for Existing Traffic Volume for Weekday AM Peak

**BAYSWATER MARINA HOLDINGS LIMITED
 BAYSWATER MARITIME PRECINCT TRANSPORTATION ASSESSMENT – TRANSPORT RESPONSE TO
 S92 REQUEST**

MOVEMENT SUMMARY

**Site: 101 [Bayswater Weekday AM Peak with Development
 (Site Folder: General)]**

New Site
 Site Category: (None)
 Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 140 seconds (Site Optimum Cycle Time - Minimum Delay)
 Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist] m				
South: Lake Road														
1	L2	32	3.7	34	3.7	0.931	84.4	LOS F	17.2	124.8	1.00	1.11	1.33	23.7
2	T1	628	4.0	661	4.0	0.931	80.0	LOS E	17.3	125.4	1.00	1.12	1.33	21.9
Approach		660	4.0	695	4.0	0.931	80.2	LOS F	17.3	125.4	1.00	1.12	1.33	22.0
East: Williamson Avenue														
4	L2	5	0.0	5	0.0	0.009	21.3	LOS C	0.1	0.7	0.53	0.60	0.53	38.9
5	T1	27	0.0	28	0.0	* 0.976	101.4	LOS F	6.1	44.3	1.00	1.13	1.67	20.5
6	R2	82	5.9	86	5.9	0.976	106.2	LOS F	6.1	44.3	1.00	1.13	1.67	18.6
Approach		114	4.2	120	4.2	0.976	101.4	LOS F	6.1	44.3	0.98	1.11	1.62	19.6
North: Lake Road														
7	L2	6	0.0	6	0.0	* 0.991	79.9	LOS E	38.4	277.4	0.76	1.01	1.15	22.5
8	T1	1070	3.8	1126	3.8	0.991	65.1	LOS E	38.4	277.4	0.81	0.98	1.11	24.4
9	R2	167	8.9	176	8.9	0.842	45.4	LOS D	18.6	136.4	0.92	0.93	1.00	29.6
Approach		1243	4.5	1308	4.5	0.991	62.5	LOS E	38.4	277.4	0.82	0.97	1.09	25.0
West: Bayswater Ave														
10	L2	224	3.2	236	3.2	0.192	11.2	LOS B	3.0	21.7	0.39	0.63	0.39	42.7
11	T1	23	0.0	24	0.0	* 1.080	160.2	LOS F	10.1	71.6	1.00	1.32	2.01	15.1
12	R2	116	2.1	122	2.1	1.080	165.4	LOS F	10.1	71.6	1.00	1.32	2.01	15.0
Approach		363	2.7	382	2.7	1.080	69.9	LOS E	10.1	71.6	0.62	0.90	1.01	24.1
All Vehicles		2380	4.0	2505	4.0	1.080	70.4	LOS E	38.4	277.4	0.85	1.01	1.17	23.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Vehicle movement LOS values are based on average delay per movement.
 Intersection and Approach LOS values are based on average delay for all vehicle movements.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Queue Model: SIDRA Standard.
 Gap-Acceptance Capacity: SIDRA Standard (Akapelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Figure 5: SIDRA Results for Proposed Traffic Volume for Weekday AM Peak

BAYSWATER MARINA HOLDINGS LIMITED
BAYSWATER MARITIME PRECINCT TRANSPORTATION ASSESSMENT – TRANSPORT RESPONSE TO
S92 REQUEST

MOVEMENT SUMMARY

Site: 101 [Bayswater Weekday PM Peak (Site Folder: General)]

New Site
 Site Category: (None)
 Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site Optimum Cycle Time - Minimum Delay)
 Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh.]	[Dist]				
South: Lake Road														
1	L2	57	3.7	60	3.7	0.961	85.0	LOS F	17.5	126.3	1.00	1.22	1.48	23.6
2	T1	652	4.0	686	4.0	0.961	81.0	LOS F	17.6	127.2	1.00	1.23	1.48	21.8
Approach		709	4.0	746	4.0	0.961	81.3	LOS F	17.6	127.2	1.00	1.23	1.48	21.9
East: Williamson Avenue														
4	L2	50	0.0	53	0.0	0.079	20.2	LOS C	1.0	6.8	0.57	0.66	0.57	39.3
5	T1	38	0.0	40	0.0	* 0.985	93.2	LOS F	4.4	31.5	1.00	1.13	1.83	21.7
6	R2	50	5.9	53	5.9	0.985	97.8	LOS F	4.4	31.5	1.00	1.13	1.83	19.6
Approach		138	2.1	145	2.1	0.985	68.4	LOS E	4.4	31.5	0.84	0.96	1.37	25.2
North: Lake Road														
7	L2	11	0.0	12	0.0	* 1.069	139.0	LOS F	53.5	386.2	1.00	1.57	1.84	15.6
8	T1	960	3.8	1011	3.8	1.069	117.6	LOS F	53.5	386.2	1.00	1.47	1.71	17.2
9	R2	211	8.9	222	8.9	0.909	61.2	LOS E	17.4	128.6	1.00	1.09	1.28	25.6
Approach		1182	4.7	1244	4.7	1.069	107.8	LOS F	53.5	386.2	1.00	1.40	1.64	18.2
West: Bayswater Ave														
10	L2	194	3.2	204	3.2	0.166	11.6	LOS B	2.2	16.0	0.39	0.63	0.39	43.2
11	T1	27	0.0	28	0.0	* 1.051	128.8	LOS F	6.7	47.3	1.00	1.27	2.06	17.5
12	R2	84	2.1	88	2.1	1.051	136.2	LOS F	6.7	47.3	1.00	1.27	2.06	17.5
Approach		305	2.6	321	2.6	1.051	56.3	LOS E	6.7	47.3	0.61	0.86	1.00	27.2
All Vehicles		2334	4.0	2457	4.0	1.069	90.7	LOS F	53.5	386.2	0.94	1.25	1.49	20.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Vehicle movement LOS values are based on average delay per movement.
 Intersection and Approach LOS values are based on average delay for all vehicle movements.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Queue Model: SIDRA Standard.
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Figure 6: SIDRA Results for Existing Traffic Volume for Weekday PM Peak

BAYSWATER MARINA HOLDINGS LIMITED
BAYSWATER MARITIME PRECINCT TRANSPORTATION ASSESSMENT – TRANSPORT RESPONSE TO
S92 REQUEST

MOVEMENT SUMMARY

Site: 101 [Bayswater Weekday PM Peak with Development
(Site Folder: General)]

New Site
 Site Category: (None)
 Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 128 seconds (Site Optimum Cycle Time - Minimum Delay)
 Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	HV %	[Total veh/h]	HV %				[Veh. veh]	[Dist m]				
South: Lake Road														
1	L2	67	3.7	71	3.7	0.929	77.6	LOS E	17.3	125.4	1.00	1.11	1.34	24.7
2	T1	652	4.0	686	4.0	0.929	73.5	LOS E	17.5	126.5	1.00	1.12	1.34	23.0
Approach		719	4.0	757	4.0	0.929	73.9	LOS E	17.5	126.5	1.00	1.12	1.34	23.2
East: Williamson Avenue														
4	L2	50	0.0	53	0.0	0.081	20.8	LOS C	1.0	7.1	0.56	0.66	0.56	39.1
5	T1	38	0.0	40	0.0	* 1.051	133.3	LOS F	5.5	39.7	1.00	1.22	2.04	17.2
6	R2	50	5.9	53	5.9	1.051	137.9	LOS F	5.5	39.7	1.00	1.22	2.04	15.4
Approach		138	2.1	145	2.1	1.051	94.2	LOS F	5.5	39.7	0.84	1.02	1.51	20.9
North: Lake Road														
7	L2	11	0.0	12	0.0	* 1.078	147.3	LOS F	58.3	421.3	1.00	1.57	1.83	15.0
8	T1	960	3.8	1011	3.8	1.078	126.1	LOS F	58.3	421.3	1.00	1.47	1.72	16.4
9	R2	247	8.9	260	8.9	0.916	63.5	LOS E	19.1	141.5	1.00	1.09	1.27	25.1
Approach		1218	4.8	1282	4.8	1.078	113.6	LOS F	58.3	421.3	1.00	1.39	1.83	17.6
West: Bayswater Ave														
10	L2	212	3.2	223	3.2	0.182	11.7	LOS B	2.5	18.3	0.38	0.63	0.38	43.1
11	T1	29	0.0	31	0.0	* 1.069	146.2	LOS F	8.0	56.9	1.00	1.31	2.06	16.1
12	R2	92	2.1	97	2.1	1.069	153.5	LOS F	8.0	56.9	1.00	1.31	2.06	16.0
Approach		333	2.6	351	2.6	1.069	62.6	LOS E	8.0	56.9	0.61	0.88	0.99	25.8
All Vehicles		2408	4.1	2535	4.1	1.078	93.6	LOS F	58.3	421.3	0.94	1.22	1.45	20.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Vehicle movement LOS values are based on average delay per movement.
 Intersection and Approach LOS values are based on average delay for all vehicle movements.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Queue Model: SIDRA Standard.
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Figure 7: SIDRA Results for Proposed Traffic Volume for Weekday PM Peak

BAYSWATER MARINA HOLDINGS LIMITED
BAYSWATER MARITIME PRECINCT TRANSPORTATION ASSESSMENT – TRANSPORT RESPONSE TO
S92 REQUEST

MOVEMENT SUMMARY

Site: 101 [Bayswater Weekend SAT Peak (Site Folder: General)]

New Site
 Site Category: (None)
 Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 124 seconds (Site Optimum Cycle Time - Minimum Delay)
 Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	HV %	[Total veh/h]	HV %				[Veh.]	[Dist]				
South: Lake Road														
1	L2	50	3.7	53	3.7	0.938	80.0	LOS E	15.4	111.3	1.00	1.15	1.40	24.4
2	T1	593	4.0	624	4.0	0.938	75.9	LOS E	15.5	112.2	1.00	1.16	1.40	22.6
Approach		643	4.0	677	4.0	0.938	78.2	LOS E	15.5	112.2	1.00	1.16	1.40	22.7
East: Williamson Avenue														
4	L2	41	0.0	43	0.0	0.064	21.5	LOS C	0.8	5.8	0.58	0.65	0.58	38.8
5	T1	39	0.0	41	0.0	* 1.053	132.5	LOS F	6.4	46.4	1.00	1.26	2.05	17.3
6	R2	65	5.9	68	5.9	1.053	137.1	LOS F	6.4	46.4	1.00	1.26	2.05	15.5
Approach		145	2.6	153	2.6	1.053	103.1	LOS F	6.4	46.4	0.88	1.09	1.63	19.6
North: Lake Road														
7	L2	32	0.0	34	0.0	* 1.060	135.6	LOS F	48.0	346.5	1.00	1.52	1.79	15.9
8	T1	895	3.8	942	3.8	1.060	111.6	LOS F	48.0	346.5	1.00	1.40	1.64	17.8
9	R2	157	8.9	165	8.9	0.901	61.6	LOS E	16.6	121.8	1.00	1.07	1.26	25.6
Approach		1084	4.4	1141	4.4	1.060	105.1	LOS F	48.0	346.5	1.00	1.35	1.59	18.5
West: Bayswater Ave														
10	L2	268	3.2	282	3.2	0.228	11.4	LOS B	3.1	22.6	0.39	0.64	0.39	43.3
11	T1	55	0.0	58	0.0	* 1.041	126.1	LOS F	10.7	76.0	1.00	1.34	1.92	17.8
12	R2	121	2.1	127	2.1	1.041	133.1	LOS F	10.7	76.0	1.00	1.34	1.92	17.8
Approach		444	2.5	467	2.5	1.041	58.8	LOS E	10.7	76.0	0.63	0.91	0.99	26.7
All Vehicles		2316	3.8	2438	3.8	1.060	88.1	LOS F	48.0	346.5	0.92	1.20	1.43	21.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Vehicle movement LOS values are based on average delay per movement.
 Intersection and Approach LOS values are based on average delay for all vehicle movements.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Queue Model: SIDRA Standard.
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Figure 8: SIDRA Results for Existing Traffic Volume for Weekend Peak

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MOVEMENT SUMMARY

Site: 101 [Bayswater Weekend SAT Peak with Development
(Site Folder: General)]

New Site
 Site Category: (None)
 Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 136 seconds (Site Optimum Cycle Time - Minimum Delay)
 Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh. veh]	[Dist. m]				
South: Lake Road														
1	L2	59	3.7	62	3.7	1.002	113.1	LOS F	19.6	141.8	1.00	1.29	1.59	19.9
2	T1	593	4.0	624	4.0	1.002	109.1	LOS F	19.8	143.0	1.00	1.31	1.59	18.2
Approach		652	4.0	686	4.0	1.002	109.4	LOS F	19.8	143.0	1.00	1.31	1.59	18.4
East: Williamson Avenue														
4	L2	41	0.0	43	0.0	0.065	20.9	LOS C	0.9	6.0	0.55	0.65	0.55	39.0
5	T1	39	0.0	41	0.0	* 1.154	215.8	LOS F	8.8	63.7	1.00	1.41	2.36	12.1
6	R2	65	5.9	68	5.9	1.154	220.4	LOS F	8.8	63.7	1.00	1.41	2.36	10.7
Approach		145	2.6	153	2.6	1.154	162.8	LOS F	8.8	63.7	0.87	1.19	1.85	14.3
North: Lake Road														
7	L2	32	0.0	34	0.0	* 1.071	146.8	LOS F	53.4	385.2	1.00	1.50	1.77	15.0
8	T1	895	3.8	942	3.8	1.071	121.6	LOS F	53.4	385.2	1.00	1.39	1.63	16.8
9	R2	185	8.9	195	8.9	0.910	63.7	LOS E	18.3	134.6	1.00	1.06	1.25	25.1
Approach		1112	4.5	1171	4.5	1.071	112.7	LOS F	53.4	385.2	1.00	1.34	1.57	17.7
West: Bayswater Ave														
10	L2	290	3.2	305	3.2	0.244	11.9	LOS B	3.8	27.1	0.39	0.64	0.39	43.0
11	T1	60	0.0	63	0.0	* 1.094	170.5	LOS F	14.4	101.9	1.00	1.42	2.06	14.5
12	R2	131	2.1	138	2.1	1.094	177.5	LOS F	14.4	101.9	1.00	1.42	2.06	14.4
Approach		481	2.5	506	2.5	1.094	76.8	LOS E	14.4	101.9	0.63	0.95	1.05	23.2
All Vehicles		2390	3.9	2516	3.9	1.154	107.6	LOS F	53.4	385.2	0.92	1.24	1.49	18.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Vehicle movement LOS values are based on average delay per movement.
 Intersection and Approach LOS values are based on average delay for all vehicle movements.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Queue Model: SIDRA Standard.
 Gap-Acceptance Capacity: SIDRA Standard (Akapelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Figure 9: SIDRA Results for Proposed Traffic Volume for Weekend Peak

It is noted that the Bayswater Avenue / Lake Road / Williamson Avenue intersection currently operates at capacity with the critical arm being the northern (Lake Road) approach. However, the modelling indicates that there will only be minimal changes to the overall intersection performance. It is also noted that due to the oversaturated Lake Road environment, the modelling results are somewhat unstable. It is therefore challenging to determine the exact delay at this intersection as based on a combination of site observations and local knowledge, the overall network performance differs significantly depending on traffic arrival profiles and driving behaviour on a day to day basis.

It is noted that the development will result in approximately 70-80 additional trips through the intersection which represents a total of 3-4% of the total traffic passing the intersection during the peak hours. This is well below the daily fluctuations that can be experienced at this intersection within the peak hours.

Overall, it is considered that the effect of the proposed development on the overall performance of the surrounding roading network will be acceptable from the perspective of the operation of this intersection and the wider Lake Road arterial route.

1.2 ITEM 15: TRIP GENERATION ASSESSMENT

“The trip generation assessment did not take into account the trips generated by the cafes/restaurants, commercial, office activities and other visitors to the marina. It is understood that the GFA is relatively low for these activities, however please complete the assessment for consideration and include in the new SIDRA model if appropriate.”

The GFA associated with the commercial activities is approximately 460m². Using a trip rate of 2 vehicles per 100m² GFA, the commercial activities will generate a peak hour trip generation of only 10 vehicles per hour. These trips will most likely to be counterflow of peak traffic.

These trips are expected to be primarily internal trips or generated from the neighbouring Bayswater area. As such, it is expected that only a fraction of these trips will travel through the Bayswater Avenue / Lake Road / Williamson Avenue intersection and will not affect its operational characteristics.

1.3 ITEM 16: ACCESSIBLE PARKING SPACES

“Please clarify how many accessible parking spaces will be provided and where these will be located.”

The development provides 32 visitor car parking spaces. As such, the development should provide for two accessible car parking spaces. A total of two accessible spaces will be provided on Cross Street. All terrace house units are purposefully designed to allow for them to be developed with a garage that can be dimensioned so that a carpark complies with NZS 4121:2001 C5.5.1.1. An updated site layout plan is attached as **Appendix A**.

1.4 ITEM 17: PARKING SPACES WITHIN THE APARTMENT BUILDINGS

“Some of the parking spaces on level B01 of the apartment blocks look like they may have constrained manoeuvring area. Please show vehicle tracking for an 85th percentile car to demonstrate that the parking spaces work.”

Vehicle tracking has been undertaken for key parking spaces within the basement levels of the northern, central and southern buildings basements. The tracking diagrams are included in **Appendix B**.

It is noted that multiple manoeuvres will be required in order to access some of the most constrained parking spaces. However, these spaces will be dedicated parking spaces used by regular users/residents. The proposed provision of turntables within the basement level will ensure that manoeuvring will be acceptable and matched to the use by regular users of these parking facilities.

1.5 ITEM 18: ACCESS, GRADIENT AND VERTICAL CLEARANCE FOR THE APARTMENT BUILDINGS

“Please provide more information on the access to the apartment buildings including, location, width, vertical clearance and ramp gradients.”

Refer to **Appendix C** included for longitudinal cross-sections of the basement car parking areas.

The vertical clearances of the basement car parks exceed 2.1m and access ramps have gradients of no more than 1 to 5 (20%) in gradient. Sufficient gradient transition section of 2m or more have been provided for these ramps. As such, the car parking ramps comply with the AUP in terms of vertical clearance and ramp gradients.

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Individual garage doors are 3.5m in width and the access ramps are 3.4m in width. These dimensions ensure adequate width to enter/ exit the garage spaces or basement level parking areas. It is noted that the basement car parks allow for one-way movements only. Convex mirrors will be installed at appropriate locations within the car parks to ensure drivers can observe oncoming traffic before exiting the car park ramps. Given to low number of parking spaces provided within these basements and that no excessive conflict of inbound or outbound movements are expected at these ramps, convex mirrors are considered sufficient.

1.6 ITEM 19: WASTE COLLECTION

“It is not clear where the rubbish bins for the housing will be provided. Please show storage area for the bins in each of the precincts and the apartment buildings; and show on a plan where the rubbish truck will stop to collect the rubbish.”

Note: This matter is raised below in item 27 as well.”

The development’s rubbish collection will be managed privately and will be limited to a 8.3m rubbish truck. Each apartment/house rubbish bins will be collected separately from the internal parking areas provided for each precinct. The loading of rubbish will occur weekly for the residential apartments.

Sheet 2 of 7 within the Bayswater Maritime Precinct Transportation Assessment Report¹ shows the adequacy of the 8.3m rubbish truck within the central and northern precinct. Updated tracking curves showing the southern precinct are illustrated in **Figure 10** below.

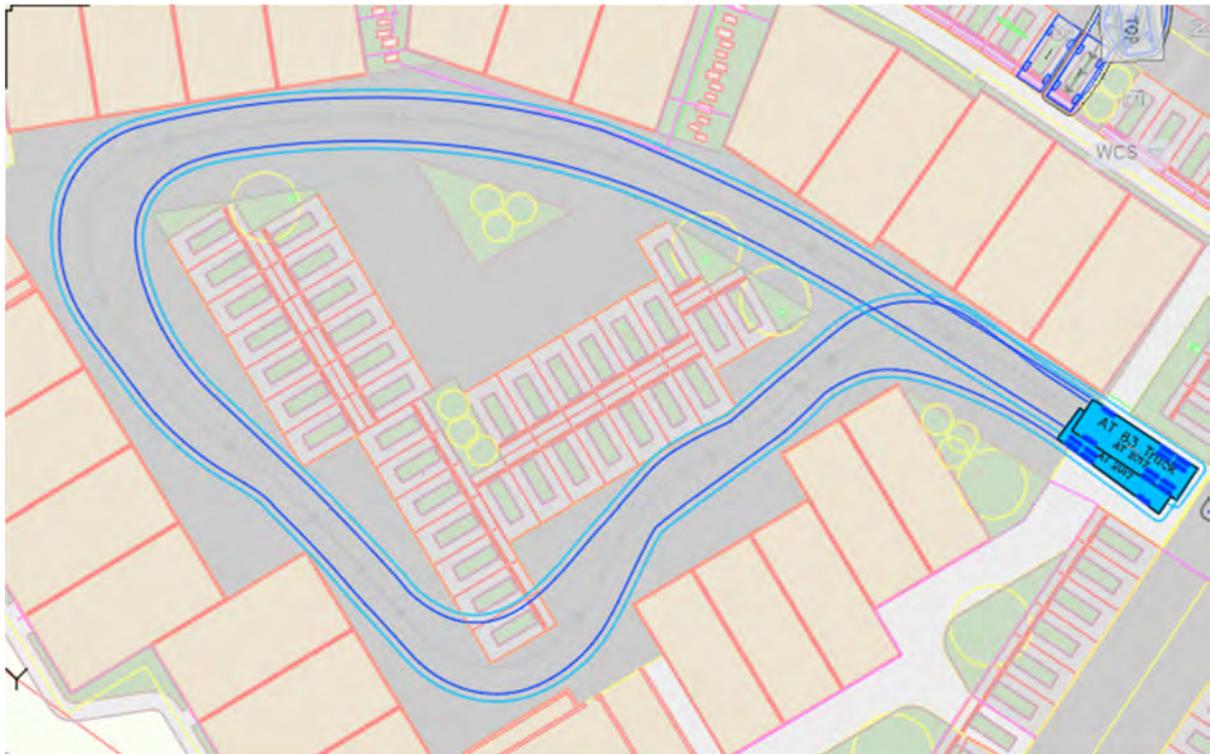


Figure 10: Southern Precinct Rubbish Collection.

The rubbish truck will be required to manoeuvre over two parking spaces. These parking spaces will have time restrictions applied to them as well as their wheel stops will be removed. This will ensure these spaces are clear during refuse collection.

¹ *Bayswater Maritime Precinct Transportation Assessment, February 2021 - Stantec*

1.7 ITEM 20: ROAD LAYOUT

“Please provide a visibility assessment for vehicles travelling around the bend of Sir Peter Blake Parade and Cross Street. The vehicle tracking shows the rubbish truck has to cross the centreline on the bend. Please demonstrate on a plan that adequate sight lines are available to ensure oncoming traffic will have adequate space to stop to prevent either vehicle having to reverse within the roadway.”

Approximately 150m advance visibility is available for vehicles traveling south on Sir Peter Blake Parade towards point at which the rubbish truck crosses the centreline. The same applies for the rubbish truck from the point before it crosses the centreline. As such, adequate sight lines are available to ensure oncoming traffic will have adequate space to stop to prevent either vehicle having to reverse within the roadway. This is illustrated in **Figure 10** below.

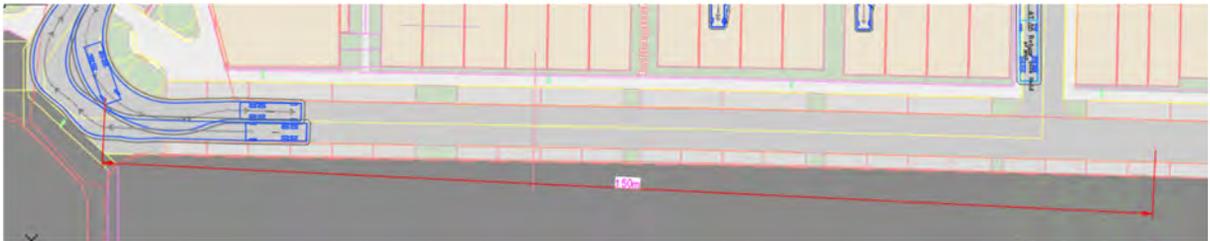


Figure 11: Rubbish Truck Sight Line – Approximately 150m

1.8 ITEM 21: TRAFFIC CALMING

“The internal road network should have a design speed of 30km/h to ensure a safe environment for pedestrians and cyclists. Please show traffic calming measures to ensure traffic speeds will be reduced to 30km/h.”

Stantec recommends that two zebra crossing pedestrian facilities be provided at the end of Sir Peter Blake Parade and Cross Street in the south of the site and to the north of the site between the North Lane exit and the existing park and ride entrance. Additionally, three speed cushions are recommended to be provided along Sir Peter Blake Parade to ensure low speed environment. Speed cushions are proposed to limit the impact on buses.

1.9 ITEM 22: INTERFACE OF PRIVATE AND PUBLIC ROAD OF SIR PETER BLAKE PARADE

“Please provide more information on how the public road of Sir Peter Blake Parade will interface with the private road network, that is, clarify if there will be a barrier arm or gateway treatment to indicate entrance to the marina.”

There will be no barrier arm or gateway controlling either Cross Road or Sir Peter Blake Parade. However, there will be access control on South Street and North Lane.

1.10 ITEM 23: PROVISION FOR PEDESTRIANS AND CYCLISTS

“The Precinct Plan states the requirement for “public vehicle, pedestrian and cycling routes within the precinct to allow easy access to the coastal margins and parking facilities.” Please demonstrate how the development is providing for cycle access and public/ berth holders bike facilities through the site.”

Refer to **Figure 11** below for the Cycle Movement Strategy Plan.



Figure 12: Cycle Movement Strategy

Cyclists will share the roadway with the general traffic at a low-speed traffic environment as indicated by the brown dotted line, representing the cycle circulation routes as well as where bike parking facilities will be provided.

1.11 ITEM 24: LEASED AREAS OVERLAIN ON A PLAN

“It is not clear the location and extent of various lease areas of the site that AT and any other parties lease. Can these areas be overlain on the development plan?”

This is outside the remit of RMA and not relevant to the application.

1.12 ITEM 25: INTERFACE BETWEEN DEVELOPMENT SITE /AT SITE

“Please provide details /plans showing the proposed interface /linkage between the application site and the AT site.

Note: It is acknowledged that it is difficult to show /detail this as AT don’t have a timeframe or detailed plans for the design or redevelopment of this area. However, if you can just base this on the existing park n ride operations on this adjacent site.”

Refer Item 28 below.

1.13 ITEM 26: TRIP GENERATION, MODELLING AND MODAL SPLIT

“The existing level of service for the intersection of Bayswater Avenue & Lake Road appears to be flowing quite freely during the AM /PM weekday peak periods.

- *Please clarify how the assumption /assessment that the intersection of Bayswater Avenue & Lake Road has a Level of Service of B and C during the AM /PM weekday peak periods was determined.*

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- *Please provide confirmation that the modelling reflects the current level of service through the intersection by completing trip /queue surveys.*
- *We believe that the Level of Service is underestimated in the modelling and it is important the modelling accurately reflects the existing level of service of the intersection prior to the effects of the additional trip generation arising from the proposal being considered and assessed.*
- *Please comment or provide further assessment of the use of the streets surrounding the Bayswater Avenue /Lake Road intersection as ‘traffic rat-runs’ particularly to the north - west of the intersection and the effect that this may be having on the current Level of Service of the intersection and whether it may get worse due to increased vehicle trips generated by the development.*

Note: This is a similar query to that raised by Council’s Transport Specialist under item 14 above.”

Refer to response provided under Item 14 above.

The change in delay at the intersection due to the proposed development will not increase the potential for “traffic rat runs” due to it being neglectable delays as set out in the response to Item 14.

1.14 ITEM 27: RUBBISH COLLECTION

“It is not clear from the plan or the transportation assessment what the arrangement will be for rubbish collection.

Please clarify /detail what the arrangements will be for the rubbish collection, including whether the collection will be private, the frequency of collection and whether there will be a central point for collection (rubbish /recycling) for the proposed residential dwellings.

Please provide plans that show the location of the bins and please provide tracking diagrams confirming that a 10.3m rubbish truck can safely enter /leave the site and track through the site (including the residential precincts).

Note: *This is a similar query to that raised by Council’s Transport Specialist under item 19 above.”*

Refer to the response made to Item 19 above.

1.15 ITEM 28: BUS STOP AND BUS TURNING AREA AND WALKING ROUTE

“The section 5.4 of the Assessment of Effects notes that bus access will continue to be available along Sir Peter Blake Parade and that it will finish at its current location and a turnaround area will be available however; there are no plans showing this location or turnaround. Please provide plans /amended information that shows the following:

- *The proposed route of the bus along Sir Peter Blake Parade and within the site and the location of the bus stop and details of the bus turning area.*
- *The route of the bus and the bus turning area will need to include details of tracking for a 12.6m rigid and a 13.5m rear-steer bus and the route and bus turning area will need to avoid /minimise any conflicts with the boat ramp (including vehicles with trailers using the ramp).*

AT’s preference /suggestion is that the bus turnaround area is located within the ‘apron’ at the corner of Sir Peter Blake Parade and Cross Street.

- *Please provide details of the walking /pedestrian route between the bus stop /platform and the ferry terminal. It is expected that the route will provide clear, safe, and legible access and will tie /link into the pedestrian route requested under point 30 below.*
- *Please confirm that AC /AT have access /easement over the turning head area and please provide a plan showing this.*



Please note that the AT hammerhead where the existing park and ride is located will likely be re-developed (subject to funding) to have new park and ride and ferry terminal and cannot be used for the bus turning area until this is re-developed (i.e. as part of this current resource consent application).

- *Please provide updated plans showing a ‘marked out’ bus stop (including 15m long, 2.5m wide platform and bus stop road markings with same dimensions as the platform and shelter (detail to be confirmed at detailed design).*

It is AT’s preference is for the stop /shelter and platform to be in the blue hatch on the above snip. Please note that the platform area in the sketch is longer than bus stop and this is not correct the bus stop needs to be longer than the platform.

Note: It is noted that the Sir Peter Blake Drive extension falls within sub-precinct C this identifies that this sub precinct provides for a bus stop.”

There are no public transport turning facilities provided or required within the development. The development team will co-ordinate with AT as it advances the concept and detail of the adjacent AT redevelopment of its facilities.

However, in the interim, provision has been made to allow for buses turning out of the existing AT car park onto Sir Peter Blake Parade within the southern corner of the car park. This manoeuvre is shown in **Figure 13** below.



Figure 13: Bus Turnaround Strategy.

It is recommended that the existing car park be modified in the interim to accommodate for this movement. This will include some remarking and removal of some of the existing car parking spaces in the southern corner. Some tree branches should also be trimmed back to accommodate a bus entering the area from the north.

To accommodate for a bus and car movement on the northern end of Sir Peter Blake Parade it will be required to widening the carriageway by about 1.5m. This will require the applicant as well as AT to provide for some additional land to accommodate these movement. This manoeuvre is shown in **Figure 14** below.

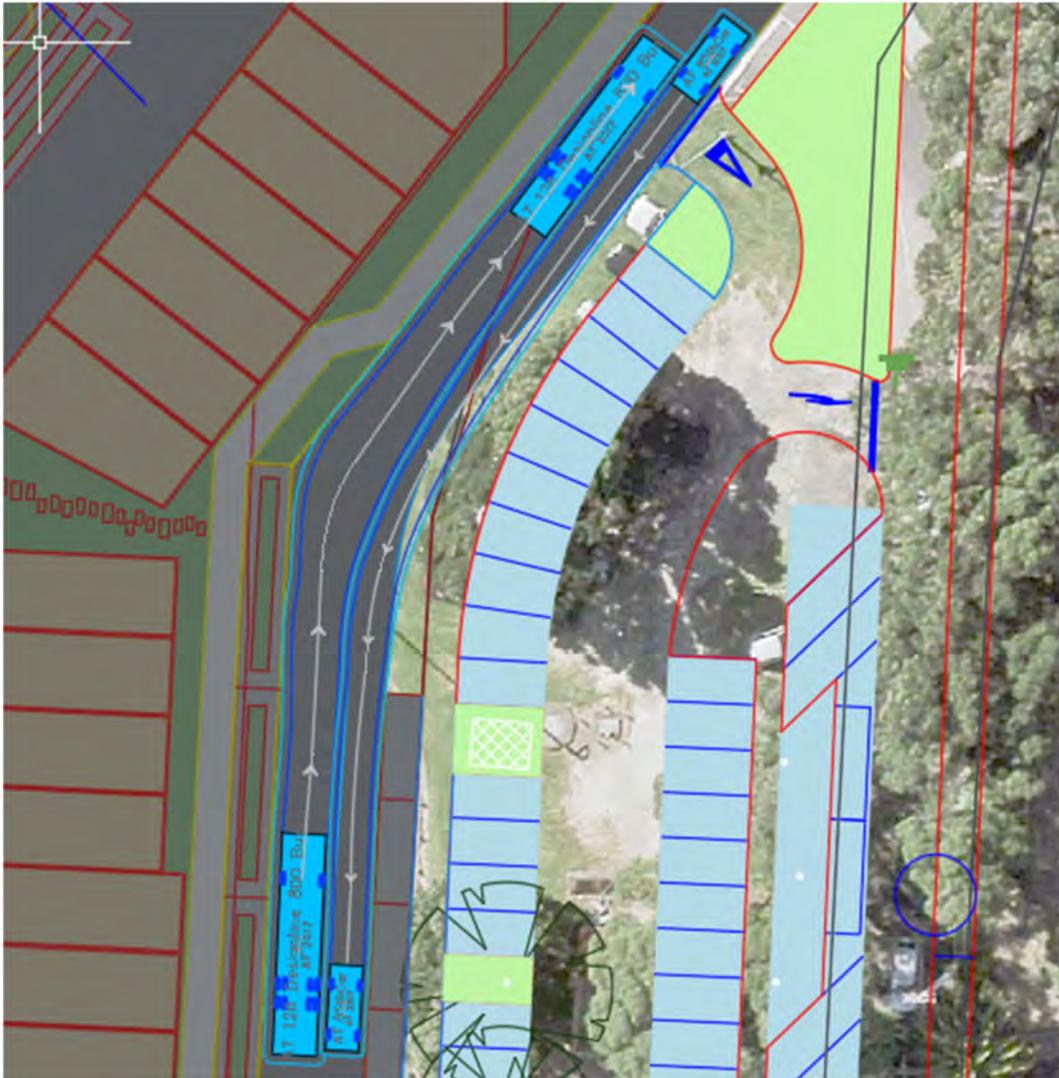


Figure 14: Bus vs Car Manoeuvre on Sir Peter Blake Parade

1.16 ITEM 29: FERRY TERMINAL

“The AEE and the landscape concept plans show the existing ferry terminal and the AEE notes that this facility will not be retained after 2031 when AT’s lease expires. However, the proposed plans and AEE do not discuss the retention of the existing passenger facilities by the ferry rather the Infrastructure report section 3.2.1 identifies that the buildings associated with the ferry terminal will be removed at the beginning of Stage 1.

Please clarify what passenger facilities are to be provided during the next 10 years until the AT lease expires. Please provide updated /revised master plan sheets showing the existing ferry terminal and the location of the associated facilities are to be retained until the AT lease expires.

The ferry terminal facility needs to be maintained in the existing location or similar until AT’s lease expires and the Bayswater Precinct Plan under the AUP requires that there is sufficient space provided for the publicly managed transport facilities.”

It is noted that the current lease does not include buildings and is temporary. It is considered that the objective and policies of the AUP for the Precinct support the provision of public transport and facilities. However, it is understood that these objectives/policies do not specify how or what infrastructure should be provided. It is understood that there will be ongoing discussions between AT and the developer as to potential development of such public facilities (such as waiting rooms and the like).

1.17 ITEM 30: PEDESTRIAN CONNECTIONS FROM PARK N RIDE TO FERRY TERMINAL

*“It is not clear what route pedestrians would take from the park and ride to the ferry terminal.
Please confirm what is intended for these pedestrians.*

*There is car parking proposed along the eastern side of Sir Peter Blake Drive and there is the
potential for conflict between pedestrians and vehicles /trailers using the boat ramp.*

*Please provide revised plans showing a clear and legible route for pedestrians from the existing
park and ride to the ferry terminal (including how possible conflicts between vehicles using the
boat ramp and parking on the eastern side of Sir Peter Blake Drive will be minimised or
avoided).”*

Pedestrians will use the same route that is currently provided. Refer to **Figure 14** below that shows the pedestrian route.



Figure 15: Current Pedestrian Route from the Park and Ride Facility towards the Ferry Terminal

The proposed development is not expected to increase the boat and ramp activity, nor create additional pedestrian flows to and from the park and ride facility. As such, the current arrangement will not be affected by the proposed development. Stantec recommends that a zebra crossing facility be provided for pedestrians to cross from the north of the site towards the existing ferry terminal.

It is noted that the potential for pedestrian conflict in this area will be avoided when the ferry terminal is relocated in the future (along with the upgrading of the AT car park / park and ride facility).

1.18 ITEM 31: BIKE PARKING

“Please show /detail on the plans the resident and visitor bike parking spaces for the proposed apartments and confirm that the number of spaces complies with the AUP requirements. Please show on the plans where the proposed ‘bike’ parking spaces will be located for the commercial activities on site and please confirm that the number of spaces complies with the AUP requirements.”

The AUP requires 1 visitor bicycle parking and 9 secure bicycle parking spaces be provided for each apartment building (3 visitor parking and 27 secure parking in total). Dedicated secure bicycle parking will be provided in the basement parking areas and /or attached to the apartment buildings to comply with the above requirement. Further details of this will be provided in the revised development plans.

For commercial activities, the AUP requires 1 visitor parking for activity greater than 200sqm and 1 secure parking per 300sqm. As the commercial activities are a total of 750sqm, 1 visitor bicycle parking space and 3 secure bicycle parking spaces should be provided. These bike parking space will be provided on-site within the commercial area to meet the requirement.

1.19 ITEM 32: VISITOR BIKE PARKING

“From the plans and application information, it is not clear how many visitor bike parking spaces it is proposed to provide or spaces for berth holders.

The development is likely to attract a number of visitors who chose to arrive by bike and there is likely to create a demand for bike parking throughout the development.

Please provide plans detailing the location and number of proposed visitor bike parking spaces throughout the development.

AT note that the parking allocation plan in the Transport Assessment shows bike parking at the ferry terminal and we would like to clarify /understand exactly how much bike will be provided and also to understand if public bike parking will be provided in other locations throughout the site.”

There is no requirement within the AUP to provide visitor bicycle parking for the berth holders, nor any requirement to provide for public parking spaces. However, visitor parking spaces will be provided as per Figure 12 under item 23. The actual amount of parking spaces that will be provided is not known at this stage but given the space available at these locations can range from 10 to 20 spaces per location.

1.20 ITEM 33: CYCLE FACILITIES / ROUTES

“From the plans /information provided, it is not clear where the cycle routes are throughout the development /site.

The Precinct Plan under the AUP requires that there are cycle routes within the Precinct.

Please provide plans that show /detail cycle routes within the Precinct (and it is anticipated the cycle routes would provide access to the ferry terminal, commercial activities and coastal areas.

Note: It would be helpful that the plan is provided by way of a have a dedicated sheet within the landscape concept plan to the cycle movement strategy with any subsequent plans updated once the strategy is confirmed.”

Refer to the response to Item 23 for the proposed cycle movement strategy.

1.21 ITEM 34: ROAD CROSS SECTIONS

“Please provide a typical cross section showing the proposed South Street, Cross Street, North Lane and Sir Peter Blake Drive Extension including

- footpaths;*
- carriageway;*
- landscaped berm/ area;*
- angled /parallel parking..”*

This will be addressed by other members of the Bayswater consultant/design team.

1.22 ITEM 35: DETAILS OF ENTRANCE /TIES IN’S

“Please provide details of how the extension of Sir Peter Blake Drive will interface with the marina entrance (i.e. will there be a barrier area or gate) and please detail how the extension will link into the existing portion of Sir Peter Blake Drive (including what will happen to the existing angled on street car parking spaces).

Note: Item 22 above raised the same query.”

Refer to the response to Item 22 above.

1.23 ITEM 36: CYCLE-WAYS

“Please clarify if cycling to and from the development (including the ferry terminal) on the existing road is considered to be safe and how this is achieved through the design of the new road network extension particularly given the expected volume and types of vehicles which will be using this road

As the development is likely to generate additional cycle activity AT preference is for protected cycleways to be provided along the extension of Sir Peter Blake Drive and preferably up to the roundabout of Bayswater Avenue and Sir Peter Blake Drive.”

Given the low-speed environment and speed calming measures to ensure a low-speed environment, it is considered safe for cyclists to share the development roadways with other users.

1.24 ITEM 37: CONFIRMATION OF WIDTH OF SIR PETER BLAKE DRIVE EXTENSION

“Please confirm /clarify that the extension of Sir Peter Blake Drive is wide enough to accommodate buses, as this information is not currently shown on the plans.

It is noted that Auckland Transport’s TDM sets out the widths of road carriageway required for bus tracking and this information is required as buses need to be able to travel along Sir Peter Blake Drive.

Note: It is noted that the Sir Peter Blake Drive extension falls within sub-precinct C this identifies that this provides for a bus stop so needs to be wide enough to facilitate access to the stop.”

The majority of the carriageway is wide enough to accommodate a bus and car passing each other. However, as discussed under Item 28, the bend on Sir Peter Blake parade requires widening to the east (onto AT land) to ensure this passing manoeuvre.

1.25 ITEM 38: UPGRADE OF CROSSING POINT ON SIR PETER BLAKE DRIVE

“Please provide clarification as to whether the existing refuge on Sir Peter Blake Drive (see snip below) is considered to be appropriate given the additional volumes of vehicle movements and additional pedestrian demand from the redevelopment of the precinct. If you can provide an additional traffic assessment on the safety of this existing refuge.



The development will generate additional pedestrian activity which may necessitate the upgrading of the existing pedestrian refuge on Sir Peter Blake Drive is not considered to be suitable to provide for safe and efficient pedestrian crossing.

Note: It is AT’s view is that the development generates the need for the refuge crossing to be upgraded to a raised pedestrian crossing to allow safe pedestrian access.”

This pedestrian crossing facility serves the neighbouring residential area only. The level of pedestrian use in terms of the proposed development will not substantially increase the pedestrian demand at this crossing. The majority of pedestrian trips associated with the proposed development will be internal (towards the ferry terminal) and most external trips will occur by a private vehicle, public transport and bicycles/scooters. Some pedestrian volume increase can be expected across this crossing, but this is a low volume traffic environment readily served by the current facility.

1.26 ITEM 84: TURNAROUND PLAZA AND FERRY FACILITIES

“It is not clear why the existing ferry facilities are not being retained and then why the proposed turnaround plaza needs to be so large. Please clarify?

The lease for the ferry terminal still has 10 years to run it is necessary to have facilities to allow passenger to wait out of the weather, safety and for it to be accessible for all users. The ferry has over 20 sailings a day in each direction during a week day and has services running over the weekend. The sailings include times early in the morning before 7am and after 8pm.

Furthermore, there is also the need to retain space public access along the coastal edge alongside these passenger facilities. Is there sufficient width to provide for all of these users? Please confirm how these facilities are to be provided for on the current landscape concepts for a turnaround plaza over the next 10 years whilst also maintaining a walkway of sufficient depth.

BAYSWATER MARINA HOLDINGS LIMITED
BAYSWATER MARITIME PRECINCT TRANSPORTATION ASSESSMENT – TRANSPORT RESPONSE TO
S92 REQUEST

It is not clear from the Transport Assessment why such an extensive area of vehicle manoeuvring is required in this location? particularly given buses do not travel this far into the scheme, the access routes to the residential precincts and the tracking diagrams provided. Please clarify.

Note: *In 10 years', time when the lease expires and the terminal moves to a different location then the extension of this as an area of public open space is preferred over it being used for vehicle manoeuvring. Given it is unclear why such an extensive turnaround area is necessary particularly when the precinct seeks to maximise significant open space on the coast and enhance public access to the CMA. Please consider reducing this turnaround plaza down."*

The turnaround plaza has been designed to accommodate the manoeuvring of a fire truck. Furthermore, the area has been designed to operate as a shared space as practically no car will use this facility as a turnaround space.

1.27 ITEM 96: CONSTRUCTION TRAFFIC VOLUMES

"Please clarify the approximate extent of traffic volumes anticipated over the project. It may be that breaking these anticipated volumes down to the timeframes and staging across the site."

This will form part of a construction management plan which can be included by way of a condition of consent.

- Non s92 Matters
- Item 7: Access Points to Residential Precincts

"The vehicle access points for the residential precincts are shown as one-way accesses in the Landscaping Plans (Attachment 6.1), however the Transport Assessment (TA) assesses the width of the access points under E27 as two-way vehicle crossings which allows for a greater width. Please narrow down the vehicle crossings to cater for one-way traffic. The tracking provided does not warrant the width currently proposed. The wide aisle widths in the shared space may also benefit from being narrowed down to ensure the large open shared space areas do not invite illegal / informal parking.

Please redesign the residential shared spaces and vehicle crossings allowing for one-way traffic flows, assuming that vehicle tracking for boat trailer parking will not need to be accommodated within the residential precincts (See item 15 above). Please also provide detail on how the one-way systems will be designed / sign posted to ensure compliance."

Refer to the response given to Item 19 above. The wider vehicle crossings are required to accommodate for rubbish trucks as well as a fire truck. The central and northern residential precincts also cater for boat trailer parking.

1.28 ITEM 9: PEDESTRIAN FOOTPATH - SIR PETER DRIVE

"The plans (landscape and main site plans) show that there will be a pedestrian walkway along the western side of Sir Peter Blake Parade. The 'likely' pedestrian crossing point on the Cross Street is not considered to be overly clear or legible particularly due to the trees and there is likely to be limited visibility of vehicles for pedestrians (and of pedestrians from vehicles).

Please provide plans that detail /show the pedestrian path along Sir Peter Blake Drive and with a clear, legible and direct pedestrian crossing point on Cross Street (that follows the desire line) and that has sufficient visibility."

The landscaping design will ensure adequate intervisibility in this area. Furthermore, a recommended zebra pedestrian crossing in this location will clearly direct pedestrians to where it is safe to cross the carriageway.

1.29 ITEM 13: VISITOR PARKING

“The number of visitor car parking spaces on site for the café/office/visitors is quite limited and while compliant with the AUP the parking demand is likely to be higher than the 26 spaces provided, and AT agree with point 6 above and would support allocation of some of the parking spaces for the berth holders being to the commercial uses.

Please clarify how / where any additional visitors to the development will park if there is not sufficient space on site and detail the impact that this may have on street parking.”

This matters is addressed by other members of the Bayswater team.

Appendices

We design with community in mind



Appendix A Updated Site Layout Plan

Appendix A UPDATED SITE LAYOUT PLAN



This graphic has been prepared by Boffa Miskell Limited on the specific instructions of our Client. It is solely for our Client's use in accordance with the agreed scope of work. Any use or reliance by a third party is at that party's own risk. Where information has been supplied by the Client or obtained from other external sources, it has been assumed that it is accurate. No liability or responsibility is accepted by Boffa Miskell Limited for any errors or omissions to the extent that they arise from inaccurate information provided by the Client or any external source.



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NOTES
CONTRACTORS TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCING WORK;
CONTRACTORS ARE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL UNDERGROUND SERVICES ON SITE PRIOR TO COMMENCING WORK;
FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

KEY
--- SITE BOUNDARY
--- ESPLANADE STRIP
--- SUB-PRECINCT BOUNDARIES
--- ADJACENT SITE BOUNDARIES

REV	DATE	DESCRIPTION
A	23.02.21	FOR RESOURCE CONSENT
B	20.05.21	S92 MATTERS

APPR'D
RDL
RDL
CLIENT
BAYSWATER MARINA HOLDINGS LTD
CONSULTANTS
PBA STANTEC HAMPSON & ASSOCIATES
AIREY CRAIG SHEARER

RESOURCE CONSENT

BAYSWATER MARITIME PRECINCT

WIDER SITE PLAN

Design	THe	Scale	Date
Drawn	THe	1:1000 @ A1	06.07.20
Check	JPo	1:2000 @ A3	

DRAWING NO.	REVISION
A15265A_220	(B)

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FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

KEY

- SITE BOUNDARY
- ESPLANADE STRIP
- SUB-PRECINCT BOUNDARIES
- ADJACENT SITE BOUNDARIES

REV	DATE	DESCRIPTION
A	23.02.21	FOR RESOURCE CONSENT
B	20.05.21	S92 MATTERS

APPR'D
RDL
RDL

CLIENT
BAYSWATER MARINA HOLDINGS LTD

CONSULTANTS
PBA STANTEC HAMPSON & ASSOCIATES
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RESOURCE CONSENT

BAYSWATER MARITIME PRECINCT

SITE PLAN

Design	THe	Scale	Date
Drawn	THe	1:500 @ A1	06.07.20
Check	JPo	1:1000 @ A3	

DRAWING NO.	REVISION
A15265A_230	(B)

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PUBLIC OPEN SPACE: 7515m²
BUILDING COVERAGE: 7600m²

ORIGINAL IN COLOUR



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 Tel: +64 9 358 2526
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 CONTRACTORS ARE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL UNDERGROUND SERVICES ON SITE PRIOR TO COMMENCING WORK;
 FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.

KEY
 - - - SITE BOUNDARY
 PUBLIC OPEN SPACE
 BUILDING COVERAGE

REV	DATE	DESCRIPTION
A	23.02.21	FOR RESOURCE CONSENT
B	20.05.21	S92 MATTERS

APPR'D RDL RDL
 CLIENT: **BAYSWATER MARINA HOLDINGS LTD**
 CONSULTANTS:
 PBA STANTEC HAMPSON & ASSOCIATES
 AIREY CRAIG SHEARER

RESOURCE CONSENT

BAYSWATER MARITIME PRECINCT
 COVERAGES AND AREAS

Design	THe	Scale	Date
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Check	JPo	1:1000 @ A3	

DRAWING NO.	REVISION
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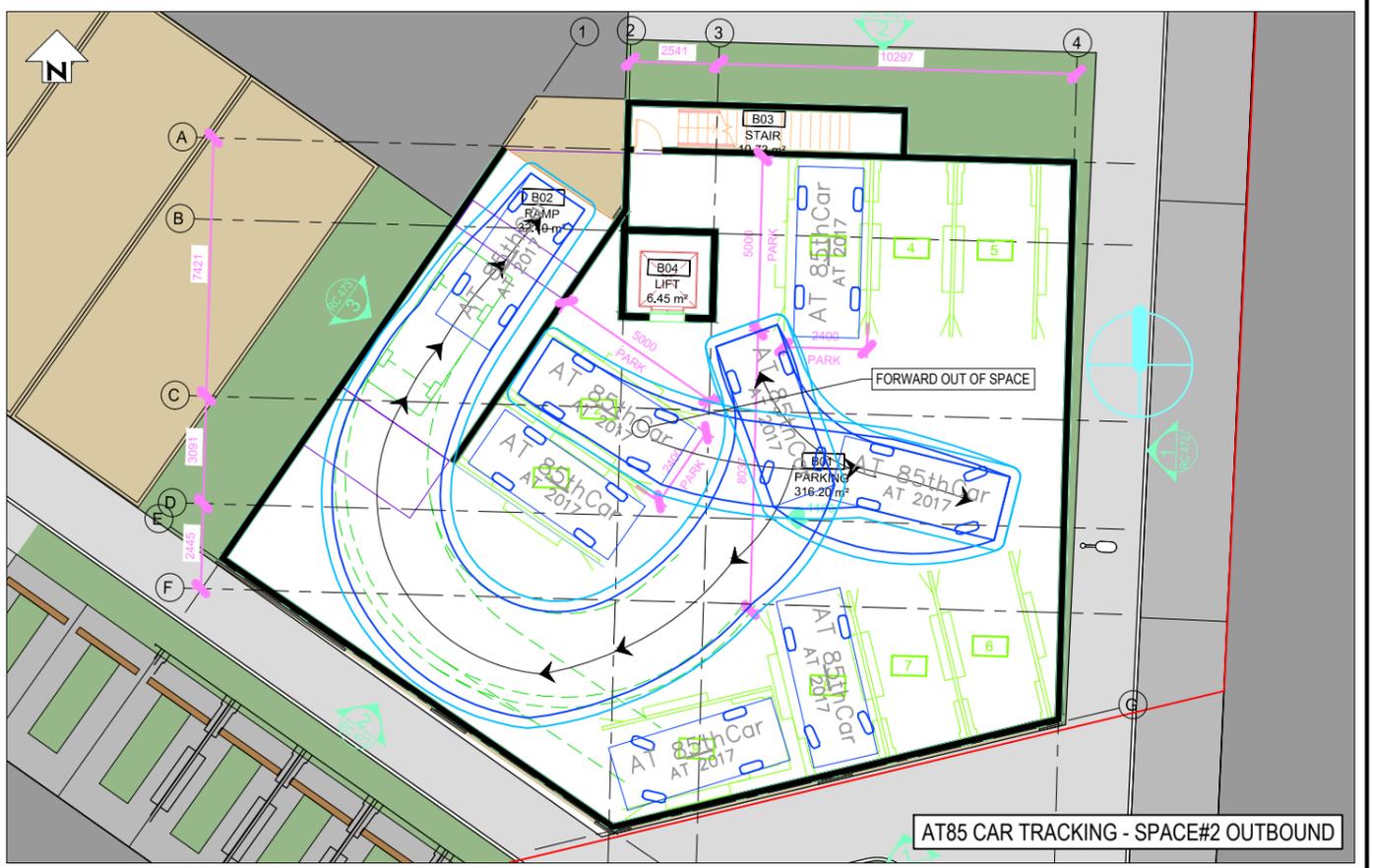
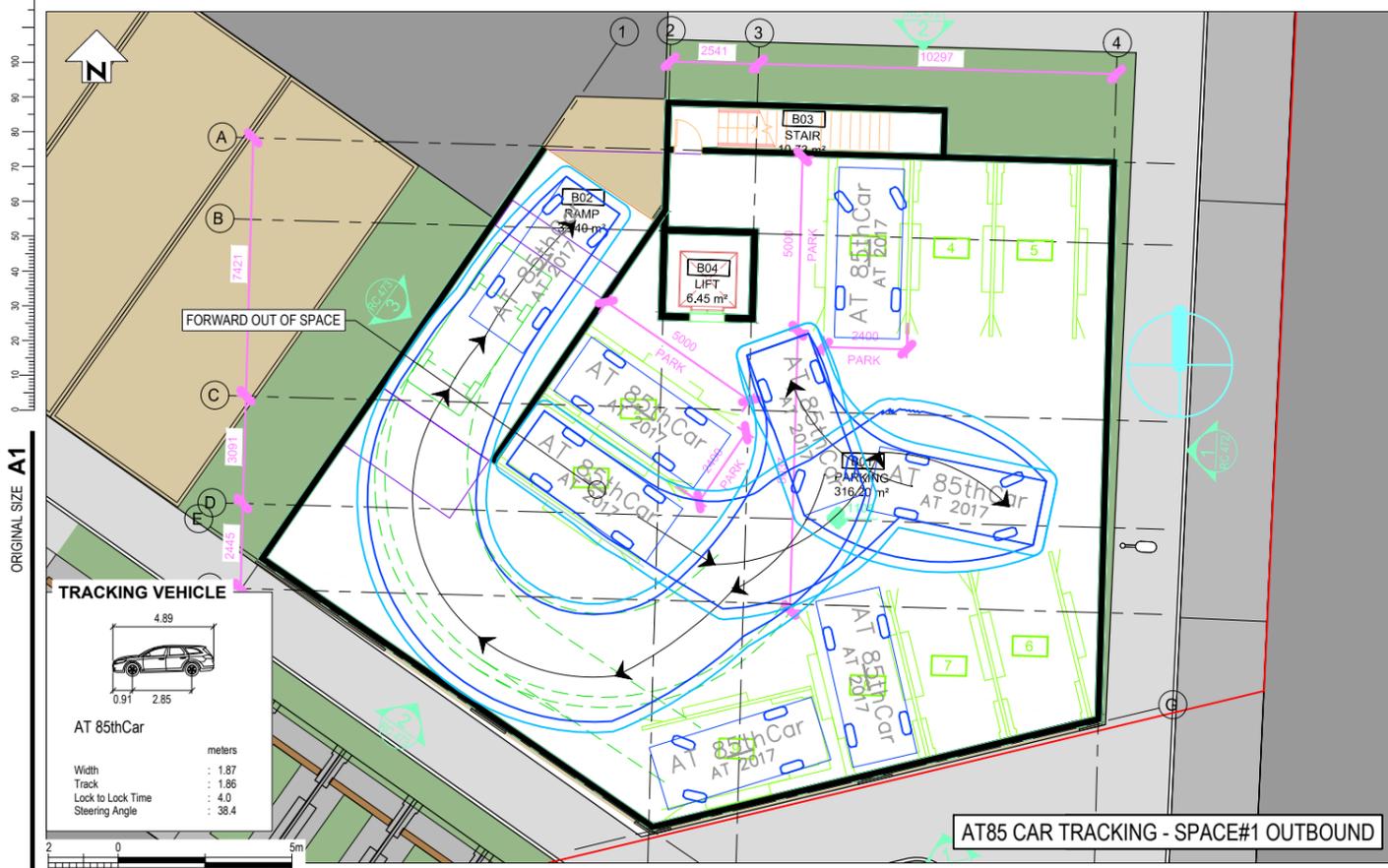
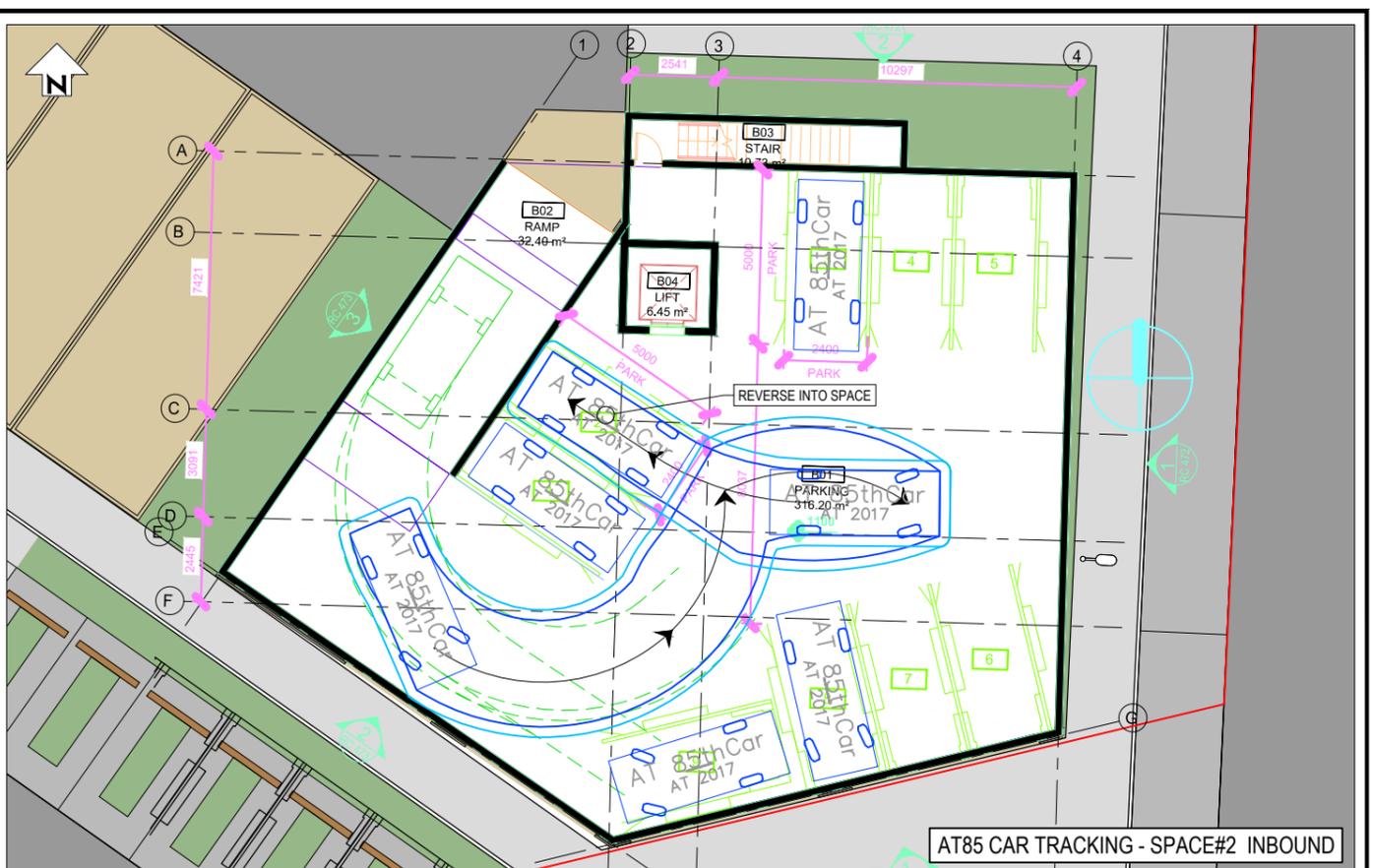
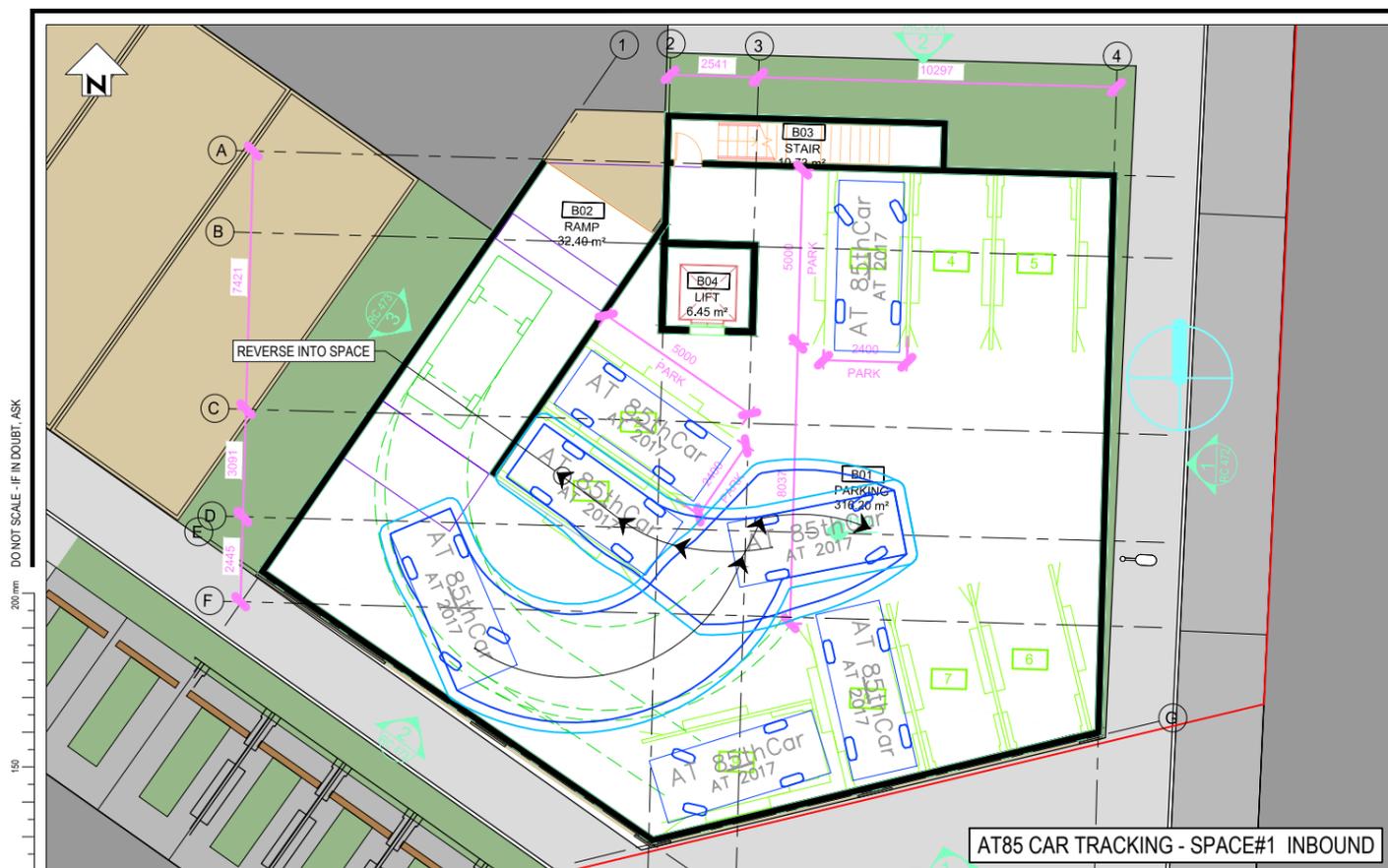
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Appendix B Tracking Diagrams

Appendix B TRACKING DIAGRAMS





TRACKING VEHICLE

AT 85thCar

meters

- Width : 1.87
- Track : 1.86
- Lock to Lock Time : 4.0
- Steering Angle : 38.4

SCALE 1:100

NOT FOR CONSTRUCTION

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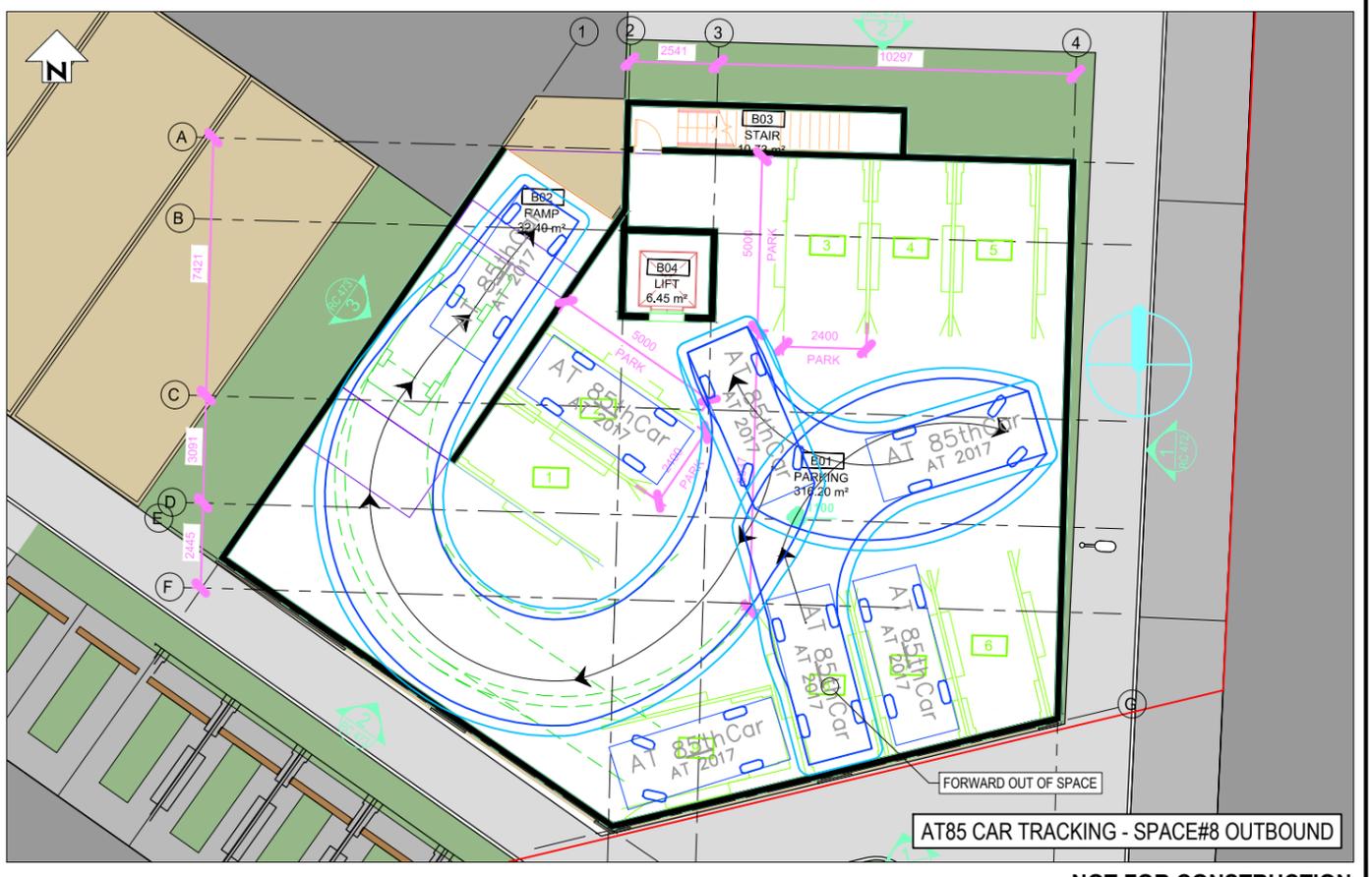
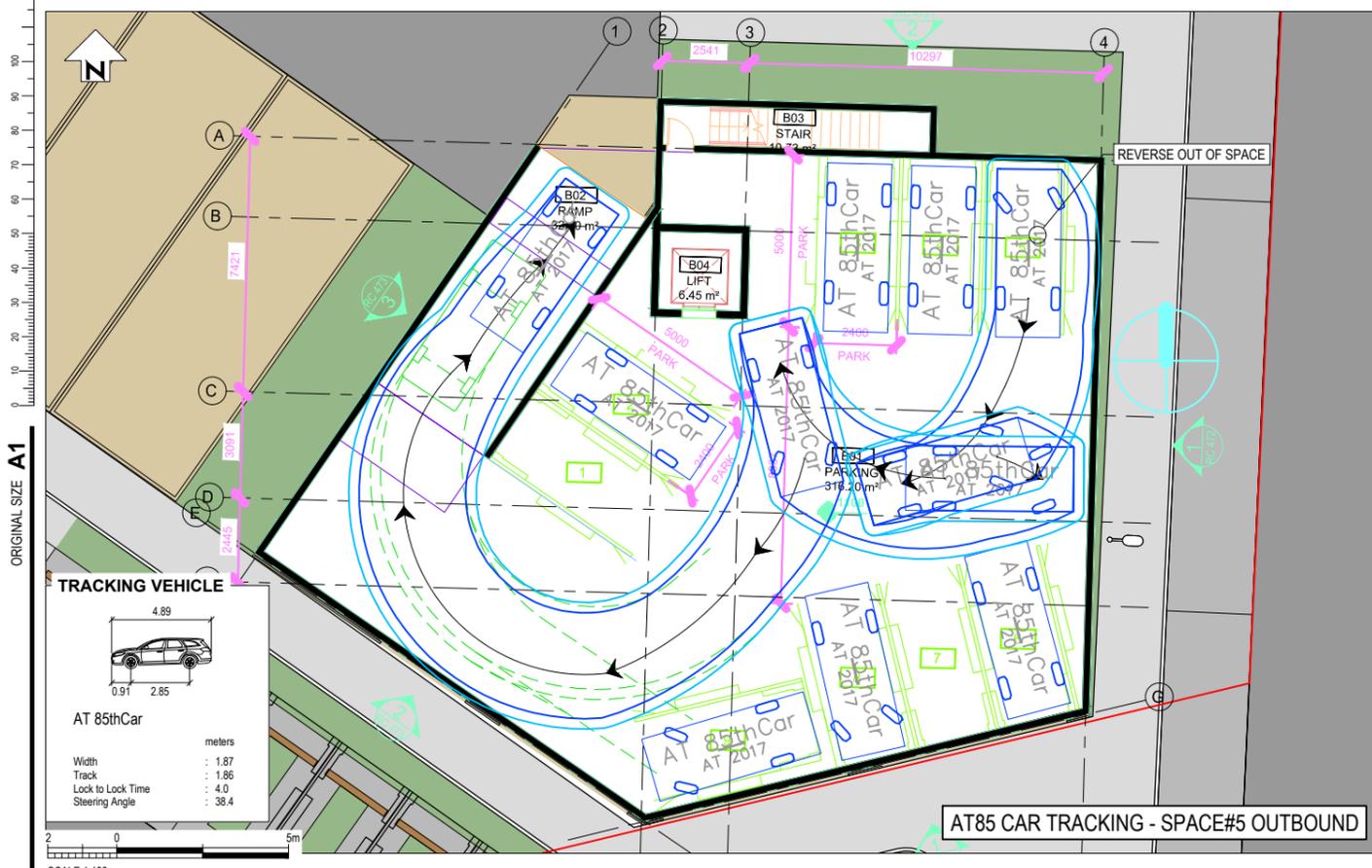
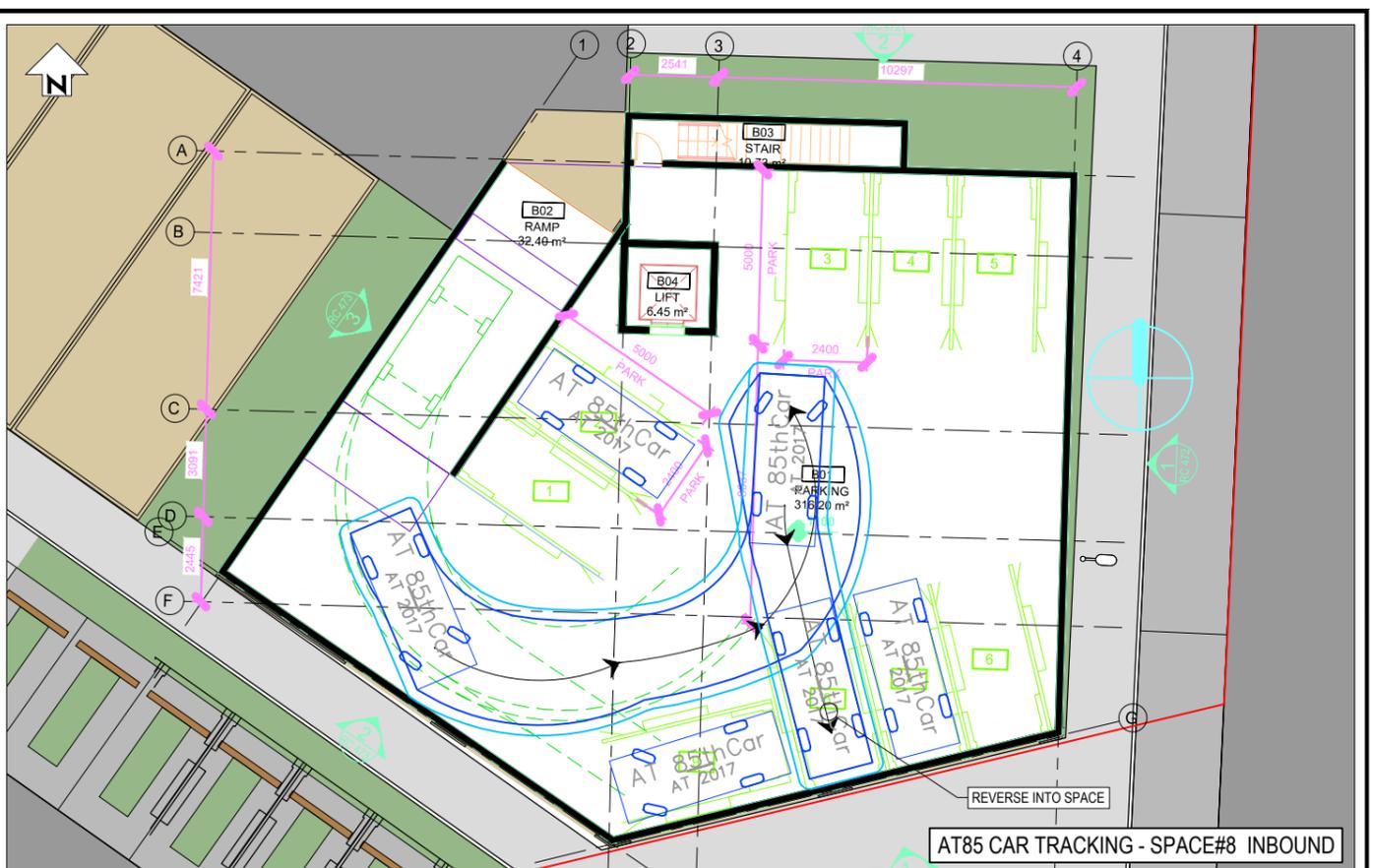
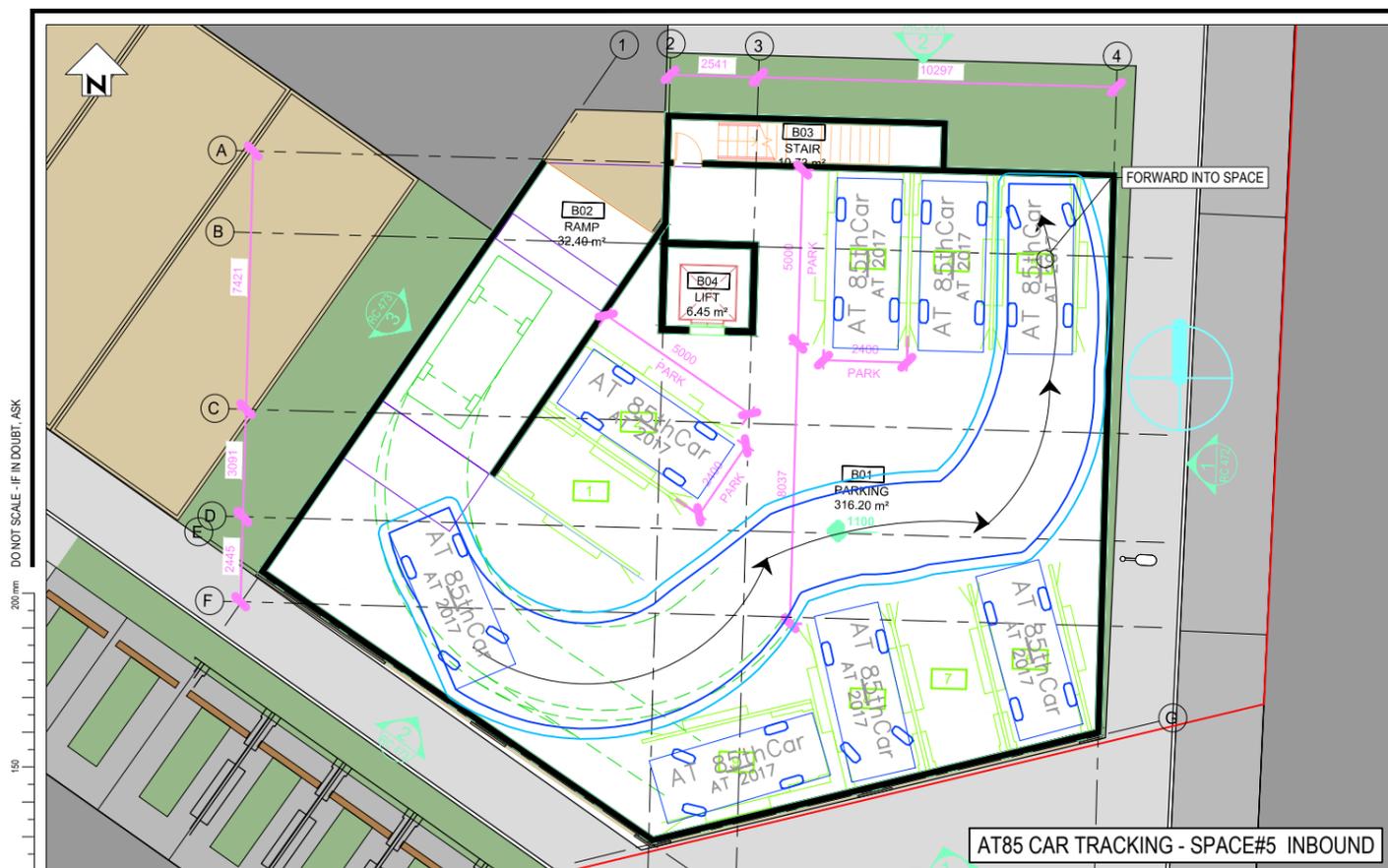
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APPROVED		
PROF REGISTRATION:		



BAYSWATER MARINA - PROPOSED DEVELOPMENT
 NORTH DEPARTMENT

CAR TRACKING
 SHEET 1 OF 6

Status Stamp	FOR REVIEW
Date Stamp	04.05.21
Scales	AS SHOWN
Drawing No.	310200192-01-001-SK015-1
Rev	A



TRACKING VEHICLE

AT 85thCar

meters

- Width : 1.87
- Track : 1.86
- Lock to Lock Time : 4.0
- Steering Angle : 38.4

SCALE 1:100

NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	BY	CHK	APP
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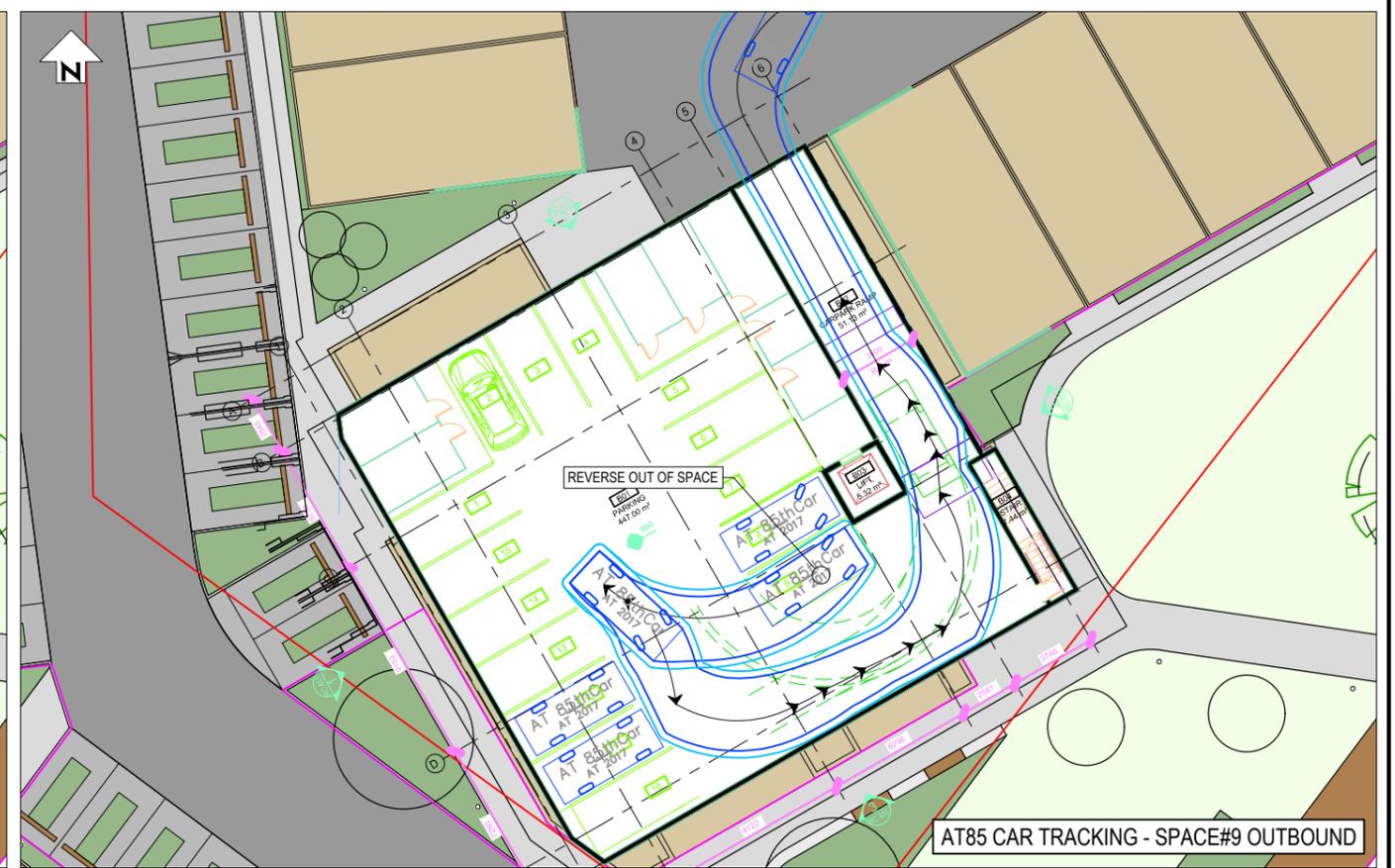
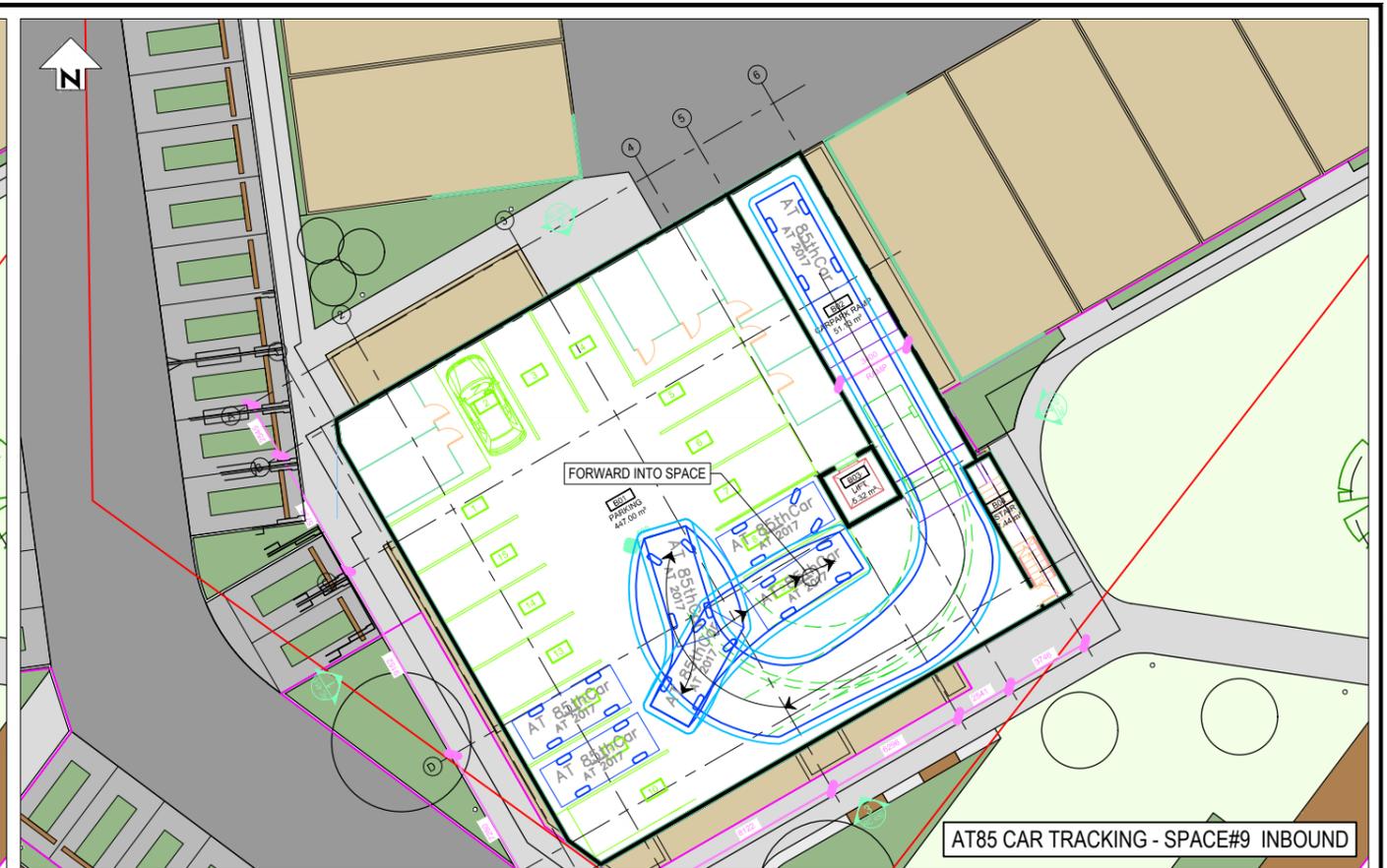
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DESIGNED		
DRAWN	S.PULETIUATO	18.02.21
CAD REVIEW		
DESIGN CHECK		
DESIGN REVIEW		
APPROVED		
PROF REGISTRATION:		



BAYSWATER MARINA - PROPOSED DEVELOPMENT
NORTH DEPARTMENT

CAR TRACKING
SHEET 2 OF 6

Status Stamp	FOR REVIEW
Date Stamp	04.05.21
Scales	AS SHOWN
Drawing No.	310200192-01-001-SK015-2
Rev.	A



TRACKING VEHICLE

AT 85thCar

meters

- Width : 1.87
- Track : 1.86
- Lock to Lock Time : 4.0
- Steering Angle : 38.4

SCALE 1:150

NOT FOR CONSTRUCTION

REV	DESCRIPTION	SP	GV	CHK	APP	DATE
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	REVISIONS	DRN	CHK			

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DESIGNED		
DRAWN	S.PULETIUATO	04.05.21
CAD REVIEW		
DESIGN CHECK		
DESIGN REVIEW		
APPROVED		
PROF REGISTRATION:		



Client:

BAYSWATER MARINA - PROPOSED DEVELOPMENT
SOUTH APARTMENT

CAR TRACKING
SHEET 5 OF 6

Status Stamp	FOR REVIEW
Date Stamp	04.05.21
Scales	AS SHOWN
Drawing No.	310200192-01-001-SK015-5
Rev.	A

Appendix C Longitudinal/Cross-Sections

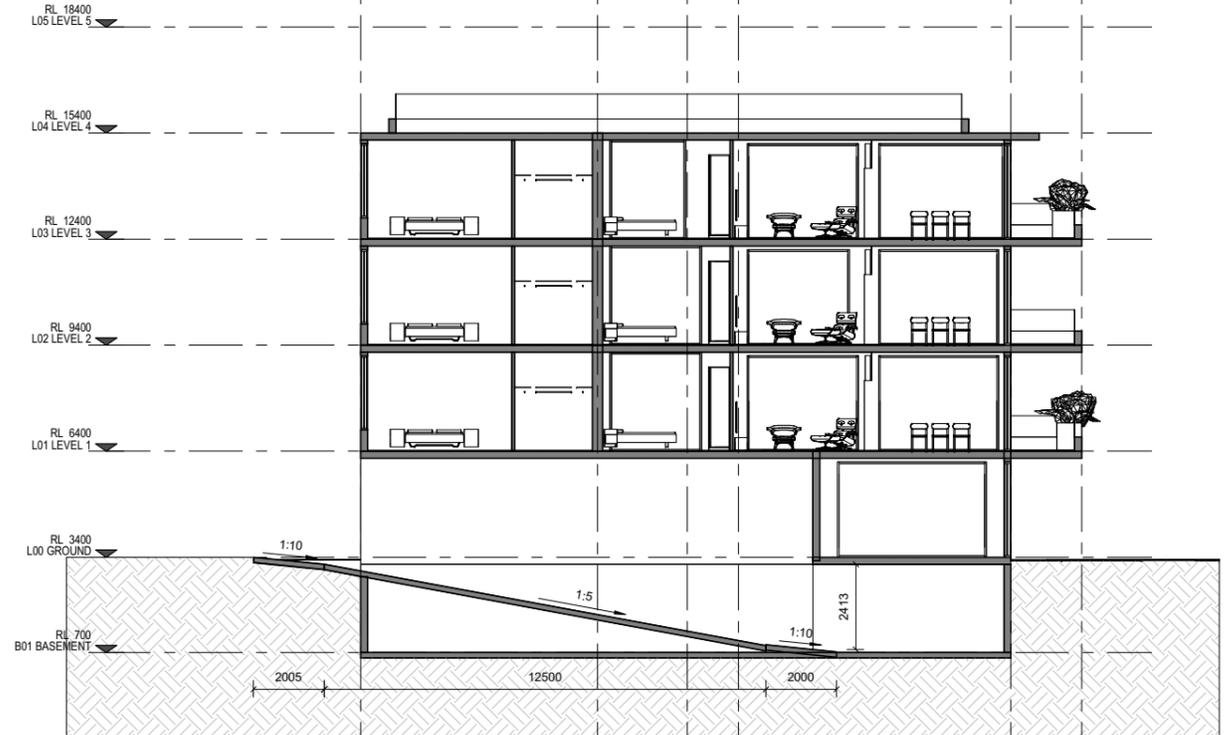
Appendix C LONGITUDINAL/CROSS-SECTIONS



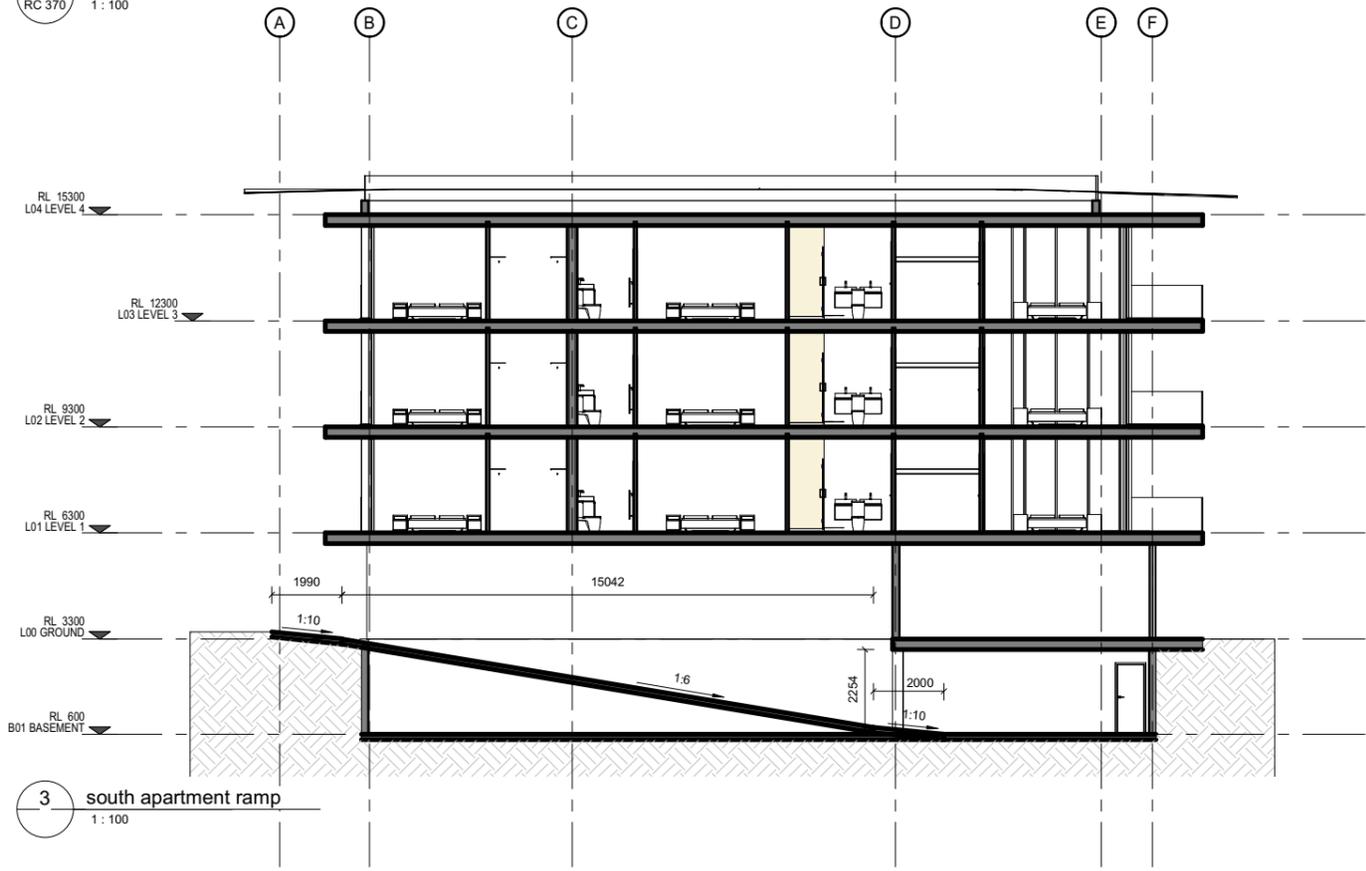
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2 north apartment ramp
RC 370 1:100



1 central apartment ramp
RC 460 1:100



3 south apartment ramp
1:100

VEHICLE RAMP SECTIONS | 300 ELEVATIONS & SECTIONS |

CREATING COMMUNITIES

Communities are fundamental. Whether around the corner or across the globe, they provide a foundation, a sense of belonging. That's why at Stantec, we always **design with community in mind**.

We care about the communities we serve—because they're our communities too. We're designers, engineers, scientists, and project managers, innovating together at the intersection of community, creativity, and client relationships. Balancing these priorities results in projects that advance the quality of life in communities across the globe.

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