

HMAS Watson Redevelopment Project

Traffic and Parking Impact

The Department of Defence commissioned a Traffic Consultant to assess the traffic impacts of the construction activities and the resultant implications for local Community.

The assessment considered impacts to existing traffic networks including roads, public transport (buses and ferries), and pedestrian and cycling paths.

Existing Environment

The roads considered in the study and their classifications are outlined below:

- Cliff Street - two-way local road;
- Military Road - two-way collector road;
- Hopetoun Avenue - collector road;
- Old South Head Road - regional road; and
- New South Head Road - regional road.

The performances of existing intersections around the site, including light and heavy vehicle proportions, are outlined for the morning and evening peak hours in the table below. Existing intersection performance was measured by vehicles per hour, recorded via tube counts installed on key routes in 2019.

A summary of the recorded Traffic Volumes is provided in Table 1.

Table 1: Existing Intersection Traffic Volumes

Road Name	Data Type	Two Way Traffic Volumes		
		AM Peak (vehicles/hour)	PM Peak (vehicles/hour)	Daily (vehicles)
Cliff Street, south of Short Street	Average Traffic Volumes	210	249	2,674
	% Heavy Vehicles	5%	2%	5%
Old South Head Road, north of Belah Avenue	Average Traffic Volumes	231	293	3,687
	% Heavy Vehicles	16%	13%	12%
New South Head Road, east of Hopetoun Road	Average Traffic Volumes	266	279	3,658
	% Heavy Vehicles	9%	10%	10%
Hopetoun Avenue, north of Moore Street	Average Traffic Volumes	122	135	1,709
	% Heavy Vehicles	20%	20%	16%

Roads and Maritime Services suggest that the environmental capacity performance on local roads is 200 vehicles per hour with a maximum of 300 vehicles per hour. For collector roads, the environmental goal is 300 vehicles per hour and a maximum of 500 vehicles per hour.

As such, Hopetoun Avenue and Cliff Street operate well within their environmental capacities. Old South Head Road and New South Head Road operate within the suggested Roads and Maritime Services environmental capacity maximum performance values in vehicles per hour.

Forecast Truck Movements

A summary of the forecast inbound truck movements for the HMAS Watson Redevelopment Project is provided in Table 2. The data in Table 2 represents a one way movement and would need to be doubled for a two way representation.

The 2021 and 2022 Actual Average per working day / per year are recorded in Table 2. The Actual truck movements measured were in line with the forecast Estimates established at commencement of construction in 2019 with some minor differences seen each month.

The 2023 and 2024 Estimates, are firmer in their accuracy than the latter years.

Table 2: Forecast Inbound Truck Movements

Year	Month	Estimated Average per working day	Actual or Estimated Average per working day / per year
2021	Jan	15	22
	Feb	20	
	Mar	22	
	Apr	28	
	May	21	
	Jun	22	
	Jul	25	
	Aug-	27	
	Sep	22	
	Oct	17	
	Nov	26	
	Dec	24	
	Jan	27	
	Feb	29	

2022	Mar	26	17
	Apr	23	
	May	26	
	Jun	19	
	Jul	17	
	Aug-	10	
	Sep	8	
	Oct	5	
	Nov	6	
	Dec	6	
2023	Jan	11	20
	Feb	11	
	Mar	14	
	Apr	10	
	May	15	
	Jun	17	
	Jul	18	
	Aug-	15	
	Sep	18	
	Oct	36	
	Nov	37	
	Dec	36	
2024	Jan	28	17
	Feb	26	
	Mar	23	
	Apr	21	
	May	22	
	Jun	11	
	Jul	11	
	Aug-	11	
	Sep	12	
	Oct	15	
	Nov	14	

	Dec	13	
2025	Jan	12	17
	Feb	14	
	Mar	18	
	Apr	24	
	May	21	
	Jun	21	
	Jul	18	
	Aug-	23	
	Sep	23	
	Oct	15	
	Nov	13	
	Dec	5	
	2026	Jan	
Feb		8	
Mar		8	
Apr		7	
May		7	
Jun		2	
Jul		2	
Aug-		4	
Sep		8	
Oct		8	
Nov		3	
Dec		15	
2027	Jan	14	10
	Feb	14	
	Mar	2	

During peak construction activities, it is anticipated that there would be up to seventy (70) trucks entering the site in a single workday. This is considered an absolute maximum and is not likely to be exceeded.

Heavy Vehicle Composition

The Project will utilise a range of heavy vehicles / trucks with a Gross Vehicle Mass greater than 4.5t. The selected heavy vehicles will be highly manoeuvrable to ensure ease of travel along the primary construction routes to and from the site, some of which include restrictive roadways.

Examples of the heavy vehicles to be utilised by the Project are depicted below.

Concrete Truck



Bogie Tipper Truck



Heavy Vehicle Movement Plan

Construction vehicle movements to and from the site will be managed under appropriate traffic control measures to ensure construction vehicle access is accommodated whilst maintaining the safety of all road users.

All vehicle staging, idling, loading and unloading shall be undertaken within the HMAS Watson site. Minor staging of trucks is required outside of the Project Construction Hours, in preparation for the days' activities.

The primary construction truck routes to and from the site will include Old South Head Road, New South Head Road and Military Road via the M1/Anzac Parade arterial network. Truck drivers will use the designated truck routes. Refer to Figure 1 below.

Figure 1: Construction Vehicle Routes



Public Transport, Pedestrian and Cycling Paths

The proposed construction activities will not impact existing public transport services and facilities, property access, emergency vehicle access or maritime activities.

Pedestrian and cycle access will be maintained at all times via existing pedestrian and cycle facilities during the Project. However, should pedestrian and cyclist movements be impacted, to preserve the safety of these users, traffic management measures will be implemented. Management measures may include pedestrian and cyclist traffic control plans and/or temporary footpaths.

Construction Workforce and Parking

A summary of the forecast construction workforce numbers for Year 2023 is provided in Table 3.

Table 3: Forecast Construction Workforce Numbers for 2023

Year	Month	Estimated Average per working day	Estimated Average per working day / per year
2023	Jan	68	98
	Feb	72	
	Mar	58	
	Apr	48	
	May	67	
	Jun	70	
	Jul	95	
	Aug	115	
	Sep	135	
	Oct	140	
	Nov	156	
	Dec	150	

A summary of the forecast construction workforce numbers for Years 2022-2027 is provided in Table 4 as an Estimated Average per working day for each respective year.

Table 4: Forecast Construction Workforce Numbers for 2024-2027

Year	Estimated Average per working day
2024	152
2025	135
2026	133
2027 – ending March	21

The Project will aim to contain all construction work vehicles within the HMAS Watson site. To enable this, a carpark has been constructed for exclusive use by the construction workforce.

The Managing Contractor is implementing site specific controls to minimise potential conflicts with, and impacts of construction traffic on the community, neighbours, motorists and Navy operations. These include:

- Carpooling strategies to maximise the number of occupants in a car and hence minimise the number of vehicles requiring parking. Carpooling will take place at the point of origin i.e. where subcontractors share a journey to work in one vehicle. Carpooling will also take place outside of the immediate HMAS Watson site surrounds where subcontractors from different areas will drive to an agreed location

and a dedicated driver will collect multiple persons and park within the HMAS Watson site;

- Parking on site to be prioritised to the permanent workforce and carpooling contractors ahead of part-time resources and visiting staff;
- Empty parking spaces on site to be assessed each morning to ensure capacity is maximised;
- Parking within designated Navy spaces at HMAS Watson when not in use, on Saturdays;
- Encouraging the use of public transport for travel to and from the site to reduce the number of vehicles requiring parking;
- Ensuring traffic management requirements, restrictions, parking rules and start times are included in relevant specifications, contract agreements and quality assurance documents;
- Ensuring traffic controls and mandated routes are regularly communicated through tender interviews, inductions, toolbox talks and subcontractor meetings;
- Establishing Construction Loading and Staging Zones within the HMAS Watson site;
- Installing clear and concise signage on roads being used by construction traffic;
- Scheduling of deliveries and waste collection at times that minimise impact; and
- Monitoring the effectiveness of traffic controls and re-evaluating where necessary.