Traffic Engineer Referral Response

Application Number:	DA2022/0646

Date:	29/09/2022
Responsible Officer	
Land to be developed (Address):	Lot 5 DP 16941 , 124 Queenscliff Road QUEENSCLIFF NSW 2096 Lot 6 DP 16941 , 122 Queenscliff Road QUEENSCLIFF NSW 2096

Officer comments

The development is for demolition of the existing 2 residential flat buildings on the site and construction of a 6 x 3 bedroom unit development with offstreet parking for 12 vehicles and 8 bicycles. The parking area serving the proposed development is to be accessed by a car lift.

Traffic Generation

Using traffic generation rates for medium density residential flat buildings as quoted in the RMS Guide to Traffic Generating Developments the existing 4 unit development on the site generates 2-3 vehicle trips per hour in both the AM and PM peak periods, The proposed 6 unit development will generate 3-4 vehicle trips per hour in peak periods. The increased level of traffic will be negligible and is not anticipated to result in any appreciable impact on the surrounding road network.

Parking

Using rates in the Warringah DCP the 6 x 3 bedroom development is required to provide 9 residential spaces and 1.2 visitor spaces (round up to 2). i.e a total of 11 spaces are required. The developer proposes to provide 12 spaces all for residential use, one of the spaces will be an adaptable space. No visitor parking is proposed.

The quantum of parking is acceptable and the absence of visitor parking, in this case, is supported in view of the proposed car lift which would be difficult to negotiate for visitors unfamiliar with its operation.

While there is no accessible parking requirement outlined in the Warringah DCP. The Building Code of Australia requires that a minimum of 1 disabled parking space be provided for carparks providing up to 50 spaces. The developer proposes 1 adaptable space which is considered sufficient.

Bicycle & Motorcycle Parking

The Warringah DCP requires 1 bicycle space per dwelling and 1 visitor space per 12 dwellings i.e 7 spaces. The developer proposes to provide 8 bicycle parking spaces within the basement carpark.

The Warringah DCP has no specific requirements for motorcycle parking however there is a vacant area adjacent to parking space No.4 which is 5.4m in length and 2.01m in width. This would be adequately sized to accommodate 2 motorcycle parking spaces and should be marked as such to provide greater scope for alternate modes of travel by residents. This will be conditioned

Access

Vehicular access to the development will be via 3.3m wide driveway accessed from Queenscliff Road. This width has been demonstrated to be sufficient to cater for the critical left in and left out turning movements of a B99 vehicle but is insufficient to provide a waiting bay for an inbound vehicle to wait for outbound vehicle in the lift to exit. AS/NZS 2890.1 (offstreet parking) clause 3.5 outlines the minimum storage requirements to cater for queuing at a mechanical parking installation. The applicants traffic consultant has undertaken queueing analysis which demonstrates that the 98th percentile queue will not exceed one vehicle and there is therefore not a requirement for a waiting bay at the property boundary. It is however considered that there should be an illuminated display at the entry points to the car lift which should indicate to an approaching driver at street and basement levels, by way of red light or wording, that a vehicle has entered the lift. Given the volume of traffic on Queenscliff Road and the potential for traffic or pedestrians to be delayed if queuing occurs, priority for access to the lift should be given to inbound vehicles from street level with the lift programmed to return to street level as a default mode, minimising the chances of inbound vehicles being unable to quickly enter the lift. Signage should also be displayed in the lift advising drivers to enter in a forwards direction (to ensure that drivers do not reverse to or from the lift at street level). The above will be conditioned

Sight lines at property boundary

Clause 3.3 of AS/NZS 2890.1 requires that a 2.5m x 2.0m sight line triangle should be available at the point where the driveway access meets the property boundary. The current plans incorporate walls on either side of the access driveway which will prevent sight lines to pedestrians and will also limit sight lines to approaching traffic. Given the high volume of traffic using Queenscliff Road and its regular use by both pedestrians and cyclists it is considered that the walls adjacent to the driveway should be reduced in height to no more than 1m in height throughout the sightline triangle to ensure adequate visibility for an exiting driver. This will be conditioned.

The proposal is therefore supported.

Note: Should you have any concerns with the referral comments above, please discuss these with the Responsible Officer.

Recommended Traffic Engineer Conditions:

DEVELOPMENT CONSENT OPERATIONAL CONDITIONS

Fencing/Vegetation Height
All fencing and/or vegetation along the frontage road(s) shall not impede pedestrian or driver visibility. This requires that fencing/vegetation does not exceed one (1) metre in height within the 2.0 x 2.5m pedestrian sightline splay on either side of the driveway to ensure this condition is met.

Reason: To ensure maximum vehicular and pedestrian visibility.

Parking Enclosure
No parking spaces, or access thereto, shall be constrained or enclosed by any form of structure such as fencing, cages, walls, storage space, or the like, without prior consent from Council.

Reason: To ensure accessibility is maintained.

CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF THE CONSTRUCTION CERTIFICATE

Construction Traffic Management Plan
As a result of the site constraints, limited vehicle access and parking, a Construction Traffic Management Plan (CTMP) and report shall be prepared by a TfNSW accredited person and submitted to and approved by the Northern Beaches Council Traffic Team prior to issue of any Construction Certificate.

Due to heavy traffic congestion throughout the town centre, truck movements will be restricted during the major commuter peak times being 8.00-9.30am and 4.30-6.00pm. Truck movements must be agreed with Council's Traffic Engineer prior to submission of the CTMP.

The CTMP must address following:

- The proposed phases of construction works on the site, and the expected duration of each construction phase
- The proposed order in which works on the site will be undertaken, and the method statements on how various stages of construction will be undertaken
- Make provision for all construction materials to be stored on site, at all times
- The proposed areas within the site to be used for the storage of excavated materials, construction materials and waste containers during the construction period
- The proposed method of access to and egress from the site for construction vehicles, including access routes and truck rates through the Council area and the location and type of temporary vehicular crossing for the purpose of minimising traffic congestion and noise in the area, with no access across public parks or reserves being allowed
- The proposed method of loading and unloading excavation and construction machinery, excavation and building materials, formwork and the erection of any part of the structure within the site. Wherever possible mobile cranes should be located wholly within the site
- Make provision for parking onsite. All Staff and Contractors are to use the basement parking once available
- Temporary truck standing/ queuing locations in a public roadway/ domain in the vicinity of the site are not permitted unless approved by Council prior
- Include a Traffic Control Plan prepared by a person with suitable RMS accreditation for any activities involving the management of vehicle and pedestrian safety
- The proposed manner in which adjoining property owners will be kept advised of the timeframes for completion of each phase of development/construction process. It must also specify that a minimum Fourteen (14) days notification must be provided to adjoining property owners prior to the implementation of any temporary traffic control measure
- Include a site plan showing the location of any site sheds, location of requested Work Zones, anticipated use of cranes and concrete pumps, structures proposed on the footpath areas (hoardings, scaffolding or shoring) and any tree protection zones around Council street trees
- Take into consideration the combined construction activities of other development in the surrounding area. To this end, the consultant preparing the CTMP must engage and consult with developers undertaking major development works within a 250m radius of the subject site to ensure that appropriate measures are in place to prevent the combined impact of construction activities, such as (but not limited to) concrete pours, crane lifts and dump truck routes. These communications must be documented and submitted to Council prior to work commencing on site
- The proposed method/device to remove loose material from all vehicles and/or machinery before entering the road reserve, any run-off from the washing down of vehicles shall be directed to the sediment control system within the site
- Specify that the roadway (including footpath) must be kept in a serviceable condition for the

duration of construction. At the direction of Council, undertake remedial treatments such as patching at no cost to Council
- The proposed method of support to any excavation adjacent to adjoining properties, or the road reserve. The proposed method of support is to be designed and certified by an appropriately qualified and practising Structural Engineer, or equivalent
- Proposed protection for Council and adjoining properties
- The location and operation of any on site crane

The CTMP shall be prepared in accordance with relevant sections of Australian Standard 1742 – "Manual of Uniform Traffic Control Devices", RMS' Manual – "Traffic Control at Work Sites".

All fees and charges associated with the review of this plan is to be in accordance with Council's Schedule of Fees and Charges and are to be paid at the time that the Construction Traffic Management Plan is submitted.

Reason: To ensure public safety and minimise any impacts to the adjoining pedestrian and vehicular traffic systems.

Removal of Redundant Driveways
All redundant driveways shall be removed and reinstated to Council standard kerb and gutter. Suitably prepared plans shall be submitted to for an approval under and approved by Council prior to the issue of the Construction Certificate. All costs associated with the works shall be borne by the applicant.

A plan checking fee (amount to be advised) and lodgement of a performance bond may be required from the applicant prior to the release of the approval.

Reason: To maximise on street car parking by removing driveways that are no longer needed in accordance with Council policy.

Vehicle Access & Parking
All internal driveways, vehicle turning areas, garages and vehicle parking space/ loading bay dimensions must be designed and constructed to comply with the relevant section of AS 2890 (Off-street Parking standards).

With respect to this, the following revision(s) must be undertaken;

- walls/fencing within the 2.5m x 2.0m pedestrian sight line splay area (as per AS/NZS 2890.1 Clause 3.2.4(b)) must be reduced in height to no more than 1m to height
- the vacant space within the basement carpark adjacent to space No.4 to be marked for 2 x motorcycle parking spaces sized in accordance with AS/NZS 2890.1 clause 2.4.7

All internal driveways and vehicle access ramps must have ramp grades and transitions complying with AS 2890.1. To ensure the gradient requirements and height clearances are satisfied, a driveway profile must be prepared for all internal ramps showing ramp lengths, grades, surface RL's and overhead clearances, taken from the crest of the ramp to the base. The driveway profile must be taken along the steepest grade of travel or sections having significant changes in grades, where scraping or height restrictions could potentially occur and is to demonstrate compliance with AS 2890 for the respective type of vehicle.

Plans prepared by a suitably qualified Engineer shall be submitted to the Principal Certifier prior to the issue of a Construction Certificate.

Reason: To ensure compliance with Australian Standards relating to manoeuvring, access and parking of vehicles.

Pedestrian sight distance at property boundary
A pedestrian sight triangle of 2.0 metres by 2.5m metres, in accordance with AS2890.1:2004 is to be provided at the vehicular access to the property and where internal circulation roadways intersect with footpaths or other pedestrian access areas. Details demonstrating compliance are to be submitted to the Principal Certifier prior to the issue of the Construction Certificate.

Reason: To maintain pedestrian safety.

CONDITIONS THAT MUST BE ADDRESSED PRIOR TO ANY COMMENCEMENT

Work Zones and Permits
Prior to commencement of the associated works, the applicant shall obtain a Work Zone Permit where it is proposed to reserve an area of road pavement for the parking of vehicles associated with a construction site.

A separate application is required with a Traffic Management Plan for standing of construction vehicles in a trafficable lane

Reason: To ensure Work zones are monitored and installed correctly.

Road Occupancy Licence
Prior to commencement of the associated works, the applicant shall obtain a Road Occupancy License from the Transport Management Centre (TMC) for any works that may impact on traffic flows on Queenscliff Road.

Reason: Requirement of TMC for any works that impact on traffic flow.

Demolition Traffic Management Plan
As a result of the site constraints, limited vehicle access and parking, a Demolition Traffic Management Plan (DTMP) shall be prepared by an suitably accredited person and submitted to and approved by the Northern Beaches Council Traffic Team prior to commencing any demolition work.

Due to heavy traffic congestion throughout the area, truck movements will be restricted during the major commuter peak times being 8.00-9.30am and 4.30-6.00pm.

The DTMP must:-

- Make provision for all construction materials to be stored on site, at all times.
- The DTMP is to be adhered to at all times during the project.
- Specify construction truck routes and truck rates. Nominated truck routes are to be distributed over the surrounding road network where possible.
- Provide for the movement of trucks to and from the site, and deliveries to the site. Temporary truck standing/ queuing locations in a public roadway/ domain in the vicinity of the site is not permitted unless prior approval is granted by Council's Traffic Engineers.
- Specify that, due to the proximity of the site adjacent to #### School, no heavy vehicle movements or construction activities effecting vehicle and pedestrian traffic are permitted in school zone hours (8:00am-9:30am and 2:30pm-4:00pm weekdays).
- Include a Traffic Control Plan prepared by an TfNSW accredited traffic controller for any activities involving the management of vehicle and pedestrian traffic.
- Specify that a minimum fourteen (14) days notification must be provided to adjoining property

owners prior to the implementation of any temporary traffic control measures.

- Include a site plan showing the location of any site sheds, location of requested Work Zones, anticipated use of cranes, structures proposed on the footpath areas (hoardings, scaffolding or temporary shoring) and extent of tree protection zones around Council street trees.
- Take into consideration the combined construction activities of other development in the surrounding area. To this end, the consultant preparing the DTMP must engage and consult with developers undertaking major development works within a 250m radius of the subject site to ensure that appropriate measures are in place to prevent the combined impact of construction activities. These communications must be documented and submitted to Council prior to work commencing on site.
- Specify spoil management process and facilities to be used on site.
- Specify that the roadway (including footpath) must be kept in a serviceable condition for the duration of demolition. At the direction of Council, the applicant is to undertake remedial treatments such as patching at no cost to Council.

The DTMP shall be prepared in accordance with relevant sections of Australian Standard 1742 – "Manual of Uniform Traffic Control Devices", RMS' Manual – "Traffic Control at Work Sites".

All fees and charges associated with the review of this plan is to be in accordance with Council's Schedule of Fees and Charges and are to be paid at the time that the Demolition Traffic Management Plan is submitted.

Reason: This condition is to ensure public safety and minimise any impacts to the adjoining pedestrian and vehicular traffic systems. The DTMP is intended to minimise impact of construction activities on the surrounding community, in terms of vehicle traffic (including traffic flow and parking) and pedestrian amenity adjacent to the site.

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

Implementation of Demolition Traffic Management Plan
All works and demolition activities are to be undertaken in accordance with the approved Demolition Traffic Management Plan (DTMP). All controls in the DTMP must be maintained at all times and all traffic management control must be undertaken by personnel having appropriate TfNSW accreditation. Should the implementation or effectiveness of the DTMP be impacted by surrounding major development not encompassed in the approved DTMP, the DTMP measures and controls are to be revised accordingly and submitted to Council for approval. A copy of the approved DTMP is to be kept onsite at all times and made available to the accredited certifier or Council on request.

Reason: To ensure compliance and Council's ability to modify the approved Construction Traffic Management Plan where it is deemed unsuitable during the course of the project.

Implementation of Construction Traffic Management Plan
All works and construction activities are to be undertaken in accordance with the approved Construction Traffic Management Plan (CTMP). All controls in the CTMP must be maintained at all times and all traffic management control must be undertaken by personnel having appropriate TfNSW accreditation. Should the implementation or effectiveness of the CTMP be impacted by surrounding major development not encompassed in the approved CTMP, the CTMP measures and controls are to be revised accordingly and submitted to Council for approval. A copy of the approved CTMP is to be kept onsite at all times and made available to Council on request.

Reason: To ensure compliance of the developer/builder in adhering to the Construction Traffic Management procedures agreed and are held liable to the conditions of consent.

Ongoing Management
The applicant shall be responsible in ensuring that the road reserve remains in a serviceable state during the course of the demolition and building works.

Reason: To ensure public safety.

CONDITIONS WHICH MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF THE OCCUPATION CERTIFICATE

Car Lift Traffic Signal System
To prevent conflicting vehicle movements into and out of the car lift and prevent vehicles having to reverse into Queenscliff Road a traffic signal system must be installed at each ramp entry, designed to warn drivers that the lift is in operation.

The signal system must;

- be clearly visible from lift access points,
- is to clearly indicate to an approaching driver, by way of red light or wording, that a vehicle has entered the lift,
- Incorporate linemarking to nominate a waiting bay location within the basement to allow a vehicle exiting the lift to pass the waiting vehicle.

In addition;

- the lift must return to street level as a default mode of operation once a vehicle has exit it at basement level (to minimise waiting time for traffic entering from the road)
- signage must be installed at lift entry points and within the lift to advise drivers to enter in a forwards direction(to prevent vehicles trying to reverse into or out of the lift at street level)

Details of the system, including the system operation, components and placement within the development, must be specified by a practising Traffic Engineer. This engineer is to submit a compliance certificate to the Principal Principal Certifier that the system has been installed and operating as designed, in accordance with the requirements of this condition, prior to the issue of an Occupation Certificate issued for the development.

Reason: To reduce potential for vehicle conflicts entering or exiting the basement carpark.

Allocation of parking spaces (strata title)
All carparking spaces are to be assigned to individual units. All residential units must be assigned 2 parking spaces. Details demonstrating compliance are to be submitted to the Principal Certifier prior to the issue of any Occupation Certificate.

Reason: To ensure parking availability for all residents.

ON-GOING CONDITIONS THAT MUST BE COMPLIED WITH AT ALL TIMES

Landscaping adjoining vehicular access
The applicant must ensure that the planting chosen for any land immediately adjacent to the driveway and adjacent to any driveway intersections must not exceed a height of 1m

Reason: To maintain unobstructed sight distance for motorists.