

Traffic Engineer Referral Response

Application Number:	DA2023/0374
Proposed Development:	Construction of a studio and car parking structure
Date:	02/08/2023
Responsible Officer	
Land to be developed (Address):	Lot 4B DP 361236 , 18 The Serpentine BILGOLA BEACH NSW 2107 Lot 4A DP 361236 , 20 The Serpentine BILGOLA BEACH NSW 2107 Lot 5 DP 13497 , 20 The Serpentine BILGOLA BEACH NSW 2107

Officer comments

SUPPORTED SUBJECT TO CONDITIONS

Referral comments 2/8/23

A swept path analysis using a B99 vehicle is required for driveway access and the Applicant has provided the additional swept paths as requested. The analysis shows that the width of the access driveway needs to be widened to 4m to enable a B99 vehicle to enter and exit the property in a forward direction. The access and parking design is considered acceptable with the widened driveway.

Traffic sight distances has been raised as an issue due to obstruction from trees located within the road reserve. The minimum Stopping Sight Distances at access driveway exits is to be assessed in accordance with AS/NZS 2890.1:2004 Parking facilities - Off-street car parking. The original Arboriculture Impact Assessment (AIA) did not appear to fully consider the impacts of the existing trees and their effects on sight distance, and it was requested that a further review of all existing trees in the affected area be undertaken. The Addendum to the AIA (Revision 3 - 29 July 2023), recommends the removal (cut to ground level) of Tree 8, Tree 10, Tree 11 and Tree 16, along with pruning of Tree 12, Tree 15, Tree 17 and Tree 18. The recommended measures are considered acceptable for improving sightlines.

The proposal can be supported subject to the recommended Conditions.

Referral comments 26/5/23

This application is regarding construction of a parking structure, carport and an under-croft studio/office space.

Access and Parking Design

The development proposes a combined entry/exit driveway with a width of 3.8m. The car parking spaces are provided in the form of a double vehicle carport, having an opening width of 5.7m, an internal width of 5.7m and internal length of 5.7m. The use of a mechanical turntable is acceptable noting the site constraints.

The traffic and parking statement prepared by PDC Consultants, included a swept path analysis for the proposed driveway access using a B85 Design Vehicle, however swept paths for a B99 vehicle should

be used in the design of access driveways. The results using the B85 vehicle analysis show the wheel paths on the edge of the double dividing line and driveway for the left turn manoeuvre off The Serpentine to access the property. A swept path analysis using a B99 vehicle is required for driveway access, and it is likely that the layback would need to be widened to accommodate the movements for a B99 vehicle.

Sight Distance

Concerns regarding traffic safety were originally raised at the Pre-Lodgement meeting due to the proximity of the driveway to the road bend. A sightline analysis was requested and included as part of the traffic and parking statement. Drawing No.S 001 - Car Platform Driveway Sight Distance Analysis, shows the line of sight to achieve the minimum 35m Stopping Sight Distance, east of the driver's position. However, to achieve the unobstructed sightlines, Tree 8 and 9 will need to be removed as well as canopy pruning for Tree 11.

The recommendation of the Arboriculture Impact Assessment (AIA) only appears to consider the impacts the location of the driveway and structures have on the existing trees and not any consideration of their effects on sight distance. The AIA recommends tree protection fencing a minimum 1.5m from the stem of Tree 8. It also advises that no canopy pruning is necessary for Trees 9 and 11, with only 10% pruning of the total live canopy and a maximum of 80mm branch diameter at the branch/stem junction.

The Transport Network continues to have concerns regarding visibility exiting the driveway and restricted sight distance due to the existing trees and vegetation. It is noted that the Landscape referral response accepts the recommendations of the AIA, and therefore provision of a traffic calming device to reduce approach speeds, located mid-way between the curve and proposed access driveway, could be considered as an acceptable alternative to the additional tree removal and pruning.

The proposal is not acceptable in its current form due to access and sightline issues. The additional swept path analysis for access to the driveway using a B99 vehicle is required as well as consideration to provide a traffic calming device on the northern approach to the driveway in lieu of further tree removal and pruning to achieve the minimum Stopping Sight Distance requirements.

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

Traffic Management

Traffic management procedures and systems must be in place and practised during the course of the project to ensure safety and minimise the effect on adjoining pedestrian and vehicular traffic systems. These procedures and systems must be in accordance with AS 1742.3 2009 Manual of Uniform Traffic Control Devices and Council's Development Control Plans.

Note: A plan of traffic management is to be submitted to and approved by the Principal Certifier.

Reason: To ensure pedestrian safety and continued efficient network operation.

Staff and Contractor Parking

The applicant is to make provision for parking for all construction staff and contractors for the duration of the project. All Staff and Contractors are to use the on-site parking once available.

Reason: To ensure minimum impact of construction activity on local parking amenity.

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.

Truck movements must be agreed with Council's Traffic and Development 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 routes 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
- A Work Zone will not be permitted in The Serpentine.
- 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 on-site 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
- 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.

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).

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.

Vehicle Mechanical Turntable

The applicant is to provide information on the proposed vehicular turntable, operation details, and instructions to visitors on using the device, maintenance plan, and contingency plan during a malfunction.

Details are to be provided to Council for approval and this requirement is to be reflected on the Construction Certificate plans. Details demonstrating compliance are to be reflected on the Construction Certificate plans and any supporting documentation for the endorsement of the Principal Certifier prior to the release of the Construction Certificate.

Reason: To ensure no vehicle conflicts within the basement carpark.

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

Permits

An application is required with a Traffic Management Plan for standing of construction vehicles in The Serpentine.

Reason: To ensure work areas are monitored

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK

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.

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 1,140mm

Reason: To maintain unobstructed sight distance for motorists.