Traffic Engineer Referral Response

Application Number:	DA2020/1162

Date:	03/03/2021
Responsible Officer	
Land to be developed (Address):	Lot 33 DP 11462 , 27 Bellevue Avenue AVALON BEACH NSW 2107

Officer comments

Referral comments 2/3/20

Concerns were previously raised regarding waste collection and access for vehicles, road and pedestrian infrastructure, and the proposed mechanical car stacker system. Some of these issues have been addressed on the updated plans or can be conditioned as part of the Conditions of Consent.

Road and Pedestrian Infrastructure

- A 1.5m footpath is required for the full frontage along Wickham Lane. Kerb ramps are required on both sides of Wickham Lane at the intersection with Sanders Lane for pedestrian access across the laneway.

- A 1.5m footpath is required along the frontage of Bellevue Avenue. The footpath should extend 10m north of the Sanders Lane property boundary, with the provision of new kerb ramps on both sides of Bellevue Avenue for pedestrians to cross the road. Additional works would be required on the western side of Bellevue Avenue including retaining structures and footpath widening to enable the incorporation of the new kerb ramp on this side of the road. A new kerb ramp is also required at the corner of Bellevue Avenue and Sanders Lane for pedestrian access across the laneway.

- The footpath connection to the bus stop located along Old Barrenjoey Road, is not fully accessible. Upgrades to the footpath is required to comply with the SEPP accessibility and gradient requirements. The access route to the transport facilities should be along the northern side of Sanders Lane and not the southern side as indicated in the survey. This connection provides safer access for pedestrians exiting the development by crossing Wickham Lane (less traffic flow and vehicle turning movements) instead of Sanders Lane. This will also prevent any works on the southern side of Sanders Lane where there is high pedestrian use of the footpath and minimises impacts to the School frontage during the construction period.

Design road widths:

Sanders Lane - Minimum 5.1m wide

Bellevue Avenue - 7.5m wide between kerbs

Wickham Lane

- 4m wide (north of driveway to lower level car park)

- 4.5m wide (from Sanders Lane to 10m north of intersection), to enable right turn from Wickham Lane into Sanders Lane for waste vehicles

Waste collection

The storage area for garbage bins has been relocated to the lower parking level. An accessible path separated from the driveway is to be provided from the storage area to the bin collection point in the laneway. Council's Transport Network team are currently investigating a proposal to convert Wickham Lane to 'One Way' for all vehicular traffic only in the southbound direction. The nature strip on the eastern side of Wickham Lane, between the kerb and property boundary of No.15 Old Barrenjoey Road, is to be infilled with concrete to provide a hardstand area, to enable collection by side loading waste vehicles. Realignment of the eastern kerb on Wickhma Lane is required to facilitate waste vehicles turning right into Sanders Lane.

Mechanical car stacker system

The car stacker system which requires the upper car to be removed for lower car access is not ideal, however is similar to arrangements for tandem parking so is therefore considered acceptable.

Construction Traffic Management Plan

The management of construction traffic is to be addressed in the approval of the Construction Traffic Management Plan, which would provide specific details regarding construction vehicle access to and from the site. However, construction activities affecting vehicle and pedestrian traffic will be restricted between 9.00-10.00am and 2.45-4.00pm on School Days.

The revised proposal is acceptable, subject to conditions as recommended.

Referral comments 7/12/20

The proposal is not acceptable in its current form due to traffic, pedestrian and parking issues. The

traffic generation is insignificant with minor impact to the existing road network. The Applicant needs to address and consider the following information prior to resubmitting the proposal.

Wickham Lane One Way

Council's Transport Network team are currently investigating a proposal to convert Wickham Lane to 'One Way' for all vehicular traffic only in the southbound direction. Bicycles will continue to be able to travel in both directions. Additional information with swept paths are required to demonstrate that larger vehicles including waste vehicles (minimum 10.5m in length) can safely turn right from Wickham Lane into Sanders Lane without mounting the proposed kerb and affecting pedestrian access and safety at the south-eastern corner of the site. The truck movements must not impact existing parking located on the southern side of Sanders Lane.

Waste collection

Both Waste Services and Assets have already raised issues with the proposed bin collection from Sanders Lane. This is not supported due to the impact on pedestrian accessibility and safety of pedestrians along the footpath outside Avalon Public School. The Accessibility Report also indicates that the accessway from Apartments 2 and 3 to Sanders Lane is approximately 1:8 and suitable for vehicle access only. The gradient is not accessible for pedestrians or the transfer of bins from the storage area to the kerb for collection.

Road and Pedestrian Infrastructure

Kerb and gutter is to be provided along Wickham Lane, Sanders Lane and Bellevue Avenue.

Design road widths:

Wickham Lane - 4m wide between kerbs

Sanders Lane - 5.5m wide, however minimum 5.1m permitted due to impact on existing trees

Bellevue Avenue - 7.5m wide between kerbs

The proposal includes upgrades to pedestrian access and footpath connections at the south-eastern corner of the site, however no measures are proposed to improve pedestrian facilities at other

locations. Council's DCP also requires that footpaths be provided along the full frontage of the site, however it is understood that this may not be feasible due to existing site impacts. As a minimum, the Applicant is required to provide new kerb ramps and footpaths at the western end of the site to enable pedestrians to cross and link to the existing footpath, with a new crossing point to be located 10m north of Dress Circle Road. Additional works within Council's Public Road Reserve including any retaining structures may be required on the western side of Bellevue Avenue to enable modifications to the existing footpath and incorporation of the new kerb ramp. The provision of a 1.5m wide footpath is required to connect the two new kerb ramps located on the eastern side of Bellevue Avenue.

Mechanical car stacker system

The proposal includes a mechanical car stacker system to provide for parking to Apartments 2 and 3 which is accessed off Sanders Lane. The Traffic & Parking report indicates that the lower platform head height is 1.6m and the upper level platform head height is 1.9m, which deviates from the Clause 5.3.1 of AS2890.1, where a minimum of 2200mm between the floor and overhead obstruction is required. The report states that this is acceptable for a smaller vehicle to park on the lower platform and a larger vehicle for the upper platform. However, the reduced height of 1.6m does not take into consideration the comfort of seniors with existing health issues or who may be taller than 1.6m, resulting in difficulties exiting between the vehicle and the car stacker system. Appendix B of the Standard, Section B6 Headroom, states that the clear height between floors must also cater for persons walking with reasonable comfort and safety, and the 99th percentile height of the Australian male is 1.88m. It is therefore recommended that for Seniors living that an appropriate minimum head height for the mechanical car stacker system should be 1.9m. This minimum requirement will affect the overall pit depth, and may also require adjustments to the levels to access the stacker system.

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 Consent Authority.

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 basement parking once available. All necessary facilities are to be provided to accommodate this requirement including lighting in the basement, security cameras, etc.

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

Stacked Parking Spaces (Residential)
Stacked parking spaces are to be assigned as the same residential unit which blocks in the parking spaces.

Reason: To minimize conflicts regarding parking areas.

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 an RMS accredited person and submitted to and approved by the Northern Beaches Council Traffic Team prior to issue of any Construction Certificate.

Due to the proximity of the site adjacent to Avalon Public School, truck movements or construction activities affecting vehicle and pedestrian traffic will be restricted between 9:00am-10:00am and 2:45pm-4:00pm School Days. 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 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 traffic
- 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.

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;

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 Certifying Authority prior to the issue of a Construction Certificate.

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

of vehicles.

Submission of Engineering Plans (standard from development engineers).
The submission is to include four (4) copies of Civil Engineering plans for the design of:

- A 1.5m footpath is required for the full frontage along Wickham Lane. Kerb ramps are required on both sides of Wickham Lane at the intersection with Sanders Lane for pedestrian access across the laneway.

- A 1.5m footpath is required along the frontage of Bellevue Avenue. The footpath should extend 10m north of the Sanders Lane property boundary, with the provision of new kerb ramps on both sides of Bellevue Avenue for pedestrians to cross the road. Additional works would be required on the western side of Bellevue Avenue including retaining structures and footpath widening to enable the incorporation of the new kerb ramp on this side of the road. A new kerb ramp is also required at the corner of Bellevue Avenue and Sanders Lane for pedestrian access across the laneway.

- Upgrades to the footpath connection to the bus stop located along Old Barrenjoey Road is required to comply with the SEPP accessibility and gradient requirements. The access route to the transport facilities should be along the northern side of Sanders Lane.

Design road widths:

Sanders Lane - Minimum 5.1m wide

Bellevue Avenue - 7.5m wide between kerbs

Wickham Lane

- 4m wide (north of driveway to lower level car park)

- 4.5m wide (from Sanders Lane to 10m north of intersection), to enable right turn from Wickham Lane into Sanders Lane for waste vehicles

These are to be generally in accordance with the civil design approved with the Development Application and Council's specification for engineering works - AUS-SPEC #1 and or Council's Minor Works Policy. Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Section 138 and/or 139 applications are to be submitted to Council for Local Traffic Committee approval.

Reason: To ensure compliance with Council's specification for engineering works.

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 Certifying Authority 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 and a Roads and Maritime Services Work Zone Permit shall be obtained for State Roads.

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

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 the proximity of the site adjacent to Avalon Public School, truck movements or construction activities affecting vehicle and pedestrian traffic will be restricted between 9:00am-10:00am and 2:45pm-4:00pm School Days

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.
- Include a Traffic Control Plan prepared by an RMS 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 RMS 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.

Due to the proximity of the site adjacent to Avalon Public School, truck movements or construction activities affecting vehicle and pedestrian traffic will be restricted between 9:00am-10:00am and 2:45pm-4:00pm School Days.

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 RMS 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

Allocation of parking spaces (strata title)

All carparking spaces are to be assigned to individual units. All residential units must be assigned a minimum of one parking space. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any Occupation Certificate.

Reason: To ensure parking availability for residents in accordance with section C3 of Warringah Council's Development Control Plan.

Stacked Parking Spaces (residential)
Stacked parking spaces are to be assigned as the same residential unit which blocks in the parking spaces. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any Occupation Certificate.

Reason: To minimize conflicts regarding parking areas.

Mechanical Servicing
The applicant is to include a Section 88E instrument on the title permitting Council to provide direction as to the repair/maintenance of any mechanical devices. In the instance where the building manager does not comply with the direction of Council, or fails to address repair/maintenance requirements in a timely manner, Council reserves the right to undertake the repairs and all fees associated will be borne by the building manager.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any Occupation Certificate.

Reason: To ensure the mechanical services are maintained in a serviceable state at all times.

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.

Sight lines within carparks
The required sight lines to pedestrians and other vehicles in and around the carpark and entrance(s) are not to be obstructed by landscaping or signage.

Reason: To maintain unobstructed sight distance for motorists.