

29 January 2020

General Manager
Northern Beaches Council
PO Box 82
Manly NSW 1655

Attention: Matthew Edmonds, development assessment manager

Dear Sir/Madam,

200 Forest Way, Belrose NSW 2085 – DA2019/0581

1. I refer to a request from Corona Projects for a traffic engineering assessment of the proposed cafe and construction of car parking spaces at the above address, in reference to Council's Request for Withdrawal for the above Development Application. My assessment is outlined below.
2. The total site area is approximately 12,800 m². The garden nursery occupies only the eastern half of the site and has a Gross Floor Area (GFA) of approximately 5,800 m². The remaining areas include open bulk storage with loading/unloading and truck manoeuvring areas, car parking areas and undeveloped land. Please refer to **Figure 1**.

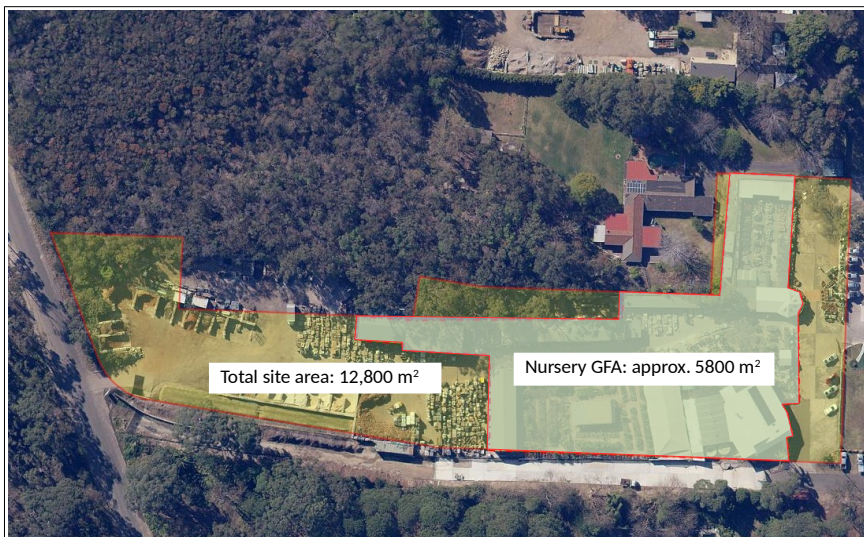


Figure 1. Site areas.

3. Car parking requirements for the existing development, set out in the RMS (2002) Guide to Traffic Generating Developments, are reproduced in the table below.

Land Use	Parking Requirements
	Industry
Plant nurseries	Whichever is <u>greater of</u> : 15 spaces; or, 0.5 spaces per 100m ² of site area.

4. If calculated as per the RMS (2002) rates, the car parking requirements for the nursery are as follows.
 - o 15 spaces, or
 - o GFA: $0.5 \times (5,800/100) = 29 \text{ spaces}$

a) The parking requirement based on GFA is greater and should thus be used (29 spaces).

5. The proposed cafe has a Gross Floor Area (GFA) of approximately 248 m² and has a maximum capacity of 50 customers.
6. Car parking requirements for the proposed development, set out in the RMS (2002) Guide to Traffic Generating Developments, are reproduced in the table below.

Land Use	Parking Requirements
	Refreshments
Restaurants	<u>whichever is greater of:</u> 15 spaces per 100m ² GFA, or 1 space per 3 seats

7. If calculated as per the RMS (2002) rates, the car parking requirements for the cafe are as follows.
 - o Based on GFA: $15 \times (248/100) = 37.2$, say **37 spaces**, or
 - o Based on seats: $50/3 = 16.7$, say 17 spaces
 - a) The GFA parking requirement is greater and should thus be used (37 spaces).
8. The above calculated parking provision includes both staff and customer parking. There will be 7 staff at the cafe during the busiest periods. Assuming 80% of staff driving (a typical travel mode split), $7 \times 0.8 = 5.6$, say **6 cars** will belong to **staff**. The maximum **customer parking** demand would thus be $37 - 6 = 31$ cars.
9. The cafe will be built within the existing plant nursery. It is primarily intended for the use by existing nursery customers and is unlikely to attract external customers on its own.
10. Even if the worst case scenario was taken into account, the cafe would only attract a maximum of 50% of the customers by itself. Based on this assumption, the likely actual car parking requirement for the cafe customers is as follows.
 - a) $31 \times 0.5 = 15.5$, say **16 spaces**
 - it is noted that even this requirement is considered to be excessive because it is highly unlikely that the cafe would operate at 100% capacity (all 50 seats taken).
 - also, the maximum parking demand is likely to occur at lunchtime only.
11. The car parking requirements for both the plant nursery and the cafe is therefore as follows.
 - a) 29 (nursery) + 6 (cafe staff) + 16 (external cafe customers) = **51 spaces**
12. The current car parking areas on site include 30 spaces (some of them not formalised). It is proposed to rearrange, formalise the existing car parking areas and to create additional car parking areas. The total proposed car parking provision is as follows
 - Existing rearranged parking – 30 spaces (refer to TEF drawing 19083/01)
 - Additional angle (30°) parking within the newly acquired strip land (Lot 1 DP 1205253) – 17 spaces (refer to TEF drawing 19083/01)
 - Additional staff only parking at the rear of the site – 14 spaces (refer to TEF drawings 19083/04 and 19083/05)
 - a) Total: $30 + 17 + 14 = 61$ spaces
13. The proposed car parking provision complies with and exceeds the car parking requirement by 10 spaces.
14. Specific traffic and parking related issues listed in the Request for Withdrawal are addressed below.

a) Issue

Dual Site Access

It is noted that the site can be accessed via an existing driveway off Lot 2 DP 1008986 (the plans do not reflect this). The site is also accessible through Lot 1 DP 1205253, leading into the new proposed car parking area. Further, there is potential for the site to be accessed via Linden Avenue should the remainder of Lot 1 DP 1205253 be concreted.

The multiple access points may create confusion for people visiting the site. It is requested all access arrangements be clarified in light of the additional parking proposed and demonstrate how traffic conflicts can be avoided and managed.

b) Response:

- The proposed access and parking arrangements are as follows.
 - Customers will enter from/exit to Forest Way through the existing driveways located on Lot 2 DP 1008986.

- Customers will enter via the southern driveway and exit via the northern driveway located on Lot 2 DP 1008986. Entry/exit signs and guidance signs are proposed to be provided as will be placed on the respective driveways to guide customers (refer to TEF drawing 19083/01).
- The driveway on Lot 1 DP 1205253 will be closed. Vehicles will not be able to enter from/exit to Forest Way through this driveway. Lot 1 DP 1205253 will only be used for the new car parking spaces and will be accessed from Lot 2 DP 1008986.
- Staff members will enter from/exit to Linden Avenue through the existing driveway located on Lot 2 DP 1008986.
- Delivery trucks will enter from/exit to Linden Avenue through the existing driveway located on Lot 2 DP 1008986, as they do at present.
 - Heavy Rigid Vehicles (HRVs), Medium Rigid Vehicles (MRVs), Small Rigid Vehicles (SRVs) and small delivery vans can access the site from Linden Avenue. There is sufficient room on the site for the largest vehicles to make a three-point turn in order to exit in a forward direction (refer to TEF drawing 19083/03).
- Delivery trucks accessing the site from Linden Avenue will have no interference with other vehicles accessing the site from Forest Way. With the proposed arrangement, customer cars will remain on the eastern side of the site while delivery trucks and staff cars will remain on the western side.

c) Issue

Roads and Maritime Services

The proposal was referred to the Roads and Maritime Services (RMS) for comment in accordance with Clause 101 of the SEPP (Infrastructure). The RMS requires the following information:

1. Plans are to be amended to demonstrate vehicular access of the proposed development. Driveway widths are to be in accordance with AS 2890.1:2004 (Parking Facilities, Part 1: Off-street car parking), the driveway shall be a minimum of 5.5 metres in width for a minimum distance of 6 metres from the property boundary.

d) Response

- TEF drawing 19083/01 shows proposed driveway designs off Forest Way on Lot 2 DP 1008986. Both driveways are compliant with AS/NZS 2890.1:2004.
- The driveway on Linden Avenue has a width of 6.5 metres. It is compliant with AS/NZS 2890.1:2004 and AS 2890.2-2002. Due to low traffic using this driveway, provision for simultaneous entry and exit is not necessary.

e) Issue

2. The swept path of the longest vehicle (including garbage trucks, building maintenance vehicles and removalists) entering and existing the subject site, as well as manoeuvrability through the site, shall be in accordance with AUSTROADS. The swept paths are to show that vehicles can enter and exit simultaneously. Additionally, swept path plans are to be provided to demonstrate a vehicle can enter and exist in a forward direct when all car parking spaces are occupied. Plans are to be submitted to the RMS, showing these requirements.

f) Response

- Refer to TEF drawings 19083/01 to 19083/05 for vehicle manoeuvring diagrams.

g) Issue

Development Engineering

The following information is required for Council's engineering team to support the application:

1. Traffic report needs to be submitted certifying the design of the car parking area and turning paths are in accordance with AS 2890. A clear demonstration of satisfactory manoeuvring on-site and forward entry and exist to and from the public road for all spaces.

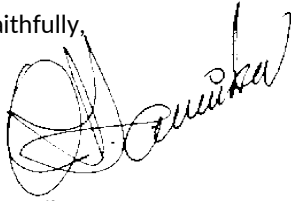
h) Response

- The car park design is compliant with AS/NZS 2890.1:2004. Vehicle swept paths are produced as per the requirements of AS/NZS 2890.1:2004 and AS 2890.2-2002.

15. The proposed development is supportable on traffic and parking grounds.

Please do not hesitate to contact the undersigned should you require further information.

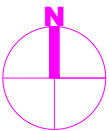
Yours faithfully,



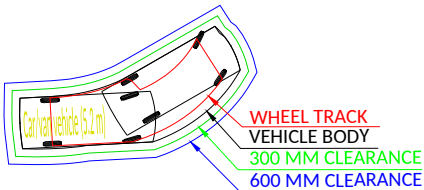
Oleg I. Sannikov
Director
MEngSc (Traffic Engineering)
MIEAust PEng
FAITPM

Attachments:

Five (5) sheets of diagrams prepared by TEF Consulting.



LEGEND:



Dwg No 19083/02 | Rev. A | 20/12/2019
Client:
Robert Marci

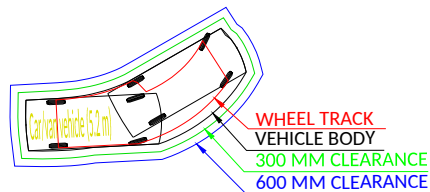
200 Forest Way, Belrose NSW 2085

SCALE 1:500@A3

Proposed car park layout
Design checks as per AS/NZS 2890 series



LEGEND:



Dwg No 19083/03 | Rev. A | 20/12/2019
Client:
Robert Marci

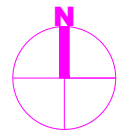
200 Forest Way, Belrose NSW 2085

SCALE 1:299.9999@A3

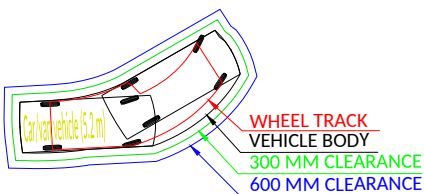
Proposed car park layout
Design checks as per AS/NZS 2890 series
HRV path analyses

Option 1

CE



LEGEND:

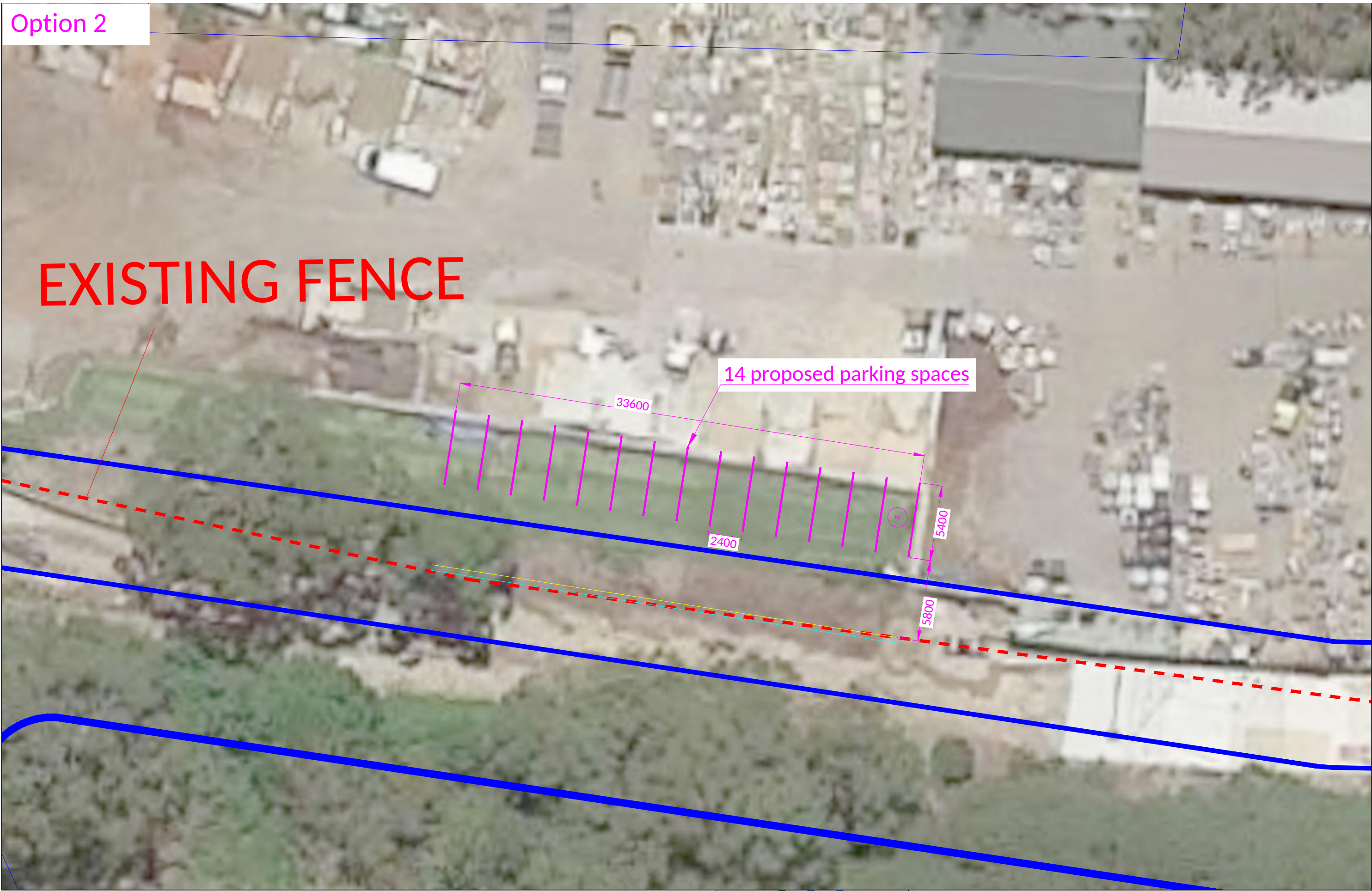


Dwg No 19083/04 Rev. A 20/12/2019
Client:
Robert Marci

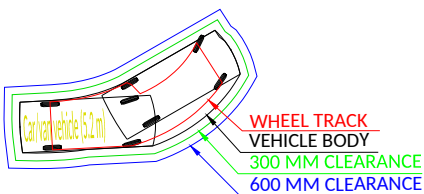
200 Forest Way, Belrose NSW 2085

SCALE 1:250.0002@A3

Proposed car park layout
Design checks as per AS/NZS 2890 series
Proposed additional staff parking location
Option 1



LEGEND:



Dwg No 19083/04 Rev. A 20/12/2019
Client:
Robert Marci

200 Forest Way, Belrose NSW 2085
SCALE #####@A3
Proposed car park layout
Design checks as per AS/NZS 2890 series
Proposed additional staff parking location
Option 2