

16 December 2021

P2202 PP 53-57 Spitfire Place Rutherford

Sikh Sangat Charitable Association Newcastle  
C/- Perception Planning  
Maitland Road  
MAYFIELD NSW

**Attn: Katrina Walker**

Dear Katrina,

**Proposed Place of Worship, 53-57 Spitfire Place, Rutherford, NSW**

Further to our recent correspondence, we have completed our traffic and parking assessment for the proposed Place of Public Worship at 53-57 Spitfire Place at Rutherford. This assessment has been completed with reference to the RMS Guide to Traffic Generating Developments, as well as the Maitland DCP 2011 and AS2890 where applicable.

It is understood the project will provide a new temple for the local Sikh community.

A review of the temple program (Attachment B) confirms that the peak services occur of an evening between 5pm and 9pm when there are evening programs and langar. In Sikhism a langar is the community kitchen where meals are served by the Sikh community volunteers with people sitting and eating together. During the week the evening sessions may have 20-30 in attendance whilst morning programs and langar occur between 6am-8am with 10-20 in attendance. Weekends see higher attendance with the morning programs and langar throughout the morning (6am-11am) with 20-30 in attendance at any one time and in the evening (5pm-9pm) the highest attendance of 40-50 people. There are also early morning sessions (4-6am) however attendance to these are the staff and committee members and so only 5-10 on site.

From this it can be seen that the evening and weekend sessions will occur at times when the surrounding business park is quiet with the majority of businesses closed. Morning mid-week services will occur at times when surrounding business may also be starting however the attendance of 10-20 people will not have a significant impact on the surrounding road network being no greater than the peak demands that would have originally been intended for the site if it were an industrial use. It can also be seen that these users will typically be leaving the site when the other users within this business park will be entering the site.

Throughout the year there are also a number of Sikh festivals (eg New Year, Vaisakhi (Birthday of Sikh religion) etc) when there are additional sessions and larger attendance with up to 120 people on site. These typically are held of a weekend.

**Background**

The subject site is located at 53-57 Spitfire Place Rutherford as shown in Figure 1. The site is currently vacant being part of a new extension of the existing business park.



Figure 1 – Subject site in the context of the local road network

**Access and local road network**

The site has frontage to Spitfire Drive with no existing formal access.

**Anambah Road** is a collector road connecting Anambah urban release area in the north with Rutherford and the New England Highway to the south. The **New England Highway** in this location provides a local connection between Thornton to the east and Branxton to the west. Prior to the 2014 opening of the Hunter Expressway this road carried significant traffic demands including a high volume of heavy vehicles. Now the New England Highway carries primarily local traffic transiting through the Maitland LGA and connecting to the surrounding suburbs. Anambah Road is a two-lane, two-way road with additional turn lanes provided at key intersections to maintain capacity and ensure road safety is managed, including at Mustang Drive. Anambah Road connects with the New England Highway at a 4-leg dual lane circulating roundabout with splitter islands to separate entry and exit movements and provide for pedestrians.

Mustang Drive is the main industrial collector road through the Anambah Business Park with a width in the order of 12.5m and parking permitted on each side. It connects with Anambah Road at its eastern end at a simple T-intersection with Anambah Road having priority. There is an auxiliary left turn lane into Mustang Drive and road widening allowing a BAR which remains two lanes southbound to provide for right turning traffic into and out of

Mustang Drive. To the west Mustang Drive connects with the New England Highway via Mirage Road at a dual lane roundabout.

Spitfire Drive is an industrial road within the estate which has been extended to include the subject site. Spitfire Road has a width of 12.5 metres with parking permitted on both sides. Observations on site indicate that at its southern end there are some demands for on-street parking associated with existing businesses. A review of Nearmap aerial imagery confirms these are typically during the week with weekend demands significantly less.

Spitfire Drive connects with Mustang Drive at a simple t-intersection with Mustang Drive having priority.

### Traffic

As part of the project work Seca Solution completed traffic surveys on Tuesday 26<sup>th</sup> October 2021 at the intersection of Anambah Road and Mustang Drive. The time (8am-9am) was selected to reflect peak demands associated with the exit movements for the place of worship.

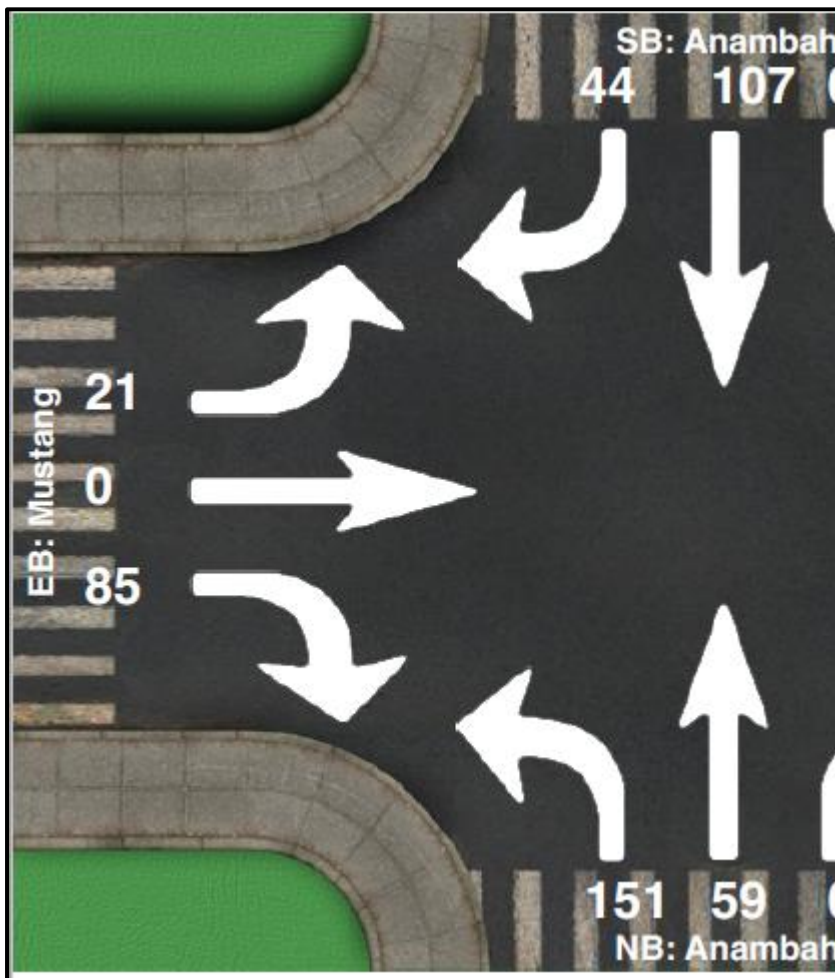


Figure 2 –AM Peak hour vehicle movements at the intersection of Anambah Road and Mustang Drive

The surveys demonstrate that the dominant flow in the AM peak is the left turn onto Mustang Drive from Anambah Road. The two-way flows on Anambah Road south of Mustang Drive were 402 vehicles split relatively evenly in both directions (slight bias northbound). Along Mustang Drive at Spitfire Drive the two-way flows were 301 vehicles with 195 westbound (into) the business park and 106 eastbound/outbound.

The RMS Guide to Traffic Generating Developments provides advice on the capacity of urban roads based on peak hour flows (Table 4.4). Based on the RMS Guide, Anambah Road as an urban road is currently operating midweek at LoS B in the AM, with less than 380 vehicles per hour per direction whilst Mustang Drive operates at LoS A being less than 200 vehicles per direction.

Spitfire Drive would operate with traffic flows less than Mustang Drive.

### *Existing Site Flows*

The site is vacant and so generates no existing flows.

### **Proposed Development**

The proposed development is summarised below with a site plan in **Attachment A**.

- Construction of 'place of worship' and associated car parking consisting of:
  - 980 sqm building including 235 m<sup>2</sup> of prayer space and 239m<sup>2</sup> of dining space plus toilets, kitchen facilities to support langar and spaces associated with the temple and worship (eg alter, sukhasan room etc).
  - Car parking area consisting of 59 car parking spaces including 2 accessible spaces.

### *Access and Circulation*

Access is proposed via separated driveways allowing for one way entry and egress onto Spitfire Place. The entry is on a straight length of Spitfire Place whilst the exit occurs on the turn head.

Sight distance requirements for the site are outlined within AS2890.1 for off-street parking. For the posted speed limit of 60km/hr along Spitfire Place, AS2890.1 requires a minimum sight distance of 65 metres and a desirable (5s gap) sight distance of 83 metres. The site frontage sits at the end of Spitfire Place in part along the turn head for this dead-end street. Spitfire Place provides a relatively straight horizontal alignment with visibility meeting the desirable distance to the right (east) for vehicles approaching the entry however the location and angle of the exit impacts the sight lines for vehicles leaving the site. As however the exit is located within the turn head, vehicles on Spitfire Place are travelling at a much lower speed than the posted speed as they are either approaching various site entries or are looking to undertake a U-turn. The minimum sight distance for a 40km/h frontage speed is 35 metres which is available to the right (east) from the proposed exit. The proposed site accesses can therefore satisfy the requirements of AS2890.1 in relation to sight distance.

The internal site layout shall allow for circulation of vehicles in a clockwise direction, with all vehicles able to enter and exit in a forward direction.

Deliveries associated with the site are minimal with food deliveries etc brought by individuals as donations by the community. The main servicing would be waste collection which may be collected by kerb side pick up or within the site.

### *Parking*

The Maitland DCP provides the following parking rates for the proposed development:

- Places of Worship - 1 space per 10 seats or 1 space per 10m<sup>2</sup> of public area WHICHEVER IS THE GREATER

Given that the temple does not provide seating, the rate of 1 space per 10m<sup>2</sup> has been applied.

- Place of Public Worship - 235m<sup>2</sup> prayer space = 24 spaces
- 239m<sup>2</sup> dining space = 24 spaces

Whilst the dining area is ancillary to the prayer space, it can be seen that the provision of 59 parking spaces exceeds the DCP requirement for the site (48 spaces) and is able to accommodate the day to day demands of the temple.

For peak events when the expected number of attendees may be 100-120 people on site, there is a high number of families that will attend. Applying a conservative rate of 3 people per car would give the requirement for 40 spaces, less than the provision of 59 on site. Applying the rate of 3 people per car to the 59 spaces would allow for up to 177 people to attend the site for peak events.

The provision of 59 parking spaces on site is therefore appropriate to meet the typical needs of the temple including for festivals. Should there be any extra parking required during absolute peak demands, which could be when festivals fall on a weekend enabling maximum attendance, overflow parking can be accommodated on Spitfire Place. Of a weekend the majority of the surrounding businesses in this business park are closed with minimal on street parking demands within the vicinity of the site.

#### *Traffic Generation*

The Guide to Traffic Generating Developments (GtTGD) does not provide advice regarding the traffic generated by a church or other place of worship. Traffic flows could therefore be calculated from first principles taking into consideration the Council DPC of 1 parking space per 10 seats or with a more conservative approach applying an average occupancy of 2 persons per vehicle.

Given the program for the temple, the peak demands would occur on a Saturday or Sunday evening (5pm-9pm) when attendance is up to 50 people. This does not coincide with local road peaks and so instead the mid-week evening peak demand (5pm-9pm) allowing for 20-30 people and the morning demand (6-8am) for 10-20 people has been considered.

Morning – 10 – 20 people:            5 – 10 trips inbound and 5-10 trips outbound

Afternoon – 20 – 30 people:            10-15 trips inbound and 10-15 trips outbound

The morning arrivals and afternoon departures do not coincide with the local road peaks but rather occur when background flows on local streets, particularly those associated with the business park, are low. The departures of a morning (post 8am) and the arrivals in the afternoon (prior to 5pm) can however coincide with the local road peaks.

Traffic associated with worshippers is likely to come from all directions as the closest other temple is at Beresfield. It is considered that most attendees would arrive within the hour prior to programs commencing and leave within the hour following the conclusion of programs and langar.

Spitfire Place connects with Mustang Drive which in turn connects with Anambah Drive to the east allowing for travel to the north and east and to the New England Highway via Mirage Place in the west for traffic with a destination to the west.

Distributing the additional trips across these routes would see 75% of traffic to the east to Anambah Road and 25% to the west along Mirage Place. This would see an additional 8 trips outbound at the intersection of Anambah Road and Mustang Drive in the morning and 12 trips inbound prior to 5pm in the afternoon.

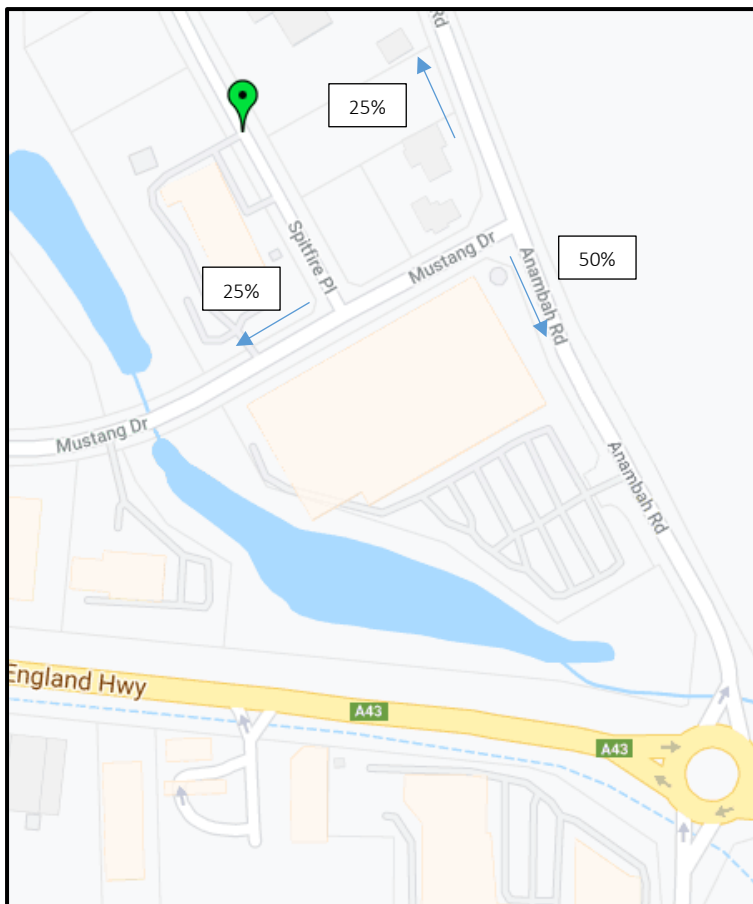


Figure 3 Destination of trips generated by subject site

Spitfire Place has been designed to accommodate the weekday traffic demands associated with the full development of the business park, including the subject site. Peak demands for business parks typically occur prior to 8am and around 3-4pm in the afternoon. The traffic associated with the temple would be travelling in the opposite direction of the estate traffic given outbound in the morning and inbound in the afternoon and so would not add to the cumulative impacts of the estate. If anything, it would see a reduction in traffic modelled for the development of the business park over that of the site if it was developed as an industrial type use. The impact of the temple traffic on Spitfire Place (10 trips outbound in the morning and 15 inbound in the afternoon) is therefore considered within the capacity of this road and shall have minimal impact during the peak periods.

Festivals typically occur of a weekend when local traffic flows are less however should a festival occur during the working week this traffic could increase to be in the order of 40 additional trips based on a car occupancy of 3 per vehicle. Such events are infrequent.

*Impact on Intersections*

Flows associated with the temple are typically opposing peak hour demands with AM flows outbound when the majority of trips are inbound and PM flows inbound when workers are typically leaving the various sites. In this way there is minimal cumulative impact of traffic.

The main impact is anticipated at the intersection of Mustang Drive and Anambah Road. Observations on site in the morning confirm that this intersection operates well with minimal delays for road users. Additional outbound demands for right turns would equate to 5 movements. This would have minimal impact on the operation of this

intersection which sees the majority of demands being left turns into Mustang Drive from Anambah Road during the morning.

The intersections of New England Highway/Anambah Road and New England Highway/Mirage Road have been designed to accommodate the historic through traffic on the highway. The impact of 5-8 additional trips in the AM or PM peak is acceptable having a minimal impact on the operation of these intersections.

The impact during a festival shall also be acceptable with a higher car occupancy due to family groups travelling together. This could result in 40 additional vehicles entering or exiting split across both intersection with up to 20 vehicles at the Anambah Road intersection. Background flows from the business park of a weekend will be minimal and so the additional trips would be less than peak demands during the working week.

### Summary

Overall, it is concluded that the proposed development should be approved on the grounds of traffic, access and parking. The location of the subject site within the Anambah Business Park on the western side of Maitland ensures traffic demands generated by the site would be well within the capacity of the local roads. Peak demands of 10-15 vehicles are typically opposing the local road peaks or otherwise do not coincide with these and disburse over several routes, reducing the impact on local roads and intersections. Absolute peak traffic may be generated several times throughout a year during festivals. These typically occur of a weekend when surrounding businesses within the business park are closed and so the impact is less than weekday traffic in this area.

Connection to Spitfire Place is from Mustang Drive which in turn connects with the arterial road network from two access points, Mirage Road and Anambah Road, enabling traffic demands to be split to the east and west to distribute to the broader road network.

Access to the site and sight distances at both driveways are consistent with the requirements of AS2890. With 59 parking spaces to be provided on site parking demands for the proposal can be accommodated on site.

It is considered the proposed development should have no objections raised on the grounds of traffic, access or parking.

Please contact our office on 4032 7979 should you require any additional information.

Yours sincerely



**Sean Morgan**

*Director*

Attachment A Site Photos



Photo 1 – Visibility to the right across the site frontage along Spitfire Place for exiting traffic.



Photo 2 –Spitfire Place showing typical cross section with subject site to right of photo





*Photo 3 –Anambah Road with Mustang Drive to right of photo showing intersection layout looking south*

Attachment B Site Plan

