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**Our ref:** 12548316

**31 March 2022**

**Hindmarsh Construction Australia Pty Ltd**
**Stefan Szyczew**
**Level 27, 100 Miller Street**
**North Sydney, NSW, 2060**

**RE: New High School in Jerrabomberra SSD RFI**

Dear Stefan,

Reference is made to the response submissions from the Department of Planning, Industry and Environment (DPIE), - Queanbeyan-Palerang Regional Council and Transport for NSW (TfNSW) with respect to State Significant Development Application (SSDA) submission for the New High School in Jerrabomberra (Reference SSD – 24461956).

For any queries regarding this correspondence please contact the undersigned.

A copy of the latest masterplan for the new high school in Jerrabomberra is included with this letter.

Regards

**Mark Lucas**
Technical Director – Transport Planning

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*Table 1 DPIE RtS Letter*

| DPIE Submissions | | |
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| **No.** | DPIE RtS Letter | Response |
| **1** | a. The EIS identifies that:<br>i. short term construction worker parking would be provided within the North Road cul-de-sac subject to approval of a Works Zone application<br>ii. longer term construction worker parking should be made available within the construction site boundary or within the David Madew Park carpark subject to consultation with Council.<br>b. The Submissions Report must further address potential construction vehicle parking impacts in instances where there is likely to be overflow on-street parking required (i.e. parking in David Madew Park carpark is not supported by Council). Provide further information on mitigation measures to ensure that construction worker parking does not significantly impact existing on-street parking availability for other users.<br>c. Provide further assessment on whether the local road network can accommodate the construction vehicle routes.<br>d. Provide details on how safety has been considered for the movement of pedestrians to the school, including the drop-off and pick-up of students from the western side of Environa Drive.<br>e. Provide an updated assessment to include the consideration of traffic impacts associated with the proposed Tralee residential development.<br>f. Address all issues raised by Council and TfNSW in relation to traffic, transport, access and car parking. | **1.a.i**<br>The current construction drawings indicate that parking for 100 vehicles will be provided within the subject site. Preliminary estimates indicate that this provision will accommodate the expected demand and as such, there will be no need for construction workers to park in the North Road cul-de-sac.<br>**1.a.ii**<br>As noted in 1.a.i, parking for 100 construction worker vehicles will be provided within the subject site, sufficient to accommodate the expected demand. Accordingly, worker parking within David Madew Park is not anticipated, or likely to be required.<br>**1.b**<br>As noted in 1.a.i, sufficient construction worker parking is proposed to be provided within the subject site. Should the unlikely need arise, additional onsite overflow parking can be accommodated to prevent disruption to on-street or David Madew conditions.<br>All staff and subcontractors engaged on site will be required to undergo a site induction, during which, they will be instructed to only park within the designated onsite car parks.<br>**1.c**<br>In accordance with the SEARs specifications in the Traffic Assessment, peak hour intersection modelling was undertaken for the following intersections:<br>• Lanyon Drive and Tompsitt Drive.<br>• Tompsitt Drive, Henry Place and Environa Drive.<br>• Tompsitt Drive, Limestone Drive, Edwin Land Parkway and Jerrabomberra Parkway (referred to henceforth as the Jerrabomberra Circle).<br>The analysis indicated that these intersections all currently operate with |

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| | | a good Level of Service and relatively minor delays.<br>It is noted that the analysis accounted for vehicle activity associated with the Poplars and Tralee developments, in accordance with data provided by QPRC.<br>All heavy vehicles will access the site from the north via the signalised intersection of Tompsitt Drive and Environa Drive. It is noted that Tompsitt Drive between Lanyon Dive and Jerrabomberra Parkway is authorised by TfNSW to accommodate vehicles up to the size of 19 metre B-doubles. As part of an induction, truck drivers will be informed of the designated haulage routes to and from the construction compound.<br>The vehicle activity associated with the workers and heavy vehicles is within typical fluctuations of vehicle activity on the adjoining road network and result in only a very minor impact on the nearby intersections.<br>**1.d**<br>Adjacent to the school, Environa Drive provides two northbound travel lanes and an on-road bike path. It does not provide any parking lanes, and there is no safe space for northbound vehicles to stop or park. Accordingly, cars stopping on the western side of Environa Drive could present a significant safety issue.<br>Crossing of the road in this location would also present safety issues and for these reasons, the western side of Environa Drive is not supported for drop off/pick up activities.<br>On 16 February 2022, GHD undertook discussions with QPRC to discuss this matter. QPRC indicated support for installing No Stopping signage on Environa Drive in proximity to the school to reinforce the unsafe location of dropping off or picking up of children on the northbound lane and stopping over the cycle lane. This signage would clearly indicate to drivers the extent of No Stopping conditions and provide measures for rangers and the police enforce the restrictions with infringement notices, in the event such is required.<br>Fencing will also be provided within the median of Environa Drive to discourage students from being dropped off / picked up on Environa Drive, with the location/alignment shown on drawings provided in Appendix E; Pedestrian road Safety-Barrier Fence TP-0001 and fencing type illustrated in, Type 1 Pedestrian PF-SD-003. |

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| | | Details relating to the fencing (type, location/alignment, extent) will be further developed by the design team (civil designer/landscape architect) as the project progresses.<br>Additionally, QPRC have indicated that No Stopping signage will be placed on Environa Drive in proximity to the stub road to discourage people from stopping illegally to drop off students. This has been reflected in our Signage Plan included in Appendix C.<br>If parents are observed undertaking behaviour that is not safe, information requesting them to stop should be provided through the communication channels (as detailed in the School's Communication Plan).<br>Based on discussion with the school leadership, staff will be able to communicate with the local police. If parents are observed dropping off or picking up their child/children off on the western side of Environa Drive (despite the provision of fencing), the police can assist in preventing this, including the issuing of fines by enforcing the No Stopping restriction in place.<br>Further information on pedestrian access is provided within Item 1 of Table 8.1 and 8.2 of the QPRC response.<br>**1.e**<br>The intersection modelling completed by GHD in the Traffic Assessment accounted for the vehicle activity associated with the Poplars and Tralee developments. The analysis was based on land use data provided by QPRC.<br>As part of QPRC's review of the submissions and comments for the new high school in Jerrabomberra, QPRC reviewed the modelling contained within Doc Set ID: PR.2021.104, issued on 9 December 2021and provided no further comments (refer to Appendix A).<br>**1.f**<br>All comments raised by TfNSW and QPRC are addressed in Tables 2 and 3, respectively below. |

*Table 2 TfNSW RtS Letter*

| TfNSW Submissions | | |
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| **No.** | TfNSW RtS Letter | Response |
| **1** | *School bus access:*<br>Noting the residential development that is occurring and is planned to the south of the proposed school site (including the area south of the defined school catchment) and how Environa Drive has been constructed (i.e. central raised median), it is unclear to TfNSW how a bus coming from the south along Environa Drive will be able to access the bus drop off area for the school. TfNSW notes that this issue has been raised previously in the Transport Working Group meetings. Additional details are required which should include details on discussions with the TfNSW Rural and Regional Contracts team concerning the above. | The current geometry of the purpose built bus zone for the high school on the eastern side of Environa Drive does not enable right turns in for buses coming from the south.<br>Based on the current infrastructure, buses from the south would need to undertake a 2.7 km detour via the Jerrabomberra Circle to access the bus zone, as shown in the image below.<br>  <br><br>***Bus Route from the south – Existing road network*** |

| TfNSW Submissions | | |
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| **No.** | TfNSW RtS Letter | Response |
| | | It is noted that Environa Drive has been designed to be bus capable and the Jerrabomberra Circle currently accommodates bus services.<br>Once the internal road network within the South Poplar precinct is connected to Environa Drive, buses approaching from the south could utilise the proposed access intersection to access the internal road network and turn around to head south on Environa Drive towards the bus zone. An example route is shown in the image below.<br>Distance-wise, this route would be approximately 500-600 m shorter than the route shown in the image above. It would also be shorter time-wise, as it would avoid two crossings of the signalised intersection with Tompsitt Drive.<br>Further discussion between TfNSW, QPRC and the Department of Education will be undertaken as the project progresses to determine the access strategy. |

| TfNSW Submissions | | |
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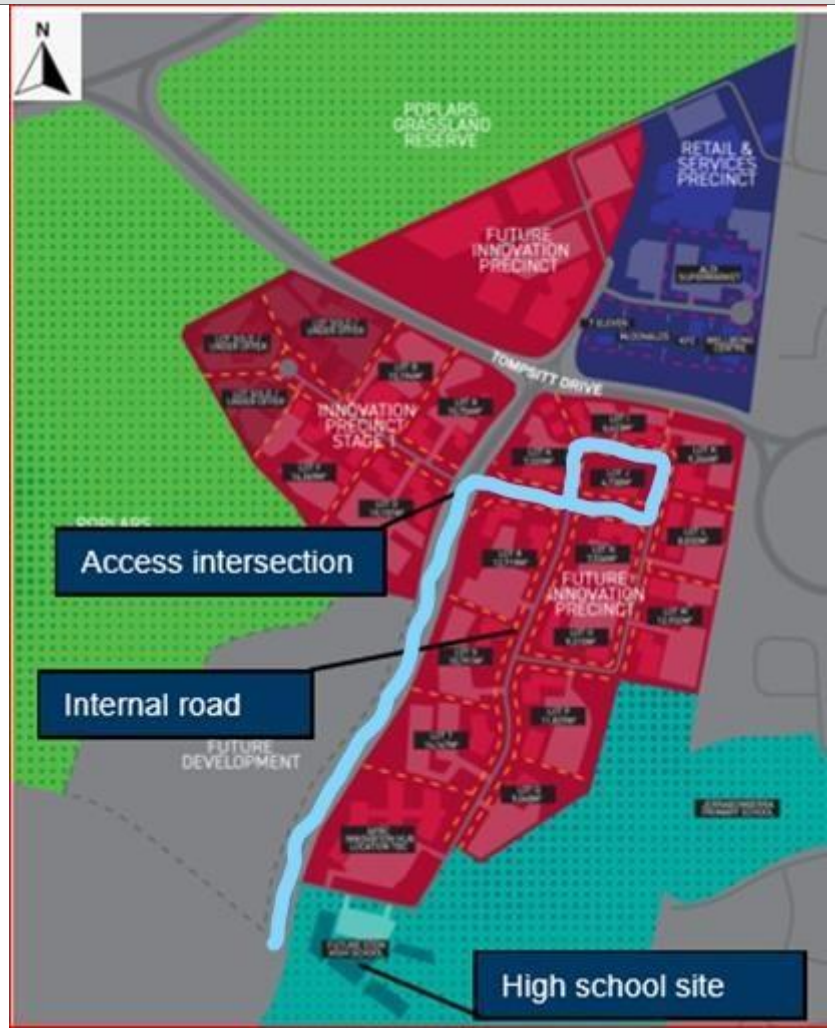
| **No.** | TfNSW RtS Letter | Response |
| | |  <br>***South Poplar internal road network and access intersection*** |

| TfNSW Submissions | | |
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| **No.** | TfNSW RtS Letter | Response |
| **2** | *School drop off on the western side of Environa Drive*<br>Additional details should be provided on what measures will be implemented to either prevent school students from being drop-off on the western side of Environa Drive including details on measures that will be implemented to prevent students crossing Environa Drive from west to east in the vicinity of the school or alternatively what facilities will be provided to enable the above to occur. | Refer to Item 1.d in Table 1 above. |
| **3** | School catchment:<br>The school catchment as defined in the New High School in Jerrabomberra Traffic Assessment (prepared by GHD, Rev 11 and dated 8 November 2021 – refer to Figure 1.4) does not appear to include the Tralee residential development that will contain 1,500 dwellings and that is located at its closest point approximately 2.9km by road from the school site (i.e. outside the defined walking and cycling catchments and within the free bus pass area). Estate 1 which contains 318 residential lots and 10 super lots (DA395- 2017) has been constructed and will be occupied by the time the school is operational. | The school catchment information presented in the GHD Rev 11 report is preliminary, however it is based on the advice from QPRC with respect to the expected increase in residential development. The vehicle activity associated with 1,500 lots has been included in the assessment and modelling, which has been reviewed by QPRC without further comments (Refer to Appendix A). |
| **4** | *Car parking:*<br>Noting that some of the students attending the school will be able to drive, it is unclear to TfNSW what parking provisions have been made for students who do drive noting the car park that is provided will be controlled by a gate with a reader/intercom and will be utilised by operational staff and visitors to the school. | Only teachers/staff and some parents with special needs children at the new high school in Jerrabomberra will be able to access the car park.<br>The Queanbeyan Development Control Plan does not provide a parking rate for high school students.<br>The school does not propose to provide parking for students, which is consistent with other nearby high schools, including Karbar High School and Queanbeyan High School.<br>The Transport Plan is intended to support students to walk, cycle or take a bus to access the school, with the self drive option discouraged. Therefore, not providing parking for students, but providing active transport facilities and bus access options, supports this transport vision and objective. In this respect, it is noted that: |

| TfNSW Submissions | | |
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| **No.** | TfNSW RtS Letter | Response |
| | | • There is a shared path adjacent to the park that will provide direct access to the high school.<br>• School bus services will be provided.<br>• Parking demand by students is anticipated to be low.<br>Of the relatively low number of students who choose to drive to school, most will likely park in the public car park at David Madew Regional Park (which provides approximately 60 parking spaces, more than enough to meet demand). Student parking demand will not typically coincide with peak parking demand at the park (which is typically in the late afternoons and weekends). A small number may choose to park on the local road network to the south of the school. |

*Table 3 QPRC RtS Letter*

| QPRC Submissions | | |
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| **No.** | QPRC RtS Letter | Response |
| **4.1.2 & 4.2** | *Parking Facilities – Off Street*<br><br>In summary the parking proposed consists of:<br>• 34 car parking spaces provided to teachers and staff in a level carpark and will included two (2) disabled spaces.<br>• 114 bicycle parking spaces for students that will be located at the northern and southern pedestrian entries of the school.<br>• The proposal does not include any explanation of how on street parking will be provided other than the drop/off pick up area.<br><br>Vehicle access to the high school is from the north road cul-de-sac. Staff and waste collection vehicles will be able to enter the school. Access to the car park will be controlled by a gate and a reader/intercom<br><br>In terms of configuration and manoeuvring, the high school development site should meet the requirements of *AS/NZS 2890.1-2004 Parking Facilities Off-Street Car Parking, AS/NZS 2890.6-2009 Off-Street Parking for People with Disabilities*, and *Palerang DCP 2015 Section B7.1*. All parking spaces and aisle widths must meet the functionality of the Australian Standard as a minimum.<br><br>Of concern to Council is that while 44 staff are employed only 34 parking spaces have been provided, noting that a discount of 10 spaces has been provided based on mode share requirements. This is inconsistent with Council's experience on school sites throughout its local government area. In all cases the number of vehicles being bought by staff to school sites far exceeds the number of onsite spaces being provided and does not take intoaccount the myriad of ancillary staff and casuals who typically attend the school site. | The car park at the new high school in Jerrabomberra has been expanded to provide 44 parking spaces.<br><br>A copy of the updated car park is included for reference in Appendix B. |

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| | Council does not believe the mode share calculations for staff are realistic and that at least the 44 spaces required for each staff member should be proposed. As such Council objects to the proposal on these grounds.<br><br>**Recommendation - That the consent authority request that the applicant submit a design for a minimum of44 off street carparking spaces. (Objection)** | |
| **4.1.3 & 4.2** | *Parking Facilities – On Street*<br><br>Very little has been provided in the Traffic Assessment around the management of on-street parking. Given the width of the north road (8m) and the design of the pick-up and drop off which is requiring vehicles to queue along the north road, there is no capacity for on-street parking on the north road. Outside of the indented 'Pick up and Drop Off 'on the north road all other areas of the north road will need to feature 'No Stopping'.<br><br>It is unclear where parking is provided for parents during the school zone time who need to park and walk their children into the school and visit the school office. Being a high-school this isn't likely to occur as much as a primary school but parents may still need to park and attend the school or school office during school zone time.<br><br>In addition Table 3.2 has calculated that 50 students will drive to the school – and this will likely generate 50 vehicles requiring parking within the vicinity of the school. There is no mention in the Traffic Assessment where the 50 vehicles will be managed around the school that it is planning to generate. The provided car-parking which has 34 spaces is noted as being controlled by an access gate and available only for teachers. The lack of formal planning and close located on-road parking risks illegal and unsafe parking that is heavily dependent on enforcement of Police or Council rangers to monitor and this is not a sustainable or safe approach from the outset.<br><br>As the north road is not designed to support parking and the operation of the pick-up and drop- off this means on-street parking is being encouraged and noted for 'Environa Drive'. This road, being a | ***1. North Road queuing and kiss and drop***<br><br>With respect to the kiss n drop provided on the southern side of the stub road, the seven designated bays will be signposted as "No Parking 8:00 am – 9:30 am and 2:30 pm – 4:00 pm Monday-Friday".<br><br>No Parking signage is used at school kiss n drops to encourage vehicle turnover. Drivers can only stop for up to two minutes and are required to remain within three metres of their vehicle if they are dropping off or picking up passengers during the restriction period.<br><br>Pick up and drop activity can occur within the seven designated bays. Providing in excess of this will not necessarily facilitate increased turn over of vehicles. There is risk of decreased functionality on large designated loading bays. Vehicles that may require to queue on approach to the designated loading areas will utilise the kerb side on the kerbside loop road which is in the order of 185 m between the kiss and drop and Environa Drive, which is anticipated to be a sufficient queue area as not to adversely impact on through traffic flow along Environa Drive.<br><br>***2. Parking outside the kiss and drop hours***<br><br>Outside the designated kiss and drop hours, the seven designated bays will be available for the public to park in, i.e. for school visitors. The school can communicate with parents/guardians, informing them about the availability of visitor parking on the stub road during these times.<br><br>Alternatively, parents can park to the south of the school and access the school from the eastern entry.<br><br>***3. Parent/guardian parking during school zone hours***<br><br>If parents/guardians need to visit the school when the kiss and ride zone is operational, they would be required to find an alternative parking location, i.e. on the road network to the south and east of the school and |

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| | collector road is not designed for on-street parking either and there are no pedestrian facilities to support pedestrians to cross Environa Drive. It is unclear from the Transport assessment how parking can be safely supported adjacent to the school.<br><br>The Transport Plan notes that the school will be promoting 'carpooling' and dedicated space will be provided at the high school to encourage 'carpooling'. However, this only appears to extend to the 'teacher parking' area that the 50 vehicles generated by students have no priority or incentive for carpooling.<br><br>Council considers that until such time as a more detailed analysis of where on street parking will occur around the school site is carried out it objects to the proposal on the basis that insufficient consideration has been given to the provision and impacts of on street parking.<br>**Recommendation - That the consent authority request that the applicant carry out an analysis of how on street parking will be catered for as a result of the school proposal. (Objection)** | walk to the high school. Active transport paths support connectivity to the school from the south.<br><br>***4. Student parking***<br><br>As outlined in Item 4 in the TfNSW comment response, parking for students has been discouraged in line with the Transport Plan vision and objectives and the use of active and bus transport modes is encouraged. Of the relatively low number of students who may choose to drive, most will likely park within the car park at the David Madew Regional Park and utilise the active transport network to safely access/egress the school.<br><br>Some students may choose to park on the local streets surrounding the school (as parking is currently permitted on these streets). Based on the analysis undertaken, this is expected to result in little to no impact on the local network given that the local streets have low traffic volumes and they are sufficiently wide enough to accommodate the relatively low volume of on street parking that is likely to occur as a result of the school.<br><br>***5. Management of parking***<br><br>As outlined in DPIE comment response 1.d, No Stopping signage on Environa Drive in proximity to the school to reinforce the unsafe location of dropping off or picking up of children on the northbound lane and stopping over the cycle lane will be provided (refer to Signage and Linemarking Plan at Appendix C). This signage would clearly indicate to drivers the extent of No Stopping conditions and provide measures for rangers and the police to enforce the restrictions with infringement notices, in the event such is required.<br><br>Sufficient parking will be provided for all the teachers/staff at the high school (44 spaces), with the School Communication Plan to be used to support car pooling by teachers. Whilst the School Communication Plan can outline carpooling for students, the objective and vision is for students not to drive and as such, driving to school will be discouraged.<br><br>For further details on parking management, refer to Table 2 TfNSW Item 4 |
| **5.1 & 5.2** | The proposed high school student pick-up and drop-off zones will be on the southern side of the north road comprising seven (7) car spaces plus one dedicated space for students with special needs, but do not require ASTP services. Parents/guardians picking up or | ***1. Mode share targets***<br><br>The Transport Plan set outs key goals and targets for various transport modes with the vision to alter the existing dependency on private transport (i.e. cars) and encourage the use of active transport and bus |

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| | dropping off their child/children will undertake a U-turn at the eastern end (at the turning head), use the designated facility on the southern side of the north road and exit onto Environa Drive.<br><br>The pick-up/drop-off zone will be controlled by No Parking signage (8:00am to 9:30am and 2:30pm to 4:00pm school days) to encourage quick vehicle turnover. Outside of these periods, the pick-up/drop-off zone can be legally used for visitor parking.<br><br>The mode share target for students being dropped off is 25% of the student capacity, which equates to 125 students. Factoring an occupancy rate of 1.4 students per vehicle, corresponds to 90 vehicles.<br><br>The school peak is expected to occur over a 15-minute period and takes approximately 60 seconds for a student to embark or disembark a vehicle. Subsequently, each car parking space would turn over approximately 15 vehicles resulting in the seven (7) car parking spaces accommodating up to 105 vehicles during the peak 15 minutes of school activity.<br><br>There will be opportunities for parents and guardians with special needs children attending the high school and minibuses associated with the NSW's Government Assisted School Travel Plan (ASTP) to pick-up and drop-off their children within the high school staff car park. Although there are no dedicated bays provided for such pick-up and drop-off, provision of ASTP and special needs access within the staff park will provide separation from other parental pick-up and drop-off activity and will occur behind gates which significantly reducing student safety risks to traffic.<br><br>The operation of the pick-up and drop-off is dependent on achieving 250 (50%) of the school students and 20% of staff using alternate active transport. This is not a realisticachievement, It is not Council's experience that any of the current schools in the LGA are achieving a 50% active transport mode and it doesn't account for the cold weather climate of QPRC and for inclement weather and the fact that only 5% of school children are estimated to be eligible for SSTS. It also doesn't account for the JTW data that notes the large proportion | services to access the school. Providing such sustainable facilities and restricting the non sustainable facilities is a mechanism to contribute to this vision (in conjunction with communication, education, etc).<br><br>While JTW data guided the development of the targets, consideration was also given to depersonalised data and the location of students relative to the school who can or have access to active and bus transport opportunities to set the base case, reach and design mode share targets. Furthermore, guidance on the targets was drawn from TfNSW *Trip Generation Surveys Schools Analysis Report,* which provided average mode split for regional high schools (refer to Appendix D).<br><br>The vision and mode share targets that were developed following the robust analysis outlined above were further refined through close collaboration with key stakeholders including QPRC and TfNSW at Transport Working Group meetings held on 9 September 2021. A copy of the meeting minutes are included in Appendix E.<br><br>It should also be noted that parking provision for staff has been increased to 44 bays to accommodate 100% of the staff and as such, 20% of staff using alternate transport modes is no longer required.<br><br>Further information is included at Item 4 below.<br><br>***2. Kiss and drop access, layout and operation***<br><br>Parents/guardians picking up or dropping off their child/children will undertake a U-turn at the stub road turning head, use the designated kiss n drop facility on the southern side of North Road and exit onto Environa Drive.<br><br>The intersection of the stub road and Environa Drive has been constructed with a seagull configuration, where a separate lane is provided for vehicles turning right from the side road to enter and accelerate to through-traffic speed before merging with through traffic. This arrangement facilitates right turns from minor roads onto major roads. A significant portion of vehicles are expected to turn right onto Environa Drive from the stub road, to access the township, and the seagull arrangement will support this manoeuvre and the turnover of vehicles within the stub road during peak periods of activity.<br><br>Seven indented spaces (layby) will be provided in the kiss and drop zone, plus one dedicated space for students with special needs.<br><br>The facility design that was provided to GHD to review is considered to |

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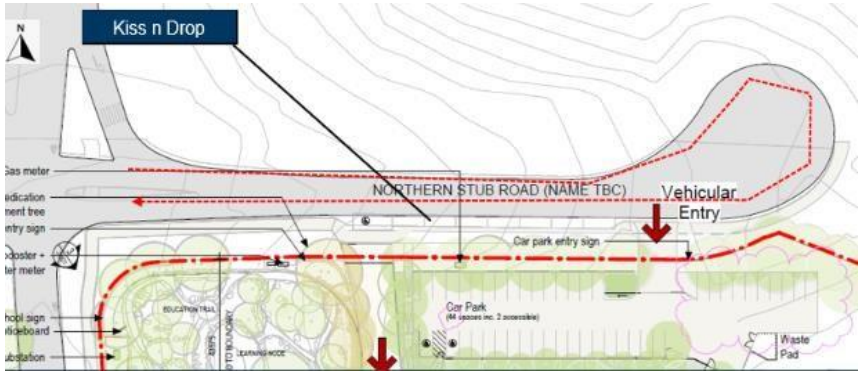
| | of residents in Jerrabomberra that drive to work and from a supervision and convenience perspective may choose to drive children to school rather than pay for public transport.<br><br>There is no indication in the Transport assessment of how the pick-up and drop-off will operate with less than the achieved active transport targets and lack of consideration for such scenarios, risks introducing safety issues and network efficiencies around the school zone. In particular there is a risk of queued vehicles stacking out onto Environa Drive and leading to unsafe situations such as vehicles queued on the north road dropping off school children in the middle of the street before getting to the indented pick up and drop off area.<br><br>The design of the pick-up and drop-off, which is dependent on a maximum active transport take-up, is described as using the north road off Environa Drive for vehicles to queue to use the facility. The north road isn't wide enough to support queued vehicles for the pick-up and drop-off and traffic that is driving through the north road to access the car-park such as teachers and emergency vehicles. The operation of the pick-up and drop off stacking and queueing on a public road that will then restrict access of traffic in a travel lane is not a safe design. This is particularly a concern for emergency/ambulance vehicles that are meant to have safe through access to their designated access point. This design is also a concern for the afternoon 'pick-up' function where parents arrive (often up to 30 minutes prior to school finishing) and have no-where to stack and wait (or park) that will not impact the travel lane on the north road and afternoon pick up risks waiting vehicles stacking onto Environa Drive.<br><br>Extending the north road as a through road travelling north would substantially improve the expected impacts.<br><br>The Traffic assessment describes the pick-up and drop-off area as a 'designated facility' – it is unclear if this will be indented but it is recommended. Although if this occurs it will need to consider location of existing services such as stormwater pits which may | provide sufficient capacity/queuing space and students will be dropped off next to the school, providing a good outcome.<br><br>At a practical level, it is difficult to manage more than seven kiss n drop bays at once. Further, No Parking signage will be implemented to encourage vehicle turnover (refer to Items 4.1.3 and 4.2 above).<br><br>If parents are observed to layover for long periods in the afternoon, they should be advised that it is not permitted (via the available school communication channels), with a reminder of the risk of infringement by NSW Police for disobeying the parking restrictions.<br><br>  <br><br>***Kiss and drop queue and stub road width***<br><br>Prior to accessing the seven kiss and drop bays, vehicles are required to traverse the northern side of the stub road and the turning head, a distance of approximately 185 m. Assuming six metres per vehicle (accounting for the gaps between vehicles), this area can accommodate approximately 30 additional vehicles. Additionally, there is a distance between the kiss and drop zone and Environa Drive of approximately 50 m which could accommodate approximately eight additional vehicles (45 total).<br><br>Assuming that the school peak will occur over a 15-minute period and conservatively it takes approximately 60 seconds for a student to embark or disembark a vehicle, each space would turn over approximately 15 times. Therefore, the seven spaces will accommodate at least 105 vehicles in the peak 15 minutes of school activity.<br><br>It is noted that the assumption of 60 seconds for embarkation/ disembarkation is very conservative. The duration is likely to be in the |

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| | need to be modified or relocated.<br><br>Council does not believe the 7 designated spaces of the pick-up and drop off will be sufficient for the capacity.<br><br>It is uncertain if the proposed mobility parking spot in the pick-up and drop off facility can meet the required mobility parking standard. It should be noted that the north road has a grade of 8% and would not be suitable for a disabled parking space. AS2890.5-1993 requires the fall for a disabled parking space to be no greater than 1:33 in any direction.<br><br>**Recommendation - That the applicant carry out a further review of the drop off/pick up zone to identify the potential impacts of queuing in the north road cul-de-sac and whether additional spaces can be provided. (Objection)** | order of 10 – 30 seconds in most instances. Accordingly, the kiss and drop facilities are expected to be able to accommodate significantly more than 105 vehicles in peak periods.<br><br>The analysis performed indicates that seven kiss and drop spaces plus the available additional queuing space for 38 vehicles are considered sufficient to accommodate the expected demand and avoid the risk of queuing vehicles on Environa Drive, thereby not affecting the through travel movement of vehicles (including emergency services). Furthermore, during the initial phase of school operations, there will be traffic management in place to educate parents to establish appropriate behaviours.<br><br>At approximately 8.5 m wide, the north/stub road is sufficiently wide enough to support queued vehicles for the pick-up and drop-off and traffic that is driving through the north/stub road to access the car-park such as teachers and emergency vehicles.<br><br>***3. Risks if transport targets not achieved***<br><br>With respect to the mode share analysis outlined in Item 1 above, a number of scenarios were developed in the Transport Assessment, as follows:<br><br>• A base case, in accordance with current mode share data for regional schools.<br>• A reach scenario, using depersonalised household data, based on the maximum number of students who could walk, cycle or catch the bus to school.<br>• A target scenario, which is identified as being between the base and reach mode shares.<br><br>The target scenario assumes that transport planning measures will be implemented to encourage sustainable modes. The targets in the Transport Assessment were presented to all the key stakeholders in Transport Working Group meetings held on 9 September 2021.<br><br>For the base scenario, it was assumed that up to 45% (225 students) will be picked up/dropped off. Assuming an occupancy rate of 1.4 students per vehicle, this corresponds to 160 vehicles in the peak 15 minutes periods of activity.<br><br>As detailed in Item 3 immediately above, based on conservative |

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| | | assumptions, the seven dedicated kiss and drop spaces will have a 15 minute capacity of at least 105 spaces. It is noted:<br>• In addition to the seven kiss and drop bays, the stub road can accommodate up to 38 additional vehicles (45 total). Accordingly, any additional demand can be accommodated.<br>• Transport planning measures to encourage sustainable modes of transport will be implemented at the high school.<br>***4. Extending North Road***<br>Incorporated within the future Poplars north of the school will be an internal access road which will connect to Environa Drive. This is shown above in the response to TfNSW submission (comment 1).<br>Whilst in a future scenario, consideration could be given to altering the designated approach routes for drop off/pick up activities, until such time the Poplars road network is developed, the newly constructed North Road is the only available designated assess to the school. As noted above, it is anticipated that the existing North Road is sufficient to accommodate the pick up/drop off activities.<br>It should be noted that:<br>• The stub road (excluding the kiss and drop) has already been constructed to accommodate school activity.<br>• The extension of the stub road is associated with the wider growth of Jerrabomberra, i.e. the Poplars development.<br>***5. Mobility impaired access***<br>There will be opportunities for parents/guardians with special needs children attending the high school and minibuses associated with the NSW Government's Assisted School Travel Plan (ASTP), to pick-up/drop-off these students within the staff parking. The available information on the ASTP provided by the Department of Education indicates that:<br>• The volume of students who will require the ASTP services is not currently known.<br>• Transport will be provided in vehicles ranging from a car to a 12-seater minibus.<br>• Typically up to three ASTP vehicles will be queued up at the end of the school day. |

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| | | • Students who require ASTP services should be picked up/dropped off separate from general parental traffic volumes.<br>• Students running onto the road is a major safety risk.<br>• The Bus Zone on the western boundary of the site and the staff car park provide potentially suitable locations for ASTP vehicles to pick-up/drop-off.<br>The single mobility impaired parking space in the kiss and drop facility will be marked with the appropriate logo/signage. The final location including gradients for the space will be finalised in upcoming design iterations. |
| **7.1 & 7.2** | ***Public Transport Comments***<br>A Bus Zone will be provided adjacent to the west of the high school and separate from the Environa Drive traffic flow, minimising the impacts of buses drawing in and drawing out atthe school on the through movement of traffic on Environa Drive and students will not be required to cross a road to access the Bus Zone.<br>There will be a separate pedestrian ingress and egress gate provided for students accessing the school via bus.<br>In accordance with the geometry of the zone, all buses will access the high school in a north to south direction. Buses for excursions (or similar) will use the school's designated Bus Zones.<br>Based on mode share targets approximately 75 students are expected to catch a bus to and from school. This is the equivalent of two buses based on the assumption of approximately 40 students per bus. Accordingly, the Bus Zone will have sufficient capacity to accommodate the expected demand.<br>Discussions have been initiated with TfNSW and QCity Transit about providing bus services to accommodate the additional demand associated with the proposed Jerrabomberra High School.<br>Based on these discussions it is noted that:<br>▪ For bus services to be determined for a new school, a SSTS Portal needs tobe set up by TfNSW.<br>▪ The portal will provide parents with an opportunity to apply for free public transport, for students residing | The condition that access to the Bus Zone be limited to periods when the speed limit on Environa Drive is 40 km/h (8:00 am – 9:30 am and 2:30 pm – 4:00 pm) is noted.<br>School bus access routes, particularly from south Jerrabomberra, has been outlined in Item 1 of the TfNSW response table.<br>In accordance with information received by the TfNSW Rural and Regional Contracts team, school bus routes will be determined based on school registration and enrolment data once it is available. Until that time, it is not possible to estimate what services will be required.<br>GHD attended a meeting with the TfNSW Rural and Regional Contracts team on 18 February 2022 to discuss bus services at the new high school in Jerrabomberra. |

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| | outside the 2.9-kilometre catchment.<br>▪ Based on that data, appropriate bus routes will be developed with the public transport providers for the new high school in Jerrabomberra. These will account for the public transport needs of the adjacent primary school.<br>▪ Bus routes are typically identified within eight months of a school opening.<br><br>Section 3.2.1.3 of the Transport Assessment discusses the use of the designated Bus Zone to the west side of the high school for excursion buses. Due to site constraints the construction of the bus zone was unable to include the required deceleration and acceleration lanes required for a 70km/h road. Therefore, the Bus Zone can only be operational during the 40km/h school zone times and will be signposted accordingly.<br><br>Entry into the Bus Zone is strictly through the southbound carriageway of Environa Drive. Bus Routes, particularly from South Jerrabomberra, will need to consider current and future road network needs to ensure that bus routes minimise impacts to the road network and school traffic<br><br>***Recommendation* - That the consent authority impose a condition requiring the use of the Bus Zone to be restricted to periods during the 40km/h school zone times.** | |
| **8.1 & 8.2** | ***Crossings and Pedestrian Movements Comments***<br><br>North of the school's location, where Environa Drive meets Tompsitt Drive a shopping district is located that features McDonalds, KFC and 7-eleven. Such shops are pedestrian generators for school children before and after school, and this will mean school children walking to and from JHS to these shops will be a natural desire line. Parents commuting to work out of Jerrabomberra via Tompsitt Drive may also choose to drop off their school children at these shops and school children may also be walking in this direction for after-school employment. | ***1. Crossing location, type and safety***<br><br>The potential desire line between the school and the retail facility north of Tompsitt Drive is noted. A signalised pedestrian crossing is provided at the intersection of Tompsitt Drive and Environa Drive and a shared path is provided on the eastern side of Environa Drive between the shops and the high school.<br><br>As shown in the diagram below, the current layout of the intersection of Environa Drive provides a pedestrian crossing on the slip lane, but not on the stub road. GHD sought clarification from QPRC as to why a pedestrian crossing was not provided on the stub road intersection. On |

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| | The main school entry for pedestrians into the School on the north road is noted in Figure 3.1 of the transport assessment. It is offset and at a distance from the intersection of the north road with Environa Drive. Figure 3.3 features 'future pedestrian crossing facilities' linking to a 'shared path' travelling along the eastern side of 'Environa Drive'. This figure features two crossing points at intersections. From a safety perspective, one mid-block crossing on the north road away from the intersection where vehicles are turning and drivers are making turning movement decisions would provide a better safety outcome for pedestrians – it would also reduce the crossings from two to one.<br><br>The lack of a formal pedestrian crossing facility located in close proximity to the main school pedestrian access on the north road risks school children exiting the main gate and streaming across the north road heading in their desire line (north of school to the shopping centre with KFC/McDonalds). This will be a far easier desire line than turning west out of the main gate and walking up to the intersection and crossing across two pedestrian crossings.<br><br>The applicant should revisit the location of crossings in the light of the above comments.<br><br>The traffic impact study does not cover how it will safely manage and address any pedestrian activity crossing Environa Drive, particularly if the pedestrians are crossing through the bus zone. There is a risk that parents from South Jerrabomberra will choose the convenience of stopping and dropping children off on the western side of Environa Drive as they drive to work. Children will then potentially try to cross Environa Drive where there is a lack of pedestrian crossing facilities for this pedestrian movement. Civil designs should consider installation of pedestrian fencing on the western and eastern side of Environa Drive to discourage dropoffs along Environa Drive.<br><br>***Recommendation***<br><br>***That the applicant be requested to revisit the need and proposed location for a school crossing adjacent to the main school entry off the north road. (Objection)*** | 15 March 2022, QPRC advised that a further crossing was not provided as it is QPRC's understanding that the school may install a refuge island closer to where the main school entrance will be and as such, that location may be the desire line and not the intersection.<br><br>  <br><br>***Environa Drive/Stub road intersection***<br><br>The intersection's construction drawings indicate that pram ramps have been constructed on Environa Drive at its intersection with the stub road.<br><br>With respect to the potential provision of a pedestrian crossing adjacent to the school gate, the appropriate design guidelines are provided in the *TfNSW Technical Direction Stopping and Parking Restrictions at* |

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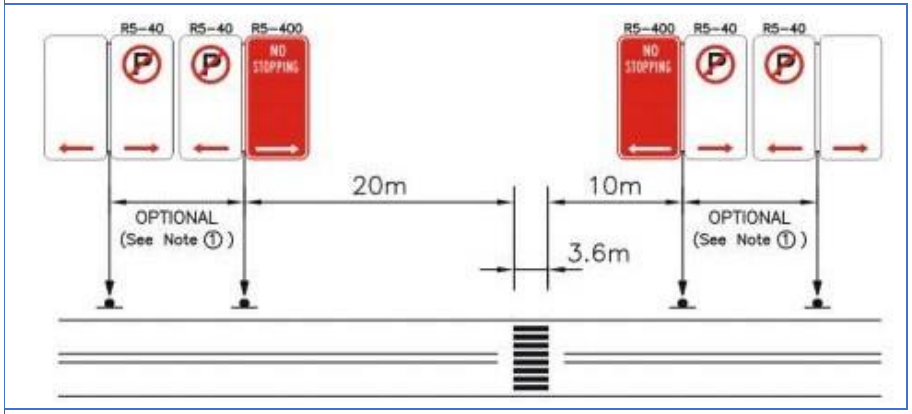
| | ***That the applicant be requested to provide further information on how the movement of pedestrian from the western side of Environa Drive can be discouraged. (Objection)*** | *Intersections and Crossings*. The Technical Direction specifies that to provide suitable sight distances and support the safety of pedestrians at mid-block pedestrian crossings, No Stopping signage should be provided 20 m prior to the crossing and 10 m after the crossing as shown in the diagram below.<br>  <br><br>The stub road provides a single lane in either direction, and the provision of these No Stopping zones on the stub road (which would be required in both directions) **is not consistent** with its geometry or the operation of the kiss n drop zone and as such, this option is not considered feasible.<br>Accordingly, the intersection of the stub road with Environa Drive will be the location for the school crossing. The *TfNSW Supplement to Austroads Guide to Traffic Management part 10: Traffic Control and Communication Devices*, specifies that for crossings used predominantly by school children, in two counts of one-hour duration immediately before and after school hours, a zebra crossing is warranted if:<br>• Pedestrian volumes exceed 30, AND<br>• Vehicle volumes exceed 200<br>It is likely that vehicle volumes on the stub road will exceed 200 during peak periods of morning and afternoon activity.<br>It is not known what volumes of pedestrians will cross the stub road during these peak periods. However, in accordance with the expected growth of Jerrabomberra (particularly the Tralee and Poplars developments), it is expected that pedestrian volumes on Environa Drive |

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| | | will exceed thirty, subsequent to the school opening.<br>The provision of the crossing at the intersection of the stub road with Environa Drive enables pedestrians to cross the road safely and supports a north-south desire line. In anticipation of the warrants being met, it is recommended that a zebra crossing be constructed on the stub road at its intersection with Environa Drive,<br><br>***2. Environa Drive – stopping on west side***<br>Refer to response provided in DPIE Table item 1.d above. |
| **9.1 & 9.2** | ***Waste Collection and Deliveries Comments***<br>Waste collection and deliveries to the canteen will occur within the proposed off street school carparking area.<br>The swept path of the waste collection and delivery vehicles indicates a three point turn is required within the off street carpark. Swept paths show that three point turns will be very tight within the carpark and there are risks that the collection/delivery vehicle could collide withthe carpark gate as well as back into a parked car or pedestrian.<br>There are no dimensions provided for the carpark to demonstrate it meets design standards. A condition is recommended requiring the carpark and delivery area to meet the appropriate Australian Standards for Medium Rigid Vehicles (10.5m).<br>Waste collection should occur outside school hours to reduce any risk from the truck and bin movements affecting the school children. Similarly, hours for collection should be restricted to prevent noise impacts on the surrounding residential areas.<br>Deliveries to the school canteen should be restricted to outside the peak school hours of 8.00- 9.30am and 2.30-4.00pm. At the nearby Jerrabomberra Public School, Council has seen deliveries to the school canteen occurring during school zone time, particularly as they are delivering fresh food supplies that often are required by mid-morning break. The 2.2 Table Plan notes that deliveries will be | ***1. Swept path and car park design***<br>Waste collection at the new high school in Jerrabomberra will be undertaken by a private company within the school car park.<br>GHD and the civil designer have reviewed internal sweep paths for vehicles sized greater (HRV 12.5m) than those proposed to be utilised by the waste collection company proposed and can confirm sufficient space allocations for approach/departure of the vehicle in collection of waste from the storage compound.<br>The car park and waste/delivery facilities have been designed in accordance with the relevant standards/guidelines.<br>***2. Waste collection - hours of operation***<br>The Transport Assessment specifies that all deliveries/waste collection will occur outside of peak school access hours (8:00 am – 9:30 am and 2:30 pm - 4:00 pm). This will occur from within the on site car park area as not to impact the surrounding road network.<br>***3. Deliveries***<br>Deliveries to the high school will occur via a separate vehicle access off the Bus Zone to a loading dock at the southern end of the school, as shown in the diagram below. This access will be fenced and physically separated from the high school. |

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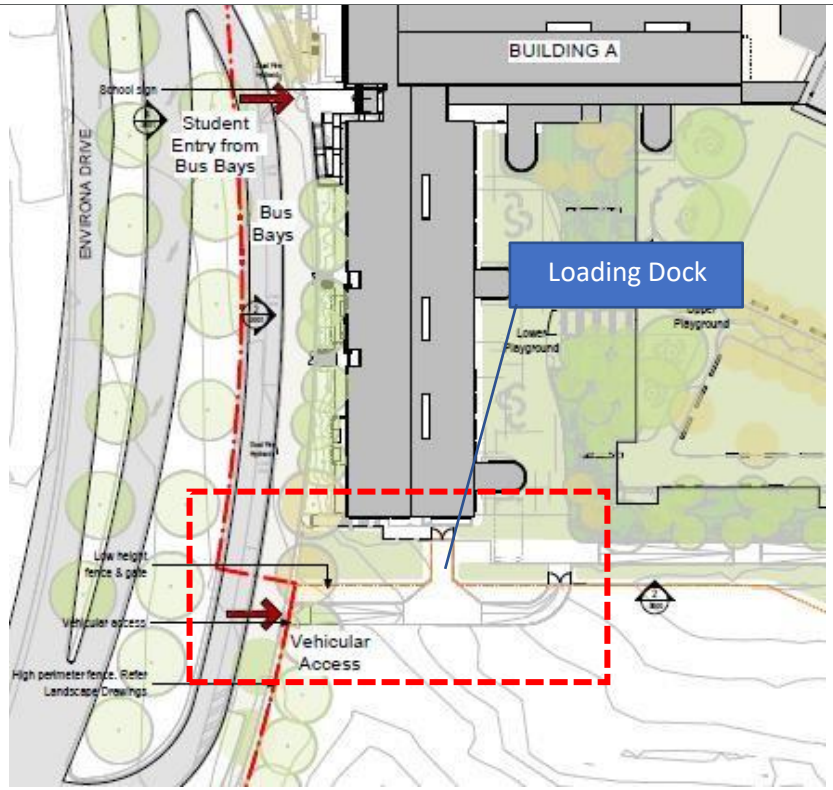
| | restricted during school zone time but it is unclear if the Canteen has been factored into this strategy.<br><br>It is noted that a separate and fenced vehicle access will be provided from the Bus Zone for deliveries to the wood and metal store. Deliveries should be scheduled to occur outside peak periods of school activities to avoid conflicts with the bus zone.<br><br>***Recommendation***<br><br>***That the consent authority impose a condition of consent requiring waste collection to be between 6:00am – 7:30am or 4.00pm to 7.00pm.***<br><br>***That the consent authority impose a condition of consent requiring deliveries (excluding waste servicing) to be scheduled between 8:00am to 9:30am and 2:30pm to 4:00pm.*** |  <br>Deliveries will not occur during the peak school access hours (8:00 am – 9:30 am and 2:30 pm - 4:00 pm).<br><br>The recommended consent conditions for waste collection and deliveries are noted. |
| **10.1 & 10.2** | ***Entrance and Access Comments***<br><br>In accordance with the *Queanbeyan DCP 2012 Section 2.2*, the car park appears to demonstrate two way or separate access and egress allowing all vehicles to enter and leave in a forward direction.<br><br>Vehicular access into the site will be provided via the north road. Only teachers, staff and waste collection/delivery vehicles will have access to the new access road that will be controlled via a boom | The recommended consent conditions for waste collection and deliveries are noted. The design of the carpark shall remain in accordance with the following Australian Standards:<br><br>• AS2890.1-2004 - Off-street car parking<br>• AS2890.2–2002 - Off-street commercial vehicle facilities<br>• AS2890.6-2009 – Off-street parking for people with disabilities |

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| | gate with a security reader and intercom.<br><br>The internal access has been designed based on passenger vehicle manoeuvrability and car park functionality for a standard B99 vehicle. The access off the north road must be designed for heavy rigid 10.5m vehicle manoeuvrability for garbage service.<br><br>***Recommendation* - That the consent authority be requested to impose a condition requiring the carparking area to be designed in accordance with the appropriate Australian Standard.** | |

# Appendix A – QPRC Comments and Recommendations

Doc Set ID: PR.2021.1044

9 December 2021

Infrastructure Assessments
Department of Planning, Industry and Environment
4 Parramatta Square
12 Darcy Street
PARRAMATTA NSW 2150

Attention: tuongvi.doan@planning.nsw.gov.au

**Detailed Submission - New High School at Jerrabomberra (SSD-24461956)**
**Objection to Proposal**

Thank you for the opportunity to comment in relation to the State Significant Development Application (SSD) for the new Jerrabomberra High School.

Please find attached Council's detailed comments on the proposal.

This submission should be considered as an objection to the proposal.

A detailed explanation of why Council formed this view on the application is also included in the attachment. Subject to a satisfactory resolution of those items listed in Schedule 1 of the attachment, Council may withdraw its objection to the proposal.

This submission also includes a list of recommendations for imposition of conditions of consent in Schedule 2.

Should you have any queries in relation to this preliminary submission please contact the undersigned, preferably by email at Council@qprc.nsw.gov.au with a copy to Michael.Thompson@qprc.nsw.gov.au .

Yours sincerely,

M J Thompson

**M J Thompson**
Portfolio General Manager
Natural and Built Character
**Queanbeyan-Palerang Regional Council**

# Submission and Comments from Council on Jerrabomberra High School - SSD-24461956

Council's Ref: PR.2021.1044
DPIE Ref: SSD-24461956
Council Contact: M J Thompson
Council@qprc.nsw.gov.au

Date of Submission: 9 December 2021

**Submission and Comments for Jerrabomberra High School**

**Council's Ref: PR.2021.1044**

**DPIE Ref: SSD-24461956**

**CONTENTS**

***Detailed Comments***

## *1. Permissibility*

### *1.1. Comments*

The development is defined as an educational establishment under the *Queanbeyan (West Jerrabomberra) Local Environmental Plan 2013* (the LEP).

The site is zoned part B7 Business Park and part RE2 Private Recreation under the LEP. Educational establishments are permitted with consent in the B7 zone but prohibited in the RE2 zone. Nonetheless, pursuant to clause 2.1 (in conjunction with Schedule 1) of the LEP, the entire site is subject to an additional permitted use clause that allows for educational establishments to be carried out on the land with development consent.

Council can be satisfied that the permissibility of the development is satisfactory.

### *1.2. Recommendation*

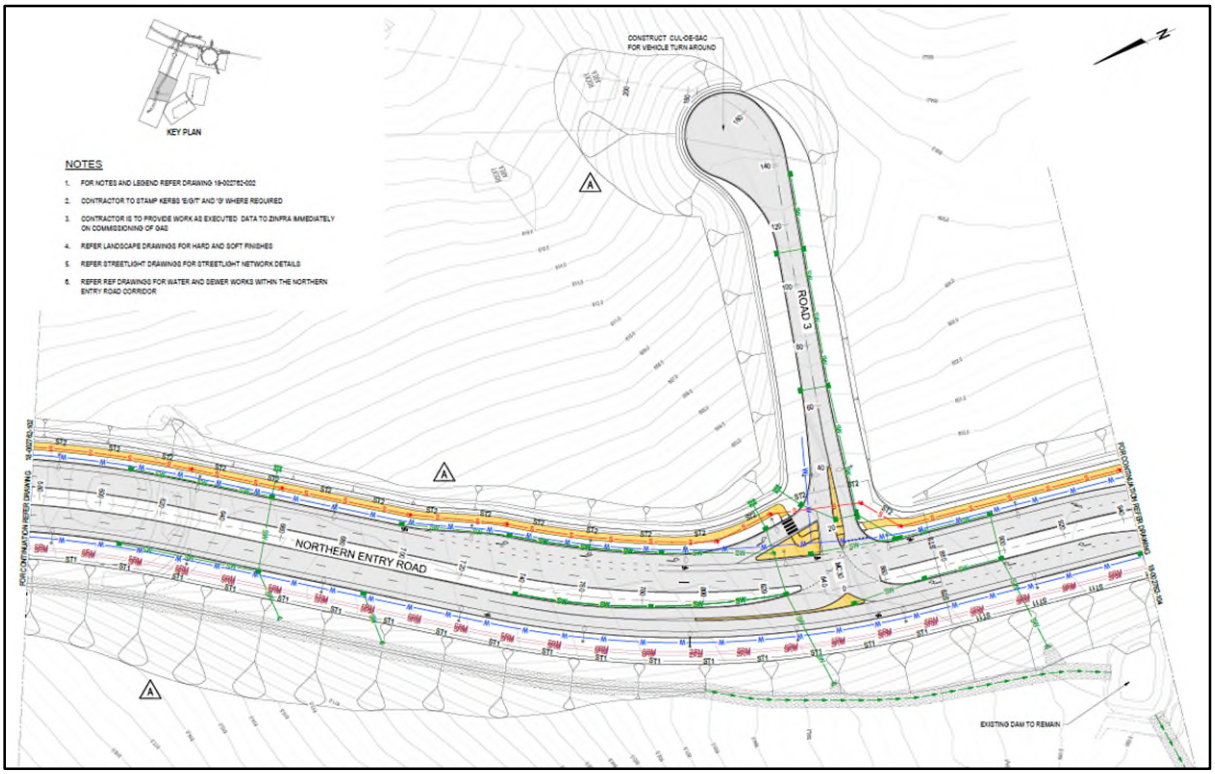
Nil.

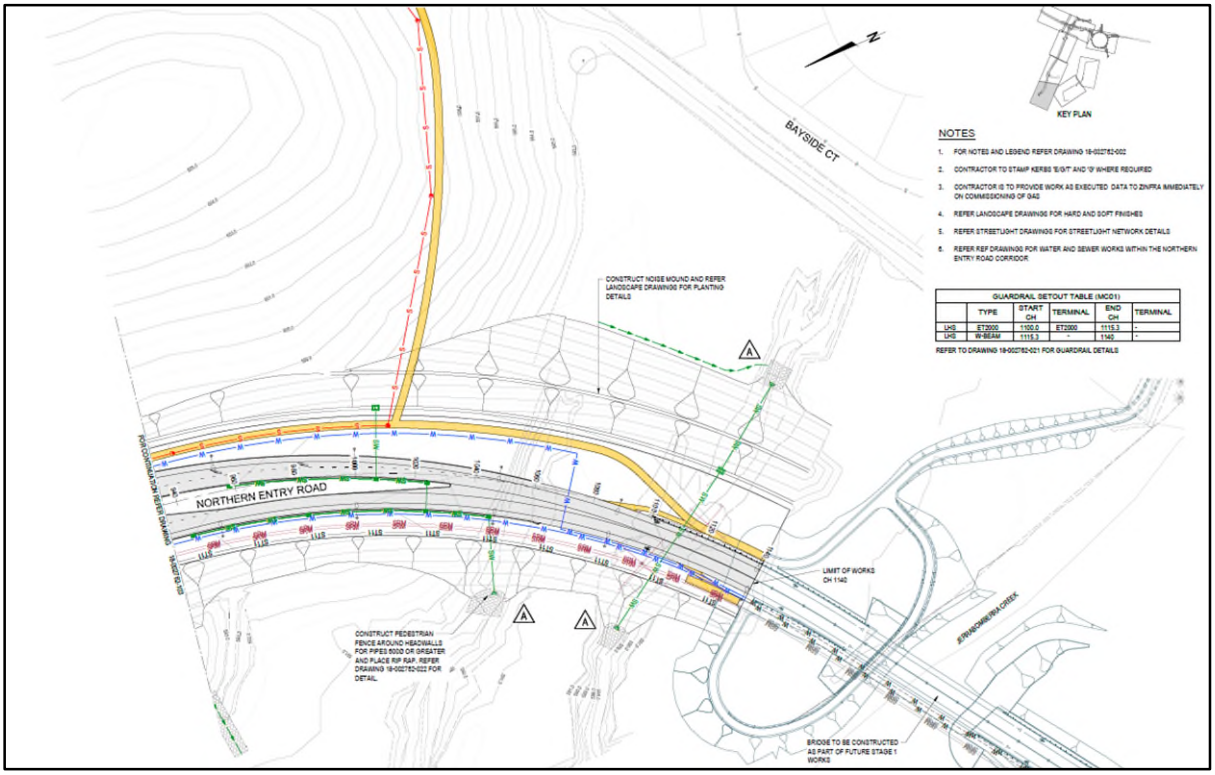
## *2. Utilities*

### *2.1. Comments*

The main Council facilities impacted by the development are shown in the extract image below.

- Red – Sewer "S"
- Blue – Water "W"
- Green – Stormwater "SW"






**Services Plans (not WAE) – 300 Lanyon Drive (to become 101 Environa Drive) Jerrabomberra**

### *2.1.1 Water*

The high school development site is within the Jerrabomberra pressure zone and has connectivity to recently constructed 300mmØ DICL potable water main in the eastern verge of Environa Drive and northern verge of the north road, associated with the Environa Drive project in 2021.

### *2.1.2 Sewer*

The high school development site will be serviced by a recently constructed 225mmØ PVC local sewer main in the eastern verge of Environa Drive, associated with the Environa Drive project in 2021.

Figure 4 in the plan shows sewer connection to manhole S112 near the Bus Zone. The sewer connection should be through a standard connection to the sewer main running towards the rear of the school block.

### *2.1.3 Storm Water*

The high school development site can be serviced by a storm water connection to the recently constructed pit (G02) adjacent to the Bus Lane with a 600mmØ RCP drainage pipe connecting to the new infrastructure line in Environa Drive.

The proposed development of the site will increase runoff, thus a stormwater management plan demonstrating the proposed development will not exceed pre-development runoff flow for both 20% and 1% storm events is required in accordance with Council's D5 Stormwater Drainage Design specification, and water quality in accordance with Council's D7 Erosion Control and Stormwater Management Design specification and corresponding computer modelling.

The provided civil plans support the construction of an on-site detention (OSD) tank to accept stormwater from impermeable areas, which is a necessary requirement for this development.

### *2.2. Recommendations*

That the consent authority impose conditions requiring:

- Preparation of a hydraulic design plan providing details of the required sizing for all water, sewer and stormwater services required for the site.
- The preparation of an on site detention design to limit stormwater discharge from the site to pre-development flows.
- That all connections and alterations to Council's utility services are inspected by Council staff prior to backfilling.

## ***3. Erosion and Sediment Control***

### *3.1. Comment*

An Erosion and Sediment Control Plan (ESCP) will be required for any works causing surface cover disturbance. An ESCP will be required to be submitted prior to commencement. A Soil and Water Management Plan (SWMP) will be required to be implemented by the property owner for any works causing surface cover disturbance. This requirement applies for all stages of development.

### *3.2. Recommendation*

That the consent authority impose conditions requiring the preparation, implementation and maintenance of an erosion and sedimentation plan throughout the construction of the development.

## *4. Traffic and Roads*

### *4.1. Comment*

#### *4.1.1 Traffic Assessment*

The detailed traffic assessment of the proposed high school in Jerrabomberra factored in the large student catchment extending from the NSW/ACT border and including the localities of Jerrabomberra, Tralee, and Googong.

With discussions with TfNSW and QPRC, SIDRA intersection analysis by GHD indicates that the key intersections in the proximity to the proposed high school site will operate with a varied Level of Service with some delays on “no build” and “build” scenarios for;

- Lanyon Drive and Tompsitt Drive.
- Tompsitt Drive, Henry Place and Environa Drive.
- Jerrabomberra Circle.

Council Engineers provided information indicating that the 1,500 lots in the new urban release area in South Jerrabomberra subdivisions are expected to be fully developed within the next 20 years.

The trip rates for the high school were undertaken on a first principles basis in accordance with the current journey to work data and accounted for an occupancy rate of 1.4 students per vehicle. As such, the proposed high school is expected to attract;

- 175 vehicles will access and egress the high school and its surrounds in peak morning and afternoon school hours and that no reduction of trip generation has been applied associated with multiple students per vehicle occupancy.
- 30 vehicles driven by teachers will access the school in the morning peak hour and depart the school in the afternoon peak hour.

Analysis results for the 2023 “no-build” scenario indicate that the signalised intersections (AM and PM school peaks) and the Jerrabomberra Circle in the PM school peak are operating within practical level of capacity with a Level of Service operating from satisfactory and near capacity. Although the Jerrabomberra Circle is operating at a satisfactory Level of Service and the overall roundabout average delay is approximately 40 seconds, in the AM school peak hour, the eastern approach at the roundabout operates at an unsatisfactory Level of Service with average delays of approximately 130 seconds. This is due to the large volumes of traffic entering the roundabout from Edwin Land Parkway and is opposed by high right turn volumes from Tompsitt Drive in the AM school peak hour.

Analysis results for the 2033 “build” scenario indicate that the intersection at Lanyon Drive/Tompsitt Drive is operating within practical level of capacity with a near satisfactory to near capacity Level of Service in the AM school peak hour. In the AM school peak hour, the Tompsitt Drive/Henry Place intersection is operating at capacity with delays Level of Service, with a slight increase in delay when compared to a “no-build” scenario. The Jerrabomberra Circle operation is consistent to a “no-build” scenario, operating with an unsatisfactory Level of Service and increased average delay for the eastern approach in the AM school peak. In the PM school peak “build” scenario, both signal intersections operate at an unsatisfactory Level of Service and average delay recorded at 86 and 111 seconds, respectively. For the Lanyon Drive/Tompsitt Drive intersection, the increase in delay is associated with the large volumes of traffic on Tompsitt Drive, causing congestion throughout the network.

The SIDRA results indicate that the intersections operation in the “build” scenario is consistent when compared to “no-build” scenario for both 2013 and 2033.

Any upgrades to the intersections in Jerrabomberra to facilitate a more acceptable Level of Service should not be the responsibility of the school to fund or implement, and the proposed high school in Jerrabomberra can be supported from a traffic and transport perspective.

### *4.1.2 Parking Facilities – Off Street*

In summary the parking proposed consists of:

- 34 car parking spaces provided to teachers and staff in a level carpark and will included two (2) disabled spaces.
- 114 bicycle parking spaces for students that will be located at the northern and southern pedestrian entries of the school.
- The proposal does not include any explanation of how on street parking will be provided other than the drop/off pick up area.

Vehicle access to the high school is from the north road cul-de-sac. Staff and waste collection vehicles will be able to enter the school. Access to the car park will be controlled by a gate and a reader/intercom

In terms of configuration and manoeuvring, the high school development site should meet the requirements of *AS/NZS 2890.1-2004 Parking Facilities Off-Street Car Parking, AS/NZS 2890.6-2009 Off-Street Parking for People with Disabilities*, and *Palerang DCP 2015 Section B7.1*. All parking spaces and aisle widths must meet the functionality of the Australian Standard as a minimum.

Of concern to Council is that while 44 staff are employed only 34 parking spaces have been provided, noting that a discount of 10 spaces has been provided based on mode share requirements. This is inconsistent with Council's experience on school sites throughout its local government area. In all cases the number of vehicles being bought by staff to school sites far exceeds the number of onsite spaces being provided and does not take into account the myriad of ancillary staff and casuals who typically attend the school site. Council does not believe the mode share calculations for staff are realistic and that at least the 44 spaces required for each staff member should be proposed. As such Council objects to the proposal on these grounds.

### *4.1.3 Parking Facilities – On Street*

Very little has been provided in the Traffic Assessment around the management of on-street parking. Given the width of the north road (8m) and the design of the pick-up and drop off which is requiring vehicles to queue along the north road, there is no capacity for on-street parking on the north road. Outside of the indented 'Pick up and Drop Off 'on the north road all other areas of the north road will need to feature 'No Stopping'.

It is unclear where parking is provided for parents during the school zone time who need to park and walk their children into the school and visit the school office. Being a high-school this isn't likely to occur as much as a primary school but parents may still need to park and attend the school or school office during school zone time.

In addition Table 3.2 has calculated that 50 students will drive to the school – and this will likely generate 50 vehicles requiring parking within the vicinity of the school. There is no mention in the Traffic Assessment where the 50 vehicles will be managed around the school that it is planning to generate. The provided car-parking which has 34 spaces is noted as being controlled by an access gate and available only for teachers. The lack of formal planning and close located on-road parking risks illegal and unsafe parking that is heavily dependent on enforcement of Police or Council rangers to monitor and this is not a sustainable or safe approach from the outset.

As the north road is not designed to support parking and the operation of the pick-up and drop-off this means on-street parking is being encouraged and noted for 'Environa Drive'. This road, being a collector road is not designed for on-street parking either and there are no pedestrian facilities to support pedestrians to cross Environa Drive. It is unclear from the Transport assessment how parking can be safely supported adjacent to the school.

The Transport Plan notes that the school will be promoting 'carpooling' and dedicated space will be provided at the high school to encourage 'carpooling'. However, this only appears to extend to the 'teacher parking' area that the 50 vehicles generated by students have no priority or incentive for car-pooling.

Council considers that until such time as a more detailed analysis of where on street parking will occur around the school site is carried out it objects to the proposal on the basis that insufficient consideration has been given to the provision and impacts of on street parking.

*4.2. Recommendation*

- That the consent authority request that the applicant submit a design for a minimum of 44 off street carparking spaces. (Objection)
- That the consent authority request that the applicant carry out an analysis of how on street parking will be catered for as a result of the school proposal. (Objection)

## *5. Student Pick-Up and Drop-Off*

*5.1. Comments*

The proposed high school student pick-up and drop-off zones will be on the southern side of the north road comprising seven (7) car spaces plus one dedicated space for students with special needs, but do not require ASTP services. Parents/guardians picking up or dropping off their child/children will undertake a U-turn at the eastern end (at the turning head), use the designated facility on the southern side of the north road and exit onto Environa Drive.

The pick-up/drop-off zone will be controlled by No Parking signage (8:00am to 9:30am and 2:30pm to 4:00pm school days) to encourage quick vehicle turnover. Outside of these periods, the pick-up/drop-off zone can be legally used for visitor parking.

The mode share target for students being dropped off is 25% of the student capacity, which equates to 125 students. Factoring an occupancy rate of 1.4 students per vehicle, corresponds to 90 vehicles.

The school peak is expected to occur over a 15-minute period and takes approximately 60 seconds for a student to embark or disembark a vehicle. Subsequently, each car parking space would turn over approximately 15 vehicles resulting in the seven (7) car parking spaces accommodating up to 105 vehicles during the peak 15 minutes of school activity.

There will be opportunities for parents and guardians with special needs children attending the high school and minibuses associated with the NSW's Government Assisted School Travel Plan (ASTP) to pick-up and drop-off their children within the high school staff car park. Although there are no dedicated bays provided for such pick-up and drop-off, provision of ASTP and special needs access within the staff park will provide separation from other parental pick-up and drop-off activity and will occur behind gates which significantly reducing student safety risks to traffic.

The operation of the pick-up and drop-off is dependent on achieving 250 (50%) of the school students and 20% of staff using alternate active transport. This is not a realistic achievement, It is not Council's experience that any of the current schools in the LGA are achieving a 50% active transport mode and it doesn't account for the cold weather climate of QPRC and for inclement weather and the fact that only 5% of school children are estimated to be eligible for SSTS. It also doesn't account for the JTW data that notes the large proportion of residents in Jerrabomberra that drive to work and from a supervision and convenience perspective may choose to drive children to school rather than pay for public transport.

There is no indication in the Transport assessment of how the pick-up and drop-off will operate with less than the achieved active transport targets and lack of consideration for such scenarios, risks introducing safety issues and network efficiencies around the school zone. In particular there is a risk of queued vehicles stacking out onto Environa Drive and leading to unsafe situations such as vehicles queued on the north road dropping off school children in the middle of the street before getting to the indented pick up and drop off area.

The design of the pick-up and drop-off, which is dependent on a maximum active transport take-up, is described as using the north road off Environa Drive for vehicles to queue to use the facility. The north road isn't wide enough to support queued vehicles for the pick-up and drop-off and traffic that is driving through the north road to access the car-park such as teachers and emergency vehicles. The operation of the pick-up and drop off stacking and queueing on a public road that will then restrict access of traffic in a travel lane is not a safe design. This is particularly a concern for emergency/ambulance vehicles that are meant to have safe through access to their designated access point. This design is also a concern for the afternoon 'pick-up' function where parents arrive (often up to 30 minutes prior to school finishing) and have no-where to stack and wait (or park) that will not impact the travel lane on the north road and afternoon pick up risks waiting vehicles stacking onto Environa Drive.

Extending the north road as a through road travelling north would substantially improve the expected impacts.

The Traffic assessment describes the pick-up and drop-off area as a 'designated facility' – it is unclear if this will be indented but it is recommended. Although if this occurs it will need to consider location of existing services such as stormwater pits which may need to be modified or relocated.

Council does not believe the 7 designated spaces of the pick-up and drop off will be sufficient for the capacity.

It is uncertain if the proposed mobility parking spot in the pick-up and drop off facility can meet the required mobility parking standard. It should be noted that the north road has a grade of 8% and would not be suitable for a disabled parking space. AS2890.5-1993 requires the fall for a disabled parking space to be no greater than 1:33 in any direction.

*5.2. Recommendation*

That the applicant carry out a further review of the drop off/pick up zone to identify the potential impacts of queuing in the north road cul-de-sac and whether additional spaces can be provided. (Objection)

## *6. Other Comments – School Transport Plan*

### *6.1. Comments*

The Governance framework for the STP is concerning. The Transport Assessment Plan notes that there will be two working groups established for the new high school. The internal group are internal staff, parents, students reps, the Road Safety Education Officers and reps from Asset and WHS unit – their role is to identify issues in the operation of the school's traffic and transport facilities and identify potential mitigation measures. However, it is unclear if any of these staff will have the skills and qualifications to conduct this assessment of traffic operations and traffic facilities. QPRC have attempted in past to implement a supervised Pick up and Drop off at a local school and requested assistance from the Road Safety Education Officer who noted this was outside their area of responsibility. In last 6 years QPRC have not seen any assistance or road safety expertise being provided regarding the traffic facilities and operation in a school zone from Road Safety Education Officer. The internal group are also assessing traffic facilities that will be owned and operated by Council and it would be more appropriate for Council to be conducting such assessment.

The Travel Coordinator role is only funded after 1 year but the STP has responsibilities listed to this position beyond 1 year (annual review of travel modes and evaluation of impact of interventions). It is unclear how the ongoing responsibilities generated around the STP will be managed by the school.

The STP notes annual surveys will be undertaken to capture potential changes in travel modes as result of interventions – though it is unclear what possible intervention could be applied that would result in a drastic increase in active transport uptake particularly during cold weather (which can account for up to 50% of the school year).

### *6.1. Recommendation*

Nil. Comment only.

## *7. Public Transport*

### *7.1. Comments*

A Bus Zone will be provided adjacent to the west of the high school and separate from the Environa Drive traffic flow, minimising the impacts of buses drawing in and drawing out at the school on the through movement of traffic on Environa Drive and students will not be required to cross a road to access the Bus Zone.

There will be a separate pedestrian ingress and egress gate provided for students accessing the school via bus.

In accordance with the geometry of the zone, all buses will access the high school in a north to south direction. Buses for excursions (or similar) will use the school's designated Bus Zones.

Based on mode share targets approximately 75 students are expected to catch a bus to and from school. This is the equivalent of two buses based on the assumption of approximately 40 students per bus. Accordingly, the Bus Zone will have sufficient capacity to accommodate the expected demand.

Discussions have been initiated with TfNSW and QCity Transit about providing bus services to accommodate the additional demand associated with the proposed Jerrabomberra High School.

Based on these discussions it is noted that:

- For bus services to be determined for a new school, a SSTS Portal needs to be set up by TfNSW.
- The portal will provide parents with an opportunity to apply for free public transport, for students residing outside the 2.9-kilometre catchment.
- Based on that data, appropriate bus routes will be developed with the public transport providers for the new high school in Jerrabomberra. These will account for the public transport needs of the adjacent primary school.
- Bus routes are typically identified within eight months of a school opening.

Section 3.2.1.3 of the Transport Assessment discusses the use of the designated Bus Zone to the west side of the high school for excursion buses. Due to site constraints the construction of the bus zone was unable to include the required deceleration and acceleration lanes required for a 70km/h road. Therefore, the Bus Zone can only be operational during the 40km/h school zone times and will be signposted accordingly.

Entry into the Bus Zone is strictly through the southbound carriageway of Environa Drive. Bus Routes, particularly from South Jerrabomberra, will need to consider current and future road network needs to ensure that bus routes minimise impacts to the road network and school traffic

### *7.2. Recommendation*

That the consent authority impose a condition requiring the use of the Bus Zone to be restricted to periods during the 40km/h school zone times.

## ***8. Crossings and Pedestrian Movements***

### *8.1. Comments*

North of the school's location, where Environa Drive meets Tompsitt Drive a shopping district is located that features McDonalds, KFC and 7-eleven. Such shops are pedestrian generators for school children before and after school, and this will mean school children walking to and from JHS to these shops will be a natural desire line. Parents commuting to work out of Jerrabomberra via Tompsitt Drive may also choose to drop off their school children at these shops and school children may also be walking in this direction for after-school employment.

The main school entry for pedestrians into the School on the north road is noted in Figure 3.1 of the transport assessment. It is offset and at a distance from the intersection of the north road with Environa Drive. Figure 3.3 features 'future pedestrian crossing facilities' linking to a 'shared path' travelling along the eastern side of 'Environa Drive'. This figure features two crossing points at intersections. From a safety perspective, one mid-block crossing on the north road away from the intersection where vehicles are turning and drivers are making turning movement decisions would provide a better safety outcome for pedestrians – it would also reduce the crossings from two to one.

The lack of a formal pedestrian crossing facility located in close proximity to the main school pedestrian access on the north road risks school children exiting the main gate and streaming across the north road heading in their desire line (north of school to the shopping centre with KFC/McDonalds). This will be a far easier desire line than turning west out of the main gate and walking up to the intersection and crossing across two pedestrian crossings.

The applicant should revisit the location of crossings in the light of the above comments.

The traffic impact study does not cover how it will safely manage and address any pedestrian activity crossing Environa Drive, particularly if the pedestrians are crossing through the bus zone. There is a risk that parents from South Jerrabomberra will choose the convenience of stopping and dropping children off on the western side of Environa Drive as they drive to work. Children will then potentially try to cross Environa Drive where there is a lack of pedestrian crossing facilities for this pedestrian movement. Civil designs should consider installation of pedestrian fencing on the western and eastern side of Environa Drive to discourage drop offs along Environa Drive.

*8.2. Recommendation*

- That the applicant be requested to revisit the need and proposed location for a school crossing adjacent to the main school entry off the north road. (Objection)
- That the applicant be requested to provide further information on how the movement of pedestrian from the western side of Environa Drive can be discouraged. (Objection)

### *9. Waste Collection and Deliveries*

*9.1. Comments*

Waste collection and deliveries to the canteen will occur within the proposed off street school carparking area.

The swept path of the waste collection and delivery vehicles indicates a three point turn is required within the off street carpark. Swept paths show that three point turns will be very tight within the carpark and there are risks that the collection/delivery vehicle could collide with the carpark gate as well as back into a parked car or pedestrian.

There are no dimensions provided for the carpark to demonstrate it meets design standards. A condition is recommended requiring the carpark and delivery area to meet the appropriate Australian Standards for Medium Rigid Vehicles (10.5m).

Waste collection should occur outside school hours to reduce any risk from the truck and bin movements affecting the school children. Similarly, hours for collection should be restricted to prevent noise impacts on the surrounding residential areas.

Deliveries to the school canteen should be restricted to outside the peak school hours of 8.00-9.30am and 2.30-4.00pm. At the nearby Jerrabomberra Public School, Council has seen deliveries to the school canteen occurring during school zone time, particularly as they are delivering fresh food supplies that often are required by mid-morning break. The 2.2 Table Plan notes that deliveries will be restricted during school zone time but it is unclear if the Canteen has been factored into this strategy.

It is noted that a separate and fenced vehicle access will be provided from the Bus Zone for deliveries to the wood and metal store. Deliveries should be scheduled to occur outside peak periods of school activities to avoid conflicts with the bus zone.

*9.2. Recommendation*

- That the consent authority impose a condition of consent requiring waste collection to be between 6:00am – 7:30am or 4.00pm to 7.00pm.
- That the consent authority impose a condition of consent requiring deliveries (excluding waste servicing) to be scheduled between 8:00am to 9:30am and 2:30pm to 4:00pm.

## *10. Entrance and Access*

### *10.1. Comments*

In accordance with the *Queanbeyan DCP 2012 Section 2.2*, the car park appears to demonstrate two way or separate access and egress allowing all vehicles to enter and leave in a forward direction.

Vehicular access into the site will be provided via the north road. Only teachers, staff and waste collection/delivery vehicles will have access to the new access road that will be controlled via a boom gate with a security reader and intercom.

The internal access has been designed based on passenger vehicle manoeuvrability and car park functionality for a standard B99 vehicle. The access off the north road must be designed for heavy rigid 10.5m vehicle manoeuvrability for garbage service.

### *10.2. Recommendation*

That the consent authority be requested to impose a condition requiring the carparking area to be designed in accordance with the appropriate Australian Standard.

## *11. Flooding*

### *11.1. Comment*

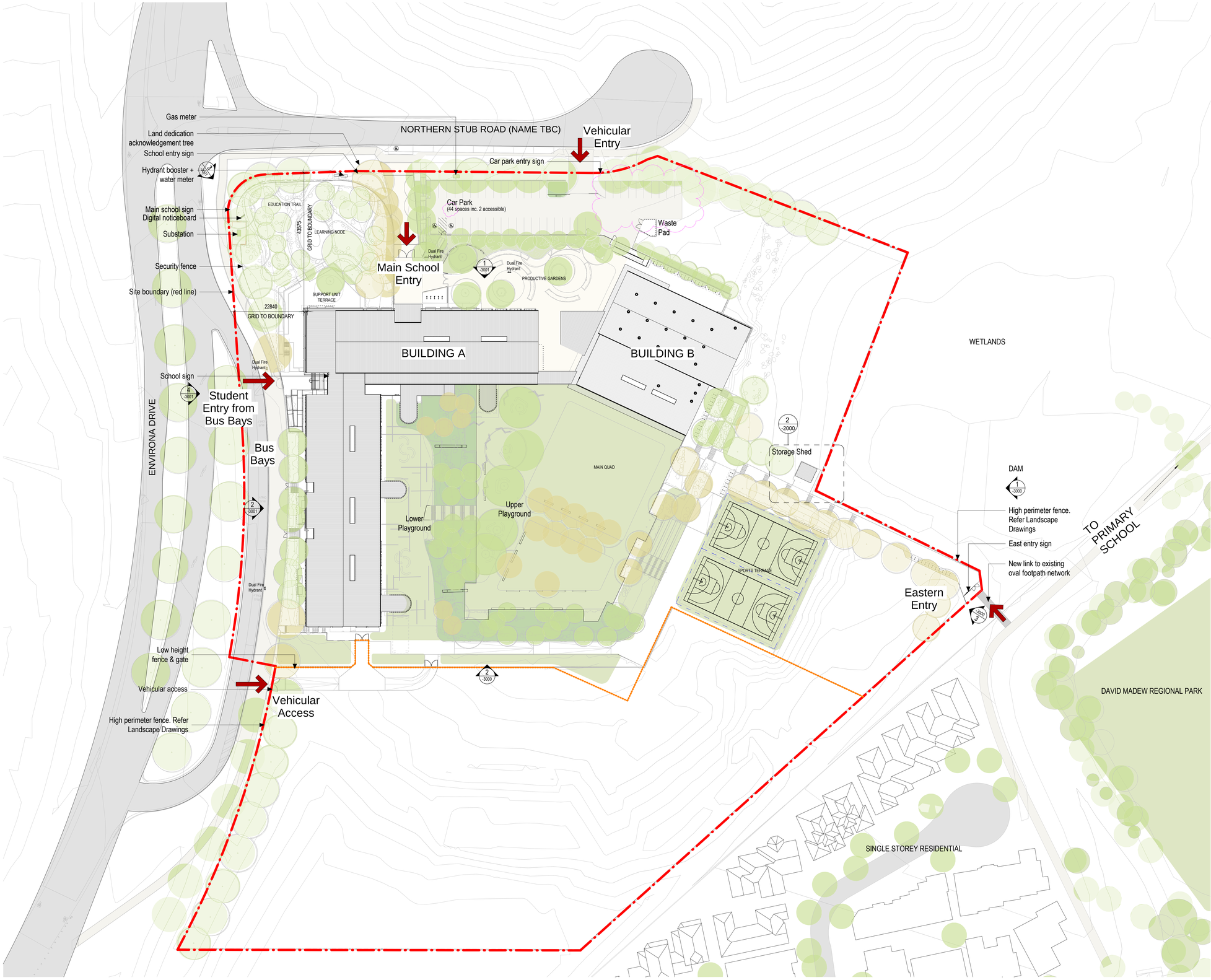
DRAINS software package was used with the RAFTS hydrological engine to assess the 1% AEP flood with and without climate change, and probable maximum flood (PMF) peak flow rates for a range of storm durations between 10 minutes and 6 hours.

The critical storm duration for the site was determined to be 1 hour for the 1% AEP flood event with and without climate change. For validation purpose, a 6 hours 1% AEP flood is modelled for the critical storm duration in the Jerrabomberra Creek upstream of the recently constructed NER 1 bridge. As the site is affected by the mainstream flooding during the PMF event, the critical storm duration of 3 hours for the Jerrabomberra Creek was adopted for the flood assessment modelling.

The flooding modelling concluded the following;

- Flood characteristics are consistent with existing conditions, and differences due to the proposed high school development are negligible.
- Flooding on the school site is limited to lower areas for the 1% AEP and PMF events. All school building finished floor levels are above the PMF level.
- The proposed buildings are outside of flood extent in the 1% AEP with and without climate change, and PMF events.
- All building finished floor levels are above the FPL and PMF levels.

# Appendix B – New high school in Jerrabomberra Master Plan

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NSW Nominated Architects: Robert Denton Reg. No. 5782, Alex Kibble Reg. No. 6015
Do not scale drawings. Verify all dimensions on site. Notify architect of all discrepancies

| Rev | Date | Description | Chkd | Auth. |
|---|---|---|---|---|
| A | 06.09.21 | Issued for SSDA | KS | RD |
| B | 08.09.21 | Re-issued for SSDA | KS | RD |
| C | 13.09.21 | Re-issued for SSDA | KS | RD |
| D | 21.02.22 | Issue for DPIE RtS | AC | RD |

Project
High School in Jerrabomberra

ENVIRONA DRIVE,
JERRABOMBERRA NSW 2619

Drawing Title
PROPOSED SITE PLAN

| Proj. Dir | Proj. Arch | Drawn | Sheet |
|---|---|---|---|
| RD | KS | HK/AM | B1 |

| Job No. | Date | Scale |
|---|---|---|
| 200095 | 21.05.21 | 1 : 500 |

Drawing No. AR DA HS -1010
Revision D

0M 10 20 30 40 50

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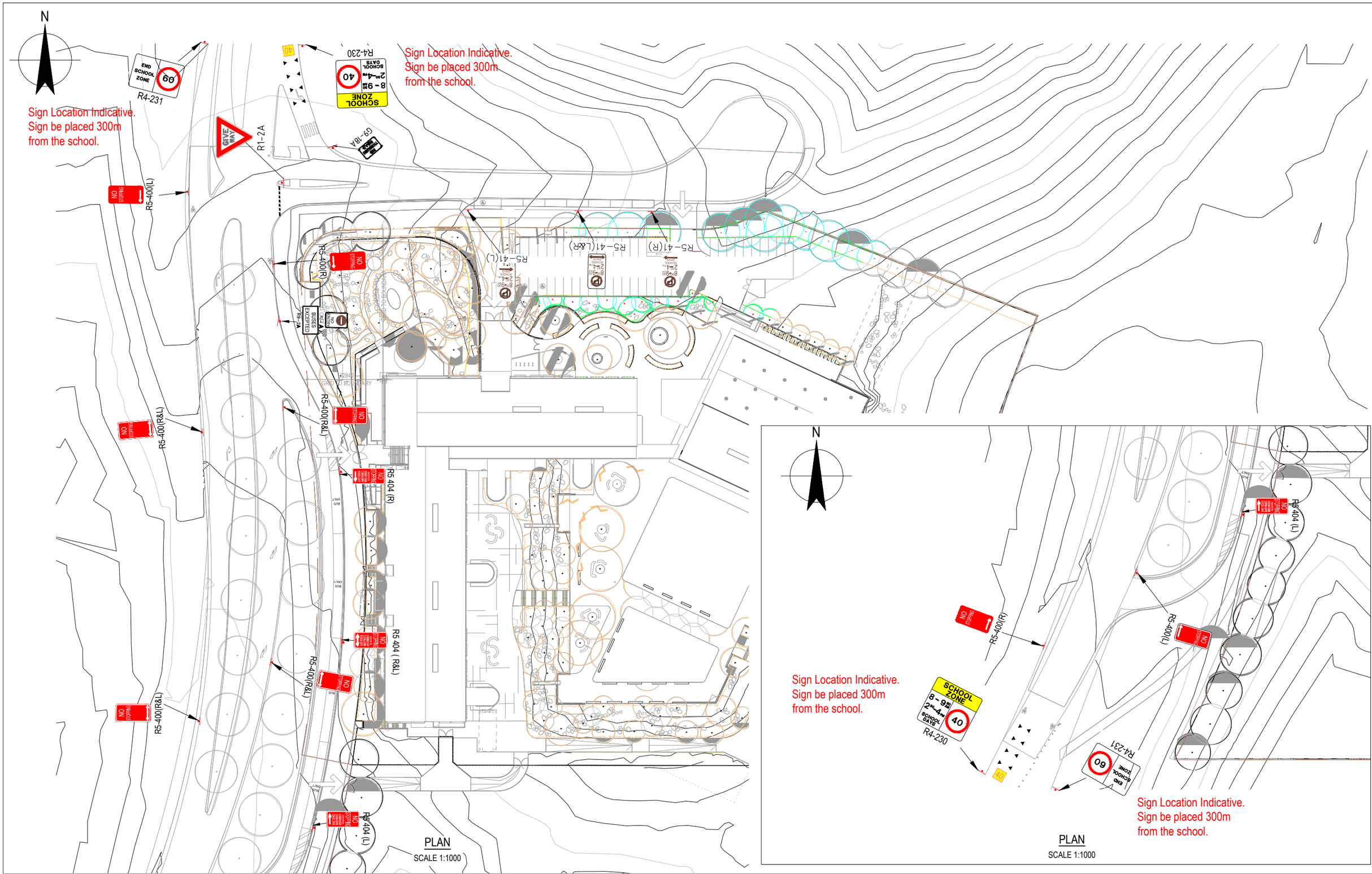
TKDArchitects
Tanner Kibble Denton

# Appendix C – Signage and linemarking plan




| Rev | Description | Checked | Approved | Date |
|---|---|---|---|---|
| Author | Drafting Check | | | |
| Designer | Design Check | | | |

0 10 20 30m
SCALE 1:1000 AT ORIGINAL SIZE

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Project No. 12548316

Client

Project JERRA PARK

Status ACTIVE

Status Code

Drawing Title

Size A3

Drawing No. 21-12548316-C100

Rev

Plot Date: 21 March 2022 - 7:48 PM Plotted by: Pratik Singla File Name: N:\AU\Sydney\Projects\21\12548316\CADD\Drawings\21-12548316-C100.dwg

# Appendix D – TfNSW School Trip Data

**Figure 4.22: Metropolitan Primary School Interview Survey Average Mode Split**

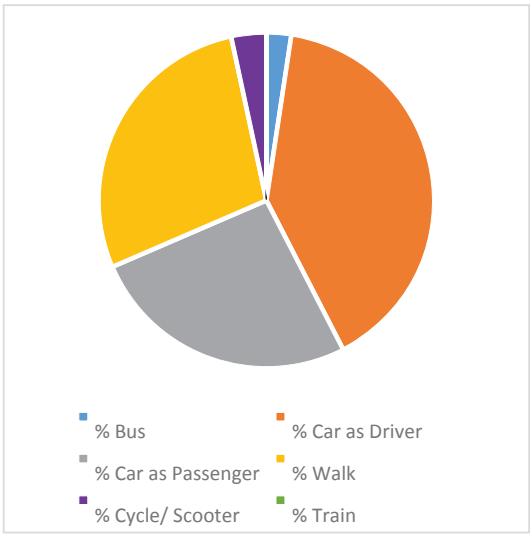


**Figure 4.23: Regional Primary School Interview Survey Average Mode Split**

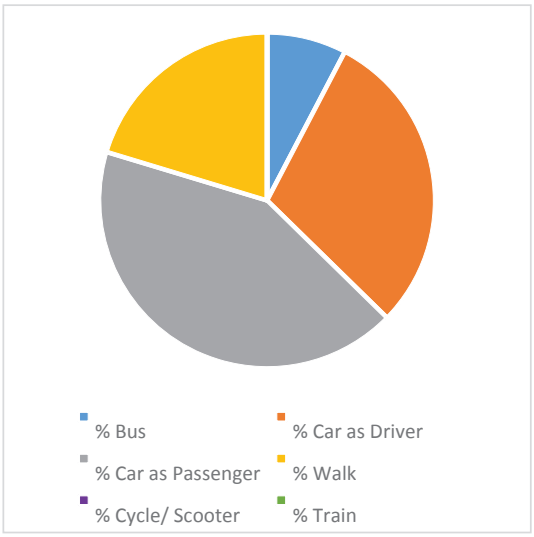


**Table 4.11: Primary School Interview Survey Results Summary**

| Mode | Average |
|---|---|
| Bus | 4% |
| Car as driver | 36% |
| Car as passenger | 32% |
| Walk | 25% |
| Cycle/ Scooter | 2% |
| Train | 0% |

Rounding to nearest 1%

Table 4.11 follows on from the observed trend of low bus mode split for primary school students. The high proportion of car as driver respondents indicates a high participation rate from adults, most probably parents of students.

## Secondary Schools

Overall, car mode split was less than 50% for the secondary school respondents. In metropolitan areas, car mode split was greater than 50% and in regional areas, walking was the most dominant mode choice.

The overall average responses for secondary schools is presented in Figure 4.24 with comparisons of metropolitan and regional secondary schools in Figure 4.25 and Figure 4.26 and a summary provided in Table 4.12.

**Figure 4.24: Secondary School Interview Survey Average Mode Split**

Secondary School Interview Survey Average Mode Split

Figure 4.25: Metropolitan Secondary School Interview Survey Average Mode Split

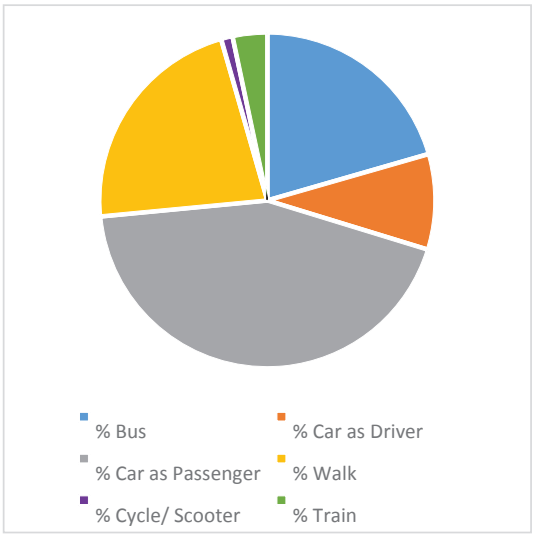


Figure 4.26: Regional Secondary School Interview Survey Average Mode Split

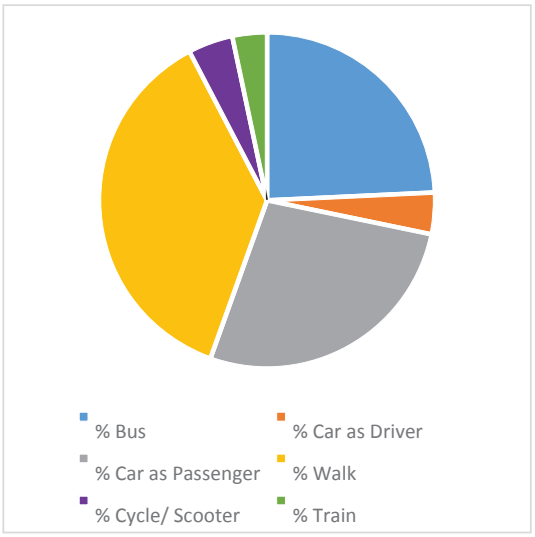


Table 4.12: Secondary School Interview Survey Results Summary

| Mode | Average |
|---|---|
| Bus | 23% |
| Car as driver | 6% |
| Car as passenger | 40% |
| Walk | 28% |
| Cycle/ Scooter | 1% |
| Train | 2% |

Rounding to nearest 1%

Table 4.12 indicates greater independence of high school students with the train mode being represented in the secondary school surveys.

## 4.7 Parking Demand

### All Schools

Peak parking generated by the school was assessed just after the start of the school and prior to the end of school period. The surveyed parking demand includes both on-site and on-street demands. The overall average was found to be marginally higher in the AM period than the PM period. During the peak activity periods, there would be very short time periods of higher parking demand generated by pick-up and drop-off activities. As such, the reported parking demands should be viewed as long-term school generated car parking throughout the day.

The parking generation rate of each school has been compared against the staff to student ratio at each school. This provides an indication as to if parking demands are directly related to staffing levels. It was observed that there is a general correlation at many schools between staff and parking levels. Where parking rates are higher than the staff/ student ratio, this indicates increased visitor or student parking demands. Where the parking/ student ratio is less than the staff student ratio, this indicates staff selecting an alternative commute transport mode.

The AM peak parking demand for all schools is presented in Figure 4.27.

# Appendix E – Pedestrian Traffic Safety Fence Location and Type Drawings

**LEGEND**:

Pedestrian Safety Fence

Pedestrian Desired Travel Path

**FENCE TYPE REFERENCE**:

Pedestrian Safety Fence (install image similar)
Refer to RMS Pedestrian Safety Fence Drawing (PF-SD-003 following page)

WETLANDS

Eastern Entry

SINGLE STOREY RESIDENTIAL

WASTE PAD

BUILDING B

MAIN QUAD

Upper Playground

Vehicular Entry

Car Park

NORTHERN STUB ROAD (NAME TBC)

Main School Entry

BUILDING A

Lower Playground

Bus Bays

PEDESTRIAN TRAVEL DESIRE LINE

PROPOSED PEDESTRIAN BARRIER TYPE FENCE LOCATED IN MEDIAN.

AIMS TO ACT AS DETERANT FOR PEDESTRIAN DROPOFF ON WESTERN ELEVATION, OR NORTH TRAVELLING VEHICLES ON ENVIRONA DR

ENVIRONA DRIVE

Gas meter

ENVIRONA DRIVE

PROPOSED PEDESTRIAN BARRIER TYPE FENCE LOCATED IN MEDIAN.

AIMS TO ACT AS DETERANT FOR PEDESTRIAN DROPOFF ON WESTERN ELEVATION, OR NORTH TRAVELLING VEHICLES ON ENVIRONA DR

**Amendments**

| Issue | Description | Date |
|---|---|---|
| A | PLANNING INFORMATION | 25/03/2022 |

Client

Client Representative

Head Contractor

HINDMARSH Construction

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Project Title

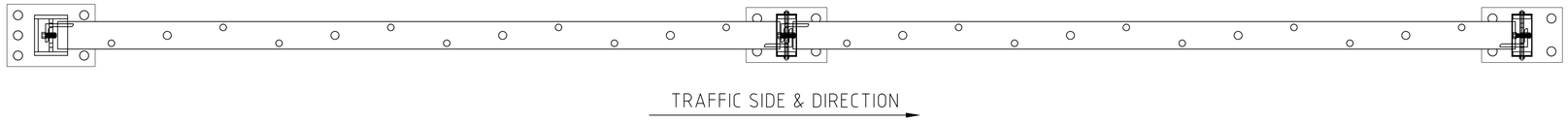
**New Jerrabomberra High School**
Environa Dr, Jerrabomberra NSW

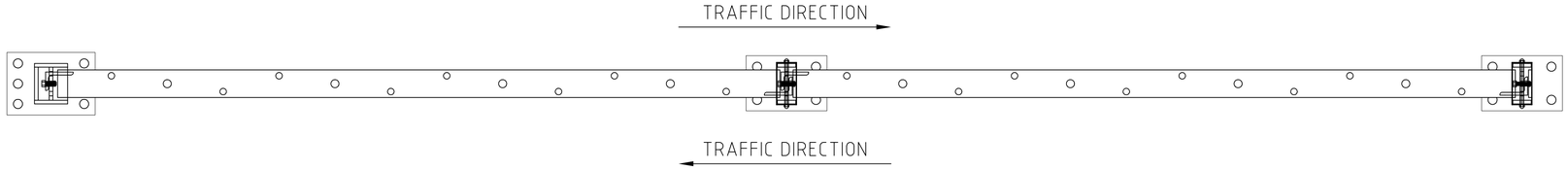
Drawing Title

**Pedestrian Road Safety - Barrier Fence**

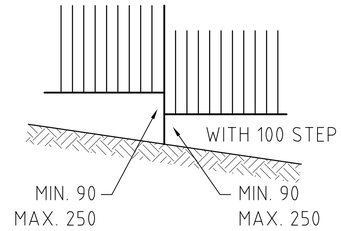
| | |
|---|---|
| Scale | NTS @ A3 |
| Drawing Created (date) | August 2018 |
| Drawing Created (by) | SS |
| Plotted and checked by | SS |
| Verified | SS/AM |
| Approved | SS |

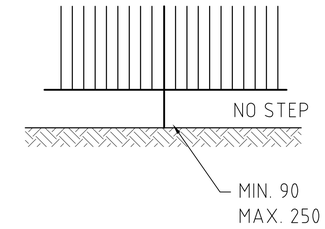
| Project No | Drawing No | Issue |
|---|---|---|
| NSW-2040 | TP-0001 | A |



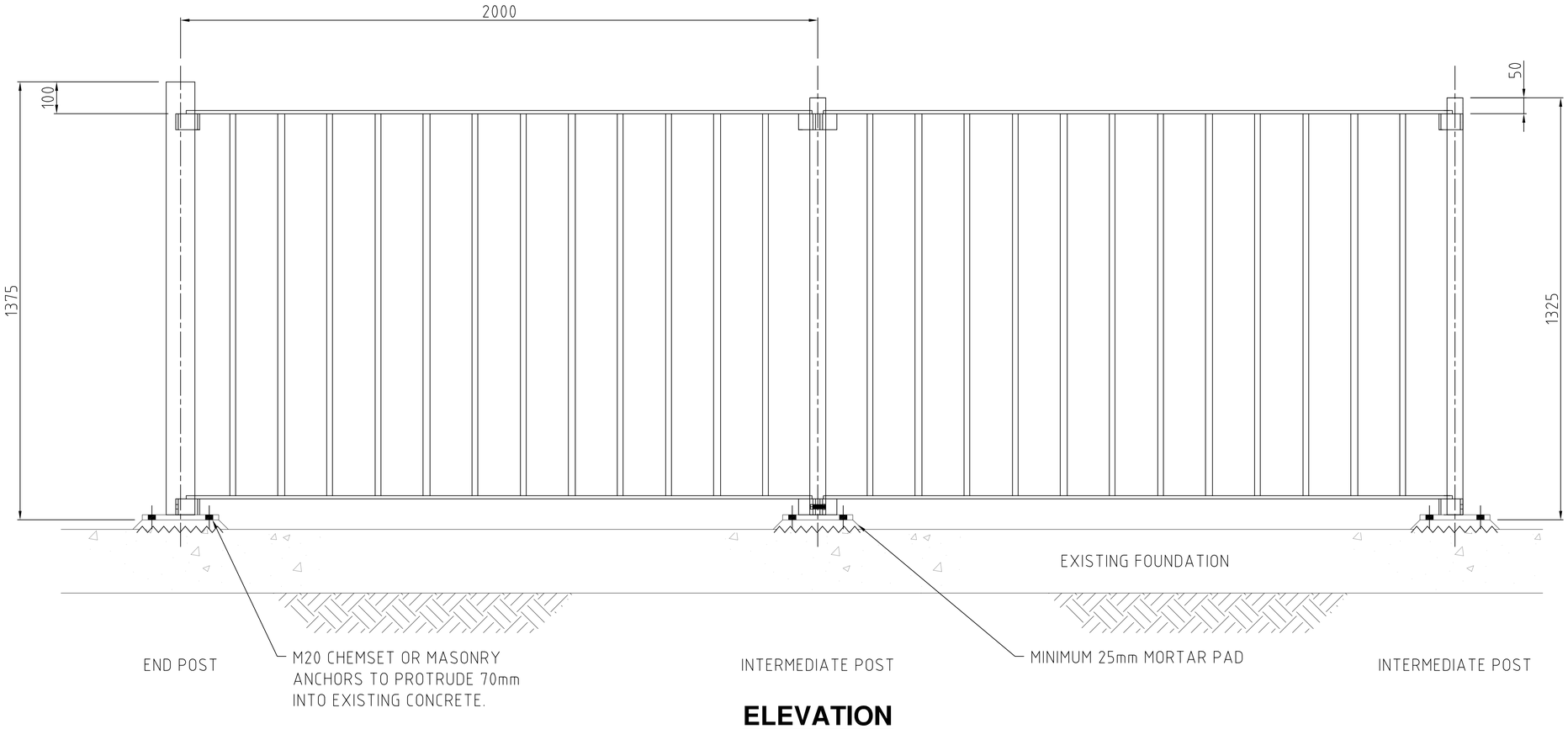




## BALUSTER ORIENTATION

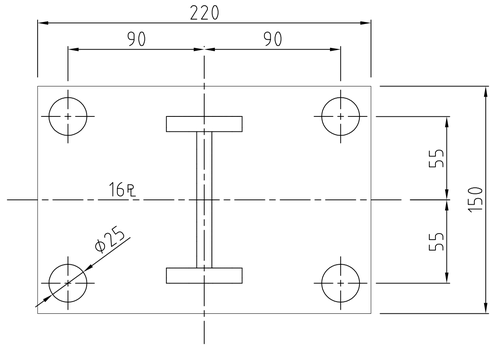


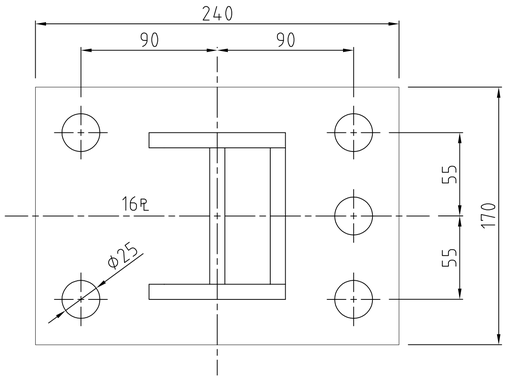

## BOTTOM CLEARANCE DETAILS




## ELEVATION




## INTERMEDIATE POST BASE PLATE DETAIL




## END POST BASE PLATE DETAIL

REVISIONS

| REV | DATE | DESCRIPTION | DRAWN | APPRD. |
|---|---|---|---|---|
| A | 29.07.14 | INITIAL ISSUE | DB | TC |

REVISIONS

| REV | DATE | DESCRIPTION | DRAWN | APPRD. |
|---|---|---|---|---|

SAFE DIRECTION

| | | | |
|---|---|---|---|
| DRAWING DESCRIPTION | TYPE 1 PEDESTRIAN FENCE - BASE PLATES | | |
| DRAWING REFERENCE | PF-SD-003 | DRAWN BY | AUSTEC DRAFTING |
| | | CHECKED | H. WALLACE |
| | | APPROVED | T. COLQUHOUN |
| | | DIMENSIONS | mm |
| | | SCALE | NTS |