traffic. These TGSs are included in Appendix C and demonstrate the proposed signage / traffic control measures that are required to be implemented for the following stages / works:

- TGS No. 1 – Operation of site access during all stages of construction via Felton Road.
- TGS No. 2 – Operation of site access during all stages of construction via Dunmore Avenue.

The TGSs demonstrate the proposed signage and traffic management measures to be adopted during construction works and will ensure that vehicular, pedestrian and cyclist movements are managed safely and efficiently. The TGSs have been designed in accordance with the requirements of the TfNSW Traffic Control at Work Sites Technical Manual and AS 1742.3 (2019) and are recommended for adoption.

5.7 Crane Operation

A single on-site mobile crane will be required for the building structure in both schools which will facilitate all loading / unloading of trucks on site. Craneage for both schools will be a 60t mobile crane systematically located around the project so that most of the lifts can be reached without having to reduce load sizes. PT coil sizes will have to either be halved or located to the west only.

An additional TGS for the crane setup and removal shall be supplied by the crane operator if required. Installation of the on-site crane will not result in the loss of any on-site car parking spaces.

5.8 Driver Conduct and Construction Worker Transport

The following Driver Code of Conduct and Construction Worker Transportation strategy have been developed to address Condition B19 (b) of the consent. These shall be distributed to site workers and drivers as required.

The objectives of the Driver Code of Conduct are to minimise the impacts on the road network, to minimise conflicts with other road users, to minimise road traffic noise, and to ensure drivers use the specified routes for approaching and exiting the site.

The objective of the Construction Worker Transportation Strategy is to minimise demand for parking in nearby public and residential streets. At present, the contractor has confirmed that on-site parking is available (see Section 5.9). That said, the availability of on-site parking will be limited, and the provision of on-site parking is subject to change over the course of the construction period.

It is recommended to develop a program or a checklist to ensure truck drivers are adhering with Driver Code of Conduct, and the Construction Worker Transportation Strategy is to be issued to all construction site workers as part of the site induction process.

5.9 Construction Worker Parking

Roberts Co. has advised that there will be limited on-site car parking for both CHS and CWPS construction site and has requested that all contractors use public transport and carpooling when working on site. The main car parking at CHS will be primarily used for main works site office, worker accommodation and the remaining car spaces will be for supervisor parking and construction worker car pooling parking spaces.

Construction Worker Transportation Strategy

Preferred Travel Modes

All workers should be aware that limited car parking may be available on the construction site and should consider alternative means of transport to/from the site. Where possible based on your personal situation, the following travel modes are recommended in order of priority:

- Walking
- Cycling
- Public transport
- Carpooling (including rideshare)
- Driving

Bus Options

There are no train or metro stations within 800 metres of the site. However, the site is well accommodated with public buses with convenient access along Pennant Hills Road. The nearest stations are Epping Railway Station or Parramatta Railway Station via direct bus connections from the bus stops near the site.

Figure 16 illustrates the 400m (5 minutes walking), 800m (10 minutes walking) and 1200m (15 minutes walking) catchment from the site and the available public transport network in the vicinity of the site.

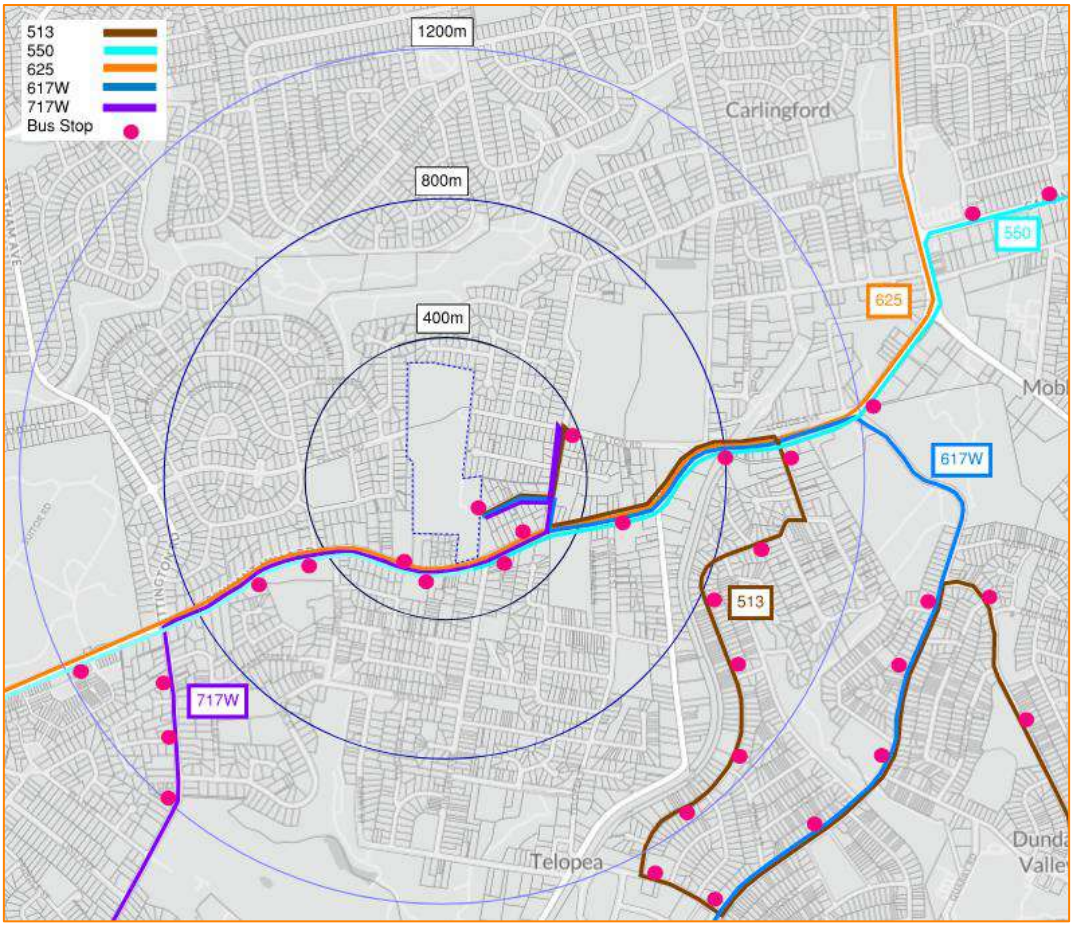

Figure 16: Local Bus Services

Table 8 is a summary of departure and arrival times for current bus services, and you can find more at https://transportnsw.info/. Please note that all bus times listed below may be subject to change.

Table 8: Construction Worker Bus Options

Bus Route Number	Stop	Bus Route	On / Off-peak Frequency
513	**Pennant Hills Rd opposite Cumberland High School**	Carlingford to West Ryde	45 mins/ 60 mins
546		Epping to Parramatta via North Rocks & Oatlands	30 mins/ 60 mins
550		Macquarie Park to Parramatta via Epping	10 mins/ 30 mins
625		Pennant Hills to Parramatta	30 mins/ 60 mins

Car Parking

If you do choose to drive to site, please be aware of the following:

- Remember to investigate carpooling options that may be available with other workers.
- On-site car parking may not be available to all workers, you may need to park on-street at designated locations. Remember that street parking locations around the site may be time-limited, and you may not be able to park all day in vacant zones.
- You are responsible for following all regulatory signage and parking restrictions around the site. Recommended parking locations are identified below in Figure 17

Figure 17: Recommended Parking Locations

Driver Code of Conduct

Minimise Impacts to Road Network

To minimise the impacts of earthworks and construction on the local and regional road network:

- Always obey all applicable road rules and laws.
- Drivers to obey road speed limit and reduce the speed while approaching nearby intersections. Heavy braking can damage the roads.
- Drivers should avoid local, narrow roadways where possible and follow the truck routes along local roads as shown in Figure 13 and Figure 14.
- Drivers should follow specified truck routes to and from the site (see Section 5.3 or Figure 13 and Figure 14 of the CTPMP, and enquire if unsure).

Minimise Conflicts with other Road Users

To minimise conflicts with other road users including pedestrians, cyclists or private vehicle drivers:

- Drivers should be mindful of pedestrians and cyclists along all haulage routes.
- Drivers should not obstruct access to any public roads, residential driveways, or pedestrian footpaths.
- All loading and unloading will occur wholly within the site.
- Drivers should exit the site in a forward motion and check their left and right twice while exiting to ensure the safety of pedestrians, cyclists and other vehicles is maintained.
- Upon exiting, drivers must wait for a suitable gap in traffic. The Roads Act does not give any special treatment to trucks exiting a construction site, but the vehicles on the road have the right-of-way.
- Drivers should obey the traffic controllers while entering and exiting the site.
- Drivers should be aware of site's surrounding conditions including speed limits, other traffic controls and pedestrian routes. This information can be presented to drivers during site inductions.
- Drivers should be aware that construction vehicle movements are to be scheduled outside of peak traffic periods where possible.

Minimise Road Traffic Noise

To minimise the noise impacts on the community resulting from driving heavy vehicles:

- Drivers should reduce speed to reduce instances and severity of compression braking, including when approaching speed humps or raised zebra crossings.
- Limit any excessive or unnecessary use of horns, in particular outside of working hours.

Environmental Control

For safe environmental management:

- Construction vehicle wheels shall be cleaned prior to leaving the site via shaker grids to prevent transport or dust, dirt, or gravel from the worksite onto the road network or pedestrian footpaths.
- All loads are to be sealed or covered when entering or leaving the site. Loading of disposable material into vehicles leaving the site is to occur only within site.

Specified Site Access Routes

The nominated access routes to the site, and traffic flows around the site for construction vehicles are to be as follows:

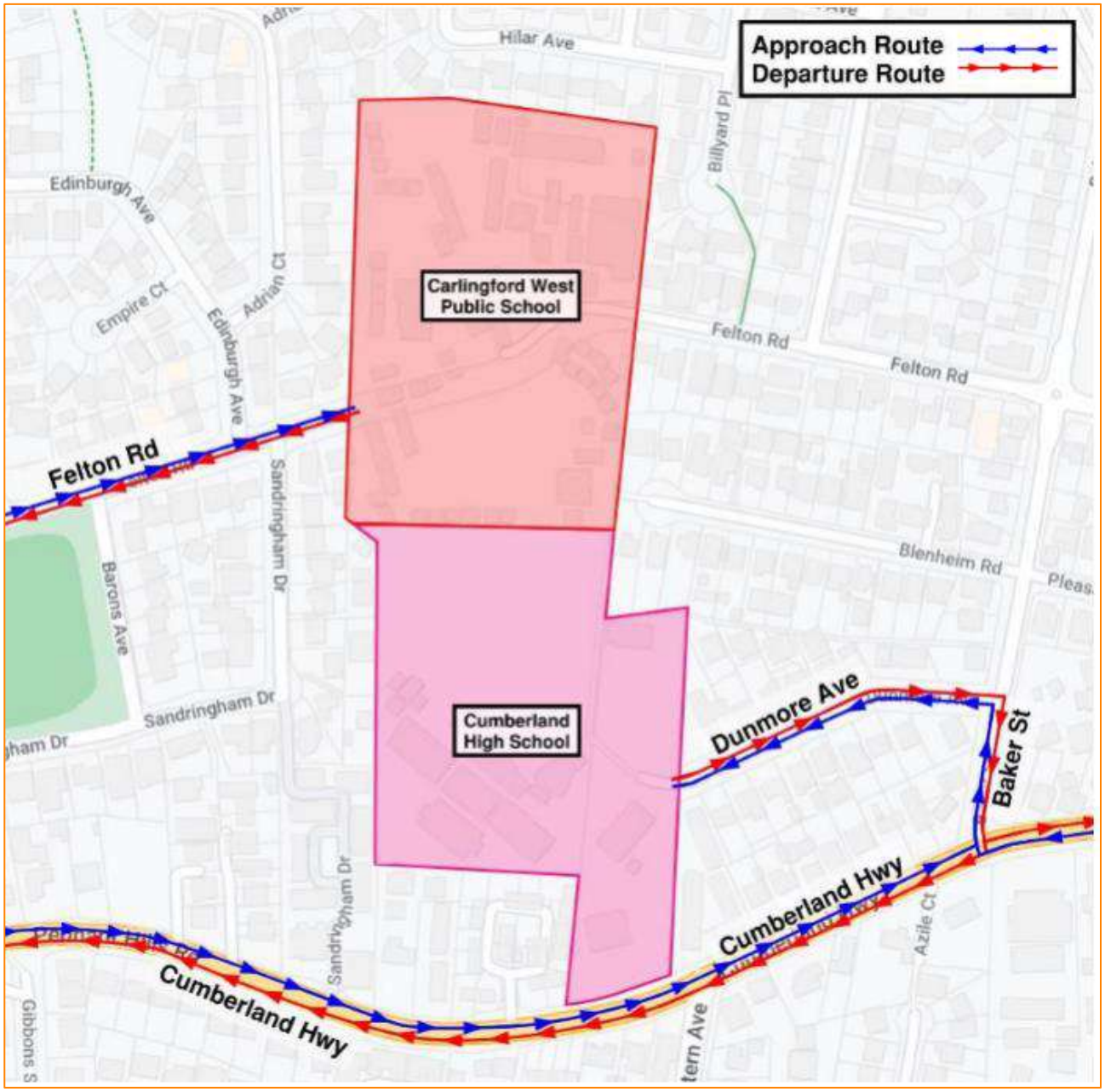

Figure 18: Construction Vehicle Site Access Routes

Section 6 Construction Traffic Impacts

6.1 Local Traffic

Traffic impacts from construction works are expected to be limited to the volume of construction vehicles only, with minimal worker vehicle traffic during peak hours, as most construction workers are expected to travel outside typical commuter peaks. The number of daily vehicles is expected to be minimal in comparison to the total volumes of traffic on local roads. Truck movements to and from the site will be scheduled outside the network and school peak hours where possible to reduce impacts to the area.

All deliveries and construction works are to take place within the site with no impacts to passing traffic. Truck movements to and from the site will be scheduled outside of the school's peak pick-up and drop-off hours where possible to reduce impacts to the local road network and to achieve safe outcomes for the students travelling to and from the school along the adjacent roads.

6.2 Contractor Parking Demand & Impacts

Heavy vehicles will be provided with parking on-site. The contractor will ensure that construction heavy vehicles associated with the development do not utilise public and residential streets for parking.

Table 9 outlines the workforce numbers and the available parking spaces during each phase of construction. During construction, a total of 48 car spaces will be available for workers to utilise. Based on existing travel habits to the local area (as per 2016 and 2021 Census Journey to Work data), it is estimated that approximately 85% of workers will choose travel by car, and 7% will carpool. As outlined throughout this CTPMP, workers will be encouraged to utilise non-car modes or to carpool wherever possible, to reduce car parking demands.

Table 9: Construction Worker Parking Demand

Phase	Work description	Typical daily workforce	Anticipated parking demand	Available parking spaces	Surplus / deficit
1	**Site establishment**	15	12	48	+36
2	**Civil**	60	47	48	+1
3	**Structure**	200	156	48	-108
4	**Fit out**	250	195	48	-147
5	**Site demobilisation**	30	24	48	+24

As outlined above in Table 9, the project will be providing suitable on-site parking provisions to accommodate all workers during Phases 1,2 & 4, with surplus on-site parking of approximately 1-36 car spaces.

Phases 3 & 4 have the highest expected daily workforce of approximately 200–250 workers. Roberts Co. has advised that on-site parking spaces will be priorities for workers who carpool, which seeks to encourage car sharing and reduce the overall demand for parking. In addition to this, it is anticipated that some local trades may travel using public transport which would further reduce the demand for parking.

Construction workers that are not accommodated by on-site parking during Phases 3 & 4 may utilise some available unrestricted on-street parking in the vicinity of the site. Previous analysis of on-street parking undertaken during the SSDA stage of this project identified an availability of close to 440 on-street parking spaces available in the vicinity of the site, when only counting unrestricted parking spaces, as shown in Figure

19. This indicates there would be an ample amount of on-street parking to accommodate construction worker parking within Phases 3 & 4. A Construction Worker Transportation Strategy has been prepared to minimise demand for parking further.

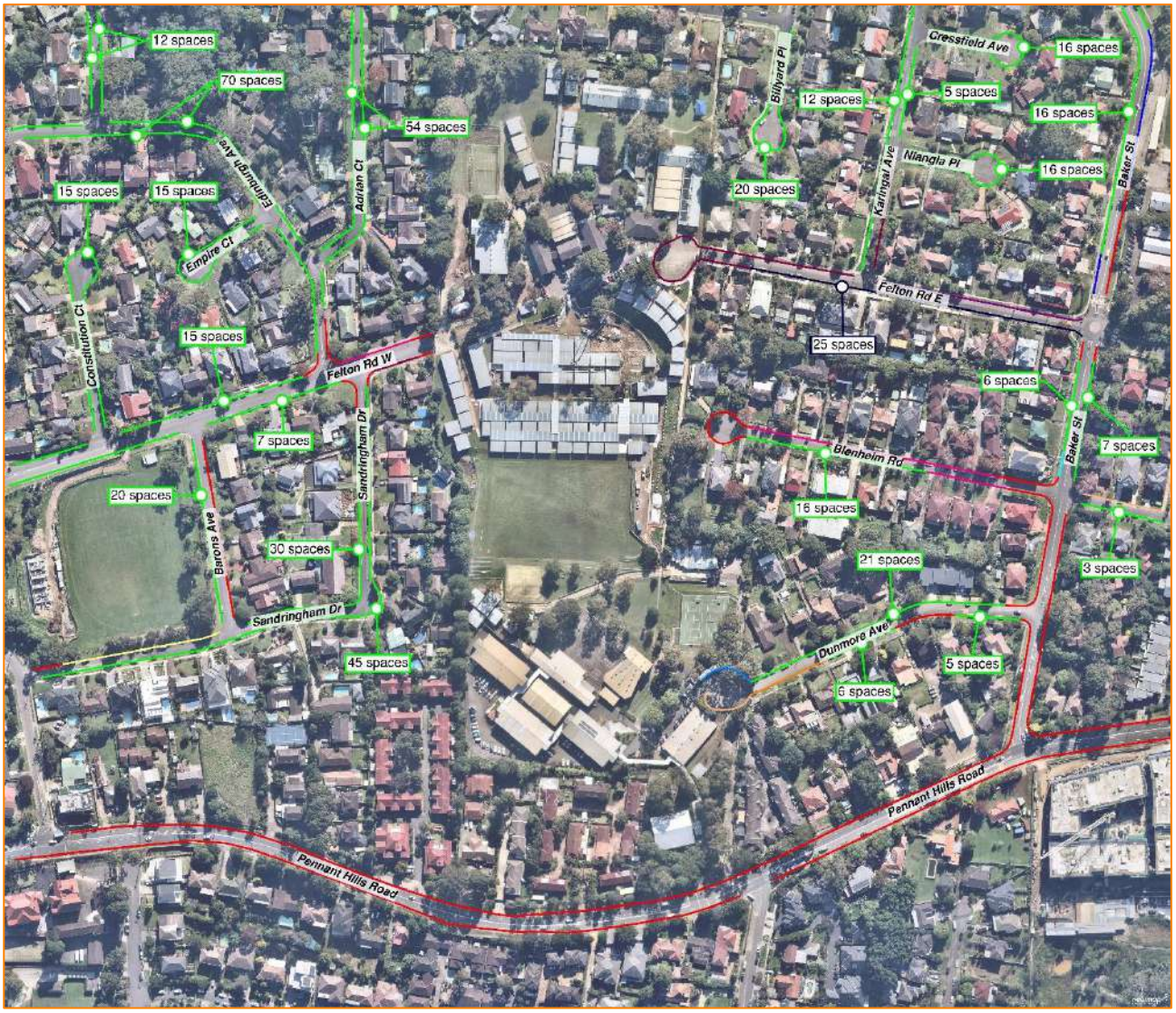

Figure 19: Local On-Street Parking

To reduce impact on school pick up and drop off during peak hours, Figure 20 shows suggested parking locations which have been identified for workers in the Construction Worker Transportation Strategy. The Figure identifies Kingsdene Oval and parking south of Pennant Hills Road as recommended parking locations for construction workers.

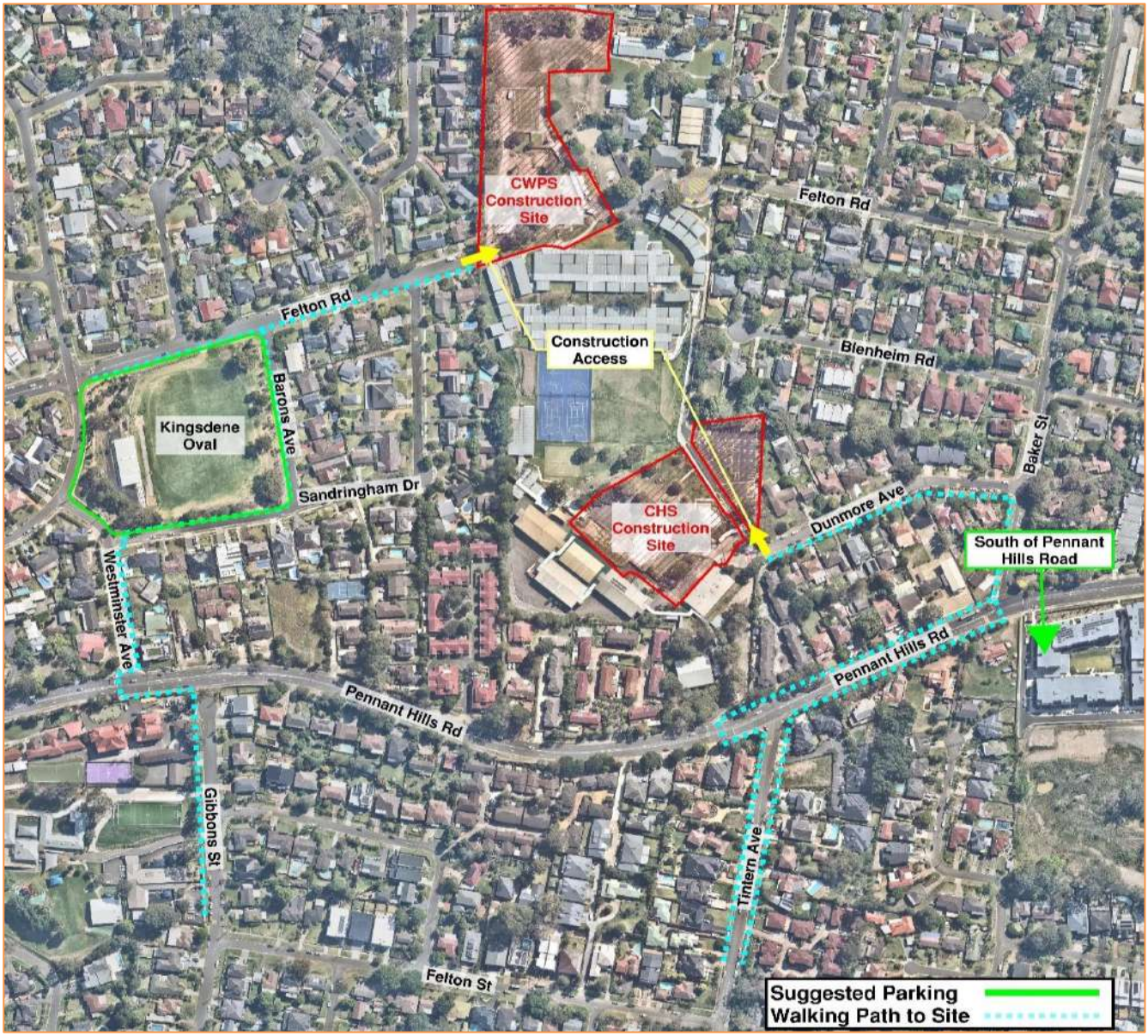

Figure 20: Recommended Parking Location

6.3 Worker Pedestrian Access

6.3.1 Cumberland High School Site Access

Worker access for the CHS and the main client, Roberts Co. office will be via the Dunmore Avenue site access. Workers will enter the site through a series of pedestrian gates within the hoardings which are detailed below in Figure 21. These pedestrian gates can be adjusted throughout the works to facilitate the sequenced construction activities.

Hoarding will be installed around the perimeter of the site to provide protection. Once workers are within the site compound there will be a scaffold bridge installed over the top of the kiss and drop area so that the workers and students do not cross paths.

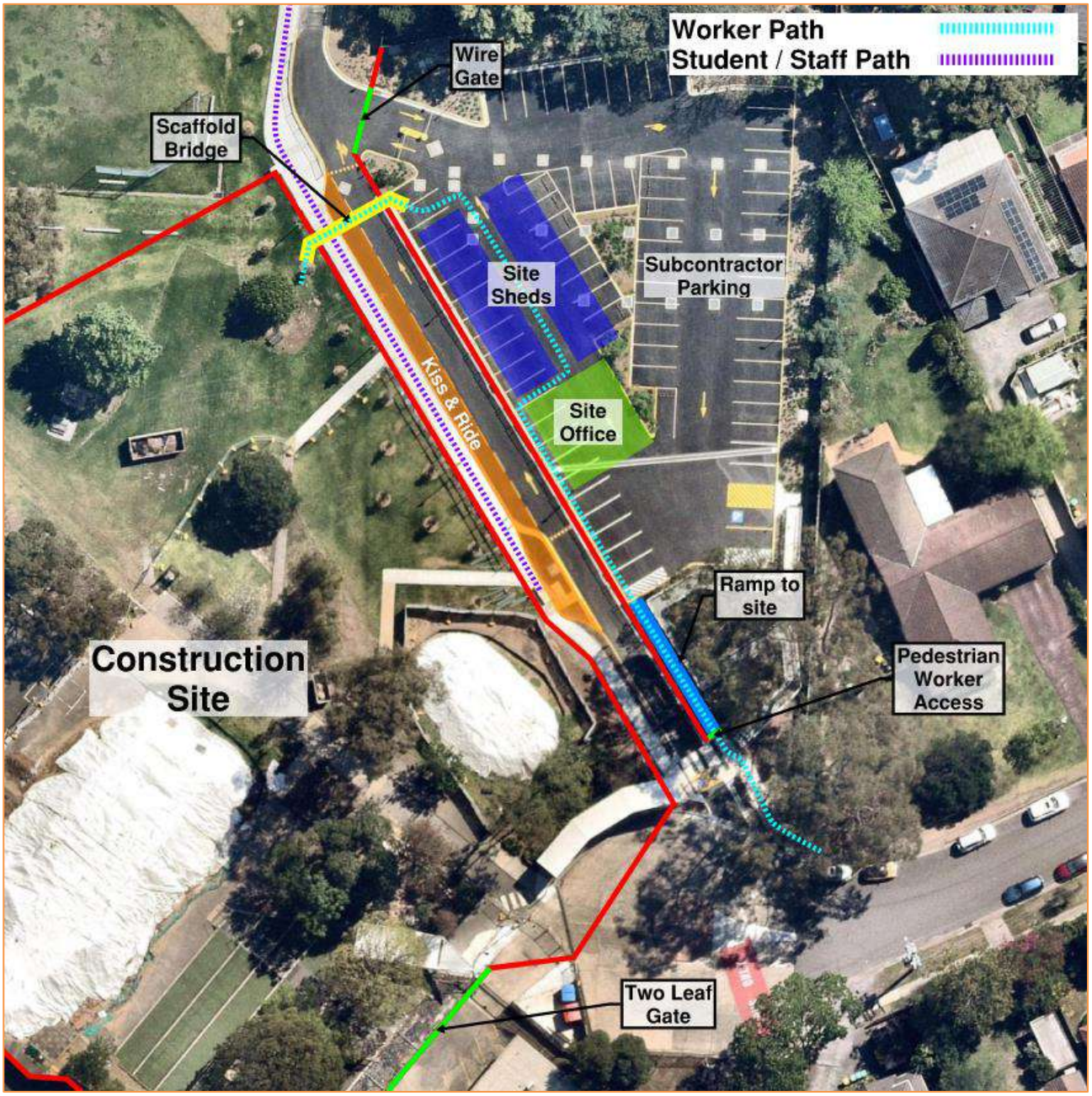

Figure 21: CHS Pedestrian Site Access

6.3.2 Carlingford West Public School Site Access

Workers will access CWPS construction site via the Felton Road West site access. They will enter the school gate to the west and then into the main site as identified below in Figure 22. Hoarding will be installed around the perimeter of the site to provide protection and separation from staff and students.

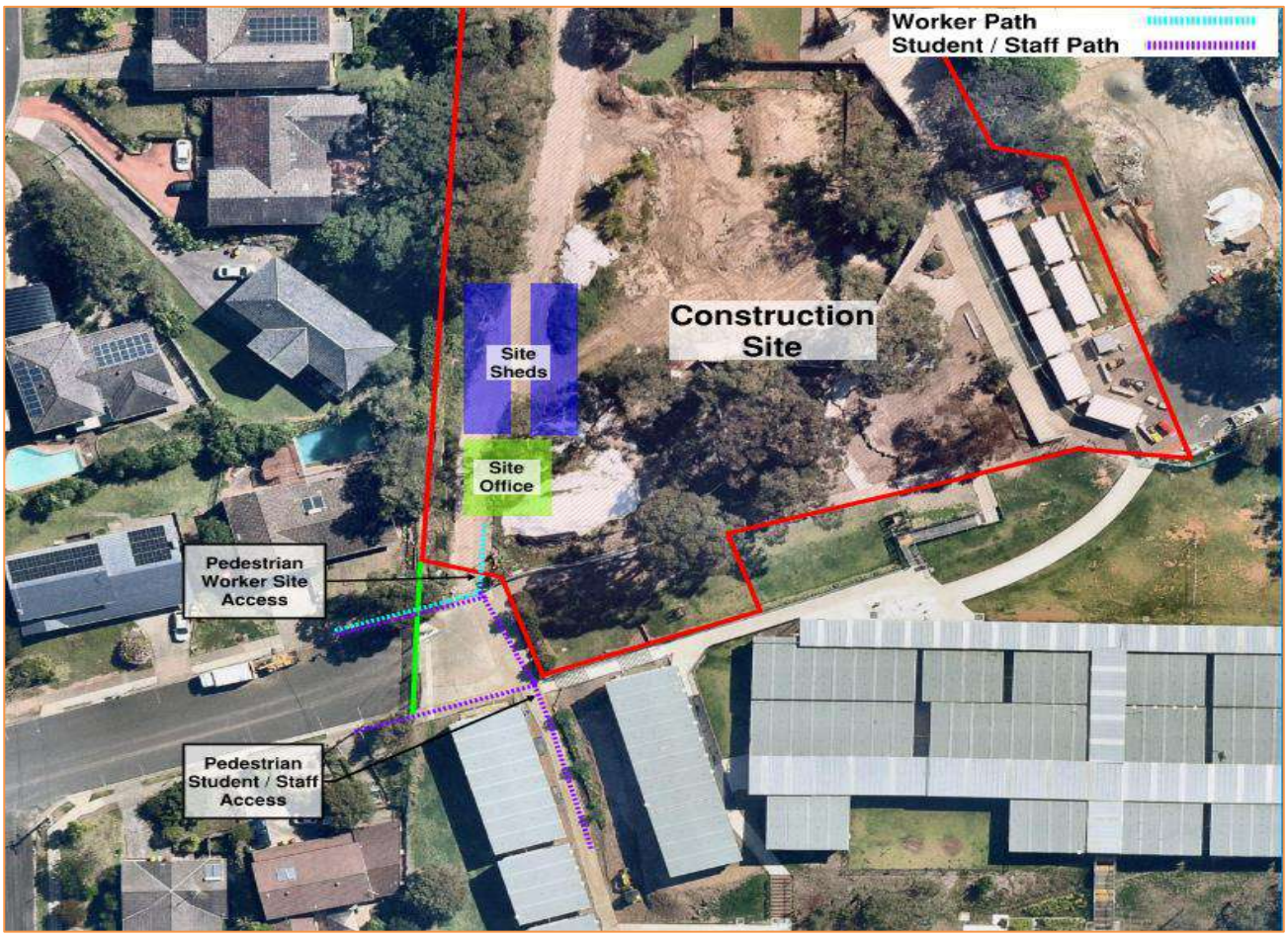

Figure 22: CWP Pedestrian Site Access

6.4 Staff & Students Access

Access to both CHS and CWPS will be maintained to ensure students and staff have convenient access to school. Public access to the construction site is not permitted at anytime, and this will be managed with site hoarding around the main construction zone, ensuring appropriate boundary separation is maintained. These hoardings will block all access for the public to enter the site and may be adjusted throughout the life of the project, in consultation with the relevant stakeholders.

Directional and statutory signage, to redirect the public along a designated path as well as traffic management will be provided for pedestrian safety. The main entry site gates at Dunmore Avenue and Felton Road West when in operation will be managed by a TfNSW certified traffic controller. When the gates are not being supervised, they will be closed and secured.

6.5 Pedestrians and Cyclists

Pedestrian footpaths near the site will generally remain operational and construction traffic movements are unlikely to interrupt any pedestrian facilities in the vicinity. Pedestrian access would be maintained throughout all phases of the project.

6.6 Public Transport

Currently, there are no planned changes or impacts to the nearby public bus routes or public transport facilities in the area. The existing public bus service near the site, along Pennant Hills Road for both CWPS and CHS and will remain accessible as they are via public roads.

It is also noteworthy to mention, that the bus turning circle at Dunmore Avenue will not be impacted by construction vehicles. All construction vehicle movements will be restricted to operate outside of school PUDO times.

6.7 Emergency Vehicles

Emergency services access to all adjacent properties will be maintained under the existing conditions, with no impacts as a result to the construction works. Emergency vehicle access within the construction site, if required, will be managed on a case-by-case basis.

6.8 Public Infrastructure

On infrequent occasions when particularly large vehicles are required to access the site, some mounting or crossing of public kerbs and medians may occur. Roberts Co. shall repair any damage to this infrastructure if large vehicles are required to mount the devices. Any other road markings damaged as a result of vehicles associated with the construction shall be repaired as a responsibility of the builder.

It should be noted that swept path analysis undertaken for this CTPMP, attached at Appendix B, demonstrates sufficient space for all heavy vehicle movements and therefore the risk of any damage to public infrastructure is considered low.

6.9 Consultation with Stakeholders

The stakeholder consultation process will be undertaken in the form of 'letterbox drop', notifying all surrounding local businesses and residents within the vicinity of the site. The consultation process shall advise stakeholders of any proposed construction works that may cause minor disruptions to the road network. In addition, the builder will set up a hotline for nearby residents and parents of the school children that they can call should they have any complaints related to the construction traffic / activity and or construction worker parking.

6.10 Neighbouring Projects

The construction traffic impacts and requirements of this project are deemed to be manageable within the site constraints. Impact is expected to remain limited to within the site, with vehicle access and loading areas to be in place as necessary. Appropriate hoarding and protection measures will be implemented to always ensure safety of all users of the area.

Currently, major works has begun for the Parramatta Light Rail with the closest station being constructed is at Carlingford station 1 kilometre east of the sites. The project is expected to finish in 2024 Within the vicinity of the schools, works are also undergoing at sites nearby, as stated below:

Sydney Metro West

Sydney Metro West will provide a new underground railway between Westmead and the Sydney CBD. Two construction sites will be created nearby the schools, including the Parramatta CBD station and the Clyde stabling and maintenance facility.

The King's School

The Kings school is undergoing alterations and renovations local to our site, though it is expected that there will be little impact to each other with the grand scale of The King's School site. It is expected that much of their construction traffic is handled internally to the site.

Section 7 Conclusion

In summary, this CPTMP has been prepared as part of the overall construction works for the proposed development 57-73 Felton Road and 183 Pennant Hills Road Carlingford. Specifically, it has been prepared to address the detailed requirements outlined in Condition B19, B23, B28, C4 & C5 of the Development Consent SSD-43065987.

The proposed traffic management arrangements recommended in this CTPMP satisfy the requirements of the TCAWS Manual, AS 1742.3 and AS 2890.2, and the Plan seeks to minimise the impact of construction activities on the surrounding community, in terms of both vehicle traffic and pedestrian amenity. Any minor variation to these standards is considered acceptable having regard to the constraints inherent by the site and proposed development.

Prepared by	Reviewed by	Approved by
TTW (NSW) PTY LTD	**TTW (NSW) PTY LTD**	**TTW (NSW) PTY LTD**
		
KYRELLOS HABIB	**MARIA MULHOLLAND**	**MICHAEL BABBAGE**
Traffic Engineer	Senior Traffic Engineer	Associate (Traffic)

Appendix A Consultation Records

Maria Mulholland

From: Development Applications <Developments.CJP@transport.nsw.gov.au>
Sent: Monday, 20 November 2023 12:36 PM
To: Maria Mulholland
Subject: Cumberland Cluster - CTPMP

OFFICIAL

From: Development Applications
Sent: Monday, 20 November 2023 12:32 PM
To: maria.mulholand@ttw.com.au
Subject: RE: Cumberland Cluster - CTPMP

Hi Maria,

Thank you for providing Transport for NSW with a copy of the Construction Traffic Management Plan (CTMP) relating to Cumberland Cluster – SSD-41372302.

Please note TfNSW will require the following amendments (or clarifications) to be made to the CTMP before we can endorse the document:

- *Page 41 – The left turn swept path from Baker Street into Dunmore Avenue appears to cross over into the path of the eastbound vehicles. Please clarify if this is the case and any measures to mitigate this concern.*
- *Page 42 – The left turn swept path for southbound vehicles on Baker Street to head east on Pennant Hills Road appears will conflict with the opposing westbound right turn. Please clarify if this is the case and any measures to mitigate this concern.*

Upon making these amendments please forward a copy to Developments.CJP@transport.nsw.gov.au for further review and endorsement.

Operational Change| Customer Journey Planning | Greater Sydney
25 Garden Street Eveleigh NSW 2015
Transport for NSW

OFFICIAL

From: Maria Mulholland <Maria.Mulholland@ttw.com.au>
Sent: Monday, 13 November 2023 4:28 PM
To: Development CTMP CJP <development.CTMP.CJP@transport.nsw.gov.au>
Cc: Michael Babbage <michael.babbage@ttw.com.au>; David McDonnell <david.mcdonnell@au.roberts.co>; Kyrellos Habib <kyrellos.habib@ttw.com.au>; Sasha Serrao <sserrao@savills.com.au>
Subject: Cumberland Cluster - CTPMP

To whom it may concern,

We have recently received draft SSD conditions for Cumberland Cluster (SSD-41372302). As part of the Pre-Construction Conditions, consultation with TfNSW is required in preparing the Construction Traffic & Pedestrian Management Plan (CTPMP).
Please find attached CTPMP for your review. Can you please provide commentary or feedback you may have. Please also note, this is an early draft, and some of the draft conditions (B24 & B25) will hopefully be revised to allow more flexibility for off-site parking.

In addition, please find attached, the waste management plan to address draft Condition B31, which stipulates the following:

We are happy to organise and online meeting for further discussion if you think necessary.

Kind regards,

Maria Mulholland | Senior Traffic Engineer
+61 2 9439 7288 | +61 2 8437 7209 | Maria.Mulholland@ttw.com.au
TTW Engineers | Sydney
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Maria Mulholland

From: Maria Mulholland
Sent: Monday, 4 December 2023 10:14 AM
To: Behzad Saleh
Cc: Richard Searle; Paul Sartor; Michael Babbage
Subject: RE: Cumberland Cluster - CTPMSP
Attachments: 221973-TTW-00-SK-TR-20003-[B] - SWEPT PATH SKETCH - DUNMORE AVENUE - 20m AV PASSING B99.pdf

Hi Behzad,

Thanks for the comments we are currently working through them and updating our CTMP report.

In relation to ensuring two-way movements are maintained along Dunmore Avenue we have amended our swept paths and we are proposing to implement no stopping restrictions, see below details:

1. Temporarily implement 'No Stopping' restrictions along the northern & southern kerbside of Dunmore Ave at the Baker St / Dunmore Ave intersection.
2. Temporarily amend the existing 'No Stopping 8:30-9:30am & 2:30pm-4pm' restrictions along the bend on Dunmore Ave to 'No Stopping'.

Please see attached mark-up. Can you also confirm the most efficient way of getting these temporary parking restrictions implemented.

Kind regards,
Maria

From: Behzad Saleh <BSaleh@cityofparramatta.nsw.gov.au>
Sent: Thursday, November 23, 2023 3:34 PM
To: Maria Mulholland <Maria.Mulholland@ttw.com.au>
Cc: Richard Searle <RSearle@cityofparramatta.nsw.gov.au>; Paul Sartor <PSartor@cityofparramatta.nsw.gov.au>
Subject: RE: Cumberland Cluster - CTPMSP

Hi Maria

I have reviewed the CTPMSP for the Cumberland School Cluster and this is not acceptable to Council in its current form. Accordingly, a revised CTPMSP is required that must address the following requirements:

Construction Vehicle Routes:

- Dunmore Street Midblock: The swept path plans for Dunmore Street are to be revised such that at 20m AV is not encroaching into the parking lanes. Should two way movement not be possible, the CTPMSP is to be revised to have traffic control in place to manage the conflict between oncoming vehicles. Alternatively, an application can be made to Council to install a No Stopping restriction in Dunmore Street to allow for the safe passage of the design vehicle noting that this will be applicable to fees in accordance with Council's schedule of Fees and Charges and approval of the restriction by the Parramatta Traffic Committee for items considered under Delegated Authority.

- Dunmore Street at Baker Street: The swept path plan shows the 20m encroaching in to the parking lane and the oncoming lane. The applicant is not permitted to occupy or close any parking spaces without separate

approval of a Temporary Road/Footpath Occupancy permit from Council and payment of the relevant fees as per Council's fees and charges.
A TGS/TCP is to be included within the CTPMSP to control traffic to allow for this movements.

- Baker Street at Pennant Hills Road: The swept path for the left turn from Baker Street into Pennant Hills Road for a 20m AV is conflicting with the right turning movements from Pennant Hills Road and is encroaching over the kerb line which is hazardous for pedestrians which is not acceptable.

- Bettington Road at Felton Road West: The swept paths for the 20m AV show the buffer zone encroaching beyond the give way lines, inner annulus of the roundabout, kerb returns and the pedestrian refuge islands which is no acceptable and compromises the safety of this intersection. Accordingly, it is considered that this vehicle is too large for this movement and alternatives are to be explored. It is to be noted that swept paths done by Council showed significantly more encroachment for a similarly sized 19m AV at this intersection. Accordingly, clarification is sought as to what speed is being assumed that the truck is travelling at at this intersection as well as other locations.

Construction Vehicle Volumes and Times:

- There is to be strictly no construction vehicle movements into and out of the site during the following times:

    - 30min before the first morning start bell time of either school
    - 10min after the last morning start bell time of either school
    - 10min before the first afternoon finishing bell time of either school
    - 30min after the last afternoon finishing bell time of either school

  The CTPMSP must clearly state this and note that this will be strictly enforced.

  It is to be noted that heavy vehicle movements are considered as serious hazards for children walking to and from school. This risk is particularly emphasised for this location where the construction site access are located near the pedestrian gates meaning a there will be high volumes of children with many of them walking unsupervised. This requirement is not negotiable.

Construction Worker Parking:

- In accordance with the CTPMSP, there will be an anticipated 156-195 worker parking demand during the phase 3 and 4, but only 48 parking spaces will be provided on-site. This will have a significant impact on the surrounding road network and the residential amenity of the area. It is noted that the builder will be prioritising on-site parking to those who car pool in an attempt to mitigate impact on on-street parking. However, Council has concerns with the significant shortfall of on-street parking spaces and particularly how this may impact the pick up and drop offs of school children. Accordingly, the CTPMSP is to be updated to include additional provisions to mitigate against this including identifying suitable areas for construction works to park. In this regard, workers should be instructed to park south of Pennant Hills Road or west of Barons Avenue. Further to this, the applicant must survey workers on the first working day of each month to see where they are parking and how may parking are parking on-street. This information is to then be relayed back to Council to assist in the management of on-street parking.

Other:

- The Builder is to set up a hotline for nearby residents and parents of the school children that they can call should they have any complaints, concerns or need assistance regarding issues related to the construction traffic/activity and or construction worker parking.

- The TGS/TCPs must show a traffic controller at any truck site access to ensure egress and ingress is managed safely and that there is no unauthorised access into the construction site.

- Details are to be provided and shown on plans regarding what measures will be put in place to ensure no children or unauthorised pedestrians access the construction sites. The plans must clearly show where the school pedestrian access are and where the construction access gates are.

Let me know if you have any questions regarding the above.

Kind Regards,

Behzad Saleh
Traffic and Transport Investigations Engineer | Development and Traffic Services
P: (02) 9806 8410
126 Church Street, Parramatta NSW 2150
PO Box 32, Parramatta, NSW 2124
cityofparramatta.nsw.gov.au

CITY OF PARRAMATTA

From: Maria Mulholland <Maria.Mulholland@ttw.com.au>
Sent: Tuesday, 21 November 2023 1:51 PM
To: Behzad Saleh <BSaleh@cityofparramatta.nsw.gov.au>
Cc: Richard Searle <rsearle@cityofparramatta.nsw.gov.au>
Subject: RE: Cumberland Cluster - CTPMP

Hi Behzad,

Just following up on the below CTMP review. We are hoping to finalise this document asap.

Thanks,
Maria

TTW

Maria Mulholland | Senior Traffic Engineer
+61 2 9439 7288 | +61 2 8437 7209 | Maria.Mulholland@ttw.com.au
TTW Engineers | Sydney
Read our latest news here

From: Richard Searle <rsearle@cityofparramatta.nsw.gov.au>
Sent: Monday, November 13, 2023 4:41 PM
To: Maria Mulholland <Maria.Mulholland@ttw.com.au>
Subject: RE: Cumberland Cluster - CTPMP

Hi Behzad, can you look after this.

Richard Searle | Traffic and Transport Manager
City of Parramatta
PO Box 32, Parramatta NSW 2124
☎ (02) 9806 5642
✉ **rsearle@cityofparramatta.nsw.gov.au**
Links | www.cityofparramatta.nsw.gov.au

From: Maria Mulholland <Maria.Mulholland@ttw.com.au>
Sent: Monday, 13 November 2023 4:31 PM
To: Richard Searle <rsearle@cityofparramatta.nsw.gov.au>; Behzad Saleh <BSaleh@cityofparramatta.nsw.gov.au>
Cc: Kyrellos Habib <kyrellos.habib@ttw.com.au>; Michael Babbage <Michael.Babbage@ttw.com.au>; David McDonnell <david.mcdonnell@au.roberts.co>; Sasha Serrao <sserrao@savills.com.au>
Subject: Cumberland Cluster - CTPMP

To whom it may concern,

We have recently received draft SSD conditions for Cumberland Cluster (SSD-41372302). As part of the Pre-Construction Conditions, consultation with Council is required in preparing the Construction Traffic & Pedestrian Management Plan (CTPMP).

Please find attached CTPMP for your review. Can you please provide commentary or feedback you may have. Please also note, this is an early draft, and some of the draft conditions (B24 & B25) will hopefully be revised to allow more flexibility for off-site parking.

We are happy to organise and online meeting for further discussion if you think necessary.

Kind regards,

Maria Mulholland | Senior Traffic Engineer
+61 2 9439 7288 | +61 2 8437 7209 | Maria.Mulholland@ttw.com.au
TTW Engineers | Sydney
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Appendix B Swept Path Analysis

PARK CONSTRUCTED UNDER
EARLY WORKS PACKAGE

RAINWATER
TANKS –
NUMBER/LOCATION TBC

PROPOSED
BUILDING Z

PROPOSED
BUILDING Y

KISS & DROP

STAFF
PARKING

GATE 4

HYDRANT
BOOSTER

FH

GATE 3

CHS SIGN

GATE 2

SUB
STATION

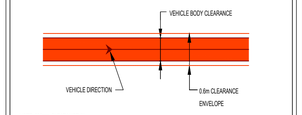
D.P. 235625

9.75m

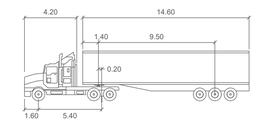
AV
STANDARDS 2018 (AU)

AV
STANDARDS 2018 (AU)

SWEPT PATH LEGEND:



NOTE: 600mm CLEARANCE IN ACCORDANCE WITH AS2890.2



AV

	meters		
Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 28.3
Tractor Track	: 2.50	Articulating Angle	: 72.0
Trailer Track	: 2.50		

0 2.5 5 7.5 10 12.5 15 17.5 20m

1:250 A1 1:500 A3

THIS DRAWING HAS BEEN PREPARED USING COLOUR

FileName: 221973-TTW-00-SK-TR-20001-[P1]- SWEPT PATH SKETCH - DUNMORE AVENUE - 20M AV FORWARD ENTRY & EXIT.dwg - USER: kyrdisch - Plot File Created: Dec 04, 2023 - 2:27pm

Rev	Description	Eng	Draft	Date
P1	ISSUED FOR INFORMATION	KH	KH	03/11/23

Contractor
ROBERTS CO
LEVEL 9, 60 CASTLEREAGH ST
SYDNEY NSW 2000
AUSTRALIA

Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | Level 6, 73 Miller Street, North Sydney, NSW 2060

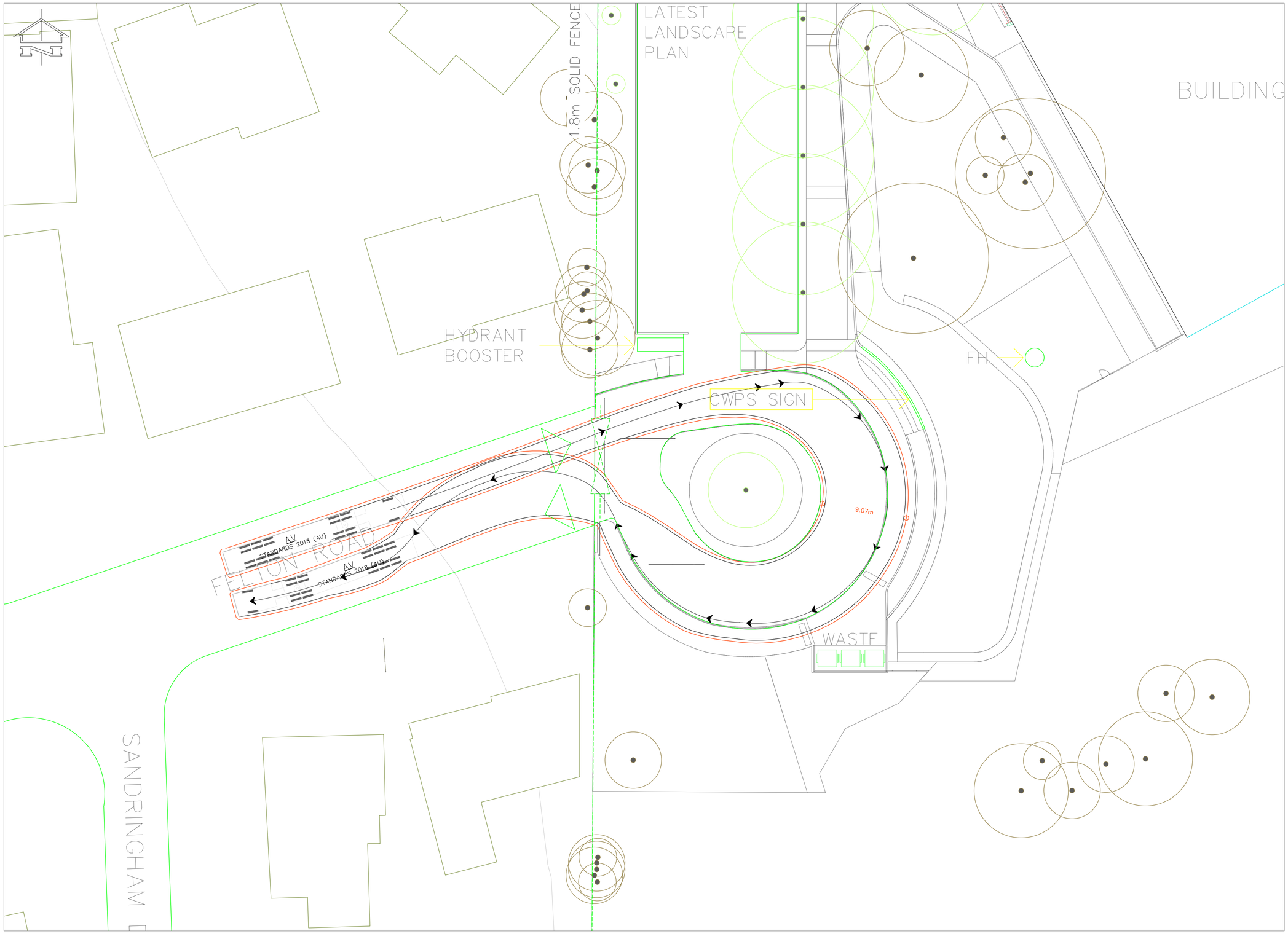
Project
CARLINGFORD WEST
PUBLIC SCHOOL &
CUMBERLAND HIGH
SCHOOL

Sheet Subject
SWEPT PATH SKETCH
DUNMORE AVENUE - 20M AV
FORWARD ENTRY & EXIT

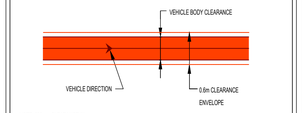
Scale : A1	Drawn	Authorised
1:250	KH	MM

Job No	Drawing No	Revision
221973	SKTR20001	P1

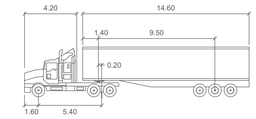
Plot File Created: Dec 04, 2023 - 2:27pm



SWEPT PATH LEGEND:



NOTE: 600mm CLEARANCE IN ACCORDANCE WITH AS2890.2



AV

	meters		
Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 28.3
Tractor Track	: 2.50	Articulating Angle	: 72.0
Trailer Track	: 2.50		

THIS DRAWING HAS BEEN PREPARED USING COLOUR

FileName: 221973-TTW-00-SK-TR-20002-[P1]- SWEPT PATH SKETCH - FELTON ROAD - 20M AV FORWARD ENTRY & EXIT.dwg - USER: kyriliosh - Plot File Created: Dec 04, 2023 - 1:56pm

Rev	Description	Eng	Draft	Date
P1	ISSUED FOR INFORMATION	KH	KH	03/11/23

Contractor
ROBERTS CO
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TTW Structural Civil Traffic Façade
612 9439 7288 | Level 6, 73 Miller Street, North Sydney, NSW 2060

Project
CARLINGFORD WEST PUBLIC SCHOOL & CUMBERLAND HIGH SCHOOL

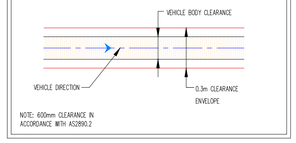
Sheet Subject
SWEPT PATH SKETCH
FELTON ROAD - 20M AV
FORWARD ENTRY & EXIT

Scale : A1: 1:200
Drawn: KH
Authorised: MM
Job No: 221973
Drawing No: SKTR20002
Revision: P1
Plot File Created: Dec 04, 2023 - 1:56pm

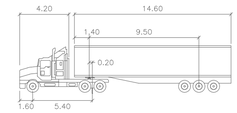
0 4 8 12 16 20 24 28 32m

1:400 A1 1:800 A3

SWEPT PATH LEGEND:

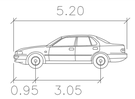


NOTE: 600mm CLEARANCE IN ACCORDANCE WITH AS2890.2



AV

	meters		
Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 28.3
Tractor Track	: 2.50	Articulating Angle	: 72.0
Trailer Track	: 2.50		



B99

	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	: 6.0

KERB LINE

PROPOSED NO STOPPING

EXISTING NO STOPPING

EXISTING PARKING

THIS DRAWING HAS BEEN PREPARED USING COLOUR

FileName: 221973-TTW-00-Str-TR-20003-[P2] - SWEPT PATH SKETCH - DUNMORE AVENUE - 20M AV PASSING B99.dwg - USER: mpartalinidis - Plot File Created: Dec 01, 2023 - 2:52pm

Rev	Description	Eng	Draft	Date
B	ISSUED FOR INFORMATION	MP	MP	01/12/23
A	ISSUED FOR INFORMATION	KH	KH	28/11/23
P1	ISSUED FOR INFORMATION	KH	KH	06/11/23

Contractor

ROBERTS CO
LEVEL 9, 60 CASTLEREAGH ST
SYDNEY NSW 2000
AUSTRALIA

Engineer

TTW Structural Civil Traffic Façade

612 9439 7288 | Level 6, 73 Miller Street, North Sydney, NSW 2060

Project

CARLINGFORD WEST PUBLIC SCHOOL & CUMBERLAND HIGH SCHOOL

Sheet Subject

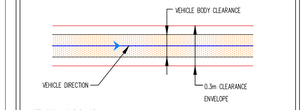
SWEPT PATH SKETCH
DUNMORE AVENUE
20M AV PASSING B99

Scale : A1	Drawn	Authorised
1:400	MP	MM

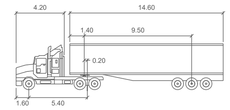
Job No	Drawing No	Revision
221973	SKTR20003	B

Plot File Created: Dec 01, 2023 - 2:52pm

SWEPT PATH LEGEND:

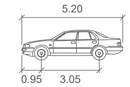


NOTE: 600mm CLEARANCE IN ACCORDANCE WITH AS2890.2



AV

	meters		
Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 28.3
Tractor Track	: 2.50	Articulating Angle	: 72.0
Trailer Track	: 2.50		



B99

	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	: 6.0
Steering Angle	: 33.9

KERB LINE

PROPOSED NO STOPPING

EXISTING PARKING

FileName: 221973-TTW-00-SK-TR-2000#-[C] - SWEPT PATH SKETCH - 20M AV LEFT IN TO DUNMORE AVE.dwg - USER: kyrstosh - Plot File Created: Dec 04, 2023 - 2:11pm

A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date
C	FOR DRAFT	KH	KH	28/11/23
B	FOR DRAFT	MP	MP	03/10/23
A	FOR DRAFT	MP	MP	03/10/23

Contractor
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SYDNEY NSW 2000
AUSTRALIA

Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | Level 6, 73 Miller Street, North Sydney, NSW 2060

Project
CARLINGFORD WEST PUBLIC SCHOOL & CUMBERLAND HIGH SCHOOL

Sheet Subject
SWEPT PATH SKETCH
DUNMORE AVENUE
20M AV LEFT IN

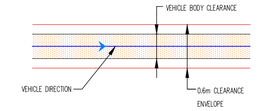
Scale : A1 1:200 | Drawn MP | Authorised MM

Job No 221973 | Drawing No SKTR20004 | Revision C

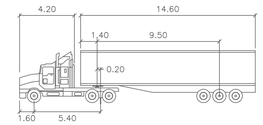
Plot File Created: Dec 04, 2023 - 2:11pm

PRELIMINARY
NOT FOR CONSTRUCTION

SWEPT PATH LEGEND:



NOTE: 600mm CLEARANCE IN ACCORDANCE WITH AS2890.2



AV

meters

Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 28.3
Tractor Track	: 2.50	Articulating Angle	: 72.0
Trailer Track	: 2.50		

A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date
C	FOR DRAFT	KH	KH	21/11/23
B	FOR DRAFT	MP	MP	03/10/23
A	FOR DRAFT	MP	MP	03/10/23

PRELIMINARY
NOT FOR CONSTRUCTION

Contractor
ROBERTS CO
LEVEL 9, 60 CASTLEREAGH ST
SYDNEY NSW 2000
AUSTRALIA

Engineer
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612 9439 7288 | Level 6, 73 Miller Street, North Sydney, NSW 2060

Project
CARLINGFORD WEST PUBLIC SCHOOL & CUMBERLAND HIGH SCHOOL

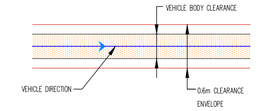
Sheet Subject
SWEPT PATH SKETCH
BAKER STREET
20M AV ENTRY & EXIT

Scale : A1 1:200 | Drawn MP | Authorised MM

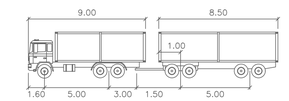
Job No 221973 | Drawing No SKTR20005 | Revision C

Plot File Created: Dec 04, 2023 - 2:12pm

SWEPT PATH LEGEND:



NOTE: 600mm CLEARANCE IN ACCORDANCE WITH AS2890.2



Dog

meters

First Unit Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 30.0
First Unit Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

FileName: 221973-TTW-00-SK-TR-20007-[B] - SWEPT PATH SKETCH - BETTINGHAM ROAD TO FELTON ROAD - TRUCK & DOG ROUNDABOUT.dwg - USER: kyrstosh - Plot File Created: Dec 04, 2023 - 2:14pm

A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date
B	FOR DRAFT	KH	KH	28/11/23
A	FOR DRAFT	MP	MP	03/10/23

Contractor
ROBERTS CO
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Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | Level 6, 73 Miller Street, North Sydney, NSW 2060

Project
CARLINGFORD WEST PUBLIC SCHOOL & CUMBERLAND HIGH SCHOOL

Sheet Subject
SWEPT PATH SKETCH BETTINGTON RD TO FELTON RD TRUCK & DOG ROUNDABOUT

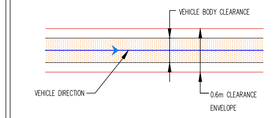
PRELIMINARY
NOT FOR CONSTRUCTION

Scale : A1	Drawn	Authorised
1:200	MP	MM

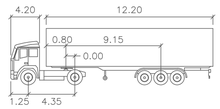
Job No	Drawing No	Revision
221973	SKTR20007	B

Plot File Created: Dec 04, 2023 - 2:14pm

SWEPT PATH LEGEND:



NOTE: 600mm CLEARANCE IN ACCORDANCE WITH AS2890.2



Semi-trailer

	meters		
Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 31.7
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

FileName: 221973-TTW-00-SK-TR-2001D-[A] - SWEPT PATH SKETCH - BETTINGHAM ROAD TO FELTON ROAD - 16m SEMI ROUNDABOUT.dwg - USER: kyriatsh - Plot File Created: Dec 04, 2023 - 2:23pm

A1 0 1 2 3 4 5 6 7 8 9 10

Rev	Description	Eng	Draft	Date
A	FOR DRAFT	MM	MM	30/11/23

Contractor
ROBERTS CO
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SYDNEY NSW 2000
AUSTRALIA

Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | Level 6, 73 Miller Street, North Sydney, NSW 2060

Project
CARLINGFORD WEST PUBLIC SCHOOL & CUMBERLAND HIGH SCHOOL

Sheet Subject
SWEPT PATH SKETCH BETTINGTON RD TO FELTON RD
16m SEMI TRAILER

PRELIMINARY
NOT FOR CONSTRUCTION

Scale : A1	Drawn	Authorised
1:200	MP	MM

Job No	Drawing No	Revision
221973	SKTR20010	A

Plot File Created: Dec 04, 2023 - 2:23pm

Appendix C Traffic Guidance Scheme

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C01

FileName: 221973-TTW-00-SK-TR-00001-(P1)- TGS.dwg - USER: mpatladiseta - Plot File Created: Nov 28, 2023 - 3:17pm

Rev	Description	Eng	Draft	Date
P2	PRELIMINARY	MP	MP	28.11.23
P1	PRELIMINARY	MP	MP	06.11.23

Client
Roberts Co
Level 9, 60 Castlereagh St
Sydney NSW 2000

Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | Level 6, 73 Miller Street, North Sydney, NSW 2060

Project
CARLINGFORD WEST PUBLIC SCHOOL & CUMBERLAND HIGH SCHOOL

Sheet Subject
TRAFFIC GUIDANCE SCHEME
FELTON ROAD

Scale : A1	Drawn	Authorised
1:400	MP	MM

Job No	Drawing No	Revision
221973	TTW-00-TGS-TR-00001	P2

Plot File Created: Nov 28, 2023 - 3:17pm

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C01

LEGEND

INBOUND

OUTBOUND

SITE

DUNMORE AVENUE

50m

50m

PREPARE TO STOP

TI-18

W5-22

TM1-36B

100m AHEAD

W5-22

TI-34

50

FileName: 221973-TTW-00-SK-TR-00001.[P1].SWEPT PATH - TGS.dwg - USER: mpartlafrata - Plot File Created: Nov 28, 2023 - 3:09pm

Rev	Description	Eng	Draft	Date
P2	PRELIMINARY	MP	MP	28.11.23
P1	PRELIMINARY	MP	MP	06.11.23

Client
Roberts Co
Level 9, 60 Castlereagh St
Sydney NSW 2000

Engineer
TTW Structural Civil Traffic Façade
612 9439 7288 | Level 6, 73 Miller Street, North Sydney, NSW 2060

Project
CARLINGFORD WEST PUBLIC SCHOOL & CUMBERLAND HIGH SCHOOL

Sheet Subject
TRAFFIC GUIDANCE SCHEME
DUNMORE AVENUE

Scale : A1	Drawn	Authorised
1:400	MP	MM

Job No	Drawing No	Revision
221973	TTW-00-TGS-TR-00002	P2

Plot File Created: Nov 28, 2023 - 3:09pm