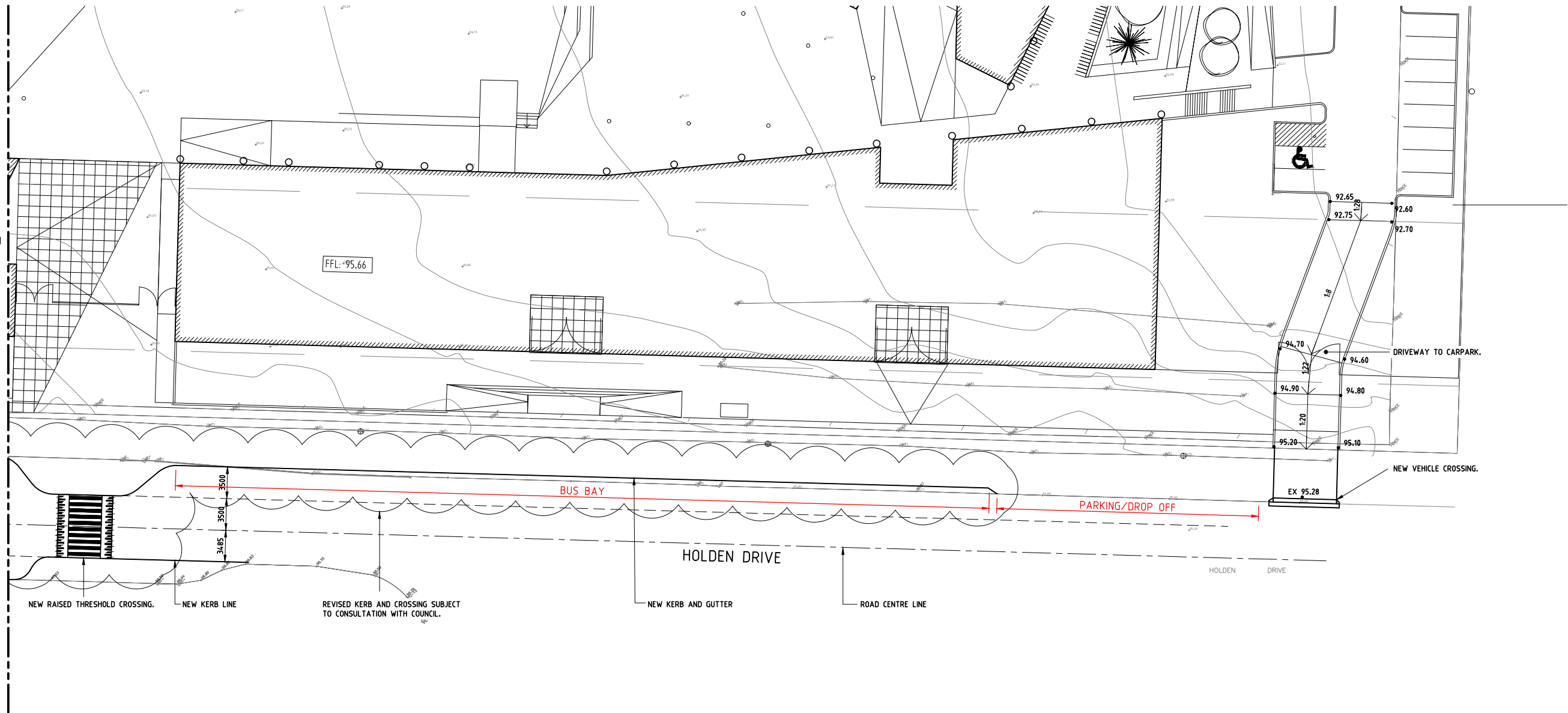


FOR CONTINUATION REFER 16-158_CR1



No.	Date	Description	Ver.	Appr.
A	13.02.17	GENERAL AMENDMENT		



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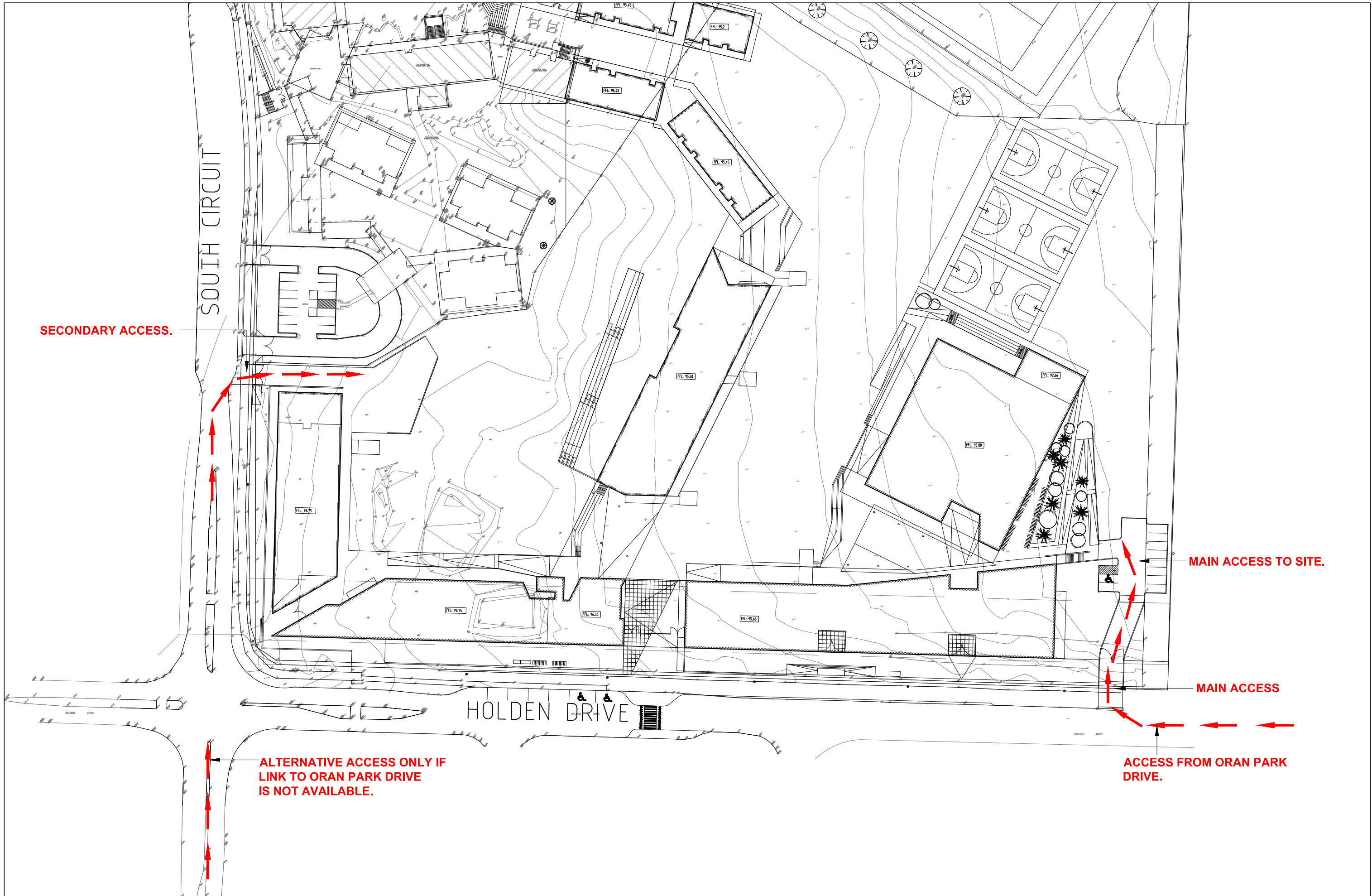


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ORAN PARK
HIGH SCHOOL

CIVIL WORKS IN ROADWAYS
SHEET 2

Date	JANUARY 2016	Approved	KEC	25.01.17	Verified	CMW	25.01.17	Prepared	JK	25.01.17
Scale @ A1	1:250									
Job number	16-158	Drawing number	CR2		Amendment	A				



No.	Date	Description	Ver.	Appr.
A	25.01.17	ACCESS DETAILS AMENDED		
B	08.02.17	NOTE ADDED		
C	14.02.17	NOTE REMOVED	KEC	CMW

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ORAN PARK
HIGH SCHOOL

CONSTRUCTION TRAFFIC
MANAGEMENT PLAN

Date	JANUARY 2017	Approved	CMW	Verified	KEC	Prepared	JK
Scale @ A1	1:500		20.01.17		20.01.17		20.01.17
Job number	16-158	Drawing number	CTM1	Amendment	C		

Appendix C

Green Travel Plan

Oran Park High School and Public School Green Travel Plan

31 March 2017 | 16-158

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Document control

Rev No	Date	Revision details	Approved	Verified	Prepared
01	30.3.2017	Initial issue	CMW	KEC	CMW
02	31.3.2017	Minor amendments	CMW	KEC	CMW

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Introduction

The new Oran Park High School is proposed to be located at the corner of South Circuit and Holden Drive, adjacent to the existing public school. Refer to Figure 1 for the location of the site. The new school will eventually cater for 2,000 students in Years 7 to 12 and have 158 staff.

Oran Park Public School is adjacent to the proposed high school. As part of the proposed works, the school will be extended to cater for 1,000 students and will have 76 staff, increasing from the current maximum of 704 students and 46 staff.

This report has been prepared to detail the measures provided to encourage sustainable transport measures for the site.

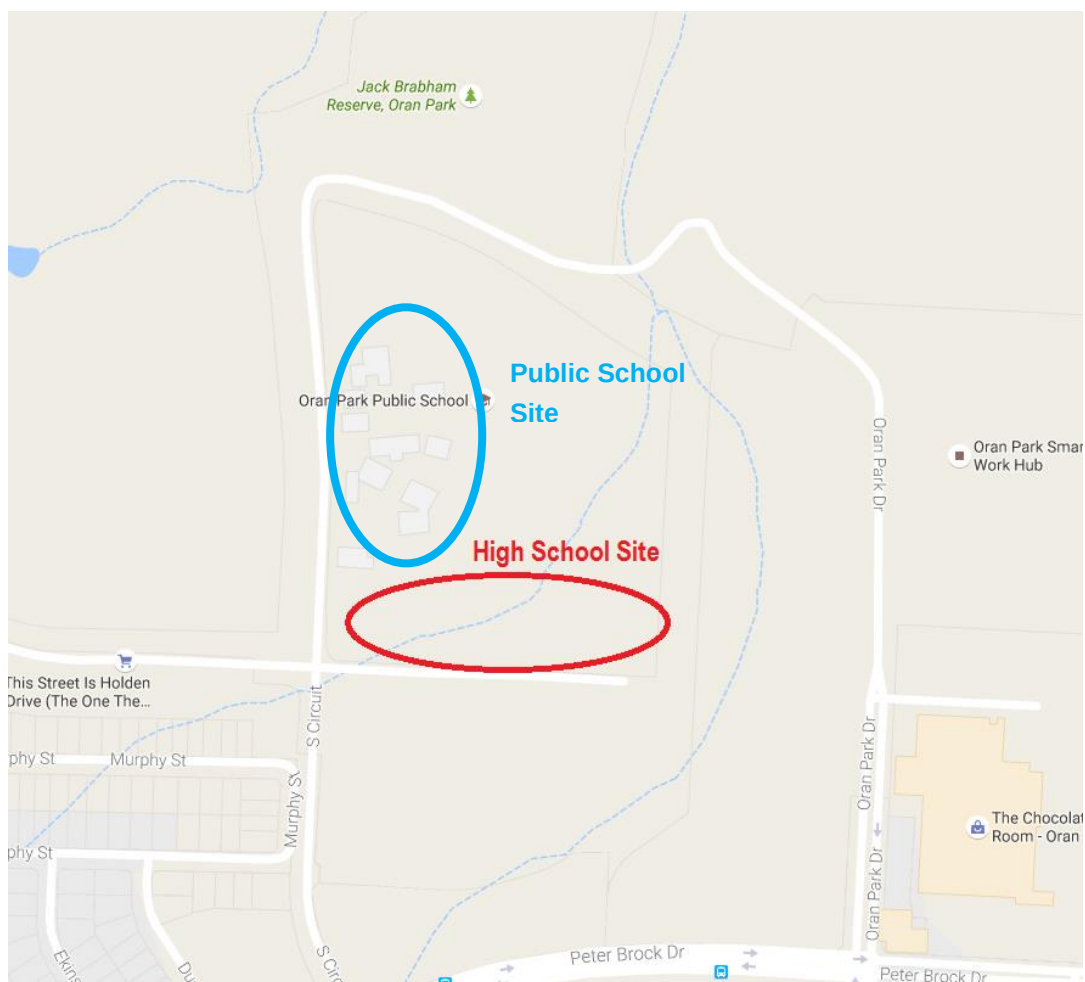


Figure 1 – Site Location

Site location

Oran Park Public School is located on South Circuit. The new high school will be located adjacent to the primary school, with the main frontage along Holden Drive. Figure 2 below details the location of the public and high school and main roads in the vicinity.

Access to the public school is from South Circuit. The high school will have two access points – access to the on-site parking will be from Holden Drive and access to the service area will be from South Circuit.



Figure 2 – Site Location and road network

Proposed development

The development proposed for the site consists of

- a public high school catering for up to 2,000 students. Staff numbers at the school will be nominally 158.
- expansion of the public school, to cater for a total of 1,000 students. Staff numbers at the expanded school will be nominally 76.

The major use of the site will occur on weekdays, during normal school hours of approximately 8:30am to 3:30pm. Extracurricular activities will occur after school and on weekends. The public school has after school care, which will continue when the school is expanded.

Available transport infrastructure

Bus services

The current bus routes serving Oran Park are:

- Route 896 – Cambelltown Station to Oran Park via Narellan and Gregory Hills
- Route 850- Narellan to Minto via Oran Park, Grefory Hills and Catherine Fields
- Route 858 – Oran Park Town Centre to Leppington Station.

These routes all go via or terminate at Oran Park Town Centre – a 10minute walk from the site. While there are no regular routes currently past the site, with the ongoing development in the area the location of routes will change, and new routes are likely to pass the site. Staff at the school will be able to utilise these regular services.

There is currently no railway line servicing Oran Park. However, there are plans to extend the South-West Rail line to Oran Park in the future. When the line opens, in the medium term, it will be available for use by students and staff.

The regular bus routes will be able to be used by students. However, dedicated school services will also be provided, to transport students within the school's catchment zone.

The public school currently has 3 school services in the morning and afternoon, which use a bus bay on South Circuit. With the increase in students, the number of school bus services will also increase. However, the bus bay size will not need to change, as the bus companies stagger the departure time of the services.

The new high school will have separate school bus services, with the number determined by the number of students. Extrapolating the number of buses for similar schools in the area results in around 13-15 buses being required for Oran Park High School. Based on 36% of students travelling by bus (720 students) and a capacity of each bus of 47, 15 buses will be required. To cater for these

services, a bus bay will be provided in Holden Drive, in front of the school with space for 4 buses at one time.

With the bus serviced detailed above, there will be suitable public transport to service the school.

Pedestrian and cycleway infrastructure

As part of the Oran Park Precinct, a network of shared paths and cycle paths are proposed and will be constructed by the area developer. The network is shown in Figure 3.

In the vicinity of the school, the following shared pathways are proposed:

- An off-road shared path along the creek to the east of the school site, extending from Peter Brock Drive, past the school to Jack Brabham Reserve
- Road verge shared path along Holden Drive, from the Town Centre and beyond the school site
- Road verge shared path along South Circuit
- Road verge shared path along Dick Johnson Drive

Links will be available from the school onto these paths. These paths, and the remainder of the network throughout the Oran Park Precinct, will provide good cycle and pedestrian access to the school.

To facilitate students and staff riding to school, bicycle storage racks will be provided, which allow students and staff to store and lock bicycles. At least 100 spaces will be provided at the high school, with 20 spaces located along the Holden Drive frontage and over 80 within the school site. The spaces provided will allow students and staff to store bicycles securely.

To facilitate staff walking or cycling to school, end of journey facilities, including lockers and showers, will be provided.

Parking

The existing public school, which was designed for 46 staff and 704 students, has 36 staff spaces at the north end of the site and 13 spaces in the central area near special education, a total of 49 spaces. No additional parking spaces will be provided as part of the development

The high school site currently has no parking on the site. As part of the proposed development, 10 spaces will be provided on site. All will be reserved for staff or official visitors. No student parking will be provided.

At the northern end of South Circuit, on-street parking is available, which can be used by parents and staff. With the development of the high school, no on-street parking will be available along the school frontage, due to bus bays and picks up / drop off zones.



Figure 3 - Proposed network of bike and shared paths

Pick up and drop off facilities

The public school has an existing drop off zone with space for 8 vehicles. It is proposed that the zone will be used for the extended school.

For the high school, it is proposed to utilise the following locations for drop off and pick up:

- On the northern side of Holden Drive, just to the west of the Administration area entry to the school
- On the southern side of Holden Drive, opposite the first drop off zone.
- On the northern side of Holden Drive, to the east of the bus zone.

These locations provide space for 12 vehicles at one time.

Assuming that the students are dropped off over a 20 minute period before school starts, with 12 spaces available the time available for each car to unload is 36seconds. As the students are all 12 years of age or older, this is sufficient time to get out of vehicles.

During the afternoon peak, students will also be picked up over a 20 minute period. Using the proposed 12 pick up spaces allows 48 seconds per vehicle. Extending the time to 60 seconds per vehicle, to allow additional time for students to spot the vehicle and get in, it would take 25minutes for the students to be picked up.

Opportunities to increase green travel options

The high school will have all new staff and there will be significant increase in new staff at the public school. As there are no existing transport patterns to change for the new staff members, there are opportunities for the combined site to encourage green transport options. Initiatives that can be implemented are:

- Encourage walking and cycling to the site by students and staff
- Encourage the use of public transport
- Formalise a car pool system at the school

Each of these measures is discussed below.

Walking and cycling

The development of the Oran Park precinct includes a network of shared paths, which will allow students and staff to safely cycle or walk to the school. To encourage use of the shared path network, the new works will incorporate suitable end of trip facilities. These will include:

- Suitable bicycle storage areas, including a means of securing bicycles.
- Lockers for staff and students to store clothing and other articles required for walking or cycling, such as helmets
- Staff shower and change facilities, to allow them to wash / clean themselves prior to commencing work.

As part of the management of the school, senior staff will need to develop specific plans to encourage the use of walking and cycling to school. This may include measures to minimise the materials that staff and students need to take home, the use of electronic documentation and remote connection to the school's network.

Public transport

At present, apart from dedicated school services, there are no bus services immediately adjacent to the site. However, with the rapid development currently occurring in the area, the route and frequency of bus services will change and increase to meet demand. As such, it is probable that future bus services will pass the site and provide an improved service, that does not require staff to walk from the Town Centre.

With the anticipated improvement in bus services, school management will be able to encourage use of public transport by staff. As with cycling and walking, this may require measures to minimise the materials staff have to transport between home and school, to enable public transport to be a viable option.

Car-pooling

The set start and finish times of schools readily enable a car pooling system to be implemented. Senior staff at the new school will need to consider implementing a scheme and for encouraging the use of the scheme. One measure that could be adopted is to reserve all or part of the on-site parking area for car pool members.

Implementation

The school will be responsible implementing the measures discussed above, after assessing the viability of each measure. A checklist is provided in Appendix A, identifying tasks to be undertaken by the school to implement the green travel plan.

Appendix A

Green Travel Plan Checklist

Oran Park Public School and High School Green Travel Plan Checklist

General Requirements	Completed by
Elect a staff member to be responsible for co-ordinating the activities required to implement green travel measures	
Prepare a new starter pack for staff and students. The pack will include the following: - Maps and timetables of public transport in the area - Maps of the shared path network in the precinct - Details of end of trip facilities available in the school for pedestrians and cyclists, such as showers and lockers - Details of measures provided to secure bicycles - Details of the car pool scheme and how to join - Details of any measures provided by the school to minimise transport of heavy or bulky materials	
At the start of each year: - Provide a forum to link possible cycling or walking partners - Set up a new forum to form new groups as part of the car pool, taking into consideration the timetable for the following year.	
Utilise the school website, newsletters and facebook page to keep students and staff informed of any changes to public transport, shared paths or other sustainable transport measures	
Public Transport	Completed by
Develop a map showing the public transport routes to the school – both regular services and school service. Map to be available on the school website	
At the start of the school year and mid-year, update the map to reflect any changes.	
Provide links on the school website to public transport companies servicing the area	
Walking and cycling	Completed by
Produce a map showing walking and cycling routes to the school, including distances and approximate travel times	
Identify employees living within walking or cycling distance of the school and develop measures to assist in allowing them to walk to school	

Monitor that the bicycle storage area to ensure that the area is secure and bicycles are not being stolen. If required, implement measures to upgrade to secure the area.	
Car pooling	Completed by
Set up a car pool system for staff. Identify (with appropriate confidentiality) which staff live near each other and could car pool.	
Consider reserving a section of the parking area for those involved in the car pool program.	
Communications	Completed by
Have a section of the school website dedicated to sustainable transport measures. Section will include maps prepared as part of the green travel plan	
Provide opportunities for staff and students to provide input on sustainable transport measures	
Utilise school newsletters, website and facebook page to keep students and staff informed of changes in public transport, shared paths or other events affecting access to the school.	