

Ref: 14584

22 August 2019

Manny Prouzos
Senior Project Architect
Billard Leece Partnership
SYDNEY, NSW

Attention: manny@blp.com.au

Dear Manny,

**NSW Department of Planning and Environment – Prior to Commencement of Construction Conditions
Picton High School – Traffic Engineering Statement - Response to Condition B34**

Stantec has reviewed the car park and access layout for the redevelopment of Picton High School at Argyle Street, Picton against the following documents:

- Australian Standards AS/NZS 2890.1:2004 Parking Facilities – Part 1: Off-Street Car Parking;
- Australian Standards AS2890.2:2002 Parking Facilities – Part 2: Off Street Commercial Vehicle Facilities; and
- Australian Standards AS/NZS 2890.6:2009 Parking Facilities – Part 6: Off-street Parking for People with Disabilities.

This letter contains our advice in relation to the car parking layout and vehicular access. The site plan has been prepared by Billard Leece Partnership (BLP) and is shown within Appendix A.

Relevant Consent

The Department of Planning and Environment (DPIE) issued a development consent letter dated 27 June 2019, regarding a number of conditions, including the car parking and service vehicle layout requirements (Condition B34) for the approved redevelopment of Picton High School.

The consent details are as follows:

- Application number: SSD 8640
- Address: 480 Argyle Street, Picton
- Proposed development: Picton High School redevelopment

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The specific condition addressed in the following statement is stated below:

Condition B34: Compliance with the following requirements must be submitted to the satisfaction of the planning Secretary prior to the commencement of construction:

- (a) all vehicles must enter and leave the Site in a forward direction;
- (b) minimum of 141 on-site car parking spaces (including 4 accessible parking spaces) for use during operation of the development and designed in accordance with the latest version of AS2890.1;
- (c) the swept path of the longest vehicle entering and exiting the Site in association with the new work, as well as manoeuvrability through the Site, must be in accordance with AUSTROADS;
- (d) amended plans demonstrating the swept path of the waste collection vehicle and the manoeuvrability through the Site, must be designed in accordance with AS2890.1 – 2004 and AS2890.2 – 2002; and
- (e) the safety of vehicles and pedestrians accessing adjoining properties, where shared vehicle and pedestrian access occurs, is to be addressed.

It is considered that Condition B34 (a) has been addressed, and it is understood that DPIE are in agreeance.

Approved Plans and Documents

The plans referred to in this assessment are detailed in **Table 1**.

Table 1: Plans Used for Compliance Assessment

PROJECT / DRAWING NUMBER	PREPARED BY	ISSUE	DATE
17003 / AA03-0002	Billard Leece Partnership Pty Ltd	2	08-08-2019
17003 / SK 01 (Staff Carpark Modifications_SK 02)	Billard Leece Partnership Pty Ltd	2	22-08-2019

Traffic Engineering Response

Condition B34 (b)

'Wollondilly Shire Council – Design Specification 2016', outlines the controls for the design of parking and service areas. In particular, it is noted the design of parking areas must comply with AS/NZS 2890.1:2004 .

It is proposed to provide 100 new car parking spaces, which have been designed in accordance with AS/NZS 2890.1:2004.

The car park compliance assessment for the existing staff carpark and proposed new car parking spaces within the site is provided in **Table 2**. The last column identifies the compliance of each design element; where compliance with Australian Standards is not achieved, further information is provided below.

Table 2: Staff Carpark and Proposed New Car Park AS/NZS 2890.1:2004 Design Compliance

Design Aspect	Australian Standards	Measurements on plans	Compliance
Car parking space length	5.4m (minimum)	5.4m (minimum)	Complies with AS/NZS 2890.1:2004
Car parking space width	2.4m (minimum)	2.4m (minimum)	Complies with AS/NZS 2890.1:2004

Design Aspect	Australian Standards	Measurements on plans	Compliance
Accessible bay length	5.4m (minimum)	5.4m (minimum)	Complies with AS/NZS 2890.6:2009
Accessible bay width	4.8m (with shared area)	4.8m (minimum)	Complies with AS/NZS 2890.6:2009
Driveway Access Width (North of site)	3.0m to 5.5m (minimum)	5.67 (minimum)	Complies with AS/NZS 2890.1:2004
Driveway Access Width (Into Staff Carpark)	3.0m to 5.5m (minimum)	4.6m (minimum)	Complies with AS/NZS 2890.1:2004
Traffic Aisle Width	5.8m (minimum)	5.8m (minimum)	Complies with AS/NZS 2890.1:2004
Blind Aisles	A minimum of 1 metre extension beyond the last parking space	1.0m (minimum)	Complies with AS/NZS 2890.1:2004

Existing carpark

42 existing car parking spaces within the staff car park are proposed to be retained. It is noted that the staff car park has been modified to comply with the AS/NZ 2890.1:2004 and AS/NZS 2890.6:2009. The modified plan is prepared by BLP and has been attached within sheet no.3 of Appendix A.

An evaluation of the carpark layout has been undertaken using the software package 'AutoTurn'. The assessment reviewed the ability for vehicles manoeuvring in and out of the car parking spaces, as provided in Appendix B. The swept paths have been based on the B99 vehicle (99th percentile vehicles) as outlined in the Australian Standards (AS/NZS 2890.1:2004).

The new access will operate as an entry-only access, with egress to be via the Wonga Road access at the rear of the site. Egress from the site via the bus zone egress on Argyle Street will be prohibited.

A turning bay is proposed to be provided along the western boundary of the staff carpark, to allow a B99 vehicle perform a three-point turn manoeuvre, in the event that the car park is fully occupied. This is shown within drawing sheet no.3 of Appendix B.

Accordingly, it is considered that all car parking spaces have been designed in accordance with AS/NZS 2890.1:2004 and AS/NZS 2890.6:2009, and that the minimum requirement of 141 car parking spaces including four accessible spaces will be provided on-site.

Condition B34 (c)

Appendix E of the Traffic and Accessibility dated August 2018 indicates that the longest vehicle entering and leaving the site (from both Argyle Street and Wonga Road) is a 14.5m long bus. The 14.5 metre long bus is not expected to enter the site from the Wonga Road entrance, with the largest vehicle accessing this section of the site being an MRV.

Austrroads' Design Vehicles and Turning Path Templates Guide in Section 3 identifies the dimensions and turning radius of such a 14.5 metre long rigid bus.

A swept path showing an MRV (Medium Rigid Vehicle as defined in AS 2890.2:2002) has been prepared demonstrating the appropriateness of the delivery area and access to accommodate this vehicle entering and exiting the site in a forward direction. This swept path was prepared on 5 June 2019, and it is understood that DPIE is satisfied with the arrangements.

Condition B34 (d)

Swept paths showing 9.45m long front/rear loading waste vehicles (understood to be the identified waste collection vehicle) have been prepared demonstrating the appropriateness of the delivery area and access to accommodate the vehicles entering and exiting the site in a forward direction. These 9.45m long vehicles are understood to be the largest vehicles accessing this part of the site.

These swept paths were prepared on 11 March 2019, and it is understood that DPIE is satisfied with the arrangements. These have been included for reference within Appendix B.

Drawing SK-01 (prepared by BLP) shows the access and loading area relative to the rest of the site, and notes that the delivery and loading facilities have been designed in accordance with both AS/NZS 2890.1:2004 and AS 2890.2:2002. The access has a minimum access / aisle width of 6.8 metres, allowing for simultaneous two-way vehicle movement.

Condition B34 (e)

In order to maintain the safety of the general public and reduce the potential of pedestrian and traffic conflicts, the following will be implemented as a measure to maintain safety around the site:

- Removal of vehicle access to staff car park on Argyle Street through bus area; and
- Upgrading / formalization of Wonga Road, to include a generous width footpath along the eastern side of Wonga Road, formal driveway laybacks and aprons, and car parking restrictions along the road.

Removal of car parking on Wonga Road will reduce the number of vehicle movements in the street, helping to create a safer pedestrian environment, particularly in peak hours where the number of pedestrians is increased.

It is not expected that the volume of pedestrians and vehicle accessing adjoining properties, especially during the AM and PM peak school hours, will be of significant levels. The two properties adjoining the site that have vehicular access in close proximity to the site are 468 Argyle Street, which accommodates a single dwelling, and 15 Wonga Road. The 15 Wonga Road property has an off-street car park that is accessed from Wonga Road, and access is controlled via a mechanical gate. The proposed footpath along Wonga Road is expected to provide sufficient width to accommodate the level of pedestrian activity expected during peak hours.

Appropriate signage will be erected around the site, to create awareness of increased pedestrian and vehicle activity during the AM and PM school peak hours.

Conclusion

Stantec has assessed the car parking compliance assessment for Picton High School, Picton. Based on the above assessment, it is concluded that the car park layout generally meets the requirements of the Australian Standards for parking and vehicular access.

Yours sincerely



Ang, Desmond
Traffic Engineer



Tom Guernier
Senior Traffic Engineer

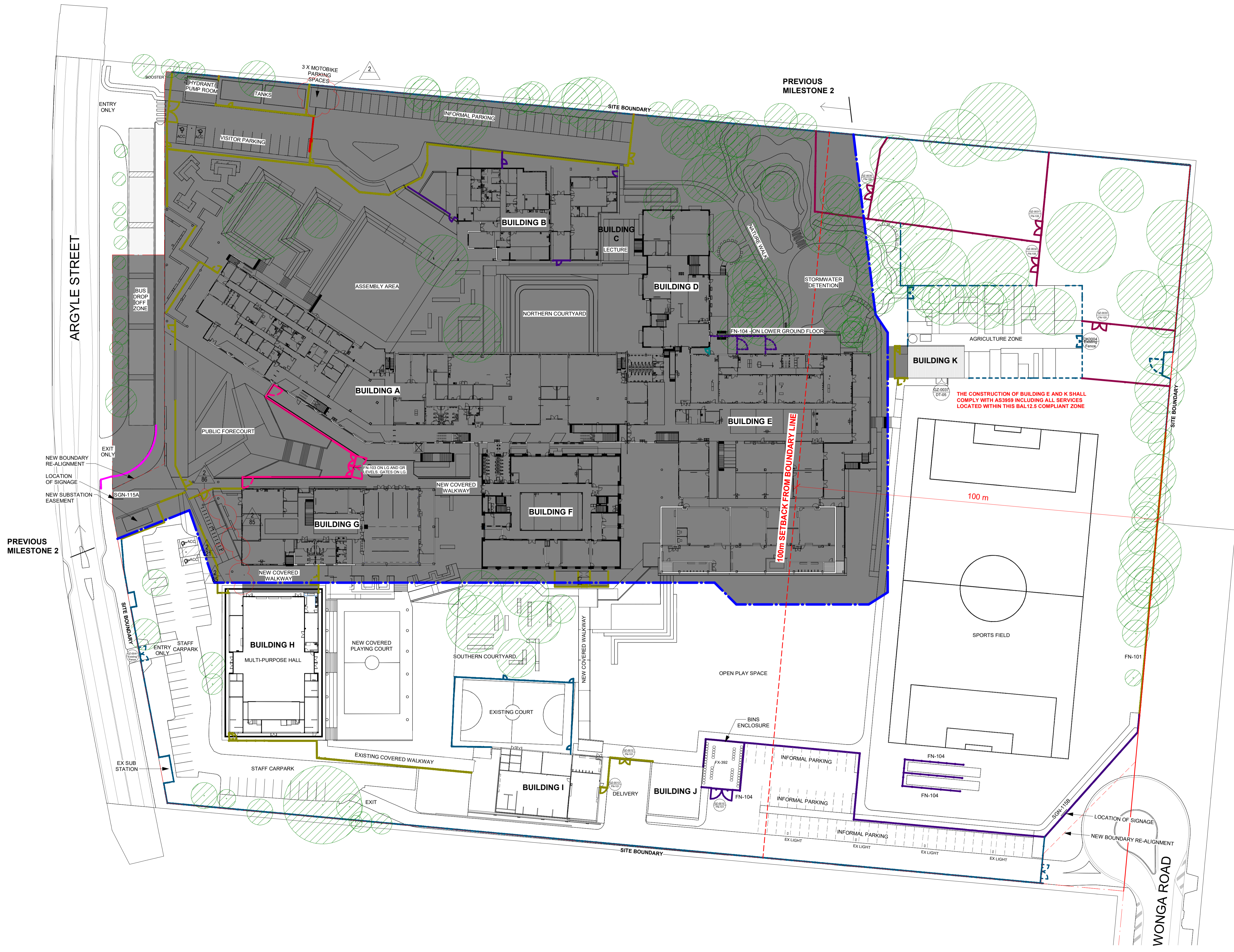
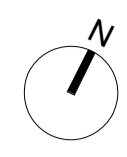
Stantec Australia Pty Ltd

Encl:

Appendix A – Site Layout

Appendix B – Swept Paths

Appendix A – Site Layout



- FENCES LEGEND:**
- FN-101 METAL PALISADE FENCE/GATES
 - FN-102 METAL SAFETY BARRIER FENCE
 - FN-103 ALUMINIUM SLATTED FRAME FENCE/GATES
 - FN-104 CORROMESH METAL MESH FENCE
 - FN-105 PADDOCK FENCE/GATES
 - FN-201 METAL MESH AUTO SLIDING GATES
 - EXISTING FENCE, FENCE TYPE VARIES
 - LOCATION OF TEMPORARY SCHOOL HOARDING
- NOTE:** ALL GATES TO BE FITTED WITH CLOSERS. REFER TO ELECTRICAL DRAWINGS FOR THE EXTENT OF ELECTRIC SECURITY GATES.
- NOT PART OF THE SCOPE OF MILESTONE 3

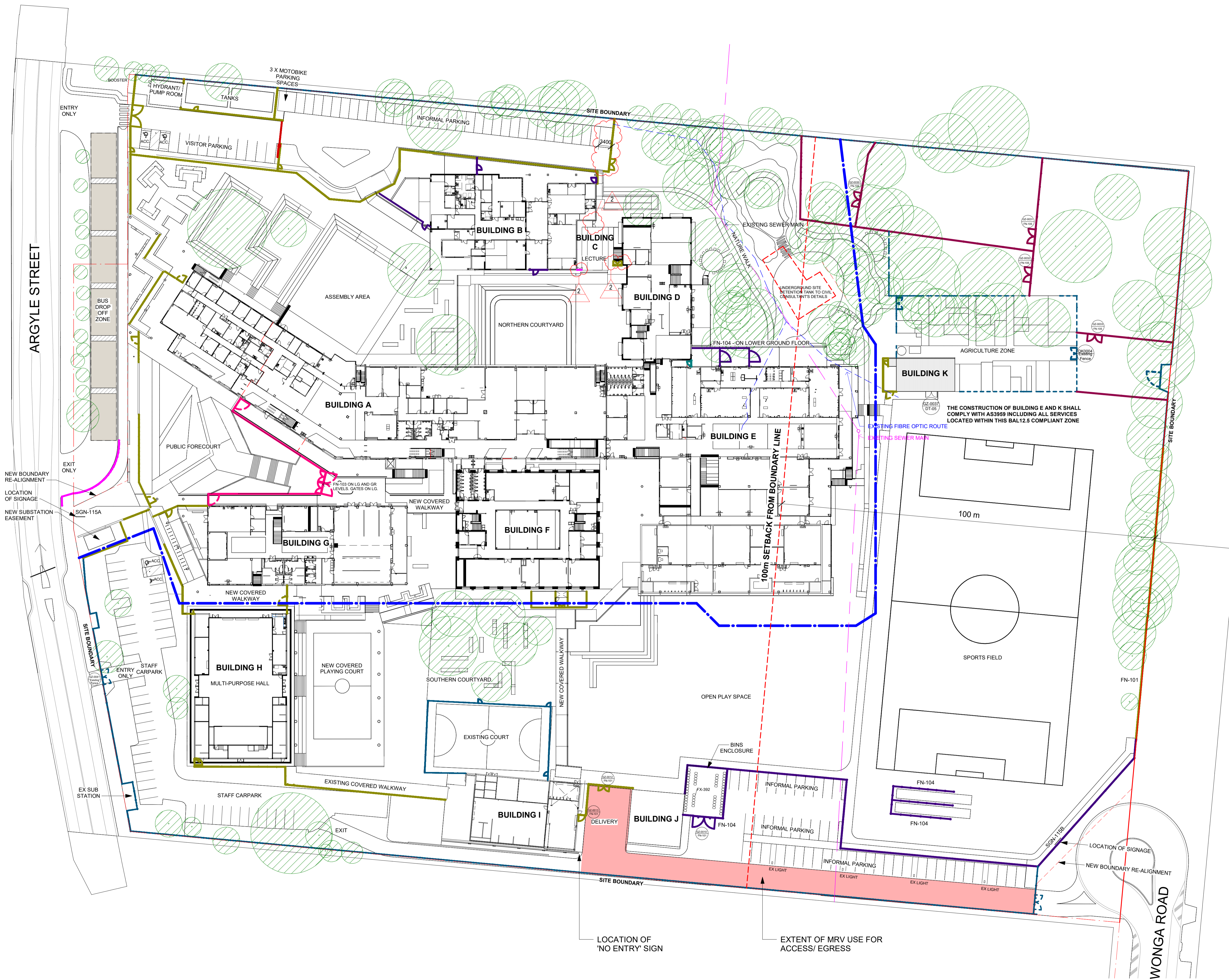
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1	ISSUE FOR CONSTRUCTION	25/03/19
AB	FOR COORDINATION	27/02/19
AA	For Coordination	10/09/18
REV		

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DEPARTMENT OF EDUCATION
NSW Education
PROJECT: PICTON HIGH SCHOOL

DESCRIPTION
SITE PLAN - PROPOSED MILESTONE 3

Project No	17003
Scale	1:500@A1
Drawn By	KT
Drawing No	AA03-0002
Date	18/03/19
Checked By	JL
Revision	2



- FENCES LEGEND:**
- FN-101 METAL PALISADE FENCE/GATES
 - FN-102 METAL SAFETY BARRIER FENCE
 - FN-103 ALUMINIUM SLATTED FRAME FENCE/GATES
 - FN-104 CORROMESH METAL MESH FENCE
 - FN-105 PADDOCK FENCE/GATES
 - FN-201 METAL MESH AUTO SLIDING GATES
 - - - EXISTING FENCE, FENCE TYPE VARIES
 - - - LOCATION OF TEMPORARY SCHOOL HOARDING

NOTE: ALL GATES TO BE FITTED WITH CLOSERS. REFER TO ELECTRICAL DRAWINGS FOR THE EXTENT OF ELECTRIC SECURITY GATES.

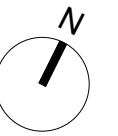
DELIVERY AND LOADING ACCESS DESIGNED IN ACCORDANCE WITH AS/NZS 2890.1:2004 AND AS 2890.2:2002

2	Issued: TBC	XX07/1
1	Issued for Coordination	13/06/19
AA	Issued for Coordination	31/05/19
REV		

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DEPARTMENT OF EDUCATION
 NSW Education
 PROJECT: PICTON HIGH SCHOOL

DESCRIPTION	MRV Vehicle Access
Project No	17003
Scale	1:500@A1
Date	09/08/19
Drawn By	ZH
Checked By	MP
Drawing No	Revision
SK-01	A



Revision	Description	Date	Initial	Checked
2	Issued for Coordination	22/08/19		
1	Issued for Coordination	21/08/19		



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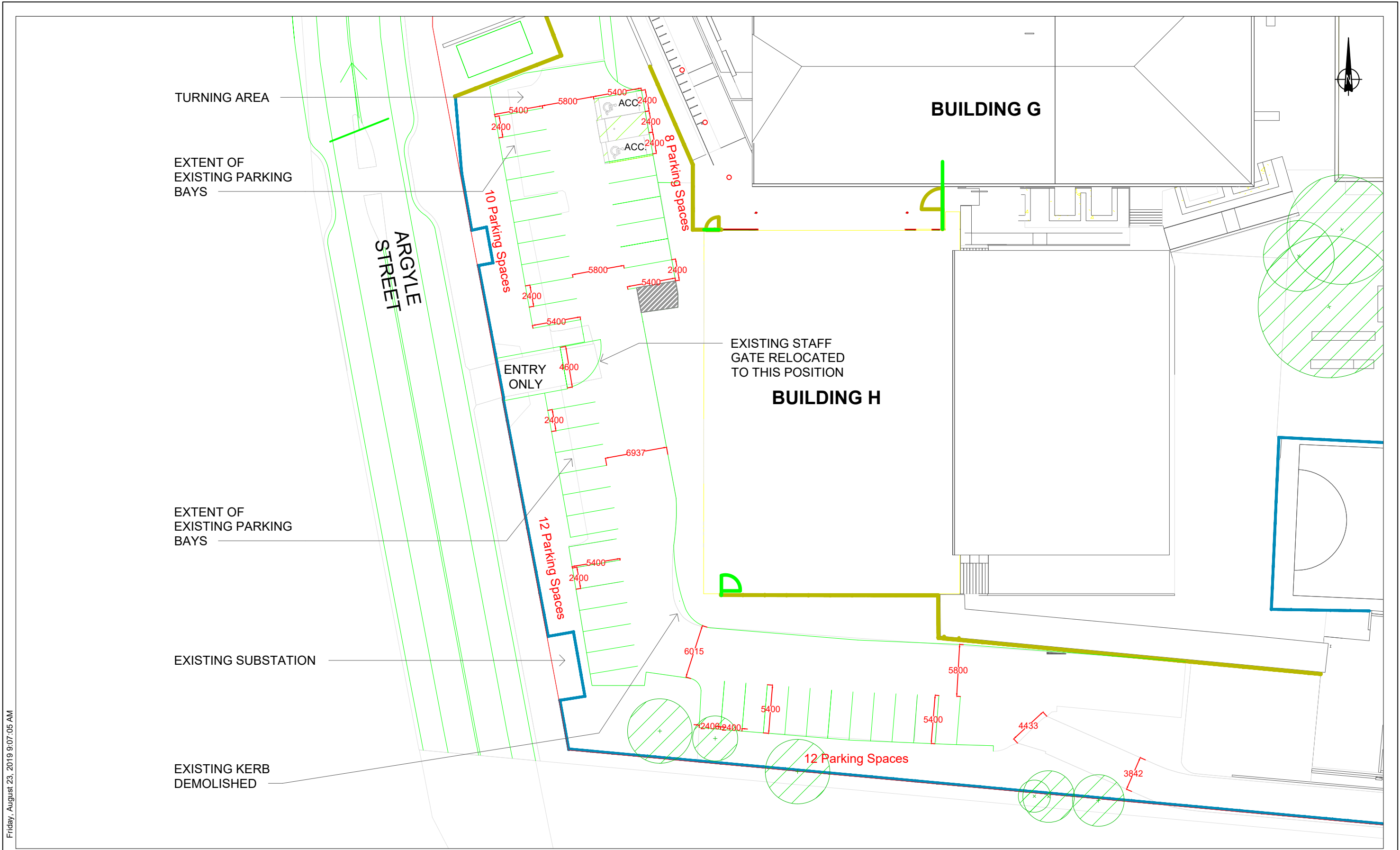
Client
 DEPARTMENT OF
 EDUCATION

Project Name
 PICTON HIGH SCHOOL

Room Layout Sheet
 STAFF CARPARK MODIFICATIONS

Scale	Project No	Date Created
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Drawing No	Revision	
SK 01	2	

Appendix B – Swept Paths



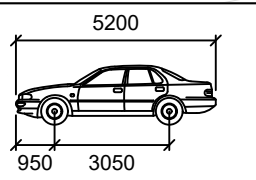
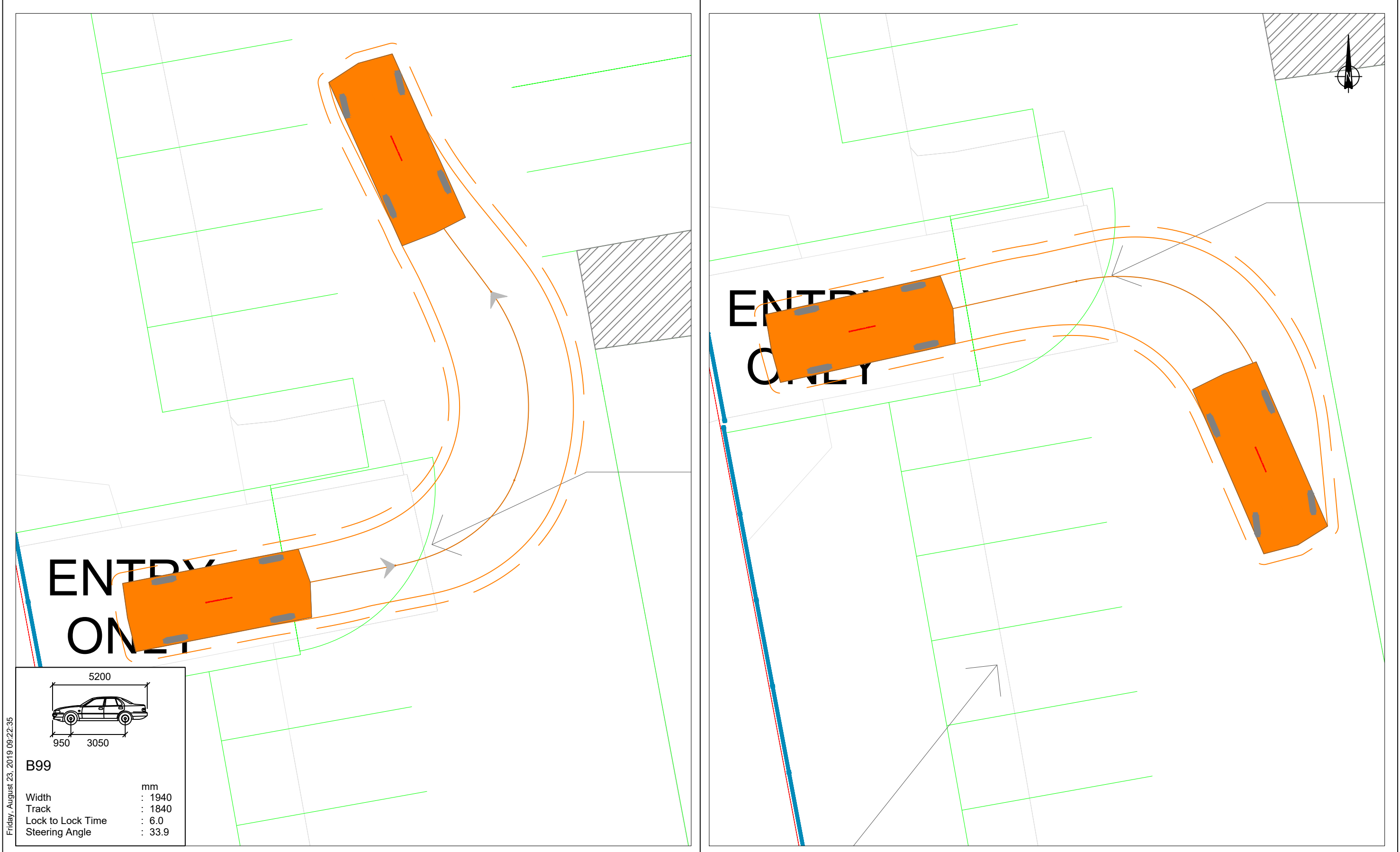
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REV	DATE	DRN	CHK	DESCRIPTION
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Redevelopment of Picton High School
 Compliance Assessment
 Staff carpark layout

DRAWN: DA
 DATE: 23-08-19
 SCALE: 1:400 @ A3
 DWG NO: 14584-04SB

Stantec 1



B99

Width : 1940 mm
 Track : 1840 mm
 Lock to Lock Time : 6.0
 Steering Angle : 33.9

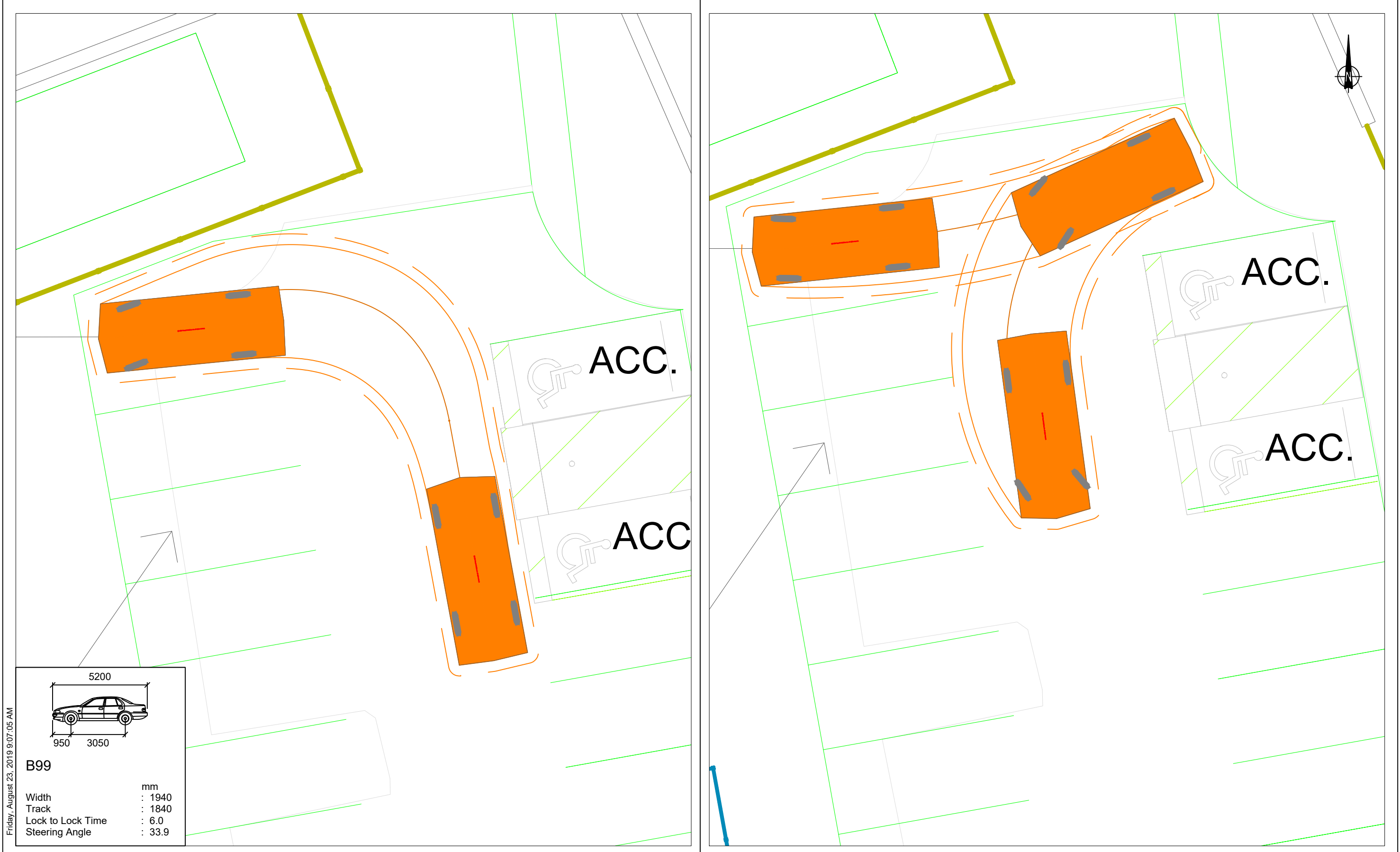
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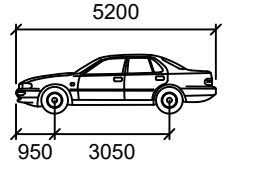
Redevelopment of Picton High School
 Swept Path Assessment
 B99 Vehicle - Entry movement into carpark

DRAWN: DA --- ---
 DATE: 23-08-19 STATUS: ---
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 DWG NO: 14584-04SB





Friday, August 23, 2019 9:07:05 AM



B99

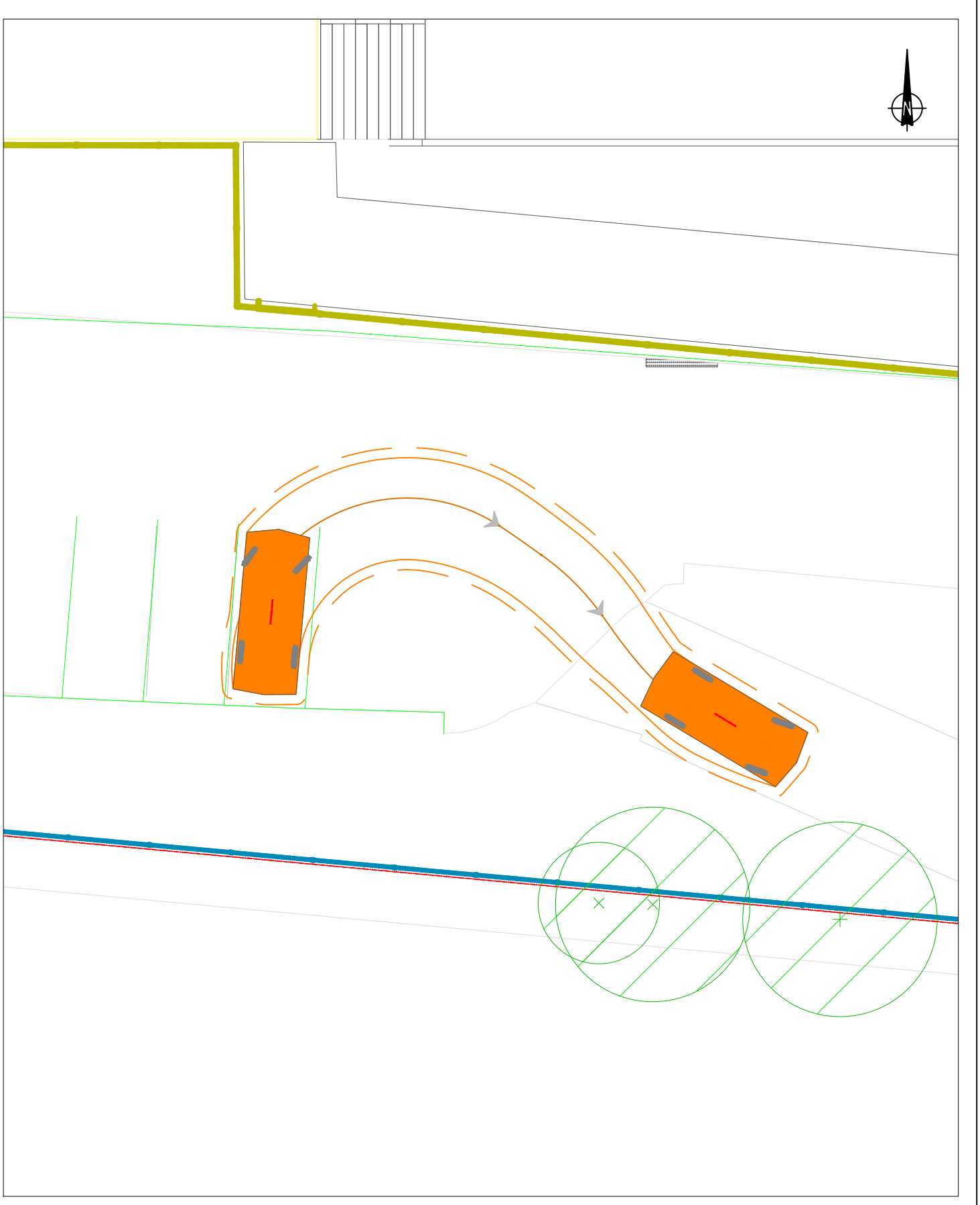
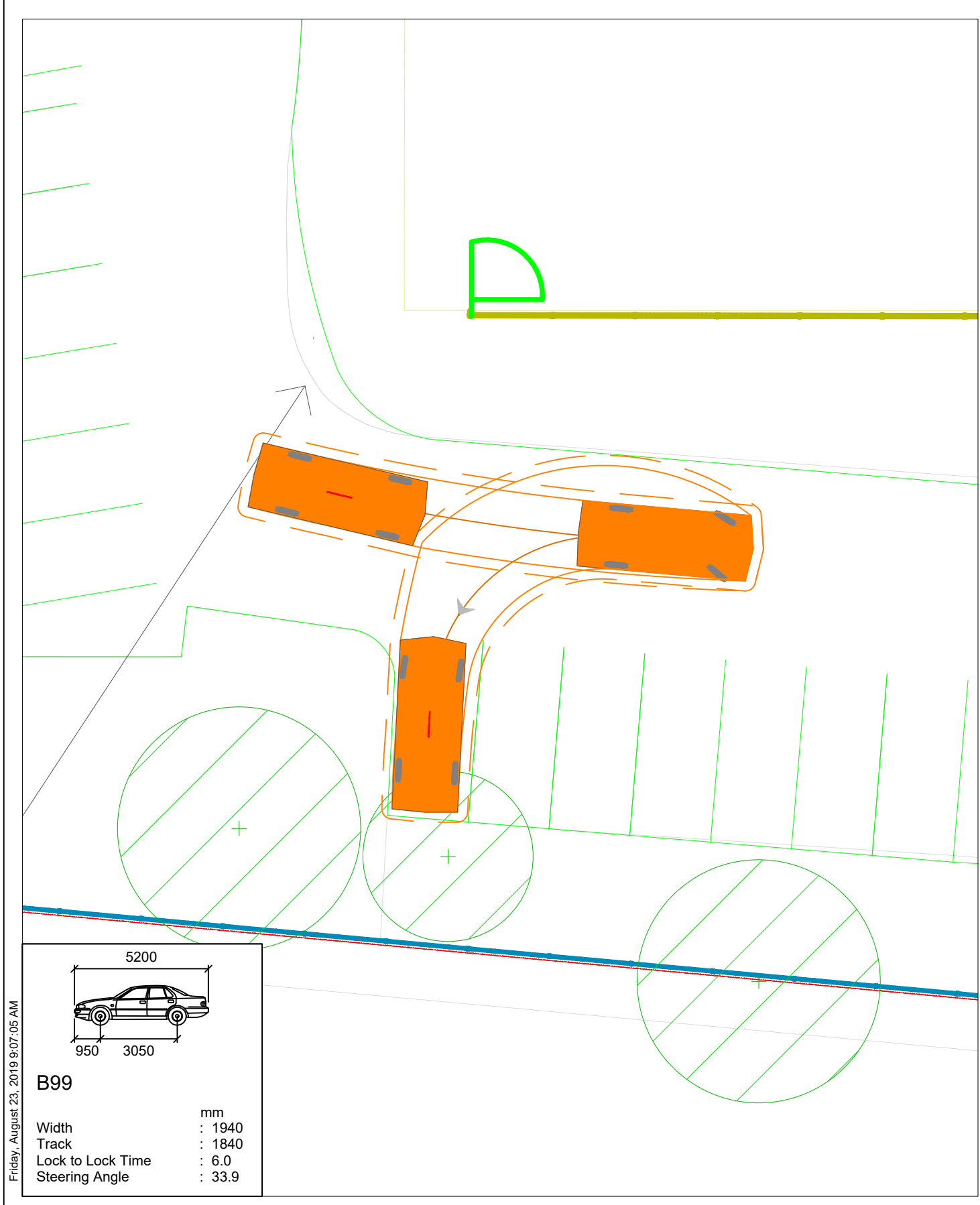
	mm
Width	: 1940
Track	: 1840
Lock to Lock Time	: 6.0
Steering Angle	: 33.9

REV	DATE	DRN	CHK	DESCRIPTION
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Redevelopment of Picton High School
 Swept Path Assessment
 B99 Vehicle - Entry/Exit Movement from turning bay

DRAWN: DA	---	---
DATE: 23-08-19	STATUS: ---	
SCALE: 1:400 @ A3		
DWG NO:14584-04SB		


3



Friday, August 23, 2019 9:07:05 AM

B99

	mm
Width	: 1940
Track	: 1840
Lock to Lock Time	: 6.0
Steering Angle	: 33.9

REV	DATE	DRN	CHK	DESCRIPTION
00	23/08/19	DA		

Redevelopment of Picton High School
 Swept Path Assessment
 B99 Vehicle - Entry/Exit Movements

DRAWN: DA	---	---
DATE: 23-08-19	STATUS: ---	
SCALE: 1:400 @ A3		
DWG NO: 14584-04SB		

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