



Catherine McAuley College
Project 1A – Stage 1
Joint Use Development and Regional Cricket Hub
Traffic Engineering Report

November 2019

EXECUTIVE SUMMARY

RMG has been engaged by Catherine McAuley College (CMC) to complete a Traffic Engineering Report (TER) for the proposed development of two sporting ovals and adjacent building infrastructure in the north west corner of the Coolock Campus, Junortoun (the school campus). The ovals and building will jointly be used by CMC students and the wider Bendigo community, represented by the City of Greater Bendigo (CoGB) and Cricket Australia (CA).

Due to the potential impact the proposed development may have on nearby car parking, the TER has been undertaken to determine the car parking demand associated with:

- future sporting club and community use of the school campus and the proposed building, and
- use of the proposed building by others (including Cricket Victoria).

The TER makes the following conclusions and recommendations:

Conclusion 1: The statutory requirement for car parking spaces for office and social / non-sporting match related use of the proposed building is 49 spaces.

Conclusion 2: The statutory requirement for bicycle parking spaces for social / non-sporting match related use of the proposed building is two spaces.

Conclusion 3: The sporting community's predicted maximum weekly peak demand for car parking is estimated to be 135 spaces.

Conclusion 4: The typical weekly peak demand for bicycle parking at the proposed building is estimated to be two spaces.

Conclusion 5: The proposed development will increase travel to and from the school campus by opening the site to the wider community. By providing additional parking spaces the peak parking demand will be accommodated within the site.

Conclusion 6: The estimated parking demand that will be generated by non-match day use of the proposed building, i.e. 49 car parking spaces, can be readily accommodated by proposed additional car parking facilities within the school campus without impacting on the existing parking areas.

References

References used in the preparation of this report include the following:

- *Greater Bendigo Planning Scheme*
- *RTA Guide to Traffic Generating Developments, 2002*
- *Master Plan, Coolock and St Marys Campuses, Bendigo, May 2018*

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1. INTRODUCTION

RMG has been engaged by Catherine McAuley College (CMC) to complete a Traffic Engineering Report (TER) for the proposed development of two sporting ovals and adjacent building infrastructure in the north west corner of the Coolock Campus in Junortoun (the school campus) for use by CMC students and the wider Bendigo community, represented by Greater Bendigo City Council (CoGB) and Cricket Australia (CA).

A car parking demand assessment has been undertaken to determine:

- the car parking demand associated with:
 - future sporting club and community use of the proposed pavilion, and
 - use of the proposed pavilion by others.
- the availability, proximity and accessibility of alternative transport options from the recreation reserve precinct.

As this report has been prepared prior to the development of the ovals and building and opening of the site to wider community use, this report relies on empirical analysis rather than data collected by targeted survey and / or observation of typical use during a match day.

2. EXISTING CONDITIONS

2.1 Site location and existing land use

The subject site is in Junortoun, approximately 6km east of the Bendigo CBD. The site comprises land located between residential blocks fronting La Valla Court to the east, Trotting Terrace to the south, St Vincents Road to the west and McIvor Highway to the north. The location of the site and the its surrounding road network is shown in Figure 2-1 and an aerial photograph of the site is shown in Figure 2-2.

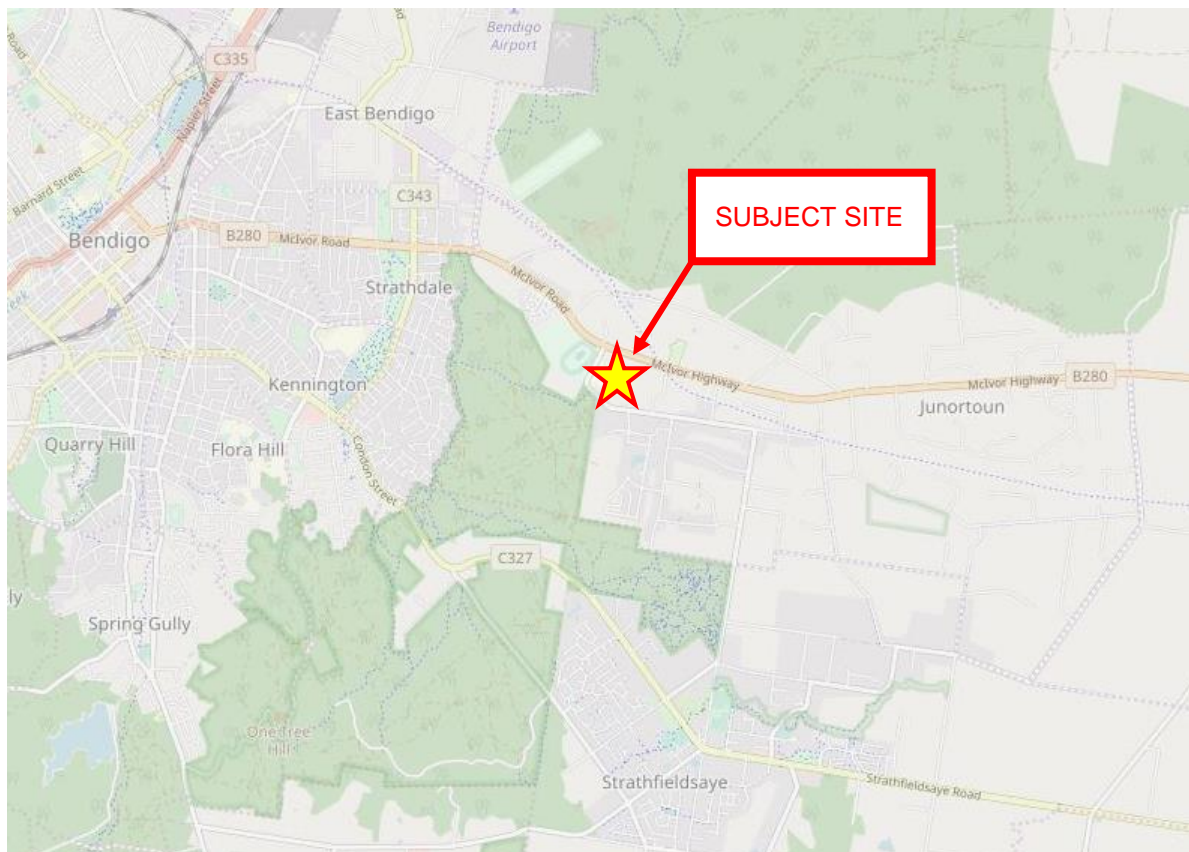


Figure 2-1 Location Plan (reproduced courtesy of Melway Online)



Figure 2-2 Aerial photo of subject site (photo courtesy of CoGB)

This site is currently occupied by a secondary school, six cricket/football ovals and four parking areas.

The site is zoned as Special Use Zone – Schedule 1 (SUZ1). The surrounding areas are predominantly zoned Low Density Residential Zone (LDRZ) with exceptions of Special Use Zone – Schedule 5 (SUZ5) land for Lords Raceway to the northwest and Public Conservation and Resource Zone land to the southwest of the site. Melvor Highway to the north is zoned as Road Zone – Category 1 (RDZ1) and St Vincents Road and Trotting Terrace to the west and south are zoned as Road Zone – Category 2 (RDZ2). Planning scheme zones are shown in Figure 2-3.

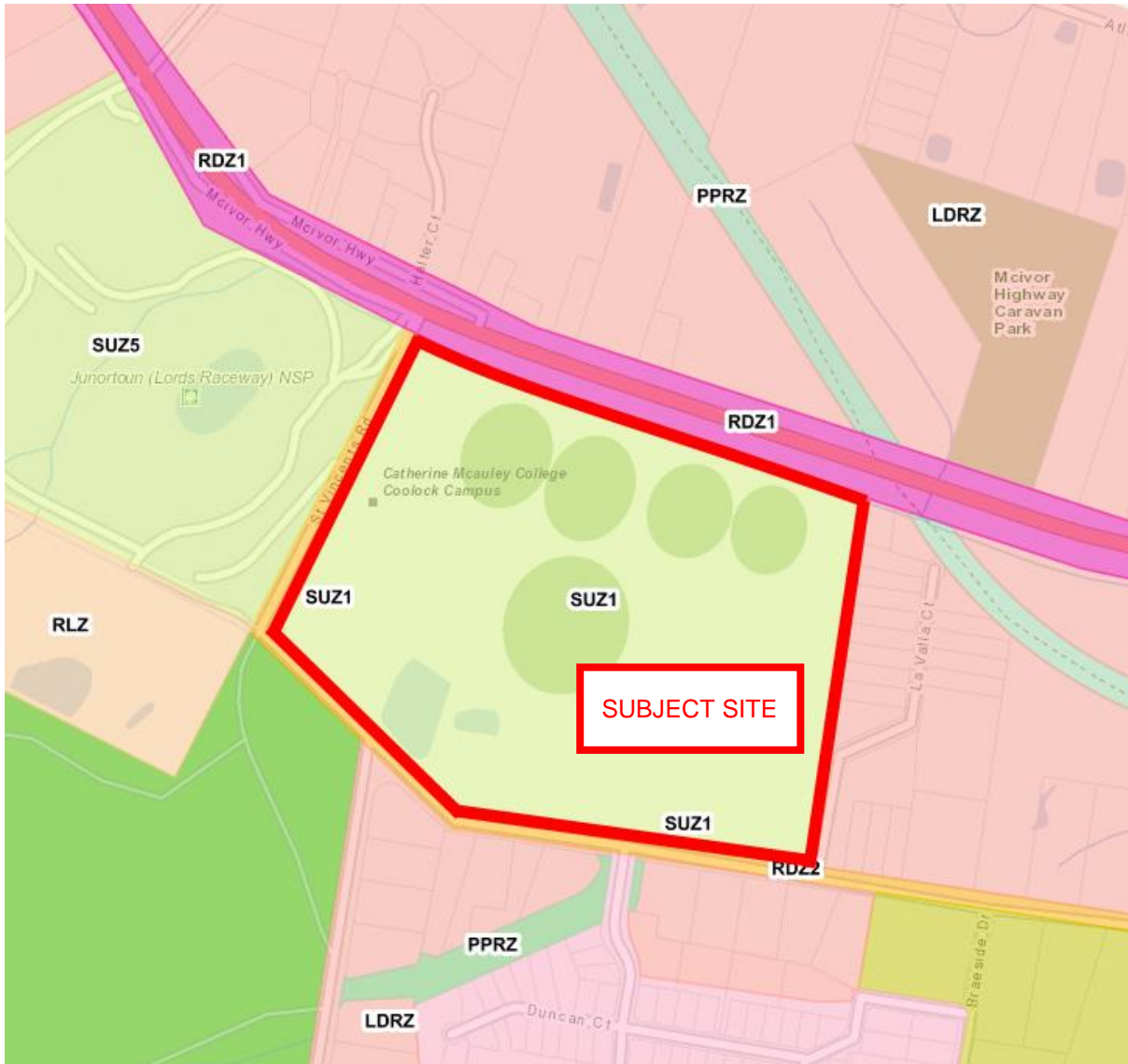


Figure 2-3 Land Use Plan (Source: CoGB Community Compass)

2.2 Existing site use

The subject site's primary use is a secondary school campus. Use of the existing ovals is currently restricted to CMC students.

The primary use of the campus is located on the western half of the site and its assets comprise:

1. Secondary school buildings,
2. Six cricket/AFL ovals,
3. Four parking areas, including
 - a. An unsealed car park for staff and visitors adjacent to St Vincents Road,
 - b. An unsealed informal car park for staff south of the main school complex,
 - c. An unsealed car park for trade access from Trotting Terrace, and
 - d. A sealed bus parking area to the north of the main school complex.



Figure 2-4 Aerial photo of subject site showing location of key assets (photo courtesy of CoGB)

2.3 Current site operation

The site currently operates exclusively as a secondary school with approximately 700 students and 100 staff. Use of the existing sporting ovals is restricted to school use.

2.4 Road network

St Vincents Road

St Vincents Road is a Local Road managed by the CoGB, it connects Trotting Terrace to the south and Mclvor Highway to the northwest of subject site. It is aligned in an approximately north – south direction.

St Vincents Road is a two-lane two-way road with approximate lane widths of 3.4m in a road reserve width of 20.9m. Parallel car parking spaces are provided on the eastern side of the road.

A shared path and on-road bicycle lane are provided on St Vincents Road between Mclvor Hwy and Trotting Terrace.

St Vincents Road has a signed speed limit of 80km/h with a 60km/h School Zone beginning approximately 70m from the intersection with Mclvor Hwy and running to the intersection with Trotting Terrace; the 85th percentile operating speed is 69km/h.

2.5 Traffic volumes

A traffic count conducted by CoGB in October 2013 shows St Vincents Road carries an average of 2536 vehicles per day. Weekday peak traffic flows occur at 8am and 5pm with flows of 325 and 279 vehicles per hour, respectively. On weekends traffic flows are up to 239 vehicles per hour with no peaks evident in the traffic flow pattern.

On weekdays the proposed entrance will accommodate 15 bus movements in the morning peak when traffic volumes are 325 vehicles per hour. Per Figure 2-5 a BAL/BAR treatment is appropriate for this intersection.

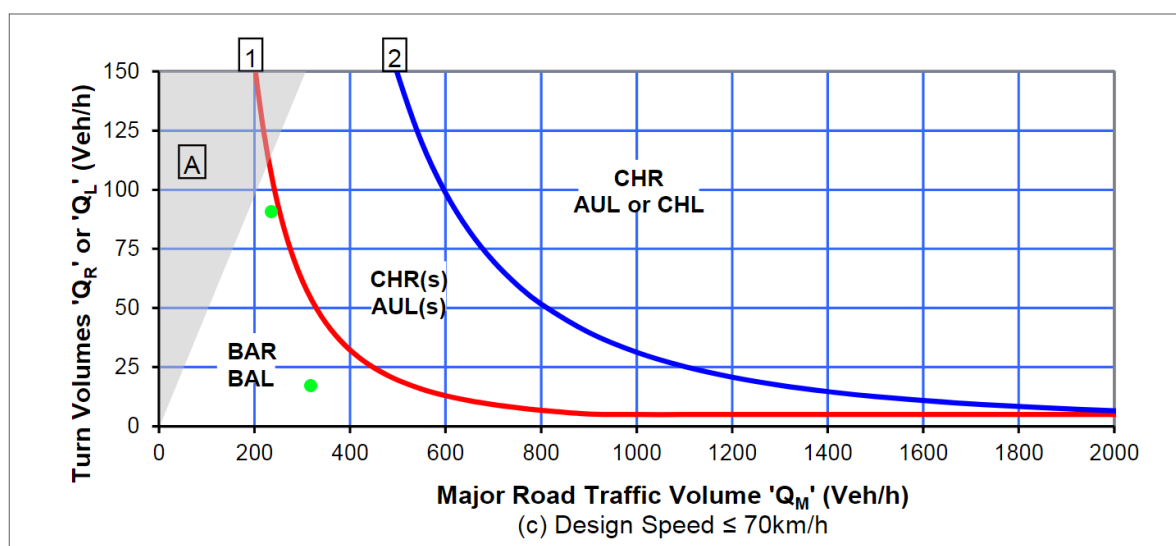


Figure 2-5 Warrants for turn treatments on major roads at unsignalized intersections (Figure 2.25(c) from Section 2.3.6, Austroads Guide to Traffic Management Part 6)

The critical weekend case occurs at 12-1pm on a Saturday when netball and senior football sport is in session. Ninety-two vehicles are expected to enter from St Vincents Road while through traffic volumes are 239 vehicles in this hour. Figure 2-5 shows a BAL/BAR treatment is suitable for this case.

Note that while the speed limit on St Vincents Road is 80km/h, the location of the proposed entrance close to the intersection with Mclvor Highway limits most cars to speeds below 70km/h as seen in the 85th percentile operating speed of 69km/h.

Figures 2-6 through 2-8 show turning movements for buses into and out of the proposed entrance.



Figure 2-6 Turning movement – bus turning left from St Vincents Road into proposed carpark entrance

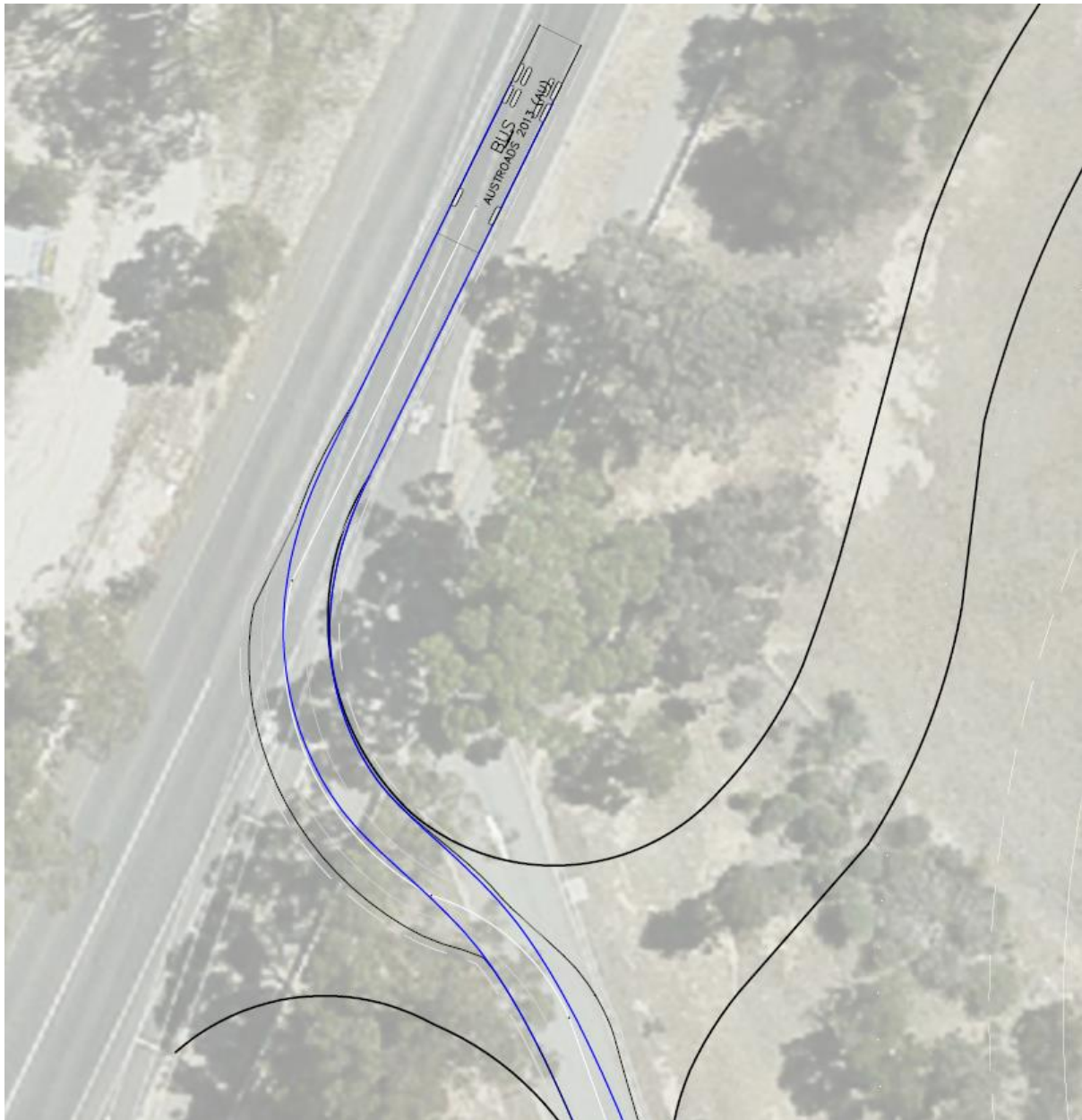


Figure 2-7 Turning movement – bus turning left from St Vincents Road into existing school carpark



Figure 2-8 Turning movement – bus turning right into St Vincents Road from proposed carpark entrance

2.6 Parking

Cars

Parking currently available on the school campus consists of several locations which have a range of capacities and standards as shown in Table 2-1 and Figure 2-4.

Table 2-1 – List of current parking opportunities on the school campus with estimates of parking capacity

Parking Area		Capacity ^A
Area	Description	
3a	Existing unsealed car park for staff and visitors adjacent to St Vincents Road	160
3b	Existing unsealed car park south of the main school complex	36
3c	Existing unsealed car park accessed from Trotting Terrace	24

3e	St Vincents Road, along the western boundary of the school campus	24
	Total	244

Note A: Capacity is based on an estimate (where required) of the available area and each car parking space requiring approximately 35m² for a parking bay plus access ways.

Buses

Parking area 3d is sealed with 16 spaces marked for buses.

Bicycles

The school has dedicated bike parking areas for students and staff, which are not available for community access. These areas would not be required for bike parking servicing the new sporting hub building.

2.7 Pedestrian and cyclist access

The site is well connected to Bendigo's shared path network including with a shared path running along the St Vincents Rd and Trotting Terrace frontages. The O'Keefe Rail Trail runs past the north east corner of the site.

3. PROPOSED DEVELOPMENT AND USE

This project will see the development of two sporting ovals and adjacent building infrastructure. There will be two sporting ovals - one senior size and one junior size, two outdoor netball courts, car parking and landscaping, and adjacent changerooms and amenities. The changerooms and amenities will be co-located with the Northern Rivers Regional Cricket Hub building.

The building will include:

- eight change rooms, with showers and toilet facilities, for team members, 526m²
- four umpires change rooms, with showers and toilet facilities, 100m²
- accessible change room, with toilet facilities, 8m²
- first aid room, 30m²
- storage facilities, 140m²
- public toilet facilities, 18m²
- two social rooms, 250m²
- two kitchen/kiosks, 75m²
- cricket hub offices, 64m² and
- indoor sporting facilities, including:
 - six lane indoor cricket training area, 1135m²
 - two basketball/netball courts, 1664m²

The proposed development plans are shown in Appendix B.

Additional car parking will be provided to the north of the proposed building. This carpark will be accessed via a new internal road connecting to the existing internal network near Gate 1 (off St Vincents Road). The new car park will be sealed and have a capacity of 165 spaces.

CMC and the CoGB have indicated that the proposed use of the school campus, following development of the ovals and building, will generally consist of:

- school sport activities during school hours 8.30am – 4pm
- community sporting activities, including football, netball, cricket and soccer at both junior and senior levels, restricted to outside of school hours, 4pm – 9pm weekdays and 8.30am – 9pm on weekends.
- undertaking community related non-match activities in the building such as:
 - meetings,
 - match day and post-match socialising, and
 - community social and fund-raising events.
- Cricket Hub operations, during weekday business hours, including:
 - two Cricket Victoria staff permanently located on site,
 - additional staff visiting for meetings or working from hot desks, and
 - elite teams utilising the indoor cricket training area.

4. PARKING REQUIREMENTS

4.1 Statutory parking requirements

The Greater Bendigo Planning Scheme includes statutory requirements for the provision of parking for both cars and bicycles. The statutory requirement for car parking is provided in Clause 52.06 and in Clause 52.34 for bicycles. The statutory requirements are applicable to non-sporting activity related uses of the proposed pavilion. Sports activity uses of the playing fields rely on a first-principles assessment.

Cars

The relevant uses for which Clause 52.06 provides car parking space requirements are Place of Assembly/Restaurant for functions in the social room and Office for the cricket hub offices. Guidance in determining parking spaces is also provided by the *RTA Guide to Traffic Generating Developments – Version 2.2A 2002*.

The required number of parking spaces for use of the proposed building are shown in Table 4-1.

Table 4-1 – Table showing various permitted uses and conditions / restrictions that impact on car parking demands

USE	CAR PARKING RATES					
	PLANNING SCHEME			RTA GUIDE		
	Clause 52.06 rate	Area / Number	Spaces required	Rate	Area / Number	Spaces required
Sports Activities	Empirical assessment					
Social Room for Unseated Function (Place of Assembly)	0.3 / patron	150 patrons (1.0m ² / patron ^A on a 150m ² floor area)	45	Not provided for		
Cricket Hub Offices	3.5 / 100m ²	123m ² (comprising meeting room, offices, work stations, reception and staff amenities)	4	1 / 40m ²	123m ² (comprising meeting room, offices, work stations, reception and staff amenities)	3

Note A: Building Code of Australia requires 1.0m² per person for a public hall.

The statutory parking requirement for the proposed building is 49 car parking spaces which allows for simultaneous use of the cricket hub offices and an unseated function in the social room. The other uses, such as storage and change rooms use do not generate a statutory requirement in addition to the needs identified by the empirical assessment.

First-principles estimate of parking demand can be made for use of the sporting fields. An empirical assessment is provided in Section 4.2

Conclusion 1: The statutory requirement for car parking spaces for office and social / non-sporting match related use of the proposed building is 49 spaces.

Bicycles

Based on Clause 52.34, the rates for provision of bicycle parking facilities can be applied as shown in Table 4-2.

Use of the social room in the proposed building generates a statutory requirement for two bicycle parking spaces.

Table 4-2 – Table showing various permitted uses and conditions / restrictions that impact on bicycle parking demands

USE	PLANNING SCHEME BICYCLE PARKING RATES					
	EMPLOYEES			VISITORS / STUDENTS		
	Clause 52.06 rate	Area / Number	Spaces required	Rate	Area / Number	Spaces required
Sports Activities	Empirical assessment			Empirical assessment		
Social Room for Unseated Function (Place of Assembly)	1 / 1500m ²	150m ²	0	2+ 1 / 1500m ²	150m ²	2
Cricket Hub Offices	1 / 300m ² if net floor area exceeds 1000m ²	123m ² (comprising meeting room, offices, work stations, reception and staff amenities)	0	1 / 1000m ² if net floor area exceeds 1000m ²	123m ² (comprising meeting room, offices, work stations, reception and staff amenities)	0

Conclusion 2: The statutory requirement for bicycle parking spaces within the school campus for social / non-sporting match related use of the proposed building is two spaces.

4.2 Empirical parking assessments

Cars

As noted in Section 4.1, the Greater Bendigo Planning Scheme does not include statutory requirements for car parking provision in relation to sports activities, thus an empirical assessment based on first-principles is appropriate.

As this report has been prepared prior to the development of the ovals and building and opening of the site to wider community use, this report relies on empirical analysis rather than data collected by targeted survey and / or observation of typical use during a match day.

An empirical estimate has been undertaken using an Excel spreadsheet tabular format, see Tables C.1-C.6 of Appendix C. These estimates find that the maximum demand for parking on a typical match day for a variety of sports ranges from approximately 66 to 135 as shown in Table 4.3. Note

that each of the entries in Table 4.3 occupies all the available field/oval space and so are mutually exclusive.

Table 4-3 – Table showing maximum parking demand generated by various sports

SPORT	MAXIMUM PARKING DEMAND
Junior football	135
Senior football	119
Senior and junior cricket	66
Junior soccer	129
Senior soccer	100

For this report, the empirical estimate of 135 car parking spaces being required to support match activities is adopted.

Conclusion 3: The sporting community's predicted maximum weekly peak demand for car parking is estimated to be 135 spaces.

Bicycles

For this report, an allowance has been adopted of 1% of total visitors will arrive by bicycle. Thus, it is estimated that during peak demand of 135 car spaces, two bicycle parking spaces would be sufficient.

Conclusion 4: The typical weekly peak demand for bicycle parking at the sporting hub building is estimated to be two spaces.

4.3 Net impact of the proposed development

An additional car parking area is proposed as part of the development, with 151 spaces. Following construction of the proposed car park the available parking will exceed the estimated maximum demand of 135 spaces by approximately 29 spaces.

The building will be used to support match day activities by providing a kiosk, facilities for the community to socialise / network in comfortable surrounds and improved spectator facilities. CMC and CoGB have advised that use of the building for standalone social activities will only occur when match day activities are not occurring.

Conclusion 5: The proposed development will increase travel to and from the school campus by opening the site to the wider community. By providing additional parking spaces the peak parking demand will be accommodated within the site.

The new building will generate an estimated maximum demand for 49 car parking spaces when used at times when sporting match activities are not occurring. This demand for parking will be readily accommodated by the proposed 151 parking spaces in the proposed additional car park.

Conclusion 6: The estimated parking demand that will be generated by non-match day use of the proposed building, i.e. 49 car parking spaces, can be readily accommodated by proposed additional car parking facilities within the school campus without impacting on the existing parking areas.

5. OTHER CONSIDERATIONS

5.1 Bus parking

Fifteen school buses currently use area 3d each morning and afternoon. Coaches may access the proposed car park for occasional sporting events, but only when the car park is not otherwise in use (except for Cricket Hub office cars).

6. CONCLUSIONS

This traffic engineering report relates to the proposed development of two ovals and associated building infrastructure within the Coolock Campus of Catherine McAuley College in Junortoun.

The TER makes the following conclusions:

Conclusion 1: The statutory requirement for car parking spaces for office and social / non-sporting match related use of the proposed building is 49 spaces.

Conclusion 2: The statutory requirement for bicycle parking spaces for social / non-sporting match related use of the proposed building is two spaces.

Conclusion 3: The sporting community's predicted maximum weekly peak demand for car parking is estimated to be 135 spaces.

Conclusion 4: The typical weekly peak demand for bicycle parking at the sporting hub building is estimated to be two spaces.

Conclusion 5: The proposed development will increase travel to and from the school campus by opening the site to the wider community. By providing additional parking spaces the peak parking demand will be accommodated within the site.

Conclusion 6: The estimated parking demand that will be generated by non-match day use of the proposed building, i.e. 49 car parking spaces, can be readily accommodated by proposed additional car parking facilities within the school campus without impacting on the existing parking areas.

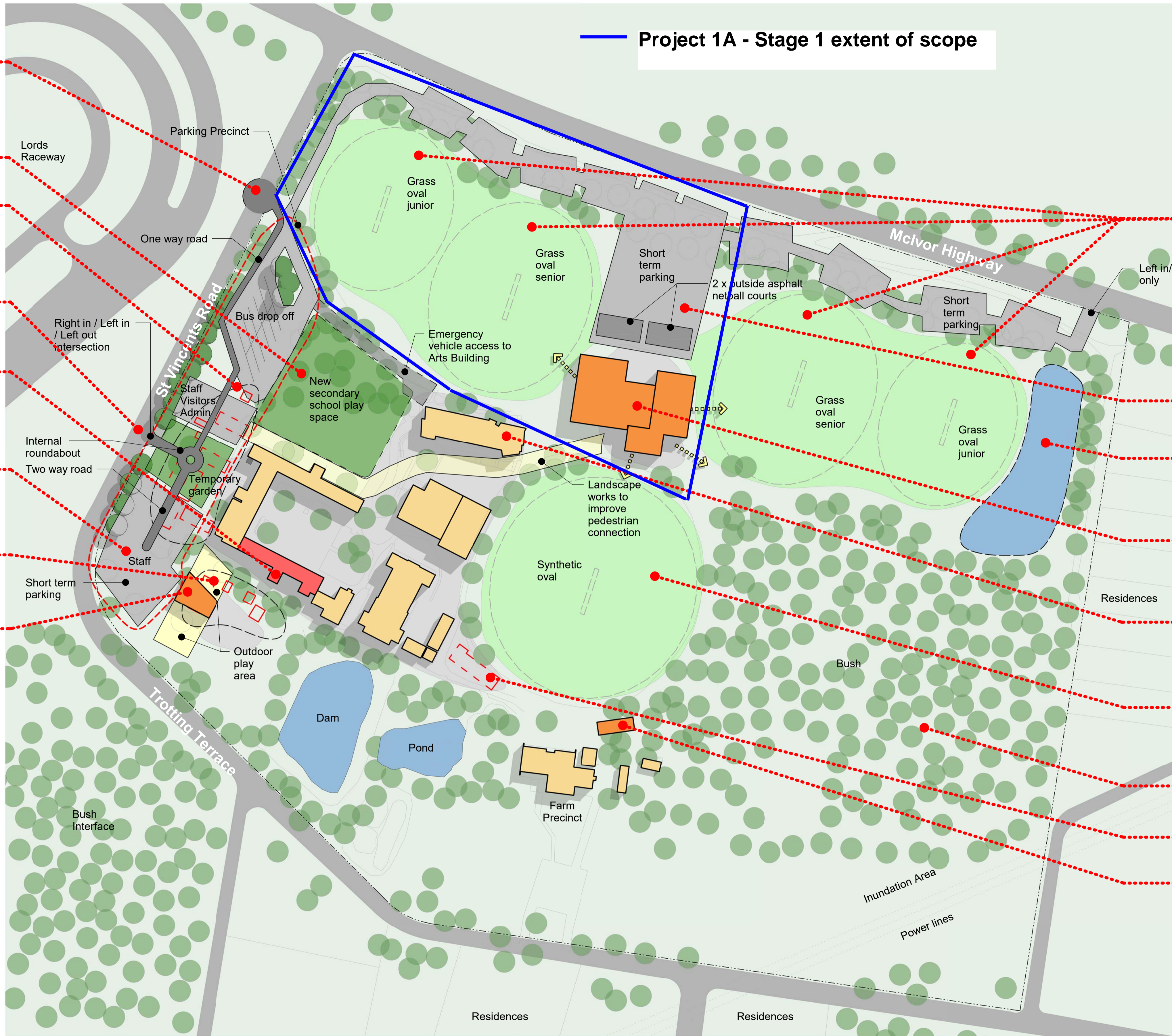
It is considered that car parking needs that will be generated by development of the proposed ovals and building in Catherine McAuley College's Coolock Campus will be suitably accommodated by proposed parking provision within the site.

Appendix A

Masterplan extract – Coolock Campus – Short Term plan

Project 1A - Stage 1 extent of scope

- NEW ENTRY+EXIT ROUNDABOUT**
 - For access to ovals.
 - All vehicles exit here except those turning left out of intersection in front of admin area, priority given to buses through giveaway signs.
- NEW SECONDARY SCHOOL PLAY SPACE**
- RELOCATABLES TROTTERING TERRACE**
 - Surplus to needs so remove from site.
 - Commence landscape and vehicle access works to create new frontage for school and improve traffic flows including separation of cars and buses.
- NEW CAR ENTRY & EXIT**
 - For car entry servicing visitor and staff parking areas.
 - Right turn out not permitted.
- SOUTH WING - ST VINCENTS BUILDING**
 - Vacate entire south wing of St. Vincents to accommodate establishment of primary school
 - Relocate heads of school & confirm remaining spaces can shift into west wing
- STAFF PARKING**
 - New formalized parking for visitors and admin/senior staff.
 - New staff parking area with capacity for future expansion.
- CHOOK SHEDS**
 - Relocate all sheds south of St. Vincents Building to farm precinct to make space available for new primary school.
- EARLY LEARNING CENTRE**
 - Construct new facility 550m² + 750m² of outdoor play area include landscape works to improve external spaces between ELC and primary school.



- NEW IRRIGATED GRASS OVALS**
 - Incorporating training level lights
- LOWER OVALS ACCESS & PARKING**
 - New parking areas and access road along Mclvor Highway edge of site.
- RETENTION BASIN**
 - Start construction on new retention basin in north east corner of the site to manage water flows across site to reduce size of existing dam to south of existing buildings.
- GYM - NEW**
 - Construct new gym adjacent to joint use facility.
 - Works to include car parking and new access road along Mclvor Highway edge.
- ARTS CENTRE (under construction 2700m²)**
 - Complete construction and occupy to decent use from south wing of St. Vincents Building
- NEW SYNTHETIC OVAL**
 - Incorporating playing lights
- BUSH PRECINCT**
 - Develop for outdoor education use
- RELOCATABLES - SPORTS OVAL**
 - Surplus to need so remove from site.
 - New location for existing machinery sheds

Coolock Campus - Short Term

Existing Building	Heritage Extent	Alteration/Repair Works	Proposed Building	Demolition Works
Existing Landscape	Proposed Landscape	Existing Outdoor Space	Proposed Carpark	Site Perimeter



Master Planning

Appendix B

Proposed Development Plans



ORIGINAL DRAWINGS
(THESE ARE THE ORIGINAL DRAWINGS ONLY IF THIS TEXT IS IN RED)

CATHERINE MCAULEY COLLEGE

PROJECT 1A - STAGE 1

COOLOCK CAMPUS, JUNORTOUN

ENGINEERING PLANS

PRELIMINARY ISSUE
NOT APPROVED FOR CONSTRUCTION

SUBJECT SITE:
CATHERINE MCAULEY COLLEGE



LOCALITY PLAN - JUNORTOUN

NOT TO SCALE

SHEET INDEX

DWG No.	REFERENCE:	SHEET No.	REVISION
180127-C-01	LOACLITY PLAN & SHEET INDEX	01	B
180127-C-01	GENERAL NOTES	02	B
180127-C-01	TYPICAL SECTIONS & PAVEMENT DETAILS	03	B
180127-C-01	EXISTING CONDITIONS LAYOUT PLAN	04	B
180127-C-01	OVERALL LAYOUT PLAN	05	B
180127-C-01	EARTHWORKS PLAN	06	B
180127-C-01	DETAIL PLAN 01	07	B
180127-C-01	DETAIL PLAN 02	08	B
180127-C-01		09	B
180127-C-01		10	B
180127-C-01		11	B

18/11/2019 10:45 AM

DESIGNED:	C. Cox	DATE:	23/09/2019		
DRAWN:	C. Cox	DATE:	23/09/2019		
CHECKED:	NAME	DATE	APPROVED: NAME	DATE	
<input checked="" type="checkbox"/> RMG	D. Hogan	23/09/19	<input checked="" type="checkbox"/> RMG	D. Hogan	23/09/19
<input type="checkbox"/> CoGB	-	-	<input type="checkbox"/> CoGB	-	-
<input type="checkbox"/> CWA	-	-	<input type="checkbox"/> CWA	-	-
REV	DESCRIPTION	DATE	APPROVED		



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CATHERINE MCAULEY COLLEGE

PROJECT 1A - STAGE 1
COOLOCK CAMPUS, JUNORTOUN

LOACLITY PLAN & SHEET INDEX

NOT TO SCALE
ORIGINAL SHEET SIZE A3

180127-C-01

ISSUED 2019 VERSION ----

NOTES

GENERAL NOTES

1. THE CONTRACTOR SHALL REFER TO PRELIMINARIES AND GENERAL REQUIREMENT SECTIONS OF THE PROJECT SPECIFICATION
2. CONTRACTOR MUST COMPLY WITH THE "OCCUPATIONAL HEALTH AND SAFETY ACT 2004" AND THE REQUIREMENTS OF THE "OCCUPATIONAL HEALTH AND SAFETY REGULATION 2004" AT ALL TIMES
3. PRIOR TO COMMENCING WORKS THE CONTRACTOR MUST VERIFY THE LOCATION OF ALL SERVICES AND/OR CONTACT THE RELEVANT SERVICE AUTHORITY TO ARRANGE LOCATIONS
4. ALL EXISTING SERVICES AND UTILITIES SHALL BE PROTECTED FROM DAMAGE BY THE OPERATIONS OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF SERVICES DAMAGED DURING CONSTRUCTION. CONTRACTOR TO LOCATE ALL SERVICES ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS
5. CONTRACTOR SHALL TAKE THE UTMOST CARE TO PRESERVE EXISTING TREES. NO TREES SHALL BE REMOVED WITHOUT PRIOR APPROVAL OF THE SUPERINTENDENT.
6. LEVEL DATUM - LOCAL.
7. GRADE EVENLY BETWEEN LEVELS SHOWN
8. CONTRACTOR SHALL VERIFY ALL SETOUT DETAILS AND DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF SITE WORKS. ANY DISCREPANCIES TO BE REPORTED TO THE SUPERINTENDENT IMMEDIATELY.
9. AT THE COMPLETION OF WORKS ALL RUBBISH, DEBRIS AND SURPLUS SPOIL IS TO BE REMOVED FROM SITE AND DISPOSED OF IN AN APPROPRIATE MANNER. THE SITE MUST BE RE-INSTATED TO THE SATISFACTION OF THE SUPERINTENDENT AND/OR RESPONSIBLE AUTHORITY
10. FOR STAGING OF WORKS AND STAGE DOCUMENTATION DESIGNATIONS REFER TO THE CONTRACT.
11. CONSTRUCTION SHALL CONFORM TO ALL REQUIREMENTS OF INFRASTRUCTURE DESIGN MANUAL CONSTRUCTION PROCEDURES (CLAUSES 7 & 22) UNLESS STATED OTHERWISE.
12. CONSTRUCTION SHALL CONFORM TO ALL REQUIREMENTS OF THE SPECIFICATIONS UNLESS STATED OTHERWISE.

STORMWATER DRAINAGE NOTES

1. REFER TO C34 FOR NOTES

PAVEMENT NOTES

1. REFER TO C03 FOR NOTES

SOIL EROSION AND SEDIMENT CONTROL NOTES

1. SOIL EROSION AND SEDIMENTATION MANAGEMENT
 - AN EROSION AND SEDIMENT CONTROL PLAN SHALL BE PREPARED AND IMPLEMENTED AND SHALL INCORPORATE APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES.
 - EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED REGULARLY AND AFTER RAINFALL EVENTS.
 - EROSION AND SEDIMENT CONTROL MEASURES SHALL NOT BE REMOVED UNTIL DISTURBED AREAS HAVE BEEN STABILISED.
 - DISTURBED AREAS SHALL BE STABILISED PROGRESSIVELY WITH VEGETATION DURING CONSTRUCTION, WHERE NECESSARY, AND STABILISATION SHALL BE UNDERTAKEN AFTER WORKS ARE COMPLETE.
2. CONTRACTOR TO SUBMIT A SOIL EROSION AND SEDIMENT CONTROL PLAN AND INCLUDE THE FOLLOWING DETAILS:
 - STAGING OF OPERATIONS AND SEQUENCE OF WORKS.
 - DIVERSION OF UPSTREAM WATER AROUND THE SITE.
 - PROVISION OF TEMPORARY DRAINS AND CATCH DRAINS.
 - APPLICATION OF DIVERSION, DISPERSAL AND/OR RETENTION MEASURES TO CONCENTRATE FLOWS TO CONTROL AND DISSIPATE STORMWATER THROUGH THE SITE WITHOUT DAMAGE.
 - SPREADER BANKS OR OTHER STRUCTURES TO DISPERSE CONCENTRATED RUNOFF.
 - SILT TRAPS AND SILT FENCING TO PREVENT DISCHARGE SEDIMENT MATERIALS TO DOWNSTREAM AREAS.
 - TEMPORARY GRASSING OR OTHER TREATMENTS SUCH AS CONTOUR PLOUGHING OR BUNDING TO DISTURBED AREAS AND LONGTERM STOCKPILES.
 - RESTORATION OF DISTURBED AREAS IN PROGRESS WITH THE WORKS.
 - USE OF MULCH MATERIALS TO PROTECT DISTURBED OR EXPOSED AREAS WHERE SUITABLE
3. AREAS: INCLUDE ALL SITE AREAS, ACCESSES, HAULAGE TRACKS, BORROW PITS, STOCKPILE, STORAGE AND COMPOUND AREAS.







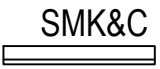
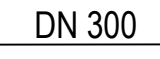

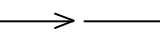

CONCRETE NOTES

1. ALL CONCRETE WORKS SHALL BE IN ACCORDANCE WITH THE SPECIFICATION UNLESS SPECIFIED OTHERWISE
2. ALL CONCRETE MUST HAVE A MINIMUM COMPRESSIVE STRENGTH OF 25MP_a AT 28 DAYS. KERB & CHANNEL CONCRETE MUST HAVE AN EQUIVALENT STRENGTH USING NOT LESS THAN 320kg OF CEMENT PER m³ OF CONCRETE







EARTHWORKS NOTES

1. ALL EARTHWORKS SHALL BE IN ACCORDANCE WITH THE SPECIFICATION UNLESS SPECIFIED OTHERWISE
2. ALL EARTHWORKS TO BE CARRIED OUT UNDER LEVEL 1 GEOTECHNICAL SUPERVISION IN ACCORDANCE WITH AS 3798-1998.
3. THE SITE SHALL BE STRIPPED OF ALL BUILDING DEBRIS, UNSUITABLE MATERIAL AND ALL VEGETABLE MATTER AND THE ASSOCIATED LAYER OF TOPSOIL TO A DEPTH OF 100mm MIN. HOLES LEFT FROM EXCAVATION TO BE BACKFILLED. FILL MATERIAL TO BE COMPACTED IN ACCORDANCE WITH NOTE 5 BELOW.
4. THE TOP 200mm OF SUBGRADE/ BUILDING PLATFORM SHALL BE COMPACTED TO A DENSITY OF NOT LESS THAN 98% OF THE MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH METHOD 5.1. OF A.S.1289 (STANDARD COMPACTION). ANY LOOSE OR UNSUITABLE MATERIAL ENCOUNTERED SHALL BE REMOVED AND REPLACED WITH AN APPROVED FILL MATERIAL AS PER NOTE 8.
5. THE TOP 200mm OF SUBGRADE/ BUILDING PLATFORM SHALL BE COMPACTED TO A DENSITY OF NOT LESS THAN 98% OF THE MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH METHOD 5.1. OF A.S.1289 (STANDARD COMPACTION). ANY LOOSE OR UNSUITABLE MATERIAL ENCOUNTERED SHALL BE REMOVED AND REPLACED WITH AN APPROVED FILL MATERIAL AS PER NOTE 8.
6. CONFIRM THE SPECIFIED DEGREE OF COMPACTION HAS BEEN ACHIEVED BY TESTING. TESTS TO BE CARRIED OUT BY A NATA REGISTERED COMPANY. CARRY OUT ONE TEST PER LAYER FOR EVERY 500 SQUARE METRES OF FILL
7. ALL EARTHWORKS PERFORMED BOTH PRIOR TO CONSTRUCTION AND SUBSEQUENTLY SHOULD BE CARRIED OUT IN A RESPONSIBLE MANNER IN ACCORDANCE WITH ACCEPTED BUILDING PRACTICES AND AUSTRALIAN STANDARD AS 3798-1990 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS"
8. FILL MATERIAL SHALL CONFORM WITH THE FOLLOWING:
 - P1 = 4-15;
 - LL < 40;
 - WPI < 1200;
 - CBR ≥ 15%;
 - SULPHUR CONTENT < 0.5%;
 - MAX PARTICLE SIZE = 75MM;
 - % PASSING 0.075mm SIEVE = 4-30; AND
 - SWELL ≤ 0.5%.

LEGEND

-  EXTENT OF PAVEMENT 1
-  EXTENT OF PAVEMENT 2
-  EXTENT OF PAVEMENT 3
-  EXTENT OF CUT
-  EXTENT OF FILL
-  TREE TO BE REMOVED
-  CONCRETE SEMI MOUNTABLE KERB AND CHANNEL. REFER TO IDM.SD.100 & C03 FOR DETAILS
-  REINFORCED CONCRETE PIPE STORMWATER DRAIN LINE.
-  DESIGN LEVEL
-  OVERLAND FLOW PATH DIRECTION
-  PAVEMENT CROSS FALL

SERVICES LEGEND

-  EXISTING TELSTRA LINE
-  EXISTING POWER LINE
-  EXISTING GAS LINE
-  EXISTING SEWER LINE
-  EXISTING WATER LINE
-  EXISTING STORMWATER LINE

18/11/2019 10:45 AM

DESIGNED:	C. Cox	DATE:	23/09/2019
DRAWN:	C. Cox	DATE:	23/09/2019
CHECKED:	NAME	DATE	APPROVED: NAME
<input checked="" type="checkbox"/> RMG	D. Hogan	23/09/19	<input checked="" type="checkbox"/> RMG D. Hogan 23/09/19
<input type="checkbox"/> CoGB	-	-	<input type="checkbox"/> CoGB - -
<input type="checkbox"/> CWA	-	-	<input type="checkbox"/> CWA - -
REV	DESCRIPTION	DATE	APPROVED



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CATHERINE MCAULEY COLLEGE

PROJECT 1A - STAGE 1
 COOLOCK CAMPUS, JUNORTOUN

GENERAL NOTES

NOT TO SCALE
ORIGINAL SHEET SIZE A3

180127-C-02

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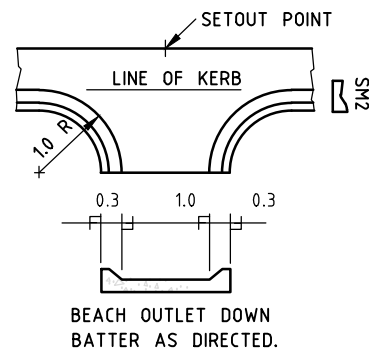
PAVEMENT NOTES

- ALL PAVEMENT WORKS SHALL BE IN ACCORDANCE WITH THE SPECIFICATION UNLESS SPECIFIED OTHERWISE.
- PAVEMENT DESIGN PARAMETERS.
 - DESIGN CBR = 6
 - DESIGN TRAFFIC = 2.5 x 10⁵ ESA
- AFTER COMPLETION OF EARTHWORKS TO NEAR SUBGRADE LEVEL THE CONTRACTOR SHALL CONFIRM THE SUBGRADE CBR IS AT OR ABOVE THE DESIGN CBR. THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENT IF IT IDENTIFIED THAT THE SUBGRADE CBR IS LESS THAN THE DESIGN CBR.
- PRIOR TO PLACING THE PAVEMENT MATERIAL, THE EXPOSED SUBGRADE SHOULD BE PROOF ROLLED WITH A FULLY LADEN DUMP TRUCK OR WATER TRUCK. A SATISFACTORY PROOF ROLL IS WHERE THERE IS NO VISIBLE DEFORMATION OR SPRINGING/ HEAVING OF THE SURFACE. ANY AREAS THAT FAIL THE PROOF ROLL SHALL BE EITHER RECOMPACTED UNTIL SATISFACTORY OR EXCAVATED AND REPLACED WITH SUITABLY COMPACTED MATERIAL.
- PAVEMENT TESTING TO BE COMPLETED IN ACCORDANCE WITH THE BELOW TABLES.

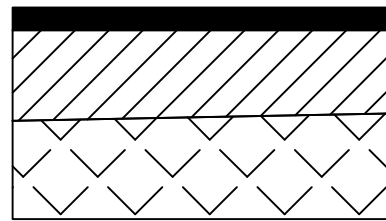
LOCATION	URBAN	RURAL
Court Bowls	2 x Tests	2 x Tests
Intersections	2 x Tests	2 x Tests
Straights	2 Tests/50m	1 Test/100m

PAVEMENT COMPACTION REQUIREMENTS

- BASE COURSE - 98% (MMDD)
- SUBBASE - 96% (MMDD)
- SUBGRADE - 96% (MMDD)

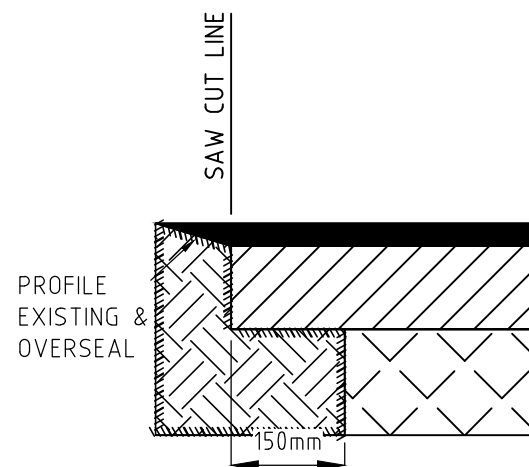
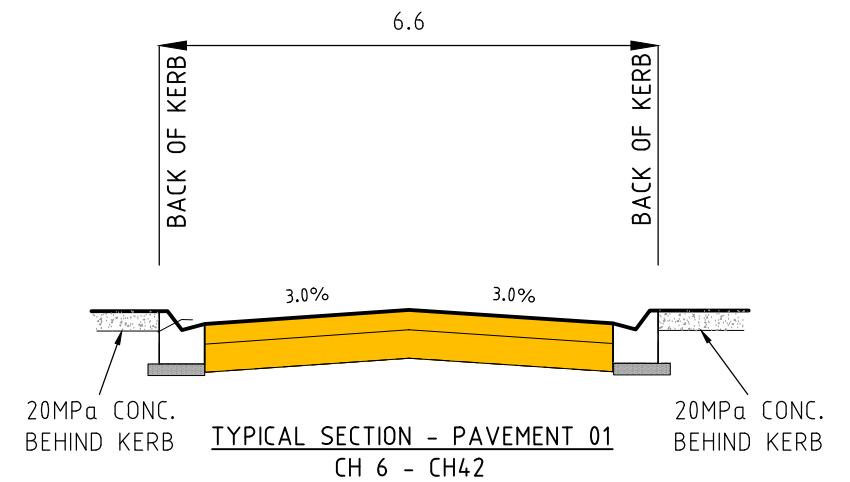


DETAIL OF KERB OUTLET



ASPHALT SEAL - 40mm Type H size 14mm
10mm CRS Primerseal
120mm BASE - CLASS 1 SIZE 20mm FCR
180mm SUBBASE - CLASS 3 SIZE 20mm FCR

PAVEMENT 01:
EXISTING PAVEMENT DIG OUT & REPLACE
CH 6 - CH42



PAVEMENT 01 LONGITUDINAL JOINT:
150mm STEP BETWEEN PAVEMENT LAYERS
AND EXTEND SEAL OVER EXISTING

ASPHALT SEAL - 30mm
(10mm CRS Primerseal/ Type H 14mm)
120mm BASE - CLASS 1
SIZE 20mm FCR
180mm SUBBASE - CLASS 3
SIZE 20mm FCR

18/11/2019 10:46 AM

DESIGNED:	C. Cox	DATE:	23/09/2019
DRAWN:	C. Cox	DATE:	23/09/2019
CHECKED:	NAME	DATE	APPROVED: NAME
<input checked="" type="checkbox"/> RMG	D. Hogan	23/09/19	<input checked="" type="checkbox"/> RMG D. Hogan 23/09/19
<input type="checkbox"/> CoGB	-	-	<input type="checkbox"/> CoGB - -
<input type="checkbox"/> CWA	-	-	<input type="checkbox"/> CWA - -
REV	DESCRIPTION	DATE	APPROVED



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CATHERINE MCAULEY COLLEGE

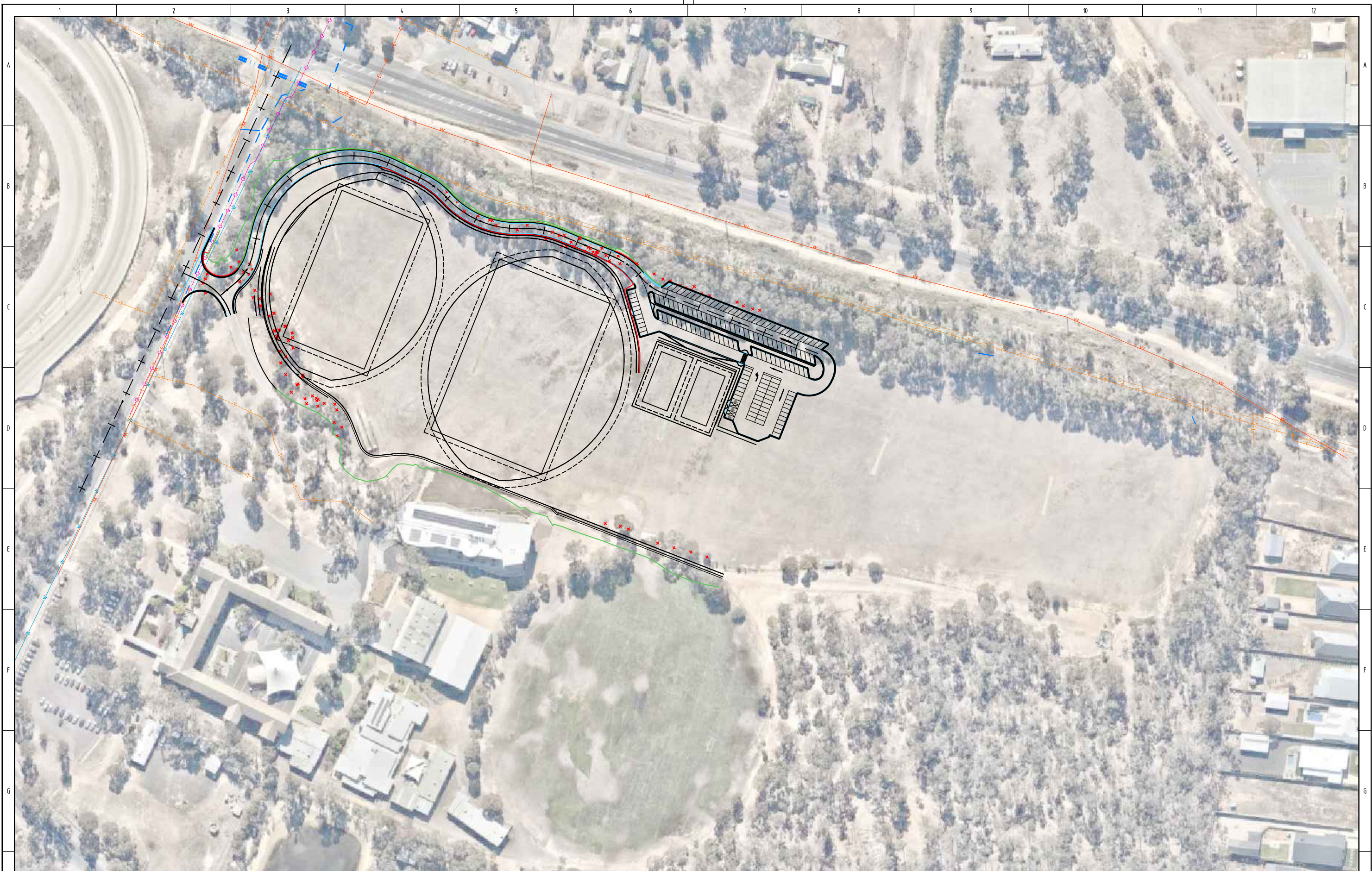
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PROJECT 1A - STAGE 1
COOLOCK CAMPUS, JUNORTOUN

180127-C-03

TYPICAL SECTIONS & PAVEMENT DETAILS

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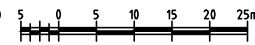


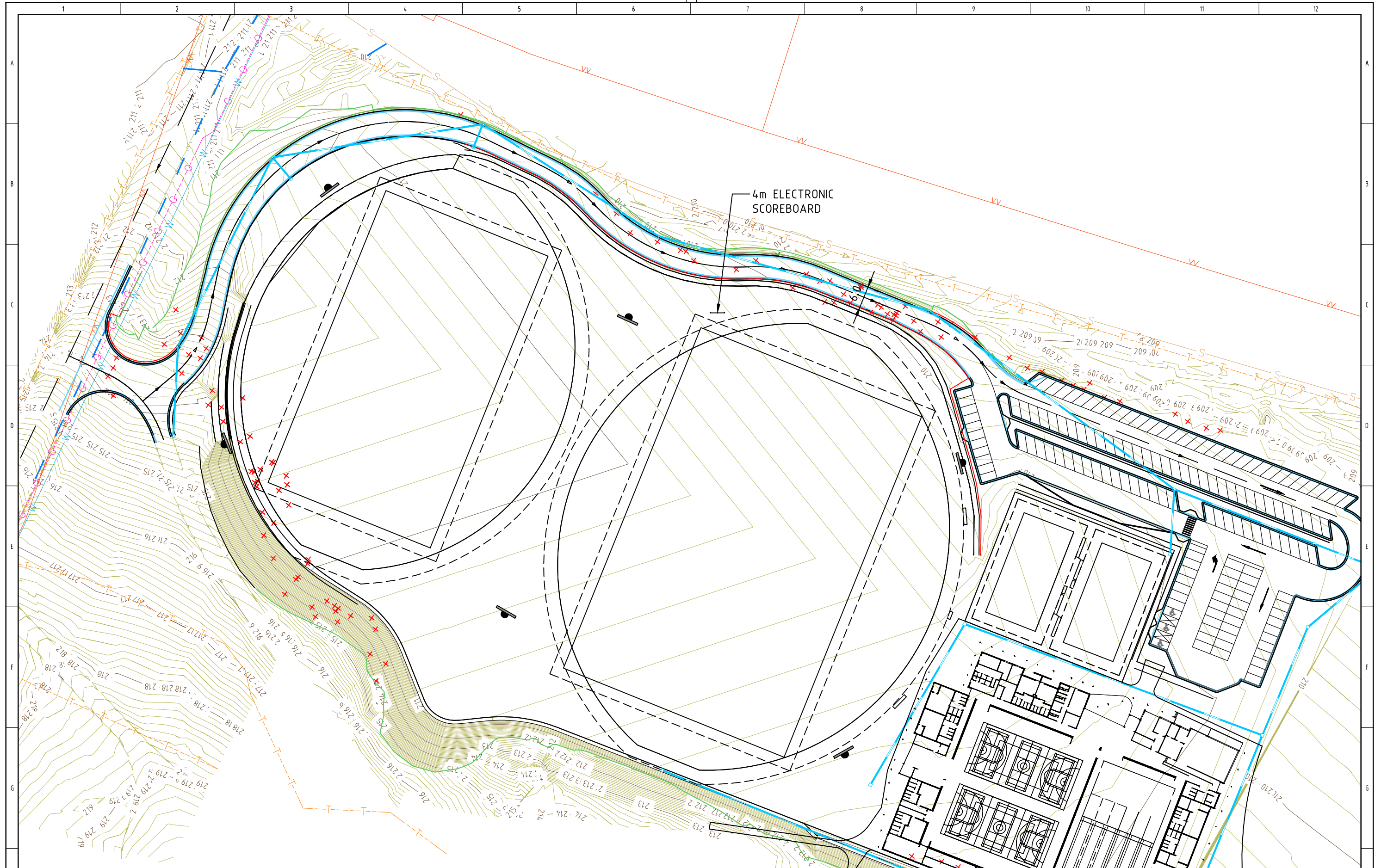
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DRAWN:	C. Cox	DATE:	23/09/2019		
CHECKED:	NAME	DATE	APPROVED: NAME	DATE	
<input checked="" type="checkbox"/>	RMG D. Hogan	23/09/19	<input checked="" type="checkbox"/>	RMG D. Hogan	23/09/19
<input type="checkbox"/>	-	-	<input type="checkbox"/>	-	-
<input type="checkbox"/>	-	-	<input type="checkbox"/>	-	-


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CATHERINE MCAULEY COLLEGE
PROJECT 1A - STAGE 1
COOLOCK CAMPUS, JUNORTOUN
OVERALL LAYOUT PLAN

HORIZ. 1:1000 
 ORIGINAL SHEET SIZE A3
180127-C-05
 ISSUED 2019 VERSION ----



4m ELECTRONIC SCOREBOARD

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DRAWN:	C. Cox	DATE:	23/09/2019
CHECKED:	NAME	DATE	APPROVED: NAME
<input checked="" type="checkbox"/> RMG	D. Hogan	23/09/19	<input checked="" type="checkbox"/> RMG
<input type="checkbox"/> CoGB	-	-	<input type="checkbox"/> CoGB
<input type="checkbox"/> CWA	-	-	<input type="checkbox"/> CWA

RMG

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CATHERINE MCAULEY COLLEGE

PROJECT 1A - STAGE 1
 COOLOCK CAMPUS, JUNORTOUN

180127-C-06-DESIGN-DETAIL - 01

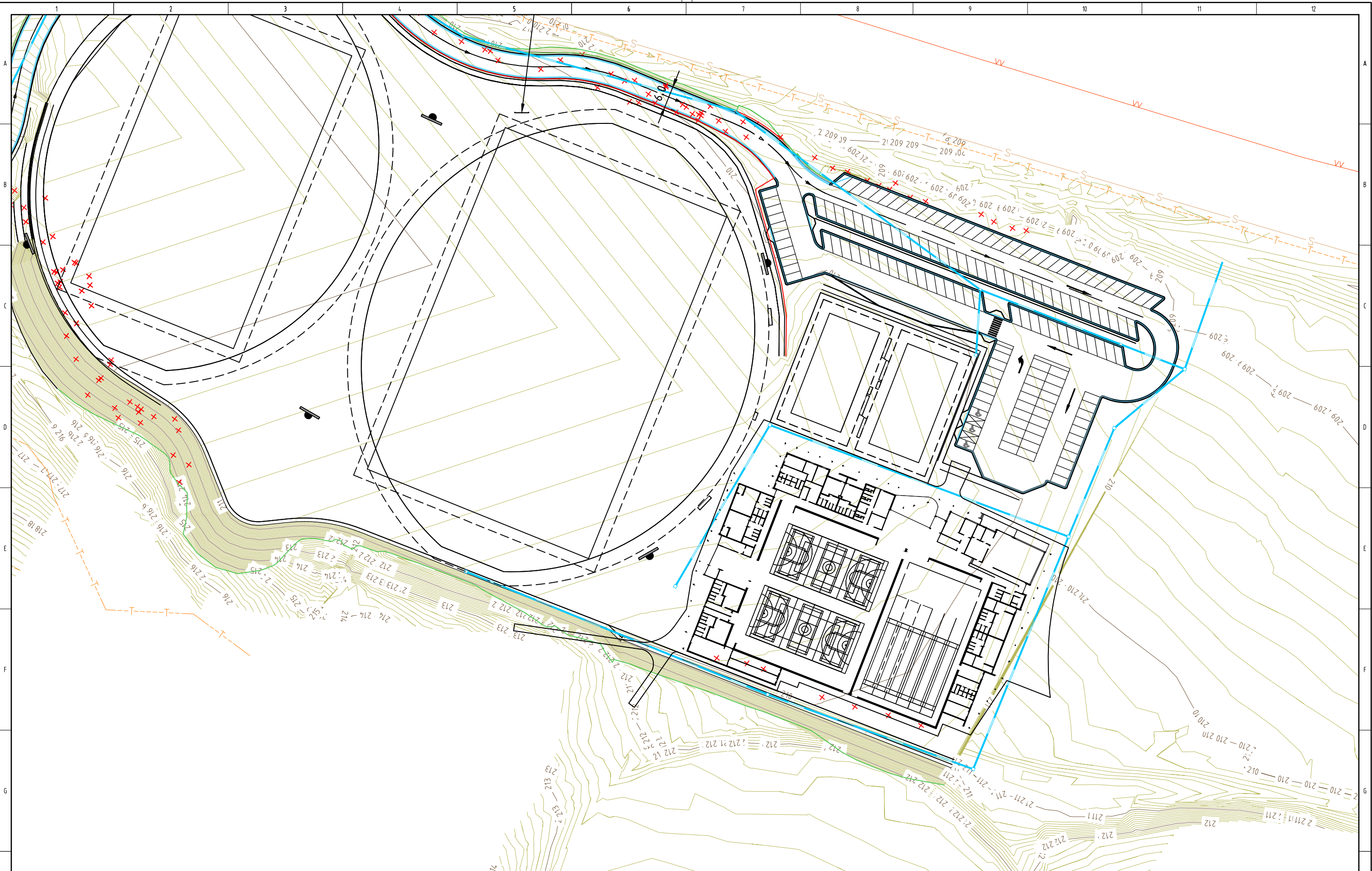
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DESIGNED:	C. Cox	DATE:	23/09/2019
DRAWN:	C. Cox	DATE:	23/09/2019
CHECKED:	NAME	DATE	APPROVED: NAME
<input checked="" type="checkbox"/>	RMG	D. Hogan	23/09/19
<input type="checkbox"/>	CoGB	-	-
<input type="checkbox"/>	CWA	-	-

RMG

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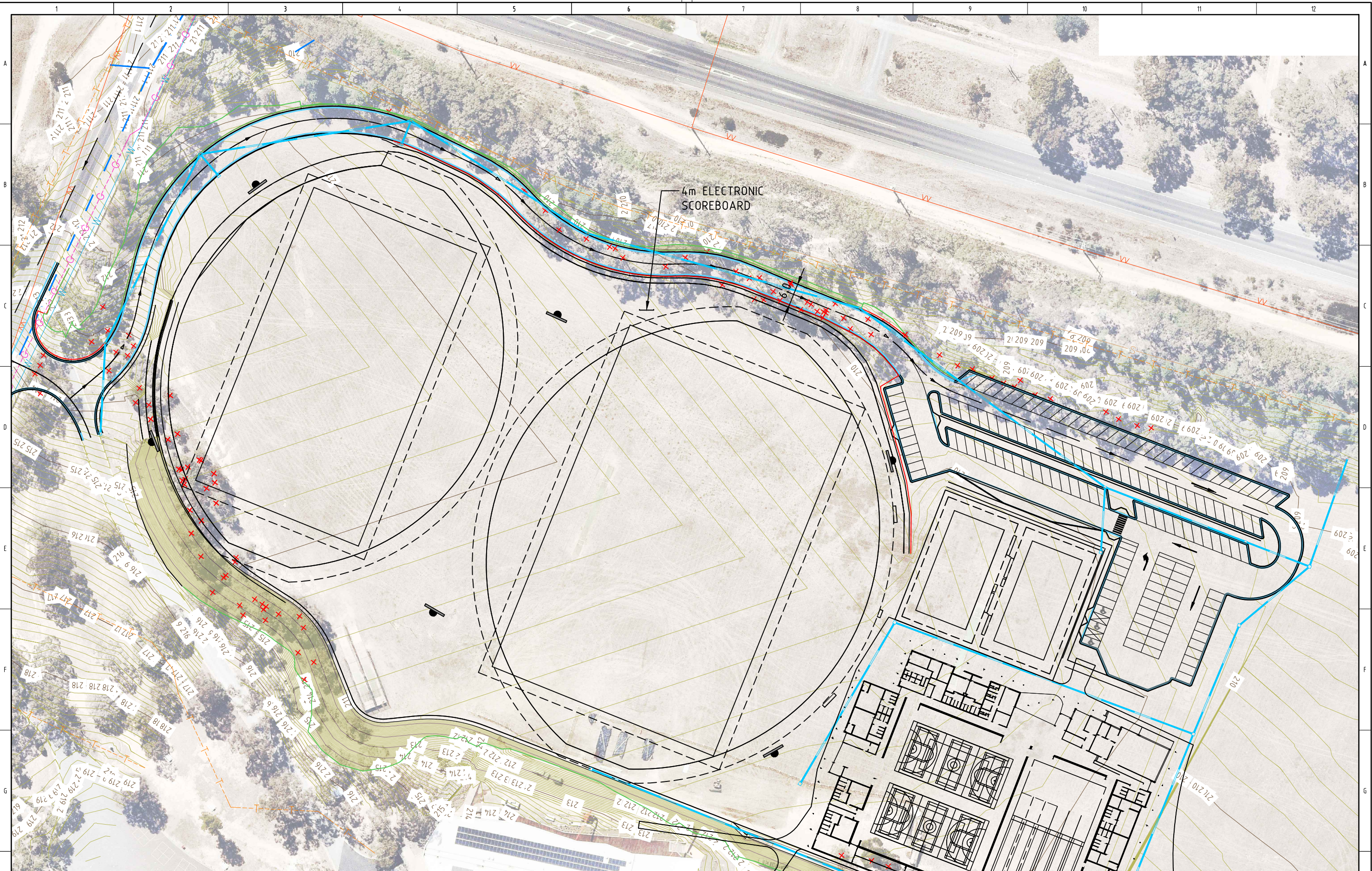
CATHERINE MCAULEY COLLEGE
PROJECT 1A - STAGE 1
 COOLOCK CAMPUS, JUNORTOUN
 180127-C-06-DESIGN-DETAIL - 02

HORIZ. 1:1000

ORIGINAL SHEET SIZE A3

180127-C-----

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DESIGNED:	C. Cox	DATE:	23/09/2019
DRAWN:	C. Cox	DATE:	23/09/2019
CHECKED:	NAME	DATE	APPROVED:
	D. Hogan	23/09/19	D. Hogan
	-	-	-
	-	-	-

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CATHERINE MCAULEY COLLEGE

PROJECT 1A - STAGE 1
 COOLOCK CAMPUS, JUNORTOUN

180127-C-06-DESIGN-DETAIL - 03

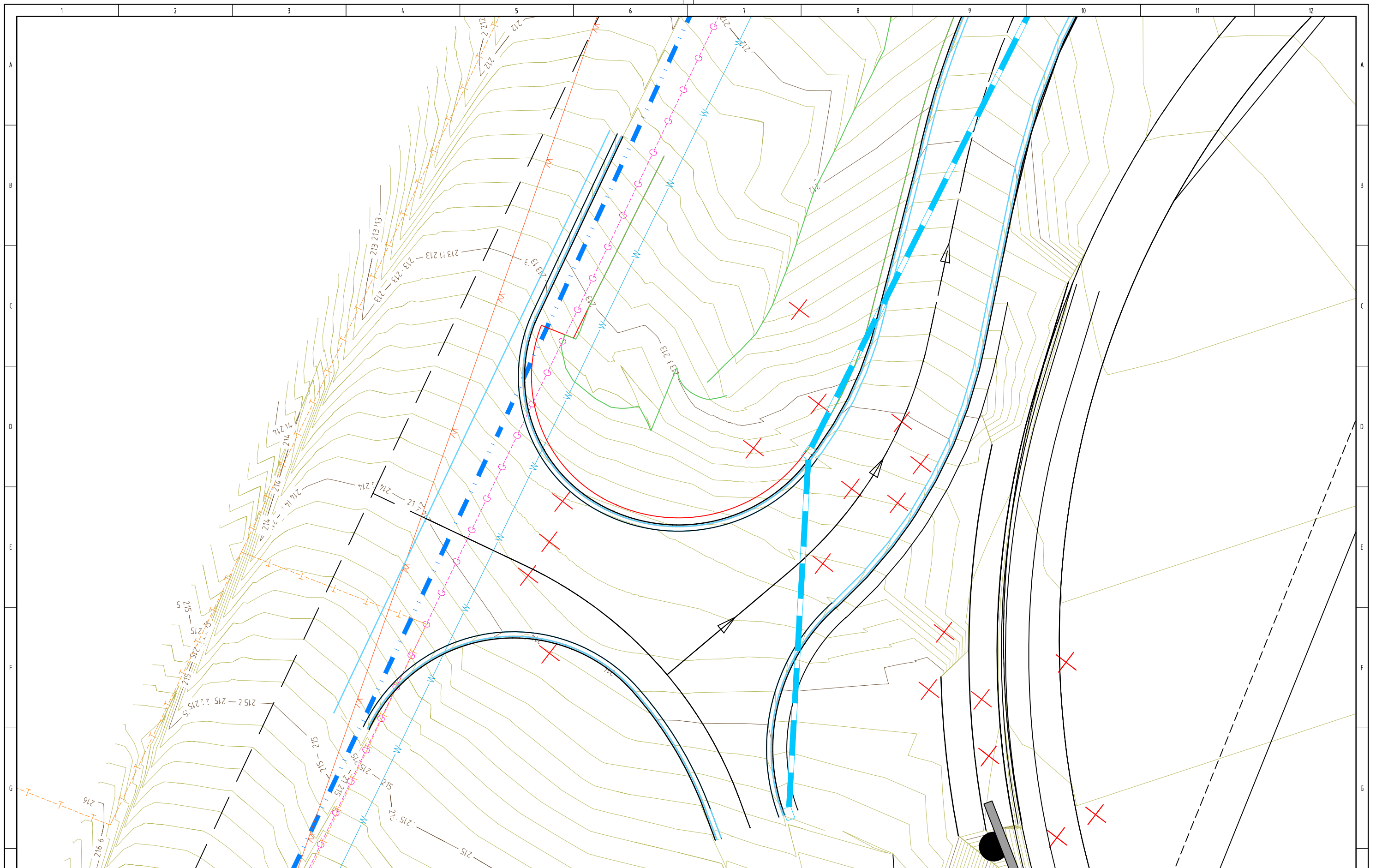
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ORIGINAL SHEET SIZE A3

180127-C-----

ISSUED 2019 VERSION ----

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DRAWN:	C. Cox	DATE:	23/09/2019
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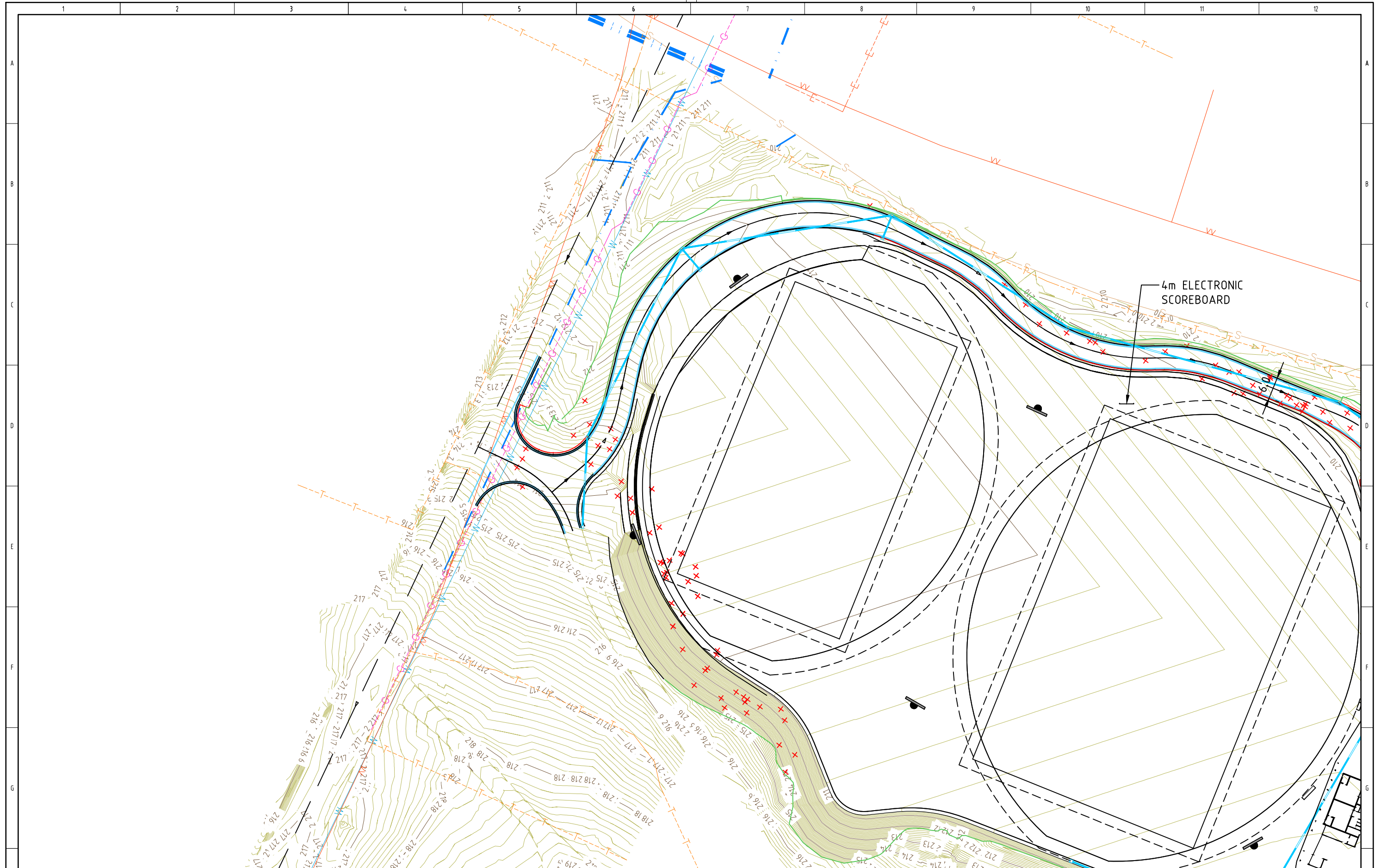
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PROJECT 1A - STAGE 1
COOLOCK CAMPUS, JUNORTOUN
180127-C-06-DESIGN-DETAIL - 04

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180127-C-----	
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DESIGNED:	C. Cox	DATE:	23/09/2019
DRAWN:	C. Cox	DATE:	23/09/2019
CHECKED:	NAME	DATE	APPROVED:
	D. Hogan	23/09/19	D. Hogan
	-	-	-
	-	-	-

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CATHERINE MCAULEY COLLEGE
PROJECT 1A - STAGE 1
 COOLOCK CAMPUS, JUNORTOUN
 180127-C-06-DESIGN-DETAIL - 05

HORIZ. 1:250 1:25 0 1:25 2:50 3:75 5:00 6:25m
 ORIGINAL SHEET SIZE A3
180127-C-----
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Appendix C

Future Car Parking Demand Estimates

SENIOR SOCCER VEHICLE MOVEMENTS + PARKING

Arrivals Remaining Departures

Vehicles expected to enter the school campus during the designated half hour period.
Vehicles parked in the school campus at the end of the half hour period.
Vehicles expected to have left the school campus during the half hour period.

Demand factors	Value	Comments	Demand factors	Value	Comments	Match Session	Start	Finish	Players / team
No. of officials	9	Expected to officiate at all games. This assumes that officials will not attend other games.	Players per team	16	How many players are on each team including substitutes	Youth	10:00	11:45	16
Players/Car	1.2	How many players are assumed to be in each car on average	No. of teams	2	Number of teams playing in each match	Women	12:00	13:45	16
Retention rate	100%	Percentage of cars expected to remain during the game	Spectator's vehicles	20%	Spectator's vehicles as % of player and official's vehicles on site	Division 2	14:00	15:45	16
Player to spectator	20%	Percentage of cars expected to remain after the applicable game for watching next games				Division 1	14:00	17:45	16
No. of fields	1	Number of fields available for matches							

It is assumed that teams will arrive 60 minutes before the relevant games start

	Event: Period start time:	First Arrivals		1st Session Game			2nd Session Game			3rd Session Game			4th Session Game								
		9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30
Officials	Arrivals		18																		
	Remaining		18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	
	Departures																				18
Admin.	Arrivals		2						2												
	Remaining		2	2	2	2	2	2	4	4	2	2	2	2	2	2	2	2	2	2	
	Departures										2										2
1st Session Players	Arrivals	16	11																		
	Remaining	16	27	27	27	27	27	16	5	5	5	5	5	5	5	5	5	5	5	5	
	Departures							11	11												5
2nd Session Players	Arrivals					16	11														
	Remaining					16	27	27	27	27	16	5	5	5	5	5	5	5	5	5	
	Departures										11	11									5
3rd Session Players	Arrivals									16	11										
	Remaining									16	27	27	27	27	27	27	27	16	5	5	5
	Departures																11	11			5
4th Session Players	Arrivals												16	11							
	Remaining												16	27	27	27	27	27	27	27	
	Departures																				27
Spectators	Arrivals	3	6			3	2			3	2			3	2						
	Remaining	3	9	9	9	12	14	12	10	13	15	13	11	14	16	16	14	12	12	12	
	Departures							2	2			2	2				2	2			12
TOTAL	Time:	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30
	Arrivals	19	37			19	13			21	13			19	13						
	Remaining	19	56	56	56	75	88	75	62	83	96	81	68	87	100	100	87	74	74	74	
Departures							13	13			15	13				13	13			74	

SENIOR FOOTBALL VEHICLE MOVEMENTS + PARKING

Arrivals
Remaining
Departures

Vehicles expected to enter the school campus during the designated half hour period.
Vehicles parked in the school campus at the end of the half hour period.
Vehicles expected to have left the school campus during the half hour period.

Demand factors	Value	Comments	Demand factors	Value	Comments	Match Session	Start	Finish
No. of officials	9	Expected to officiate at all games. This assumes that officials will not attend other games.	Players per team	24	How many players are on each team including substitutes	U18	10:30	12:22
Players/Car	1.2	How many players are assumed to be in each car on average	No. of teams	2	Number of teams playing in each match	Reserves	12:30	14:22
Retention rate	100%	Percentage of cars expected to remain during the game	Spectator's vehicles	20%	Spectator's vehicles as % of player and official's vehicles on site	Seniors	14:30	16:22
Player to spectator	20%	Percentage of cars expected to remain after the applicable game for watching next games						
No. of ovals	1	Number of ovals available for matches						

It is assumed that teams will arrive 60 minutes before the relevant games start

	Event: Period start time:	First arrivals			1 st Session Games				2 nd Session Games				3 rd Session Games								
		8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30
Officials	Arrivals					9															
	Remaining					9	9	9	9	9	9	9	9	9	9	9	9	9	9		
	Departures																				9
Admin.	Arrivals			1									1								
	Remaining			1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1
	Departures														1						1
1 st Session Players	Arrivals				24	16															
	Remaining				24	40	40	40	40	40	24	8	8	8	8	8	8	8	8	4	4
	Departures										16	16								4	4
2 nd Session Players	Arrivals								24	16											
	Remaining								24	40	40	40	40	40	24	8	8	8	8	4	
	Departures														16	16				4	4
3 rd Session Players	Arrivals												24	16							
	Remaining												24	40	40	40	40	40	40	20	
	Departures																			20	20
Spectators	Arrivals				5	5			5	3			5	3							
	Remaining				5	10	10	10	15	18	15	12	17	20	17	14	14	14	14	7	
	Departures										3	3			3	3				7	7
TOTAL	Time:	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30
	Arrivals			1	29	30			29	19			30	19							
	Remaining			1	30	60	60	60	89	108	89	70	100	119	99	80	80	80	80	36	
	Departures									19	19			20	19					44	36

NETBALL VEHICLE MOVEMENTS + PARKING

Arrivals
Remaining
Departures

Vehicles expected to enter the school campus during the designated half hour period.
Vehicles parked in the school campus at the end of the half hour period.
Vehicles expected to have left the school campus during the half hour period.

Demand factors	Value	Comments	Demand factors	Value	Comments	Match Session	Start	Finish	Players / team
No. of officials	7	Expected to officiate at all games. This assumes that officials will not attend other games.	Players per team	12	How many players are on each team including substitutes	U11	8:30	9:21	12
Players/Car	1.2	How many players are assumed to be in each car on average	No. of teams	2	Number of teams playing in each match	U13	9:26	10:30	12
Retention rate	100%	Percentage of cars expected to remain during the game	Spectator's vehicles	10%	Spectator's vehicles as % of player and official's vehicles on site	U15	10:35	11:39	12
Player to spectator	20%	Percentage of cars expected to remain after the applicable game for watching next games				U17	11:44	13:04	12
No. of courts	2	Number of courts available for matches				C Grade	13:09	14:29	12
						B Grade	14:34	15:54	12
						A Grade	15:59	17:19	12

It is assumed that teams will arrive 60 minutes before the relevant games start

	Event: Period start time:	First arrivals	1 st Session Games		2 nd Session Games		3 rd Session Games															
		8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	
Officials	Arrivals	14																				
	Remaining	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	
	Departures																					14
Admin.	Arrivals	2					2					2										
	Remaining	2	2	2	2	2	4	4	2	2	2	2	4	4	2	2	2	2	2	2	2	
	Departures								2					2								2
1 st Session Players	Arrivals	40																				
	Remaining	40	40	40	24	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	4	
	Departures				16	16															4	4
2 nd Session Players	Arrivals		24	16																		
	Remaining		24	40	40	40	24	8	8	8	8	8	8	8	8	8	8	8	8	8	4	
	Departures						16	16													4	4
3 rd Session Players	Arrivals				24	16																
	Remaining				24	40	40	40	40	24	8	8	8	8	8	8	8	8	8	8	4	
	Departures									16	16										4	4
4 th Session Players	Arrivals							24	16													
	Remaining							24	40	40	40	24	8	8	8	8	8	8	8	8	4	
	Departures											16	16								4	4
5 th Session Players	Arrivals										24	16										
	Remaining									24	40	40	40	40	40	24	8	8	8	8	4	
	Departures															16	16				4	4
6 th Session Players	Arrivals											24	16									
	Remaining											24	40	40	40	40	40	40	24	8	8	
	Departures																				16	16
7 th Session Players	Arrivals															24	16					
	Remaining															24	40	40	40	20	20	
	Departures																				20	20
Spectators	Arrivals	5	2	2	2	2		2	2	2	2		2	2		2	2					
	Remaining	5	7	9	9	9	7	7	9	9	9	7	7	9	9	9	9	9	7	1		
	Departures				2	2	2	2		2	2	2				2	2		2	6	1	
TOTAL	Time:	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	
	Arrivals	61	26	18	26	18	2	26	18	26	18		28	18		26	18					
	Remaining	61	87	105	113	113	97	105	121	129	129	111	121	139	137	145	145	145	127	65		
Departures				18	18	18	18	18	2	18	18	18	18	2	18	18		18	62	65		

JUNIOR SOCCER VEHICLE MOVEMENTS + PARKING

Arrivals
Remaining
Departures

Vehicles expected to enter the school campus during the designated half hour period.
Vehicles parked in the school campus at the end of the half hour period.
Vehicles expected to have left the school campus during the half hour period.

Demand factors	Value	Comments	Demand factors	Value	Comments	Match Session	Start	Finish	Players / team
No. of officials	9	Expected to officiate at all games. This assumes that officials will not attend other games.	Players per team	Varies	How many players are on each team including substitutes	U7	8:30	9:15	4
Players/Car	1.5	How many players are assumed to be in each car on average	No. of teams	2	Number of teams playing in each match	U8	9:20	10:05	7
Retention rate	100%	Percentage of cars expected to remain during the game	Spectator's vehicles	0%	Spectator's vehicles as % of player and official's vehicles on site	U9	10:10	10:55	7
Player to spectator	5%	Percentage of cars expected to remain after the applicable game for watching next games				U10	11:00	11:55	9
No. of fields	2	Number of fields available for matches				U12	12:00	13:10	14
						U14	13:15	14:35	16
						U16	14:40	16:10	16
						U18	16:15	18:00	16

It is assumed that teams will arrive 60 minutes before the relevant games start

Event:	First Arrivals	1 st Session Games			2 nd Session Games		3 rd Session Games		4 th Session Games		5 th Session Games		6 th Session Games			7 th Session Games			8 th Session Games				
		8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30
Official s	Period start time:	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30
	Arrivals	18																					
	Remaining	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Admin.	Departures																						18
	Arrivals	2							2														
	Remaining	2	2	2	2	2	2	2	4	4	2	2	2	2	2	2	2	2	2	2	2	2	2
1 st Session Players	Departures										2												2
	Arrivals	11																					
	Remaining	11	11	11	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2 nd Session Players	Departures				5	5																	1
	Arrivals		11	7																			
	Remaining		11	18	18	18	9																
3 rd Session Players	Departures						9	9															
	Arrivals			11	7																		
	Remaining			11	18	18	18	18	9														
4 th Session Players	Departures								9	9													
	Arrivals					14	10																
	Remaining					14	24	24	24	24	13	2	2	2	2	2	2	2	2	2	2	2	2
5 th Session Players	Departures										11	11											2
	Arrivals							22	15														
	Remaining							22	37	37	37	37	37	19	1	1	1	1	1	1	1	1	1
6 th Session Players	Departures												18	18									1
	Arrivals									26	17												
	Remaining									26	43	43	43	43	43	43	23	3	3	3	3	3	3
Arrivals	Arrivals																						
	Remaining														20	20							3
Remaining	Arrivals											26	17										
	Remaining											26	43	43	43	43	43	43	43	23	3	3	3

7 th Session Players	Departure s																		20	20			3
8 th Session Players	Arrivals															26	17						
	Remaining															26	43	43	43	43	43	43	43
	Departure s																						43
	Time:	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30
TOTAL	Arrivals	31	11	18	7	14	10	22	17	26	17	26	17			26	17						
	Remaining	31	42	60	62	71	72	85	93	110	114	129	128	110	110	116	113	113	93	73	73	73	
	Departure s				5	5	9	9	9	9	13	11	18	18		20	20		20	20			73

JUNIOR FOOTBALL VEHICLE MOVEMENTS + PARKING

Arrivals Remaining Departures

Vehicles expected to enter the school campus during the designated half hour period.
Vehicles parked in the school campus at the end of the half hour period.
Vehicles expected to have left the school campus during the half hour period.

Demand factors	Value	Comments	Demand factors	Value	Comments	Match Session	Start	Finish	Players / team
No. of officials	9	Expected to officiate at all games. This assumes that officials will not attend other games.	Players per team	Varies	How many players are on each team including substitutes	U8	8:30	9:22	12
Players/Car	1.5	How many players are assumed to be in each car on average	No. of teams	2	Number of teams playing in each match	U10	9:30	10:30	12
Retention rate	100%	Percentage of cars expected to remain during the game	Spectator's vehicles	0%	Spectator's vehicles as % of player and official's vehicles on site	U12	10:30	11:48	15
Player to spectator	5%	Percentage of cars expected to remain after the applicable game for watching next games				U14	12:00	13:18	18
No. of ovals	2	Number of ovals available for matches				U15	13:30	15:08	18
						U16	15:30	17:08	18

It is assumed that teams will arrive 60 minutes before the relevant games start

	Event: Period start time:	First arrivals		1 st Session Games		2 nd Session Games		3 rd Session Games			4 th Session Games			5 th Session Games			6 th Session Games				
		8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30
Officials	Arrivals	18																			
	Remaining	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	
	Departures																				18
Admin.	Arrivals	2					2					2									
	Remaining	2	2	2	2	2	4	4	2	2	2	2	4	4	2	2	2	2	2	2	
	Departures								2					2							2
1 st Session Players	Arrivals	32																			
	Remaining	32	32	32	17	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	
	Departures				15	15														1	1
2 nd Session Players	Arrivals		22	15																	
	Remaining		22	37	37	37	19	1	1	1	1	1	1	1	1	1	1	1	1		
	Departures						18	18												1	
3 rd Session Players	Arrivals				27	18															
	Remaining				27	45	45	45	45	45	24	3	3	3	3	3	3	3	3	2	
	Departures									21	21								1	2	
4 th Session Players	Arrivals							32	21												
	Remaining							32	53	53	53	53	53	28	3	3	3	3	3	2	
	Departures												25	25					1	2	
5 th Session Players	Arrivals									32	21										
	Remaining									32	53	53	53	53	53	53	28	3	3	2	
	Departures															25	25		1	2	
6 th Session Players	Arrivals													32	21						
	Remaining													32	53	53	53	53	26		
	Departures																		27	26	
TOTAL	Time:	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30
	Arrivals	52	22	15	27	18	2	32	21		32	21	2		32	21					
	Remaining	52	74	89	101	104	88	102	121	121	132	132	134	109	114	135	110	85	85	53	
Departures				15	15	18	18	2		21	21		25	27		25	25		32	53	

JUNIOR CRICKET VEHICLE MOVEMENTS + PARKING

Arrivals
Remaining
Departures

Vehicles expected to enter the school campus during the designated half hour period.
Vehicles parked in the school campus at the end of the half hour period.
Vehicles expected to have left the school campus during the half hour period.

Demand factors	Value	Comments	Demand factors	Value	Comments	Match Session	Start	Finish	Players / team
No. of officials	5	Expected to officiate at all games. This assumes that officials will not attend other games.	Players per team	Varies	How many players are on each team including substitutes	Master Blasters	8:30	10:00	24
Players/Car	1.5	How many players are assumed to be in each car on average	No. of teams	2	Number of teams playing in each match	U11	10:05	12:05	7
Retention rate	100%	Percentage of cars expected to remain during the game	Spectator's vehicles	0%	Spectator's vehicles as % of player and official's vehicles on site	U13	12:10	14:40	9
Player to spectator	5%	Percentage of cars expected to remain after the applicable game for watching next games				U18	14:45	17:45	11
No. of ovals	1	Number of ovals available for matches							

It is assumed that teams will arrive 60 minutes before the relevant games start

	Event: Period start time:	1 st Session Games			2 nd Session Games				3 rd Session Games				4 th Session Games									
		8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00
Officials	Arrivals	5																				
	Remaining	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
	Departures																					5
Admin.	Arrivals	1						1														
	Remaining	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	
	Departures									1												1
1 st Session Players	Arrivals	32																				
	Remaining	32	32	32	32	17	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
	Departures					15	15															2
2 nd Session Players	Arrivals			6	4																	
	Remaining			6	10	10	10	10	10	5												
	Departures									5	5											
3 rd Session Players	Arrivals							7	5													
	Remaining							7	12	12	12	12	12	12	6							
	Departures														6	6						
4 th Session Players	Arrivals												9	6								
	Remaining												9	15	15	15	15	15	15	15	15	
	Departures																					15
TOTAL	Time:	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00
	Arrivals	38		6	4			7	6					9	6							
	Remaining	38	38	44	48	33	18	25	31	26	20	20	20	29	35	29	23	23	23	23	23	
	Departures					15	15			5	6					6	6					23





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Document Status

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