Officer: Senior Planner - Vanessa
Direct Telephone: 07 4189 9100
Our Reference: MCU25/0041, RAL25/0048 & OPW25/0020

SOUTH BURNETT REGIONAL COUNCIL
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13 May 2026

Coles Group Property Developments Pty Ltd
C/- Mewing Planning Consultants Pty Ltd
GPO Box 1506
BRISBANE QLD 4001

Dear Sir/Madam

Decision Notice
Planning Act 2016

I refer to your application and advise that on 6 May 2026, Council's Delegated Authority decided to approve the application in full subject to conditions.

Details of the decision are as follows:

APPLICATION DETAILS

Application No:	MCU25/0041
Street Address:	1 Pound Street KINGAROY QLD 4610
Real Property Description:	Lot 13 on RP814986
Planning Scheme:	South Burnett Regional Council

DECISION DETAILS

Type of Decision:	Approval
Type of Approval:	Development Permit for a Material Change of Use for a Shopping Centre Development Permit for Reconfiguring a Lot – Subdivision (1 Lot into 2 Lots) Development Permit for Operation Works – Earthworks
Date of Decision:	6 May 2026

CURRENCY PERIOD OF APPROVAL

The currency period for this development approval is six (6) years starting the day that this development approval takes effect. (Refer to Section 85 "Lapsing of approval at end of currency period" of the *Planning Act 2016*.)

INFRASTRUCTURE

Where conditions relate to the provision of infrastructure, these are non-trunk infrastructure conditions unless specifically nominated as a "***necessary infrastructure condition***" for the provision of trunk infrastructure as defined under Chapter 4 of the *Planning Act 2016*.

ASSESSMENT MANAGER CONDITIONS

MATERIAL CHANGE OF USE
Shopping Centre

GENERAL

GEN1. The development must be completed and maintained generally in accordance with the approved plans and documents and conditions to this development approval:

Approved Plans

Drawing No.	Drawing Title	Prepared By	Rev	Date
A-DA 0010	Development Area Summary	Arkhright Architects Pty Ltd	D	09/02/26
A-DA 1000	Site Plan *(Amended)* *See Annotations in Red*	Arkhright Architects Pty Ltd	F	09/02/26
A-DA 1001	Building A - Ground Floor Plan	Arkhright Architects Pty Ltd	F	09/02/26
A-DA 1002	Building B - Ground Floor & Roof Plan	Arkhright Architects Pty Ltd	C	09/02/26
A-DA 1010	Building A - Level 2 & Roof	Arkhright Architects Pty Ltd	E	09/02/26
A-DA 2000	Overall Sections	Arkhright Architects Pty Ltd	E	09/02/26
A-DA 2010	Building A Sections	Arkhright Architects Pty Ltd	E	09/02/26
A-DA 2011	Building B Sections	Arkhright Architects Pty Ltd	C	09/02/26
A-DA 3000	Building A Elevations	Arkhright Architects Pty Ltd	F	09/02/26
A-DA 3001	Building A Elevations	Arkhright Architects Pty Ltd	E	09/02/26
A-DA 3002	Building B Elevations	Arkhright Architects Pty Ltd	C	09/02/26
A-DA 5000	3D Views	Arkhright Architects Pty Ltd	D	09/02/26
3849 – SK06	Siteworks Plan – Sheet 1	Contour Consulting Engineers	A	03/10/2025

Approved Documents

Document No.	Document Title	Prepared By	Rev	Date
740 SD_LR001_ C	Landscape Concept Design Report	O2 Landscape Architecture	C	06/02/2026
–	Transport Impact Assessment Report	Colliers	3	07/11/2025
CIV03849-ENG01	Engineering Report	Contour Consulting Engineers	0	10/10/2025
CIV03849-SWMP01	Stormwater Management Plan	Contour Consulting Engineers	0	10/10/2025
3849-FLD01	Flood Impact Assessment	Contour Consulting Engineers	A	10/10/2025

–	Environmental Noise Assessment	Colliers	0	03/10/2025

Where there is a conflict between the conditions of this approval and the details shown on the approved plans and documents, the conditions of approval prevail.

BUILDING, PLUMBING AND DRAINAGE WORKS

GEN2. The development herein approved may not start until the following development permits have been issued and complied with as required:
- Development Permit for Building Works; and
- Permit for Plumbing and Drainage Works.

GEN3. Any new earthworks or structures are not to concentrate or impede the natural flow of water across property boundaries and onto any other lots.

GEN4. Prior to the commencement of the use, all plant and service equipment (including air conditioners, exhaust fans, lift motor rooms, refuse bins, telecommunication devices and the like) are to be housed, screened and located so that these do not cause environmental nuisance or harm to residential uses in the surrounding area.

APPROVED USE

GEN5. The approved development is a Material Change of Use – Shopping Centre, as shown on the Approved Plans and does not infer approval to use the premises for other land uses.

COMPLIANCE, TIMING AND COSTS

GEN6. All conditions of the approval shall be complied with before the change occurs (prior to commencement of the use) and while the use continues, unless otherwise noted within these conditions.

GEN7. All works, including the repair or relocation of services is to be completed at no cost to Council.

WASTE STORAGE/COLLECTION

MCU1. Provision must be made for the storage and removal of waste in accordance with the Waste Reduction and Recycling Regulation 2023.

MCU2. Any areas that are dedicated for the collection and/or storage of solid waste on the premises are to be:
a) level;
b) provided with impervious hard stand and drained; and
c) provided in a building or other enclosed structure screened to a minimum height of 0.2m above the height of the refuse receptacles.

LANDSCAPING

MCU3. Prior to commencement of use, landscaping is to be provided generally in accordance with the approved Landscape Concept Design Report in Condition GEN1 of this approval and the Guidance on plant selection is provided in Branching Out - Your Handy Guide to tree Planting in the South Burnett available from Council.

LAWFUL COMMENCEMENT

MCU4. Prior to the commencement of this use, submit to Council a Notice of Intention to Commence the Approved Use. The notice must:

- Be submitted to the Manager, Planning and Development with a minimum of ten (10) business days prior to the commencement of the approved use;
- Nominate the day the approved use is intended to commence;
- Include evidence (i.e. copies of decision notice(s), photographic proof, and statement(s) of compliance with the conditions of this approval which demonstrates that all conditions of this approval have been complied with.

Note: Council offers condition compliance inspections, which currently attracts a fee of $453.50. However, the actual amount payable will be based on Council's Register of Fees & Charges and the rate applicable at the time of payment.

ENGINEERING WORKS

ENG1. Complete all works approved and works required by conditions of this development approval and/or any related approvals at no cost to Council, prior to commencement of the use unless stated otherwise.

ENG2. Undertake Engineering designs and construction in accordance with the Planning Scheme, Council's standards, relevant design guides, and Australian Standards.

ENG3. Be responsible for the full cost of any alterations necessary to electricity, telephone, water mains, sewer mains, stormwater drainage systems or easements and/or other public utility installations resulting from the development or from road and drainage works required in connection with the development.

LOCATION, PROTECTION AND REPAIR OF DAMAGE TO COUNCIL AND PUBLIC UTILITY SERVICES INFRASTRUCTURE AND ASSETS

ENG4. Be responsible for the location and protection of any Council and public utility services infrastructure and assets that may be impacted on during construction of the development.

ENG5. Repair all damages incurred to Council and public utility services infrastructure and assets, as a result of the proposed development immediately should hazards exist for public health and safety or vehicular safety. Otherwise, repair all damages immediately upon completion of works associated with the development

STORMWATER MANAGEMENT

ENG6. Provide stormwater management generally in accordance with the Stormwater Management Plan prepared by Contour Consulting Engineers, Revision 0, dated 10/10/2025 and the updated Stormwater Drainage Plan – Sheet 1, Plan No: 3849-400, Rev C, dated 06/06/2025 subject to detailed design and except as altered by conditions of this development approval.

ENG7. Provide overland flow paths that do not adversely alter the characteristics of existing overland flows on other properties or that create an increase in flood damage on other properties.

ENG8. Discharge all minor storm flows that fall or pass onto the site to the lawful point of discharge in accordance with the Queensland Urban Drainage Manual (QUDM).

ENG9. Ensure that adjoining properties and roadways are protected from ponding or nuisance from stormwater as a result of any site works undertaken as part of the proposed development.

ENG10. Any existing stormwater drainage not required shall be decommissioned to the satisfaction of Council.

WATER SUPPLY

ENG11. Connect the development to Council's reticulated water supply system via a single connection as per Council's standard.

SEWERAGE

ENG12. Connect the development to Council's reticulated sewerage system via a single connection. The connection must be designed in accordance with Council's standards and be approved by Council's Utility Services Section.

ENG13. Actual connection to Council's live sewerage infrastructure must be undertaken by or under the supervision of Council.

ENG14. Do not build works within 1.5 metres from the centre of any existing sewer pipework or within the Zone of Influence, whichever is the greater (measured horizontally).

ENG15. Maintain a minimum of a 3-metre-wide corridor to be maintained for maintenance/upgrade purposes.

ENG16. Ensure that a clear level area of a minimum of a 2.5 metre radius surrounding any existing sewer manholes on the site is provided for future maintenance/upgrade purposes.

ENG17. The above minimum clearances to Council's sewer infrastructure do not preclude the need for works to proposed structures to prevent loading to the sewer system.

SEWER RELOCATION

ENG18. Realign the existing sewer main in accordance with the Stormwater Drainage Plan-Sheet 1, Plan prepared by Contour Consulting Engineers, Plan No: 3879-400, Revision C, dated 06/06/2026.

ENG19. Any existing sewer main that is no longer required is to be decommissioned to Council's satisfaction.

TRADE WASTE DISPOSAL (COMMERCIAL KITCHEN)

ENG20. Connect any commercial kitchen to Council's sewer reticulation. Obtain a Trade Waste Permit and Plumbing Approval from Council prior to the commencement of any work.

PARKING AND ACCESS - GENERAL

ENG21. Design all access driveways, circulation driveways, parking aisles and car parking spaces in accordance with Australian Standard AS2890.1 - Parking Facilities, Part 1: Off street car parking.

ENG22. Design and construct all vehicle manoeuvring and parking area with concrete, asphalt or a two-coat bitumen seal.

ENG23. Provide a minimum of 244 car parking spaces including a minimum of 9 person with disability (PWD) car parking spaces.

ENG24. Design & construct all PWD car parking spaces in accordance with Australian Standard AS2890.6 – Parking Facilities, Part 6: Off-street parking for people with disabilities.

ENG25. Provide vehicle bollards or tyre stops to control vehicular access and to protect landscaping or pedestrian areas where appropriate.

ENG26. Ensure access to car parking spaces, vehicle loading and manoeuvring areas and driveways remain unobstructed and available for their intended purpose during the hours of operation.

PARKING AND ACCESS - SERVICING

ENG27. Provide a waste collection bay for the food and drink outlet and supermarket in the location generally shown on the approved plan(s) of development that are designed in accordance with Australian Standard AS2890.2 – Parking Facilities, Part 2: Off-street commercial vehicle facilities.

ENG28. Ensure loading and unloading operations are conducted wholly within the site and vehicles enter and exit the site in a forward direction.

VEHICLE ACCESS

ENG29. Construct a commercial crossover between the property boundary and the edge of the Pound Street road pavement, generally in accordance with the approved Plans and IPWEAQ Std Dwg RS-051, Rev F. Ensure that crossover splay is designed to accommodate turning movements of an Articulated Vehicle.

ENG30. Construct any new crossovers such that the edge of the crossover is no closer than 1 metre to any existing or proposed infrastructure, including any stormwater gully pit, manhole, service infrastructure (e.g. power pole, telecommunications pit), road infrastructure (e.g. street sign, street tree, etc).

PEDESTRIAN ACCESS

ENG31. Remove one car park space and provide pedestrian access from the development into the adjacent park and provide footpath connectivity between the development and the exiting footpath in the park, as shown in the drawing number A-DA-A-DA 1000 revision F, prepared by Arkhright Architects, dated 09/02/2026, amended in red by Council.

RESTRICTED ACCESS

ENG32. Unless otherwise agreed with Council, direct access between any Council Road and the land is not permitted for:

(a) Operational works aspects of development; and

(b) Construction activity including Building Works and Plumbing and Drainage Works.

Note: Alternatively, all commercial vehicles exiting the construction site may utilise Pound Street for operational works and construction activities. This will be the subject of future consideration when an application for Operational Works is received by Council.

T**ELECOMMUNICATION**

ENG33. Provide telecommunication services to each lot in accordance with the standards and requirements of the relevant service provider.

Note: The area may only be serviced by NBN wireless, and no cable service is available. It is the applicant/developer's responsibility to confirm that the requirements under the section 372G/H of the *Telecommunications Act 1997* (fibre ready facilities - pit and pipe) do not apply and that the subject site is 'exempt'.

https://www.communications.gov.au/policy/policy[1]listing/exemption-pit-and-pipe-requirements

ELECTRICITY

ENG34. Provide electricity supply to the development to comply with Ergon Energy's requirements.

ENG35. Submit to Council, written confirmation from an electricity provider that an agreement has been made for the supply of electricity.

EARTHWORKS - GENERAL

ENG36. Undertake earthworks in accordance with the provisions of Australian Standard AS3798 - Guidelines on Earthworks for Commercial and Residential Developments.

RECONFIGURING A LOT
Subdivision (1 Lot into 2 Lots)

GENERAL

GEN1. The development must be completed and maintained in accordance with the approved plans and documents and conditions to this development approval:

Approved Plans

Drawing No.	Drawing Title	Prepared By	Rev	Date
A-DA 1000	Site Plan *(Amended)* *See Annotations in Red*	Arkhright Architects Pty Ltd	F	09/02/26

Where there is a conflict between the conditions of this approval and the details shown on the approved plans and documents, the conditions of approval prevail.

Timing: At all times

GEN2. Any new earthworks or structures are not to concentrate or impede the natural flow of water across property boundaries and onto any other lots.

COMPLIANCE

GEN3. All conditions of this approval are to be satisfied prior to Council endorsing the Survey Plan unless otherwise stated. It is the applicant's responsibility to notify Council to inspect compliance for conditions that are required to be satisfied prior to Council endorsing the Survey Plan.

A fee will be charged, with payment required prior to Council's approval of the associated documentation requiring assessment.

OUTSTANDING FEES

GEN4. Prior to sealing the Plan of Survey, the applicant is required to pay the Council all rates and charges or any expenses being charged over the subject land under any Act in accordance with Schedule 18 Section 69 of the Planning Regulation 2017.

Timing: As indicated.

SURVEY MARKS

GEN5. Prior to the sealing of the Plan of Survey the applicant is to provide a certificate signed by a licensed surveyor stating that after the completion of all works associated with the

reconfiguration, survey marks were reinstated where necessary and all survey marks are in their correct position in accordance with the Plan of Survey.

Timing: As indicated.

SURVEY PLAN ENDORSEMENT

RAL1. Lodgement of Survey Plan Endorsement must include the following:

a. Completion of Council's Request - Approving Plan of Subdivision, Related Plans or Documents, Compliance with Conditions of Approval Form;
b. All survey marks in their correct position in accordance with the Survey Plan;
c. A compliance report demonstrating compliance with all associated development permit(s);
d. One copy of the Survey Plan, easement documentation each fully executed for the lodgement with the Titles Office;
e. Payment of any outstanding rates and charges in accordance with Schedule 18, Item 2(1)(c) of the Planning Regulation 2017; and
f. Payment of any outstanding Infrastructure Charges.

Note: Council's Request - Approving Plan of Subdivision, Related Plans or Documents, Compliance with Conditions of Approval Form is found at Forms | South Burnett Regional Council

VALUATION FEES

RAL2. Payment of Department of Natural Resources, Mines, Manufacturing, and Regional and Rural Development valuation fees that will result from the issue of split valuations prior to Council sealing the Plan of Survey. The contribution is currently assessed at $55.00 per lot, however, the actual amount payable will be based on Council's Register of Fees & Charges and the rate applicable at the time of payment.

Timing: As indicated.

ENGINEERING WORKS

ENG1. Complete all works approved and works required by conditions of this development approval and/or any related approvals at no cost to Council, prior to Council's endorsement of the Survey Plan unless stated otherwise.

ENG2. Undertake Engineering designs and construction in accordance with the Planning Scheme, Standard Drawings, and relevant design manuals.

GEN6. Be responsible for any alteration necessary to electricity, telephone, water mains, sewer mains, stormwater drainage systems or easements and/or other public utility installations resulting from the development or from road and drainage works required in connection with the development.

LOCATION, PROTECTION AND REPAIR OF DAMAGE TO COUNCIL AND PUBLIC UTILITY SERVICES INFRASTRUCTURE AND ASSETS

ENG3. Undertake Engineering designs and construction in accordance with the Planning Scheme, Standard Drawings, and relevant design manuals.

ENG4. Be responsible for any alteration necessary to electricity, telephone, water mains, sewer mains, stormwater drainage systems or easements and/or other public utility installations resulting from the development or from road and drainage works required in connection with the development.

STORMWATER MANAGEMENT

ENG6. Provide stormwater management generally in accordance with the Stormwater Management Plan prepared by Contour Consulting Engineers, Revision 0, dated 10/10/2025 and the updated Stormwater Drainage Plan – Sheet 1, Plan No: 3849-400, Rev C, dated 06/06/2025 subject to detailed design and except as altered by conditions of this development approval.

ENG7. Provide overland flow paths that do not alter the characteristics of existing overland flows on other properties or that create an increase in flood damage on other properties.

ENG8. Discharge all minor storm flows that fall or pass onto the site to the lawful point of discharge in accordance with the Queensland Urban Drainage Manual (QUDM).

ENG9. Adjoining properties and roadways to the development are to be protected from ponding or nuisance from stormwater as a result of any site works undertaken as part of the proposed development.

WATER SUPPLY

ENG10. Connect each lot to Council's reticulated water supply system as per Council's standards.

ENG11. Design and construct all works in accordance with Council's requirements as set out in the WBBUWA Design and Construction Code", WSAA Guidelines and relevant development standards used by Council.

SEWERAGE

ENG12. Connect each lot to Council's reticulated sewerage system. The connection must be designed in accordance with Council's standards and be approved by Council's Utility Services Section.

ENG13. Actual connection to Council's live sewerage infrastructure must be undertaken by or under the supervision of Council.

ENG14. Do not build works within 1.5 metres from the centre of any existing sewer pipe work or within the Zone of Influence, whichever is the greater (measured horizontally).

ENG15. Maintain a minimum of a 3 metre wide corridor to be maintained for maintenance/upgrade purposes.

ENG16. Ensure that a clear level area of a minimum of a 2.5 metre radius surrounding any existing sewer manholes on the site is provided for future maintenance/upgrade purposes.

ENG17. The above minimum clearances to Council's sewer infrastructure do not preclude the need for works to proposed structures to prevent loading to the sewer system.

SEWER EXTENSION

ENG18. Extend the sewer network to service the proposed Lot 2. Provide to council for approval detailed designed drawings of the sewer main extension to service the proposed Lot 2.

Comment: This condition is imposed pursuant to Section 145 of the *Planning Act 2016*.

ENG19. Submit to Council, the written consent from the property owner where such works require entry onto adjoining land prior to Council's approval of Operational Work.

ENG20. Design and construct all works in accordance with Council's requirements as set out in the WBBUWA Design and Construction Code and relevant development standards used by Council.

ENG21. Actual connection to Council's live sewerage infrastructure must be undertaken by or under the supervision of Council.

ENG22. Design all works in consultation with Council prior to submission of detailed engineering drawings or Operational Work applications prior to entry onto the adjoining land.

SEWER RELOCATION

ENG23. Relocate the existing sewer main in accordance with Stormwater Drainage Plan – Sheet 1, Plan No: 3849 – 400, Revision C, dated 6/06/2026 prepared by Contour Consulting Engineers.

TELECOMMUNICATION

ENG24. Provide telecommunication services to each lot in accordance with the standards and requirements of the relevant service provider.

Note: The area may only be serviced by NBN wireless, and no cable service is available. It is the applicant/developer's responsibility to confirm that the requirements under the section 372G/H of the *Telecommunications Act 1997* (fibre ready facilities - pit and pipe) do not apply and that the subject site is 'exempt'. https://www.communications.gov.au/policy/policy[1]listing/exemption-pit-and-pipe-requirements

ELECTRICITY

ENG25. Provide electricity supply to all lots within the development to comply with Ergon Energy's requirements.

ENG26. Submit to Council, written confirmation from an electricity provider that an agreement has been made for the supply of electricity.

OPERATIONAL WORKS
Earthworks

GENERAL

ENG1. Compliance with the plans and specifications submitted with Development Application, approval conditions, all Council Planning Scheme Policies and application for Material Change of Use MCU25/0041 and Reconfiguration of a Lot RAL25/0048.This approval extends to Earthworks, as detailed, and is conditional upon a set of "Issued for Construction" drawings, amended if required by the conditions of this approval, being submitted to Council for endorsement, prior to pre-start meeting.

ENG2. Undertake all approved works and works required by conditions of this development approval at no cost to Council.

ENG3. Submit to Council for approval, an Inspection and Test Plan certified by a suitably qualified Engineer (RPEQ – Civil) prior to commencement of any work and prior to any pre-start meeting.

ENG4. Pay to Council, inspection fees based on Council's Fees and Charges current at the time of commencement of works and based on the estimated project cost as estimated or accepted by Council prior to the pre-start meeting.

ENG5. Provide proof that the Queensland State Government Portable Long Service Leave and other associated charges have been paid prior to commencement of any work.

ENG6. Ensure that supervision of all construction works are carried out by a suitably qualified and experienced Engineer (RPEQ).

ENG7. Adhere to the following hours of construction unless otherwise approved in writing by Council:

Monday to Saturday:	6.30am to 6.30pm	Noise permitted
Monday to Sunday:	6.30pm to 6.30am	No noise permitted
Sunday and Public Holidays:		No noise permitted

Note: Do not conduct work or business that causes audible noise from or on the site outside the above hours.

ENG8. Be responsible to carry out Work Health and Safety legislative requirements.

ENG9. Ensure all work sites are maintained in a clean, orderly state at all times.

ENG10. Manage all waste in accordance with the relevant legislation and regulations and dispose of regulated waste at a licensed facility of South Burnett Regional Council by a licensed regulated waste disposal contractor.

ENG11. Be responsible for the location and protection of any Council and public utility services infrastructure and assets that may be impacted on during construction of the development.

ENG12. Repair all damages incurred to Council and public utility services infrastructure and assets, as a result of the proposed development, immediately should hazards exist for public health and safety or vehicular safety. Otherwise, repair all damage immediately upon completion of works associated with the development.

ENG13. Submit to Council, a Certification from a suitably qualified Engineer (RPEQ) that the works have been undertaken in accordance with the approved plans and specifications and to Council's requirements, prior to commencement of the use.

ENG14. Works are to be constructed generally in accordance with the specification requirements outlined in Aus-Spec #1 and the IPWEAQ Standard Drawings unless otherwise approved by South Burnett Regional Council.

DEVELOPMENT WORKS

ENG15. Unless otherwise agreed with Council, direct access between any Council Road and the land is not permitted for:
(a) Operational works aspects of development; and
(b) Construction activity including Building Works and Plumbing and Drainage Works.

Note: Alternatively, all commercial vehicles exiting the construction site may utilise Pound Street for operational works and construction activities. This will be the subject of future consideration when an application for Operational Works is received by Council.

ENG16. Maintain erosion and sedimentation controls at all times during the course of the project and the ensuing defects liability period. Council Officers will inspect and assess the sediment and erosion control measures and temporary fencing implemented, and any alterations and/or supplementary works required must be incorporated.

ENG17. Implement measures to prevent site vehicles tracking sediment and other pollutants from the site onto adjoining streets during the course of the project, and to prevent dust nuisance during construction and the ensuing defects liability period.

ENG18. Be responsible for protecting nearby property owners from dust pollution arising from construction and maintenance of the works required by this approval, and comply with any lawful instructions from the Assessment Manager if, in his opinion, a dust nuisance exists.

ENG19. Adjust all access chamber surface levels to provide a freeboard of 100mm above the finished ground surface level, where the work involves excavation or filling over, or adjacent to water supply, sewerage or gas infrastructure. Be responsible for all costs associated with the adjustment of the chamber levels and the works to be undertaken by Council on a Private Works Quotation basis.

ENG20. Waste material as a result of demolition work and excavation work must not be used as fill as described within the *Waste Reduction and Recycling Act 2011*.

EARTHWORKS

ENG21. Supervise bulk earthworks to Level 1 or Level 2 as applicable and have a frequency of field density testing carried out in accordance with Table 8.1 of Australian Standard AS3798 – Guidelines on Earthworks for Commercial and Residential Developments.

ENG22. Contain cut or fill batters wholly within the subject land. Do not place fill on adjacent properties without providing Council with written permission from the respective property owner(s).

ENG23. Do not store plant or material on adjoining lands without written permission from the respective property owner(s).

ENG24. Do not use contaminated material as fill on the site. Undertake any filling using inert materials only, with a maximum particle size of 75mm.

ENG25. Ensure open drains and fill platforms are constructed with a longitudinal grade on no less than 0.1%.

ENG26. Submit to Council, the following for approval in the event it is proposed to import material to or export material from the site, prior to commencement of the work:
(a) details of the location of any material to be sourced for fill including the volume of fill to be moved from any particular source site;
(b) details of the final location for any material to be exported from the site from excavations including the volume to be moved to any particular site; and
(c) the proposed haulage route(s) and truck sizes for carting of the material.

Note: Further Development Applications may be required to be submitted to and approved by Council for sites proposed to import material from or export material to, or conditions may be applied to any sites endorsed in accordance with this condition, e.g. submit a Traffic Management Plan to Council for acceptance, or rehabilitation of the site. Any required approvals are to be in place prior to commencement of the work.

This approval does not extend to any material proposed to be imported to or exported from the site:

(a) other than from or to site(s) that have a current Development Approval enabling them to export/accept any material; or
(b) the material is being exported to and accepted at a licensed Council refuse facility.

CONSTRUCTION AND NUISANCE MANAGEMENT PLAN

ENG27. Prior to pre-start meeting, submit to Council for endorsement, a Construction and Nuisance Management Plan for the approved development works for the site. The Plan is to cover, but not be limited to the following:

(i) air quality management;
(ii) noise and vibration management;
(iii) storm water quality management;
(iv) erosion and sediment management;
(v) waste management;
(vi) complaint management;
(vii) community awareness;
(viii) preparation of site work plans;
(ix) workers' car parking arrangements; and
(x) traffic control during works.

ENG28. Implement the approved Construction and Nuisance Management Plan at all times during construction of the development.

ENG29. Ensure a legible copy of the approved Construction and Nuisance Management Plan is available on site at all times during construction and earthworks.

INSPECTIONS AND TESTING

ENG30. Submit to Council the pre-start meeting agenda at the confirmation of a date and time for the meeting.

ENG31. Provide Council with a minimum of two (2) clear working days notice to undertake compulsory inspections and meetings at the following stages:

(a) Pre-start meeting with Council, Contractor, Supervising Engineer and developer; and
(b) at the point of completion of all works.

ENG32. Submit to Council, all inspection and test data in its entirety prepared by the applicant, Engineer, Principal Contractor or by Subcontractors in relation to the Operational Work or as described in the application prior to commencement of the use. Undertake any further inspection, testing or analysis required, due to failure of work to meet specifications or where the testing previously provided is considered insufficient on behalf of the Principal Contractor by a NATA accredited entity (where applicable).

ENG33. Uncover all works covered prior to inspection to allow inspection by Council at Council's sole discretion.

ENG34. Allow Council to enter a work site to which this approval relates and undertake testing or analysis of any part of the construction, and Council is not liable for the rectification of or compensation for any damage caused in the testing or analysis process. Should work be found to be not constructed to specification or of poor quality, any reasonable instruction given by Council Officers must be considered to be a condition of approval and undertaken by the Principal Contractor.

ENG35. Where complete or incomplete works under this approval adversely affect adjoining properties, Council land, roads or other infrastructure, Council requires by notice, works to be completed.

ENG36. Undertake any works for the safety or health of the community or protection of infrastructure where Council deems it necessary.

AS CONSTRUCTED INFORMATION

ENG37. Submit to Council within 10 working days of completion of the operational work, suitable “As Constructed" drawings in hard copy and AutoCAD format and on GDA Zone 56 co-ordinates. The “As Constructed" drawings or data capture methods as required by Council must be certified by a Registered Professional Engineer of Queensland (RPEQ) on every drawing and shall be to an appropriate electronic format and standard as required by Council's Infrastructure Services General Manager.

ENG38. Provide “As Constructed” data for the following elements, where applicable:
(a) Earthworks.

The approval is subject to construction being undertaken in accordance with the Approved Plans prepared by Contour as listed below:

Drawing No./ Revision/Sheet No.	***Drawing/Plan Title***	***Date***
3849-SK05 - Rev A	*Development Layout Plan*	*03/10/2025*
3849-SK06 - Rev A	*Siteworks Plan – Sheet 1 (Amended) See Annotations in Red*	*03/10/2025*
3849-SK07 - Rev A	*Siteworks Plan – Sheet 2*	*03/10/2025*
3849-SK08 - Rev A	*Siteworks Plan – Sheet 3*	*03/10/2025*
3849-001 - Rev C	*Locality Plan & Schedule of Drawings*	*30/01/2026*
3849-002 - Rev C	*Project Notes & Specifications*	*30/01/2026*
3849-200 – Rev C	*Earthworks Detail Plan – Sheet 1*	*30/01/2026*
3849-201 – Rev C	*Earthworks Detail Plan – Sheet 2*	*30/01/2026*
3849-202 – Rev C	*Earthworks Detail Plan – Sheet 3*	*30/01/2026*
3849-210 – Rev C	*Earthworks Sections – Sheet 1*	*30/01/2026*
3849-211 – Rev C	*Earthworks Sections – Sheet 2*	*30/01/2026*
3849-212 – Rev C	*Earthworks Sections – Sheet 3*	*30/01/2026*

3849-220– Rev C	*Retaining Wall Layout Plan – Sheet 1*	*30/01/2026*
3849-221– Rev C	*Retaining Wall Layout Plan – Sheet 2*	*30/01/2026*
3849-230– Rev A	*RW1 & RW2 Retaining Wall Long Sections & Alignment Tables*	*30/01/2026*
3849-231– Rev A	*RW3 & RW4 Retaining Wall Long Sections & Alignment Tables*	*30/01/2026*
3849-232– Rev A	*RW5 & RW6 Retaining Wall Long Sections & Alignment Tables*	*30/01/2026*
3849-233– Rev A	*RW7 & RW8 Retaining Wall Long Sections & Alignment Tables*	*30/01/2026*
3849-234– Rev A	*RW9 & RW10 Retaining Wall Long Sections & Alignment Tables*	*30/01/2026*
3849-235– Rev A	*RW11 Retaining Wall Long Sections & Alignment Tables*	*30/01/2026*

REFERRAL AGENCIES

The referral agencies applicable to this application are:

Referral Status	Referral Agency and Address	Referral Trigger	Response
Concurrence	State Assessment & Referral Agency PO Box 979 BUNDABERG QLD 4670	State transport infrastructure generally • Schedule 10, Part 9, Division 4, Subdivision 1, Table 1 – Aspect of development stated in schedule 20, Item 1; and • Schedule 10, Part 9, Division 4, Subdivision 2, Table 1 – Reconfiguring a lot near a State transport corridor, Item 1; and • Schedule 10, Part 9, Division 4, Subdivision 2, Table 3 – Reconfiguring a lot near a Statecontrolled road intersection, Item 1; and • Schedule 10, Part 9, Division 4, Subdivision 2, Table 4 – Material change of use near a State transport corridor or that is a future State transport corridor, Item 1; and • Schedule 10, Part 9, Division 4, Subdivision 2, Table 5 – Operational work on premises near a State transport corridor, Item 1.	The agency provided its response on 11 December 2026 (Reference No.3398562). A copy of the response is attached.
Advice	Ergon Energy GPO Box 1461 BRISBANE QLD 4001 townplanning@ergon.com.au	Electricity infrastructure • Schedule 10, Part 9, Division 2, Table 1 – Reconfiguring a lot subject to an easement or near a substation site, Item 1; and •	The agency provided its response on 25 March 2026 (Reference No.

		Schedule 10, Part 9, Division 2, Table 2 – Material change of use of premises near a substation site or subject to an easement, Item 1; and • Schedule 10, Part 9, Division 2, Table 3 – Operational work on premises subject to an easement or near a substation site, Item 1.	3447573). A copy of the response is attached.

A copy of any referral agency conditions is attached.

APPROVED PLANS

The following plans are Approved plans for the development:

MATERIAL CHANGE OF USE
Shopping Centre

Plan No.	Rev.	Plan Name	Date
A-DA 0010	D	*Development Area Summary* , prepared by Arkhright Architects Pty Ltd	09/02/26
A-DA 1000	F	*Site Plan (Amended) See Annotations in Red*, prepared by Arkhright Architects Pty Ltd	09/02/26
A-DA 1001	F	*Building A - Ground Floor Plan*, prepared by Arkhright Architects Pty Ltd	09/02/26
A-DA 1002	C	*Building B - Ground Floor & Roof Plan*, prepared by Arkhright Architects Pty Ltd	09/02/26
A-DA 1010	E	*Building A - Level 2 & Roof*, prepared by Arkhright Architects Pty Ltd	09/02/26
A-DA 2000	E	*Overall Sections*, prepared by Arkhright Architects Pty Ltd	09/02/26
A-DA 2010	E	*Building A Sections*, prepared by Arkhright Architects Pty Ltd	09/02/26
A-DA 2011	C	*Building B Sections*, prepared by Arkhright Architects Pty Ltd	09/02/26
A-DA 3000	F	*Building A Elevations*, prepared by Arkhright Architects Pty Ltd	09/02/26
A-DA 3001	E	*Building A Elevations*, prepared by Arkhright Architects Pty Ltd	09/02/26
A-DA 3002	C	*Building B Elevations*, prepared by Arkhright Architects Pty Ltd	09/02/26
A-DA 5000	D	*3D Views*, prepared by Arkhright Architects Pty Ltd	09/02/26
3849 – SK06	A	*Siteworks Plan – Sheet 1*, prepared by Contour Consulting Engineers	03/10/2025

RECONFIGURING A LOT
Subdivision (1 Lot into 2 Lots)

Plan No.	Rev.	Plan Name	Date
A-DA 1000	F	*Site Plan (Amended) See Annotations in Red*, prepared by Arkhright Architects Pty Ltd	09/02/26

OPERATIONAL WORKS
Earthworks

Plan No.	Rev.	Plan Name	Date
3849-SK05	A	*Development Layout Plan*, prepared by Contour	03/10/2025
3849-SK06	A	*Siteworks Plan – Sheet 1 (Amended) See Annotations in Red*, prepared by Contour	03/10/2025
3849-SK07	A	*Siteworks Plan – Sheet 2*, prepared by Contour	03/10/2025
3849-SK08	A	*Siteworks Plan – Sheet 3*, prepared by Contour	03/10/2025
3849-001	C	*Locality Plan & Schedule of Drawings*, prepared by Contour	30/01/2026
3849-002	C	*Project Notes & Specifications*, prepared by Contour	30/01/2026
3849-200	C	*Earthworks Detail Plan – Sheet 1*, prepared by Contour	30/01/2026
3849-201	C	*Earthworks Detail Plan – Sheet 2*, prepared by Contour	30/01/2026
3849-202	C	*Earthworks Detail Plan – Sheet 3*, prepared by Contour	30/01/2026
3849-210	C	*Earthworks Sections – Sheet 1*, prepared by Contour	30/01/2026
3849-211	C	*Earthworks Sections – Sheet 2*, prepared by Contour	30/01/2026
3849-212	C	*Earthworks Sections – Sheet 3*, prepared by Contour	30/01/2026
3849-220	C	*Retaining Wall Layout Plan – Sheet 1*, prepared by Contour	30/01/2026
3849-221	C	*Retaining Wall Layout Plan – Sheet 2*, prepared by Contour	30/01/2026
3849-230	A	*RW1 & RW2 Retaining Wall Long Sections & Alignment Tables*, prepared by Contour	30/01/2026
3849-231	A	*RW3 & RW4 Retaining Wall Long Sections & Alignment Tables*, prepared by Contour	30/01/2026
3849-232	A	*RW5 & RW6 Retaining Wall Long Sections & Alignment Tables*, prepared by Contour	30/01/2026
3849-233	A	*RW7 & RW8 Retaining Wall Long Sections & Alignment Tables*, prepared by Contour	30/01/2026
3849-234	A	*RW9 & RW10 Retaining Wall Long Sections & Alignment Tables*, prepared by Contour	30/01/2026
3849-235	A	*RW11 Retaining Wall Long Sections & Alignment Tables*, prepared by Contour	30/01/2026

REFERENCED DOCUMENTS

The following documents are referenced in the assessment manager conditions:

MATERIAL CHANGE OF USE
Shopping Centre

Document No.	Rev.	Document Name	Date
740 SD_LR001_C	C	*Landscape Concept Design Report*, prepared by O2 Landscape Architecture	06/02/2026
–	3	*Transport Impact Assessment Report*, prepared by Colliers	07/11/2025
CIV03849-ENG01	0	*Engineering Report*, prepared by Contour Consulting Engineers	10/10/2025
CIV03849-SWMP01	0	*Stormwater Management Plan*, prepared by Contour Consulting Engineers	10/10/2025
3849-FLD01	A	*Flood Impact Assessment*, prepared by Contour Consulting Engineers	10/10/2025
–	0	*Environmental Noise Assessment*, prepared by Colliers	03/10/2025

ADVISORY NOTES

The following notes are included for guidance and information purposes only and do not form part of the assessment manager conditions:

MATERIAL CHANGE OF USE
Shopping Centre

STANDARD ADVICE

ADV1. Infrastructure charges are now levied by way of an infrastructure charges notice, issued pursuant to section 119 of the *Planning Act 2016*.

ADV2. Council is offering a reduction in infrastructure charges payable through the development incentive scheme which is available between 1 December 2020 and 31 December 2027. Eligible development under this scheme is required to be completed by 31 December 2027.

For further information or application form please refer to the rules and procedures available on Council's website.

ADV3. Section 85 (1)(a) of the *Planning Act 2016* provides that, if this approval is not acted upon within the period of six (6) years the approval will lapse.

ADV4. This development approval does not authorise any activity that may harm Aboriginal Cultural Heritage. Under the *Aboriginal Cultural Heritage Act 2003* you have a duty of care in relation to such heritage. Section 23(1) provides that *"A person who carries out an activity must take all reasonable and practicable measures to ensure the activity does not harm Aboriginal Cultural Heritage."* Council does not warrant that the approved development avoids affecting Aboriginal Cultural Heritage. It may therefore, be prudent for you to carry out searches, consultation, or a Cultural Heritage

assessment to ascertain the presence or otherwise of Aboriginal Cultural Heritage. The Act and the associated duty of care guidelines explain your obligations in more detail and should be consulted before proceeding. A search can be arranged by visiting https://www.datsip.qld.gov.au and filling out the Aboriginal and Torres Strait Islander Cultural Heritage Search Request Form.

ADV5. Attached for your information is a copy of Chapter 6 of the *Planning Act 2016* as regards Appeal Rights.

RECONFIGURING A LOT
Subdivision (1 Lot into 2 Lots)

STANDARD ADVICE

ADV1. In accordance with Section 85(1)(b) of the *Planning Act 2016,* the development approval for Reconfiguring a Lot lapses if a plan for the Reconfiguration that is required to be given to a local government is not given.

An applicant may request Council to extend the relevant period provided that such request is made in accordance with Section 86 of the *Planning Act 2016* and before the development approval lapses under Section 85 of the *Planning Act 2016*

OPERATIONAL WORKS
Earthworks

ADVICE NOTES

ADV1. The applicant be advised that:

(a) Prior to commencement of the use or endorsement of the Survey Plan as applicable, the applicant shall contact Council to arrange a Development Compliance Inspection.

(b) The applicant must ensure compliance with environmental conditions whether required to hold an Environmental Authority or not. These include, but are not limited to water quality, air quality, noise levels, waste waters, lighting and visual quality as a result of any activity or by-product or storage of materials within the confines of the building(s) and property boundaries.

Any amendment, alteration or addition to the development approval will require further consideration by Council in assessing any changes to the environmental conditions.

(c) The *Aboriginal Cultural Heritage Act 2003* (ACHA) is administered by the Department of Aboriginal and Torres Strait Islander and Multicultural Affairs (DATSIMA). The ACHA establishes a duty of care to take all reasonable and practicable measures to ensure any activity does not harm Aboriginal cultural heritage. This duty of care:
  (i) is not negated by the issuing of this development approval;
  (ii) applies on all land and water, including freehold land;
  (iii) lies with the person or entity conducting an activity; and
  (iv) if breached, is subject to criminal offence penalties.

Those proposing an activity involving surface disturbance beyond that which has already occurred at the proposed site must observe this duty of care. Details of

how to fulfil this duty of care are outlined in the duty of care guidelines gazetted with the ACHA. The applicant should contact DATSIP's Cultural Heritage Co-ordination Unit on telephone (07) 3224 2070 for further information on the responsibilities of developers under the ACHA.

(d) The relevant period for the development approval (Operational Work) shall be two (2) years starting the day the approval is granted or takes effect. In accordance with Section 85(1)(c) of the *Planning Act 2016*, the development approval for Operational Work lapses if the development does not substantially start within the abovementioned relevant period.

An applicant may request Council to extend the relevant period provided that such request is made in accordance with Section 86 of *the Planning Act 2016* and before the development approval lapses under Section 85 of the *Planning Act 2016*.

(e) Council is to be indemnified against any claims arising from works carried out by the applicant on Council's property.

(f) The relevant Planning Scheme for this Development Permit is the South Burnett Regional Council Planning Scheme 2017 – Version 1.4. All references to the Planning Scheme and Schedules within these conditions refer to the Planning Scheme above.

PROPERTY NOTES

Not Applicable.

VARIATION APPROVAL

Not Applicable.

FURTHER DEVELOPMENT PERMITS REQUIRED

- Development Permit for Building Works
- Development for Plumbing and Drainage Works

SUBMISSIONS

Not Applicable.

RIGHTS OF APPEAL

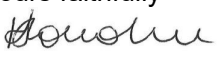
You are entitled to appeal against this decision. A copy of the relevant appeal provisions from the *Planning Act 2016* is attached.

During the appeal period, you as the applicant may suspend your appeal period and make written representations to council about the conditions contained within the development approval. If council agrees or agrees in part with the representations, a "negotiated decision notice" will be issued. Only one "negotiated decision notice" may be given. Taking this step will defer your appeal period, which will commence again from the start the day after you receive a "negotiated decision notice".

OTHER DETAILS

If you wish to obtain more information about Council's decision, electronic copies are available on line at www.southburnett.qld.gov.au, or at Council Offices.

Yours faithfully



Kimberley Donohue
ACTING MANAGER PLANNING AND DEVELOPMENT

Enc: Adopted Infrastructure Charge Notice
Referral Agency Response
Approved Plans/Documents
Appeal Rights

cc State Assessment & Referral Agency (SARA)
Ergon Energy

INFRASTRUCTURE CHARGES NOTICE

(Section 119 of the Planning Act 2016)

APPLICANT:	Coles Group Property Developments Ltd C/- Mewing Planning Consultants GPO Box 1506 BRISBANE QLD 4001	
APPLICATION:	Combined Application for Material Change of Use - Shopping Centre, Reconfiguring a Lot - Subdivision (1 Lot into 2 Lots) & Operation Works - Earthworks	
DATE:	06/05/2026	
FILE REFERENCE:	MCU25/0041	
AMOUNT OF THE LEVIED CHARGE: *(Details of how these charges were calculated are shown overleaf)*	**$0.00**	**Total**
	$0.00	Water Supply Network
	$0.00	Sewerage Network
	$0.00	Transport Network
	$0.00	Parks and Land for Community Facilities Network
	$0.00	Stormwater Network
AUTOMATIC INCREASE OF LEVIED CHARGE:	The amount of the levied charge is subject to an automatic increase. Refer to the Information Notice attached to this notice for more information on how the increase is worked out.	
LAND TO WHICH CHARGE APPLIES:	Lot 13 On RP814986	
SITE ADDRESS:	1 Pound Street, Kingaroy	
PAYABLE TO:	**South Burnett Regional Council**	
WHEN PAYABLE: *(In accordance with the timing stated in Section 122 of the Planning Act 2016)*	Material Change of Use – When the change happens.	
OFFSET OR REFUND:	Not Applicable.	

This charge is made in accordance with South Burnett Regional Council's ***Charges Resolution (No. 3) 2019***

DETAILS OF CALCULATION

Water Supply

Adopted Charges

Development Description	Number of Units	Units of Measure	Charge Rate	Reference	Amount
Not Applicable	-	-	$0.00	-	$0.00

Discounts*

Description	Number of Units	Units of Measure	Discount Rate	Reference	Amount
Not Applicable	-	-	$0.00	-	$0.00

Sewerage

Adopted Charges

Development Description	Number of Units	Units of Measure	Charge Rate	Reference	Amount
Not Applicable	-	-	$0.00	-	$0.00

Discounts*

Description	Number of Units	Units of Measure	Discount Rate	Reference	Amount
Not Applicable	-	-	$0.00	-	$0.00

Transport

Adopted Charges

Development Description	Number of Units	Units of Measure	Charge Rate	Reference	Amount
Not Applicable	-	-	$0.00	-	$0.00

Discounts*

Description	Number of Units	Units of Measure	Discount Rate	Reference	Amount
Not Applicable	-	-	$0.00	-	$0.00

Parks and Land for Community Facilities

Adopted Charges

Development Description	Number of Units	Units of Measure	Charge Rate	Reference	Amount
Not Applicable	-	-	$0.00	-	$0.00

Discounts*

Description	Number of Units	Units of Measure	Discount Rate	Reference	Amount
Not Applicable	-	-	$0.00	-	$0.00

.Stormwater

Adopted Charges

Development Description	Number of Units	Units of Measure	Charge Rate	Reference	Amount
Not Applicable	-	-	$0.00	-	$0.00

Discounts*

Description	Number of Units	Units of Measure	Discount Rate	Reference	Amount
Not Applicable	-	-	$0.00	-	$0.00

Levied Charges

Development Description	Water Supply	Sewerage	Transport	Parks & Land for Community Facilities	Stormwater	Total
Coles Shopping Centre	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**

** In accordance with Section 3.3 of the Charges Resolution, the discount may not exceed the adopted charge. Any surplus discounts will not be refunded, except at South Burnett Regional Council's discretion.*

INFORMATION NOTICE

Authority and Reasons for Charge	This Infrastructure Charges Notice has been given in accordance with section 119 of the *Planning Act 2016* to support the Local government's long-term infrastructure planning and financial sustainability.
Appeals	Pursuant to section 229 and Schedule 1 of the *Planning Act 2016* a person may appeal an Infrastructure Charges Notice. Attached is an extract from the *Planning Act 2016* that details your appeal rights.
Automatic Increase Provision of charge rate ($)	An infrastructure charge levied by South Burnett Regional Council is to be increased by the difference between the Producer Price Index (PPI) applicable at the time the infrastructure charge was levied, and PPI applicable at the time of payment of the levied charge , adjusted by reference to the 3-yearly PPI average[1]. If the levied charge is increased using the method described above, the charge payable is the amount equal to the sum of the charge as levied and the amount of the increase. However, the sum of the charge as levied and the amount of the increase is not to exceed the maximum adopted charge the Authority could have levied for the development at the time the charge is paid.
GST	The Federal Government has determined that contributions made by developers to Government for infrastructure and services under the *Planning Act* 2016 are GST exempt.
Making a Payment	This Infrastructure Charges Notice cannot be used to pay your infrastructure charges. To pay the levied charge, you must request an Itemised Breakdown showing the total levied charge payable at the time of payment. An Itemised Breakdown must be presented at the time of payment. An Itemised Breakdown may be requested by emailing info@southburnett.qld.gov.au

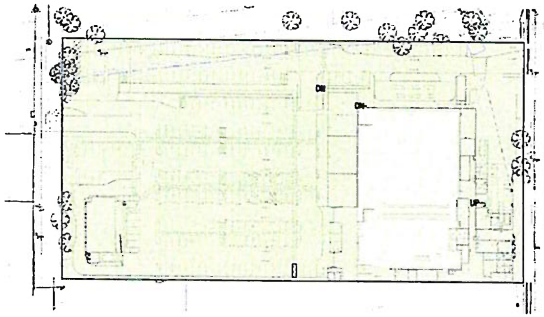
[1] 3-yearly PPI average is defined in section 114 of the *Planning Act 2016* and means the PPI adjusted according to the 3-year moving average quarterly percentage change between financial quarters. PPI Index is the producer price index for construction 6427.0 (ABS PPI) index number 3101 – Road and Bridge construction index for Queensland published by the Australian Bureau of Statistics.

Payment can be made at any of the following South Burnett Regional Council Offices:

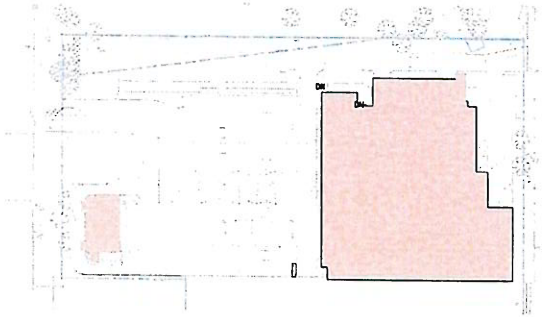
- 69 Hart Street, Blackbutt, 4314;
- 45 Glendon Street, Kingaroy, 4610;
- 42 Stephens Street West, Murgon, 4605;
- 48 Drayton Street, Nanango, 4615;
- McKenzie Street, Wondai, 4606; or
- via other methods identified on the Itemised Breakdown.

Enquiries

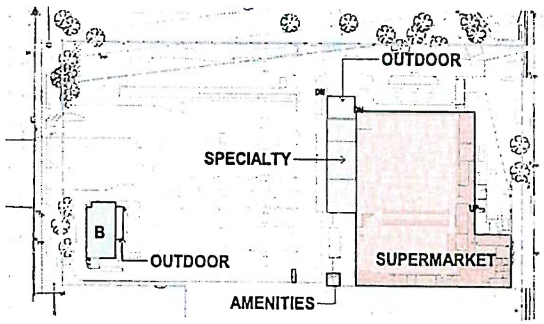
Enquiries regarding this Infrastructure Charges Notice should be directed to the SOUTH BURNETT REGIONAL COUNCIL, Department of Finance & Liveability, during office hours, Monday to Friday by phoning (07) 4189 9100 or email at info@sbrc.qld.gov.au



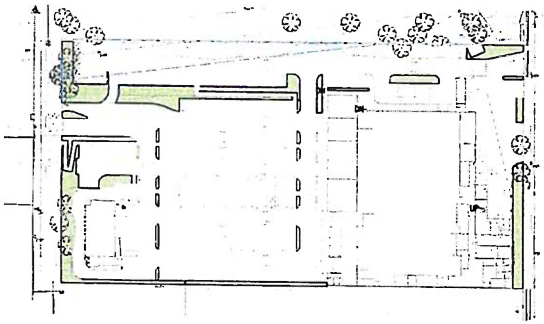
3 / 2001 SITE AREA DIAGRAM



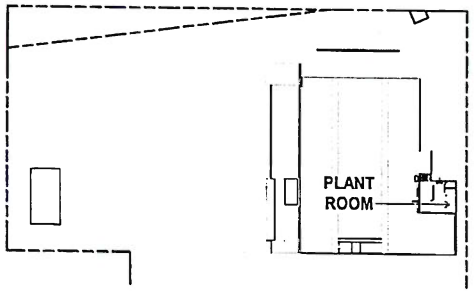
5 / 2001 SITE COVER DIAGRAM



1 / 2001 TOTAL GFA DIAGRAM - GROUND FLOOR



2 / 2001 PERVIOUS AREA DIAGRAM



4 / 2002 GFA DIAGRAM - MEZZANINE LEVEL

DEVELOPMENT SUMMARY:		
SITE AREA		
		18,467m²
SITE COVER		
		5,830m² (32%)
GFA		
BUILDING A		
SUPERMARKET	3,750m²	
SPECIALTY	455m²	
AMENITIES	30m²	
		4,235m²
BUILDING B		290m²
		4,515m²
OUTDOOR AREA		
BUILDING A OUTDOOR DINING		105m²
BUILDING B OUTDOOR DINING		38m²
		143m²
PERVIOUS		
LANDSCAPE		1,700m²
PARKING		
CARS		245
MOTORCYCLES		8
BIKES		8

arkhright architects

Arkhright Architects Pty Ltd
101 AGARS STREET
PADDINGTON QLD 4064

www.arkhright.com
admin@arkhright.com
07 3543 3649

ABN 44 678 592 535

Project
COLES KINGAROY

coles

Status

Date Plotted 9/2/2026 6:21:24 PM

Date Issued

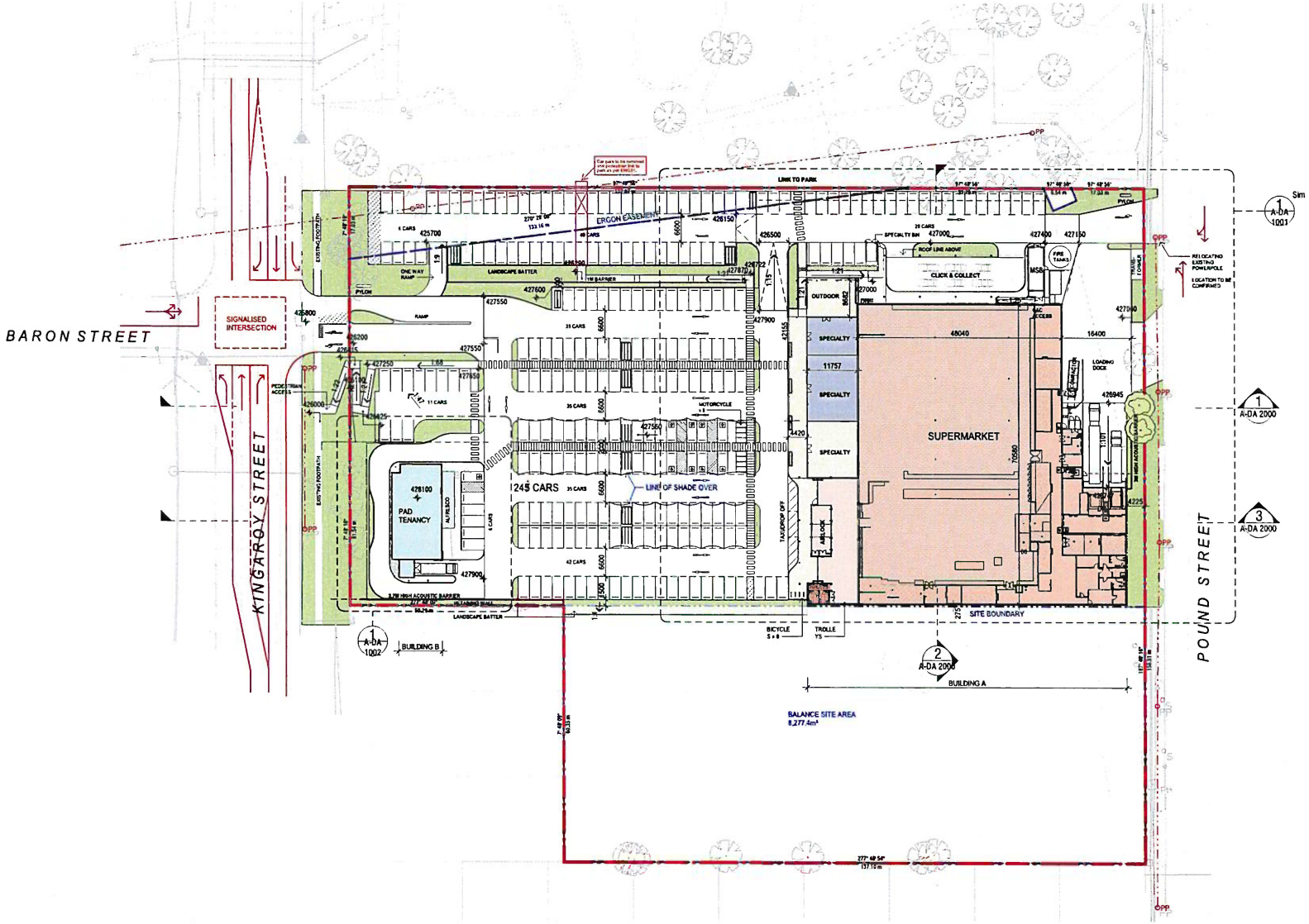
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Drawing Title
DEVELOPMENT AREA SUMMARY

Drawing Number
A-DA 0010

Issue
D

Document Set ID: 3435165
Version: 1, Version Date: 1/02/2026



1 / 2001 OVERALL SITE PLAN
1 : 500

Rev	Date	Description	Init.	Appr.
A	17/09/25	IMP FOR INFORMATION	JR	PW
B	24/09/25	IMP FOR COORDINATION	JR	PW
C	30/09/25	IMP FOR COORDINATION	JR	PW
D	09/10/25	IMP FOR COORDINATION	JR	PW
E	21/10/25	FOR INFORMATION	PW	PW
F	09/02/26	FOR INFORMATION	JR	PW

LEGEND

PEDESTRIAN CONNECTION

arkhright architects
Arkhright Architects Pty Ltd
1/21 AGARS STREET
PADDINGTON QLD 4064
www.arkhright.com
admin@arkhright.com
07 3543 5649
ABN 44 675 592 535

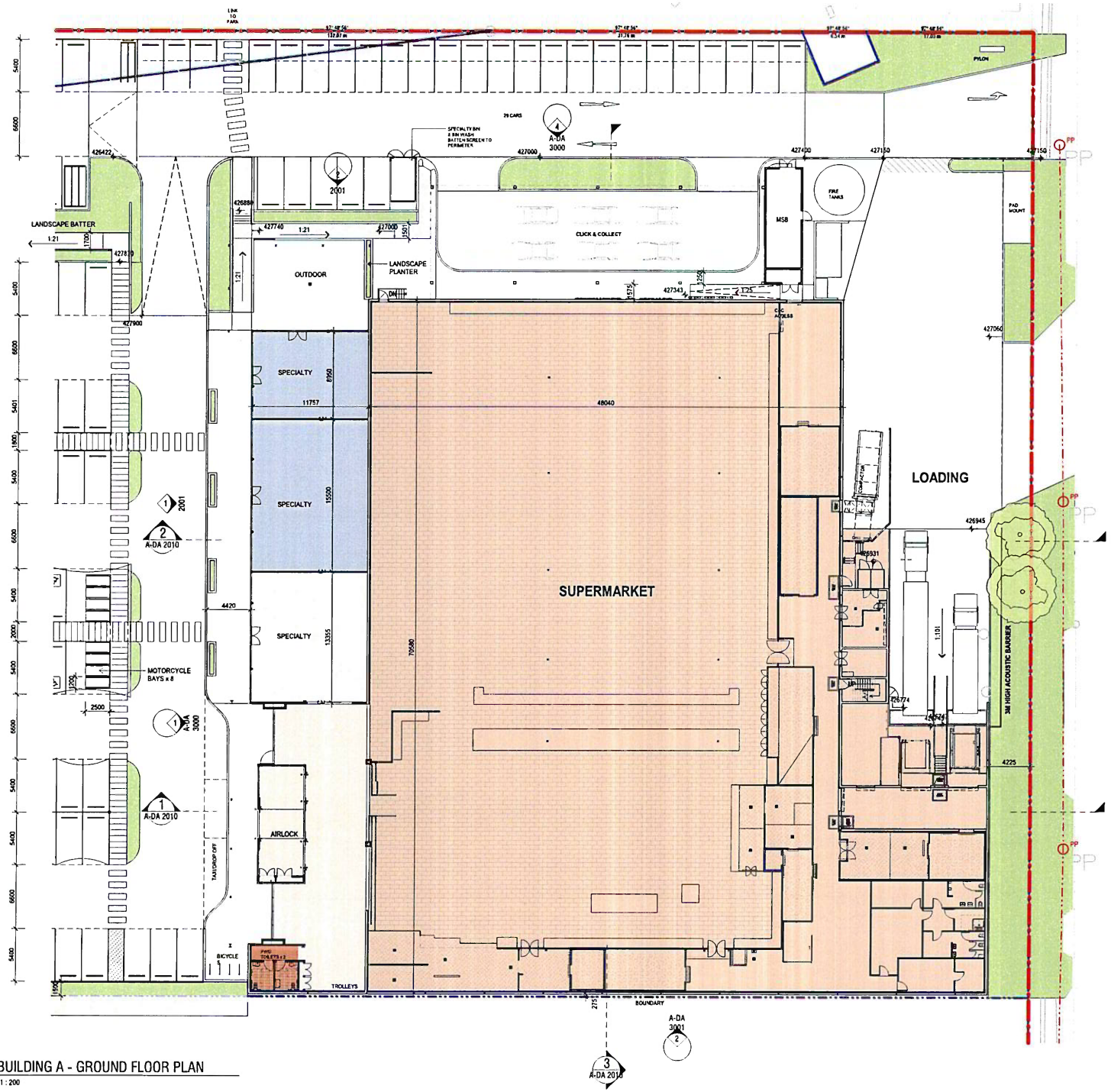
Project
COLES KINGAROY

coles

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Date Plotted 9/02/2026 6:21:12 PM
Date Issued
Scale As indicated @A1
Drawing Title
SITE PLAN

Drawing Number A-DA-A-DA 1000
Revision F

Document Set ID: 3435165
Version: 1, Version Date: 11/03/2026



1 / 2001 BUILDING A - GROUND FLOOR PLAN
1 : 200

Rev.	Date	Description	Ini.	Appr.
A	17/09/25	IMP FOR INFORMATION	JR	PW
B	24/09/25	IMP FOR COORDINATION	JR	PW
C	30/09/25	IMP FOR COORDINATION	JR	PW
D	09/10/25	IMP FOR COORDINATION	JR	PW
E	21/10/25	FOR INFORMATION	PW	PW
F	09/02/26	FOR INFORMATION	JR	PW

LEGEND

PEDESTRIAN CONNECTION

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07 3543 5648
ABN 44 678 592 535

Project
COLES KINGAROY

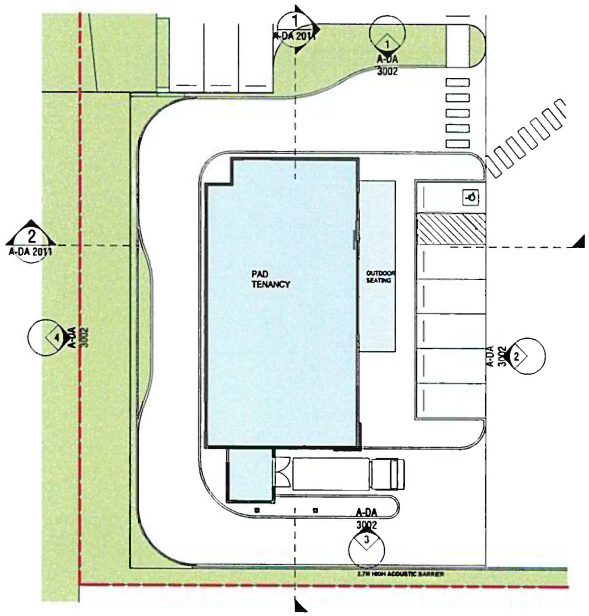
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Status
Date Plotted 9/02/2026 6:21:23 PM
Date Issued
Scale As indicated @A1
Drawing Title
BUILDING A - GROUND FLOOR PLAN

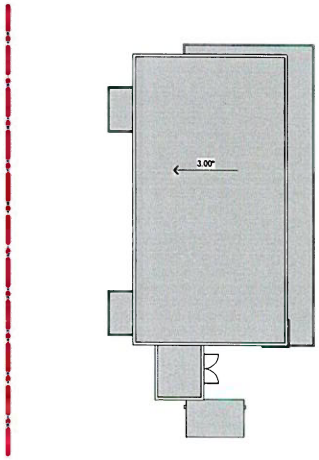
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Revision F

Document Set ID: 34135165
Version: 1, Version Date: 11/03/2026

Rev.	Date	Description	Init.	Appr.
A	30/09/25	WIP FOR COORDINATION	JS	PW
B	09/10/25	WIP FOR COORDINATION	JS	PW
C	09/02/26	FOR INFORMATION	JS	PW



1 A-DA 1000 BUILDING B - GROUND FLOOR PLAN
1 : 200



2 2001 BUILDING B ROOF PLAN
1 : 200

LEGEND

PEDESTRIAN CONNECTION

arkhright architects

Arkhright Architects Pty Ltd
1/21 AGARS STREET
PADDINGTON QLD 4064

www.arkhright.com
admin@arkhright.com
07 3543 5649

ABN 44 678 592 535

Project
COLES KINGAROY

coles

Status

Date Plotted 9/02/2026 6:21:47 PM

Date Issued

Scale As indicated @A1

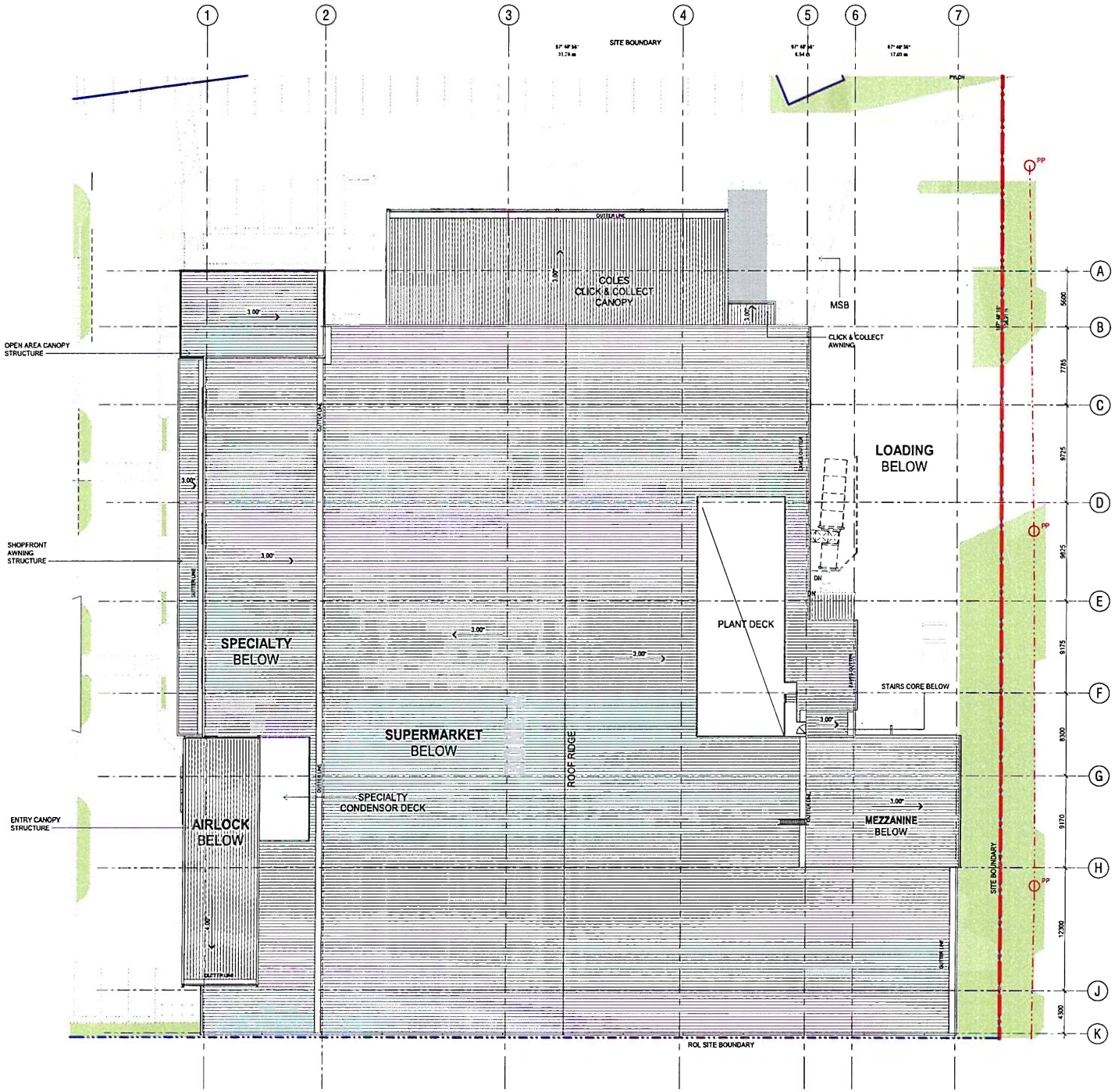
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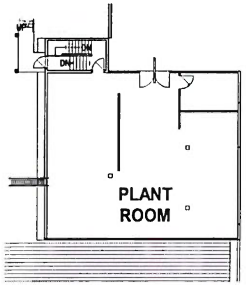
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Revision
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B	24/09/25	MEP FOR COORDINATION	JK	PW
C	30/09/25	MEP FOR COORDINATION	JK	PW
D	09/10/25	MEP FOR COORDINATION	JK	PW
E	09/02/26	FOR INFORMATION	JK	PW





2 PLANT LEVEL
0114 1 : 200

1 OVERALL ROOF PLAN
2001 1 : 200

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Project
COLES KINGAROY

coles

Status
Date Plotted 9/02/2026 6:21:39 PM
Date Issued
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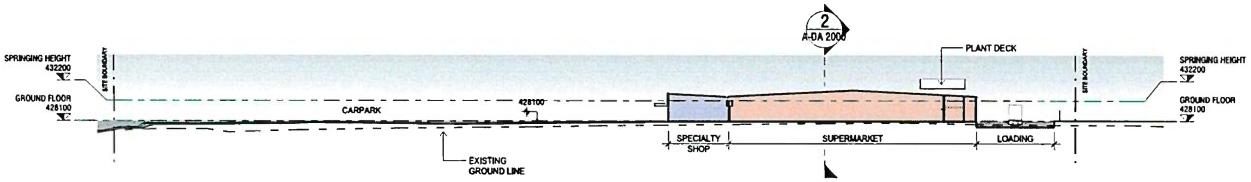
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Drawing Number
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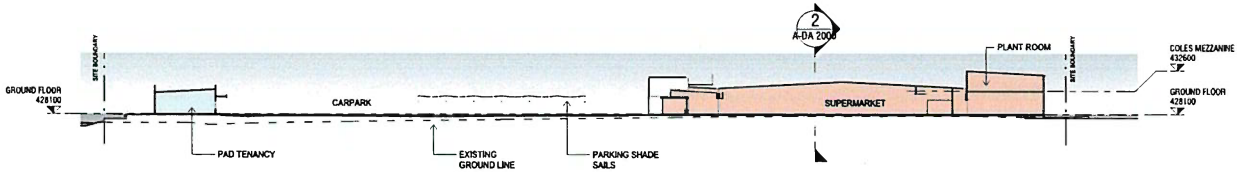
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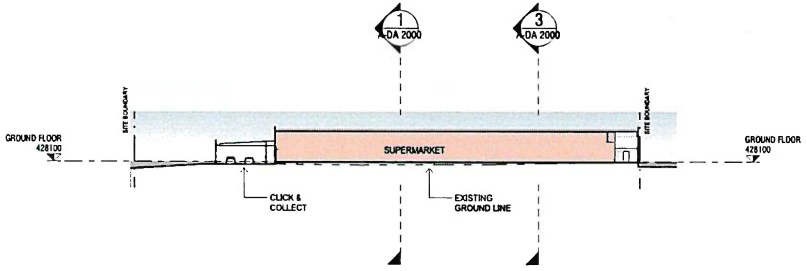
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D	09/10/25	MIP FOR COORDINATION	JR	PW
E	09/02/26	TOR INFORMATION	JR	PW



1 A-DA 1000 **OVERALL SECTION 1**
1 : 500



3 A-DA 1000 **OVERALL SECTION 2**
1 : 500



2 A-DA 1000 **OVERALL SECTION 3**
1 : 500

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Date Issued

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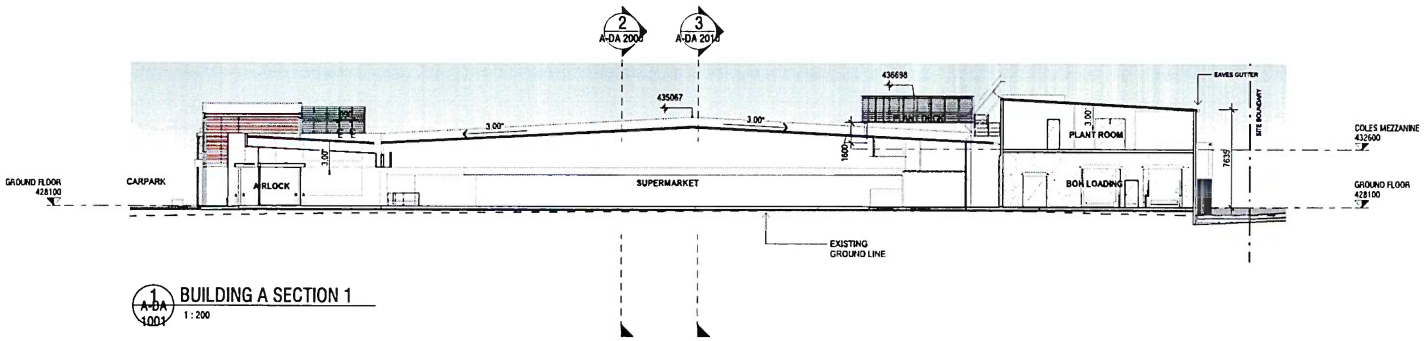
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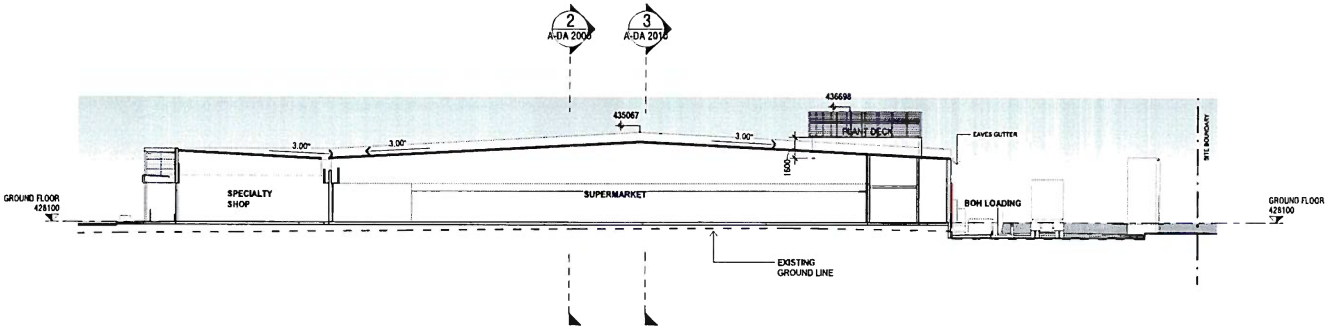
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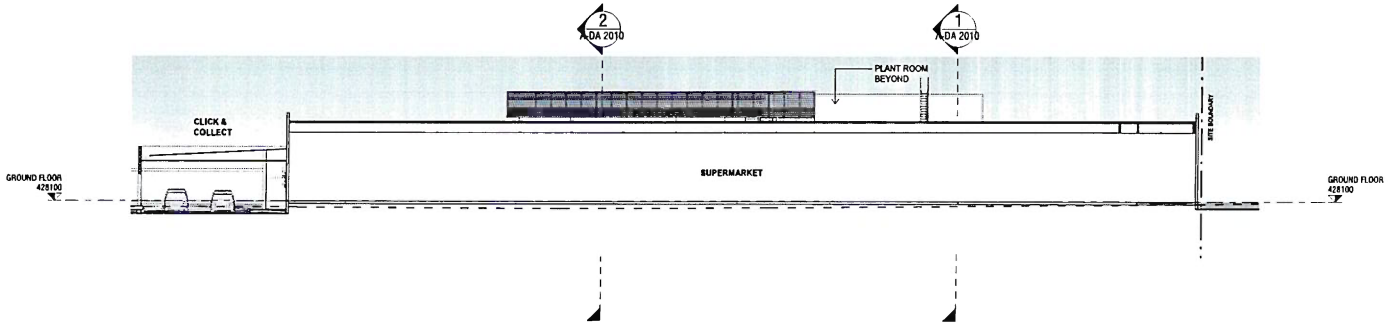
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E	09/02/26	FOR INFORMATION	JR	PW



1 A-DA 1001 BUILDING A SECTION 1
1 : 200



2 A-DA 1001 BUILDING A SECTION 2
1 : 200



3 A-DA 1001 BUILDING A SECTION 3
1 : 200

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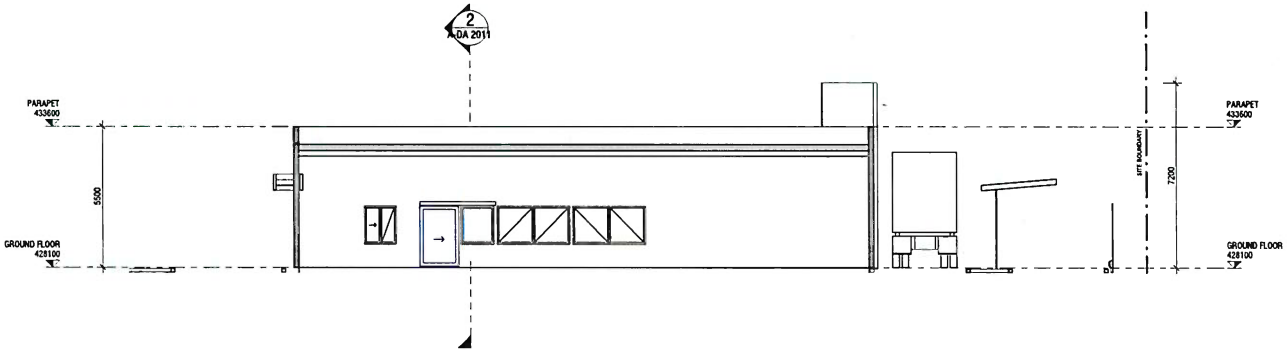
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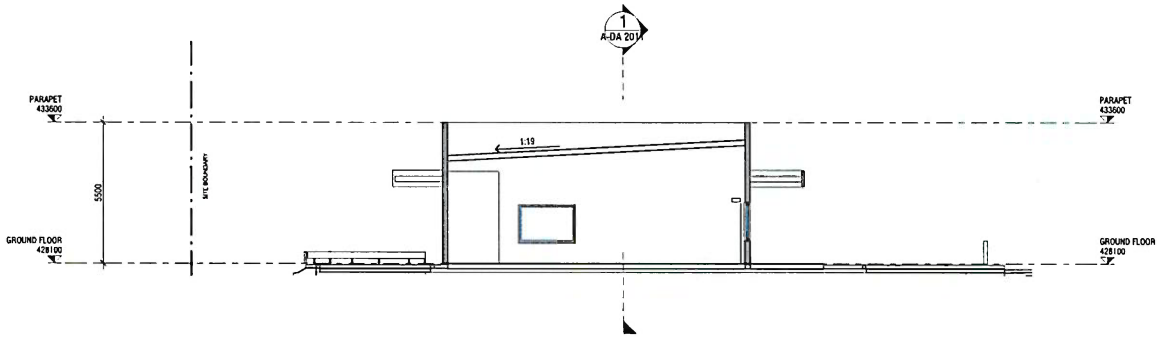
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B	09/10/25	HEP FOR COORDINATION	JR	PW
C	09/02/26	FOR INFORMATION	JR	PW



1 / 3002 BUILDING B SECTION 1
1 : 100



2 / 3002 BUILDING B SECTION 2
1 : 100

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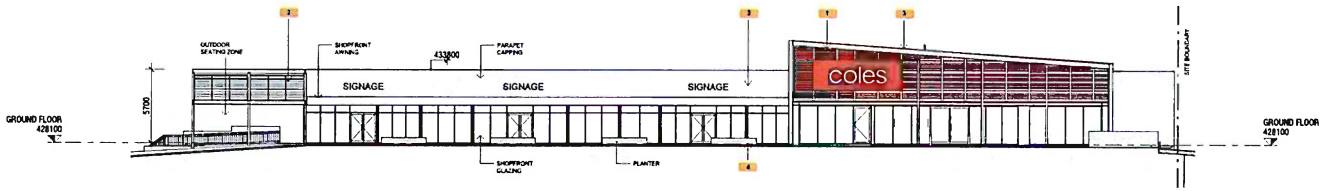
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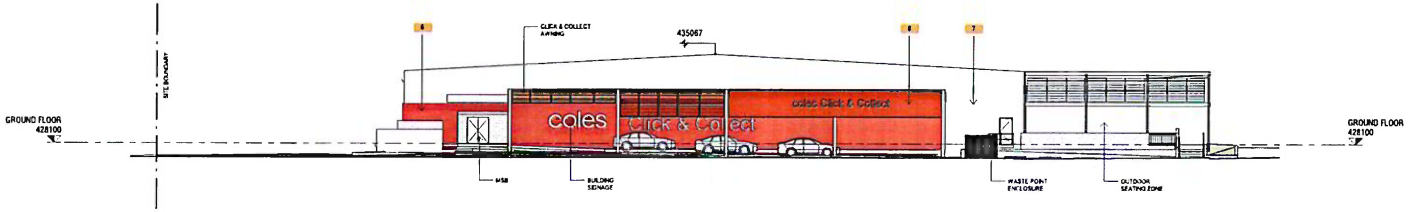
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C	30/06/25	WIP FOR COORDINATION	JR	PW
D	09/10/25	WIP FOR COORDINATION	JR	PW
E	21/10/25	FOR INFORMATION	PW	PW
F	09/02/26	FOR INFORMATION	JR	PW



1 / 1011 BUILDING A ELEVATION 1
1 : 200



4 / A-DA 1001 BUILDING A ELEVATION 2
1 : 200

EXTERIOR MATERIAL PALETTE



1. ALUMINIUM BATTENS	2/3 STRUCTURAL ELEMENTS	4. FACADE CLADDING	5. PLANTERS	6. WASTE ENCLOSURES/ FENCE	7. FACADE PANELS	8. EXTERNAL CLADDING
Red Powder coated Aluminium battens	Black painted structural & architectural elements	Brick facade	Reclaimed bricks	TIMBER - LOOK ALUMINIUM BATTENS	PRE - CAST PANELS	RED PAINTED EXPRESS JOINT CFC

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Project
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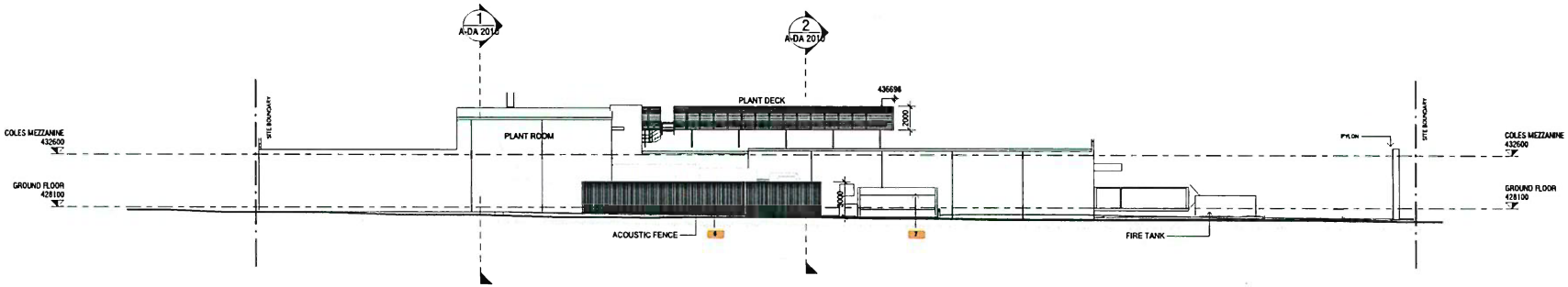
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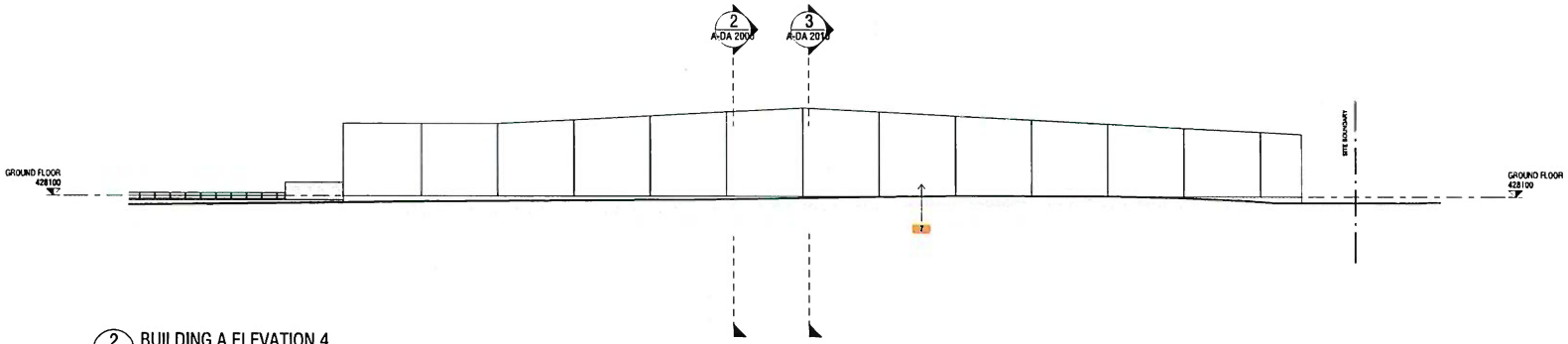
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Version: 1, Version Date: 11/03/2026

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B	24.09.25	IMP FOR COORDINATION	JR	PW
C	26/09/25	IMP FOR COORDINATION	JR	PW
D	08.10.25	IMP FOR COORDINATION	JR	PW
E	09/02/26	FOR INFORMATION	JR	PW



1 A-SK-002 BUILDING A ELEVATION 3
1 : 200



2 A-DA 1001 BUILDING A ELEVATION 4
1 : 200

EXTERIOR MATERIAL PALETTE



1. ALUMINIUM BATTENS	2/3 STRUCTURAL ELEMENTS	4. FACADE CLADDING	5. PLANTERS	6. WASTE ENCLOSURES/ FENCE	7. FACADE PANELS	8. EXTERNAL CLADDING
Red Powder coated Aluminium battens	Black painted structural & architectural elements	Brick facade	Reclaimed bricks	TIMBER - LOOK ALUMINIUM BATTENS	PRE - CAST PANELS	RED PAINTED EXPRESS JOINT CFC

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Date Issued

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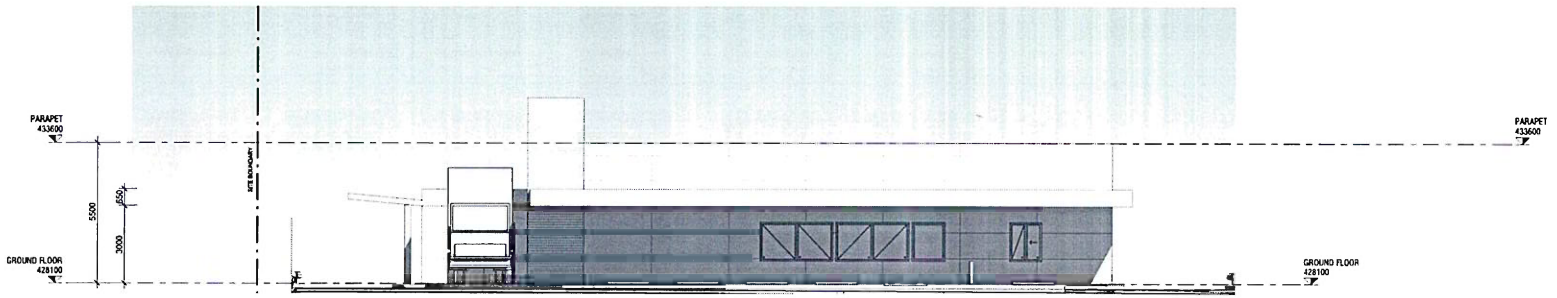
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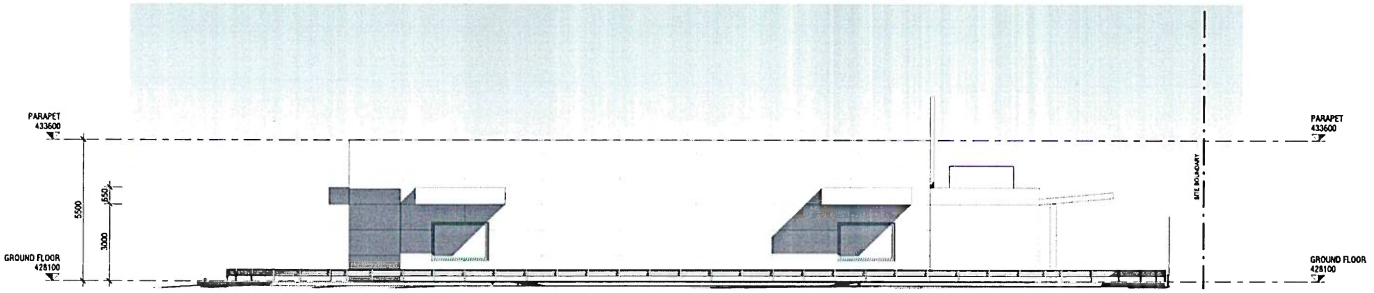
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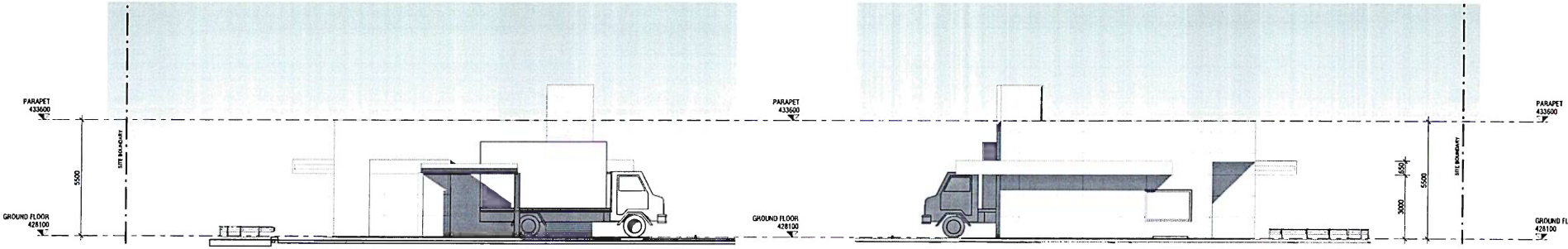
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B	09/10/25	WIP FOR COORDINATION	JR	PW
C	09/02/26	FOR INFORMATION	JR	PW



2 / 1021 BUILDING B ELEVATION 2
1 : 100



4 / 1021 BUILDING B ELEVATION 4
1 : 100



3 / 1021 BUILDING B ELEVATION 3
1 : 100

1 / 1021 BUILDING B ELEVATION 1
1 : 100

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BUILDING B ELEVATIONS

Drawing Number A-DA-A-DA 3002
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Version: 1, Version Date: 11/03/2026

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B	09/10/25	WIP FOR COORDINATION	JR	PW
C	21/10/25	FOR INFORMATION	PW	PW
D	09/02/26	FOR INFORMATION	JR	PW







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Date Issued

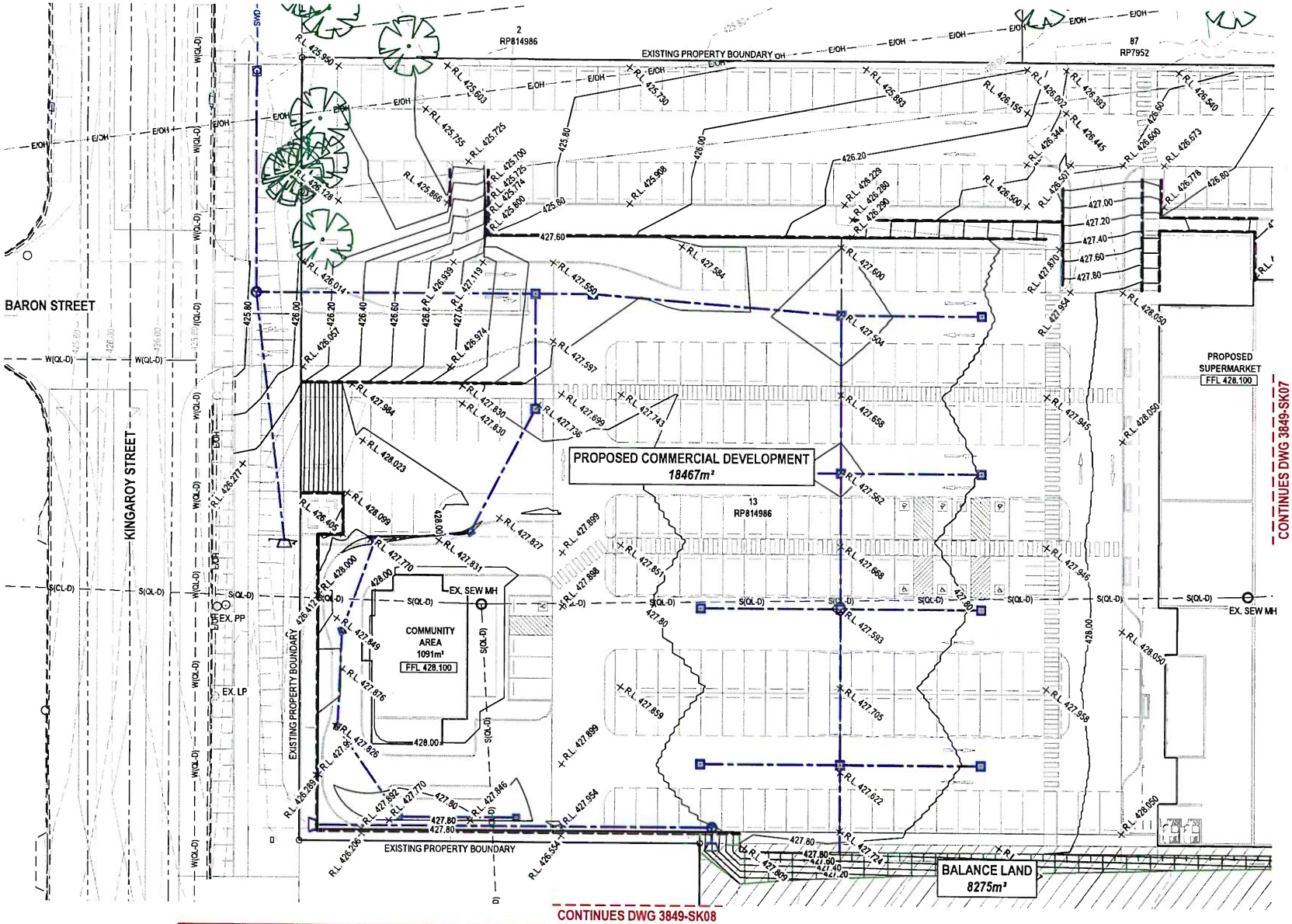
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Drawing Title
3D VIEWS

Drawing Number
A-DA-A-DA 5000

Revision
D

Document Set ID: 3435165
Version: 1, Version Date: 11/03/2026



LEGEND
EXISTING FEATURES

- OVERALL RP BOUNDARY
- CADASTRAL EASEMENT
- SURVEYED RP BOUNDARY
- CADASTRAL RP BOUNDARY
- CHANGE IN GRADE
- EARTHWORKS BATTER
- RETAINING WALL
- ROAD CENTRELINE
- ROAD KERB & CHANNEL
- EDGE OF BITUMEN
- CONCRETE
- BUILDING
- FENCE
- SWD — STORMWATER
- DRAINAGE CHANNEL
- S(QL-D) — SEWER (QUALITY LEVEL D)
- W(QL-D) — WATER (QUALITY LEVEL D)
- E/OH — OVERHEAD ELECTRICAL
- E — ELECTRICAL
- T(QL-D) — TELSTRA (QUALITY LEVEL D)
- EDGE OF VEGETATION
- TREE TO REMAIN
- 12 — NATURAL CONTOUR

LEGEND
PROPOSED FEATURES

- RP BOUNDARY
- RP EASEMENT
- EARTHWORKS BATTERS
- ROAD CENTRELINE
- RETAINING WALL
- STORMWATER DRAINAGE
- 63 — DESIGN CONTOUR
- R.L. 16.341 — REDUCED LEVEL

KEY PLAN
NOT TO SCALE

STORMWATER INFRASTRUCTURE NOT APPOROVED IN THIS OPERATIONAL WORK APPLICATION

NOTE:
- FOR ARCHITECTURAL DETAILS REFER ARKHRIGHT ARCHITECTS DWG A-SK-1001

0 5.0 10 15 20 25m
SCALE 1:500 A3

CONTOUR
A.B.N. 62 117 061 659
SUNSHINE COAST OFFICE
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Tower 2, 55 Plaza Pde
Maroochydore, Qld 4558
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NORTH LAKES OFFICE
Suite 9, Bld 5, Level 1
2 - 4 Flinders Parade,
North Lakes, Qld 4509
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PLAN DETAILS:
Designed: AK
Drawn: SF
Checked: MO
Vert. Datum: AHD
Hori. Datum: MGA GDA 2020
Date:
DRAFT

PLAN AMENDMENTS:

Rev	Date	Comment	Alt	Chkd	RPEQ
			SF	AK	MO
A	3/10/2025	ORIGINAL ISSUE			

PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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PLAN TITLE:
SITEWORKS PLAN - SHEET 1

PRELIMINARY- NOT FOR CONSTRUCTION

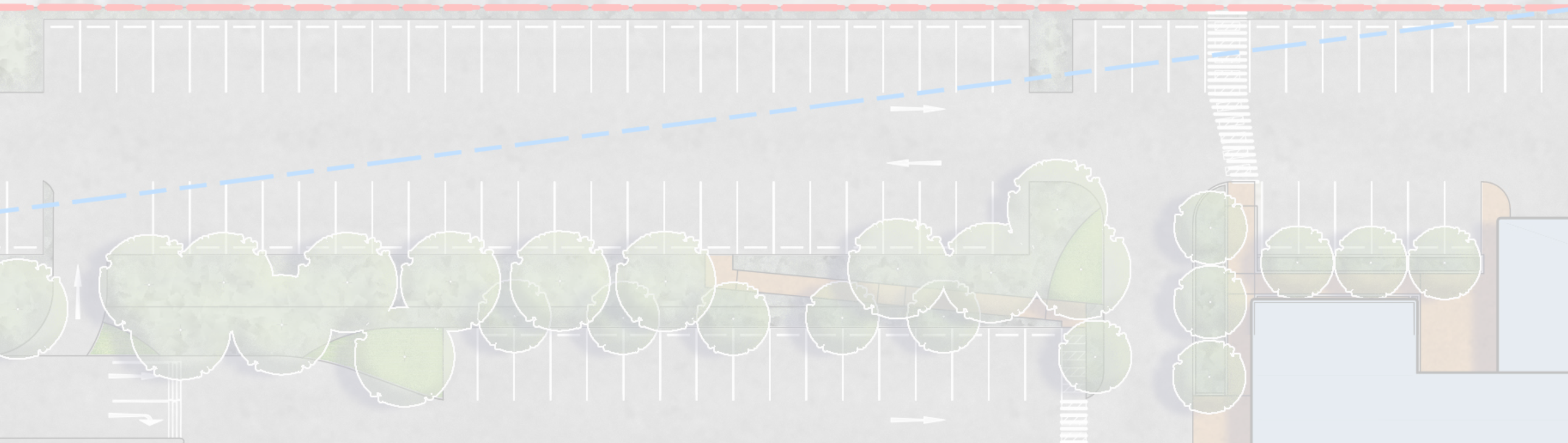
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Document Set ID: 3388725
Version: 1, Version Date: 21/11/2025

COLES KINGAROY

LANDSCAPE CONCEPT DESIGN REPORT



Client
Coles Group Property Development

Project Address
LOT 13, Pound Street,
Kingaroy, QLD 4610

Contact
02 Landscape Architecture
(07) 3831 0681

Document Number
740 SD_LR001_A
Date: 10/10/2025

Contents

Introduction
Design Intent **02**
Plans
Site Plan **03**
Sections and Elevations
Section A-A: Kingaroy Street Boundary Interface. . . **04**
Elevation 01: Northern Elevation. **04**

Planting Characters
Woodland Spine Tree Species Palette **05**
Carpark and Buffer Tree Species Palette **05**
Understorey Species Palette **06**

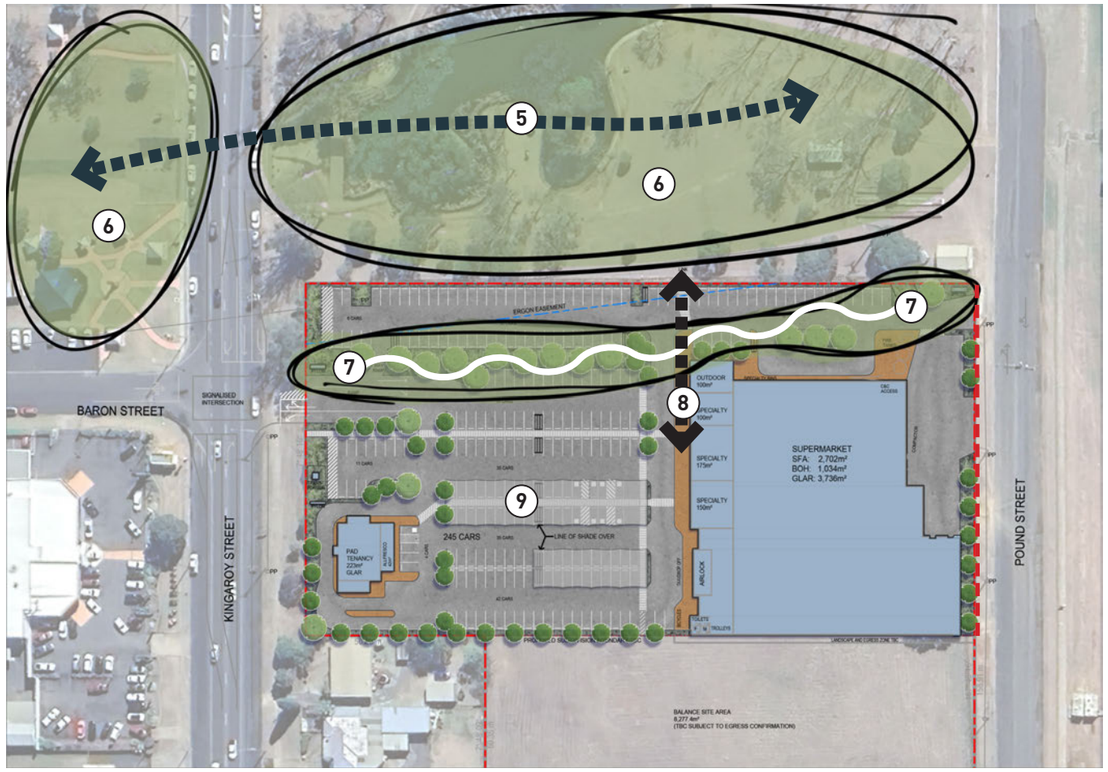
Introduction

Design Intent

The landscape design response for Coles Kingaroy aims to provide amenity for the new development while referencing and contributing to character of the locality. The design embraces the woodland character of the sites adjoining community driven open spaces and parklands, buffering the development's built form with landscape characters which are complimentary to its context.



1. **Green** - Recreation and Open Space
2. **Yellow** - Community Facilities
3. **Blue** - Principal Centre
4. **Subject Site**
5. **Green Spine** - Kingaroy Town Planning indicates the formation of a 'Green Spine' of Recreation and Open Space Zoning which intersects planned Community Facilities and Principal Centre activities. This Green Spine adjoins the subject site and provides opportunities for the subject site's landscape response to interact with and contribute to the character of this Green Spine.



6. **Park Woodland Character**
   - The landscape character of the sites adjoining open space, recreation and community facilities can be described as a Park Woodland Character which is driven by it's mature native woodland trees.

7. **Park Woodland Character Spine**
   - The Park Woodland Character Spine references and embraces the woodland character of the sites adjoining community driven open spaces and parklands.
   - Buffering of built form is achieved with the inclusion of a tree canopy line within the site of species synonymous to the adjoining open space area.
   - This spine is located within the carpark adjacent to the entry driveway and click and collect. Drainage and easement constraints limit opportunities to incorporate significant landscape buffering of built form along the northern site interface with open space. The inclusion of the woodland character spine offsets these site limitations.

8. **Pedestrian Link**
   - At grade pedestrian link between shopping center and adjoining parkland.

9. **Site Internals / Carpark Area**
   - The site internals and circulation areas include modest sized clear trunk canopy trees within the carpark to provide visual amenity, shade to hardstand areas (where shade sails are absent) and reduce glare.
   - Species selected include natives adapted to the locality's climatic conditions and are complementary to the locality and the Park Woodland Character.

Plans

Site Plan

LEGEND

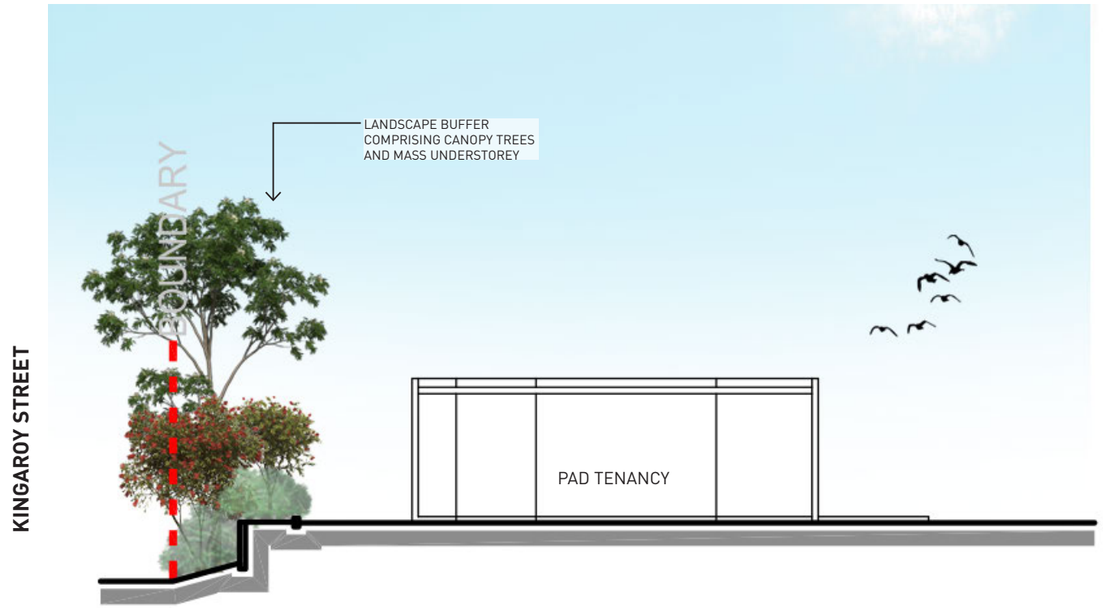
1. Proposed Supermarket
2. Proposed Pad Tenancy
3. Carpark
4. Loading Dock
5. Fire Tanks
6. Click & Collect
7. Transformer
8. Carpark Shade Sails
9. Ergon Easement



KEY

- Woodland Spine Canopy Trees
- Medium Carpark Shade Trees
- Feature and Understorey Planting
- Turf
- Tree Vault with Trafficable Grate in Pedestrian Pavement

Sections and Elevations



Section A-A: Kingaroy Street Boundary Interface

1:200 - A3 0 1 2 4 10 15m



Elevation 01: Northern Elevation

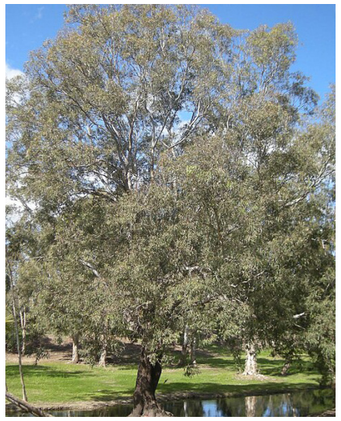
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Planting Characters

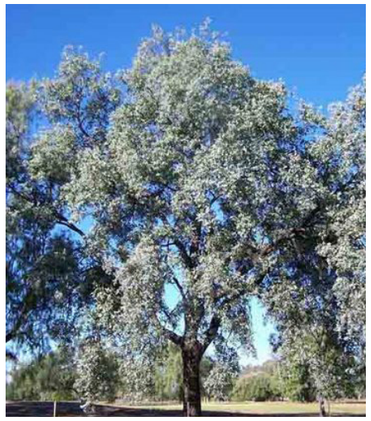
Woodland Spine Tree Species Palette



CORYMBIA maculata
H: 20-25m | W: 10-12m



EUCALYPTUS coolabah
H: 15-20m | W: 10-12m



EUCALYPTUS melanophloia
H: 20-25m | W: 10-12m



EUCALYPTUS populnea
H: 15-20m | W: 10-12m

Carpark and Buffer Tree Species Palette



ACACIA pendula
H: 7-9m | W: 5-6m



BACKHOUSIA citriodora
H: 6-8m | W: 3-4m



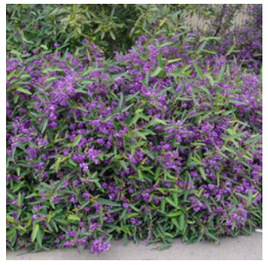
CALLISTEMON viminalis
H: 4-8m | W: 2-6m



GEIJERA parviflora
H: 7-9m | W: 5-6m

Planting Characters

Understorey Species Palette


HARDENBERGIA violacea


BAECKEA virgata


AUSTROMYRTUS dulcis


CAREX appressa


EREMOPHILA maculata


CRINUM pedunculatum


EREMOPHILA glabra


GREVILLEA 'Bronze Rambler'


FICINIA nodosa


GREVILLEA 'Moonlight'


GREVILLEA 'Coconut Ice'


HOVEA acutifolia


Bulbine bulbosa


LEPTOSPERMUM 'Pink Cascade'


LIRIOPE 'Evergreen Giant'


LOMANDRA longifolia


MELALEUCA thymifolia


MYOPORUM parvifolium


OZOTHAMNUS diosmifolius


PULTENAEA villosa


LOMANDRA 'Tanika'


LEPTOSPERMUM scoparium

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Transport Impact Assessment Report

1 Pound Street, Kingaroy

Proposed Shopping Centre Development

On behalf of COLES GROUP PROPERTY DEVELOPMENTS LTD



Disclaimer

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1. Introduction

1.1. Purpose

Colliers International Engineering & Design (TTMC) Pty Ltd (Colliers) has been engaged by the Coles Group Property Developments Ltd to prepare a traffic engineering report investigating a proposed mixed use development to be located at 1 Pound Street, Kingaroy. It is understood this report will accompany a Development Application (DA) to be lodged with South Burnett Regional Council ('Council'), also with referral to the Department of Transport and Main Roads (DTMR).

Colliers has provided response tables to SARA's SDAP State Codes 1 and 6, for elements specifically related to transport engineering which are within our traffic and transport expertise. These code responses are included in Appendix F to this report. Reference should be made to the other relevant project consultant reports for responses to the non-transport engineering elements of SDAP State Codes 1 and 6.

1.2. Background

Prior to completion of this report, Colliers has consulted with the development team to identify efficient design for the site's traffic operations, noting the constraints of the development and the requirements of other project disciplines.

1.3. Scope

This report examines the transport-related aspects of the proposed development. The scope of the investigation includes the following:

- Reviewing the prevailing traffic and transport conditions surrounding the site.
- Identifying the parking supply required to cater for the future development demands.
- Assessing the parking layout, to provide efficient and safe internal circulation and manoeuvring.
- Assessing the access configuration, to provide efficient and safe manoeuvring between the site and the public road network for cars, service vehicles, cyclists and pedestrians.
- Assessing the internal service vehicle layouts to provide efficiency and safety for on-site service vehicle operations.
- Reviewing access to a suitable level of public and active transport provisions.
- Identification of expected traffic volumes and traffic distribution from the proposed development and the likely traffic impacts of development on the surrounding road network.

To assess the proposed transport arrangements, the development plans have been assessed against the following guidelines and planning documents:

- South Burnett Regional Council Planning Scheme 2017 V1.4:

  - Services and Works Code.
  - Planning Scheme Policy (PSP) 1 – Design and Construction Standards.
  - Local Government Infrastructure Plan (LGIP).
- Australian Standards for Parking Facilities, specifically:
  - Part 1: Off-street car parking (AS2890.1:2004).
  - Part 2: Off-street commercial vehicle facilities (AS2890.2:2018).
  - Part 3: Bicycle parking (AS2890.3:2015).
  - Part 6: Off-street parking for people with disabilities (AS2890.6:2022).
- Austroads 'Guide to Traffic Management Part 2: Traffic Theory Concepts' (2020).
- Austroads 'Cycling Aspects of Austroads Guides' (2017).
- Roads and Traffic Authority (RTA) 'Guide to Traffic Generating Developments' (2002).
- DTMR 'Guide to Traffic Impact Assessment' (GTIA) (2018).
- DTMR 'Guidelines for Assessment of Road Impacts of Development' (GARID) (2006).
- State Assessment and Referral Agency (SARA) 'State Development Assessment Provisions (SDAP) State Code 1' (2025).

2. Site Location

The site is located at 1 Pound Street, Kingaroy. The site has road frontage to Kingaroy Street to the west and Pound Street to the east. The property description is Lot 13 on RP814986.

The subject site is currently vacant. The site is located within a Principal Centre zone, with a total site area of approximately 26,817m^2.

The subject site is shown in Figure 2.1 and Figure 2.2 overleaf.

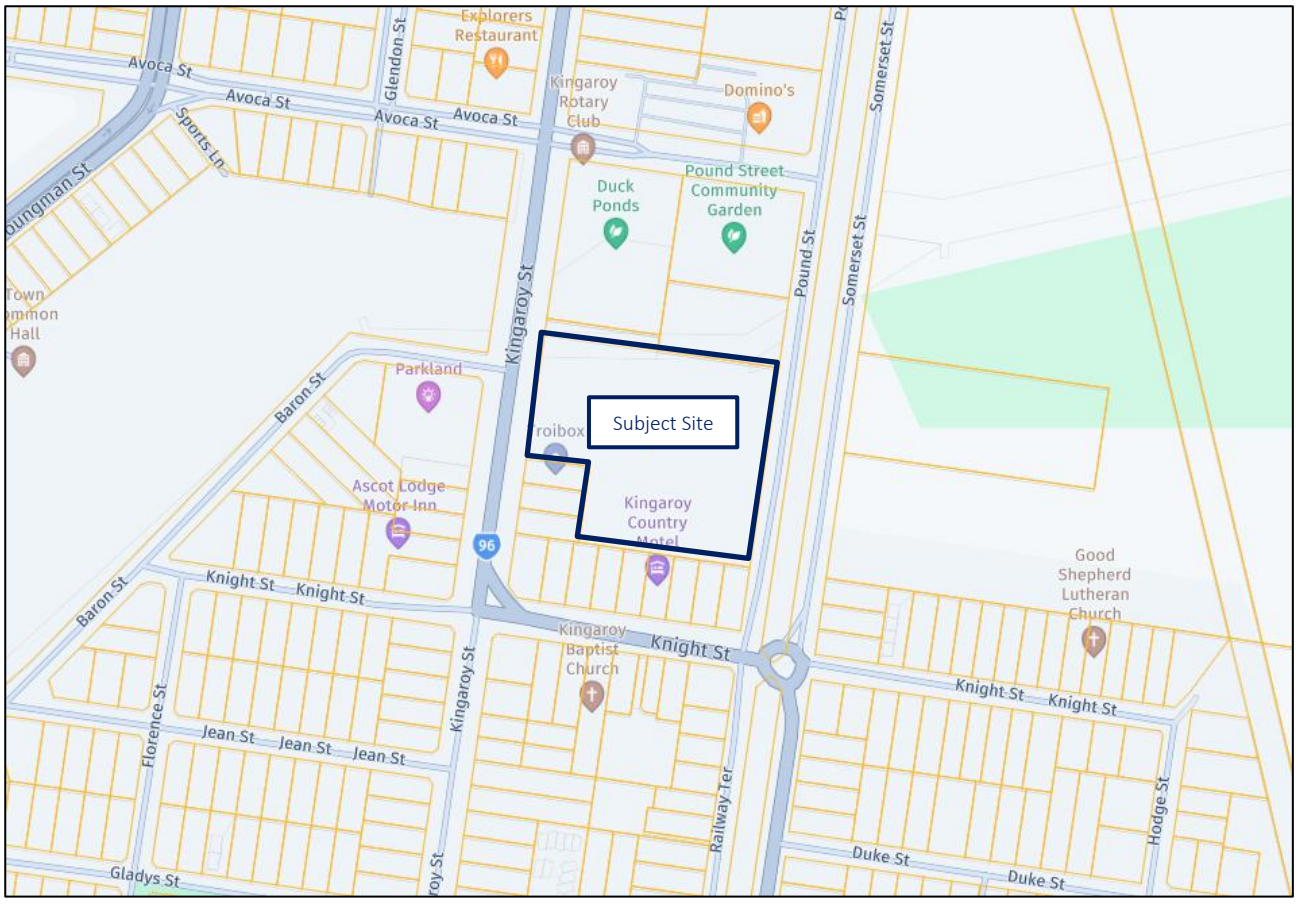


Figure 2.1: Approximate Site Location – Surrounding Context Source: Nearmap



Figure 2.2: Approximate Site Location – Immediate Context Source: Nearmap

3. Site Travel Environment

3.1. Road Network

3.1.1. Road Hierarchy

The hierarchy and characteristics of roads in the immediate vicinity of the subject site are shown in Table 3.1.

Table 3.1: Local Road Hierarchy

Road	Speed Limit	Lanes/Configuration	Authority
Kingaroy Street (western site frontage)	60km/h[1]	2 lanes, two-way, undivided with kerbside shoulder/parking lane	DTMR
Pound Street (eastern site frontage)	50km/h	2 lanes, two-way, undivided with kerbside shoulder/parking lane	Council
Avoca Street	50km/h	2 lanes, two-way, partially median divided with kerbside shoulder/parking	Council
Baron Street	50km/h	2 lanes, two-way, undivided with kerbside parking	DTMR
Knight Street	60/50km/h[1]	2 lanes, two-way, undivided with kerbside parking	Council / DTMR
Somerset Street	60km/h	2 lanes, two-way, undivided with kerbside parking	Council

[1] Default speed limit along unsigned roads in built-up areas in Queensland.

The nearest intersection to the site is the unsignalised T-intersection of the Kingaroy Street / Baron Street. The intersection of Kingaroy Street / Avoca Street is a signalised 4-way intersection. The intersection of Knight Street / Kingaroy Street is an unsignalised 4-way intersection. The intersection of Knight Street / Pound Street / Somerset Street is a roundabout.

3.1.2. Existing Traffic Volumes

Traffic surveys were commissioned and undertaken by Colliers personnel within the surrounding road network, to establish base traffic conditions. These were undertaken on Thursday 5 June and Saturday 7 June 2025, across four (4) nearby intersections:

- Kingaroy Street / Avoca Street.
- Kingaroy Street / Baron Street.
- Kingaroy Street / Knight Street.
- D'Aguilar Highway / Somerset Street / Knight Street / Pound Street.

The observed peak hour periods (Thursday AM, Thursday PM and Saturday Midday) for these intersections are identified

Table 3.2: Surveyed Intersection – Existing Peak Hour Periods

Intersection	Peak Hour Periods		
	Thursday AM	Thursday PM	Saturday Midday
Kingaroy Street / Avoca Street	10:45-11:45	2:30-3:30	10:45-11:45
Kingaroy Street / Baron Street	10:45-11:45	2:30-3:30	10:30-11:30
Kingaroy Street / Knight Street	10:30-11:30	2:30-3:30	11:00-12:00
D'Aguilar Highway / Somerset Street / Knight Street	10:45-11:45	2:30-3:30	11:00-12:00

3.2. Transport Planning

Colliers has reviewed the SBRC LGIP, specifically the future road network surrounding the subject site. No future council road works are nominated / planned near the subject site.

Colliers has also reviewed the State Assessment and Referral Agency (SARA) Development Assessment Mapping System (DAMS), which shows no 'Future State Transport Corridors' or 'Planned Upgrades' in the vicinity of the subject site.

A review of DTMR's *Queensland Transport and Roads Investment Program 2025-26 to 2028-29* (QTRIP) shows no planned investment in the general vicinity of the subject site

3.3. Public Transport Facilities and Services

3.3.1. Bus Services

There is currently no public bus service in the vicinity of the subject site. School coach services run in the area, servicing the local schools.

3.3.2. Train Services

There is currently no rail infrastructure or services in the vicinity of the subject site.

3.4. Active Transport Facilities

3.4.1. Pedestrians

Formal pedestrian footpaths are provided along some of the surrounding roads, including Kingaroy Street at the site's western frontage. A pedestrian footpath is also provided along Avoca Street and parts of Pound Street / Somerset Street.

Formal pedestrian crossings are located at the intersections of Kingaroy Street / Avoca Street and Knight Street / Somerset Street.

3.4.2. Cyclists

There is little on road cycle lane provisions in proximity of the site. The pathway located between Pound Street and Somerset Street, is noted to include cycle paths.

4. Proposed Development

4.1. Development Profile

The proposed Shopping Centre use development is primarily comprised of a supermarket, with a fast food outlet and several specialty stores. A detailed breakdown of the proposed land uses is provided in Table 4.1.

Table 4.1: Proposed Development Land Uses

Land Use	Land Use GFAs
Shopping Centre (Supermarket)	3,750m^2
Fast Food Outlet	210m^2 + 48m^2 outdoor area
Shopping Centre (Specialty Stores)	455m^2 +105m^2 outdoor area
Total	**4,445m^2 GFA** **+ 153 m^2 outdoor area** **(including 30m^2 amenities)**

The proposed site plan, prepared by Arkhright Architects, is included in **Appendix A**.

4.2. Parking

The proposed site plan includes 245 at-grade car spaces, including nine (9) Persons with a Disability (PWD) spaces. Further details regarding the proposed parking provisions are included in Section 5.

4.3. Access

The proposed site plan includes the following access arrangements:

- 13.2m wide access onto Kingaroy Street (frontage central). This access will typically accommodate the majority of development traffic, including some service vehicle movements associated with the fast food outlet. This access is to operate as the fourth leg for the existing Kingaroy Street / Baron Street intersection, with all movements permitted.
- 9.9m wide access onto Pound Street (northern edge of the frontage). This access will typically accommodate a small portion of development traffic, with limited service vehicle movements anticipated. All turning movements would be permitted.
- 15.5m wide access onto Pound Street (frontage central). This access will accommodate service vehicle movements only.
- Pedestrian/cyclist access to/from the Kingaroy Street frontage, via footpath linkages that connect to the new signalised Kingaroy Street / Baron Street intersection and to the park to the north of the site.

Further details regarding the proposed access arrangements are included in Section 6.

4.4. Servicing

The proposed development allows for the access of vehicles up to the size of a 19.0m Articulated Vehicle (AV) and a 10.5m front-lift Refuse Collection Vehicle (RCV).

Three (3) formal loading bays are also provided – two (2) bays in the primary loading dock, accessible via Pound Street, and one (1) bay adjacent to the fast food outlet, accessible via Kingaroy Street.

Further details regarding the proposed servicing arrangements are included in Section 7.

5. Parking Arrangements

5.1. Parking Supply

5.1.1. Car Parking

The car parking supply requirements for the proposed development land uses have been determined in line with Table 8.4.5 of Council's Services and Works Code.

Table 5.1 outlines the car parking requirements for the proposed development as well as the proposed provisions.

Table 5.1: Services and Works Code Car Parking Requirements and Proposed Provisions

Land Use	Code Supply Rate	Extent	Code Requirement	Provision
Shopping Centre	1 space per 20m^2 GFA (<2,000m^2 GFA) + 1 space per 15m^2 GFA (>2,000m^2 GFA)	4,445m^2 GFA	263 spaces	245 spaces

The proposed development includes a total of 245 car spaces on-site, including nine (9) PWD spaces, which is less than the Code requirement of 263 car spaces. The site also includes 8 motorcycle parking spaces.

The proposed provision rate for the shopping centre land uses is 1 space per 18.1m^2 GFA. For reference, the minimum Code requirement of 263 car spaces for the shopping centre land use equates to a supply rate of 1 space per 16.9m^2 GFA.

5.1.2. Comparison to Other Local Government Areas

Noting the alternative car parking provision rate for the shopping centre land use, Colliers has reviewed the current proposed car parking supply against the Planning Scheme requirements of surrounding Local Government Areas (LGAs) for a parking provision reference. Table 5.2 overleaf outlines the recommended minimum car parking rates of some of the LGAs surrounding the South Burnett region.

Table 5.2: Comparison of Shopping Centre Car Parking Recommendations for Surrounding Councils – Shopping Centre 4,445m² GFA

LGA	Minimum Car Parking Requirement	Corresponding Recommendation
South Burnett	**1 space per 20m² GFA (<2,000m² GFA) + 1 space per 15m² GFA (>2,000m² GFA)**	**263 spaces**
Gympie	1 space per 30m² GFA (<2,000m² GFA) + 1 space per 20m² GFA (2,000-3,000m² GFA) + 1 space per 10m² GFA (>3,000m² GFA)	243 spaces
North Burnett	1 space per 50m² GFA	89 spaces
Western Downs	1 space per 40m² GFA	112 spaces
Toowoomba	3.5 spaces per 100m² GFA	156 spaces
Somerset	1 space per 25m² GFA (ground) + 1 space per 50m² GFA (other levels)	178 spaces

As illustrated above, the recommended car parking supply ranges between 89 and 263 spaces for these identified LGAs. The proposed car parking supply of 245 spaces for the shopping centre falls within this range.

5.1.3. Offset Demands and Linked Trips

There may be a slight offset in the peak car parking demand periods for the proposed shopping centre tenancies (i.e. supermarket, shops and fast food outlet). An investigation indicates that the existing Kingaroy Woolworths typically experiences peak parking demands around 11:00am and 5:00pm on weekdays as well as around 11:00am on the weekend. The corresponding peak car parking demand periods for local fast food outlets are 12:00pm and 6:00pm on weekdays as well as 12:00pm on the weekend, indicating that the peak parking periods for individual tenancies may not fully align.

It is also anticipated that there would be a degree of shared demand between tenancies (i.e. supermarket/shop visitors may also visit the fast food outlet, before leaving the subject site resulting in a single trip). The slight offset in peak demands and the potential for linked / multipurpose trips may result in a slightly reduced peak parking demands relative to individual free standing tenancies.

5.2. PWD Parking

Council's Services and Works Code does not provide guidance regarding PWD car parking requirements. Therefore, the Building Code of Australia (BCA) has been reviewed and applicable rates adopted. The proposed tenancies generally fall within Class 6. Class 6 buildings require PWD parking at a minimum rate of 1 space for every 50 car spaces.

For the proposed car parking supply of 245 spaces, a minimum PWD provision of five (5) spaces would be required. A total of nine (9) PWD spaces are provided in the proposed at-grade car park, eight (8) in close proximity to the supermarket and one (1) in the vicinity of the fast food outlet.

Therefore, the proposed PWD parking provision is considered appropriate to support the proposed development.

5.3. Motorcycle Parking

Council's Services and Works Code does not provide guidance regarding motorcycle parking requirements.

A total of eight (8) motorcycle spaces are provided in the vicinity of the main shopping centre building entrance.

5.4. Parking Layout

The proposed development will provide car parking at-grade only.

An assessment of the internal car park layout and dimensions has been undertaken, with consideration of the Council's PSP1 Design and Construction Standards as well as AS2890.1:2004 *Off-street car parking*, as referenced by Council.

Table 5.3 overleaf identifies the characteristics of the proposed parking layout, with respect to the design provisions of AS2890.1:2004 and AS2890.6:2022.

Table 5.3: AS2890 Parking Design Requirements and Proposed Provisions

Design Aspect	AS2890 Requirement	Proposed Provision	Compliance
Car Parking			
Parking space length: – Staff spaces (Class 1) – Visitor spaces (Class 3) – PWD spaces (Class 4)	 5.4m (min) 5.4m (min) 5.4m (min)	 5.4m (min) 5.4m 5.4m	 AS2890.1:2004 compliant AS2890.1:2004 compliant AS2890.6:2022 compliant
Parking space width: – Staff spaces (Class 1) – Visitor spaces (Class 3) – PWD spaces (Class 4)	 2.4m (min) 2.6m (min) 2.4m (min) + 2.4m 'shared area'	 2.7m 2.7m 2.4m + 2.4m 'shared area'	 AS2890.1:2004 compliant AS2890.1:2004 compliant AS2890.6:2022 compliant
Parking aisle width	6.2m (min)	6.6m	AS2890.1:2004 compliant
Turnaround bay provisions	Turnaround bay where dead-end module exceeds 6 spaces in length	Turnaround bay provided at end of new car park (north-east corner) No turnaround bay required for south-east corner dead-end car park – 5 spaces in length	AS2890.1:2004 compliant
Maximum gradient: – PWD parking area and shared space – Parking aisle – Ramp	 1:40 (2.5%) 1:20 (5.0%) 1:5 (20.0%)	 <1:60 (1.66%) Coles Target <1:60 (1.66%) Coles Target 1:13 (7.7%)	 AS2890.1:2004 compliant AS2890.1:2004 compliant AS2890.1:2004 compliant
Minimum height clearance: – General minimum – Over PWD space	 2.2m (min) 2.5m (min)	 Open air Open air	 AS2890.1:2004 compliant AS2890.1:2004 compliant
Motorcycle Parking			
Parking space length	2.5m	2.5m	AS2890.1:2004 compliant
Parking space width	1.2m	1.2m	AS2890.1:2004 compliant

The proposed car park layout generally complies with the requirements of AS2890.1:2004 and AS2890.6:2022 and is therefore considered appropriate from a transport engineering perspective.

6. Site Access Arrangements

6.1. Introduction

The proposed site plan includes the following access arrangements:

- 13.2m wide access onto Kingaroy Street (frontage central). This access will typically accommodate the majority of development traffic, including service vehicle movements associated with the fast food outlet. This access would operate as the fourth leg for the existing Kingaroy Street / Baron Street intersection, with all movements permitted.
- 9.9m wide access onto Pound Street (northern edge of the frontage). This access will typically accommodate a small portion of development traffic, with limited service vehicle movements anticipated. All movements would be permitted.
- 15.5m wide access onto Pound Street (frontage central). This access will accommodate service vehicle movements only, for all land uses (excluding the fast food outlet).
- Pedestrian/cyclist access to/from the Kingaroy Street frontage, via footpath linkages that connect to the new signalised Kingaroy Street / Baron Street intersection.

Further details regarding the design provisions of these accesses are provided below.

6.1.1. Kingaroy Street

The Kingaroy Street access is to be the main access for the site, providing direct access to Kingaroy Street.

This access is to be formed up as a fourth leg of the existing Baron Street / Kingaroy Street, with the intersection proposed to be signalised. The proposed intersection is to include right and left turn lane treatments, for the main north/south road of Kingaroy Street. All approaches are to include signal controlled pedestrian crossing, consistent with current DTMR guidelines.

The site access approach includes a dedicated short left turn lane and a combined through and right lane.

The design provisions of the proposed Kingaroy Street access are to be in accordance with the relevant sections of Austroads Guide to Road Design Part 4A and/or Australian Standards AS2890.1 and AS2890.2, as referenced by Council's PSP1 Design and Construction Standards. This design is to be refined as site survey, and detailed civil engineering inputs are progressed and coordinated into the design.

6.1.2. Pound Street (Southern)

The design provisions of the proposed Southern Pound Street access and the respective provisions of AS2890.1:2004 and AS2890.2:2018, as referenced by Council's PSP1 Design and Construction Standards, are detailed in Table 6.1 overleaf.

Table 6.1: Pound Street (Central) Access Arrangements

Design Aspect	AS Requirement	Proposed Provision	Compliance
Width / crossover type to accommodate: – Service vehicles[1]	 6.5m, with 12.5m taper	 15.5m	 AS2890.1:2004 compliant
Distance from intersection	6m (min)	~150m	AS2890.1:2004 compliant
Sight distance[2]	69m (desirable) 45m (minimum)	>69m	AS2890.1:2004 compliant
Driveway sight splays	2.0m wide x 2.5m deep (entry side only)	2.0m wide x 2.5m deep (entry side only)	AS2890.1:2004 compliant

[1] Based on a worst-case design service vehicle of a 19.0m AV.

[2] Based on a sign-posted speed limit of 50km/h (unsigned).

The proposed central Pound Street access arrangements are generally consistent with the provisions of AS2890.1:2004 and AS2890.2:2018 and are therefore appropriate from a traffic engineering perspective.

6.1.3. Pound Street (Northern)

The design provisions of the proposed northern Pound Street access and the respective provisions of AS2890.1:2004 and AS2890.2:2018, as referenced by Council's PSP1 Design and Construction Standards, are detailed in Table 6.2.

Table 6.2: Pound Street (Northern) Access Arrangements

Design Aspect	AS Requirement	Proposed Provision	Compliance
Width / crossover type to accommodate: – Cars – Service vehicles[1]	 Access Facility Category 2 6.5m (min)	 9.9m 9.9m	 AS2890.1:2004 compliant AS2890.1:2004 compliant
Distance from intersection	6m (min)	~150m	AS2890.1:2004 compliant
Sight distance[2]	69m (desirable) 45m (minimum)	>69m	AS2890.1:2004 compliant
Driveway sight splays	2.0m wide x 2.5m deep (entry side only)	2.0m wide x 2.5m deep (entry side only)	AS2890.1:2004 compliant
Minimum queuing provision	2 vehicles (12m)	4 vehicles (24m)	AS2890.1:2004 compliant

[1] Based on a worst-case design service vehicle of a 12.5m HRV.

[2] Based on a sign-posted speed limit of 50km/h.

The proposed central Pound Street access arrangements are generally consistent with the provisions of AS2890.1:2004 and AS2890.2:2018 and are therefore appropriate from a traffic engineering perspective.

6.1.4. Active Transport Access

Pedestrian and cycle access is provided along the Kingaroy Street site frontage, via a footpath linkage which is located adjacent to the new Kingaroy Street / Baron Street signalised intersection.

The development also includes a connection to the northern side of the site to the adjacent park via a dedicated pedestrian link and zebra crossing.

7. Service Vehicle Arrangements

7.1. Council Requirements

Table 8.4.5 of Council's Services and Works Code identifies the design service vehicles for the individual land uses proposed. Table 7.1 outlines the design service vehicles for the proposed land uses.

Table 7.1: Services and Works Code Service Vehicle Requirements

Land Use	Design Service Vehicle
Shopping Centre	Articulated Vehicle (AV)
Fast Food Outlet	Small Rigid Vehicle (SRV)
Proposed Provisions	**AV + Medium Rigid Vehicle (MRV), excluding Refuse Collection Vehicle (RCV)**

7.2. Proposed Loading Provisions

7.2.1. Design Service Vehicles

It is considered appropriate that the largest design service vehicle will be a 19.0m AV for the primary loading dock (supermarket and specialty store land uses), complemented by an 8.8m Medium Rigid Vehicle (MRV) for the fast food outlet loading bay. In addition, RCVs will need to access both the primary loading dock and the fast food outlet loading bay.

7.2.2. Loading Bay Provisions

Three (3) dedicated loading bays are proposed for the subject site:

- Two (2) primary bays located within the primary loading dock, for the use of the supermarket and specialty store tenancies. These are sufficiently sized for a 19.0m AV.
- One (1) loading bay located adjacent to and for the use of the fast food outlet. This is sufficiently sized for an 8.8m Medium Rigid Vehicle (MRV).

There is also additional hardstand area to accommodate other loading requirements within the eastern loading dock area.

The loading dock area is to be graded at 1:100 (1%) with an Australian Standard (AS2890.2:2018) maximum allowable grade of 1:25(4%).

7.3. Proposed Service Vehicle Design Provisions

All vehicles will be able to enter and exit the subject site in a forward gear, via the Pound Street and Kingaroy Street accesses.

Table 7.2 identifies the service vehicle design provisions, with respect to Council's Code and AS2890.2:2018 *Off-street commercial vehicle facilities*, as referenced by Council.

Table 7.2: AS2890.2 Service Vehicle Design Requirements and Provisions

Design Aspect	AS2890.2 Requirement	Proposed Provision	Compliance
Service area – Supermarket and Specialty Stores (AV)	3.5m width 20.0m length	5.13m width 20.0m length	AS2890.2:2018 compliant AS2890.2:2018 compliant
Service area – Fast Food Outlet (MRV)	3.5m width 8.8m length	4.0m width 9.5m length	AS2890.2:2018 compliant AS2890.2:2018 compliant
Loading grades: – AV standing – MRV standing	 1:25 (4.0%) 1:25 (4.0%)	 1:100 (1.0%) Flat	 AS2890.2:2018 compliant AS2890.2:2018 compliant
Service aisle width (two-way)	6.5m (min)	6.6m	AS2890.2:2018 compliant
Height clearance: – AV – MRV – RCV (Front Loading)	 4.5m (min) 4.5m (min) 4.5m (min) travel height 6.8m (min) Operational Height	 Open air Open air Open air	 AS2890.2:2018 compliant AS2890.2:2018 compliant AS2890.2:2018 compliant

The manoeuvring requirements for the proposed development's design service vehicles have been determined and are provided in **Appendix B**. Individual manoeuvring figures are as follows:

- Colliers Drawing 24BRT0525-DA01 (Rev. A): 19.0m AV for primary loading dock.
- Colliers Drawing 24BRT0525-DA02 (Rev. A): 12.5m HRV for primary loading dock.
- Colliers Drawing 24BRT0525-DA03 (Rev. A): 10.5m RCV + 10.19m Refuse Compactor for loading dock.
- Colliers Drawing 24BRT0525-DA04 (Rev. A): 8.8m MRV for fast food outlet loading bay

The proposed servicing arrangements are generally consistent with the provisions of Council's Code and AS2890.2:2018.

8. Development Transport Demand

8.1. Proposed Development Traffic Generation

The proposed development scheme includes a total GFA of 4,445m^2, with a primary supermarket land use that is supplemented by several smaller specialty stores and a single fast food outlet.

To estimate the peak hour traffic generation expectations of the proposed land uses, reference is made to the RTA *Guide to Traffic Generating Developments* (2002) guideline. This document indicates that the following peak hour traffic generation rates should be adopted for each individual land use:

Supermarket and Specialty Stores

- Thursday AM peak hour: 6.15 vph per 100m^2 GFA (50% of Thursday PM peak).
- Thursday PM peak hour: 12.30 vph per 100m^2 GFA.
- Saturday Midday peak hour: 16.30 vph per 100m^2 GFA.

Fast Food Outlet

The RTA nominates 180 vph as the highest rate for fast food outlets (McDonald's), with a lower generation of 100 vph identified for other outlets. Given there are already McDonald's, Hungry Jack's, KFC and Red Rooster outlets operational in Kingaroy, it is reasonable to assume that any new fast food outlet (such as the proposed tenancy) would not be one of these chains. Therefore, it is assumed that the lower 100 vph rate would be most applicable:

- Thursday AM peak hour: 50 vph (50% of other peaks).
- Thursday PM peak hour: 100 vph.
- Saturday Midday peak hour: 100 vph.

Directional Splits

Directional splits are estimated to be 50% inbound / 50% outbound for all land uses and peak hours, in line with generally accepted transport engineering practices.

Application of the above generation rates and directional splits would result in proposed development traffic demand estimates as shown in Table 8.1.

Table 8.1: Proposed Development Peak Hour Traffic Generation Estimates

Land Use	Yield (m^2 GFA)*	Thursday AM Peak (vph)			Thursday PM Peak (vph)			Saturday Midday Peak (vph)		
		IN	OUT	TOTAL	IN	OUT	TOTAL	IN	OUT	TOTAL
Supermarket	3,736	116	115	**231**	231	231	**462**	306	306	**612**
Specialty Stores	525	18	19	**37**	36	37	**73**	49	48	**97**
Fast Food Outlet	223	25	25	**50**	50	50	**100**	50	50	**100**
Total	**4,484**	**159**	**159**	**318**	**317**	**318**	**635**	**405**	**404**	**809**

*Colliers notes that the yields adopted for the analysis are slightly higher than that proposed in the final plans.

Colliers has estimated the distributions of the proposed development traffic within the surrounding road network based on a combination of:

- a review of the traffic flows for surrounding intersections.
- high-level expectations of directional distributions for traffic related to the development, based on surrounding land uses.

This resulted in the following general distributions being adopted for all new trips:

- 80% of traffic utilising the Kingaroy Street site access:
  - 30% to/from the north, via Kingaroy Street and Avoca Street.
  - 10% to/from the west, via Baron Street.
  - 40% to/from the south, via Kingaroy Street, Knight Street, the D'Aguilar Highway and Somerset Street.
- 20% of traffic utilising the Pound Street site access, all of which travels to/from the north via Avoca Street, Kingaroy Street and Pound Street.

For the total peak hour traffic generations calculated above, the following trip segmentations has been adopted for the proposed land uses, aligning with DTMR's GARID:

- Supermarket and Specialty Stores: 72% new trips and 28% undiverted drop-in trips.
- Fast Food Outlet: 65% new trips and 35% undiverted drop-in trips.

More specific movement figures for the development traffic demands are shown in the Traffic Network Diagrams within Appendix C.

8.2. Warrants for Traffic Impact Assessment

DTMR's GTIA indicates that a detailed Traffic Impact Assessment (TIA) is required for any intersections or road links where traffic volume increases exceed 5% of more of the Base traffic volumes. The warrant review indicates that the traffic movement demand increases will exceed 5% for several movements at the Kingaroy Street / Avoca Street, Kingaroy Street / Knight Street and D'Aguilar Highway / Somerset Street / Knight Street intersections (across all peak hour periods). Therefore, a more detailed TIA review is warranted.

9. Future Traffic Demands

9.1. Assessment Years and Traffic Growth

It has been assumed that the targeted completion date for the development is 2028. On this basis, the following assessment years would typically be considered:

- Opening Year (Full Completion): 2028.
- Design Horizon (Opening Year + 10 years): 2038.

In accordance with DTMR GTIA requirements, the respective assessment years for the various roads/intersections are as follows:

- State Controlled Roads/Intersections: Opening Year (2028).
- Road Access Intersections: Opening Year (2028) and Design Horizon (2038).

To assess future traffic demands at the 2028 and 2038 design horizon years, a 1.5% p.a. (compounded) annual growth rate has been applied to all movements.

This rate has been based on a review of forecasted transport demands contained within Council's LGIP, as well as available data from nearby DTMR survey sites (#20431, #30097 and #32560). For Kingaroy, Council's LGIP anticipates a 1.38% p.a. growth rate from 2026 to 2036. Additionally, the QLD Government Statistician's Office indicates that, under a "high" growth scenario, the population of the South Burnett region is project to increase at only 0.9% p.a. over the next 20 years.

9.2. Future Year Scenarios

The following future year scenarios have been derived for the purposes of the TIA:

- 2025 Survey Scenario: To establish base operations for the surrounding road network, based on the existing road configuration, to compare future operations against.
- 2028/2038 Base Case Scenario: To establish base operations at the opening year and 10-year design horizon, considering base traffic growth and any changes to the surrounding road network. This will be used to compare the net impact of the proposed development traffic demands against. For these purposes, no changes are proposed to the existing road network configuration.
- 2028/2038 Base + Development Case Scenario: This will be used to determine road network operations with inclusion of the proposed development, at the opening year and 10-year design horizon. Comparison against the Base Case scenarios will determine the overall impact of the proposed development and mitigation works if required.

Based on the development transport demand estimates (Section 8.1) and base traffic growth (Section 9.1), traffic network diagrams have been prepared showing traffic movements for the roads/intersections

surrounding the subject site, for each of the above scenarios and future year cases. These network diagrams are included in **Appendix C**, with the respective diagrams as follows:

- **Diagram C1:** 2025 Survey Peak Volumes.
- **Diagram C2:** 2028 Base Peak Volumes.
  - This has been calculated by applying annual growth (1.5% p.a.) to the survey volumes (Diagram C1).
- **Diagram C3:** 2038 Base Peak Volumes.
  - This has been calculated by applying annual growth (1.5% p.a.) to the survey volumes (Diagram C1).
- **Diagram C4:** Total Peak Generations.
  - This has been calculated by adding all development traffic volumes together (Diagram C4).
- **Diagram C5:** 2028 Base + Development Peak Volumes.
  - This has been calculated by adding the development traffic volumes (Diagram C4) to the base volumes (Diagram C2).
- **Diagram C6:** 2038 Base + Development Peak Volumes.
  - This has been calculated by adding the development traffic volumes (Diagram 4) to the base volumes (Diagram C3).

10. Traffic Impact Assessment

10.1. Extent of Assessment

In accordance with DTMR GTIA requirements, the scope of this TIA includes the following elements:

Access Operational Assessments – Refer to Section 10.2

This includes the following access intersections for the proposed development:

- Kingaroy Street / Baron Street / Site Access.

Intersection Operational Assessments – Refer to Section 10.3

This includes all intersections where development traffic demands exceed 5% of the base demands which, as per Traffic Network Diagram 5 within **Appendix C**, includes the following intersections:

- Kingaroy Street / Avoca Street.
- Kingaroy Street / Knight Street.
- D'Aguilar Highway / Somerset Street / Knight Street.

Net Delay Assessment – Refer to Section 10.4

This includes the three (3) state controlled intersections identified above.

10.2. Access Operational Assessments

10.2.1. Kingaroy Street / Baron Street / Site Access Intersection

Figure 10.1 overleaf shows the configuration of the Kingaroy Street / Baron Street / Site Access intersection adopted in the SIDRA analysis. It is noted that the proposed development will gain access through an existing three-leg intersection. Therefore, the configurations analysed for the Base (existing three-leg intersection) and Base + Development (future four-leg intersection) scenarios are both identified.

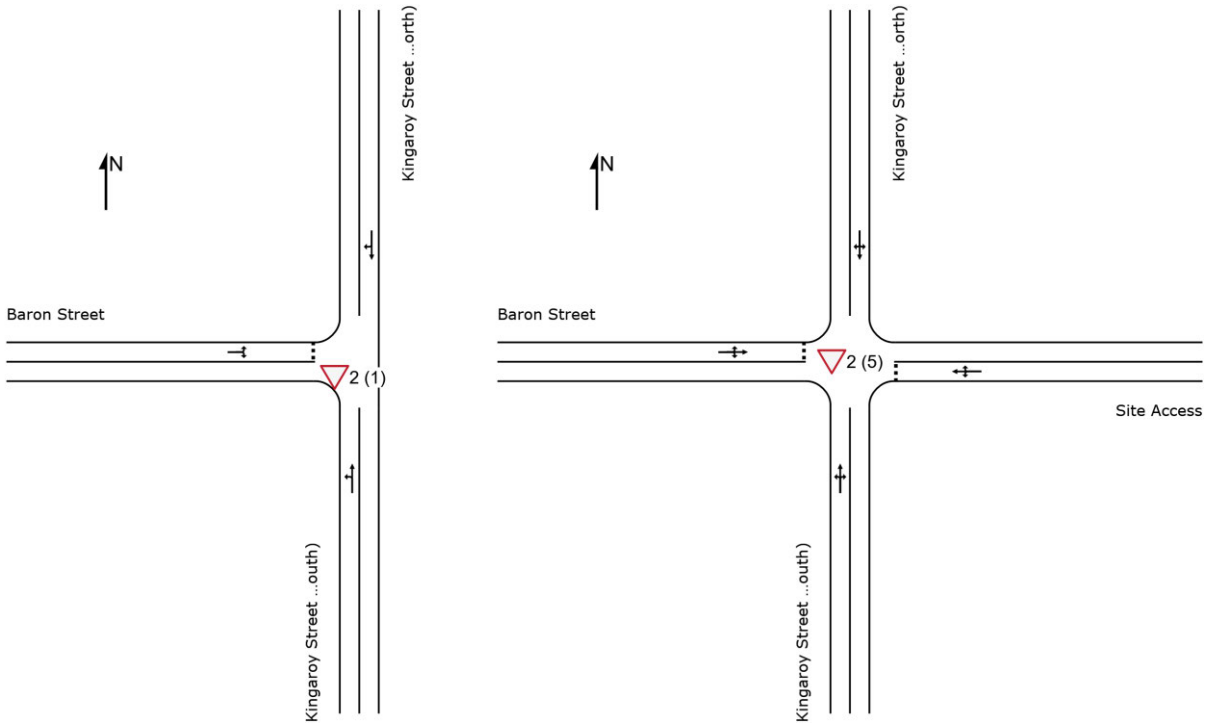


Figure 10.1: Kingaroy Street / Baron Street / Site Access Intersection – SIDRA Layout (Base and Base + Development Scenarios)

Given the amount of through traffic along the subject site's Kingaroy Street frontage, it is anticipated that there would be insufficient gaps for exiting development traffic to enter Kingaroy Street. Therefore, it is expected that the Kingaroy Street / Baron Street intersection would need to be signalised.

The preliminary SIDRA analysis indicated that the unsignalized four way intersection is expected to operate at levels which comfortably exceed acceptable limits at the 2038 assessment year. Figure 10.2 overleaf shows a signalised configuration of the Kingaroy Street / Baron Street / Site Access intersection adopted in the SIDRA analysis. This intersection concept has been revised based on prelodgement feedback from SARA and DTMR, which recommended the inclusion of additional through lanes on Kingaroy Road to improve vehicle queueing.

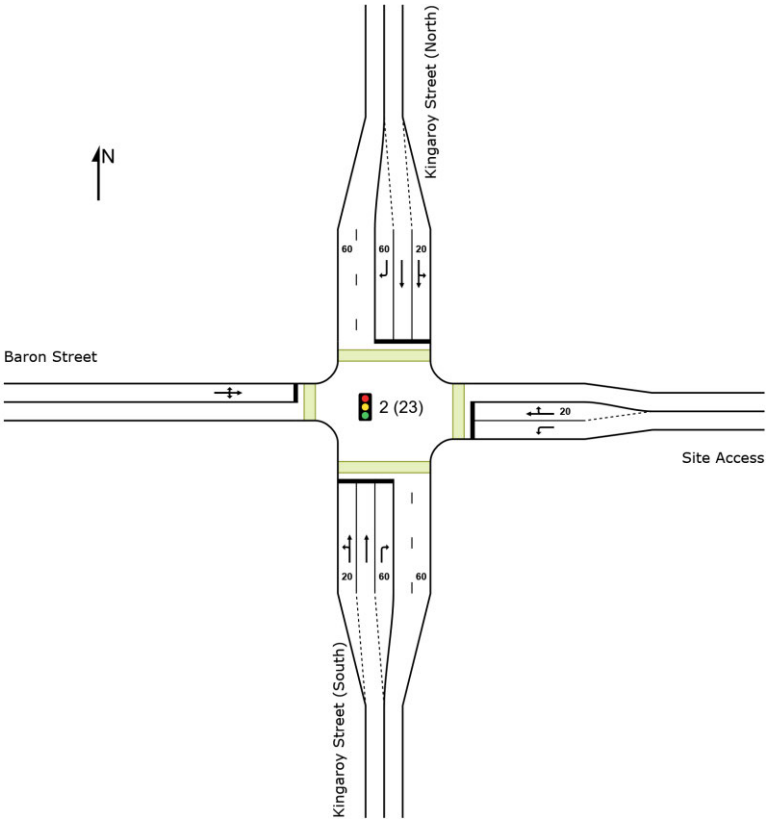


Figure 10.2: Kingaroy Street / Baron Street / Site Access Intersection – SIDRA Layout (Signalised Configuration)

The results of the SIDRA analysis under the 2028/2038 Base and Base + Development scenarios are summarised in Table 10.1. Detailed SIDRA output data is also included in **Appendix D**.

Table 10.1: Kingaroy Street / Baron Street / Site Access Intersection – SIDRA Results Summary (Signalised Configuration)

Scenario	DoS	Average Delay (s)		LOS	95th Percentile Critical Queue (m)			
		Overall	Worst Movement		S	E	N	W
Thursday AM Peak Hour								
2028 Base + Development	68%	33	41	C	63	17	67	11
2038 Base + Development	85%	39	41	D	89	17	95	13
Thursday PM Peak Hour								
2028 Base + Development	83%	40	51	D	60	43	112	17
2038 Base + Development	85%	36	52	D	77	43	147	19
Saturday Midday Peak Hour								
2028 Base + Development	84%	42	45	D	61	52	81	17
2038 Base + Development	86%	48	61	D	84	61	112	22

The analysis indicates that the signalised intersection is expected to operate within acceptable limits at the 2038 assessment year, with development traffic included, with a worst-case DoS of 86% for the Thursday PM peak hour period.

10.3. Intersection Operational Assessments

10.3.1. Kingaroy Street / Avoca Street Intersection

Figure 10.3 overleaf shows the configuration of the Kingaroy Street / Avoca Street intersection adopted in the SIDRA analysis. All default SIDRA inputs were used for the analysis.

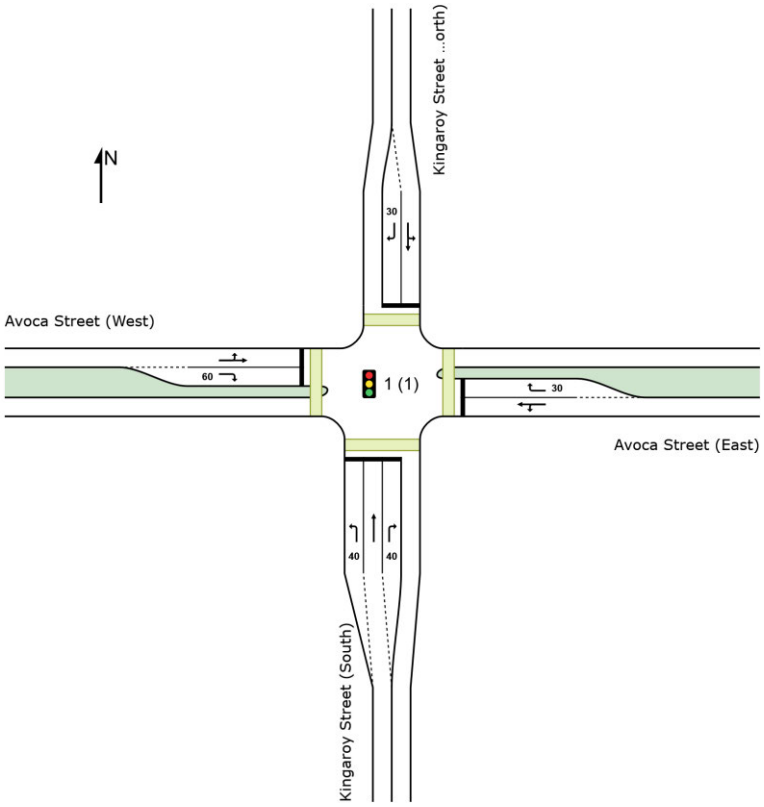


Figure 10.3: Kingaroy Street / Avoca Street Intersection – SIDRA Layout

The results of the SIDRA analysis under the 2028 Base and Base + Development scenarios are summarised in Table 10.2. Detailed SIDRA output data is also included in Appendix D.

Table 10.2: Kingaroy Street / Avoca Street Intersection – SIDRA Results Summary

Scenario	DoS	Average Delay (s)		LOS	95th Percentile Critical Queue (m)			
		Overall	Worst Movement		S	E	N	W
Thursday AM Peak Hour								
2025 Survey	57%	29	40	C	40	34	56	36
2028 Base	60%	30	40	C	42	35	59	38
2028 Base + Development	65%	30	42	C	42	37	66	43
Thursday PM Peak Hour								
2025 Survey	68%	32	41	C	47	34	58	60
2028 Base	71%	32	41	C	49	36	61	64
2028 Base + Development	83%	34	45	C	56	39	79	81
Saturday Midday Peak Hour								
2025 Survey	50%	30	41	C	40	31	36	41
2028 Base	52%	31	41	C	42	32	38	43
2028 Base + Development	65%	30	40	C	50	36	54	56

The analysis indicates that the intersection is expected to operate at suitable levels at the 2028 assessment year, with development traffic included, with a worst-case DoS of 83% for the Thursday PM peak hour period. There is also noted to be no major increases to other key operational parameters, including delays and queuing, when comparing the 2028 Base and 2028 Base + Development scenarios.

Based on this assessment, the proposed development is considered to have no significant adverse impact on the operations of this intersection.

10.3.2. Kingaroy Street / Knight Street Intersection

Figure 10.4 overleaf shows the configuration of the Kingaroy Street / Knight Street intersection adopted in the SIDRA analysis. All default SIDRA inputs were used for the analysis.

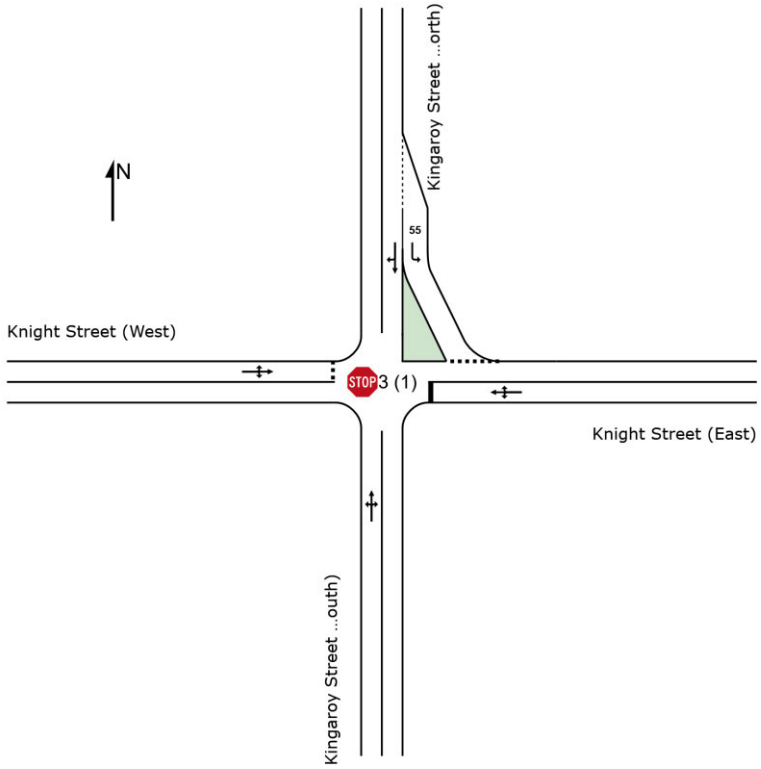


Figure 10.4: Kingaroy Street / Knight Street Intersection – SIDRA Layout

The results of the SIDRA analysis under the 2028 Base and Base + Development scenarios are summarised in Table 10.3. Detailed SIDRA output data is also included in Appendix D.

Table 10.3: Kingaroy Street / Knight Street Intersection – SIDRA Results Summary

Scenario	DoS	Average Delay (s)		LOS	95th Percentile Critical Queue (m)			
		Overall	Worst Movement		S	E	N	W
Thursday AM Peak Hour								
2025 Survey	35%	5	20	N/A	1	12	5	0
2028 Base	38%	5	21	N/A	1	14	5	0
2028 Base + Development	45%	6	24	N/A	1	18	5	0
Thursday PM Peak Hour								
2025 Survey	33%	5	25	N/A	1	11	6	1
2028 Base	36%	5	26	N/A	2	12	6	1
2028 Base + Development	52%	6	35	N/A	2	21	8	1
Saturday Midday Peak Hour								
2025 Survey	36%	6	19	N/A	1	13	5	1
2028 Base	39%	6	20	N/A	1	14	5	1
2028 Base + Development	57%	7	28	N/A	1	27	6	1

The analysis indicates that the intersection is expected to operate at suitable levels at the 2026 assessment year, with development traffic included, with a worst-case DoS of 57% for the Saturday Midday peak hour period. There is also noted to be no major increases to other key operational parameters, including delays and queuing, when comparing the 2028 Base and 2028 Base + Development scenarios.

Based on this assessment, the proposed development is considered to have no significant adverse impact on the operations of this intersection.

10.3.3. D'Aguilar Highway / Somerset Street / Knight Street Intersection

Figure 10.5 overleaf shows the configuration of the D'Aguilar Highway / Somerset Street / Knight Street intersection adopted in the SIDRA analysis. All default SIDRA inputs were used for the analysis.

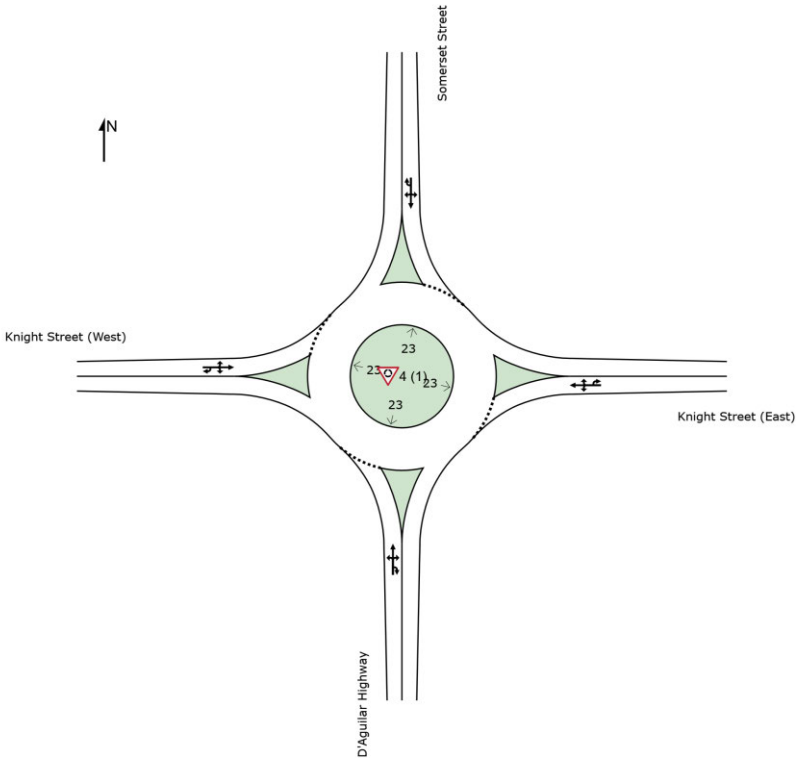


Figure 10.5: D'Aguilar Highway / Somerset Street / Knight Street Intersection – SIDRA Layout

The results of the SIDRA analysis under the 2028 Base and Base + Development scenarios are summarised in Table 10.4. Detailed SIDRA output data is also included in Appendix D.

Table 10.4: D'Aguilar Highway / Somerset Street / Knight Street Intersection – SIDRA Results Summary

Scenario	DoS	Average Delay (s)		LOS	95th Percentile Critical Queue (m)			
		Overall	Worst Movement		S	E	N	W
Thursday AM Peak Hour								
2025 Survey	24%	7	13	A	9	1	5	10
2028 Base	26%	7	13	A	10	1	6	11
2028 Base + Development	28%	7	13	A	10	1	6	12
Thursday PM Peak Hour								
2025 Survey	29%	7	14	A	10	1	9	13
2028 Base	31%	7	14	A	10	1	9	13
2028 Base + Development	36%	7	14	A	12	1	10	17
Saturday Midday Peak Hour								
2025 Survey	26%	6	13	A	12	0	5	10
2028 Base	27%	6	13	A	12	0	6	11
2028 Base + Development	32%	7	13	A	15	0	6	14

The analysis indicates that the intersection is expected to operate at suitable levels at the 2028 assessment year, with development traffic included, with a worst-case DoS of 36% for the Thursday PM peak hour period. There is also noted to be no major increases to other key operational parameters, including delays and queuing, when comparing the 2028 Base and 2028 Base + Development scenarios.

Based on this assessment, the proposed development is considered to have no significant adverse impact on the operations of this intersection.

10.3.4. Pound Street / Avoca Street Intersection

The development proposes a secondary supporting access to Pound Street, which is anticipated to provide local connection to the eastern portion of the Kingaroy centre (Avoca Street / Pound Street) and accommodate service vehicle access to the site. Colliers has undertaken an initial assessment of the potential increase in traffic as a result of the proposed development.

The anticipated increase in traffic movements during the nominated peak hour periods is in the range of 22 - 57 additional trips in the peak hour periods. This equates to 1 extra vehicle through the intersection every 1 – 3 minutes on average, during the peak hour periods. This number of trips is not expected to result in significant operational impacts on the intersection.

10.4. Net Delay Assessment

In accordance with DTMR's GTIA, Table 10.5 overleaf summarises the impact of the proposed development on the average delay for the aggregate Base traffic volumes travelling through the three (3) state controlled intersections identified for assessment, by peak period and including intersection aggregates.

The impact is calculated by multiplying the Base + Development average delays by the Base scenario traffic volumes, thereby not counting the impact of delays on development traffic, rather only to the existing background traffic that is affected by any additional delays. This delay is then compared to the Base scenario delay. The delay is measured in vehicle-seconds and has been determined from the SIDRA assessment undertaken in Section 10.3.

A percentage increase of more than 5.0% to Base traffic net delay (aggregate of the Thursday AM, Thursday PM and Saturday Midday scenarios) is the threshold that DTMR applies for the consideration of mitigation measures, when balanced against all intersections affected within the development impact area.

Table 10.5: Surveyed Intersections – Aggregate Net Delay Assessment

Peak Scenario	Vehicles	2028 Base		2028 Base + Development		% Change
		Delay (s)	Vehicle sec	Delay (s)	Vehicle sec	
Kingaroy Street / Avoca Street						
Thursday AM	1,132	29.8	33,733.6	29.7	33,620.4	-0.3%
Thursday PM	1,215	32.2	39,123.0	34.2	41,553.0	+6.2%
Saturday Midday	1,059	30.5	32,299.5	30.4	32,193.6	-0.3%
Total	**3,406**	**105,156.1**		**107,367.0**		**+2.1%**
Kingaroy Street / Knight Street						
Thursday AM	834	5.4	4,503.6	5.7	4,753.8	+5.6%
Thursday PM	947	4.9	4,640.3	5.8	5,492.6	+18.4%
Saturday Midday	822	5.7	4,685.4	6.7	5,507.4	+17.5%
Total	**2,603**	**13,829.3**		**15,753.8**		**+13.9%**
D'Aguilar Highway / Somerset Street / Knight Street						
Thursday AM	784	6.6	5,174.4	6.7	5,252.8	+1.5%
Thursday PM	910	6.8	6,188.0	7.0	6,370.0	+2.9%
Saturday Midday	856	6.3	5,392.8	6.6	5,649.6	+4.8%
Total	**2,550**	**16,755.2**		**17,272.4**		**+3.1%**
All Intersections	**8,559**	**135,740.6**		**140,393.2**		**+3.4%**

This indicates that the intersection's change/increase in net delay is below 5% for both peak hour periods, with an aggregate of 3.4% across all three (3) peaks assessed. On this basis, the proposed development is considered to have a no net worsening effect to net delays for the State Controlled Road network. Therefore, no mitigation works are required.

10.5. Conclusions

Based on the adopted distribution of the additional development traffic demands, the development is likely to result in an increase of more than a 5% for several movements at the noted state controlled intersections.

SIDRA analysis shows the assessed intersections should operate within typical thresholds, for the assessed weekday AM and PM and Saturday peak hour periods.

The net delay assessment also indicates that the peak hour net delays for the assessed intersections may increase by approximately 3.4%, when taking an aggregate of the peaks. This is less than the 5% trigger under the DTMR GTIA whereby mitigation works would then be considered required.

The road safety risk assessment concludes that additional left and right turning traffic volumes being added to Kingaroy Street (into the site) could impact the likelihood and/or consequences for potential crashes. The signalisation of the proposed access and provision of turn lane treatments should mitigate impacts on the through movements of Kingaroy Street. The inclusion of signalised pedestrian crossings will also improve safety outcomes for pedestrians near the Kingaroy Street site access.

Overall, the proposed development is expected to have a no net worsening impact to operations/delays and no worsening impact to safety on the surrounding road network.

11. Active Transport

11.1. Pedestrian and Cyclist Access

Pedestrian and cyclist access is provided along the subject site's Kingaroy Street frontage, via footpath linkages in the vicinity of the new signalised Kingaroy Street / Baron Street intersection.

11.2. Cyclist Facilities

Council's Planning Scheme does not provide regarding provision rates for end-of-trip facilities, including bicycle parking, with reference made to Austroads guidelines.

8 bicycle carparking spaces are to be provided in the southern portion of the site near the amenities in western side of the main building.

All dimensions for the proposed bicycle parking are expected to meet the relevant minimum requirements of AS2890.3:2015:

- Rack length – 1.8m for ground and 1.5m for wall.
- Rack spacing – 0.5m.
- Manoeuvring/access paths – 1.5m.

Overall, the proposed development's bicycle parking supply is considered to be appropriate for the proposed land uses.

12. Summary and Conclusions

12.1. Proposed Development

The proposed development primarily consists of a supermarket, with a fast food outlet and several specialty stores. The total GFA for all proposed land uses is 4,445m^2.

12.2. Parking Arrangements

The proposed car parking provision of 245 spaces, including nine (9) PWD spaces, is less than the minimum requirement determined in accordance with Council's Services and Works Code. The proposed on-site car parking supply of 245 spaces is considered sufficient to accommodate the needs of the proposed development. The proposed car park layout has been designed generally in accordance with the relevant Australian Standards, as referenced by Council's PSP1 Design and Construction Standards.

12.3. Access Arrangements

The proposed development includes three (3) accesses, one (1) primary access along Kingaroy Street and two (2) secondary accesses along Pound Street – one (1) for the primary loading dock and one (1) for car park access.

Pedestrian and cyclist access will be provided via a connection along the subject site's Kingaroy Street frontage, in the vicinity of the new signalised Kingaroy Street / Baron Street intersection.

12.4. Service Vehicle Arrangements

The largest design vehicle for the proposed development is a 19.0m AV, which can enter and exit the site in a forward gear via the central Pound Street access. This would be supplemented by 12.5m HRV and 8.8m MRV design vehicles for deliveries, via the Pound Street and Kingaroy Street frontages respectively.

Three (3) dedicated loading bays are provided on-site for the use of all service vehicles (including refuse collection). The Pound Street loading dock, containing two (2) loading bays, is designated for the use of the supermarket and specialty store tenancies. An additional loading bay is provided adjacent to the fast food outlet.

Overall, the proposed service vehicle arrangements are considered sufficient to meet the operations of the proposed development.

12.5. Traffic Impact Assessment

Noting the proposed land uses and tenancy GFAs, the proposed development is anticipated to generate 318 vph, 635 vph and 809 vph during the Thursday AM, Thursday PM and Saturday Midday peak hour respectively.

Based on the adopted distributions for the proposed development traffic demands, this is likely to result in an increase of more than 5% for the Kingaroy Street / Avoca Street, Kingaroy Street / Knight Street and D'Aguilar Highway / Somerset Street / Knight Street intersections, across all three (3) peak hour periods. As such, the scope/extent of this TIA has been limited to these intersections, in accordance with the provisions of the DTMR GTIA.

SIDRA analysis shows the assessed intersections should operate appropriately, in assessed peak hour periods, for the adopted design horizons. The net delay assessment also indicates that the surrounding network's net delay may increase by approximately 3.4%, when taking an aggregate of all assessed peaks and intersections. This is less than the 5% trigger under the DTMR GTIA whereby mitigation works are typically considered required.

Overall, the proposed development is expected to have a no net worsening impact to operations/delays and no worsening impact to safety on the surrounding road network.

12.6. Active Transport

Pedestrian and cyclist access is provided along the subject site's Kingaroy Street frontage, via footpath linkages in the vicinity of the new signalised Kingaroy Street / Baron Street intersection.

The bicycle parking is provided near the main building of the site and is to be designed in accordance with AS2890.3:2015.

12.7. Conclusion

From the assessments undertaken and summarised in this report and, provided that the recommendations identified are adopted, Colliers does not see any transport engineering reason that would preclude approval of the proposed development.

Appendix A Architectural Plans (prepared by Arkhright Architects)



DRAWING LIST

NUMBER	SHEET NAME	REV	DATE
A-DA 0001	COVER PAGE	D	08/10/25
A-DA 0010	DEVELOPMENT AREA SUMMARY	C	08/10/25
A-DA 1000	SITE PLAN	D	08/10/25
A-DA 1001	BUILDING A - GROUND FLOOR PLAN	D	08/10/25
A-DA 1002	BUILDING B - GROUND FLOOR & ROOF PLAN	B	08/10/25
A-DA 1010	BUILDING A - LEVEL 2 & ROOF	D	08/10/25
A-DA 2000	OVERALL SECTIONS	D	08/10/25
A-DA 2010	BUILDING A SECTIONS	D	08/10/25
A-DA 2011	BUILDING B SECTIONS	B	08/10/25
A-DA 3000	BUILDING A ELEVATIONS	D	08/10/25
A-DA 3001	BUILDING A ELEVATIONS	D	08/10/25
A-DA 3002	BUILDING B ELEVATIONS	B	08/10/25
A-DA 5000	3D VIEWS	B	08/10/25

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A	17/09/25	WIP FOR INFORMATION	JR	PW
B	24/09/25	WIP FOR COORDINATION	JR	PW
C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW

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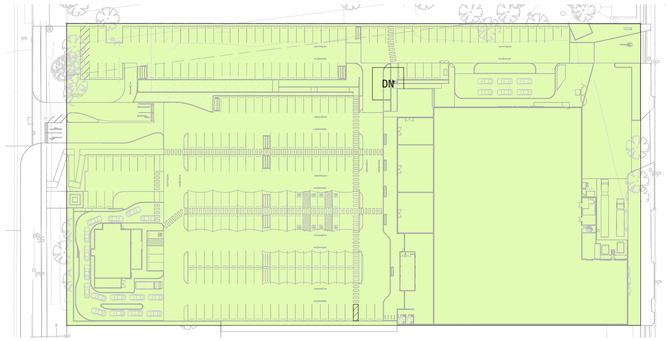
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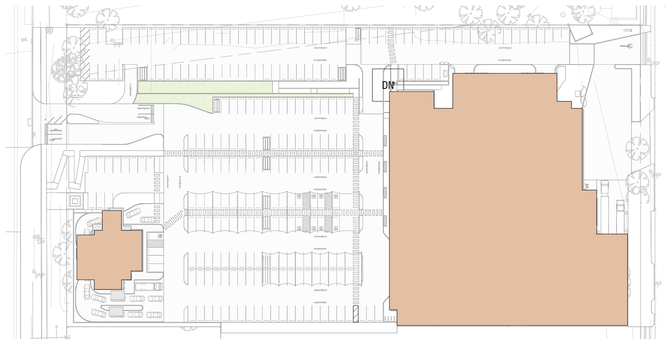
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Revision
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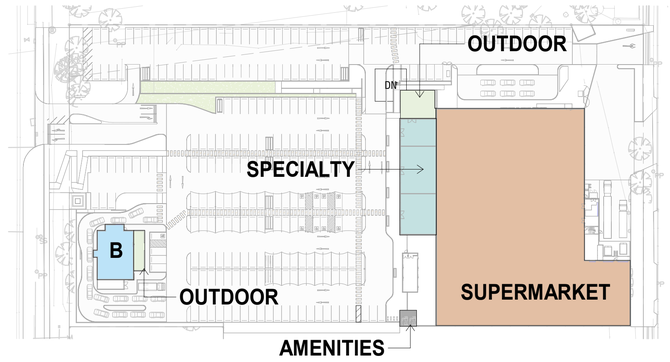
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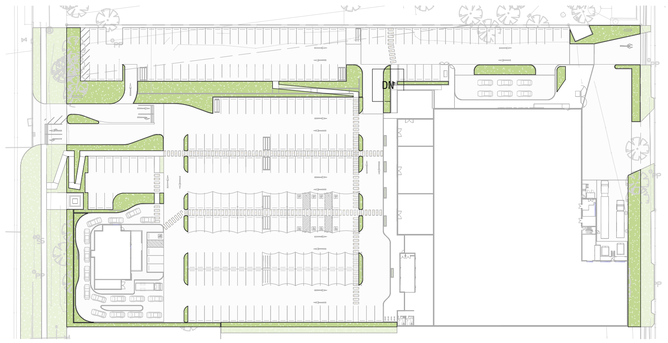
3 2000 SITE AREA DIAGRAM



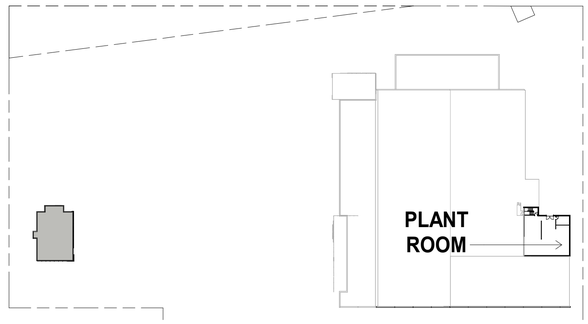
5 2000 SITE COVER DIAGRAM



1 2000 TOTAL GFA DIAGRAM - GROUND FLOOR



2 2000 PERVIOUS AREA DIAGRAM



4 2000 GFA DIAGRAM - MEZZANINE LEVEL

DEVELOPMENT SUMMARY:

SITE AREA	
	18,467 m²

SITE COVER	
	5,830 m² (32%)

GFA			
BUILDING A			
	SUPERMARKET	3,750 m²	
	SPECIALTY	455 m²	
	AMENITIES	30 m²	
			4,235 m²
BUILDING A OUTDOOR DINING			105 m²
BUILDING B			210 m²
BUILDING B OUTDOOR DINING			48 m²
			4,598 m²

PERVIOUS	
LANDSCAPE	1,715 m²

PARKING	
CARS	245
MOTORCYCLES	8
BIKES	8

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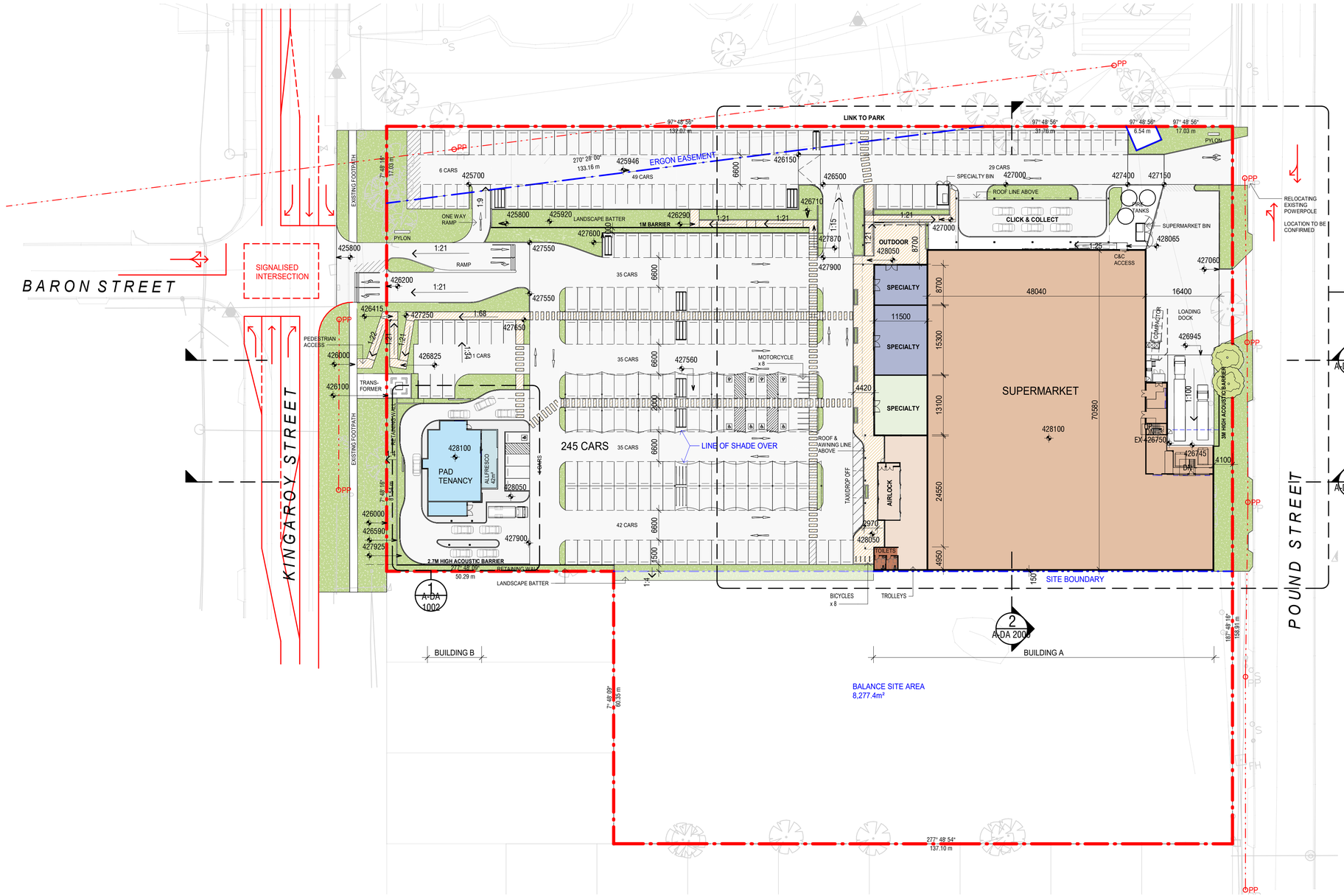
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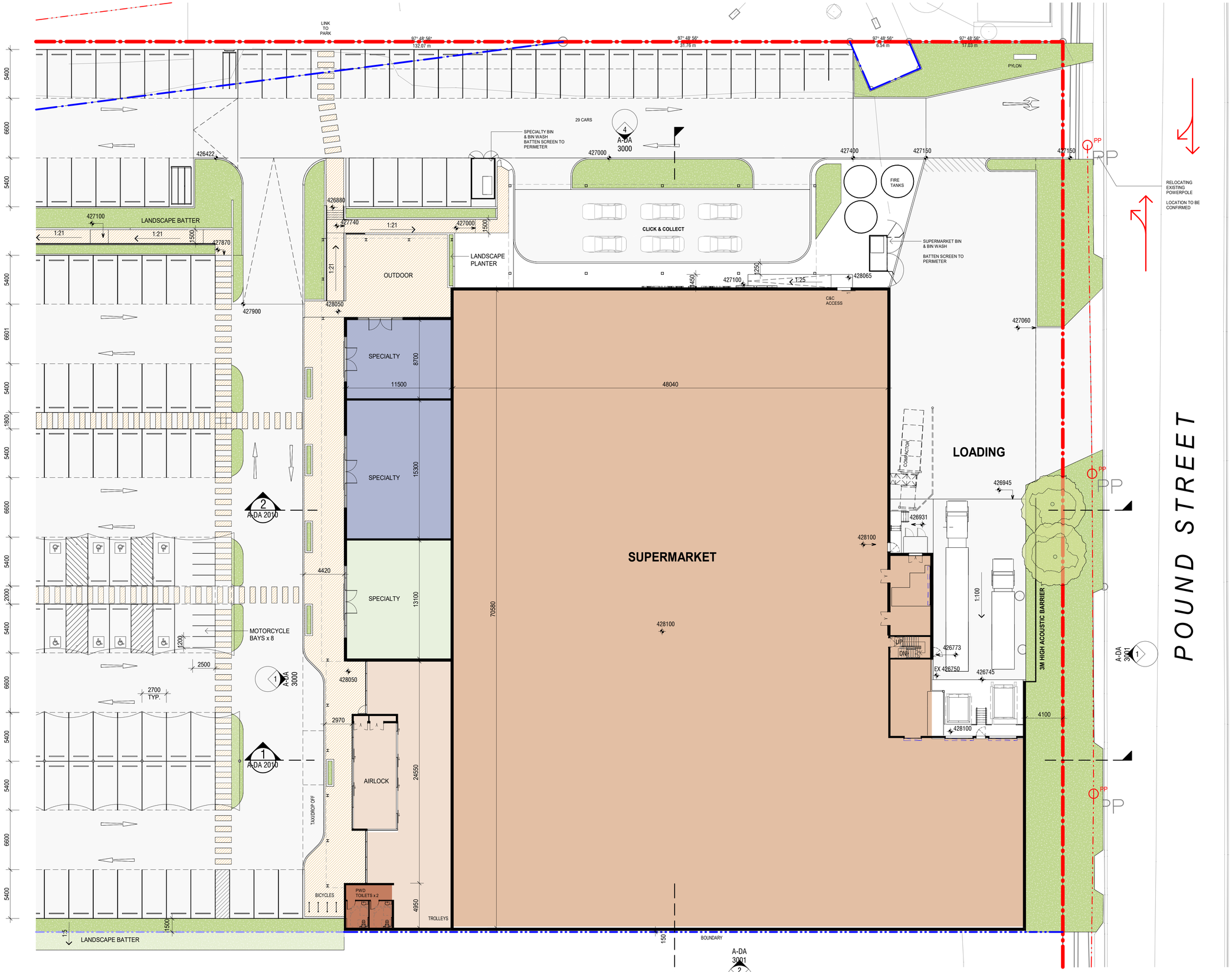
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DEVELOPMENT AREA SUMMARY

Drawing Number **A-DA 0010**

Revision **C**


BARON STREET
KINGAROY STREET
POUND STREET
SIGNALISED INTERSECTION
LINK TO PARK
ERGON EASEMENT
EXISTING FOOTPATH
ONE WAY RAMP
RAMP
PYLON
1M BARRIER
LANDSCAPE BATTER
6 CARS
49 CARS
35 CARS
245 CARS
42 CARS
11 CARS
MOTORCYCLE x 8
PEDESTRIAN ACCESS
TRANS-FORMER
2.4M HIGH ACOUSTIC BARRIER
428100 PAD TENANCY
ALFRESCO 42m²
428050
427900
2.7M HIGH ACOUSTIC BARRIER
RETAINING WALL
LINE OF SHADE OVER
ROOF & AWNING LINE ABOVE
TAXI/DROP OFF
AIRLOCK
TOILETS
BICYCLES x 8
TROLLEYS
SPECIALTY BIN
29 CARS
ROOF LINE ABOVE
CLICK & COLLECT
PICK UP BAYS
SUPERMARKET BIN
C&C ACCESS
OUTDOOR
SPECIALTY
SPECIALTY
SPECIALTY
SUPERMARKET
428100
70560
48040
16400
11500
15300
13100
24550
4950
LOADING DOCK
CONNECTION
EX-426750
3M HIGH ACOUSTIC BARRIER
RELOCATING EXISTING POWERPOLE
LOCATION TO BE CONFIRMED
SITE BOUNDARY
BUILDING A
BUILDING B
BALANCE SITE AREA
8,277.4m²
97° 48' 56" 137.07 m
270° 28' 00" 133.16 m
277° 48' 16" 50.29 m
277° 48' 09" 6.33 m
277° 48' 54" 137.10 m
183° 48' 16" 138.91 m
97° 48' 56" 6.54 m
97° 48' 56" 17.03 m
97° 48' 56" 37.76 m
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1 BUILDING A - GROUND FLOOR PLAN
2000
1 : 200

LEGEND

PEDESTRIAN CONNECTION

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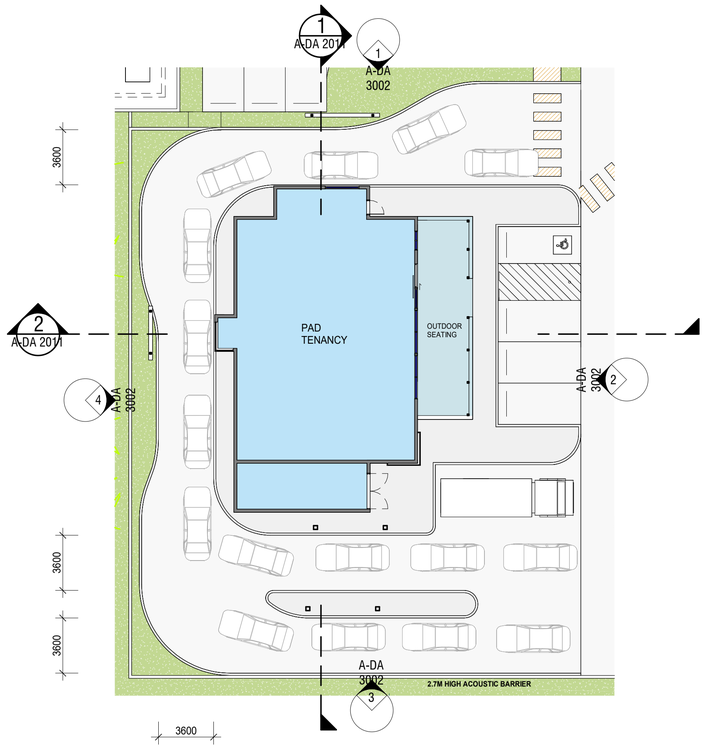
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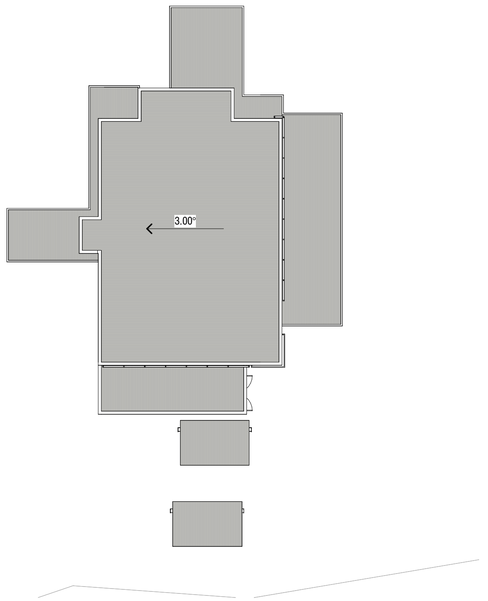
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B	08/10/25	WIP FOR COORDINATION	JR	PW



1 A-DA 1000 BUILDING B - GROUND FLOOR PLAN

1 : 200



2 2000 BUILDING B ROOF PLAN

1 : 200

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Drawing Title

BUILDING B - GROUND FLOOR & ROOF PLAN

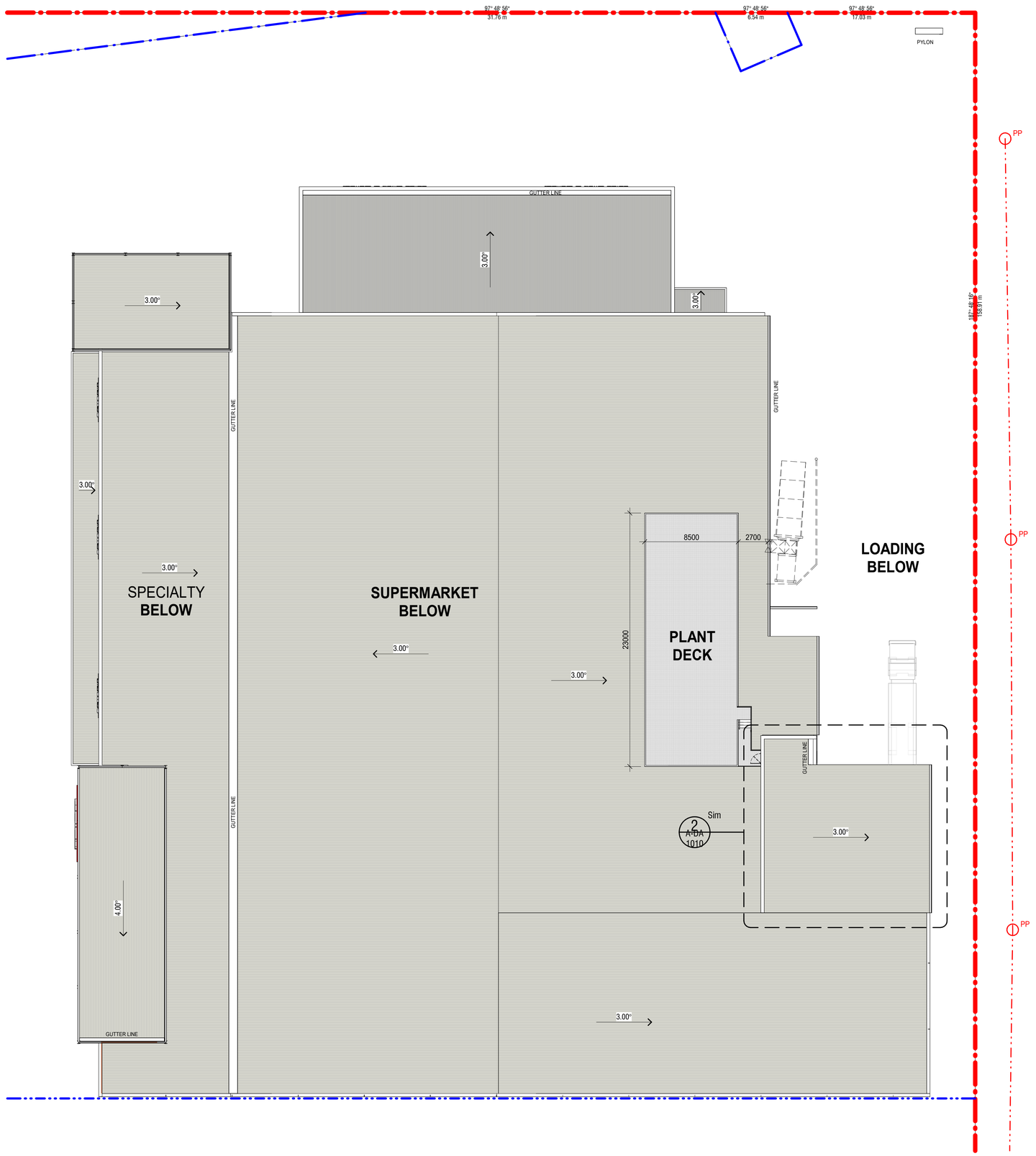
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C	30/09/25	WIP FOR COORDINATION	JR	PW
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2 PLANT LEVEL
2000 1 : 200



1 ROOF PLAN
2000 1 : 200

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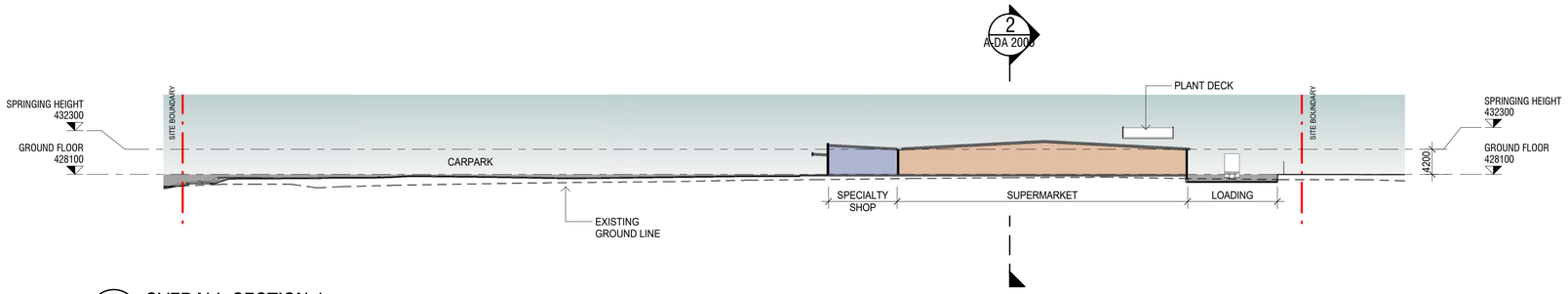
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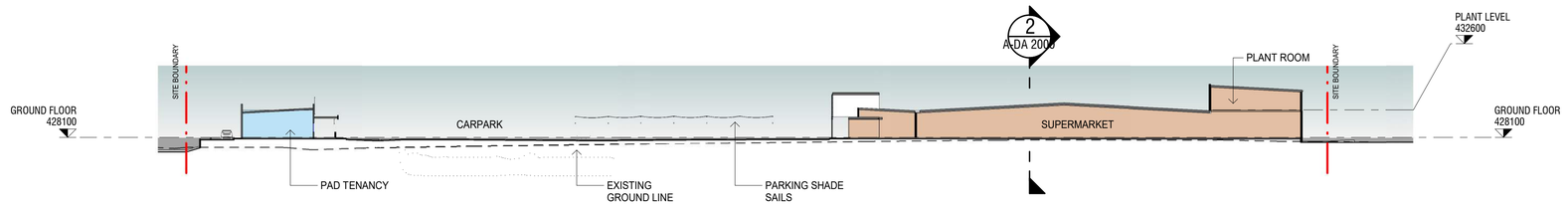
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Revision
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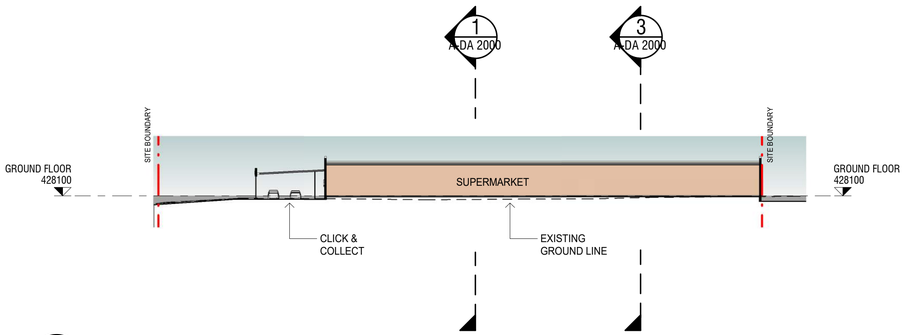
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1 / 0010 OVERALL SECTION 1
1 : 500



3 / 0010 OVERALL SECTION 2
1 : 500



2 / 0010 OVERALL SECTION 3
1 : 500

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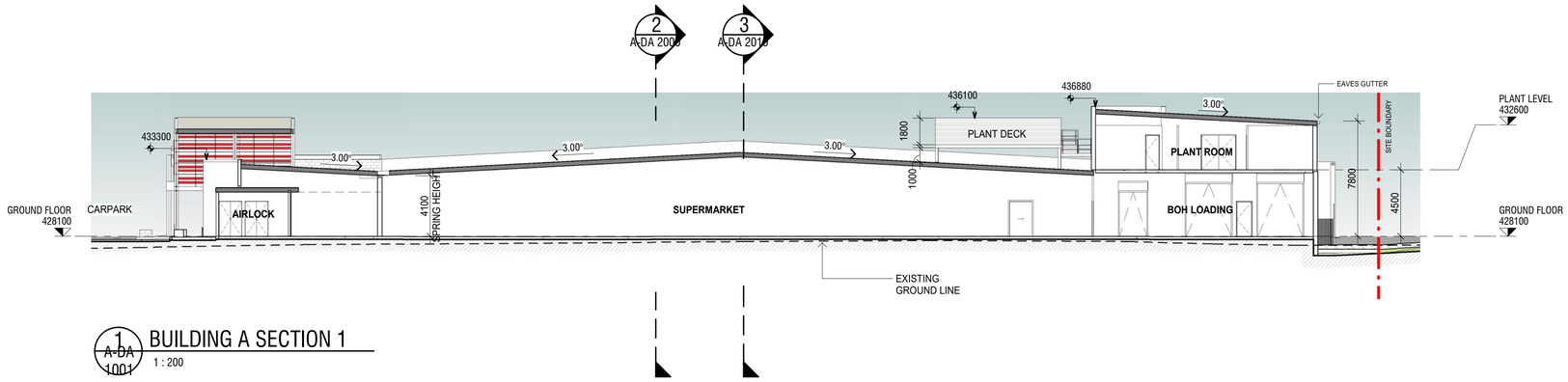
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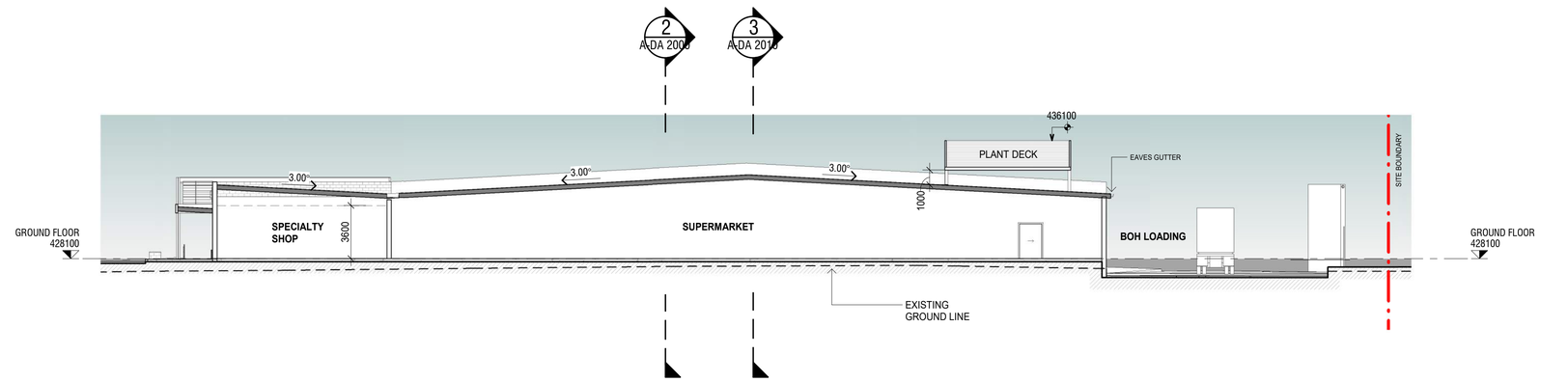
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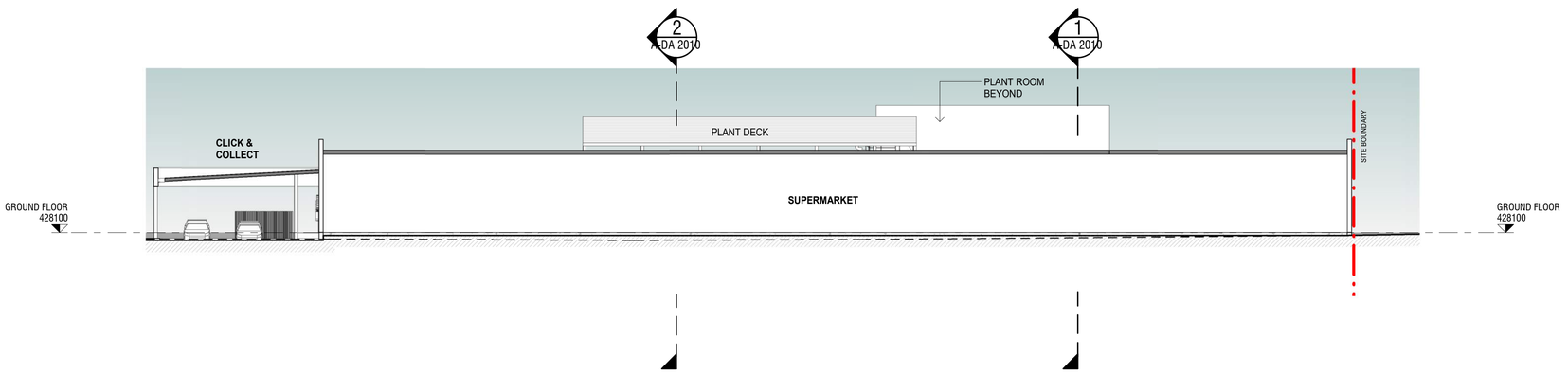
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3 2000 BUILDING A SECTION 3

1 : 200

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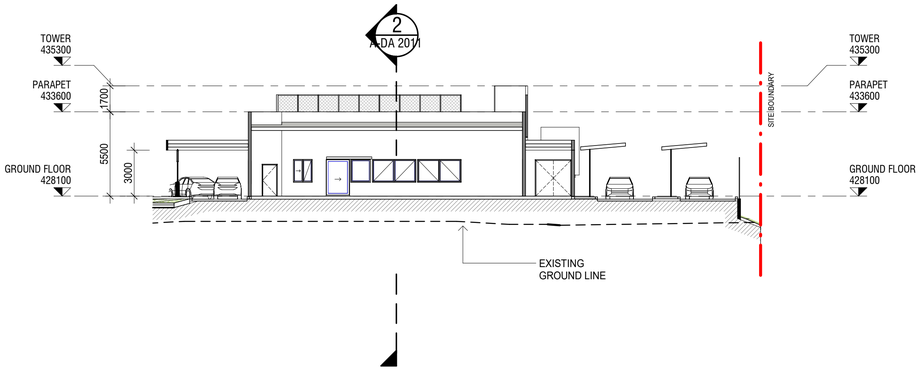
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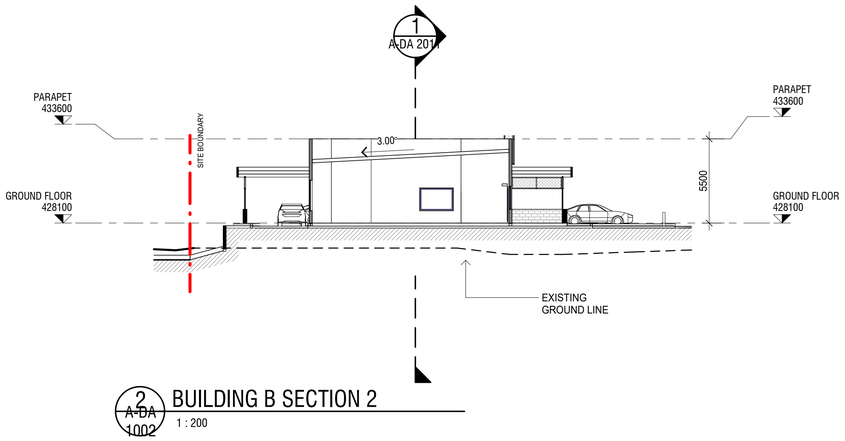
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Rev.	Date	Description	Ins.	Appr.
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2 A-DA 1002 BUILDING B SECTION 2

1 : 200

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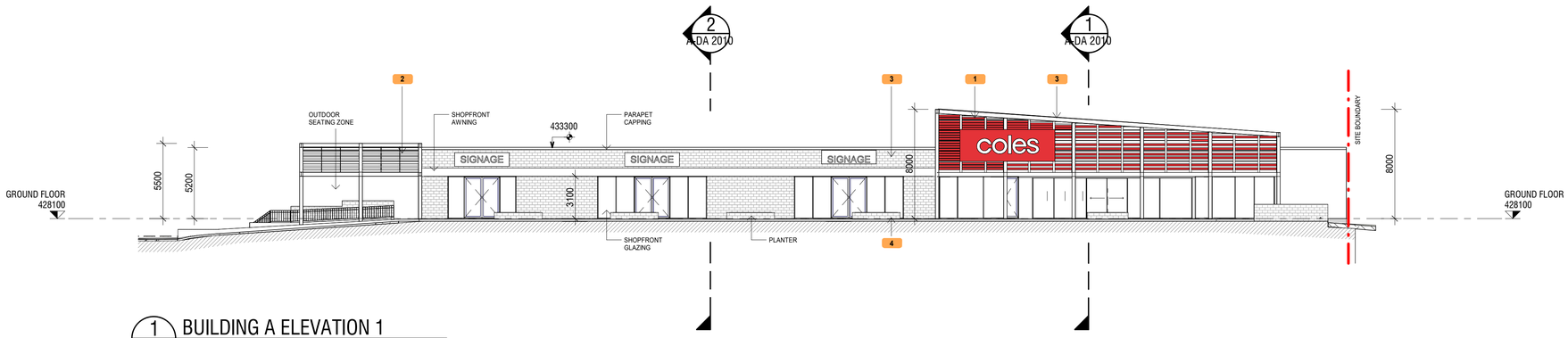
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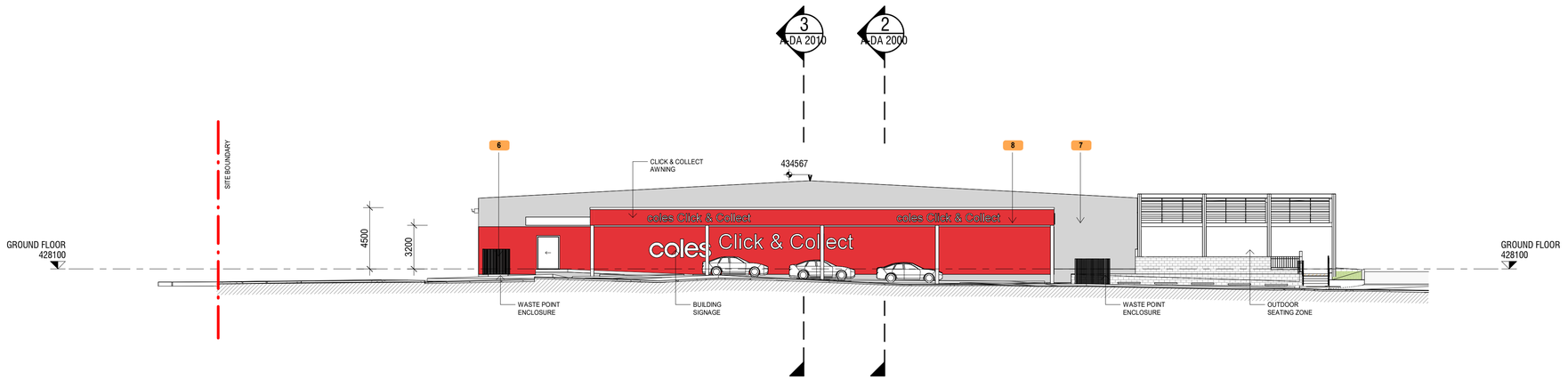
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B	24/09/25	WIP FOR COORDINATION	JR	PW
C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW



1 / 0010 BUILDING A ELEVATION 1

1 : 200



4 / 0010 BUILDING A ELEVATION 2

1 : 200

EXTERIOR MATERIAL PALETTE



1. ALUMINIUM BATTENS	2/3 STRUCTURAL ELEMENTS	4. FACADE CLADDING	5. PLANTERS	6. WASTE ENCLOSURES/ FENCE	7. FACADE PANELS	8. EXTERNAL CLADDING
Red Powder coated Aluminium battens	Black painted structural & architectural elements	Brick facade	Reclaimed bricks	TIMBER - LOOK ALUMINIUM BATTENS	PRE - CAST PANELS	RED PAINTED EXPRESS JOINT CFC

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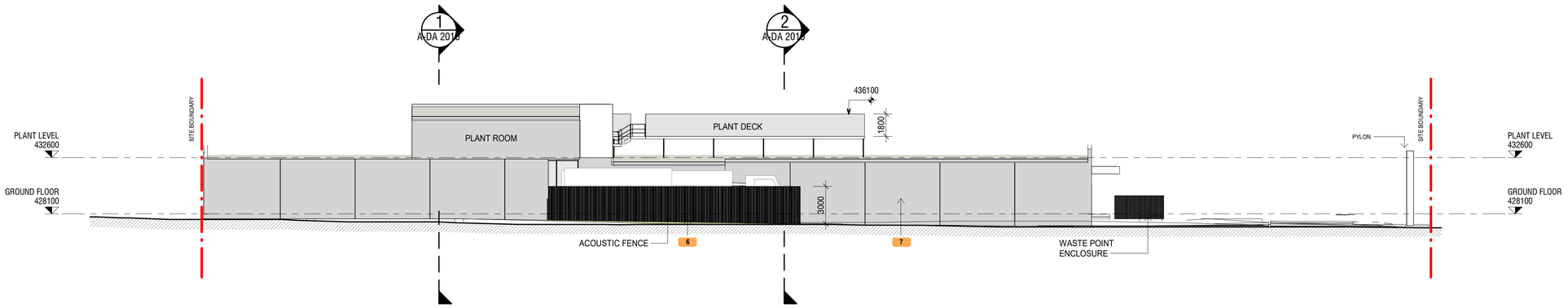
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BUILDING A ELEVATIONS

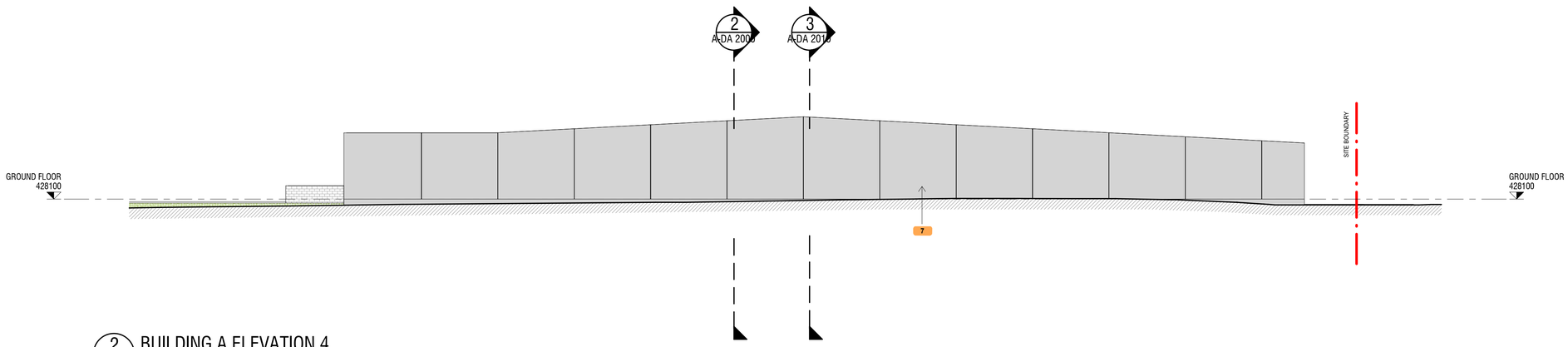
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B	24/09/25	WIP FOR COORDINATION	JR	PW
C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW



1 / 0010 BUILDING A ELEVATION 3
1 : 200



2 / 0010 BUILDING A ELEVATION 4
1 : 200

EXTERIOR MATERIAL PALETTE



1. ALUMINIUM BATTENS

Red Powder coated Aluminium battens

2/3 STRUCTURAL ELEMENTS

Black painted structural & architectural elements

4. FACADE CLADDING

Brick facade

5. PLANTERS

Reclaimed bricks

6. WASTE ENCLOSURES/ FENCE

TIMBER - LOOK ALUMINIUM BATTENS

7. FACADE PANELS

PRE - CAST PANELS

8. EXTERNAL CLADDING

RED PAINTED EXPRESS JOINT CFC

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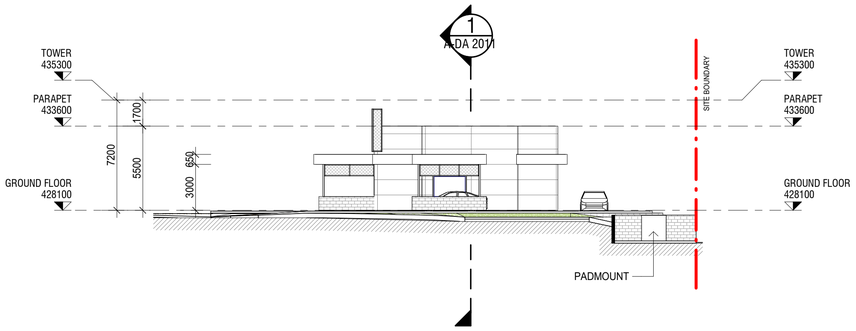
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BUILDING A ELEVATIONS

Drawing Number
A-DA-A-DA 3001

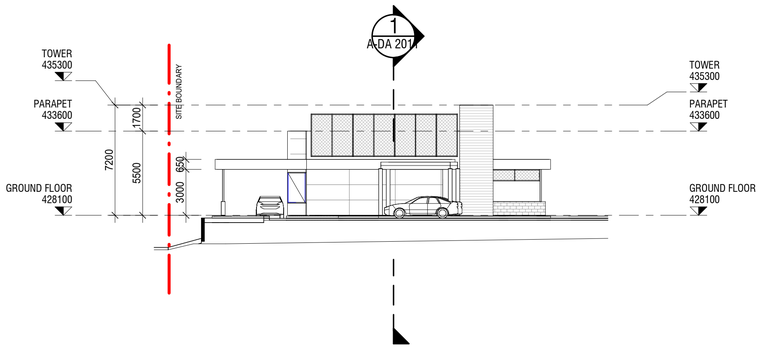
Revision
D

Rev.	Date	Description	Ins.	Appr.
A	30/09/25	WIP FOR COORDINATION	JR	PW
B	08/10/25	WIP FOR COORDINATION	JR	PW



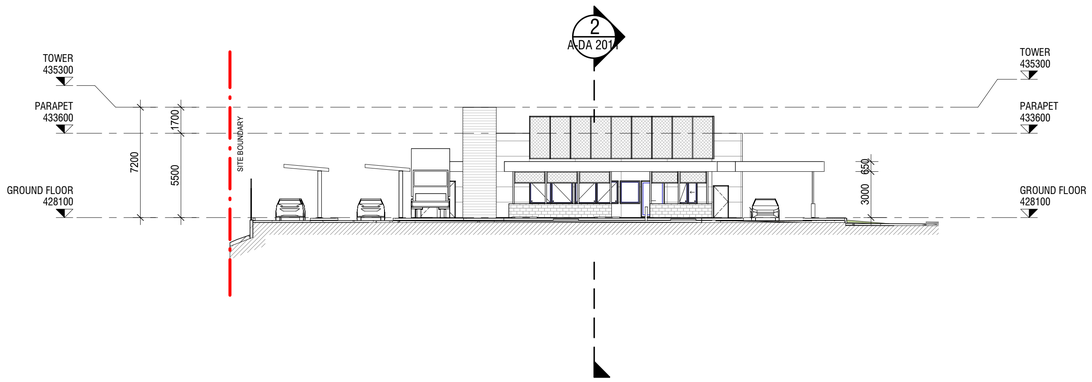
1 / 0010 BUILDING B ELEVATION 1

1 : 200



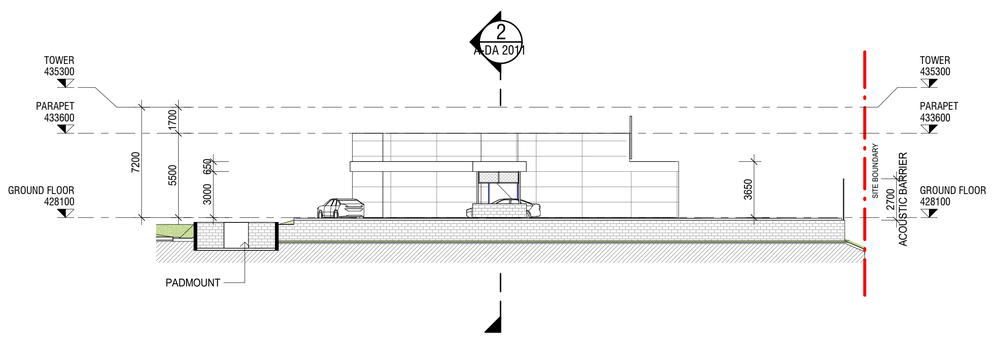
3 / 0010 BUILDING B ELEVATION 3

1 : 200



2 / 0010 BUILDING B ELEVATION 2

1 : 200



4 / 0010 BUILDING B ELEVATION 4

1 : 200

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07 3543 5649

ABN 44 678 592 535

Project
COLES KINGAROY

coles

Status

Date Plotted 8/10/2025 3:34:30 PM

Date Issued

Scale 1 : 200 @A1

0 5 10 20 30M

Drawing Title
BUILDING B ELEVATIONS

Drawing Number **A-DA-A-DA 3002**

Revision **B**

Rev.	Date	Description	Ins.	Appr.
A	30/09/25	WIP FOR COORDINATION	JR	PW
B	08/10/25	WIP FOR COORDINATION	JR	PW







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Project
COLES KINGAROY

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Status

Date Plotted 8/10/2025 3:34:42 PM

Date Issued

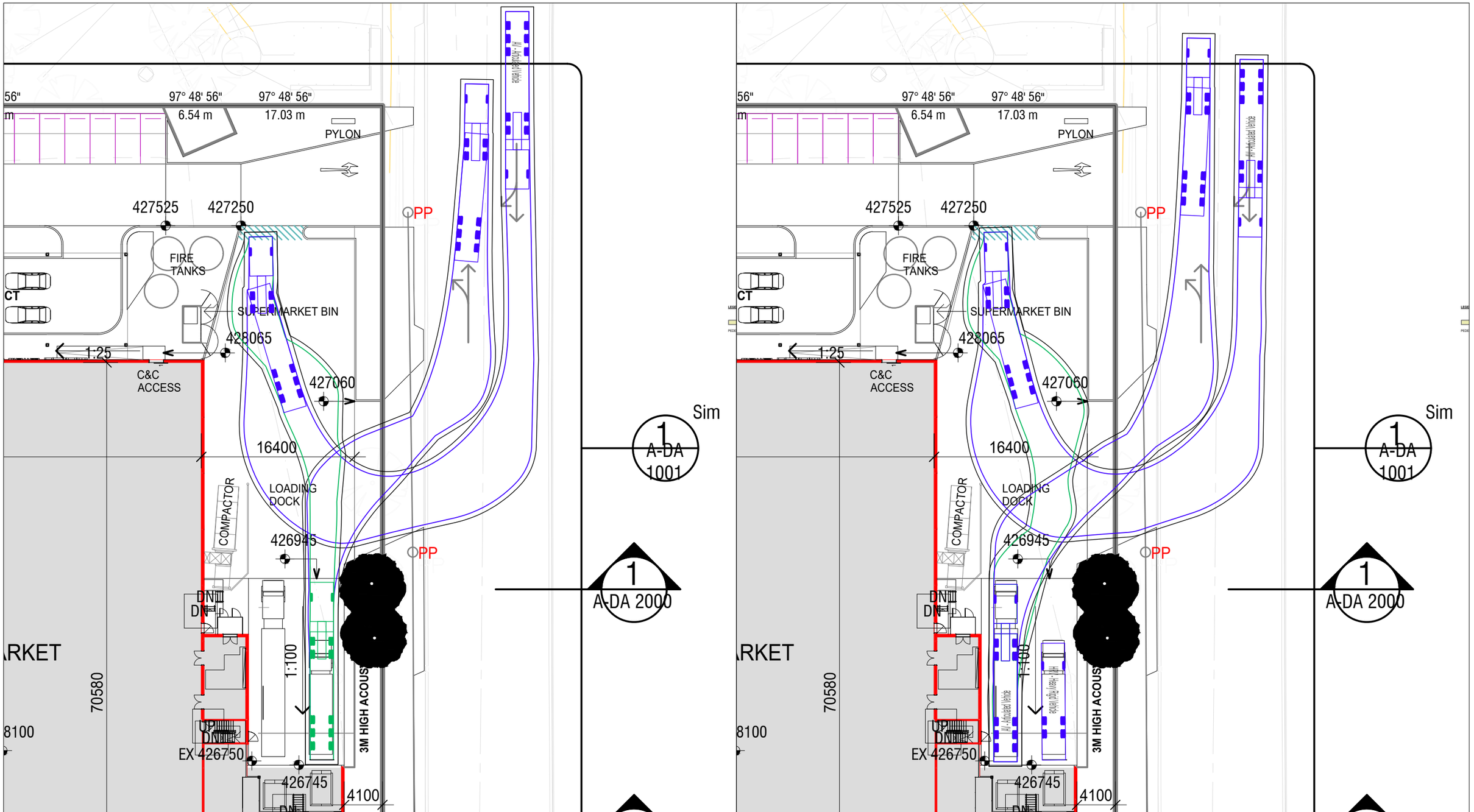
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Drawing Title
3D VIEWS

Drawing Number
A-DA-A-DA 5000

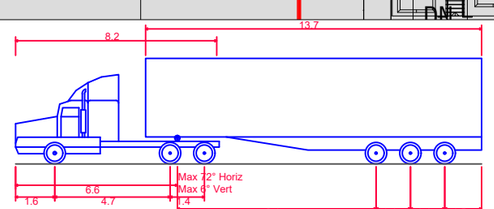
Revision
B

Appendix B Colliers Drawings



NOTES:

1. SUBJECT TO AUTHORITY APPROVAL AND ADDITIONAL DESIGN REVIEW.
2. MAPPING UNDERLAY PROVIDED BY SCALED NEARMAP IMAGERY. MAY BE SUBJECT TO DETAILED DESIGN & SITE SURVEY.
3. ALL UNITS SHOWN ARE IN METERS (mm) UNLESS OTHERWISE NOTED



AV - Articulated Vehicle

Overall Length	19.000m
Overall Width	2.500m
Overall Body Height	4.301m
Min Body Ground Clearance	0.418m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m
Design Speed Forward	5.0km/h
Clearance Envelope	0.500m

PRELIMINARY ADVICE ONLY

9 October 2025

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	29-09-25	ORIGINAL ISSUE	MGr	MGr	MGr

SCALE 0 4 8 12 16 20m

SCALE 1:400 AT ORIGINAL SIZE

NORTH

CLIENT

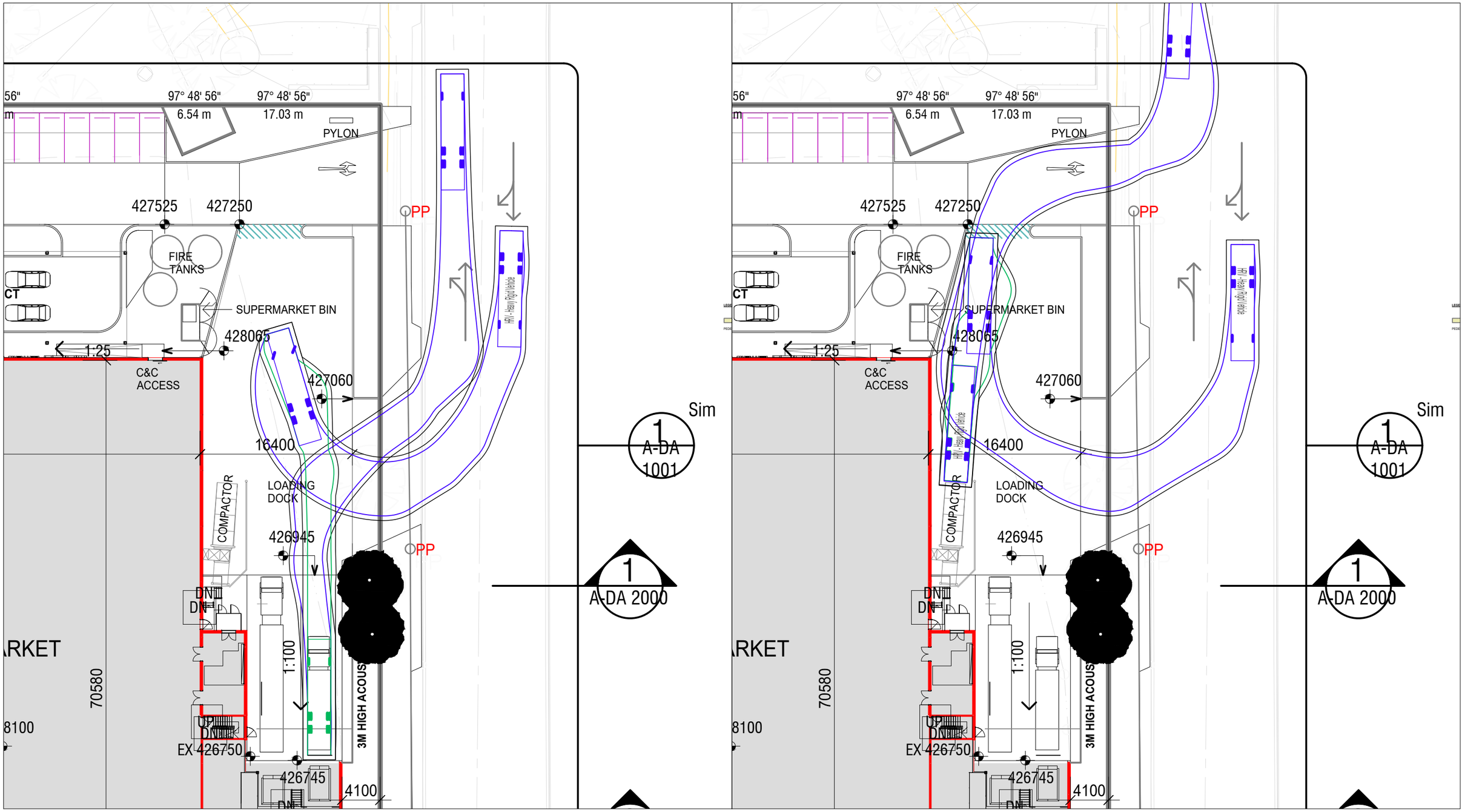
COLES GROUP PROPERTY DEVELOPMENTS LTD

Colliers International Engineering & Design (TTMC) Pty Ltd
ABN 65 010 868 621
LEVEL 8, 369 Ann Street, BRISBANE QLD 4000
P.O. BOX 12015, BRISBANE QLD 4003
T: (07) 3327 9500 F: (07) 3327 9501
E: ttmbris@ttmgroup.com.au W: www.ttmgroup.com.au

PROJECT
COLES KINGAROY - 1 POUND STREET, KINGAROY

DRAWING TITLE
SWEPT PATH ANALYSIS
19m ARTICULATED VEHICLE (AV)

PROJECT NUMBER	24BRT0525
ORIGINAL SIZE	A3
DRAWING NUMBER	24BRT0525-01
REVISION	A
DATE	9 Oct 2025
SHEET	1 OF 1



NOTES:

1. SUBJECT TO AUTHORITY APPROVAL AND ADDITIONAL DESIGN REVIEW.
2. MAPPING UNDERLAY PROVIDED BY SCALED NEARMAP IMAGERY. MAY BE SUBJECT TO DETAILED DESIGN & SITE SURVEY.
3. ALL UNITS SHOWN ARE IN METERS (mm) UNLESS OTHERWISE NOTED

PRELIMINARY ADVICE ONLY

9 October 2025

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	29-09-25	ORIGINAL ISSUE	MGr	MGr	MGr

SCALE 0 4 8 12 16 20m

SCALE 1:400 AT ORIGINAL SIZE

NORTH

CLIENT: COLES GROUP PROPERTY DEVELOPMENTS LTD

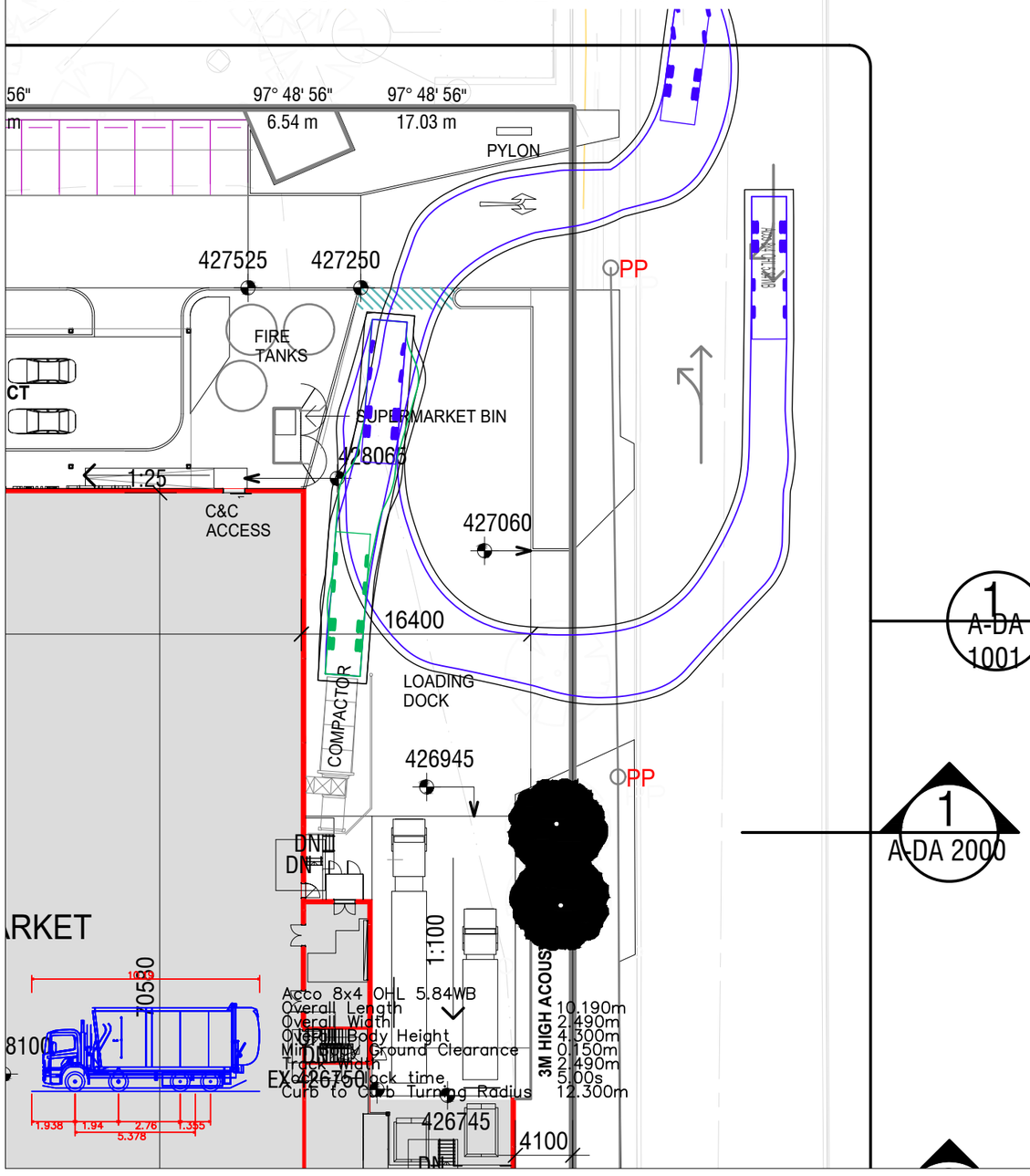
Colliers International Engineering & Design (TTMC) Pty Ltd
ABN 65 010 868 621
LEVEL 8, 369 Ann Street, BRISBANE QLD 4000
P.O. BOX 12015, BRISBANE QLD 4003
T: (07) 3327 9500 F: (07) 3327 9501
E: ttmbris@ttmgroup.com.au W: www.ttmgroup.com.au

PROJECT: **COLES KINGAROY - 1 POUND STREET, KINGAROY**

DRAWING TITLE: **SWEPT PATH ANALYSIS**
12.5m HEAVY RIGID VEHICLE (HRV)

PROJECT NUMBER	ORIGINAL SIZE
24BRT0525	A3
DRAWING NUMBER	REVISION
24BRT0525-02	A
DATE	SHEET
9 Oct 2025	1 OF 1

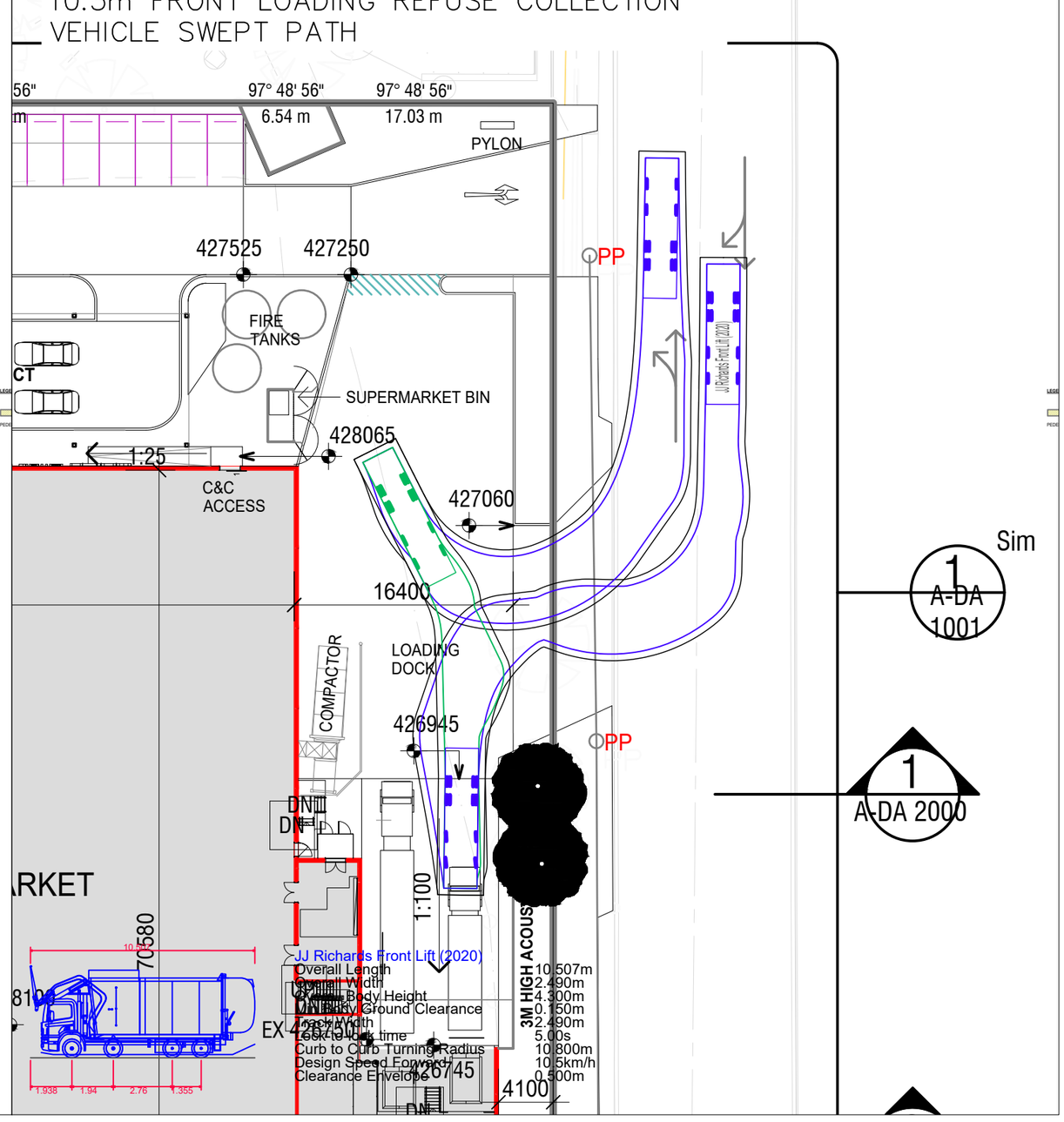
10.19m REFUSE COMPACTOR SWEPT PATH



Sim 1 A-DA 1001

1 A-DA 2000

10.5m FRONT LOADING REFUSE COLLECTION VEHICLE SWEPT PATH



Sim 1 A-DA 1001

1 A-DA 2000

NOTES:

1. SUBJECT TO AUTHORITY APPROVAL AND ADDITIONAL DESIGN REVIEW.
2. MAPPING UNDERLAY PROVIDED BY SCALED NEARMAP IMAGERY. MAY BE SUBJECT TO DETAILED DESIGN & SITE SURVEY.
3. ALL UNITS SHOWN ARE IN METERS (mm) UNLESS OTHERWISE NOTED

PRELIMINARY ADVICE ONLY

9 October 2025

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	29-09-25	ORIGINAL ISSUE	MGr	MGr	MGr

SCALE 0 4 8 12 16 20m

SCALE 1:400 AT ORIGINAL SIZE

NORTH

CLIENT

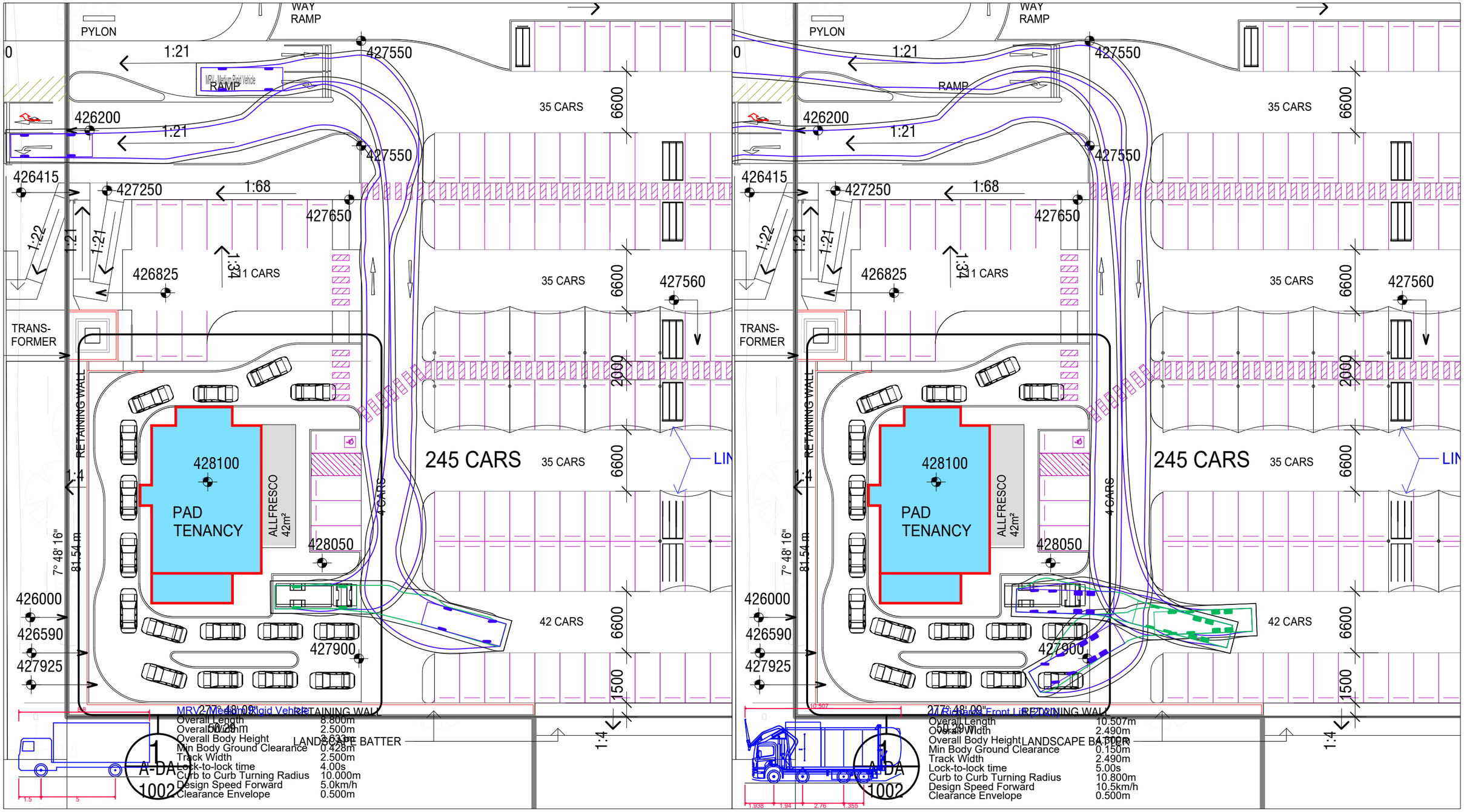
COLES GROUP PROPERTY DEVELOPMENTS LTD

Colliers International Engineering & Design (TTMC) Pty Ltd
ABN 65 010 868 621
LEVEL 8, 369 Ann Street, BRISBANE QLD 4000
P.O. BOX 12015, BRISBANE QLD 4003
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PROJECT
COLES KINGAROY - 1 POUND STREET, KINGAROY

DRAWING TITLE
SWEPT PATH ANALYSIS
HOOKLIFT REFUSE COLLECTION VEHICLE (RCV)
10.5m FRONT LOADING REFUSE COLLECTION VEHICLE (FRCV)

PROJECT NUMBER	24BRT0525
ORIGINAL SIZE	A3
DRAWING NUMBER	24BRT0525-03
REVISION	A
DATE	9 Oct 2025
SHEET	1 OF 1



NOTES:

1. SUBJECT TO AUTHORITY APPROVAL AND ADDITIONAL DESIGN REVIEW.
2. MAPPING UNDERLAY PROVIDED BY SCALED NEARMAP IMAGERY. MAY BE SUBJECT TO DETAILED DESIGN & SITE SURVEY.
3. ALL UNITS SHOWN ARE IN METERS (mm) UNLESS OTHERWISE NOTED

PRELIMINARY ADVICE ONLY
9 October 2025

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
A	29-09-25	ORIGINAL ISSUE	MGr	MGr	MGr

SCALE 0 4 8 12 16 20m
SCALE 1:400 AT ORIGINAL SIZE

NORTH

CLIENT
COLES GROUP PROPERTY DEVELOPMENTS LTD

Colliers International Engineering & Design (TTMC) Pty Ltd
ABN 65 010 868 621
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PROJECT
COLES KINGAROY - 1 POUND STREET, KINGAROY

DRAWING TITLE
SWEPT PATH ANALYSIS
8.8m MEDIUM RIGID VEHICLE (MRV)
10.5m FRONT LOADING REFUSE COLLECTION VEHICLE (FRCV)

PROJECT NUMBER	ORIGINAL SIZE
24BRT0525	A3
DRAWING NUMBER	REVISION
24BRT0525-04	A
DATE	SHEET
9 Oct 2025	1 OF 1

Appendix C Traffic Network Diagrams

Figure C1 - 2025 Survey Peak Volumes

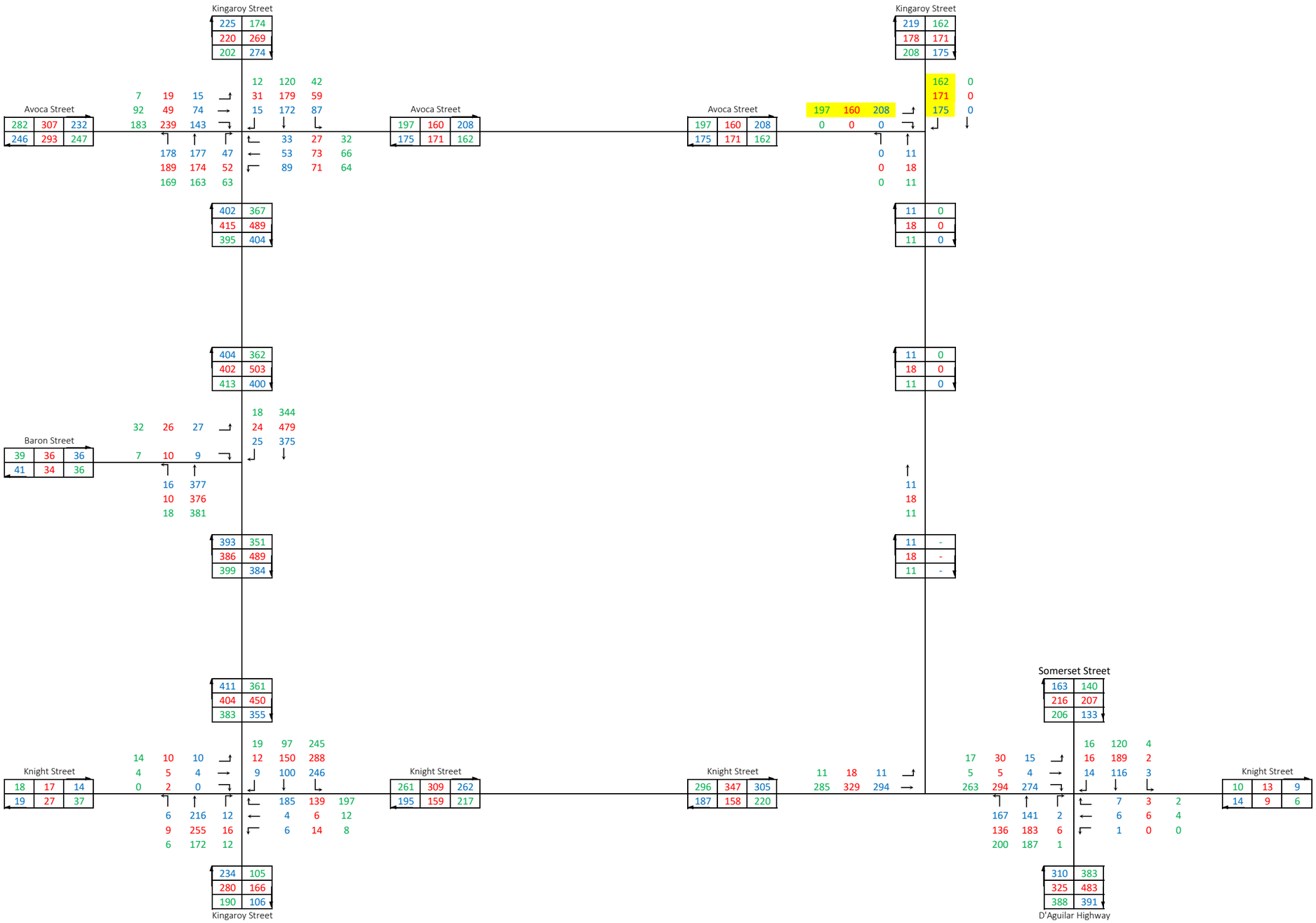


Figure C2 - 2028 Base Peak Volumes

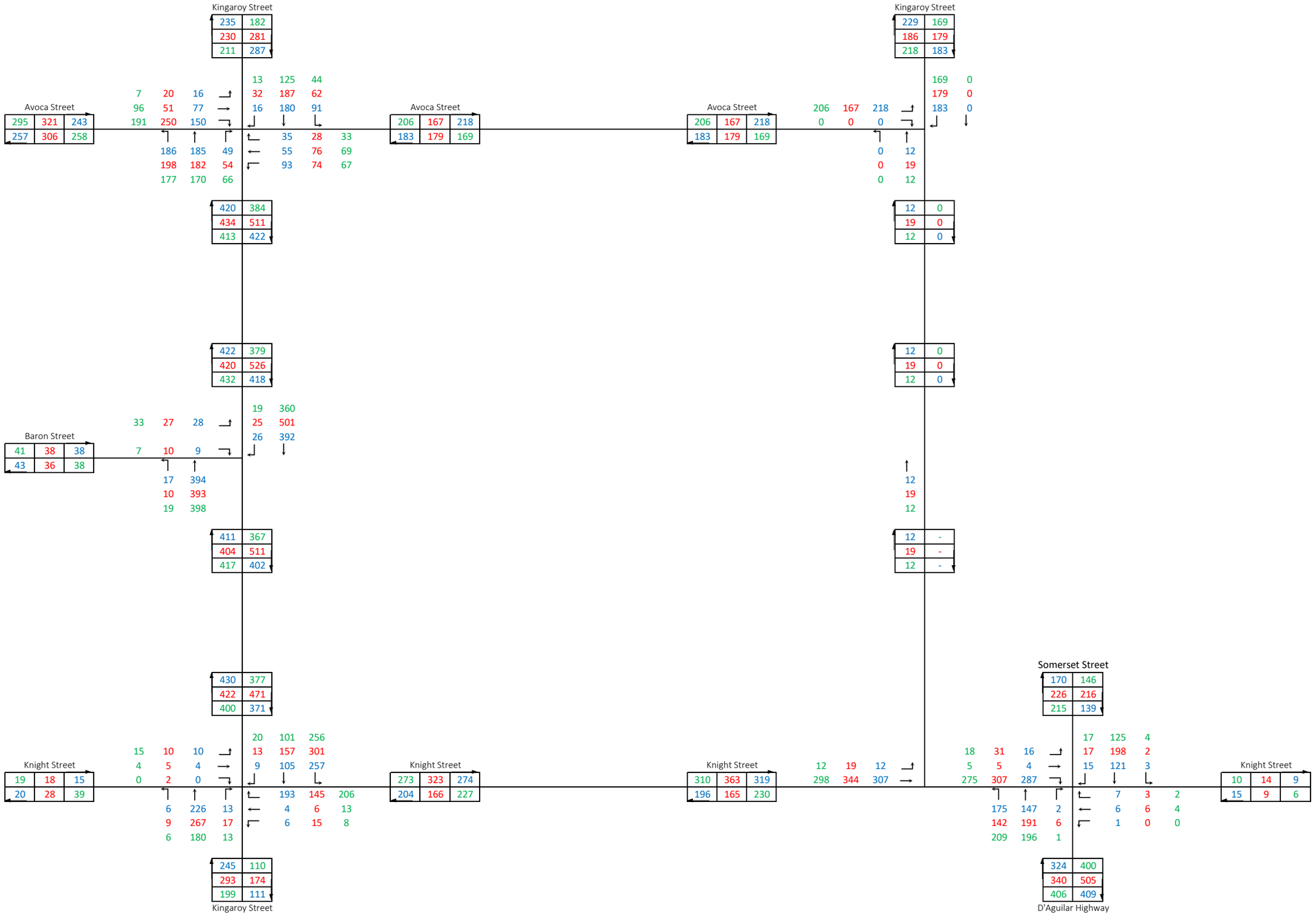


Figure C3 - 2038 Base Peak Volumes

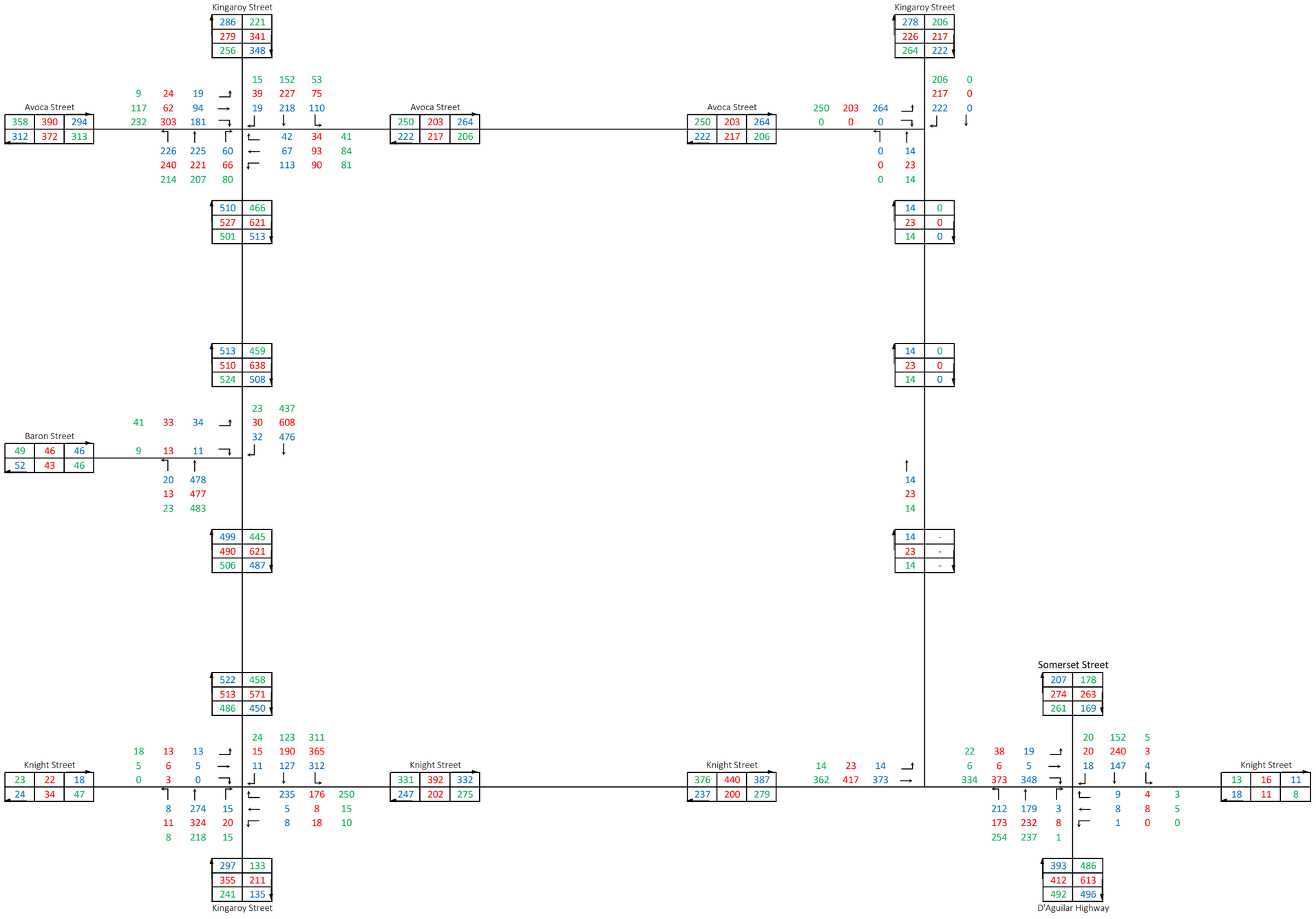


Figure C4 - Total Peak Generations

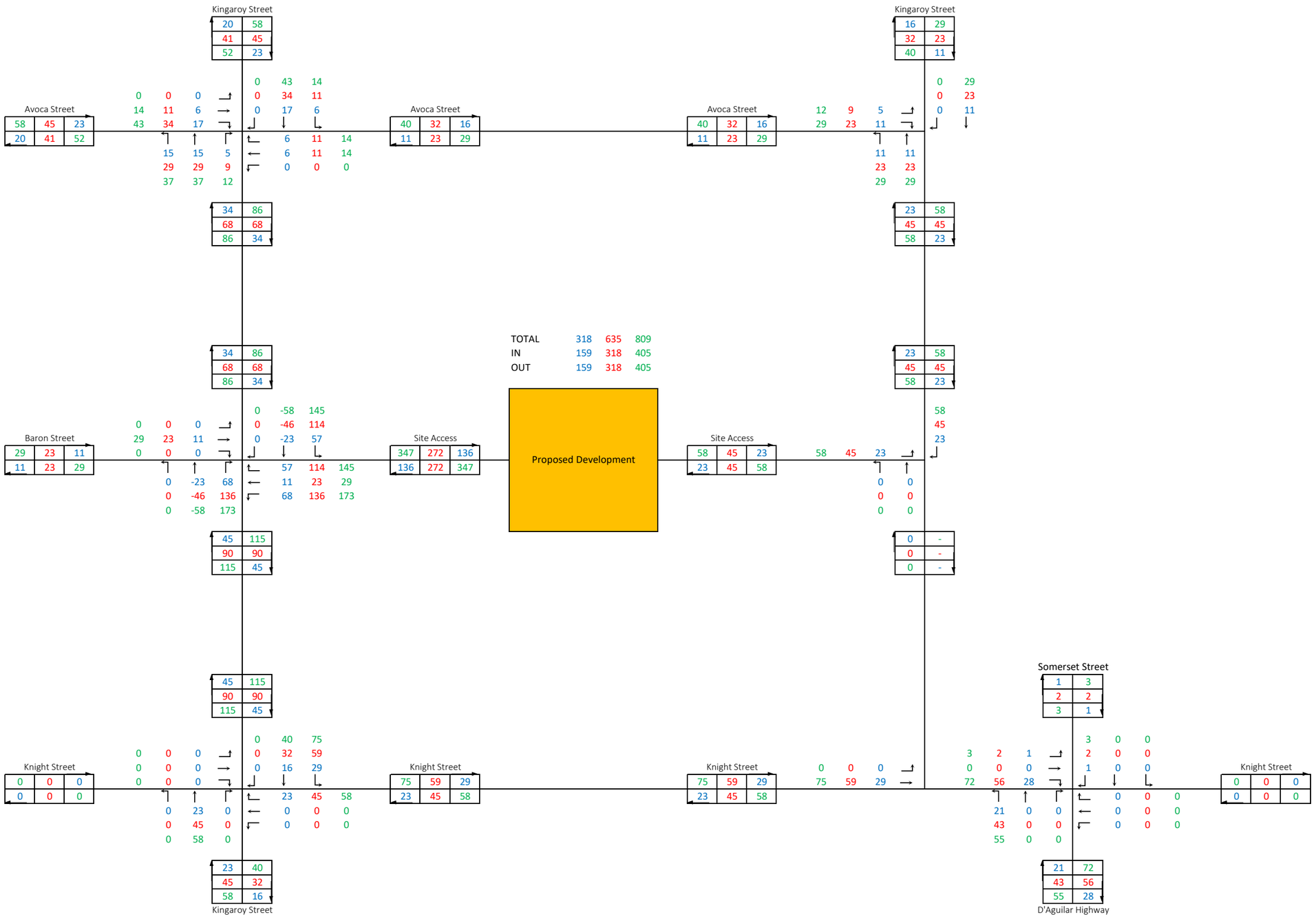


Figure C5 - 2028 Base + Development Peak Volumes

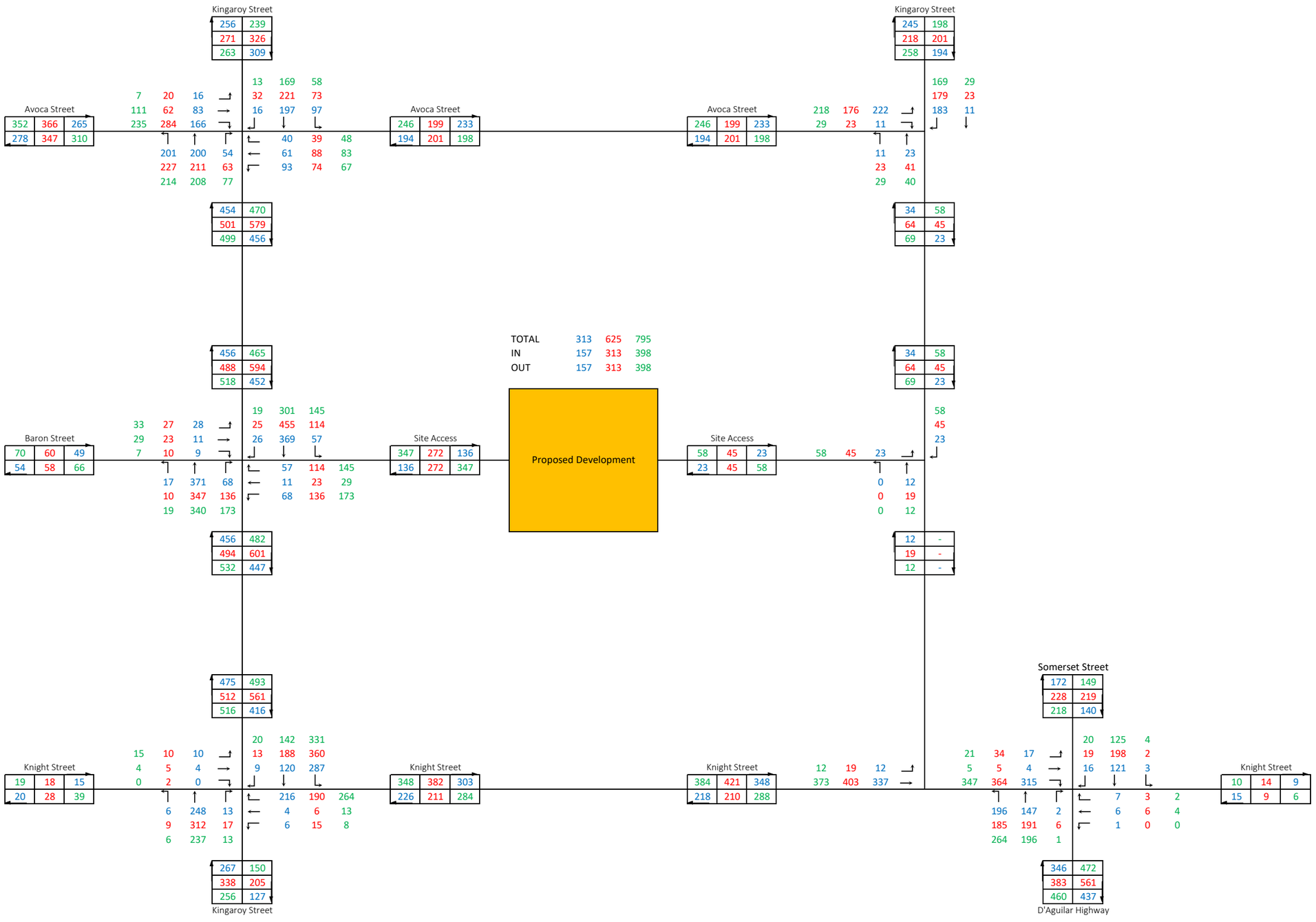
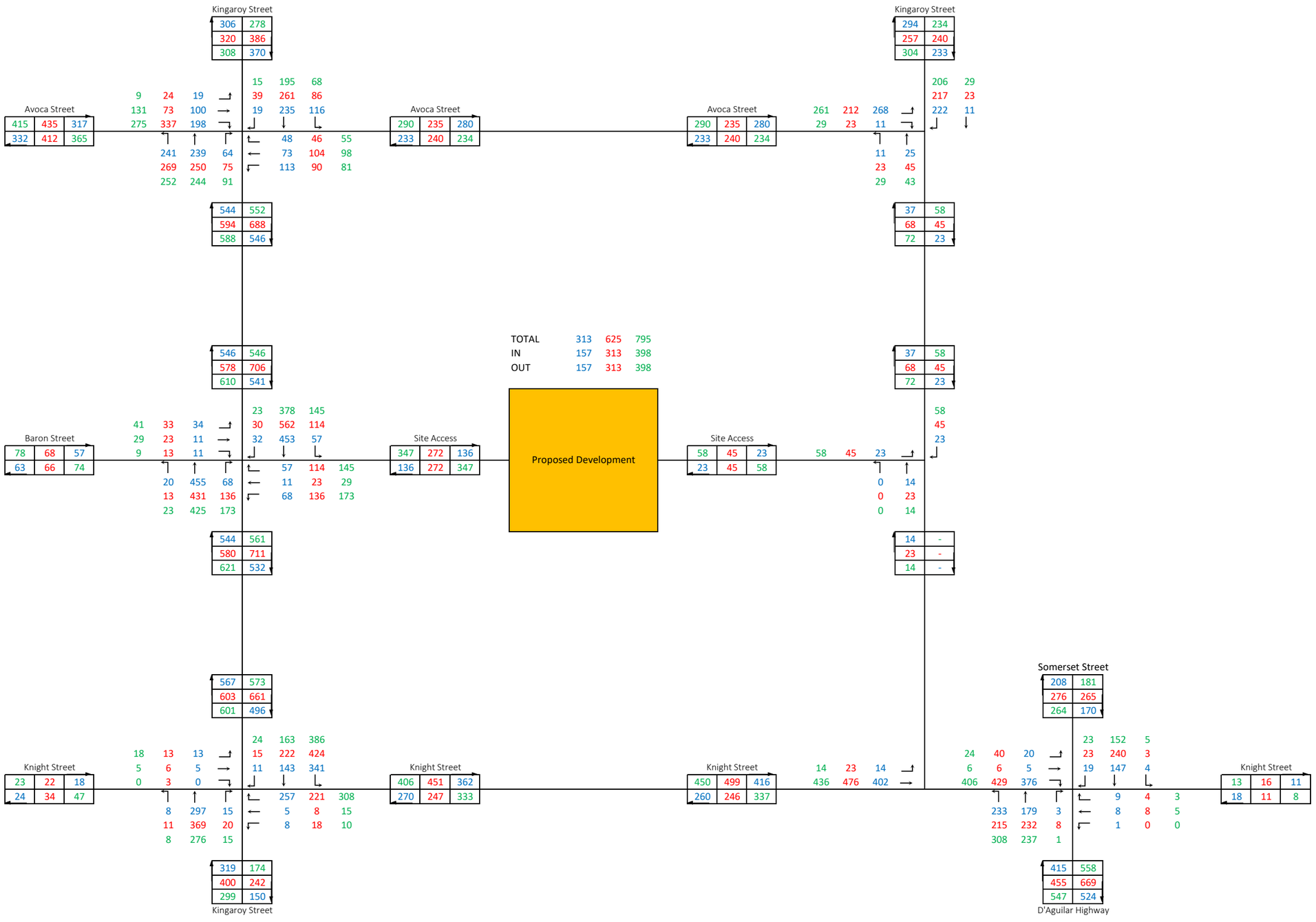


Figure C6 - 2038 Base + Development Peak Volumes



Appendix D SIDRA Output Reports

MOVEMENT SUMMARY

Site: [1 (1)] 2025 Survey Thursday AM Peak (1_Kingaroy Street / Avoca Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Avoca Street
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 70.0 seconds (Site Practical Cycle Time)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	187	4.0	187	4.0	0.410	29.7	LOS C	5.5	39.7	0.88	0.79	0.88	39.1
2	T1	All MCs	186	3.0	186	3.0	0.385	23.9	LOS C	5.4	38.8	0.87	0.71	0.87	43.1
3	R2	All MCs	49	0.0	49	0.0	* 0.311	40.3	LOS D	1.7	12.0	0.97	0.74	0.97	35.2
Approach			423	3.1	423	3.1	0.410	28.4	LOS C	5.5	39.7	0.89	0.75	0.89	40.2
East: Avoca Street (East)															
4	L2	All MCs	94	1.0	94	1.0	0.466	35.0	LOS C	4.8	33.8	0.95	0.78	0.95	37.9
5	T1	All MCs	56	0.0	56	0.0	* 0.466	29.4	LOS C	4.8	33.8	0.95	0.78	0.95	39.0
6	R2	All MCs	35	0.0	35	0.0	0.110	32.7	LOS C	1.0	7.2	0.88	0.72	0.88	37.9
Approach			184	0.5	184	0.5	0.466	32.9	LOS C	4.8	33.8	0.93	0.77	0.93	38.2
North: Kingaroy Street (North)															
7	L2	All MCs	92	2.0	92	2.0	0.568	28.3	LOS C	7.9	55.6	0.87	0.75	0.87	41.7
8	T1	All MCs	181	1.0	181	1.0	* 0.568	22.7	LOS C	7.9	55.6	0.87	0.75	0.87	43.0
9	R2	All MCs	16	0.0	16	0.0	0.099	38.6	LOS D	0.5	3.6	0.92	0.68	0.92	35.9
Approach			288	1.3	288	1.3	0.568	25.3	LOS C	7.9	55.6	0.87	0.75	0.87	41.9
West: Avoca Street (West)															
10	L2	All MCs	16	13.0	16	13.0	0.333	34.0	LOS C	2.9	20.5	0.90	0.71	0.90	39.1
11	T1	All MCs	78	0.0	78	0.0	0.333	28.3	LOS C	2.9	20.5	0.90	0.71	0.90	40.6
12	R2	All MCs	151	5.0	151	5.0	* 0.568	35.3	LOS D	4.9	35.9	0.95	0.79	0.96	37.0
Approach			244	3.9	244	3.9	0.568	33.0	LOS C	4.9	35.9	0.93	0.76	0.93	38.2
All Vehicles			1140	2.4	1140	2.4	0.568	29.3	LOS C	7.9	55.6	0.90	0.76	0.90	39.8

MOVEMENT SUMMARY

Site: [1 (2)] 2028 Base Thursday AM Peak (1_Kingaroy Street / Avoca Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Avoca Street
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 70.0 seconds (Site Practical Cycle Time)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	196	4.0	196	4.0	0.428	29.8	LOS C	5.8	41.7	0.88	0.79	0.88	39.1
2	T1	All MCs	195	3.0	195	3.0	0.402	24.0	LOS C	5.7	40.7	0.88	0.72	0.88	43.0
3	R2	All MCs	52	0.0	52	0.0	* 0.324	40.4	LOS D	1.8	12.5	0.98	0.74	0.98	35.1
Approach			442	3.1	442	3.1	0.428	28.5	LOS C	5.8	41.7	0.89	0.76	0.89	40.2
East: Avoca Street (East)															
4	L2	All MCs	98	1.0	98	1.0	0.486	35.1	LOS D	5.0	35.4	0.95	0.78	0.95	37.8
5	T1	All MCs	58	0.0	58	0.0	* 0.486	29.5	LOS C	5.0	35.4	0.95	0.78	0.95	38.9
6	R2	All MCs	37	0.0	37	0.0	0.116	32.8	LOS C	1.1	7.7	0.88	0.72	0.88	37.9
Approach			193	0.5	193	0.5	0.486	33.0	LOS C	5.0	35.4	0.94	0.77	0.94	38.2
North: Kingaroy Street (North)															
7	L2	All MCs	96	2.0	96	2.0	0.596	29.6	LOS C	8.3	58.9	0.88	0.76	0.88	41.6
8	T1	All MCs	189	1.0	189	1.0	* 0.596	24.0	LOS C	8.3	58.9	0.88	0.76	0.88	42.9
9	R2	All MCs	17	0.0	17	0.0	0.106	39.8	LOS D	0.5	3.8	0.92	0.69	0.92	35.9
Approach			302	1.3	302	1.3	0.596	26.7	LOS C	8.3	58.9	0.88	0.76	0.88	41.3
West: Avoca Street (West)															
10	L2	All MCs	17	13.0	17	13.0	0.348	34.1	LOS C	3.0	21.5	0.90	0.71	0.90	39.1
11	T1	All MCs	81	0.0	81	0.0	0.348	28.4	LOS C	3.0	21.5	0.90	0.71	0.90	40.6
12	R2	All MCs	158	5.0	158	5.0	* 0.596	35.6	LOS D	5.2	38.1	0.96	0.80	0.98	36.8
Approach			256	3.9	256	3.9	0.596	33.2	LOS C	5.2	38.1	0.94	0.77	0.95	38.1
All Vehicles			1193	2.4	1193	2.4	0.596	29.8	LOS C	8.3	58.9	0.91	0.76	0.91	39.6

MOVEMENT SUMMARY

Site: [1 (11)] 2028 Base + Development Thursday AM Peak (1_Kingaroy Street / Avoca Street)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Avoca Street
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 70.0 seconds (Site Practical Cycle Time)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	212	4.0	212	4.0	0.465	27.3	LOS C	5.9	42.4	0.83	0.78	0.83	40.2
2	T1	All MCs	211	3.0	211	3.0	0.437	21.4	LOS C	5.7	41.3	0.82	0.68	0.82	44.4
3	R2	All MCs	57	0.0	57	0.0	* 0.357	39.4	LOS D	1.9	13.5	0.96	0.74	0.96	35.5
Approach			479	3.1	479	3.1	0.465	26.1	LOS C	5.9	42.4	0.84	0.73	0.84	41.2
East: Avoca Street (East)															
4	L2	All MCs	98	1.0	98	1.0	0.505	35.2	LOS D	5.3	37.0	0.95	0.79	0.95	37.8
5	T1	All MCs	64	0.0	64	0.0	* 0.505	29.7	LOS C	5.3	37.0	0.95	0.79	0.95	38.9
6	R2	All MCs	42	0.0	42	0.0	0.133	32.9	LOS C	1.3	8.8	0.88	0.72	0.88	37.9
Approach			204	0.5	204	0.5	0.505	33.0	LOS C	5.3	37.0	0.94	0.77	0.94	38.2
North: Kingaroy Street (North)															
7	L2	All MCs	102	2.0	102	2.0	0.653	32.4	LOS C	9.3	66.1	0.90	0.79	0.92	41.2
8	T1	All MCs	207	1.0	207	1.0	* 0.653	26.9	LOS C	9.3	66.1	0.90	0.79	0.92	42.6
9	R2	All MCs	17	0.0	17	0.0	0.106	41.9	LOS D	0.5	3.8	0.92	0.69	0.92	35.9
Approach			326	1.3	326	1.3	0.653	29.4	LOS C	9.3	66.1	0.90	0.78	0.92	40.0
West: Avoca Street (West)															
10	L2	All MCs	17	13.0	17	13.0	0.366	34.1	LOS C	3.2	23.0	0.90	0.72	0.90	39.1
11	T1	All MCs	87	0.0	87	0.0	0.366	28.4	LOS C	3.2	23.0	0.90	0.72	0.90	40.6
12	R2	All MCs	175	5.0	175	5.0	* 0.653	36.2	LOS D	5.9	43.0	0.97	0.83	1.03	36.6
Approach			279	3.9	279	3.9	0.653	33.6	LOS C	5.9	43.0	0.94	0.79	0.98	37.9
All Vehicles			1288	2.4	1288	2.4	0.653	29.7	LOS C	9.3	66.1	0.90	0.76	0.91	39.7

MOVEMENT SUMMARY

Site: [1 (4)] 2025 Survey Thursday PM Peak (1_Kingaroy Street / Avoca Street)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Avoca Street
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 70.0 seconds (Site Practical Cycle Time)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	199	4.0	199	4.0	0.571	34.4	LOS C	6.4	46.6	0.96	0.81	0.96	37.3
2	T1	All MCs	183	5.0	183	5.0	0.502	28.2	LOS C	5.8	42.4	0.94	0.77	0.94	41.0
3	R2	All MCs	55	0.0	55	0.0	* 0.344	40.5	LOS D	1.9	13.3	0.98	0.74	0.98	35.1
Approach			437	3.9	437	3.9	0.571	32.6	LOS C	6.4	46.6	0.95	0.78	0.95	38.4
East: Avoca Street (East)															
4	L2	All MCs	75	1.0	75	1.0	0.471	35.0	LOS C	4.9	34.4	0.95	0.78	0.95	38.2
5	T1	All MCs	77	1.0	77	1.0	* 0.471	29.4	LOS C	4.9	34.4	0.95	0.78	0.95	39.3
6	R2	All MCs	28	4.0	28	4.0	0.092	32.7	LOS C	0.8	6.1	0.87	0.71	0.87	37.9
Approach			180	1.5	180	1.5	0.471	32.3	LOS C	4.9	34.4	0.94	0.77	0.94	38.6
North: Kingaroy Street (North)															
7	L2	All MCs	62	0.0	62	0.0	0.679	33.8	LOS C	8.2	57.5	0.95	0.82	1.00	39.5
8	T1	All MCs	188	1.0	188	1.0	* 0.679	28.3	LOS C	8.2	57.5	0.95	0.82	1.00	40.7
9	R2	All MCs	33	0.0	33	0.0	0.205	39.4	LOS D	1.1	7.6	0.94	0.71	0.94	35.7
Approach			283	0.7	283	0.7	0.679	30.8	LOS C	8.2	57.5	0.95	0.81	1.00	39.5
West: Avoca Street (West)															
10	L2	All MCs	20	0.0	20	0.0	0.184	28.5	LOS C	1.9	13.9	0.80	0.65	0.80	41.5
11	T1	All MCs	52	6.0	52	6.0	0.184	23.0	LOS C	1.9	13.9	0.80	0.65	0.80	42.8
12	R2	All MCs	252	6.0	252	6.0	* 0.679	32.4	LOS C	8.1	59.8	0.94	0.84	0.99	38.1
Approach			323	5.6	323	5.6	0.679	30.6	LOS C	8.1	59.8	0.91	0.80	0.95	39.0
All Vehicles			1223	3.3	1223	3.3	0.679	31.6	LOS C	8.2	59.8	0.94	0.79	0.96	38.8

MOVEMENT SUMMARY

Site: [1 (5)] 2028 Base Thursday PM Peak (1_Kingaroy Street / Avoca Street)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Avoca Street
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 70.0 seconds (Site Practical Cycle Time)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	208	4.0	208	4.0	0.596	34.5	LOS C	6.8	49.1	0.96	0.81	0.97	37.2
2	T1	All MCs	192	5.0	192	5.0	0.524	28.3	LOS C	6.1	44.6	0.95	0.77	0.95	40.9
3	R2	All MCs	57	0.0	57	0.0	* 0.357	40.6	LOS D	2.0	13.8	0.98	0.74	0.98	35.1
Approach			457	3.9	457	3.9	0.596	32.7	LOS C	6.8	49.1	0.96	0.79	0.96	38.4
East: Avoca Street (East)															
4	L2	All MCs	78	1.0	78	1.0	0.490	35.1	LOS D	5.1	36.0	0.95	0.78	0.95	38.1
5	T1	All MCs	80	1.0	80	1.0	* 0.490	29.6	LOS C	5.1	36.0	0.95	0.78	0.95	39.2
6	R2	All MCs	29	4.0	29	4.0	0.096	32.7	LOS C	0.9	6.3	0.87	0.71	0.87	37.9
Approach			187	1.5	187	1.5	0.490	32.4	LOS C	5.1	36.0	0.94	0.77	0.94	38.5
North: Kingaroy Street (North)															
7	L2	All MCs	65	0.0	65	0.0	0.713	35.7	LOS D	8.7	61.3	0.96	0.84	1.04	39.3
8	T1	All MCs	197	1.0	197	1.0	* 0.713	30.1	LOS C	8.7	61.3	0.96	0.84	1.04	40.4
9	R2	All MCs	34	0.0	34	0.0	0.212	40.7	LOS D	1.1	7.8	0.94	0.71	0.94	35.7
Approach			296	0.7	296	0.7	0.713	32.5	LOS C	8.7	61.3	0.96	0.83	1.03	38.7
West: Avoca Street (West)															
10	L2	All MCs	21	0.0	21	0.0	0.193	28.6	LOS C	2.0	14.5	0.80	0.65	0.80	41.4
11	T1	All MCs	54	6.0	54	6.0	0.193	23.1	LOS C	2.0	14.5	0.80	0.65	0.80	42.7
12	R2	All MCs	263	6.0	263	6.0	* 0.713	33.0	LOS C	8.7	64.0	0.95	0.86	1.03	37.8
Approach			338	5.6	338	5.6	0.713	31.2	LOS C	8.7	64.0	0.92	0.81	0.98	38.7
All Vehicles			1278	3.3	1278	3.3	0.713	32.2	LOS C	8.7	64.0	0.94	0.80	0.98	38.6

MOVEMENT SUMMARY

Site: [1 (10)] 2028 Base + Development Thursday PM Peak (1_Kingaroy Street / Avoca Street)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Avoca Street
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 70.0 seconds (Site Practical Cycle Time)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	239	4.0	239	4.0	0.664	32.6	LOS C	7.7	55.8	0.94	0.83	0.99	37.9
2	T1	All MCs	222	5.0	222	5.0	0.590	26.0	LOS C	6.9	50.2	0.92	0.76	0.92	42.1
3	R2	All MCs	66	0.0	66	0.0	* 0.417	39.7	LOS D	2.3	15.9	0.97	0.75	0.97	35.4
Approach			527	3.9	527	3.9	0.664	30.7	LOS C	7.7	55.8	0.94	0.79	0.96	39.2
East: Avoca Street (East)															
4	L2	All MCs	78	1.0	78	1.0	0.528	35.3	LOS D	5.6	39.2	0.96	0.79	0.96	38.1
5	T1	All MCs	93	1.0	93	1.0	* 0.528	29.8	LOS C	5.6	39.2	0.96	0.79	0.96	39.2
6	R2	All MCs	41	4.0	41	4.0	0.133	33.0	LOS C	1.2	8.9	0.88	0.72	0.88	37.8
Approach			212	1.6	212	1.6	0.528	32.5	LOS C	5.6	39.2	0.94	0.77	0.94	38.5
North: Kingaroy Street (North)															
7	L2	All MCs	77	0.0	77	0.0	0.832	43.6	LOS D	11.3	79.4	1.00	0.95	1.21	37.9
8	T1	All MCs	233	1.0	233	1.0	* 0.832	38.1	LOS D	11.3	79.4	1.00	0.95	1.21	38.9
9	R2	All MCs	34	0.0	34	0.0	0.212	45.3	LOS D	1.1	7.8	0.94	0.71	0.94	35.7
Approach			343	0.7	343	0.7	0.832	40.0	LOS D	11.3	79.4	0.99	0.93	1.18	35.9
West: Avoca Street (West)															
10	L2	All MCs	21	0.0	21	0.0	0.229	29.2	LOS C	2.4	17.2	0.81	0.66	0.81	41.2
11	T1	All MCs	65	6.0	65	6.0	0.229	23.7	LOS C	2.4	17.2	0.81	0.66	0.81	42.5
12	R2	All MCs	299	6.0	299	6.0	* 0.832	37.3	LOS D	10.9	80.6	1.00	0.93	1.22	36.2
Approach			385	5.7	385	5.7	0.832	34.5	LOS C	10.9	80.6	0.96	0.87	1.13	37.4
All Vehicles			1467	3.3	1467	3.3	0.832	34.2	LOS C	11.3	80.6	0.96	0.84	1.05	37.8

MOVEMENT SUMMARY

Site: [1 (7)] 2025 Survey Saturday Midday Peak (1_Kingaroy Street / Avoca Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Avoca Street
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 70.0 seconds (Site Practical Cycle Time)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	178	0.0	178	0.0	* 0.501	33.9	LOS C	5.7	39.6	0.94	0.80	0.94	37.5
2	T1	All MCs	172	1.0	172	1.0	0.463	28.1	LOS C	5.4	38.1	0.93	0.76	0.93	41.1
3	R2	All MCs	66	0.0	66	0.0	* 0.417	40.8	LOS D	2.3	16.2	0.99	0.75	0.99	35.0
Approach			416	0.4	416	0.4	0.501	32.6	LOS C	5.7	39.6	0.95	0.77	0.95	38.4
East: Avoca Street (East)															
4	L2	All MCs	67	0.0	67	0.0	0.422	34.7	LOS C	4.4	30.5	0.94	0.77	0.94	38.3
5	T1	All MCs	69	0.0	69	0.0	* 0.422	29.1	LOS C	4.4	30.5	0.94	0.77	0.94	39.4
6	R2	All MCs	34	0.0	34	0.0	0.106	32.7	LOS C	1.0	7.0	0.88	0.71	0.88	37.9
Approach			171	0.0	171	0.0	0.422	32.0	LOS C	4.4	30.5	0.93	0.76	0.93	38.7
North: Kingaroy Street (North)															
7	L2	All MCs	44	0.0	44	0.0	0.468	31.3	LOS C	5.1	36.3	0.89	0.74	0.89	40.2
8	T1	All MCs	126	2.0	126	2.0	0.468	25.8	LOS C	5.1	36.3	0.89	0.74	0.89	41.5
9	R2	All MCs	13	0.0	13	0.0	0.079	38.0	LOS D	0.4	2.9	0.92	0.67	0.92	36.0
Approach			183	1.4	183	1.4	0.468	28.0	LOS C	5.1	36.3	0.89	0.73	0.89	40.7
West: Avoca Street (West)															
10	L2	All MCs	7	0.0	7	0.0	0.256	28.7	LOS C	2.8	19.9	0.81	0.65	0.81	42.0
11	T1	All MCs	97	0.0	97	0.0	0.256	23.2	LOS C	2.8	19.9	0.81	0.65	0.81	43.3
12	R2	All MCs	193	2.0	193	2.0	* 0.501	30.3	LOS C	5.7	40.7	0.88	0.79	0.88	39.0
Approach			297	1.3	297	1.3	0.501	27.9	LOS C	5.7	40.7	0.86	0.74	0.86	40.4
All Vehicles			1066	0.8	1066	0.8	0.501	30.4	LOS C	5.7	40.7	0.91	0.75	0.91	39.4

MOVEMENT SUMMARY

Site: [1 (8)] 2028 Base Saturday Midday Peak (1_Kingaroy Street / Avoca Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Avoca Street
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 70.0 seconds (Site Practical Cycle Time)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	186	0.0	186	0.0	* 0.524	34.0	LOS C	6.0	41.7	0.95	0.80	0.95	37.5
2	T1	All MCs	179	1.0	179	1.0	0.482	28.2	LOS C	5.7	39.9	0.94	0.76	0.94	41.0
3	R2	All MCs	69	0.0	69	0.0	* 0.436	40.9	LOS D	2.4	17.1	0.99	0.75	0.99	35.0
Approach			435	0.4	435	0.4	0.524	32.7	LOS C	6.0	41.7	0.95	0.78	0.95	38.4
East: Avoca Street (East)															
4	L2	All MCs	71	0.0	71	0.0	0.441	34.8	LOS C	4.6	32.0	0.94	0.77	0.94	38.3
5	T1	All MCs	73	0.0	73	0.0	* 0.441	29.2	LOS C	4.6	32.0	0.94	0.77	0.94	39.4
6	R2	All MCs	35	0.0	35	0.0	0.110	32.7	LOS C	1.0	7.2	0.88	0.72	0.88	37.9
Approach			178	0.0	178	0.0	0.441	32.1	LOS C	4.6	32.0	0.93	0.76	0.93	38.6
North: Kingaroy Street (North)															
7	L2	All MCs	46	0.0	46	0.0	0.487	31.4	LOS C	5.4	38.1	0.90	0.74	0.90	40.2
8	T1	All MCs	132	2.0	132	2.0	0.487	25.9	LOS C	5.4	38.1	0.90	0.74	0.90	41.4
9	R2	All MCs	14	0.0	14	0.0	0.086	38.1	LOS D	0.4	3.1	0.92	0.68	0.92	36.0
Approach			192	1.4	192	1.4	0.487	28.1	LOS C	5.4	38.1	0.90	0.74	0.90	40.7
West: Avoca Street (West)															
10	L2	All MCs	7	0.0	7	0.0	0.266	28.8	LOS C	3.0	20.7	0.82	0.65	0.82	41.9
11	T1	All MCs	101	0.0	101	0.0	0.266	23.3	LOS C	3.0	20.7	0.82	0.65	0.82	43.2
12	R2	All MCs	201	2.0	201	2.0	* 0.524	30.5	LOS C	6.0	42.9	0.89	0.79	0.89	38.9
Approach			309	1.3	309	1.3	0.524	28.1	LOS C	6.0	42.9	0.86	0.74	0.86	40.3
All Vehicles			1114	0.8	1114	0.8	0.524	30.5	LOS C	6.0	42.9	0.91	0.76	0.91	39.3

MOVEMENT SUMMARY

Site: [1 (12)] 2028 Base + Development Saturday Midday Peak (1_Kingaroy Street / Avoca Street)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Avoca Street
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 70.0 seconds (Site Practical Cycle Time)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	225	0.0	225	0.0	0.629	32.5	LOS C	7.2	50.1	0.94	0.82	0.96	38.1
2	T1	All MCs	219	1.0	219	1.0	0.586	26.4	LOS C	6.8	48.0	0.92	0.76	0.92	41.9
3	R2	All MCs	81	0.0	81	0.0	* 0.509	40.1	LOS D	2.8	19.8	0.98	0.76	0.98	35.2
Approach			525	0.4	525	0.4	0.629	31.1	LOS C	7.2	50.1	0.94	0.78	0.95	39.1
East: Avoca Street (East)															
4	L2	All MCs	71	0.0	71	0.0	0.486	35.1	LOS D	5.1	35.7	0.95	0.78	0.95	38.3
5	T1	All MCs	87	0.0	87	0.0	* 0.486	29.5	LOS C	5.1	35.7	0.95	0.78	0.95	39.4
6	R2	All MCs	51	0.0	51	0.0	0.160	33.1	LOS C	1.5	10.6	0.89	0.73	0.89	37.8
Approach			208	0.0	208	0.0	0.486	32.3	LOS C	5.1	35.7	0.94	0.77	0.94	38.6
North: Kingaroy Street (North)															
7	L2	All MCs	61	0.0	61	0.0	0.649	32.7	LOS C	7.7	54.3	0.94	0.80	0.97	39.7
8	T1	All MCs	178	2.0	178	2.0	* 0.649	27.1	LOS C	7.7	54.3	0.94	0.80	0.97	40.8
9	R2	All MCs	14	0.0	14	0.0	0.086	38.1	LOS D	0.4	3.1	0.92	0.68	0.92	36.0
Approach			253	1.4	253	1.4	0.649	29.1	LOS C	7.7	54.3	0.94	0.80	0.97	40.3
West: Avoca Street (West)															
10	L2	All MCs	7	0.0	7	0.0	0.307	29.2	LOS C	3.5	24.2	0.83	0.67	0.83	41.8
11	T1	All MCs	117	0.0	117	0.0	0.307	23.6	LOS C	3.5	24.2	0.83	0.67	0.83	43.1
12	R2	All MCs	247	2.0	247	2.0	* 0.649	31.8	LOS C	7.8	55.8	0.93	0.83	0.96	38.4
Approach			372	1.3	372	1.3	0.649	29.1	LOS C	7.8	55.8	0.90	0.77	0.92	39.8
All Vehicles			1358	0.8	1358	0.8	0.649	30.4	LOS C	7.8	55.8	0.93	0.78	0.94	39.4

MOVEMENT SUMMARY

Site: [2 (1)] 2025 Survey Thursday AM Peak (2_Kingaroy Street / Baron Street / Site Access)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	17	6.0	17	6.0	0.217	5.7	LOS A	0.0	0.0	0.00	0.02	0.00	56.9
2	T1	All MCs	397	3.0	397	3.0	0.217	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.7
Approach			414	3.1	414	3.1	0.217	0.3	NA	0.0	0.0	0.00	0.02	0.00	59.6
North: Kingaroy Street (North)															
8	T1	All MCs	395	2.0	395	2.0	0.229	0.2	LOS A	0.3	1.9	0.08	0.10	0.08	59.3
9	R2	All MCs	26	4.0	26	4.0	0.229	7.4	LOS A	0.3	1.9	0.08	0.10	0.08	56.3
Approach			421	2.1	421	2.1	0.229	0.7	NA	0.3	1.9	0.08	0.10	0.08	59.1
West: Baron Street															
10	L2	All MCs	28	0.0	28	0.0	0.043	7.0	LOS A	0.2	1.1	0.47	0.66	0.47	51.3
12	R2	All MCs	9	0.0	9	0.0	0.043	10.0	LOS B	0.2	1.1	0.47	0.66	0.47	51.0
Approach			38	0.0	38	0.0	0.043	7.7	LOS A	0.2	1.1	0.47	0.66	0.47	51.2
All Vehicles			873	2.5	873	2.5	0.229	0.8	NA	0.3	1.9	0.06	0.09	0.06	58.9

MOVEMENT SUMMARY

Site: [2 (2)] 2028 Base Thursday AM Peak (2_Kingaroy Street / Baron Street / Site Access)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	18	6.0	18	6.0	0.227	5.7	LOS A	0.0	0.0	0.00	0.02	0.00	56.9
2	T1	All MCs	415	3.0	415	3.0	0.227	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.7
Approach			433	3.1	433	3.1	0.227	0.3	NA	0.0	0.0	0.00	0.02	0.00	59.5
North: Kingaroy Street (North)															
8	T1	All MCs	413	2.0	413	2.0	0.240	0.2	LOS A	0.3	2.1	0.09	0.10	0.09	59.3
9	R2	All MCs	27	4.0	27	4.0	0.240	7.6	LOS A	0.3	2.1	0.09	0.10	0.09	56.3
Approach			440	2.1	440	2.1	0.240	0.7	NA	0.3	2.1	0.09	0.10	0.09	59.1
West: Baron Street															
10	L2	All MCs	29	0.0	29	0.0	0.045	7.0	LOS A	0.2	1.1	0.48	0.67	0.48	51.2
12	R2	All MCs	9	0.0	9	0.0	0.045	10.4	LOS B	0.2	1.1	0.48	0.67	0.48	50.9
Approach			39	0.0	39	0.0	0.045	7.9	LOS A	0.2	1.1	0.48	0.67	0.48	51.1
All Vehicles			912	2.5	912	2.5	0.240	0.8	NA	0.3	2.1	0.06	0.09	0.06	58.9

MOVEMENT SUMMARY

Site: [2 (3)] 2028 Base + Development Thursday AM Peak (2_Kingaroy Street / Baron Street / Site Access)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street / Site Access
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	18	6.0	18	6.0	0.282	7.7	LOS A	0.8	5.9	0.22	0.27	0.22	55.5
2	T1	All MCs	391	3.0	391	3.0	0.282	0.6	LOS A	0.8	5.9	0.22	0.27	0.22	58.1
3	R2	All MCs	72	5.0	72	5.0	0.282	7.8	LOS A	0.8	5.9	0.22	0.27	0.22	55.2
Approach			480	3.4	480	3.4	0.282	1.9	NA	0.8	5.9	0.22	0.27	0.22	57.6
East: Site Access															
4	L2	All MCs	72	5.0	72	5.0	0.281	7.8	LOS A	1.1	8.1	0.64	0.84	0.74	48.2
5	T1	All MCs	12	5.0	12	5.0	0.281	12.9	LOS B	1.1	8.1	0.64	0.84	0.74	48.6
6	R2	All MCs	60	5.0	60	5.0	0.281	16.9	LOS C	1.1	8.1	0.64	0.84	0.74	48.0
Approach			143	5.0	143	5.0	0.281	12.0	LOS B	1.1	8.1	0.64	0.84	0.74	48.1
North: Kingaroy Street (North)															
7	L2	All MCs	60	5.0	60	5.0	0.260	6.4	LOS A	0.4	2.6	0.10	0.18	0.10	56.0
8	T1	All MCs	388	2.0	388	2.0	0.260	0.2	LOS A	0.4	2.6	0.10	0.18	0.10	58.6
9	R2	All MCs	27	4.0	27	4.0	0.260	7.5	LOS A	0.4	2.6	0.10	0.18	0.10	55.7
Approach			476	2.5	476	2.5	0.260	1.4	NA	0.4	2.6	0.10	0.18	0.10	58.1
West: Baron Street															
10	L2	All MCs	29	0.0	29	0.0	0.082	7.0	LOS A	0.3	2.0	0.56	0.73	0.56	50.1
11	T1	All MCs	12	5.0	12	5.0	0.082	11.7	LOS B	0.3	2.0	0.56	0.73	0.56	50.3
12	R2	All MCs	9	0.0	9	0.0	0.082	14.4	LOS B	0.3	2.0	0.56	0.73	0.56	49.8
Approach			51	1.1	51	1.1	0.082	9.4	LOS A	0.3	2.0	0.56	0.73	0.56	50.1
All Vehicles			1149	3.1	1149	3.1	0.282	3.3	NA	1.1	8.1	0.24	0.32	0.25	56.0

MOVEMENT SUMMARY

Site: [2 (4)] 2038 Base Thursday AM Peak (2_Kingaroy Street / Baron Street / Site Access)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	21	6.0	21	6.0	0.275	5.7	LOS A	0.0	0.0	0.00	0.02	0.00	56.9
2	T1	All MCs	503	3.0	503	3.0	0.275	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.6
Approach			524	3.1	524	3.1	0.275	0.3	NA	0.0	0.0	0.00	0.02	0.00	59.5
North: Kingaroy Street (North)															
8	T1	All MCs	501	2.0	501	2.0	0.295	0.3	LOS A	0.4	2.9	0.10	0.12	0.10	59.2
9	R2	All MCs	34	4.0	34	4.0	0.295	8.3	LOS A	0.4	2.9	0.10	0.12	0.10	56.2
Approach			535	2.1	535	2.1	0.295	0.8	NA	0.4	2.9	0.10	0.12	0.10	59.0
West: Baron Street															
10	L2	All MCs	36	0.0	36	0.0	0.065	7.5	LOS A	0.2	1.6	0.54	0.73	0.54	50.5
12	R2	All MCs	12	0.0	12	0.0	0.065	12.7	LOS B	0.2	1.6	0.54	0.73	0.54	50.2
Approach			47	0.0	47	0.0	0.065	8.8	LOS A	0.2	1.6	0.54	0.73	0.54	50.4
All Vehicles			1106	2.5	1106	2.5	0.295	0.9	NA	0.4	2.9	0.07	0.10	0.07	58.8

MOVEMENT SUMMARY

Site: [2 (5)] 2038 Base + Development Thursday AM Peak (2_Kingaroy Street / Baron Street / Site Access)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street / Site Access
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	21	6.0	21	6.0	0.338	8.3	LOS A	1.0	6.9	0.21	0.27	0.21	55.5
2	T1	All MCs	479	3.0	479	3.0	0.338	0.7	LOS A	1.0	6.9	0.21	0.27	0.21	58.1
3	R2	All MCs	72	5.0	72	5.0	0.338	8.6	LOS A	1.0	6.9	0.21	0.27	0.21	55.2
Approach			572	3.4	572	3.4	0.338	2.0	NA	1.0	6.9	0.21	0.27	0.21	57.6
East: Site Access															
4	L2	All MCs	72	5.0	72	5.0	0.371	9.3	LOS A	1.5	11.0	0.73	0.96	0.96	45.8
5	T1	All MCs	12	5.0	12	5.0	0.371	18.0	LOS C	1.5	11.0	0.73	0.96	0.96	46.2
6	R2	All MCs	60	5.0	60	5.0	0.371	23.4	LOS C	1.5	11.0	0.73	0.96	0.96	45.6
Approach			143	5.0	143	5.0	0.371	15.9	LOS C	1.5	11.0	0.73	0.96	0.96	45.8
North: Kingaroy Street (North)															
7	L2	All MCs	60	5.0	60	5.0	0.315	6.9	LOS A	0.5	3.7	0.12	0.19	0.12	56.0
8	T1	All MCs	477	2.0	477	2.0	0.315	0.3	LOS A	0.5	3.7	0.12	0.19	0.12	58.6
9	R2	All MCs	34	4.0	34	4.0	0.315	8.2	LOS A	0.5	3.7	0.12	0.19	0.12	55.7
Approach			571	2.4	571	2.4	0.315	1.5	NA	0.5	3.7	0.12	0.19	0.12	58.2
West: Baron Street															
10	L2	All MCs	36	0.0	36	0.0	0.120	7.4	LOS A	0.4	2.8	0.63	0.81	0.63	48.9
11	T1	All MCs	12	5.0	12	5.0	0.120	15.5	LOS C	0.4	2.8	0.63	0.81	0.63	49.1
12	R2	All MCs	12	0.0	12	0.0	0.120	18.7	LOS C	0.4	2.8	0.63	0.81	0.63	48.6
Approach			59	1.0	59	1.0	0.120	11.2	LOS B	0.4	2.8	0.63	0.81	0.63	48.8
All Vehicles			1344	3.0	1344	3.0	0.371	3.6	NA	1.5	11.0	0.25	0.33	0.27	55.9

MOVEMENT SUMMARY

Site: [2 (6)] 2025 Survey Thursday PM Peak (2_Kingaroy Street / Baron Street / Site Access)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	11	0.0	11	0.0	0.213	5.6	LOS A	0.0	0.0	0.00	0.02	0.00	57.3
2	T1	All MCs	396	3.0	396	3.0	0.213	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.7
Approach			406	2.9	406	2.9	0.213	0.2	NA	0.0	0.0	0.00	0.02	0.00	59.7
North: Kingaroy Street (North)															
8	T1	All MCs	504	4.0	504	4.0	0.288	0.2	LOS A	0.3	1.9	0.06	0.08	0.06	59.5
9	R2	All MCs	25	5.0	25	5.0	0.288	7.5	LOS A	0.3	1.9	0.06	0.08	0.06	56.4
Approach			529	4.0	529	4.0	0.288	0.5	NA	0.3	1.9	0.06	0.08	0.06	59.3
West: Baron Street															
10	L2	All MCs	27	0.0	27	0.0	0.047	7.0	LOS A	0.2	1.1	0.49	0.67	0.49	51.0
12	R2	All MCs	11	0.0	11	0.0	0.047	11.3	LOS B	0.2	1.1	0.49	0.67	0.49	50.7
Approach			38	0.0	38	0.0	0.047	8.2	LOS A	0.2	1.1	0.49	0.67	0.49	50.9
All Vehicles			974	3.4	974	3.4	0.288	0.7	NA	0.3	1.9	0.05	0.08	0.05	59.1

MOVEMENT SUMMARY

Site: [2 (7)] 2028 Base Thursday PM Peak (2_Kingaroy Street / Baron Street / Site Access)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	11	0.0	11	0.0	0.222	5.6	LOS A	0.0	0.0	0.00	0.01	0.00	57.3
2	T1	All MCs	414	3.0	414	3.0	0.222	0.1	LOS A	0.0	0.0	0.00	0.01	0.00	59.7
Approach			424	2.9	424	2.9	0.222	0.2	NA	0.0	0.0	0.00	0.01	0.00	59.7
North: Kingaroy Street (North)															
8	T1	All MCs	527	4.0	527	4.0	0.302	0.2	LOS A	0.3	2.1	0.07	0.08	0.07	59.5
9	R2	All MCs	26	5.0	26	5.0	0.302	7.7	LOS A	0.3	2.1	0.07	0.08	0.07	56.4
Approach			554	4.0	554	4.0	0.302	0.5	NA	0.3	2.1	0.07	0.08	0.07	59.3
West: Baron Street															
10	L2	All MCs	28	0.0	28	0.0	0.050	7.0	LOS A	0.2	1.2	0.50	0.68	0.50	50.8
12	R2	All MCs	11	0.0	11	0.0	0.050	11.9	LOS B	0.2	1.2	0.50	0.68	0.50	50.6
Approach			39	0.0	39	0.0	0.050	8.3	LOS A	0.2	1.2	0.50	0.68	0.50	50.8
All Vehicles			1017	3.4	1017	3.4	0.302	0.7	NA	0.3	2.1	0.06	0.08	0.06	59.1

MOVEMENT SUMMARY

Site: [2 (8)] 2028 Base + Development Thursday PM Peak (2_Kingaroy Street / Baron Street / Site Access)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street / Site Access
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Queued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	11	0.0	11	0.0	0.362	9.4	LOS A	2.1	14.9	0.42	0.51	0.49	53.8
2	T1	All MCs	365	3.0	365	3.0	0.362	2.2	LOS A	2.1	14.9	0.42	0.51	0.49	56.0
3	R2	All MCs	143	5.0	143	5.0	0.362	9.5	LOS A	2.1	14.9	0.42	0.51	0.49	53.3
Approach			519	3.5	519	3.5	0.362	4.4	NA	2.1	14.9	0.42	0.51	0.49	55.2
East: Site Access															
4	L2	All MCs	143	5.0	143	5.0	0.743	15.7	LOS C	5.1	37.3	0.87	1.30	1.99	41.8
5	T1	All MCs	24	5.0	24	5.0	0.743	25.9	LOS D	5.1	37.3	0.87	1.30	1.99	42.0
6	R2	All MCs	120	5.0	120	5.0	0.743	32.8	LOS D	5.1	37.3	0.87	1.30	1.99	41.6
Approach			287	5.0	287	5.0	0.743	23.7	LOS C	5.1	37.3	0.87	1.30	1.99	41.7
North: Kingaroy Street (North)															
7	L2	All MCs	120	5.0	120	5.0	0.342	6.0	LOS A	0.4	2.7	0.08	0.19	0.08	55.8
8	T1	All MCs	479	4.0	479	4.0	0.342	0.2	LOS A	0.4	2.7	0.08	0.19	0.08	58.4
9	R2	All MCs	26	5.0	26	5.0	0.342	7.5	LOS A	0.4	2.7	0.08	0.19	0.08	55.5
Approach			625	4.2	625	4.2	0.342	1.6	NA	0.4	2.7	0.08	0.19	0.08	57.8
West: Baron Street															
10	L2	All MCs	28	0.0	28	0.0	0.153	6.9	LOS A	0.5	3.5	0.67	0.81	0.67	48.0
11	T1	All MCs	24	5.0	24	5.0	0.153	16.4	LOS C	0.5	3.5	0.67	0.81	0.67	48.2
12	R2	All MCs	11	0.0	11	0.0	0.153	19.4	LOS C	0.5	3.5	0.67	0.81	0.67	47.7
Approach			63	1.9	63	1.9	0.153	12.6	LOS B	0.5	3.5	0.67	0.81	0.67	48.0
All Vehicles			1495	4.0	1495	4.0	0.743	7.3	NA	5.1	37.3	0.37	0.54	0.61	52.6

MOVEMENT SUMMARY

Site: [2 (9)] 2038 Base Thursday PM Peak (2_Kingaroy Street / Baron Street / Site Access)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Queued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	14	0.0	14	0.0	0.270	5.6	LOS A	0.0	0.0	0.00	0.02	0.00	57.2
2	T1	All MCs	502	3.0	502	3.0	0.270	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.7
Approach			516	2.9	516	2.9	0.270	0.2	NA	0.0	0.0	0.00	0.02	0.00	59.6
North: Kingaroy Street (North)															
8	T1	All MCs	640	4.0	640	4.0	0.369	0.3	LOS A	0.4	2.9	0.08	0.10	0.08	59.4
9	R2	All MCs	32	5.0	32	5.0	0.369	8.5	LOS A	0.4	2.9	0.08	0.10	0.08	56.3
Approach			672	4.0	672	4.0	0.369	0.6	NA	0.4	2.9	0.08	0.10	0.08	59.2
West: Baron Street															
10	L2	All MCs	35	0.0	35	0.0	0.079	7.5	LOS A	0.3	1.8	0.58	0.76	0.58	49.8
12	R2	All MCs	14	0.0	14	0.0	0.079	15.5	LOS C	0.3	1.8	0.58	0.76	0.58	49.6
Approach			48	0.0	48	0.0	0.079	9.8	LOS A	0.3	1.8	0.58	0.76	0.58	49.8
All Vehicles			1236	3.4	1236	3.4	0.369	0.8	NA	0.4	2.9	0.06	0.09	0.06	59.0

MOVEMENT SUMMARY

Site: [2 (10)] 2038 Base + Development Thursday PM Peak (2_Kingaroy Street / Baron Street / Site Access)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street / Site Access
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	14	0.0	14	0.0	0.443	11.6	LOS B	3.3	23.7	0.43	0.54	0.66	52.8
2	T1	All MCs	454	3.0	454	3.0	0.443	3.5	LOS A	3.3	23.7	0.43	0.54	0.66	54.9
3	R2	All MCs	143	5.0	143	5.0	0.443	11.6	LOS B	3.3	23.7	0.43	0.54	0.66	52.3
Approach			611	3.4	611	3.4	0.443	5.6	NA	3.3	23.7	0.43	0.54	0.66	54.3
East: Site Access															
4	L2	All MCs	143	5.0	143	5.0	1.086	114.0	LOS F	23.0	168.0	1.00	2.91	7.48	20.3
5	T1	All MCs	24	5.0	24	5.0	1.086	131.3	LOS F	23.0	168.0	1.00	2.91	7.48	20.4
6	R2	All MCs	120	5.0	120	5.0	1.086	141.6	LOS F	23.0	168.0	1.00	2.91	7.48	20.3
Approach			287	5.0	287	5.0	1.086	127.0	LOS F	23.0	168.0	1.00	2.91	7.48	20.3
North: Kingaroy Street (North)															
7	L2	All MCs	120	5.0	120	5.0	0.409	6.4	LOS A	0.6	4.4	0.09	0.19	0.10	55.9
8	T1	All MCs	592	4.0	592	4.0	0.409	0.3	LOS A	0.6	4.4	0.09	0.19	0.10	58.5
9	R2	All MCs	32	5.0	32	5.0	0.409	8.3	LOS A	0.6	4.4	0.09	0.19	0.10	55.5
Approach			743	4.2	743	4.2	0.409	1.6	NA	0.6	4.4	0.09	0.19	0.10	57.9
West: Baron Street															
10	L2	All MCs	35	0.0	35	0.0	0.246	8.1	LOS A	0.8	5.8	0.75	0.92	0.84	45.1
11	T1	All MCs	24	5.0	24	5.0	0.246	24.9	LOS C	0.8	5.8	0.75	0.92	0.84	45.3
12	R2	All MCs	14	0.0	14	0.0	0.246	27.8	LOS D	0.8	5.8	0.75	0.92	0.84	44.9
Approach			73	1.7	73	1.7	0.246	17.4	LOS C	0.8	5.8	0.75	0.92	0.84	45.1
All Vehicles			1714	3.9	1714	3.9	1.086	24.7	NA	23.0	168.0	0.39	0.80	1.57	43.0

MOVEMENT SUMMARY

Site: [2 (11)] 2025 Survey Saturday Midday Peak (2_Kingaroy Street / Baron Street / Site Access)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	19	6.0	19	6.0	0.216	5.7	LOS A	0.0	0.0	0.00	0.03	0.00	56.9
2	T1	All MCs	401	0.0	401	0.0	0.216	0.1	LOS A	0.0	0.0	0.00	0.03	0.00	59.7
Approach			420	0.3	420	0.3	0.216	0.3	NA	0.0	0.0	0.00	0.03	0.00	59.5
North: Kingaroy Street (North)															
8	T1	All MCs	362	1.0	362	1.0	0.203	0.1	LOS A	0.2	1.3	0.06	0.08	0.06	59.5
9	R2	All MCs	19	0.0	19	0.0	0.203	7.2	LOS A	0.2	1.3	0.06	0.08	0.06	56.7
Approach			381	1.0	381	1.0	0.203	0.5	NA	0.2	1.3	0.06	0.08	0.06	59.3
West: Baron Street															
10	L2	All MCs	34	3.0	34	3.0	0.044	7.0	LOS A	0.2	1.1	0.45	0.65	0.45	51.3
12	R2	All MCs	7	0.0	7	0.0	0.044	9.6	LOS A	0.2	1.1	0.45	0.65	0.45	51.2
Approach			41	2.5	41	2.5	0.044	7.5	LOS A	0.2	1.1	0.45	0.65	0.45	51.3
All Vehicles			842	0.7	842	0.7	0.216	0.7	NA	0.2	1.3	0.05	0.08	0.05	59.0

MOVEMENT SUMMARY

Site: [2 (12)] 2028 Base Saturday Midday Peak (2_Kingaroy Street / Baron Street / Site Access)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	20	6.0	20	6.0	0.226	5.7	LOS A	0.0	0.0	0.00	0.03	0.00	56.9
2	T1	All MCs	419	0.0	419	0.0	0.226	0.1	LOS A	0.0	0.0	0.00	0.03	0.00	59.6
Approach			439	0.3	439	0.3	0.226	0.3	NA	0.0	0.0	0.00	0.03	0.00	59.5
North: Kingaroy Street (North)															
8	T1	All MCs	379	1.0	379	1.0	0.213	0.2	LOS A	0.2	1.4	0.07	0.08	0.07	59.4
9	R2	All MCs	20	0.0	20	0.0	0.213	7.4	LOS A	0.2	1.4	0.07	0.08	0.07	56.7
Approach			399	0.9	399	0.9	0.213	0.5	NA	0.2	1.4	0.07	0.08	0.07	59.3
West: Baron Street															
10	L2	All MCs	35	3.0	35	3.0	0.046	7.1	LOS A	0.2	1.2	0.46	0.66	0.46	51.2
12	R2	All MCs	7	0.0	7	0.0	0.046	10.0	LOS A	0.2	1.2	0.46	0.66	0.46	51.1
Approach			42	2.5	42	2.5	0.046	7.6	LOS A	0.2	1.2	0.46	0.66	0.46	51.2
All Vehicles			880	0.7	880	0.7	0.226	0.8	NA	0.2	1.4	0.05	0.08	0.05	59.0

MOVEMENT SUMMARY

Site: [2 (13)] 2028 Base + Development Saturday Midday Peak (2_Kingaroy Street / Baron Street / Site Access)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street / Site Access
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	20	6.0	20	6.0	0.371	8.3	LOS A	2.1	15.0	0.43	0.50	0.47	53.8
2	T1	All MCs	358	0.0	358	0.0	0.371	1.7	LOS A	2.1	15.0	0.43	0.50	0.47	56.3
3	R2	All MCs	182	5.0	182	5.0	0.371	8.3	LOS A	2.1	15.0	0.43	0.50	0.47	53.6
Approach			560	1.8	560	1.8	0.371	4.1	NA	2.1	15.0	0.43	0.50	0.47	55.3
East: Site Access															
4	L2	All MCs	182	5.0	182	5.0	0.772	15.0	LOS C	7.4	53.9	0.89	1.31	2.20	42.2
5	T1	All MCs	31	5.0	31	5.0	0.772	25.3	LOS D	7.4	53.9	0.89	1.31	2.20	42.5
6	R2	All MCs	153	5.0	153	5.0	0.772	31.6	LOS D	7.4	53.9	0.89	1.31	2.20	42.0
Approach			365	5.0	365	5.0	0.772	22.8	LOS C	7.4	53.9	0.89	1.31	2.20	42.1
North: Kingaroy Street (North)															
7	L2	All MCs	153	5.0	153	5.0	0.265	5.8	LOS A	0.3	1.9	0.07	0.25	0.07	55.3
8	T1	All MCs	317	1.0	317	1.0	0.265	0.1	LOS A	0.3	1.9	0.07	0.25	0.07	57.9
9	R2	All MCs	20	0.0	20	0.0	0.265	7.1	LOS A	0.3	1.9	0.07	0.25	0.07	55.3
Approach			489	2.2	489	2.2	0.265	2.2	NA	0.3	1.9	0.07	0.25	0.07	57.0
West: Baron Street															
10	L2	All MCs	35	3.0	35	3.0	0.144	6.9	LOS A	0.5	3.5	0.62	0.78	0.62	49.0
11	T1	All MCs	31	5.0	31	5.0	0.144	13.8	LOS B	0.5	3.5	0.62	0.78	0.62	49.3
12	R2	All MCs	7	0.0	7	0.0	0.144	17.3	LOS C	0.5	3.5	0.62	0.78	0.62	48.9
Approach			73	3.5	73	3.5	0.144	10.8	LOS B	0.5	3.5	0.62	0.78	0.62	49.1
All Vehicles			1487	2.8	1487	2.8	0.772	8.4	NA	7.4	53.9	0.43	0.63	0.77	51.5

MOVEMENT SUMMARY

Site: [2 (14)] 2038 Base Saturday Midday Peak (2_Kingaroy Street / Baron Street / Site Access)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	24	6.0	24	6.0	0.274	5.7	LOS A	0.0	0.0	0.00	0.03	0.00	56.9
2	T1	All MCs	508	0.0	508	0.0	0.274	0.1	LOS A	0.0	0.0	0.00	0.03	0.00	59.6
Approach			533	0.3	533	0.3	0.274	0.3	NA	0.0	0.0	0.00	0.03	0.00	59.5
North: Kingaroy Street (North)															
8	T1	All MCs	460	1.0	460	1.0	0.261	0.2	LOS A	0.3	2.0	0.08	0.10	0.08	59.4
9	R2	All MCs	24	0.0	24	0.0	0.261	8.0	LOS A	0.3	2.0	0.08	0.10	0.08	56.6
Approach			484	0.9	484	0.9	0.261	0.6	NA	0.3	2.0	0.08	0.10	0.08	59.2
West: Baron Street															
10	L2	All MCs	43	3.0	43	3.0	0.067	7.7	LOS A	0.2	1.7	0.52	0.72	0.52	50.7
12	R2	All MCs	9	0.0	9	0.0	0.067	12.0	LOS B	0.2	1.7	0.52	0.72	0.52	50.5
Approach			53	2.5	53	2.5	0.067	8.5	LOS A	0.2	1.7	0.52	0.72	0.52	50.6
All Vehicles			1069	0.7	1069	0.7	0.274	0.9	NA	0.3	2.0	0.06	0.09	0.06	58.9

MOVEMENT SUMMARY

Site: [2 (15)] 2038 Base + Development Saturday Midday Peak (2_Kingaroy Street / Baron Street / Site Access)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street / Site Access
Site Category: (None)
Give-Way (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	24	6.0	24	6.0	0.439	9.5	LOS A	3.1	22.1	0.43	0.52	0.59	53.3
2	T1	All MCs	447	0.0	447	0.0	0.439	2.4	LOS A	3.1	22.1	0.43	0.52	0.59	55.8
3	R2	All MCs	182	5.0	182	5.0	0.439	9.6	LOS A	3.1	22.1	0.43	0.52	0.59	53.1
Approach			654	1.6	654	1.6	0.439	4.7	NA	3.1	22.1	0.43	0.52	0.59	54.9
East: Site Access															
4	L2	All MCs	182	5.0	182	5.0	1.029	71.1	LOS F	22.3	163.0	1.00	2.70	6.26	25.3
5	T1	All MCs	31	5.0	31	5.0	1.029	87.2	LOS F	22.3	163.0	1.00	2.70	6.26	25.4
6	R2	All MCs	153	5.0	153	5.0	1.029	96.0	LOS F	22.3	163.0	1.00	2.70	6.26	25.2
Approach			365	5.0	365	5.0	1.029	82.8	LOS F	22.3	163.0	1.00	2.70	6.26	25.3
North: Kingaroy Street (North)															
7	L2	All MCs	153	5.0	153	5.0	0.312	6.0	LOS A	0.4	2.6	0.08	0.24	0.08	55.5
8	T1	All MCs	398	1.0	398	1.0	0.312	0.2	LOS A	0.4	2.6	0.08	0.24	0.08	58.1
9	R2	All MCs	24	0.0	24	0.0	0.312	7.7	LOS A	0.4	2.6	0.08	0.24	0.08	55.4
Approach			575	2.0	575	2.0	0.312	2.1	NA	0.4	2.6	0.08	0.24	0.08	57.2
West: Baron Street															
10	L2	All MCs	43	3.0	43	3.0	0.207	7.6	LOS A	0.7	5.0	0.69	0.85	0.72	47.4
11	T1	All MCs	31	5.0	31	5.0	0.207	18.6	LOS C	0.7	5.0	0.69	0.85	0.72	47.7
12	R2	All MCs	9	0.0	9	0.0	0.207	22.9	LOS C	0.7	5.0	0.69	0.85	0.72	47.3
Approach			83	3.4	83	3.4	0.207	13.4	LOS B	0.7	5.0	0.69	0.85	0.72	47.5
All Vehicles			1677	2.6	1677	2.6	1.029	21.2	NA	22.3	163.0	0.45	0.92	1.66	43.9

MOVEMENT SUMMARY

Site: [2 (22)] 2028 Base + Development Thursday AM Peak - Through (2_Kingaroy Street / Baron Street / Site Access)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street / Site Access
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 70.0 seconds (Site Practical Cycle Time)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	18	6.0	18	6.0	0.219	35.2	LOS D	3.2	22.7	0.80	0.66	0.80	42.8
2	T1	All MCs	391	3.0	391	3.0	0.619	32.0	LOS C	8.8	63.4	0.89	0.74	0.89	43.3
3	R2	All MCs	72	5.0	72	5.0	* 0.466	41.2	LOS D	2.5	18.4	0.99	0.76	0.99	34.8
Approach			480	3.4	480	3.4	0.619	33.5	LOS C	8.8	63.4	0.90	0.74	0.90	38.5
East: Site Access															
4	L2	All MCs	72	5.0	72	5.0	* 0.281	36.0	LOS D	2.3	16.8	0.93	0.75	0.93	36.7
5	T1	All MCs	12	5.0	12	5.0	0.279	30.3	LOS C	2.3	16.7	0.93	0.75	0.93	38.1
6	R2	All MCs	60	5.0	60	5.0	0.279	36.0	LOS D	2.3	16.7	0.93	0.75	0.93	37.0
Approach			143	5.0	143	5.0	0.281	35.5	LOS D	2.3	16.8	0.93	0.75	0.93	36.9
North: Kingaroy Street (North)															
7	L2	All MCs	60	5.0	60	5.0	0.243	32.7	LOS C	3.1	22.2	0.72	0.65	0.72	43.4
8	T1	All MCs	388	2.0	388	2.0	* 0.685	30.2	LOS C	9.4	67.2	0.85	0.74	0.88	44.3
9	R2	All MCs	27	4.0	27	4.0	0.177	38.7	LOS D	0.9	6.5	0.93	0.71	0.93	35.6
Approach			476	2.5	476	2.5	0.685	31.0	LOS C	9.4	67.2	0.83	0.73	0.86	39.5
West: Baron Street															
10	L2	All MCs	29	0.0	29	0.0	0.191	35.4	LOS D	1.6	11.2	0.92	0.72	0.92	37.5
11	T1	All MCs	12	5.0	12	5.0	* 0.191	29.8	LOS C	1.6	11.2	0.92	0.72	0.92	38.5
12	R2	All MCs	9	0.0	9	0.0	0.191	35.3	LOS D	1.6	11.2	0.92	0.72	0.92	37.5
Approach			51	1.1	51	1.1	0.191	34.1	LOS C	1.6	11.2	0.92	0.72	0.92	37.7
All Vehicles			1149	3.1	1149	3.1	0.685	32.8	LOS C	9.4	67.2	0.88	0.74	0.89	38.7

MOVEMENT SUMMARY

Site: [2 (23)] 2038 Base + Development Thursday AM Peak - Through (2_Kingaroy Street / Baron Street / Site Access)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street / Site Access
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 70.0 seconds (Site Practical Cycle Time)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	21	6.0	21	6.0	0.279	38.9	LOS D	4.1	29.5	0.82	0.68	0.82	42.6
2	T1	All MCs	479	3.0	479	3.0	0.786	39.4	LOS D	12.4	89.2	0.94	0.86	1.06	41.3
3	R2	All MCs	72	5.0	72	5.0	* 0.466	41.2	LOS D	2.5	18.4	0.99	0.76	0.99	34.8
Approach			572	3.4	572	3.4	0.786	39.6	LOS D	12.4	89.2	0.94	0.84	1.04	36.2
East: Site Access															
4	L2	All MCs	72	5.0	72	5.0	* 0.281	36.0	LOS D	2.3	16.8	0.93	0.75	0.93	36.7
5	T1	All MCs	12	5.0	12	5.0	0.279	30.3	LOS C	2.3	16.7	0.93	0.75	0.93	38.1
6	R2	All MCs	60	5.0	60	5.0	0.279	36.0	LOS D	2.3	16.7	0.93	0.75	0.93	37.0
Approach			143	5.0	143	5.0	0.281	35.6	LOS D	2.3	16.8	0.93	0.75	0.93	36.9
North: Kingaroy Street (North)															
7	L2	All MCs	60	5.0	60	5.0	0.301	36.5	LOS D	3.9	28.3	0.73	0.66	0.73	43.4
8	T1	All MCs	477	2.0	477	2.0	* 0.850	39.0	LOS D	13.4	95.4	0.90	0.88	1.08	41.7
9	R2	All MCs	34	4.0	34	4.0	0.218	38.9	LOS D	1.1	8.1	0.94	0.72	0.94	35.5
Approach			571	2.4	571	2.4	0.850	38.7	LOS D	13.4	95.4	0.89	0.84	1.03	36.5
West: Baron Street															
10	L2	All MCs	36	0.0	36	0.0	0.223	35.6	LOS D	1.9	13.2	0.92	0.73	0.92	37.3
11	T1	All MCs	12	5.0	12	5.0	* 0.223	29.9	LOS C	1.9	13.2	0.92	0.73	0.92	38.3
12	R2	All MCs	12	0.0	12	0.0	0.223	35.5	LOS D	1.9	13.2	0.92	0.73	0.92	37.3
Approach			59	1.0	59	1.0	0.223	34.5	LOS C	1.9	13.2	0.92	0.73	0.92	37.5
All Vehicles			1344	3.0	1344	3.0	0.850	38.6	LOS D	13.4	95.4	0.91	0.83	1.02	36.5

MOVEMENT SUMMARY

Site: [2 (24)] 2028 Base + Development Thursday PM Peak - Through (2_Kingaroy Street / Baron Street / Site Access)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street / Site Access
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 80.0 seconds (Site Practical Cycle Time)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	11	0.0	11	0.0	0.167	33.2	LOS C	3.0	21.4	0.73	0.60	0.73	43.6
2	T1	All MCs	365	3.0	365	3.0	0.472	29.7	LOS C	8.3	59.5	0.81	0.68	0.81	44.1
3	R2	All MCs	143	5.0	143	5.0	* 0.826	50.9	LOS D	6.3	46.0	1.00	0.96	1.35	31.9
Approach			519	3.5	519	3.5	0.826	35.6	LOS D	8.3	59.5	0.86	0.75	0.96	37.5
East: Site Access															
4	L2	All MCs	143	5.0	143	5.0	0.673	47.8	LOS D	5.8	42.2	1.00	0.84	1.11	33.7
5	T1	All MCs	24	5.0	24	5.0	* 0.676	42.2	LOS D	5.8	42.6	1.00	0.85	1.11	35.0
6	R2	All MCs	120	5.0	120	5.0	0.676	47.8	LOS D	5.8	42.6	1.00	0.85	1.11	34.0
Approach			287	5.0	287	5.0	0.676	47.4	LOS D	5.8	42.6	1.00	0.85	1.11	33.0
North: Kingaroy Street (North)															
7	L2	All MCs	120	5.0	120	5.0	0.294	37.0	LOS D	4.5	33.1	0.66	0.68	0.66	43.3
8	T1	All MCs	479	4.0	479	4.0	* 0.828	39.9	LOS D	15.5	112.3	0.86	0.84	0.99	42.1
9	R2	All MCs	26	5.0	26	5.0	0.152	41.8	LOS D	1.0	7.0	0.92	0.71	0.92	34.5
Approach			625	4.2	625	4.2	0.828	39.4	LOS D	15.5	112.3	0.83	0.81	0.93	36.2
West: Baron Street															
10	L2	All MCs	28	0.0	28	0.0	0.260	40.8	LOS D	2.3	16.5	0.94	0.74	0.94	35.8
11	T1	All MCs	24	5.0	24	5.0	* 0.260	35.2	LOS D	2.3	16.5	0.94	0.74	0.94	36.7
12	R2	All MCs	11	0.0	11	0.0	0.260	40.8	LOS D	2.3	16.5	0.94	0.74	0.94	35.8
Approach			63	1.9	63	1.9	0.260	38.6	LOS D	2.3	16.5	0.94	0.74	0.94	36.1
All Vehicles			1495	4.0	1495	4.0	0.828	39.6	LOS D	15.5	112.3	0.88	0.79	0.97	36.0

MOVEMENT SUMMARY

Site: [2 (23)] 2038 Base + Development Thursday AM Peak - Through (2_Kingaroy Street / Baron Street / Site Access)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street / Site Access
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 70.0 seconds (Site Practical Cycle Time)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	21	6.0	21	6.0	0.279	38.9	LOS D	4.1	29.5	0.82	0.68	0.82	42.6
2	T1	All MCs	479	3.0	479	3.0	0.786	39.4	LOS D	12.4	89.2	0.94	0.86	1.06	41.3
3	R2	All MCs	72	5.0	72	5.0	* 0.466	41.2	LOS D	2.5	18.4	0.99	0.76	0.99	34.8
Approach			572	3.4	572	3.4	0.786	39.6	LOS D	12.4	89.2	0.94	0.84	1.04	36.2
East: Site Access															
4	L2	All MCs	72	5.0	72	5.0	* 0.281	36.0	LOS D	2.3	16.8	0.93	0.75	0.93	36.7
5	T1	All MCs	12	5.0	12	5.0	0.279	30.3	LOS C	2.3	16.7	0.93	0.75	0.93	38.1
6	R2	All MCs	60	5.0	60	5.0	0.279	36.0	LOS D	2.3	16.7	0.93	0.75	0.93	37.0
Approach			143	5.0	143	5.0	0.281	35.6	LOS D	2.3	16.8	0.93	0.75	0.93	36.9
North: Kingaroy Street (North)															
7	L2	All MCs	60	5.0	60	5.0	0.301	36.5	LOS D	3.9	28.3	0.73	0.66	0.73	43.4
8	T1	All MCs	477	2.0	477	2.0	* 0.850	39.0	LOS D	13.4	95.4	0.90	0.88	1.08	41.7
9	R2	All MCs	34	4.0	34	4.0	0.218	38.9	LOS D	1.1	8.1	0.94	0.72	0.94	35.5
Approach			571	2.4	571	2.4	0.850	38.7	LOS D	13.4	95.4	0.89	0.84	1.03	36.5
West: Baron Street															
10	L2	All MCs	36	0.0	36	0.0	0.223	35.6	LOS D	1.9	13.2	0.92	0.73	0.92	37.3
11	T1	All MCs	12	5.0	12	5.0	* 0.223	29.9	LOS C	1.9	13.2	0.92	0.73	0.92	38.3
12	R2	All MCs	12	0.0	12	0.0	0.223	35.5	LOS D	1.9	13.2	0.92	0.73	0.92	37.3
Approach			59	1.0	59	1.0	0.223	34.5	LOS C	1.9	13.2	0.92	0.73	0.92	37.5
All Vehicles			1344	3.0	1344	3.0	0.850	38.6	LOS D	13.4	95.4	0.91	0.83	1.02	36.5

MOVEMENT SUMMARY

Site: [2 (26)] 2028 Base + Development Saturday Midday Peak - Through (2_Kingaroy Street / Baron Street / Site Access)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street / Site Access
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 70.0 seconds (Site Practical Cycle Time)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	20	6.0	20	6.0	0.231	37.7	LOS D	3.0	21.4	0.84	0.68	0.84	41.5
2	T1	All MCs	358	0.0	358	0.0	0.651	35.0	LOS C	8.7	60.8	0.92	0.78	0.95	41.9
3	R2	All MCs	182	5.0	182	5.0	* 0.836	45.1	LOS D	7.1	51.8	1.00	0.98	1.37	33.6
Approach			560	1.8	560	1.8	0.836	38.3	LOS D	8.7	60.8	0.95	0.84	1.08	36.4
East: Site Access															
4	L2	All MCs	182	5.0	182	5.0	0.826	49.8	LOS D	7.1	52.0	1.00	0.98	1.36	33.8
5	T1	All MCs	31	5.0	31	5.0	* 0.828	44.2	LOS D	7.2	52.4	1.00	0.99	1.36	35.1
6	R2	All MCs	153	5.0	153	5.0	0.828	49.9	LOS D	7.2	52.4	1.00	0.99	1.36	34.1
Approach			365	5.0	365	5.0	0.828	49.4	LOS D	7.2	52.4	1.00	0.98	1.36	32.4
North: Kingaroy Street (North)															
7	L2	All MCs	153	5.0	153	5.0	0.346	38.6	LOS D	4.1	29.7	0.80	0.76	0.80	40.3
8	T1	All MCs	317	1.0	317	1.0	* 0.839	41.9	LOS D	11.4	80.7	0.96	0.94	1.19	40.1
9	R2	All MCs	20	0.0	20	0.0	0.089	34.7	LOS C	0.6	4.2	0.88	0.69	0.88	37.1
Approach			489	2.2	489	2.2	0.839	40.5	LOS D	11.4	80.7	0.91	0.87	1.06	35.7
West: Baron Street															
10	L2	All MCs	35	3.0	35	3.0	0.277	35.9	LOS D	2.3	16.7	0.93	0.74	0.93	37.6
11	T1	All MCs	31	5.0	31	5.0	* 0.277	30.3	LOS C	2.3	16.7	0.93	0.74	0.93	38.7
12	R2	All MCs	7	0.0	7	0.0	0.277	35.9	LOS D	2.3	16.7	0.93	0.74	0.93	37.7
Approach			73	3.5	73	3.5	0.277	33.5	LOS C	2.3	16.7	0.93	0.74	0.93	38.1
All Vehicles			1487	2.8	1487	2.8	0.839	41.5	LOS D	11.4	80.7	0.95	0.88	1.14	35.2

MOVEMENT SUMMARY

Site: [2 (27)] 2038 Base + Development Saturday Midday Peak - Through (2_Kingaroy Street / Baron Street / Site Access)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Baron Street / Site Access
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 80.0 seconds (Site Practical Cycle Time)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	24	6.0	24	6.0	0.250	42.2	LOS D	4.3	30.2	0.80	0.67	0.80	41.5
2	T1	All MCs	447	0.0	447	0.0	0.706	40.7	LOS D	12.1	84.4	0.91	0.79	0.95	41.3
3	R2	All MCs	182	5.0	182	5.0	* 0.863	51.9	LOS D	8.2	60.0	1.00	1.00	1.41	31.6
Approach			654	1.6	654	1.6	0.863	43.9	LOS D	12.1	84.4	0.93	0.85	1.07	34.6
East: Site Access															
4	L2	All MCs	182	5.0	182	5.0	0.858	61.0	LOS E	8.4	61.0	1.00	1.00	1.41	31.7
5	T1	All MCs	31	5.0	31	5.0	* 0.860	55.4	LOS E	8.4	61.4	1.00	1.02	1.41	32.8
6	R2	All MCs	153	5.0	153	5.0	0.860	61.0	LOS E	8.4	61.4	1.00	1.02	1.41	32.0
Approach			365	5.0	365	5.0	0.860	60.6	LOS E	8.4	61.4	1.00	1.01	1.41	29.5
North: Kingaroy Street (North)															
7	L2	All MCs	153	5.0	153	5.0	0.307	41.7	LOS D	4.5	32.6	0.72	0.74	0.72	41.0
8	T1	All MCs	398	1.0	398	1.0	* 0.865	48.1	LOS D	15.8	111.7	0.94	0.94	1.15	39.2
9	R2	All MCs	24	0.0	24	0.0	0.111	39.2	LOS D	0.8	5.9	0.89	0.70	0.89	35.5
Approach			575	2.0	575	2.0	0.865	46.0	LOS D	15.8	111.7	0.88	0.88	1.03	33.9
West: Baron Street															
10	L2	All MCs	43	3.0	43	3.0	0.346	41.4	LOS D	3.1	22.3	0.95	0.75	0.95	35.5
11	T1	All MCs	31	5.0	31	5.0	* 0.346	35.7	LOS D	3.1	22.3	0.95	0.75	0.95	36.5
12	R2	All MCs	9	0.0	9	0.0	0.346	41.3	LOS D	3.1	22.3	0.95	0.75	0.95	35.6
Approach			83	3.4	83	3.4	0.346	39.3	LOS D	3.1	22.3	0.95	0.75	0.95	35.9
All Vehicles			1677	2.6	1677	2.6	0.865	48.0	LOS D	15.8	111.7	0.93	0.89	1.12	33.2

MOVEMENT SUMMARY

Site: [3 (1)] 2025 Survey Thursday AM Peak (3_Kingaroy Street / Knight Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Knight Street
Site Category: (None)
Stop (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	6	0.0	6	0.0	0.132	5.7	LOS A	0.1	0.9	0.03	0.05	0.03	57.0
2	T1	All MCs	227	5.0	227	5.0	0.132	0.0	LOS A	0.1	0.9	0.03	0.05	0.03	59.4
3	R2	All MCs	13	8.0	13	8.0	0.132	5.8	LOS A	0.1	0.9	0.03	0.05	0.03	56.2
Approach			246	5.0	246	5.0	0.132	0.5	NA	0.1	0.9	0.03	0.05	0.03	59.2
East: Knight Street (East)															
4	L2	All MCs	6	17.0	6	17.0	0.354	10.0	LOS A	1.7	12.1	0.57	0.99	0.70	47.9
5	T1	All MCs	4	0.0	4	0.0	0.354	11.9	LOS B	1.7	12.1	0.57	0.99	0.70	48.5
6	R2	All MCs	195	3.0	195	3.0	0.354	13.2	LOS B	1.7	12.1	0.57	0.99	0.70	48.3
Approach			205	3.4	205	3.4	0.354	13.1	LOS B	1.7	12.1	0.57	0.99	0.70	48.3
North: Kingaroy Street (North)															
7	L2	All MCs	259	1.0	259	1.0	0.161	5.7	LOS A	0.6	4.5	0.06	0.53	0.06	52.9
8	T1	All MCs	105	5.0	105	5.0	0.062	0.1	LOS A	0.1	0.4	0.06	0.08	0.06	59.3
9	R2	All MCs	9	0.0	9	0.0	0.062	6.2	LOS A	0.1	0.4	0.06	0.08	0.06	56.5
Approach			374	2.1	374	2.1	0.161	4.1	LOS A	0.6	4.5	0.06	0.39	0.06	54.7
West: Knight Street (West)															
10	L2	All MCs	11	0.0	11	0.0	0.014	6.2	LOS A	0.1	0.4	0.33	0.55	0.33	52.1
11	T1	All MCs	4	0.0	4	0.0	0.014	5.9	LOS A	0.1	0.4	0.33	0.55	0.33	52.5
12	R2	All MCs	1	0.0	1	0.0	0.014	7.3	LOS A	0.1	0.4	0.33	0.55	0.33	51.8
Approach			16	0.0	16	0.0	0.014	6.2	LOS A	0.1	0.4	0.33	0.55	0.33	52.2
All Vehicles			841	3.2	841	3.2	0.354	5.3	NA	1.7	12.1	0.18	0.44	0.21	54.1

MOVEMENT SUMMARY

Site: [3 (2)] 2028 Base Thursday AM Peak (3_Kingaroy Street / Knight Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Knight Street
Site Category: (None)
Stop (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	6	0.0	6	0.0	0.139	5.8	LOS A	0.1	0.9	0.04	0.06	0.04	57.0
2	T1	All MCs	238	5.0	238	5.0	0.139	0.0	LOS A	0.1	0.9	0.04	0.06	0.04	59.4
3	R2	All MCs	14	8.0	14	8.0	0.139	5.8	LOS A	0.1	0.9	0.04	0.06	0.04	56.2
Approach			258	5.0	258	5.0	0.139	0.5	NA	0.1	0.9	0.04	0.06	0.04	59.2
East: Knight Street (East)															
4	L2	All MCs	6	17.0	6	17.0	0.380	10.2	LOS B	1.9	13.5	0.59	1.01	0.76	47.6
5	T1	All MCs	4	0.0	4	0.0	0.380	12.3	LOS B	1.9	13.5	0.59	1.01	0.76	48.1
6	R2	All MCs	203	3.0	203	3.0	0.380	13.8	LOS B	1.9	13.5	0.59	1.01	0.76	48.0
Approach			214	3.4	214	3.4	0.380	13.6	LOS B	1.9	13.5	0.59	1.01	0.76	47.9
North: Kingaroy Street (North)															
7	L2	All MCs	271	1.0	271	1.0	0.169	5.7	LOS A	0.7	4.8	0.07	0.53	0.07	52.9
8	T1	All MCs	111	5.0	111	5.0	0.065	0.1	LOS A	0.1	0.4	0.06	0.08	0.06	59.3
9	R2	All MCs	9	0.0	9	0.0	0.065	6.3	LOS A	0.1	0.4	0.06	0.08	0.06	56.5
Approach			391	2.1	391	2.1	0.169	4.1	LOS A	0.7	4.8	0.06	0.39	0.06	54.7
West: Knight Street (West)															
10	L2	All MCs	11	0.0	11	0.0	0.014	6.3	LOS A	0.1	0.4	0.34	0.56	0.34	52.1
11	T1	All MCs	4	0.0	4	0.0	0.014	6.0	LOS A	0.1	0.4	0.34	0.56	0.34	52.5
12	R2	All MCs	1	0.0	1	0.0	0.014	7.4	LOS A	0.1	0.4	0.34	0.56	0.34	51.8
Approach			16	0.0	16	0.0	0.014	6.3	LOS A	0.1	0.4	0.34	0.56	0.34	52.2
All Vehicles			878	3.2	878	3.2	0.380	5.4	NA	1.9	13.5	0.19	0.45	0.23	54.0

MOVEMENT SUMMARY

Site: [3 (10)] 2028 Base + Development Thursday AM Peak (3_Kingaroy Street / Knight Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Knight Street
Site Category: (None)
Stop (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	6	0.0	6	0.0	0.151	5.8	LOS A	0.1	1.0	0.04	0.05	0.04	57.0
2	T1	All MCs	261	5.0	261	5.0	0.151	0.0	LOS A	0.1	1.0	0.04	0.05	0.04	59.5
3	R2	All MCs	14	8.0	14	8.0	0.151	5.9	LOS A	0.1	1.0	0.04	0.05	0.04	56.3
Approach			281	5.0	281	5.0	0.151	0.4	NA	0.1	1.0	0.04	0.05	0.04	59.2
East: Knight Street (East)															
4	L2	All MCs	6	17.0	6	17.0	0.448	10.9	LOS B	2.4	17.5	0.63	1.06	0.90	46.8
5	T1	All MCs	4	0.0	4	0.0	0.448	13.5	LOS B	2.4	17.5	0.63	1.06	0.90	47.3
6	R2	All MCs	227	3.0	227	3.0	0.448	15.1	LOS C	2.4	17.5	0.63	1.06	0.90	47.2
Approach			238	3.3	238	3.3	0.448	15.0	LOS B	2.4	17.5	0.63	1.06	0.90	47.2
North: Kingaroy Street (North)															
7	L2	All MCs	302	1.0	302	1.0	0.188	5.7	LOS A	0.8	5.3	0.06	0.53	0.06	52.9
8	T1	All MCs	126	5.0	126	5.0	0.074	0.1	LOS A	0.1	0.4	0.05	0.07	0.05	59.4
9	R2	All MCs	9	0.0	9	0.0	0.074	6.4	LOS A	0.1	0.4	0.05	0.07	0.05	56.6
Approach			438	2.1	438	2.1	0.188	4.1	LOS A	0.8	5.3	0.06	0.39	0.06	54.7
West: Knight Street (West)															
10	L2	All MCs	11	0.0	11	0.0	0.014	6.4	LOS A	0.1	0.4	0.36	0.57	0.36	52.0
11	T1	All MCs	4	0.0	4	0.0	0.014	6.1	LOS A	0.1	0.4	0.36	0.57	0.36	52.4
12	R2	All MCs	1	0.0	1	0.0	0.014	7.7	LOS A	0.1	0.4	0.36	0.57	0.36	51.8
Approach			16	0.0	16	0.0	0.014	6.4	LOS A	0.1	0.4	0.36	0.57	0.36	52.1
All Vehicles			973	3.2	973	3.2	0.448	5.7	NA	2.4	17.5	0.20	0.46	0.26	53.7

MOVEMENT SUMMARY

Site: [3 (4)] 2025 Survey Thursday PM Peak (3_Kingaroy Street / Knight Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Knight Street
Site Category: (None)
Stop (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	9	0.0	9	0.0	0.160	6.1	LOS A	0.2	1.4	0.05	0.08	0.05	56.9
2	T1	All MCs	268	4.0	268	4.0	0.160	0.1	LOS A	0.2	1.4	0.05	0.08	0.05	59.3
3	R2	All MCs	17	25.0	17	25.0	0.160	6.5	LOS A	0.2	1.4	0.05	0.08	0.05	55.3
Approach			295	5.1	295	5.1	0.160	0.6	NA	0.2	1.4	0.05	0.08	0.05	59.0
East: Knight Street (East)															
4	L2	All MCs	15	0.0	15	0.0	0.329	9.4	LOS A	1.5	10.6	0.60	1.00	0.73	47.8
5	T1	All MCs	6	0.0	6	0.0	0.329	13.0	LOS B	1.5	10.6	0.60	1.00	0.73	47.7
6	R2	All MCs	146	4.0	146	4.0	0.329	14.8	LOS B	1.5	10.6	0.60	1.00	0.73	47.5
Approach			167	3.5	167	3.5	0.329	14.3	LOS B	1.5	10.6	0.60	1.00	0.73	47.6
North: Kingaroy Street (North)															
7	L2	All MCs	303	4.0	303	4.0	0.193	5.7	LOS A	0.8	5.7	0.08	0.52	0.08	52.8
8	T1	All MCs	158	3.0	158	3.0	0.092	0.1	LOS A	0.1	0.6	0.06	0.08	0.06	59.3
9	R2	All MCs	13	0.0	13	0.0	0.092	6.4	LOS A	0.1	0.6	0.06	0.08	0.06	56.6
Approach			474	3.6	474	3.6	0.193	3.9	LOS A	0.8	5.7	0.07	0.36	0.07	54.9
West: Knight Street (West)															
10	L2	All MCs	11	10.0	11	10.0	0.018	6.6	LOS A	0.1	0.5	0.39	0.58	0.39	51.6
11	T1	All MCs	5	0.0	5	0.0	0.018	6.4	LOS A	0.1	0.5	0.39	0.58	0.39	52.4
12	R2	All MCs	2	0.0	2	0.0	0.018	8.1	LOS A	0.1	0.5	0.39	0.58	0.39	51.7
Approach			18	5.9	18	5.9	0.018	6.7	LOS A	0.1	0.5	0.39	0.58	0.39	51.8
All Vehicles			954	4.1	954	4.1	0.329	4.8	NA	1.5	10.6	0.17	0.39	0.19	54.5

MOVEMENT SUMMARY

Site: [3 (5)] 2028 Base Thursday PM Peak (3_Kingaroy Street / Knight Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Knight Street
Site Category: (None)
Stop (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Queued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	9	0.0	9	0.0	0.168	6.1	LOS A	0.2	1.5	0.06	0.08	0.06	56.9
2	T1	All MCs	281	4.0	281	4.0	0.168	0.1	LOS A	0.2	1.5	0.06	0.08	0.06	59.3
3	R2	All MCs	18	25.0	18	25.0	0.168	6.5	LOS A	0.2	1.5	0.06	0.08	0.06	55.3
Approach			308	5.1	308	5.1	0.168	0.6	NA	0.2	1.5	0.06	0.08	0.06	59.0
East: Knight Street (East)															
4	L2	All MCs	16	0.0	16	0.0	0.357	9.7	LOS A	1.7	11.9	0.62	1.02	0.79	47.3
5	T1	All MCs	6	0.0	6	0.0	0.357	13.6	LOS B	1.7	11.9	0.62	1.02	0.79	47.3
6	R2	All MCs	153	4.0	153	4.0	0.357	15.6	LOS C	1.7	11.9	0.62	1.02	0.79	47.1
Approach			175	3.5	175	3.5	0.357	15.0	LOS C	1.7	11.9	0.62	1.02	0.79	47.1
North: Kingaroy Street (North)															
7	L2	All MCs	317	4.0	317	4.0	0.202	5.7	LOS A	0.8	6.0	0.08	0.52	0.08	52.7
8	T1	All MCs	165	3.0	165	3.0	0.097	0.1	LOS A	0.1	0.7	0.06	0.08	0.06	59.3
9	R2	All MCs	14	0.0	14	0.0	0.097	6.5	LOS A	0.1	0.7	0.06	0.08	0.06	56.5
Approach			496	3.6	496	3.6	0.202	3.9	LOS A	0.8	6.0	0.08	0.37	0.08	54.9
West: Knight Street (West)															
10	L2	All MCs	11	10.0	11	10.0	0.019	6.7	LOS A	0.1	0.5	0.40	0.59	0.40	51.6
11	T1	All MCs	5	0.0	5	0.0	0.019	6.5	LOS A	0.1	0.5	0.40	0.59	0.40	52.4
12	R2	All MCs	2	0.0	2	0.0	0.019	8.3	LOS A	0.1	0.5	0.40	0.59	0.40	51.7
Approach			18	5.9	18	5.9	0.019	6.8	LOS A	0.1	0.5	0.40	0.59	0.40	51.8
All Vehicles			997	4.1	997	4.1	0.357	4.9	NA	1.7	11.9	0.17	0.40	0.20	54.4

MOVEMENT SUMMARY

Site: [3 (11)] 2028 Base + Development Thursday PM Peak (3_Kingaroy Street / Knight Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Knight Street
Site Category: (None)
Stop (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Queued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	9	0.0	9	0.0	0.193	6.3	LOS A	0.2	1.6	0.06	0.07	0.06	56.9
2	T1	All MCs	328	4.0	328	4.0	0.193	0.1	LOS A	0.2	1.6	0.06	0.07	0.06	59.4
3	R2	All MCs	18	25.0	18	25.0	0.193	6.7	LOS A	0.2	1.6	0.06	0.07	0.06	55.3
Approach			356	4.9	356	4.9	0.193	0.6	NA	0.2	1.6	0.06	0.07	0.06	59.1
East: Knight Street (East)															
4	L2	All MCs	16	0.0	16	0.0	0.524	11.7	LOS B	2.9	21.0	0.72	1.14	1.16	45.1
5	T1	All MCs	6	0.0	6	0.0	0.524	17.0	LOS C	2.9	21.0	0.72	1.14	1.16	45.1
6	R2	All MCs	200	4.0	200	4.0	0.524	19.6	LOS C	2.9	21.0	0.72	1.14	1.16	44.9
Approach			222	3.6	222	3.6	0.524	19.0	LOS C	2.9	21.0	0.72	1.14	1.16	44.9
North: Kingaroy Street (North)															
7	L2	All MCs	379	4.0	379	4.0	0.241	5.7	LOS A	1.0	7.5	0.08	0.53	0.08	52.8
8	T1	All MCs	198	3.0	198	3.0	0.114	0.1	LOS A	0.1	0.7	0.06	0.08	0.06	59.4
9	R2	All MCs	14	0.0	14	0.0	0.114	6.7	LOS A	0.1	0.7	0.06	0.08	0.06	56.6
Approach			591	3.6	591	3.6	0.241	3.9	LOS A	1.0	7.5	0.07	0.36	0.07	54.9
West: Knight Street (West)															
10	L2	All MCs	11	10.0	11	10.0	0.020	6.9	LOS A	0.1	0.5	0.43	0.61	0.43	51.3
11	T1	All MCs	5	0.0	5	0.0	0.020	7.0	LOS A	0.1	0.5	0.43	0.61	0.43	52.1
12	R2	All MCs	2	0.0	2	0.0	0.020	8.9	LOS A	0.1	0.5	0.43	0.61	0.43	51.5
Approach			18	5.9	18	5.9	0.020	7.2	LOS A	0.1	0.5	0.43	0.61	0.43	51.6
All Vehicles			1186	4.0	1186	4.0	0.524	5.8	NA	2.9	21.0	0.19	0.43	0.28	53.7

MOVEMENT SUMMARY

Site: [3 (7)] 2025 Survey Saturday Midday Peak (3_Kingaroy Street / Knight Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Knight Street
Site Category: (None)
Stop (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	6	0.0	6	0.0	0.105	5.7	LOS A	0.1	0.8	0.04	0.06	0.04	56.9
2	T1	All MCs	181	1.0	181	1.0	0.105	0.0	LOS A	0.1	0.8	0.04	0.06	0.04	59.3
3	R2	All MCs	13	0.0	13	0.0	0.105	5.7	LOS A	0.1	0.8	0.04	0.06	0.04	56.6
Approach			200	0.9	200	0.9	0.105	0.6	NA	0.1	0.8	0.04	0.06	0.04	59.1
East: Knight Street (East)															
4	L2	All MCs	8	0.0	8	0.0	0.362	9.1	LOS A	1.8	12.6	0.55	0.97	0.66	48.9
5	T1	All MCs	13	8.0	13	8.0	0.362	12.1	LOS B	1.8	12.6	0.55	0.97	0.66	48.6
6	R2	All MCs	207	1.0	207	1.0	0.362	12.4	LOS B	1.8	12.6	0.55	0.97	0.66	48.8
Approach			228	1.4	228	1.4	0.362	12.3	LOS B	1.8	12.6	0.55	0.97	0.66	48.8
North: Kingaroy Street (North)															
7	L2	All MCs	258	1.0	258	1.0	0.161	5.7	LOS A	0.6	4.5	0.06	0.53	0.06	52.9
8	T1	All MCs	102	1.0	102	1.0	0.066	0.1	LOS A	0.1	0.8	0.09	0.14	0.09	58.7
9	R2	All MCs	20	0.0	20	0.0	0.066	6.0	LOS A	0.1	0.8	0.09	0.14	0.09	56.0
Approach			380	0.9	380	0.9	0.161	4.2	LOS A	0.6	4.5	0.07	0.40	0.07	54.5
West: Knight Street (West)															
10	L2	All MCs	15	21.0	15	21.0	0.017	6.5	LOS A	0.1	0.5	0.30	0.55	0.30	51.4
11	T1	All MCs	4	0.0	4	0.0	0.017	5.6	LOS A	0.1	0.5	0.30	0.55	0.30	52.6
12	R2	All MCs	1	0.0	1	0.0	0.017	7.1	LOS A	0.1	0.5	0.30	0.55	0.30	51.9
Approach			20	15.5	20	15.5	0.017	6.3	LOS A	0.1	0.5	0.30	0.55	0.30	51.6
All Vehicles			828	1.4	828	1.4	0.362	5.6	NA	1.8	12.6	0.20	0.48	0.23	53.7

MOVEMENT SUMMARY

Site: [3 (8)] 2028 Base Saturday Midday Peak (3_Kingaroy Street / Knight Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Knight Street
Site Category: (None)
Stop (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	6	0.0	6	0.0	0.110	5.7	LOS A	0.1	0.8	0.04	0.07	0.04	56.9
2	T1	All MCs	189	1.0	189	1.0	0.110	0.0	LOS A	0.1	0.8	0.04	0.07	0.04	59.3
3	R2	All MCs	14	0.0	14	0.0	0.110	5.7	LOS A	0.1	0.8	0.04	0.07	0.04	56.5
Approach			209	0.9	209	0.9	0.110	0.6	NA	0.1	0.8	0.04	0.07	0.04	59.0
East: Knight Street (East)															
4	L2	All MCs	8	0.0	8	0.0	0.388	9.3	LOS A	2.0	14.2	0.57	0.99	0.72	48.6
5	T1	All MCs	14	8.0	14	8.0	0.388	12.6	LOS B	2.0	14.2	0.57	0.99	0.72	48.3
6	R2	All MCs	217	1.0	217	1.0	0.388	12.9	LOS B	2.0	14.2	0.57	0.99	0.72	48.5
Approach			239	1.4	239	1.4	0.388	12.8	LOS B	2.0	14.2	0.57	0.99	0.72	48.5
North: Kingaroy Street (North)															
7	L2	All MCs	269	1.0	269	1.0	0.168	5.7	LOS A	0.7	4.8	0.06	0.53	0.06	52.9
8	T1	All MCs	106	1.0	106	1.0	0.069	0.2	LOS A	0.1	0.9	0.10	0.14	0.10	58.7
9	R2	All MCs	21	0.0	21	0.0	0.069	6.1	LOS A	0.1	0.9	0.10	0.14	0.10	56.0
Approach			397	0.9	397	0.9	0.168	4.2	LOS A	0.7	4.8	0.08	0.40	0.08	54.5
West: Knight Street (West)															
10	L2	All MCs	16	21.0	16	21.0	0.019	6.5	LOS A	0.1	0.6	0.31	0.55	0.31	51.3
11	T1	All MCs	4	0.0	4	0.0	0.019	5.7	LOS A	0.1	0.6	0.31	0.55	0.31	52.6
12	R2	All MCs	1	0.0	1	0.0	0.019	7.2	LOS A	0.1	0.6	0.31	0.55	0.31	51.9
Approach			21	15.8	21	15.8	0.019	6.4	LOS A	0.1	0.6	0.31	0.55	0.31	51.6
All Vehicles			866	1.4	866	1.4	0.388	5.7	NA	2.0	14.2	0.21	0.49	0.25	53.6

MOVEMENT SUMMARY

Site: [3 (12)] 2028 Base + Development Saturday Midday Peak (3_Kingaroy Street / Knight Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

Kingaroy Street / Knight Street
Site Category: (None)
Stop (Two-Way)
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Queued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: Kingaroy Street (South)															
1	L2	All MCs	6	0.0	6	0.0	0.141	5.9	LOS A	0.1	0.9	0.04	0.06	0.04	57.0
2	T1	All MCs	249	1.0	249	1.0	0.141	0.0	LOS A	0.1	0.9	0.04	0.06	0.04	59.4
3	R2	All MCs	14	0.0	14	0.0	0.141	5.9	LOS A	0.1	0.9	0.04	0.06	0.04	56.6
Approach			269	0.9	269	0.9	0.141	0.5	NA	0.1	0.9	0.04	0.06	0.04	59.2
East: Knight Street (East)															
4	L2	All MCs	8	0.0	8	0.0	0.574	11.4	LOS B	3.8	26.7	0.70	1.14	1.17	46.2
5	T1	All MCs	14	8.0	14	8.0	0.574	16.4	LOS C	3.8	26.7	0.70	1.14	1.17	46.0
6	R2	All MCs	278	1.0	278	1.0	0.574	17.1	LOS C	3.8	26.7	0.70	1.14	1.17	46.1
Approach			300	1.3	300	1.3	0.574	16.9	LOS C	3.8	26.7	0.70	1.14	1.17	46.1
North: Kingaroy Street (North)															
7	L2	All MCs	348	1.0	348	1.0	0.217	5.7	LOS A	0.9	6.4	0.06	0.53	0.06	52.9
8	T1	All MCs	149	1.0	149	1.0	0.092	0.2	LOS A	0.1	0.9	0.08	0.12	0.08	59.0
9	R2	All MCs	21	0.0	21	0.0	0.092	6.3	LOS A	0.1	0.9	0.08	0.12	0.08	56.2
Approach			519	1.0	519	1.0	0.217	4.1	LOS A	0.9	6.4	0.07	0.39	0.07	54.7
West: Knight Street (West)															
10	L2	All MCs	16	21.0	16	21.0	0.020	6.8	LOS A	0.1	0.6	0.36	0.57	0.36	51.2
11	T1	All MCs	4	0.0	4	0.0	0.020	6.2	LOS A	0.1	0.6	0.36	0.57	0.36	52.4
12	R2	All MCs	1	0.0	1	0.0	0.020	7.8	LOS A	0.1	0.6	0.36	0.57	0.36	51.7
Approach			21	15.8	21	15.8	0.020	6.7	LOS A	0.1	0.6	0.36	0.57	0.36	51.4
All Vehicles			1109	1.3	1109	1.3	0.574	6.7	NA	3.8	26.7	0.24	0.52	0.37	52.9

MOVEMENT SUMMARY

Site: [4 (1)] 2025 Survey Thursday AM Peak (4_D'Aguilar Highway / Somerset Street / Knight Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

D'Aguilar Highway / Somerset Street / Knight Street
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: D'Aguilar Highway															
1	L2	All MCs	176	3.0	176	3.0	0.214	3.9	LOS A	1.2	9.0	0.14	0.41	0.14	54.5
2	T1	All MCs	148	2.0	148	2.0	0.214	4.1	LOS A	1.2	9.0	0.14	0.41	0.14	54.8
3	R2	All MCs	2	0.0	2	0.0	0.214	9.0	LOS A	1.2	9.0	0.14	0.41	0.14	54.0
3u	U	All MCs	1	100.0	1	100.0	0.214	12.5	LOS B	1.2	9.0	0.14	0.41	0.14	50.3
Approach			327	2.8	327	2.8	0.214	4.0	LOS A	1.2	9.0	0.14	0.41	0.14	54.6
East: Knight Street (East)															
4	L2	All MCs	1	0.0	1	0.0	0.015	5.6	LOS A	0.1	0.6	0.51	0.59	0.51	51.3
5	T1	All MCs	6	0.0	6	0.0	0.015	5.8	LOS A	0.1	0.6	0.51	0.59	0.51	51.6
6	R2	All MCs	7	0.0	7	0.0	0.015	10.8	LOS B	0.1	0.6	0.51	0.59	0.51	50.8
6u	U	All MCs	1	0.0	1	0.0	0.015	13.0	LOS B	0.1	0.6	0.51	0.59	0.51	50.8
Approach			16	0.0	16	0.0	0.015	8.6	LOS A	0.1	0.6	0.51	0.59	0.51	51.2
North: Somerset Street															
7	L2	All MCs	3	0.0	3	0.0	0.134	5.1	LOS A	0.7	5.4	0.47	0.52	0.47	52.6
8	T1	All MCs	122	9.0	122	9.0	0.134	5.6	LOS A	0.7	5.4	0.47	0.52	0.47	52.7
9	R2	All MCs	15	8.0	15	8.0	0.134	10.5	LOS B	0.7	5.4	0.47	0.52	0.47	51.8
9u	U	All MCs	1	0.0	1	0.0	0.134	12.5	LOS B	0.7	5.4	0.47	0.52	0.47	52.1
Approach			141	8.6	141	8.6	0.134	6.1	LOS A	0.7	5.4	0.47	0.52	0.47	52.6
West: Knight Street (West)															
10	L2	All MCs	16	7.0	16	7.0	0.243	4.7	LOS A	1.4	9.9	0.36	0.60	0.36	50.5
11	T1	All MCs	4	0.0	4	0.0	0.243	4.8	LOS A	1.4	9.9	0.36	0.60	0.36	50.9
12	R2	All MCs	288	2.0	288	2.0	0.243	9.8	LOS A	1.4	9.9	0.36	0.60	0.36	50.1
12u	U	All MCs	1	0.0	1	0.0	0.243	11.9	LOS B	1.4	9.9	0.36	0.60	0.36	50.2
Approach			309	2.2	309	2.2	0.243	9.4	LOS A	1.4	9.9	0.36	0.60	0.36	50.1
All Vehicles			794	3.6	794	3.6	0.243	6.6	LOS A	1.4	9.9	0.29	0.51	0.29	52.3

MOVEMENT SUMMARY

Site: [4 (2)] 2028 Base Thursday AM Peak (4_D'Aguilar Highway / Somerset Street / Knight Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

D'Aguilar Highway / Somerset Street / Knight Street
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: D'Aguilar Highway															
1	L2	All MCs	184	3.0	184	3.0	0.224	3.9	LOS A	1.3	9.5	0.15	0.41	0.15	54.4
2	T1	All MCs	155	2.0	155	2.0	0.224	4.1	LOS A	1.3	9.5	0.15	0.41	0.15	54.8
3	R2	All MCs	2	0.0	2	0.0	0.224	9.0	LOS A	1.3	9.5	0.15	0.41	0.15	54.0
3u	U	All MCs	1	100.0	1	100.0	0.224	12.5	LOS B	1.3	9.5	0.15	0.41	0.15	50.3
Approach			342	2.8	342	2.8	0.224	4.1	LOS A	1.3	9.5	0.15	0.41	0.15	54.6
East: Knight Street (East)															
4	L2	All MCs	1	0.0	1	0.0	0.016	5.7	LOS A	0.1	0.6	0.52	0.59	0.52	51.3
5	T1	All MCs	6	0.0	6	0.0	0.016	5.9	LOS A	0.1	0.6	0.52	0.59	0.52	51.6
6	R2	All MCs	7	0.0	7	0.0	0.016	10.9	LOS B	0.1	0.6	0.52	0.59	0.52	50.8
6u	U	All MCs	1	0.0	1	0.0	0.016	13.1	LOS B	0.1	0.6	0.52	0.59	0.52	50.8
Approach			16	0.0	16	0.0	0.016	8.7	LOS A	0.1	0.6	0.52	0.59	0.52	51.1
North: Somerset Street															
7	L2	All MCs	3	0.0	3	0.0	0.141	5.2	LOS A	0.8	5.8	0.49	0.53	0.49	52.5
8	T1	All MCs	127	9.0	127	9.0	0.141	5.6	LOS A	0.8	5.8	0.49	0.53	0.49	52.7
9	R2	All MCs	16	8.0	16	8.0	0.141	10.6	LOS B	0.8	5.8	0.49	0.53	0.49	51.7
9u	U	All MCs	1	0.0	1	0.0	0.141	12.6	LOS B	0.8	5.8	0.49	0.53	0.49	52.0
Approach			147	8.6	147	8.6	0.141	6.2	LOS A	0.8	5.8	0.49	0.53	0.49	52.6
West: Knight Street (West)															
10	L2	All MCs	17	7.0	17	7.0	0.256	4.7	LOS A	1.5	10.6	0.37	0.60	0.37	50.4
11	T1	All MCs	4	0.0	4	0.0	0.256	4.8	LOS A	1.5	10.6	0.37	0.60	0.37	50.9
12	R2	All MCs	302	2.0	302	2.0	0.256	9.8	LOS A	1.5	10.6	0.37	0.60	0.37	50.1
12u	U	All MCs	1	0.0	1	0.0	0.256	12.0	LOS B	1.5	10.6	0.37	0.60	0.37	50.1
Approach			324	2.2	324	2.2	0.256	9.5	LOS A	1.5	10.6	0.37	0.60	0.37	50.1
All Vehicles			829	3.6	829	3.6	0.256	6.6	LOS A	1.5	10.6	0.30	0.51	0.30	52.3

MOVEMENT SUMMARY

Site: [4 (10)] 2028 Base + Development Thursday AM Peak (4_D'Aguilar Highway / Somerset Street / Knight Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

D'Aguilar Highway / Somerset Street / Knight Street
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: D'Aguilar Highway															
1	L2	All MCs	206	3.0	206	3.0	0.238	3.9	LOS A	1.4	10.3	0.15	0.41	0.15	54.4
2	T1	All MCs	155	2.0	155	2.0	0.238	4.1	LOS A	1.4	10.3	0.15	0.41	0.15	54.8
3	R2	All MCs	2	0.0	2	0.0	0.238	9.1	LOS A	1.4	10.3	0.15	0.41	0.15	53.9
3u	U	All MCs	1	100.0	1	100.0	0.238	12.5	LOS B	1.4	10.3	0.15	0.41	0.15	50.3
Approach			364	2.8	364	2.8	0.238	4.0	LOS A	1.4	10.3	0.15	0.41	0.15	54.6
East: Knight Street (East)															
4	L2	All MCs	1	0.0	1	0.0	0.016	5.9	LOS A	0.1	0.6	0.54	0.60	0.54	51.2
5	T1	All MCs	6	0.0	6	0.0	0.016	6.1	LOS A	0.1	0.6	0.54	0.60	0.54	51.5
6	R2	All MCs	7	0.0	7	0.0	0.016	11.0	LOS B	0.1	0.6	0.54	0.60	0.54	50.7
6u	U	All MCs	1	0.0	1	0.0	0.016	13.2	LOS B	0.1	0.6	0.54	0.60	0.54	50.7
Approach			16	0.0	16	0.0	0.016	8.9	LOS A	0.1	0.6	0.54	0.60	0.54	51.0
North: Somerset Street															
7	L2	All MCs	3	0.0	3	0.0	0.146	5.4	LOS A	0.8	6.0	0.51	0.54	0.51	52.4
8	T1	All MCs	127	9.0	127	9.0	0.146	5.8	LOS A	0.8	6.0	0.51	0.54	0.51	52.5
9	R2	All MCs	17	8.0	17	8.0	0.146	10.8	LOS B	0.8	6.0	0.51	0.54	0.51	51.6
9u	U	All MCs	1	0.0	1	0.0	0.146	12.7	LOS B	0.8	6.0	0.51	0.54	0.51	51.9
Approach			148	8.6	148	8.6	0.146	6.4	LOS A	0.8	6.0	0.51	0.54	0.51	52.4
West: Knight Street (West)															
10	L2	All MCs	18	7.0	18	7.0	0.279	4.7	LOS A	1.7	11.8	0.38	0.60	0.38	50.4
11	T1	All MCs	4	0.0	4	0.0	0.279	4.8	LOS A	1.7	11.8	0.38	0.60	0.38	50.9
12	R2	All MCs	332	2.0	332	2.0	0.279	9.8	LOS A	1.7	11.8	0.38	0.60	0.38	50.0
12u	U	All MCs	1	0.0	1	0.0	0.279	12.0	LOS B	1.7	11.8	0.38	0.60	0.38	50.1
Approach			355	2.2	355	2.2	0.279	9.5	LOS A	1.7	11.8	0.38	0.60	0.38	50.1
All Vehicles			883	3.5	883	3.5	0.279	6.7	LOS A	1.7	11.8	0.31	0.51	0.31	52.2

MOVEMENT SUMMARY

Site: [4 (4)] 2025 Survey Thursday PM Peak (4_D'Aguilar Highway / Somerset Street / Knight Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

D'Aguilar Highway / Somerset Street / Knight Street
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Queued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: D'Aguilar Highway															
1	L2	All MCs	143	3.0	143	3.0	0.224	3.9	LOS A	1.4	9.8	0.14	0.40	0.14	54.4
2	T1	All MCs	193	5.0	193	5.0	0.224	4.1	LOS A	1.4	9.8	0.14	0.40	0.14	54.7
3	R2	All MCs	6	0.0	6	0.0	0.224	9.0	LOS A	1.4	9.8	0.14	0.40	0.14	53.9
3u	U	All MCs	1	0.0	1	0.0	0.224	11.2	LOS B	1.4	9.8	0.14	0.40	0.14	53.9
Approach			343	4.1	343	4.1	0.224	4.1	LOS A	1.4	9.8	0.14	0.40	0.14	54.6
East: Knight Street (East)															
4	L2	All MCs	1	0.0	1	0.0	0.012	6.1	LOS A	0.1	0.5	0.57	0.58	0.57	51.4
5	T1	All MCs	6	0.0	6	0.0	0.012	6.3	LOS A	0.1	0.5	0.57	0.58	0.57	51.7
6	R2	All MCs	3	0.0	3	0.0	0.012	11.3	LOS B	0.1	0.5	0.57	0.58	0.57	50.9
6u	U	All MCs	1	0.0	1	0.0	0.012	13.5	LOS B	0.1	0.5	0.57	0.58	0.57	50.9
Approach			12	0.0	12	0.0	0.012	8.3	LOS A	0.1	0.5	0.57	0.58	0.57	51.4
North: Somerset Street															
7	L2	All MCs	2	0.0	2	0.0	0.204	5.4	LOS A	1.2	8.5	0.52	0.54	0.52	52.4
8	T1	All MCs	199	2.0	199	2.0	0.204	5.7	LOS A	1.2	8.5	0.52	0.54	0.52	52.7
9	R2	All MCs	17	0.0	17	0.0	0.204	10.6	LOS B	1.2	8.5	0.52	0.54	0.52	51.9
9u	U	All MCs	1	0.0	1	0.0	0.204	12.8	LOS B	1.2	8.5	0.52	0.54	0.52	51.9
Approach			219	1.8	219	1.8	0.204	6.1	LOS A	1.2	8.5	0.52	0.54	0.52	52.7
West: Knight Street (West)															
10	L2	All MCs	32	10.0	32	10.0	0.291	5.1	LOS A	1.7	12.6	0.43	0.61	0.43	50.3
11	T1	All MCs	5	0.0	5	0.0	0.291	5.1	LOS A	1.7	12.6	0.43	0.61	0.43	50.9
12	R2	All MCs	309	5.0	309	5.0	0.291	10.1	LOS B	1.7	12.6	0.43	0.61	0.43	49.9
12u	U	All MCs	1	0.0	1	0.0	0.291	12.2	LOS B	1.7	12.6	0.43	0.61	0.43	50.1
Approach			347	5.4	347	5.4	0.291	9.6	LOS A	1.7	12.6	0.43	0.61	0.43	50.0
All Vehicles			921	4.0	921	4.0	0.291	6.7	LOS A	1.7	12.6	0.34	0.52	0.34	52.2

MOVEMENT SUMMARY

Site: [4 (5)] 2028 Base Thursday PM Peak (4_D'Aguilar Highway / Somerset Street / Knight Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

D'Aguilar Highway / Somerset Street / Knight Street
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Queued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: D'Aguilar Highway															
1	L2	All MCs	149	3.0	149	3.0	0.233	3.9	LOS A	1.4	10.4	0.15	0.40	0.15	54.4
2	T1	All MCs	201	5.0	201	5.0	0.233	4.1	LOS A	1.4	10.4	0.15	0.40	0.15	54.7
3	R2	All MCs	6	0.0	6	0.0	0.233	9.0	LOS A	1.4	10.4	0.15	0.40	0.15	53.9
3u	U	All MCs	1	0.0	1	0.0	0.233	11.2	LOS B	1.4	10.4	0.15	0.40	0.15	53.9
Approach			358	4.1	358	4.1	0.233	4.1	LOS A	1.4	10.4	0.15	0.40	0.15	54.5
East: Knight Street (East)															
4	L2	All MCs	1	0.0	1	0.0	0.013	6.3	LOS A	0.1	0.5	0.58	0.58	0.58	51.3
5	T1	All MCs	6	0.0	6	0.0	0.013	6.5	LOS A	0.1	0.5	0.58	0.58	0.58	51.6
6	R2	All MCs	3	0.0	3	0.0	0.013	11.4	LOS B	0.1	0.5	0.58	0.58	0.58	50.8
6u	U	All MCs	1	0.0	1	0.0	0.013	13.6	LOS B	0.1	0.5	0.58	0.58	0.58	50.8
Approach			12	0.0	12	0.0	0.013	8.5	LOS A	0.1	0.5	0.58	0.58	0.58	51.3
North: Somerset Street															
7	L2	All MCs	2	0.0	2	0.0	0.217	5.5	LOS A	1.3	9.2	0.54	0.54	0.54	52.4
8	T1	All MCs	208	2.0	208	2.0	0.217	5.8	LOS A	1.3	9.2	0.54	0.54	0.54	52.7
9	R2	All MCs	18	0.0	18	0.0	0.217	10.7	LOS B	1.3	9.2	0.54	0.54	0.54	51.8
9u	U	All MCs	1	0.0	1	0.0	0.217	12.9	LOS B	1.3	9.2	0.54	0.54	0.54	51.8
Approach			229	1.8	229	1.8	0.217	6.2	LOS A	1.3	9.2	0.54	0.54	0.54	52.6
West: Knight Street (West)															
10	L2	All MCs	33	10.0	33	10.0	0.305	5.1	LOS A	1.8	13.4	0.44	0.61	0.44	50.3
11	T1	All MCs	5	0.0	5	0.0	0.305	5.1	LOS A	1.8	13.4	0.44	0.61	0.44	50.8
12	R2	All MCs	323	5.0	323	5.0	0.305	10.2	LOS B	1.8	13.4	0.44	0.61	0.44	49.9
12u	U	All MCs	1	0.0	1	0.0	0.305	12.3	LOS B	1.8	13.4	0.44	0.61	0.44	50.1
Approach			362	5.4	362	5.4	0.305	9.7	LOS A	1.8	13.4	0.44	0.61	0.44	49.9
All Vehicles			961	4.0	961	4.0	0.305	6.8	LOS A	1.8	13.4	0.36	0.52	0.36	52.2

MOVEMENT SUMMARY

Site: [4 (11)] 2028 Base + Development Thursday PM Peak (4_D'Aguilar Highway / Somerset Street / Knight Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

D'Aguilar Highway / Somerset Street / Knight Street
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: D'Aguilar Highway															
1	L2	All MCs	195	3.0	195	3.0	0.263	3.9	LOS A	1.7	12.3	0.16	0.41	0.16	54.3
2	T1	All MCs	201	5.0	201	5.0	0.263	4.1	LOS A	1.7	12.3	0.16	0.41	0.16	54.7
3	R2	All MCs	6	0.0	6	0.0	0.263	9.0	LOS A	1.7	12.3	0.16	0.41	0.16	53.9
3u	U	All MCs	1	0.0	1	0.0	0.263	11.2	LOS B	1.7	12.3	0.16	0.41	0.16	53.9
Approach			403	3.9	403	3.9	0.263	4.1	LOS A	1.7	12.3	0.16	0.41	0.16	54.5
East: Knight Street (East)															
4	L2	All MCs	1	0.0	1	0.0	0.013	6.7	LOS A	0.1	0.5	0.62	0.60	0.62	51.1
5	T1	All MCs	6	0.0	6	0.0	0.013	6.9	LOS A	0.1	0.5	0.62	0.60	0.62	51.4
6	R2	All MCs	3	0.0	3	0.0	0.013	11.9	LOS B	0.1	0.5	0.62	0.60	0.62	50.6
6u	U	All MCs	1	0.0	1	0.0	0.013	14.1	LOS B	0.1	0.5	0.62	0.60	0.62	50.6
Approach			12	0.0	12	0.0	0.013	8.9	LOS A	0.1	0.5	0.62	0.60	0.62	51.1
North: Somerset Street															
7	L2	All MCs	2	0.0	2	0.0	0.230	5.9	LOS A	1.4	10.0	0.59	0.57	0.59	52.1
8	T1	All MCs	208	2.0	208	2.0	0.230	6.1	LOS A	1.4	10.0	0.59	0.57	0.59	52.4
9	R2	All MCs	20	0.0	20	0.0	0.230	11.0	LOS B	1.4	10.0	0.59	0.57	0.59	51.6
9u	U	All MCs	1	0.0	1	0.0	0.230	13.2	LOS B	1.4	10.0	0.59	0.57	0.59	51.6
Approach			232	1.8	232	1.8	0.230	6.6	LOS A	1.4	10.0	0.59	0.57	0.59	52.3
West: Knight Street (West)															
10	L2	All MCs	36	10.0	36	10.0	0.356	5.2	LOS A	2.2	16.5	0.46	0.61	0.46	50.2
11	T1	All MCs	5	0.0	5	0.0	0.356	5.2	LOS A	2.2	16.5	0.46	0.61	0.46	50.7
12	R2	All MCs	383	5.0	383	5.0	0.356	10.3	LOS B	2.2	16.5	0.46	0.61	0.46	49.8
12u	U	All MCs	1	0.0	1	0.0	0.356	12.4	LOS B	2.2	16.5	0.46	0.61	0.46	50.0
Approach			425	5.3	425	5.3	0.356	9.8	LOS A	2.2	16.5	0.46	0.61	0.46	49.8
All Vehicles			1072	4.0	1072	4.0	0.356	7.0	LOS A	2.2	16.5	0.38	0.53	0.38	52.0

MOVEMENT SUMMARY

Site: [4 (7)] 2025 Survey Saturday Midday Peak (4_D'Aguilar Highway / Somerset Street / Knight Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

D'Aguilar Highway / Somerset Street / Knight Street
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Queued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: D'Aguilar Highway															
1	L2	All MCs	211	1.0	211	1.0	0.258	3.9	LOS A	1.6	11.5	0.14	0.40	0.14	54.6
2	T1	All MCs	197	1.0	197	1.0	0.258	4.1	LOS A	1.6	11.5	0.14	0.40	0.14	54.9
3	R2	All MCs	1	0.0	1	0.0	0.258	9.0	LOS A	1.6	11.5	0.14	0.40	0.14	54.0
3u	U	All MCs	1	0.0	1	0.0	0.258	11.2	LOS B	1.6	11.5	0.14	0.40	0.14	54.0
Approach			409	1.0	409	1.0	0.258	4.0	LOS A	1.6	11.5	0.14	0.40	0.14	54.7
East: Knight Street (East)															
4	L2	All MCs	1	0.0	1	0.0	0.008	5.5	LOS A	0.0	0.3	0.50	0.55	0.50	51.7
5	T1	All MCs	4	0.0	4	0.0	0.008	5.7	LOS A	0.0	0.3	0.50	0.55	0.50	52.0
6	R2	All MCs	2	0.0	2	0.0	0.008	10.7	LOS B	0.0	0.3	0.50	0.55	0.50	51.2
6u	U	All MCs	1	0.0	1	0.0	0.008	12.9	LOS B	0.0	0.3	0.50	0.55	0.50	51.2
Approach			8	0.0	8	0.0	0.008	7.8	LOS A	0.0	0.3	0.50	0.55	0.50	51.7
North: Somerset Street															
7	L2	All MCs	4	0.0	4	0.0	0.133	5.1	LOS A	0.7	5.2	0.46	0.52	0.46	52.6
8	T1	All MCs	126	1.0	126	1.0	0.133	5.3	LOS A	0.7	5.2	0.46	0.52	0.46	52.9
9	R2	All MCs	17	0.0	17	0.0	0.133	10.2	LOS B	0.7	5.2	0.46	0.52	0.46	52.1
9u	U	All MCs	1	0.0	1	0.0	0.133	12.4	LOS B	0.7	5.2	0.46	0.52	0.46	52.1
Approach			148	0.9	148	0.9	0.133	5.9	LOS A	0.7	5.2	0.46	0.52	0.46	52.8
West: Knight Street (West)															
10	L2	All MCs	18	0.0	18	0.0	0.246	4.8	LOS A	1.4	9.9	0.40	0.61	0.40	50.6
11	T1	All MCs	5	0.0	5	0.0	0.246	5.0	LOS A	1.4	9.9	0.40	0.61	0.40	50.9
12	R2	All MCs	277	1.0	277	1.0	0.246	10.0	LOS A	1.4	9.9	0.40	0.61	0.40	50.0
12u	U	All MCs	1	0.0	1	0.0	0.246	12.2	LOS B	1.4	9.9	0.40	0.61	0.40	50.1
Approach			301	0.9	301	0.9	0.246	9.6	LOS A	1.4	9.9	0.40	0.61	0.40	50.1
All Vehicles			867	0.9	867	0.9	0.258	6.3	LOS A	1.6	11.5	0.29	0.50	0.29	52.7

MOVEMENT SUMMARY

Site: [4 (8)] 2028 Base Saturday Midday Peak (4_D'Aguilar Highway / Somerset Street / Knight Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

D'Aguilar Highway / Somerset Street / Knight Street
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Queued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: D'Aguilar Highway															
1	L2	All MCs	220	1.0	220	1.0	0.271	3.9	LOS A	1.7	12.3	0.14	0.40	0.14	54.5
2	T1	All MCs	206	1.0	206	1.0	0.271	4.1	LOS A	1.7	12.3	0.14	0.40	0.14	54.9
3	R2	All MCs	1	0.0	1	0.0	0.271	9.0	LOS A	1.7	12.3	0.14	0.40	0.14	54.0
3u	U	All MCs	1	0.0	1	0.0	0.271	11.2	LOS B	1.7	12.3	0.14	0.40	0.14	54.0
Approach			428	1.0	428	1.0	0.271	4.0	LOS A	1.7	12.3	0.14	0.40	0.14	54.7
East: Knight Street (East)															
4	L2	All MCs	1	0.0	1	0.0	0.008	5.6	LOS A	0.0	0.3	0.51	0.55	0.51	51.6
5	T1	All MCs	4	0.0	4	0.0	0.008	5.8	LOS A	0.0	0.3	0.51	0.55	0.51	52.0
6	R2	All MCs	2	0.0	2	0.0	0.008	10.8	LOS B	0.0	0.3	0.51	0.55	0.51	51.1
6u	U	All MCs	1	0.0	1	0.0	0.008	13.0	LOS B	0.0	0.3	0.51	0.55	0.51	51.1
Approach			8	0.0	8	0.0	0.008	7.9	LOS A	0.0	0.3	0.51	0.55	0.51	51.6
North: Somerset Street															
7	L2	All MCs	4	0.0	4	0.0	0.140	5.1	LOS A	0.8	5.5	0.47	0.52	0.47	52.6
8	T1	All MCs	132	1.0	132	1.0	0.140	5.4	LOS A	0.8	5.5	0.47	0.52	0.47	52.9
9	R2	All MCs	18	0.0	18	0.0	0.140	10.3	LOS B	0.8	5.5	0.47	0.52	0.47	52.0
9u	U	All MCs	1	0.0	1	0.0	0.140	12.5	LOS B	0.8	5.5	0.47	0.52	0.47	52.0
Approach			155	0.9	155	0.9	0.140	6.0	LOS A	0.8	5.5	0.47	0.52	0.47	52.8
West: Knight Street (West)															
10	L2	All MCs	19	0.0	19	0.0	0.259	4.8	LOS A	1.5	10.5	0.42	0.61	0.42	50.5
11	T1	All MCs	5	0.0	5	0.0	0.259	5.1	LOS A	1.5	10.5	0.42	0.61	0.42	50.8
12	R2	All MCs	289	1.0	289	1.0	0.259	10.0	LOS B	1.5	10.5	0.42	0.61	0.42	50.0
12u	U	All MCs	1	0.0	1	0.0	0.259	12.2	LOS B	1.5	10.5	0.42	0.61	0.42	50.0
Approach			315	0.9	315	0.9	0.259	9.7	LOS A	1.5	10.5	0.42	0.61	0.42	50.1
All Vehicles			906	0.9	906	0.9	0.271	6.3	LOS A	1.7	12.3	0.30	0.50	0.30	52.6

MOVEMENT SUMMARY

Site: [4 (12)] 2028 Base + Development Saturday Midday Peak (4_D'Aguilar Highway / Somerset Street / Knight Street)
Output produced by SIDRA INTERSECTION Version: 10.0.5.217

D'Aguilar Highway / Somerset Street / Knight Street
Site Category: (None)
Roundabout
Site Scenario: 1 | Local Volumes

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Queued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed km/h
South: D'Aguilar Highway															
1	L2	All MCs	278	1.0	278	1.0	0.308	3.9	LOS A	2.1	14.9	0.16	0.41	0.16	54.5
2	T1	All MCs	206	1.0	206	1.0	0.308	4.1	LOS A	2.1	14.9	0.16	0.41	0.16	54.8
3	R2	All MCs	1	0.0	1	0.0	0.308	9.0	LOS A	2.1	14.9	0.16	0.41	0.16	53.9
3u	U	All MCs	1	0.0	1	0.0	0.308	11.2	LOS B	2.1	14.9	0.16	0.41	0.16	53.9
Approach			486	1.0	486	1.0	0.308	4.0	LOS A	2.1	14.9	0.16	0.41	0.16	54.6
East: Knight Street (East)															
4	L2	All MCs	1	0.0	1	0.0	0.009	6.0	LOS A	0.0	0.3	0.56	0.57	0.56	51.4
5	T1	All MCs	4	0.0	4	0.0	0.009	6.2	LOS A	0.0	0.3	0.56	0.57	0.56	51.7
6	R2	All MCs	2	0.0	2	0.0	0.009	11.2	LOS B	0.0	0.3	0.56	0.57	0.56	50.9
6u	U	All MCs	1	0.0	1	0.0	0.009	13.4	LOS B	0.0	0.3	0.56	0.57	0.56	50.9
Approach			8	0.0	8	0.0	0.009	8.3	LOS A	0.0	0.3	0.56	0.57	0.56	51.4
North: Somerset Street															
7	L2	All MCs	4	0.0	4	0.0	0.152	5.5	LOS A	0.9	6.1	0.53	0.56	0.53	52.2
8	T1	All MCs	132	1.0	132	1.0	0.152	5.8	LOS A	0.9	6.1	0.53	0.56	0.53	52.5
9	R2	All MCs	21	0.0	21	0.0	0.152	10.7	LOS B	0.9	6.1	0.53	0.56	0.53	51.7
9u	U	All MCs	1	0.0	1	0.0	0.152	12.9	LOS B	0.9	6.1	0.53	0.56	0.53	51.7
Approach			158	0.8	158	0.8	0.152	6.5	LOS A	0.9	6.1	0.53	0.56	0.53	52.4
West: Knight Street (West)															
10	L2	All MCs	22	0.0	22	0.0	0.320	4.9	LOS A	2.0	13.9	0.44	0.62	0.44	50.4
11	T1	All MCs	5	0.0	5	0.0	0.320	5.1	LOS A	2.0	13.9	0.44	0.62	0.44	50.7
12	R2	All MCs	365	1.0	365	1.0	0.320	10.1	LOS B	2.0	13.9	0.44	0.62	0.44	49.9
12u	U	All MCs	1	0.0	1	0.0	0.320	12.3	LOS B	2.0	13.9	0.44	0.62	0.44	49.9
Approach			394	0.9	394	0.9	0.320	9.8	LOS A	2.0	13.9	0.44	0.62	0.44	50.0
All Vehicles			1046	0.9	1046	0.9	0.320	6.6	LOS A	2.1	14.9	0.32	0.51	0.32	52.4

Appendix E Traffic Survey Data

Colliers

Accelerating success.

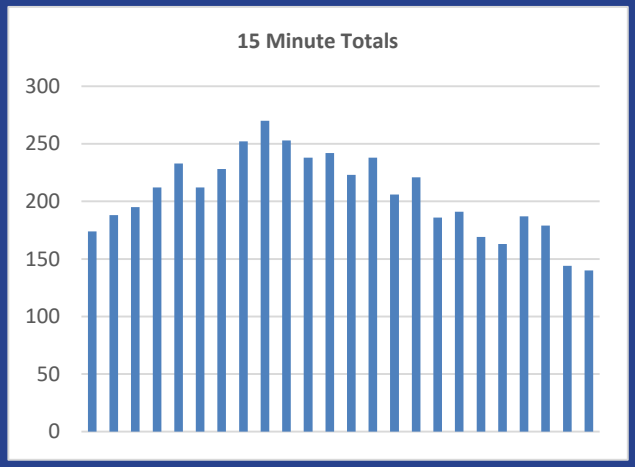
Intersection Count - Project Details

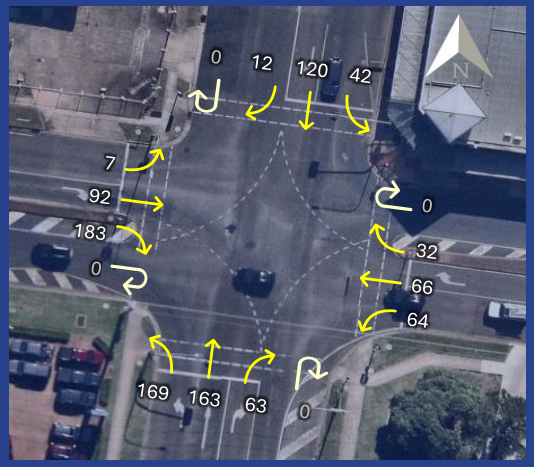
TTM Reference: **24BRT0525**
Location: **Avoca St / Kingaroy St**
Suburb: **Kingaroy**
Date: **Saturday, 7 June 2025**
Duration: **0900-1500**
Weather: **Fine**
Peak Hr: **10:45-11:45**

Notes:

Quick display - Summaries

Survey Period: 10:45 to 11:45







Colliers

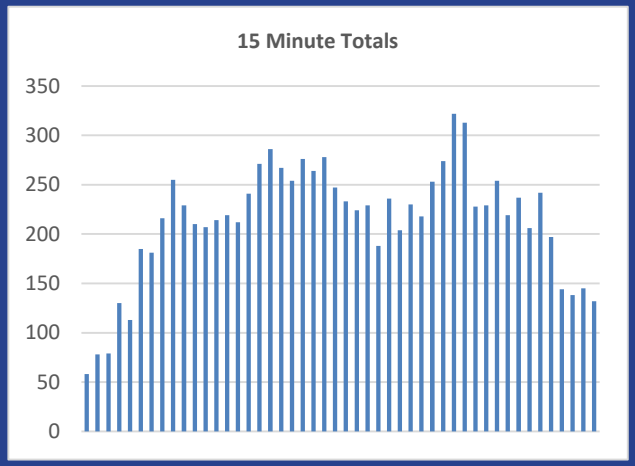
Accelerating success.

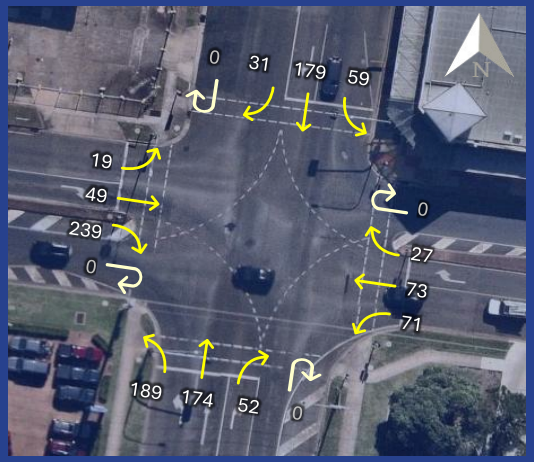
Intersection Count - Project Details

TTM Reference: **24BRT0525**
Location: **Avoca St / Kingaroy St**
Suburb: **Kingaroy**
Date: **Thursday, 5 June 2025**
Duration: **0630-1830**
Weather: **Fine**
AM Peak: **10:45-11:45**
PM Peak: **14:30-15:30**
Notes:

Quick display - Summaries

Survey Period: 14:30 to 15:30







Colliers 2025

Colliers

Accelerating success.

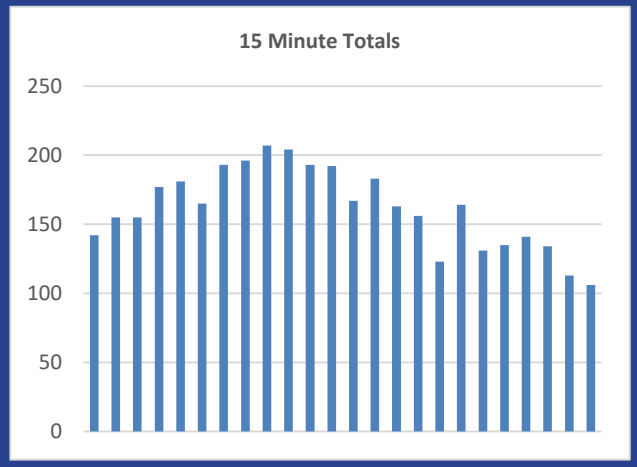
Intersection Count - Project Details

TTM Reference: **24BRT0525**
Location: **Baron St / Kingaroy St**
Suburb: **Kingaroy**
Date: **Saturday, 7 June 2025**
Duration: **0900-1500**
Weather: **Fine**
Peak Hr: **10:30-11:30**

Notes:

Quick display - Summaries

Survey Period: 10:30 to 11:30







Colliers

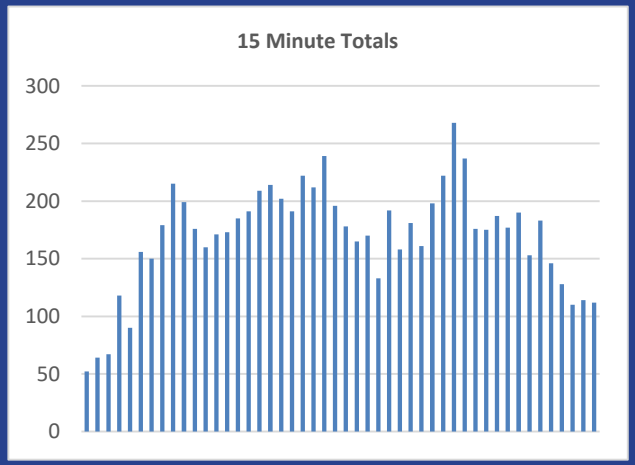
Accelerating success.

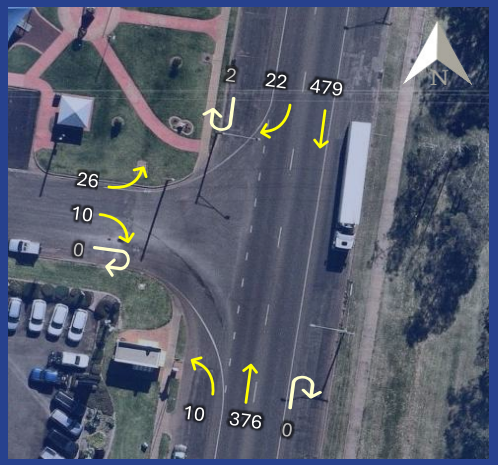
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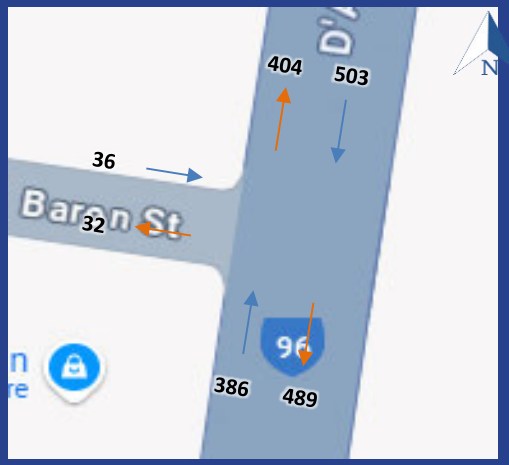
TTM Reference: **24BRT0525**
Location: **Baron St / Kingaroy St**
Suburb: **Kingaroy**
Date: **Thursday, 5 June 2025**
Duration: **0630-1830**
Weather: **Fine**
AM Peak: **10:45-11:45**
PM Peak: **14:30-15:30**
Notes:

Quick display - Summaries

Survey Period: 14:30 to 15:30







Colliers

Accelerating success.

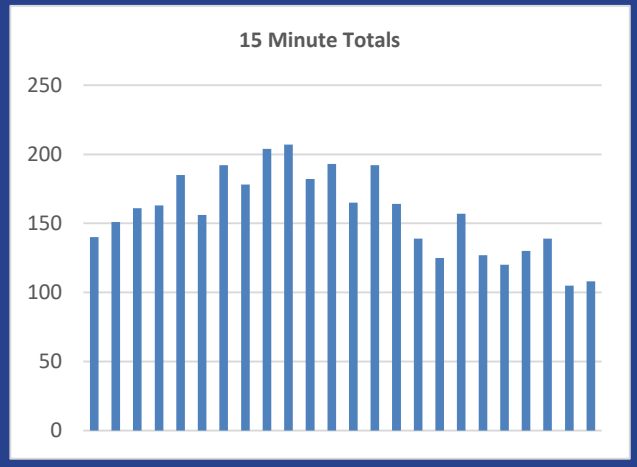
Intersection Count - Project Details

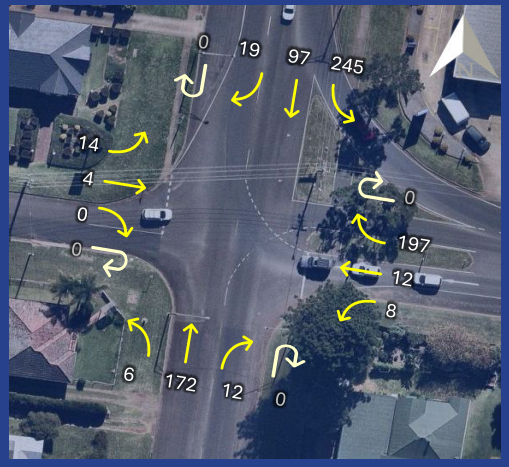
TTM Reference: **24BRT0525**
Location: **Knight St / Kingaroy St**
Suburb: **Kingaroy**
Date: **Saturday, 7 June 2025**
Duration: **0900-1500**
Weather: **Fine**
Peak Hr: **11:00-12:00**

Notes:

Quick display - Summaries

Survey Period: 11:00 to 12:00







Colliers

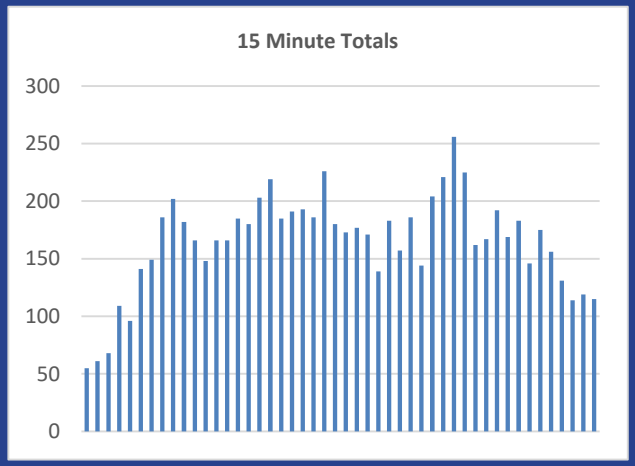
Accelerating success.

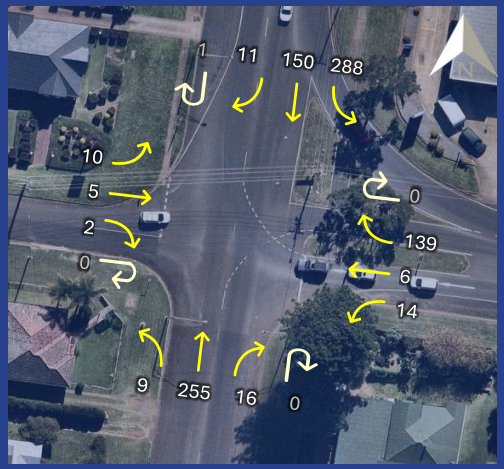
Intersection Count - Project Details

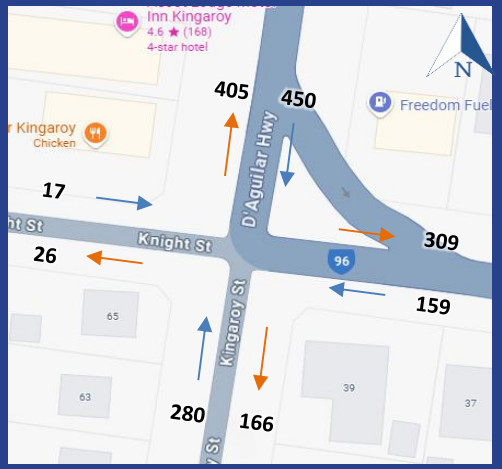
TTM Reference: **24BRT0525**
Location: **Knight St / Kingaroy St**
Suburb: **Kingaroy**
Date: **Thursday, 5 June 2025**
Duration: **0630-1830**
Weather: **Fine**
AM Peak: **10:30-11:30**
PM Peak: **14:30-15:30**
Notes:

Quick display - Summaries

Survey Period: 14:30 to 15:30







Colliers

Accelerating success.

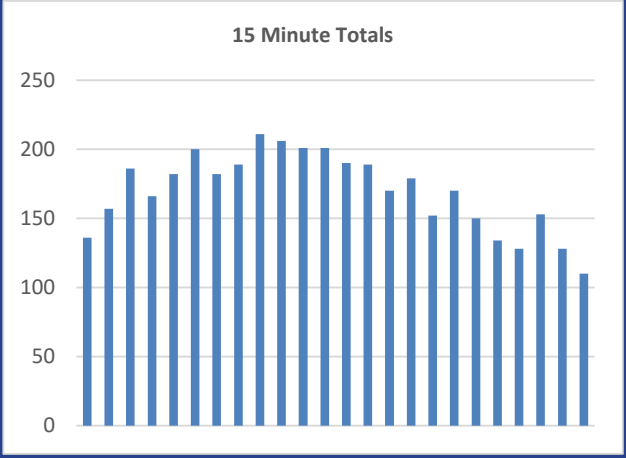
Intersection Count - Project Details

TTM Reference: **24BRT0525**
Location: **Knight St / Somerset St Roundabout**
Suburb: **Kingaroy**
Date: **Saturday, 7 June 2025**
Duration: **0900-1500**
Weather: **Fine**
Peak Hr: **11:00-12:00**

Notes: **Pound St Data also included**

Quick display - Summaries

Survey Period: 11:00 to 12:00







Colliers 2025

Colliers

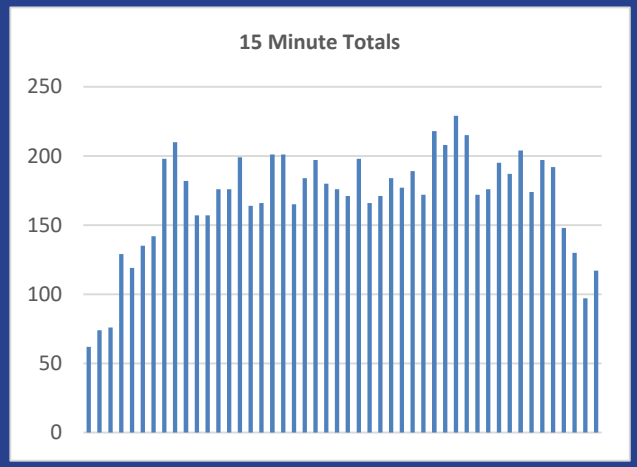
Accelerating success.

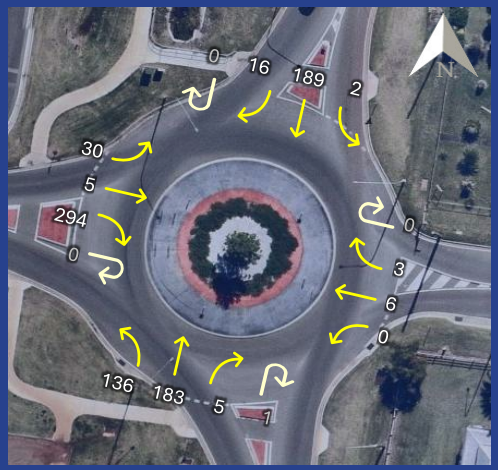
Intersection Count - Project Details

TTM Reference: **24BRT0525**
Location: **Knight St / Somerset St Roundabout**
Suburb: **Kingaroy**
Date: **Thursday, 5 June 2025**
Duration: **0630-1830**
Weather: **Fine**
AM Peak: **10:45-11:45**
PM Peak: **14:30-15:30**
Notes: **Pound St Data also included**

Quick display - Summaries

Survey Period: 14:30 to 15:30







Colliers 2025

Appendix F State Codes 1 and 6 Response Tables Road Safety Risk Assessment

		Without Development			With Development				With Development and Mitigation		
#	Risk Item	Likelihood	Consequence	Risk Score	Likelihood	Consequence	Risk Score	Mitigation Measures	Likelihood	Consequence	Risk Score
Kingaroy Street / Baron Street / Site Access Intersection											
	Introduction of through movements from Baron Street into proposed development	-	-	-	1	4	M	Signalisation *The Kingaroy Street / Baron Street intersection (currently priority-controlled) would be converted to signals with the introduction of the fourth access leg.*	1	2	L
	Reduction of through movements along Kingaroy Street, with introduction of left- and right-turn movements into proposed development	-	-	-	2	4	M	Signalisation *The Kingaroy Street / Baron Street intersection (currently priority-controlled) would be converted to signals with the introduction of the fourth access leg.*	2	2	L
	Introduction of through and turn movements from proposed development (new approach/leg)	-	-	-	2	4	M	Signalisation *The Kingaroy Street / Baron Street intersection (currently priority-controlled) would be converted to signals with the introduction of the fourth access leg.*	2	2	L
Kingaroy Street / Avoca Street Intersection											
	Additional left- and right-turn movements from Kingaroy Street into Avoca Street	1	2	L	2	2	L	No action *No change in LOS between scenarios*	-	-	-
	Additional through movements along Kingaroy Street	1	2	L	2	2	L	No action *No change in LOS for Thursday AM and Saturday Midday peaks, reduction from LOS C to LOS D for Thursday PM peak (northern approach only)*	-	-	-

		Without Development			With Development				With Development and Mitigation		
#	Risk Item	Likelihood	Consequence	Risk Score	Likelihood	Consequence	Risk Score	Mitigation Measures	Likelihood	Consequence	Risk Score
	Additional right-turn movements from Avoca Street into Kingaroy Street	1	2	L	2	2	L	No action *No change in LOS for Thursday AM and Saturday Midday peaks, reduction from LOS C to LOS D for Thursday PM peak (western approach only)*	-	-	-
	Additional through movements along Avoca Street	1	2	L	1	2	L	No action *No change in LOS for Thursday AM, Thursday PM and Saturday Midday peaks*	-	-	-
Kingaroy Street / Knight Street Intersection											
	Additional right-turn movements from Knight Street into Kingaroy Street	1	4	M	2	4	M	No action *Reduction from LOS B to LOS C for Thursday AM and Saturday Midday peaks, no change in LOS for Thursday PM peak*	-	-	-
	Additional left-turn movements from Kingaroy Street into Knight Street	1	2	L	2	2	L	No action *No change in LOS for Thursday AM, Thursday PM and Saturday Midday peaks*	-	-	-
	Additional through movements along Kingaroy Street	1	4	M	2	4	M	No action *Reduction from LOS B to LOS C for Thursday AM and Saturday Midday peaks, no change in LOS for Thursday PM peak*	-	-	-
D'Aguilar Highway / Somerset Street / Knight Street Intersection											
	Additional turn movements into and out of western Knight Street approach	1	3	L	1	3	L	No action *No change in LOS between scenarios*	-	-	-

State code 1: Development in a state-controlled road environment

State Development Assessment Provisions guideline - State Code 1: Development in a state-controlled road environment. This guideline provides direction on how to address State Code 1.

Table 1.1 Development in general

Performance outcomes	Acceptable outcomes	Response
Buildings, structures, infrastructure, services and utilities		
PO1 The location of the development does not create a safety hazard for users of the **state-controlled road.**	**AO1.1** Development is not located in a **state-controlled road**. AND **AO1.2** Development can be maintained without requiring access to a **state-controlled road**.	**Complies with PO1** Colliers has undertaken a Road Safety Risk Assessment (see Appendix F of Colliers Transport Engineering Report), which indicates that the proposed development should have a no worsening effect on the safety of the State Controlled Road network.
PO2 The design and construction of the development does not adversely impact the **structural integrity** or physical condition of the **state-controlled road** or **road transport infrastructure**.	No acceptable outcome is prescribed.	**Not applicable** Not related to transport engineering.
PO3 The location of the development does not obstruct **road transport infrastructure** or adversely impact the operating performance of the **state-controlled road**.	No acceptable outcome is prescribed.	**Complies with PO3** The proposed development should have a no net worsening effect on net delay of the State Controlled Road network.
PO4 The location, placement, design and operation of advertising devices, visible from the **state-controlled road**, do not create a safety hazard for users of the **state-controlled road**.	No acceptable outcome is prescribed.	**Not applicable** Review of advertising devices was not part of Colliers scope of services for this development application.

Performance outcomes	Acceptable outcomes	Response
PO5 The design and construction of buildings and **structures** does not create a safety hazard by distracting users of the **state-controlled road**.	AO5.1 Facades of buildings and **structures** fronting the **state-controlled road** are made of non-reflective materials. AND AO5.2 Facades of buildings and **structures** do not direct or reflect point light sources into the face of oncoming traffic on the **state-controlled road**. AND AO5.3 External lighting of buildings and **structures** is not directed into the face of oncoming traffic on the **state-controlled road**. AND AO5.4 External lighting of buildings and **structures** does not involve flashing or laser lights.	Not applicable Not related to transport engineering.
PO6 Road, pedestrian and bikeway bridges over a **state-controlled road** are designed and constructed to prevent projectiles from being thrown onto the **state-controlled road**.	AO6.1 Road, pedestrian and bikeway bridges over the **state-controlled road** include throw protection screens in accordance with section 4.11 of the Design Criteria for Bridges and Other Structures Manual, Department of Transport and Main Roads, 2020.	Not applicable No bridge structures are proposed.
Landscaping		
PO7 The location of landscaping does not create a safety hazard for users of the **state-controlled road**.	AO7.1 Landscaping is not located in a **state-controlled road**. AND AO7.2 Landscaping can be maintained without requiring access to a **state-controlled road**.	Not applicable Not related to transport engineering.

Performance outcomes	Acceptable outcomes	Response
	AND **AO7.3** Landscaping does not block or obscure the sight lines for vehicular access to a **state-controlled road**.	
Stormwater and overland flow		
PO8 Stormwater run-off or overland flow from the development site does not create or exacerbate a safety hazard for users of the **state-controlled road**.	No acceptable outcome is prescribed.	**Not applicable** Not related to transport engineering.
PO9 Stormwater run-off or overland flow from the development site does not result in a material worsening of the operating performance of the **state-controlled road** or **road transport infrastructure**.	No acceptable outcome is prescribed.	**Not applicable** Not related to transport engineering.
PO10 Stormwater run-off or overland flow from the development site does not adversely impact the **structural integrity** or physical condition of the **state-controlled road** or **road transport infrastructure**.	No acceptable outcome is prescribed.	**Not applicable** Not related to transport engineering.
PO11 Development ensures that stormwater is lawfully discharged.	**AO11.1** Development does not create any new points of discharge to a **state-controlled road.** AND **AO11.2** Development does not concentrate flows to a **state-controlled road**. AND **AO11.3** Stormwater run-off is discharged to a **lawful point of discharge**.	**Not applicable** Not related to transport engineering.

Performance outcomes	Acceptable outcomes	Response
	AND **AO11.4** Development does not worsen the condition of an existing **lawful point of discharge** to the **state-controlled road**.	
Flooding		
PO12 Development does not result in a material worsening of flooding impacts within a **state-controlled road**.	**AO12.1** For all flood events up to 1% **annual exceedance probability**, development results in negligible impacts (within +/- 10mm) to existing flood levels within a **state-controlled road**. AND **AO12.2** For all flood events up to 1% **annual exceedance probability**, development results in negligible impacts (up to a 10% increase) to existing peak velocities within a **state-controlled road**. AND **AO12.3** For all flood events up to 1% **annual exceedance probability**, development results in negligible impacts (up to a 10% increase) to existing time of submergence of a **state-controlled road**.	**Not applicable** Not related to transport engineering.
Drainage Infrastructure		
PO13 Drainage infrastructure does not create a safety hazard for users in the **state-controlled road**.	**AO13.1** Drainage infrastructure is wholly contained within the development site, except at the **lawful point of discharge**. AND **AO13.2** Drainage infrastructure can be maintained without requiring access to a **state-controlled road**.	**Not applicable** Not related to transport engineering.

Performance outcomes	Acceptable outcomes	Response
PO14 Drainage infrastructure associated with, or within, a **state-controlled road** is constructed, and designed to ensure the **structural integrity** and physical condition of existing drainage infrastructure and the surrounding drainage network.	No acceptable outcome is prescribed.	**Not applicable** Not related to transport engineering.

Table 1.2 Vehicular access, road layout and local roads

Performance outcomes	Acceptable outcomes	Response
Vehicular access to a state-controlled road or within 100 metres of a state-controlled road intersection		
PO15 The location, design and operation of a **new or changed access** to a **state-controlled road** does not compromise the safety of users of the **state-controlled road**.	No acceptable outcome is prescribed.	**Complies with PO15** Colliers has undertaken a Road Safety Risk Assessment (see Appendix F of Colliers Transport Engineering Report), which indicates that the proposed development would have a no worsening effect on the safety of the State Controlled Road network.
PO16 The location, design and operation of a **new or changed access** does not adversely impact the **functional requirements** of the **state-controlled road**.	No acceptable outcome is prescribed.	**Complies with PO16** The new Kingaroy Street access does not adversely impact its functional requirements or operation.
PO17 The location, design and operation of a **new or changed access** is consistent with the **future intent** of the **state-controlled road**.	No acceptable outcome is prescribed.	**Complies with PO17** The new Kingaroy Street access is consistent with its future intent.
PO18 New or changed access is consistent with the access for the relevant **limited access road policy**: 1. **LAR 1** where direct access is prohibited; or 2. **LAR 2** where access may be permitted, subject to assessment.	No acceptable outcome is prescribed.	**Not applicable** Kingaroy Street is not designated as either LAR 1 or LAR 2.
PO19 New or changed access to a **local road** within 100 metres of an intersection with a **state-controlled road** does not compromise the safety of users of the **state-controlled road**.	No acceptable outcome is prescribed.	**Complies with PO19** Colliers has undertaken a Road Safety Risk Assessment (see Appendix F of Colliers Transport Engineering

Performance outcomes	Acceptable outcomes	Response
		Report), which indicates that the proposed development would have a no worsening effect on the safety of the State Controlled Road network.
PO20 New or changed access to a **local road** within 100 metres of an intersection with a **state-controlled road** does not adversely impact on the operating performance of the intersection.	No acceptable outcome is prescribed.	**Complies with PO20** The proposed development should have a no net worsening effect on net delay of the State Controlled Road network.
Public passenger transport and active transport		
PO21 Development does not compromise the safety of users of **public passenger transport infrastructure**, **public passenger services** and **active transport infrastructure**.	No acceptable outcome is prescribed.	**Not applicable** There is currently no existing public transport infrastructure/services in the vicinity of the subject site.
PO22 Development maintains the ability for people to access **public passenger transport infrastructure, public passenger services** and **active transport infrastructure**.	No acceptable outcome is prescribed.	**Not applicable** There is currently no existing public transport infrastructure/services in the vicinity of the subject site.
PO23 Development does not adversely impact the operating performance of **public passenger transport infrastructure, public passenger services** and **active transport infrastructure**.	No acceptable outcome is prescribed.	**Not applicable** There is currently no existing public transport infrastructure/services in the vicinity of the subject site.
PO24 Development does not adversely impact the **structural integrity** or physical condition of **public passenger transport infrastructure** and **active transport infrastructure**.	No acceptable outcome is prescribed.	**Not applicable** There is currently no existing public transport infrastructure/services in the vicinity of the subject site.

Table 1.3 Network impacts

Performance outcomes	Acceptable outcomes	Response
PO25 Development does not compromise the safety of users of the **state-controlled road** network.	No acceptable outcome is prescribed.	**Complies with PO25** Colliers has undertaken a Road Safety Risk Assessment (see Appendix F of Colliers Transport Engineering Report), which indicates that the proposed development would have a no worsening effect on the safety of the State Controlled Road network.
PO26 Development ensures **no net worsening** of the operating performance of the **state-controlled road** network.	No acceptable outcome is prescribed.	**Complies with PO26** The proposed development would have a no net worsening effect on net delay of the State Controlled Road network.
PO27 Traffic movements are not directed onto a **state-controlled road** where they can be accommodated on the **local road** network.	No acceptable outcome is prescribed.	**Complies with PO27** While the proposed development does direct traffic onto the State Controlled Road network (Kingaroy Street) when there is an alternative access along Pound Street, these volumes would access the State Controlled Road network via Pound Street anyway.
PO28 Development involving haulage exceeding 10,000 tonnes per year does not adversely impact the pavement of a **state-controlled road**.	No acceptable outcome is prescribed.	**Not applicable** The proposed development does not involve haulage.
PO29 Development does not impede delivery of **planned upgrades** of **state-controlled roads**.	No acceptable outcome is prescribed.	**Complies with PO29** As per DAMS Mapping, there are no planned upgrades identified within the nearby State Controlled Road network.
PO30 Development does not impede delivery of **corridor improvements** located entirely within the **state-controlled road corridor**.	No acceptable outcome is prescribed.	**Complies with PO30** Colliers does not anticipate the proposed development would impact any planned corridor improvements.

Table 1.4 Filling, excavation, building foundations and retaining structures

Performance outcomes	Acceptable outcomes	Response
PO31 Development does not create a safety hazard for users of the **state-controlled road** or **road transport infrastructure**.	No acceptable outcome is prescribed.	**Not applicable** Not related to transport engineering.
PO32 Development does not adversely impact the operating performance of the **state-controlled road**.	No acceptable outcome is prescribed.	**Not applicable** Not related to transport engineering.
PO33 Development does not undermine, damage or cause subsidence of a **state-controlled road**.	No acceptable outcome is prescribed.	**Not applicable** Not related to transport engineering.
PO34 Development does not cause ground water disturbance in a **state-controlled road**.	No acceptable outcome is prescribed.	**Not applicable** Not related to transport engineering.
PO35 Excavation, boring, piling, blasting and fill compaction do not adversely impact the physical condition or **structural integrity** of a **state-controlled road** or **road transport infrastructure**.	No acceptable outcome is prescribed.	**Not applicable** Not related to transport engineering.
PO36 Filling and excavation associated with the construction of **new or changed access** do not compromise the operation or capacity of existing drainage infrastructure for a **state-controlled road.**	No acceptable outcome is prescribed.	**Not applicable** Not related to transport engineering.

Table 1.5 Environmental emissions

Statutory note: Where a **state-controlled road** is co-located in the same transport corridor as a railway, the development should instead comply with Environmental emissions in State code 2: Development in a railway environment.

Performance outcomes	Acceptable outcomes	Response
Reconfiguring a lot		
Involving the creation of 5 or fewer new residential lots adjacent to a state-controlled road or type 1 multi-modal corridor		
PO37 Development minimises free field noise intrusion from a **state-controlled road.**	**AO37.1** Development provides a noise barrier or earth mound which is designed, sited and constructed: 1. to achieve the maximum free field acoustic levels in reference table 2 (item 2.1); 2. in accordance with:	**Not applicable** Not related to transport engineering.

Performance outcomes	Acceptable outcomes	Response
	a. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013; b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020. OR **AO37.2** Development achieves the maximum free field acoustic levels in reference table 2 (item 2.1) by **alternative noise attenuation measures** where it is not practical to provide a noise barrier or earth mound. OR **AO37.3** Development provides a **solid gap-free fence** or other **solid gap-free structure** along the full extent of the boundary closest to the **state-controlled road**.	
Involving the creation of 6 or more new residential lots adjacent to a state-controlled road or type 1 multi-modal corridor		
PO38 Reconfiguring a lot minimises free field noise intrusion from a **state-controlled road.**	**AO38.1** Development provides noise barrier or earth mound which is designed, sited and constructed: 1. to achieve the maximum free field acoustic levels in reference table 2 (item 2.1); 2. in accordance with: a. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013;	**Not applicable** Not related to transport engineering.

Performance outcomes	Acceptable outcomes	Response
	b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020. OR **AO38.2** Development achieves the maximum free field acoustic levels in reference table 2 (item 2.1) by **alternative noise attenuation measures** where it is not practical to provide a noise barrier or earth mound.	
Material change of use (accommodation activity)		
Ground floor level requirements adjacent to a state-controlled road or type 1 multi-modal corridor		
PO39 Development minimises noise intrusion from a **state-controlled road** in **private open space**.	**AO39.1** Development provides a noise barrier or earth mound which is designed, sited and constructed: 1. to achieve the maximum free field acoustic levels in reference table 2 (item 2.2) for **private open space** at the ground floor level; 2. in accordance with: a. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013; b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020. OR **AO39.2** Development achieves the maximum free field acoustic level in reference table 2 (item 2.2) for **private open space** by **alternative noise attenuation**	**Not applicable** Not related to transport engineering.

Performance outcomes	Acceptable outcomes	Response
	measures where it is not practical to provide a noise barrier or earth mound.	
PO40 Development (excluding a **relevant residential building** or **relocated building)** minimises noise intrusion from a **state-controlled road** in **habitable rooms** at the facade.	AO40.1 Development (excluding a **relevant residential building** or **relocated building**) provides a noise barrier or earth mound which is designed, sited and constructed: 1. to achieve the maximum building façade acoustic level in reference table 1 (item 1.1) for **habitable rooms**; 2. in accordance with: a. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013; b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020. OR AO40.2 Development (excluding a **relevant residential building** or **relocated building**) achieves the maximum building façade acoustic level in reference table 1 (item 1.1) for **habitable rooms** by **alternative noise attenuation measures** where it is not practical to provide a noise barrier or earth mound.	**Not applicable** Not related to transport engineering.
PO41 Habitable rooms (excluding a **relevant residential building** or **relocated building**) are designed and constructed using materials to achieve the maximum internal acoustic level in reference table 3 (item 3.1).	No acceptable outcome is provided.	**Not applicable** Not related to transport engineering.
Above ground floor level requirements (accommodation activity) adjacent to a state-controlled road or type 1 multi-modal corridor		

Performance outcomes	Acceptable outcomes	Response
PO42 Balconies, podiums, and roof decks include: 1. a continuous **solid gap-free structure** or balustrade (excluding gaps required for drainage purposes to comply with the Building Code of Australia); 2. highly acoustically absorbent material treatment for the total area of the soffit above balconies, podiums, and roof decks.	No acceptable outcome is provided.	**Not applicable** Not related to transport engineering.
PO43 Habitable rooms (excluding a **relevant residential building** or **relocated building**) are designed and constructed using materials to achieve the maximum internal acoustic level in reference table 3 (item 3.1).	No acceptable outcome is provided.	**Not applicable** Not related to transport engineering.
Material change of use (other uses)		
Ground floor level requirements (childcare centre, educational establishment, hospital) adjacent to a state-controlled road or type 1 multi-modal corridor		
PO44 Development: 1. provides a noise barrier or earth mound that is designed, sited and constructed: a. to achieve the maximum free field acoustic level in reference table 2 (item 2.3) for all **outdoor education areas** and **outdoor play areas**; b. in accordance with: i. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013; ii. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; iii. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020; or	No acceptable outcome is provided.	**Not applicable** Not related to transport engineering.

Performance outcomes	Acceptable outcomes	Response
2. achieves the maximum free field acoustic level in reference table 2 (item 2.3) for all **outdoor education areas** and **outdoor play areas** by **alternative noise attenuation measures** where it is not practical to provide a noise barrier or earth mound.		
PO45 Development involving a **childcare centre** or **educational establishment**: 1. provides a noise barrier or earth mound that is designed, sited and constructed: 2. to achieve the maximum building facade acoustic level in reference table 1 (item 1.2); 3. in accordance with: a. Chapter 7 integrated noise barrier design of the Transport Noise Management Code of Practice: Volume 1 (Road Traffic Noise), Department of Transport and Main Roads, 2013; b. Technical Specification-MRTS15 Noise Fences, Transport and Main Roads, 2019; c. Technical Specification-MRTS04 General Earthworks, Transport and Main Roads, 2020; or 4. achieves the maximum building facade acoustic level in reference table 1 (item 1.2) by **alternative noise attenuation measures** where it is not practical to provide a noise barrier or earth mound.	No acceptable outcome is provided.	**Not applicable** Not related to transport engineering.
PO46 Development involving: 1. **indoor education areas** and **indoor play areas**; or 2. sleeping rooms in a **childcare centre**; or 3. **patient care areas** in a **hospital** achieves the maximum internal acoustic level in reference table 3 (items 3.2-3.4).	No acceptable outcome is provided.	**Not applicable** Not related to transport engineering.

Performance outcomes	Acceptable outcomes	Response
Above ground floor level requirements (childcare centre, educational establishment, hospital) adjacent to a state-controlled road or type 1 multi-modal corridor		
PO47 Development involving a childcare centre or educational establishment which have balconies, podiums or elevated outdoor play areas predicted to exceed the maximum free field acoustic level in reference table 2 (item 2.3) due to noise from a state-controlled road are provided with: 1. a continuous solid gap-free structure or balustrade (excluding gaps required for drainage purposes to comply with the Building Code of Australia); 2. highly acoustically absorbent material treatment for the total area of the soffit above balconies or elevated outdoor play areas.	No acceptable outcome is provided.	Not applicable Not related to transport engineering.
PO48 Development including: 1. indoor education areas and indoor play areas in a childcare centre or educational establishment; or 2. sleeping rooms in a childcare centre; or 3. patient care areas in a hospital located above ground level, is designed and constructed to achieve the maximum internal acoustic level in reference table 3 (items 3.2-3.4).	No acceptable outcome is provided.	Not applicable Not related to transport engineering.
Air, light and vibration		
PO49 Private open space, outdoor education areas and outdoor play areas are protected from air quality impacts from a state-controlled road.	AO49.1 Each dwelling or unit has access to a private open space which is shielded from a state-controlled road by a building, solid gap-free fence, or other solid gap-free structure. OR AO49.2 Each outdoor education area and outdoor play area is shielded from a state-controlled road by a building, solid gap-free fence, or other solid gap-free structure.	Not applicable Not related to transport engineering.

Performance outcomes	Acceptable outcomes	Response
PO50 Patient care areas within **hospitals** are protected from vibration impacts from a **state-controlled road** or **type 1 multi-modal corridor**.	**AO50.1 Hospitals** are designed and constructed to ensure vibration in the patient treatment area does not exceed a vibration dose value of $0.1m/s^{1.75}$. AND **AO50.2 Hospitals** are designed and constructed to ensure vibration in the ward of a **patient care area** does not exceed a vibration dose value of $0.4m/s^{1.75}$.	**Not applicable** Not related to transport engineering.
PO51 Development is designed and sited to ensure light from infrastructure within, and from users of, a **state-controlled road** or **type 1 multi-modal corridor**, does not: 1. intrude into buildings during night hours (10pm to 6am); 2. create unreasonable disturbance during evening hours (6pm to 10pm).	No acceptable outcomes are prescribed.	**Not applicable** Not related to transport engineering.

Table 1.6: Development in a future state-controlled road environment

Performance outcomes	Acceptable outcomes	Response
PO52 Development does not impede delivery of a **future state-controlled road**.	**AO52.1** Development is not located in a **future state-controlled road**. OR ALL OF THE FOLLOWING APPLY: **AO52.2** Development does not involve filling and excavation of, or material changes to, a **future state-controlled road**. AND	**Complies with AO52.1** As per DAMS Mapping, the proposed development is not located within or near a future State Controlled Road.

Performance outcomes	Acceptable outcomes	Response
	AO52.3 The intensification of lots does not occur within a **future state-controlled road**. AND **AO52.4** Development does not result in the landlocking of parcels once a **future state-controlled road** is delivered.	
PO53 The location and design of **new or changed access** does not create a safety hazard for users of a **future state-controlled road**.	**AO53.1** Development does not include **new or changed access** to a **future state-controlled road**.	**Complies with AO53.1** As per DAMS Mapping, the proposed development is not located within or near a future State Controlled Road.
PO54 Filling, excavation, building foundations and **retaining structures** do not undermine, damage or cause subsidence of a **future state-controlled road**.	No acceptable outcome is prescribed.	**Not applicable** As per DAMS Mapping, the proposed development is not located within or near a future State Controlled Road.
PO55 Development does not result in a material worsening of stormwater, flooding, overland flow or drainage impacts in a **future state-controlled road** or **road transport infrastructure**.	No acceptable outcome is prescribed.	**Not applicable** As per DAMS Mapping, the proposed development is not located within or near a future State Controlled Road.
PO56 Development ensures that stormwater is lawfully discharged.	**AO56.1** Development does not create any new points of discharge to a **future state-controlled road**. AND **AO56.2** Development does not concentrate flows to a **future state-controlled road**.	**Not applicable** As per DAMS Mapping, the proposed development is not located within or near a future State Controlled Road.

Performance outcomes	Acceptable outcomes	Response
	AND **AO56.3** Stormwater run-off is discharged to a **lawful point of discharge**. AND **AO56.4** Development does not worsen the condition of an existing **lawful point of discharge** to the **future state-controlled road**.	

State code 6: Protection of state transport networks

Table 6.2 Development in general

Performance outcomes	Acceptable outcomes	Response
Network impacts		
PO1 Development does not compromise the safety of users of the **state-controlled road** network.	No acceptable outcome is prescribed.	**Complies with PO1** Colliers has undertaken a Road Safety Risk Assessment (see Appendix F of Colliers Transport Engineering Report), which indicates that the proposed development would have a no worsening effect on the safety of the State Controlled Road network.
PO2 Development does not adversely impact the structural integrity or physical condition of a **state-controlled road** or **road transport infrastructure**.	No acceptable outcome is prescribed.	**Not applicable** Not related to transport engineering.
PO3 Development ensures **no net worsening** of the operating performance the **state-controlled road** network.	No acceptable outcome is prescribed.	**Complies with PO3** The proposed development would have a no net worsening effect on net delay of the State Controlled Road network.
PO4 Traffic movements are not directed onto a **state-controlled road** where they can be accommodated on the **local road** network.	No acceptable outcome is prescribed.	**Complies with PO4** While the proposed development does direct traffic onto the State Controlled Road network (Kingaroy Street) when there is an alternative access along Pound Street, these volumes would access the State Controlled Road network via Pound Street anyway.
PO5 Development involving haulage exceeding 10,000 tonnes per year does not damage the pavement of a **state-controlled road**.	No acceptable outcome is prescribed.	**Not applicable** The proposed development does not involve haulage.
PO6 Development does not require a new **railway** level crossing.	No acceptable outcome is prescribed.	**Not applicable**

Performance outcomes	Acceptable outcomes	Response
		There is currently no existing rail infrastructure/services in the vicinity of the subject site.
PO7 Development does not adversely impact the operating performance of an existing **railway crossing**.	No acceptable outcome is prescribed.	**Not applicable** There is currently no existing rail infrastructure/services in the vicinity of the subject site.
PO8 Development does not adversely impact on the safety of an existing **railway crossing**.	No acceptable outcome is prescribed.	**Not applicable** There is currently no existing rail infrastructure/services in the vicinity of the subject site.
PO9 Development is designed and constructed to allow for on-site circulation to ensure vehicles do not queue in a **railway crossing**.	No acceptable outcome is prescribed.	**Not applicable** There is currently no existing rail infrastructure/services in the vicinity of the subject site.
PO10 Development does not create a safety hazard within the **railway corridor**.	No acceptable outcome is prescribed.	**Not applicable** There is currently no existing rail infrastructure/services in the vicinity of the subject site.
PO11 Development does not adversely impact the operating performance of the **railway corridor**.	No acceptable outcome is prescribed.	**Not applicable** There is currently no existing rail infrastructure/services in the vicinity of the subject site.
PO12 Development does not interfere with or obstruct the **railway transport infrastructure** or **other rail infrastructure**.	No acceptable outcome is prescribed.	**Not applicable** There is currently no existing rail infrastructure/services in the vicinity of the subject site.

Performance outcomes	Acceptable outcomes	Response
PO13 Development does not adversely impact the structural integrity or physical condition of a **railway corridor** or **rail transport infrastructure**.	No acceptable outcome is prescribed.	**Not applicable** There is currently no existing rail infrastructure/services in the vicinity of the subject site.
Stormwater and overland flow		
PO14 Stormwater run-off or overland flow from the development site does not create or exacerbate a safety hazard for users of a **state transport corridor** or **state transport infrastructure**.	No acceptable outcome is prescribed.	**Not applicable** Not related to transport engineering.
PO15 Stormwater run-off or overland flow from the development site does not result in a material worsening of operating performance of a **state transport corridor** or **state transport infrastructure**.	No acceptable outcome is prescribed.	**Not applicable** Not related to transport engineering.
PO16 Stormwater run-off or overland flow from the development site does not interfere with the structural integrity or physical condition of the **state transport corridor** or **state transport infrastructure**.	No acceptable outcome is prescribed.	**Not applicable** Not related to transport engineering.
PO17 Development associated with a **state-controlled road** or **road transport infrastructure** ensures that stormwater is lawfully discharged.	**AO17.1** Development does not create any new points of discharge to a **state transport corridor** or **state transport infrastructure**. AND **AO17.2** Development does not concentrate flows to a **state transport corridor**. AND **AO17.3** Stormwater run-off is discharged to a **lawful point of discharge**. AND	**Not applicable** Not related to transport engineering.

Performance outcomes	Acceptable outcomes	Response
	AO17.4 Development does not worsen the condition of an existing **lawful point of discharge** to a **state transport corridor** or **state transport infrastructure**.	
Flooding		
PO18 Development does not result in a material worsening of flooding impacts within a **state transport corridor** or **state transport infrastructure**	*For a **state-controlled road** or **road transport infrastructure**, all of the following apply:* AO18.1 For all flood events up to 1% **annual exceedance probability**, development ensures there are negligible impacts (within +/- 10mm) to existing flood levels within a **state transport corridor**. AND AO18.2 For all flood events up to 1% **annual exceedance probability**, development ensures there are negligible impacts (up to a 10% increase) to existing peak velocities within a **state transport corridor**. AND AO18.3 For all flood events up to 1% annual exceedance probability, development ensures there are negligible impacts (up to a 10% increase) to existing time of submergence of a **state transport corridor**. *No acceptable outcome is prescribed for a **railway corridor** or **rail transport infrastructure**.*	Not applicable Not related to transport engineering.
Drainage infrastructure		
PO19 Drainage infrastructure does not create a safety hazard in a **state transport corridor**.	*For a **state-controlled road** environment, both of the following apply:*	Not applicable Not related to transport engineering.

Performance outcomes	Acceptable outcomes	Response
	AO19.1 Drainage infrastructure associated with, or in a **state-controlled road** is wholly contained within the development site, except at the **lawful point of discharge**. AND **AO19.2** Drainage infrastructure can be maintained without requiring access to a **state transport corridor**. *For a **railway** environment both of the following apply:* **AO19.3** Drainage infrastructure associated with a **railway corridor** or **rail transport infrastructure** is wholly contained within the development site. AND **AO19.4** Drainage infrastructure can be maintained without requiring access to a **state transport corridor**.	
PO20 Drainage infrastructure associated with, or in a **state-controlled road** or **road transport infrastructure** is constructed and designed to ensure the structural integrity and physical condition of existing drainage infrastructure and the surrounding drainage network is maintained.	No acceptable outcome is prescribed.	**Not applicable** Not related to transport engineering.
Planned upgrades		
PO21 Development does not impede delivery of **planned upgrades** of **state transport infrastructure**.	No acceptable outcome is prescribed.	**Complies with PO21** As per DAMS Mapping, there are no planned upgrades identified within the nearby State Controlled Road network.

Table 6.3 Public passenger transport infrastructure and active transport

Performance outcomes	Acceptable outcomes	Response
PO22 Development does not damage or interfere with **public passenger transport infrastructure**, **active transport infrastructure** or **public passenger services**.	No acceptable outcome is prescribed.	**Not applicable** There is currently no existing public transport infrastructure/services in the vicinity of the subject site.
PO23 Development does not compromise the safety of **public passenger transport infrastructure**, **public passenger services** and **active transport infrastructure**.	No acceptable outcome is prescribed.	**Not applicable** There is currently no existing public transport infrastructure/services in the vicinity of the subject site.
PO24 Development does not adversely impact the operating performance of **public passenger transport infrastructure, public passenger services** and **active transport infrastructure**.	No acceptable outcome is prescribed.	**Not applicable** There is currently no existing public transport infrastructure/services in the vicinity of the subject site.
PO25 Development does not adversely impact the structural integrity or physical condition of **public passenger transport infrastructure** and **active transport infrastructure**.	No acceptable outcome is prescribed.	**Not applicable** There is currently no existing public transport infrastructure/services in the vicinity of the subject site.
PO26 Upgraded or new **public passenger transport infrastructure** and **active transport infrastructure** is provided to accommodate the demand for **public passenger transport** and **active transport** generated by the development.	No acceptable outcome is prescribed.	**Not applicable** There is currently no existing public transport infrastructure/services in the vicinity of the subject site.
PO27 Development is designed to ensure the location of **public passenger transport infrastructure** prioritises and enables efficient **public passenger services**.	No acceptable outcome is prescribed.	**Not applicable** There is currently no existing public transport infrastructure/services in the vicinity of the subject site.
PO28 Development enables the provision or extension of **public passenger services**, **public**	No acceptable outcome is prescribed.	**Not applicable**

Performance outcomes	Acceptable outcomes	Response
passenger transport infrastructure and **active transport infrastructure** to the development and avoids creating indirect or inefficient routes for **public passenger services**.		There is currently no existing public transport infrastructure/services in the vicinity of the subject site.
PO29 New or modified road networks are designed to enable development to be serviced by **public passenger services**.	**AO29.1** Roads catering for buses are arterial or **sub-arterial roads**, collector or their equivalent. AND **AO29.2** Roads intended to accommodate buses are designed and constructed in accordance with: 1. Road Planning and Design Manual, 2nd Edition, Volume 3 – Guide to Road Design; Department of Transport and Main Roads; 2. Supplement to Austroads Guide to Road Design (Parts 3, 4-4C and 6), Department of Transport and Main Roads; 3. Austroads Guide to Road Design (Parts 3, 4-4C and 6); 4. Austroads Design Vehicles and Turning Path Templates; 5. Queensland Manual of Uniform Traffic Control Devices, Part 13: Local Area Traffic Management and AS 1742.13-2009 Manual of Uniform Traffic Control Devices – Local Area Traffic Management; AND **AO29.3** Traffic calming devices are not installed on roads used for buses in accordance with section 2.3.2 Bus Route Infrastructure, Public Transport Infrastructure Manual, Department of Transport and Main Roads, 2015.	**Not applicable** There is currently no existing public transport infrastructure/services in the vicinity of the subject site.
PO30 Development provides safe, direct and	No acceptable outcome is prescribed.	**Not applicable**

Performance outcomes	Acceptable outcomes	Response
convenient access to existing and future **public passenger transport infrastructure** and **active transport infrastructure**.		There is currently no existing public transport infrastructure/services in the vicinity of the subject site.
PO31 On-site vehicular circulation ensures the safety of both **public passenger transport services** and pedestrians.	No acceptable outcome is prescribed.	**Not applicable** There is currently no existing public transport infrastructure/services in the vicinity of the subject site.
PO32 Taxi facilities are provided to accommodate the demand generated by the development.	No acceptable outcome is prescribed.	**Complies with PO32** A 3 space drop of bay is proposed within the development.
PO33 Facilities are provided to accommodate the demand generated by the development for community transport services, courtesy transport services, and **booked hire services** other than taxis.	No acceptable outcome is prescribed.	**Complies with PO33** A 3 space drop of bay is proposed within the development.
PO34 Taxi facilities are located and designed to provide convenient, safe and equitable access for passengers.	**AO34.1** A **taxi facility** is provided parallel to the kerb and adjacent to the main entrance. AND **AO34.2 Taxi facilities** are designed in accordance with: 1. AS2890.5–1993 Parking facilities – on-street parking and AS1428.1–2009 Design for access and mobility – general requirements for access – new building work; 2. AS1742.11–1999 Parking controls – manual of uniform traffic control devices 3. AS/NZS 2890.6–2009 Parking facilities –off street parking for people with disabilities; 4. Disability standards for accessible public 5. transport 2002 made under section 31(1) of the Disability Discrimination Act 1992;	**Complies with AO34.1 and AO34.2** The proposed taxi facilities are located adjacent to the main entrance and designed in accordance with the relevant standards/guidelines.

Performance outcomes	Acceptable outcomes	Response
	6. AS/NZS 1158.3.1 – Lighting for roads and public spaces, Part 3.1: Pedestrian area (category P) lighting – Performance and design requirements; 7. Chapter 7 Taxi Facilities, Public Transport Infrastructure Manual, Department of Transport and Main Roads, 2015.	
PO35 Educational establishments are designed to ensure the safe and efficient operation of **public passenger services**, pedestrian and cyclist access and **active transport infrastructure**.	**AO35.1** Educational establishments are designed in accordance with the provisions of the Planning for Safe Transport Infrastructure at Schools, Department of Transport and Main Roads, 2011.	**Not applicable** Development is not an educational establishment.

ENGINEERING REPORT

PROPOSED MATERIAL CHANGE OF USE (SHOPPING CENTRE) AND RECONFIGURING A LOT (1 INTO 2)

1 POUND STREET, KINGAROY

Prepared for:
Coles Group Property Developments Pty Ltd
c/- Kilter

Reference: CIV03849-ENG01

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Rev	**Date**	**Comments**	**Status**	**Author**	**Reviewer**
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A - Approval	B - Building Approval	C - Construction	P - Preliminary
R - Revision	T - For Tender	X - Information	D - Draft

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1 INTRODUCTION

This Engineering Report has been undertaken to support a development application at 1 Pound Street, Kingaroy (described as Lot 13 on RP814986).

The subject site is located within the South Burnett Regional Council municipality, and has frontage to Kingaroy Street at the west and Pound Street at the east. Refer to Figure 1-1 below for a locality plan.

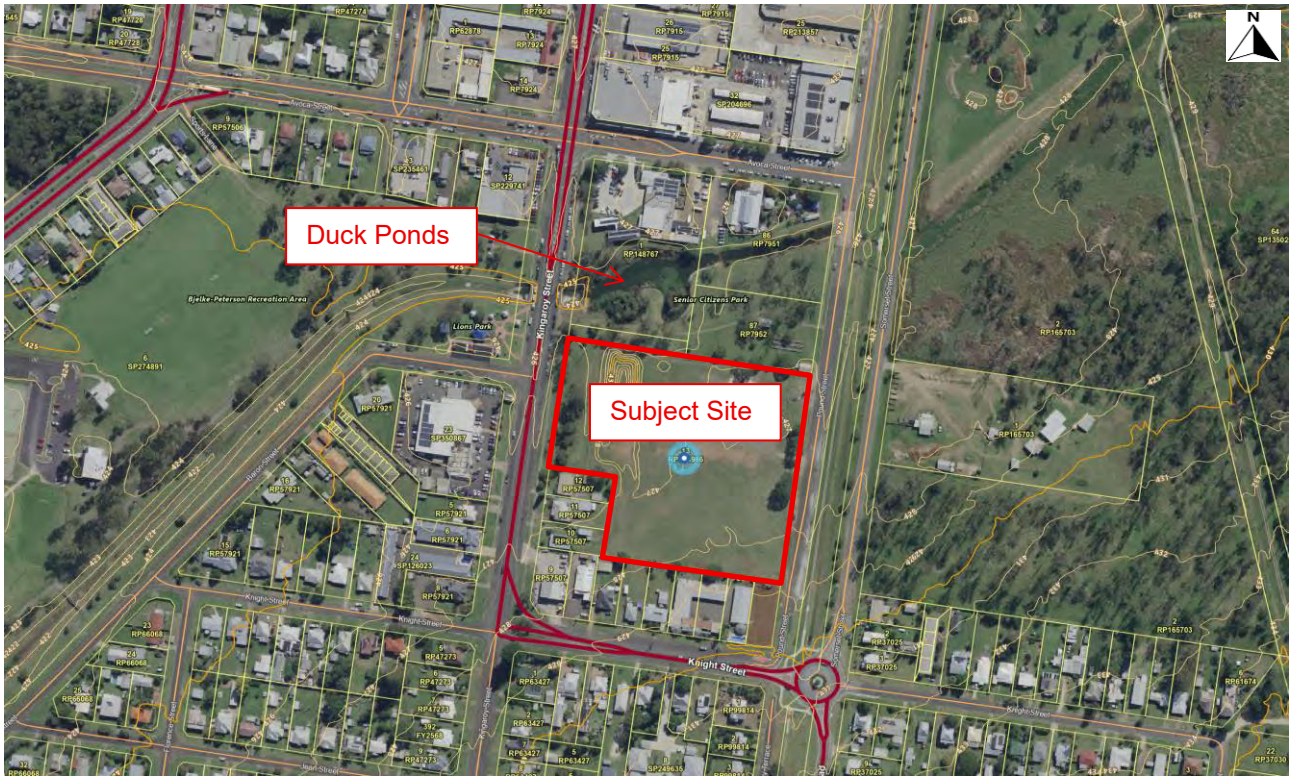


FIGURE 1-1 LOCALITY PLAN [SOURCE: QLD GLOBE]

2 EXISTING SITE

2.1 GENERAL

The existing site has an area of approximately 26,748m^2, and is undeveloped with sparse tree coverage along parts of the eastern and western property boundaries. The site is bounded by several different uses:

- Recreation and Open Space corridor directly to the to the North, which contains an open drain and a water body ("Duck Ponds"). Adjacent to the Open Space is a Community Facilities Zone that is contains an aged and disability centre. There is a childcare facility adjoining the aged care.

- Pound Street abuts the eastern boundary of the subject site. There are Recreation and Open Space and Low Impact Industry zones on the eastern side of Pound Street. The Low Impact Industry zone appears to be associated with an abandoned landscaping yard.

- There are some allotments to the south of the subject site, with areas measuring approximately 1,012m^2. These allotments fall within Principal Centre zone, but contain existing residential and commercial uses.

- Kingaroy Street (D'Aguilar Highway) abuts the western boundary of the subject site. The properties on the western side of Kingaroy Street are zone Principal Centre.

Refer to Figure 2-1 below for the land zoning obtained from Council's interactive mapping.

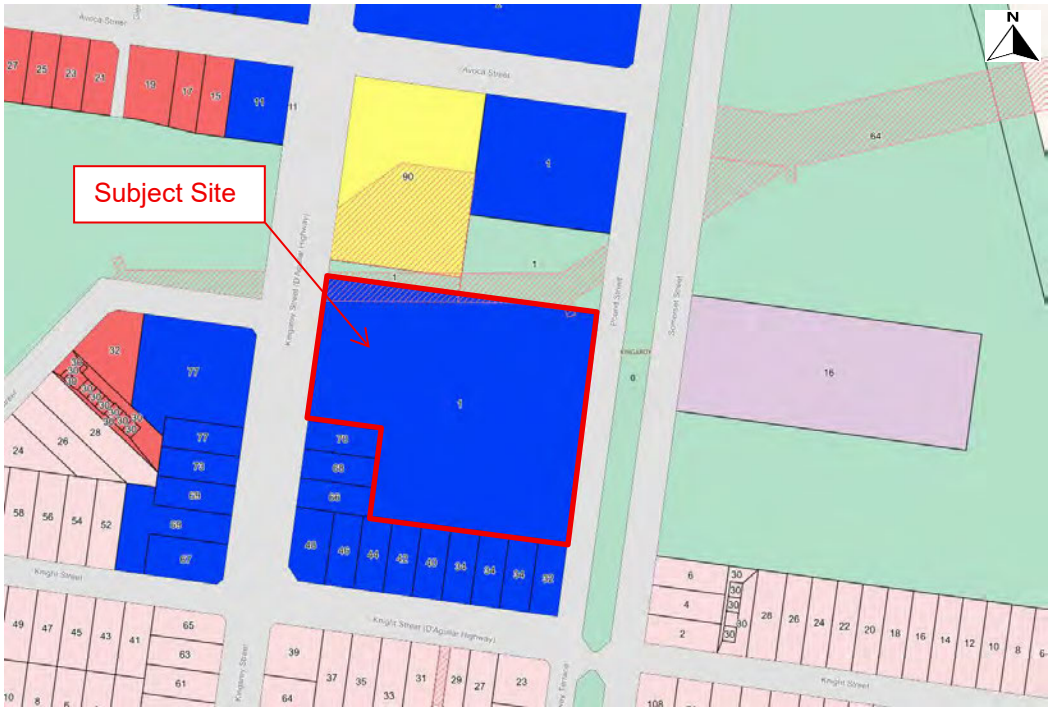


FIGURE 2-1 PLANNING SCHEME ZONING MAP

The site generally grades to the northern and western boundaries of the subject site. The elevation across the site ranges between approximate RL428m AHD in the south-east to approximate RL425m AHD in the north-west. A site detail survey has not been undertaken, however Lidar has been downloaded to create a contour plan, presented in Appendix B.

The site is impacted by an electrical easement that benefits Ergon along the northern boundary. The terms of the easement prevent fill being placed within the easement. There is also a small easement intruding in the northern boundary at the northeast corner. This may have been associated with old infrastructure, and there may be potential to extinguish this small easement intrusion with further investigation.

The site is located within the Priority Infrastructure Area of the South Bernett Regional Council. There is no other Trunk Infrastructure identified which impacts the site.

3 DEVELOPMENT PROPOSAL

The following is proposed on the subject site:

- Reconfiguring a lot – one (1) lot into two (2) lots; and
- Material Change of Use – shopping centre on the northern lot.

The southern lot is proposed to be a balance lot. No change of use is proposed.

The proposed shopping centre consists of a supermarket and specialty stores. Refer to Figure 3-1 below for the proposed development layout for the shopping centre.

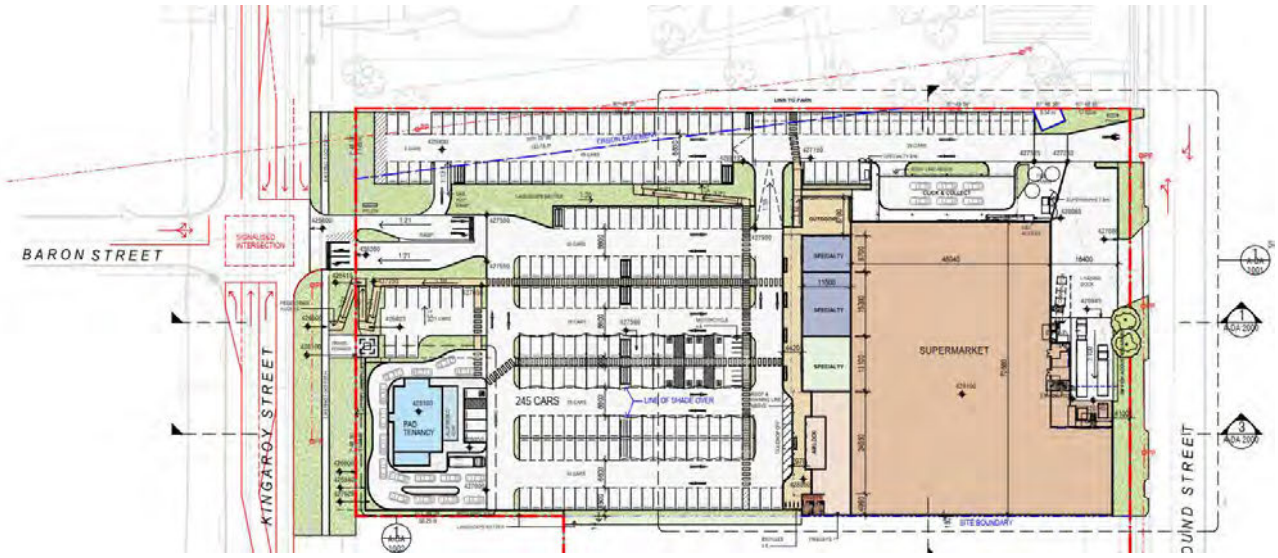


FIGURE 3-1 PROPOSED DEVELOPMENT LAYOUT – SHOPPING CENTRE

The shopping centre is proposed to be provided with vehicular access as follows:

- new all turns access at Kingaroy Street at the Baron Street/Kingaroy Street intersection, to be controlled by a signalised intersection;
- new all turns movement crossover at the north-eastern corner of the subject site to/from Pound Street for the standard design vehicles; and
- new industrial crossover south of the standard vehicle access for service vehicle access to/from Pound Street.

Detailed survey undertaken indicates that the new crossover at Kingaroy Street will likely impact on an existing streetlight/power pole. Similarly, detailed survey undertaken indicates that the new crossovers at Pound Street may impact on existing overhead power poles. The existing infrastructure are able to be relocated to cater for the proposed development access.

4 COUNCIL OVERLAY

4.1 OVERLAYS

The SBRC Planning Scheme Overlay Maps were reviewed to determine if the site was impacted by specific overlays. The results are tabulated in Table 4-1 below.

TABLE 4-1 SBRC PLANNING SCHEME OVERLAYS

Planning Scheme Overlay	Status
OM1 - Airport Environs Overlay Map	**Affected, but outside the scope of this report.**
OM2 - Bushfire Hazard Overlay Map	**Affected, but outside the scope of this report.**
OM3 - Flood Hazard Overlay Map	**Affected**
OM4 - Regional Infrastructure Overlay Map	Not Affected
OM5 - Biodiversity Areas Overlay Map	Not Affected
OM6 - Water Catchments Overlay Map	Not Affected
OM7 - Extractive Resources Overlay Map	Not Affected
OM8 - Agricultural Land Classification Overlay Map	**Affected, but outside the scope of this report.**
OM9 - Historic Subdivision Overlay Maps	Not Affected
OM10 - Landslide Hazard Overlay Map	Not Affected
OM11 - Sensitive Use Separation Overlay Map	Not Affected

Contour have undertaken a review of the impacts that of the Flood Hazard Overlay on the proposed development.

The proposed development is assessable against Table 6.2.4–Accepted development subject to requirements and assessable development of the South Bernett Regional Council Planning Scheme. The Performance Outcomes of the Flood hazard overlay are as follows:

Performance outcomes	Requirements for accepted development and assessment benchmarks
PO12 Development is not exposed to risk from	**AO12.1** All new allotments include an area of

flood events by responding to flood potential and maintains personal safety at all times	sufficient size to accommodate the intended land use outside the area identified on Overlay Map 03. and **AO12.2** New buildings are not located within the area identified on Overlay Map 03; or **AO12.3** Development is sited above the 1% AEP flood event where known, or the highest known flood event, as follows: (a) Habitable floor levels - 500mm; (b) Non-habitable floor levels - 300mm; (c) On-site sewage treatment and storage areas for potential contaminants - 300mm; (d) All other development - 0mm. and **AO12.4** Building work below the nominated flood level allows for the flow through of flood water at ground level: (a) The structure below flood level is unenclosed; or (b) Any enclosure below flood level aligns with the direction of water flow; or (c) Any enclosure not aligning with the direction of water flow must have openings that are at least 50% of the enclosed area with a minimum opening of 75mm. and **AO12.5** Resilient building materials are used below the nominated flood level in accordance with the relevant building assessment provisions. and **AO12.6** Signage is provided on site indicating the position and path of all safe evacuation routes off the site.
PO13 Development directly, indirectly and cumulatively avoids any significant increase in water flow, velocity or flood level, and does not increase the potential for flood damage either on site or other properties.	**AO13.1** Works associated with the proposed development do not: (a) involve a net increase in filling greater than $50m^3$; or (b) result in any reductions of on- site flood storage capacity and contain within the site any changes to depth / duration/velocity of flood waters; or (c) change flood characteristics outside the site in ways that result in (i) loss of flood storage; (ii) loss of/changes to flow paths; (iii) acceleration or retardation of flows; or (iv) any reduction in flood warning times.
PO14 Development avoids the release of hazardous materials into floodwaters.	**AO14.1** Materials manufactured or stored on site are
	not hazardous in nature. or **AO14.2** Hazardous materials and any associated manufacturing equipment are located above the nominated flood level.
PO15 Community infrastructure in any area mapped as Flood Hazard is able to function effectively during and immediately after flood events.	No outcome specified.

In response to the accepted outcomes:

- New buildings are located above the 1% AEP flood event (with 300mm freeboard achieved to all non-habitable floor levels).
- Works at the nominated 1% AEP flood level is proposed to be undertaken in a manner that maintains the existing overland flow regime.
- Filling is not proposed within the flood hazard overlay constrained area.
- Flood modelling undertaken by Contour confirms that the proposed development will not result in material worsening off-site. Refer to Contour's Flood Report for more details.
- No hazardous materials are anticipated to be stored on site at or below the 1% flood level.

The proposed development therefore complies with PO12 to PO15 of the Flood hazard overlay.

5 SITE GRADING

In the existing state, there is a crest parallel to Kingaroy Street offset approximately 45.5m into the subject site which directs runoff to Kingaroy Street to the west as well as the Duck Ponds drainage system to the north of the subject site.

Earthworks (fill) will be undertaken on the subject site to provide the floor levels of proposed buildings with a minimum of 300mm freeboard to the 1% AEP flood event. The finished levels of the northern portion of the subject site, which falls within Council's Flood hazard overlay code constrained area (the proposed northern carpark) will generally maintain existing ground levels, ensuring that existing flood storage on the subject site is not diminished as the result of the proposed development. The concept earthworks are detailed on Contour drawings 3849-SK10 and 3849-SK11.

Maximum 1:4 batters are proposed at the southern boundary of the retail lot to tie in with natural ground levels on the proposed balance land. A 1.8m high timber paling fence is proposed to be erected at the common boundary to prevent unlawful vehicular access to and from the proposed balance land.

6 STORMWATER MANAGEMENT

6.1 PROPOSED DRAINAGE

6.1.1 GENERAL

The proposed design is to generally comply with the requirements of the Queensland Urban Drainage Manual 2017 (QUDM), Council's Planning Scheme and other relevant codes and guidelines.

The minor storm event is the 10% Annual Exceedance Probability (AEP) event for the 'Central business and commercial' development category in accordance with Table 7.3.1 of QUDM. The combined minor/major drainage system will be designed to cater for the 1% AEP flows in accordance with Table 7.3.2 of QUDM. Generally, the major drainage system will consist of overland flow paths designed to carry flows in excess of the capacity of the minor drainage system (i.e. 1% AEP minus 10% AEP).

6.2 DRAINAGE DISCHARGE

The existing discharge points to the Duck Ponds at the north and Kingaroy Street to the west are proposed to be retained. The Balance Lot will be provided with a lawful point of discharge through the northern lot.

Runoff from rain events up to the 10% AEP minor design storm is proposed to be captured and conveyed via a pit and pipe drainage system to discharge into existing drainage infrastructure within Kingaroy Street. The proposed drainage within Kingaroy Street is proposed to be constructed within the eastern verge. This is proposed to minimise the disturbance to and impact on Kingaroy Street.

Runoff in events greater than the 10% AEP and up to the 1% AEP major design storm will be conveyed to be discharged across the northern boundary and into the adjacent 'Duck Ponds'.

6.3 STORMWATER QUANTITY MANAGEMENT

Flood modelling undertaken by Contour confirms that the increase in impervious surfaces as the result of the proposed development, and un-detained, will not result in increased flood impacts to surrounding and downstream residential properties up to Kelvyn Street, or material impact to the agricultural/rural areas downstream of Kelvyn Street. Refer to Contour's Stormwater Management Plan for more details.

6.4 STORMWATER QUALITY MANAGEMENT

The State Planning Policy (SPP) water quality objectives sets the assessment benchmarks for stormwater quality for Queensland. The subject site is not located within an urban population centre in the Western Queensland climatic region.

The SPP water quality objectives is therefore not an applicable assessment benchmark. Refer to Contour's Stormwater Management Plan for more details.

6.4.1 CONSTRUCTION PHASE

The pollutants that would typically be generated during the construction of the proposed development are outlined in Table 6-1 below.

TABLE 6-1 TYPICALLY GENERATED POLLUTANTS DURING CONSTRUCTION

Pollutant	Source
Litter	Paper, construction packing, food packaging, cement bags, off-cuts
Sediment	Unprotected exposed soils and stockpiles during earthworks and building
Hydrocarbons	Fuel and oil spills, leaks from construction equipment
Toxic Materials	Cement slurry, asphalt prime, solvents, cleaning agents, wash waters (e.g. from tile works)
Ph Altering Substances	Acid Sulphate Soils, cement slurry

Best practice measures will be utilised during the construction phase to minimise the potential impacts of the above-mentioned pollutants. These may include erosion and sediment control measures in general accordance with International Erosion Control Association 2008, Councils Erosion and Sediment Control Standard, and appropriate storage of materials and refuse.

7 EXISTING SERVICES

There are several existing services within the road-reserves fronting the site and within the site. This includes, but is not limited to, a combination of gravity sewer, water reticulation, power and telecommunications. This report identifies existing services within the verge as per Council and “Dial Before You Dig” (DBYD) records.

A request for Sewer and Water Main Location through Council’s Water and Wastewater division has revealed underground services at the site as discussed below.

The obtained Council and DBYD infrastructure records are presented as an attachment at the rear of this report.

7.1 SEWER AND WATER RETICULATION

An extract of Council records is presented in Figure 7-1 below.

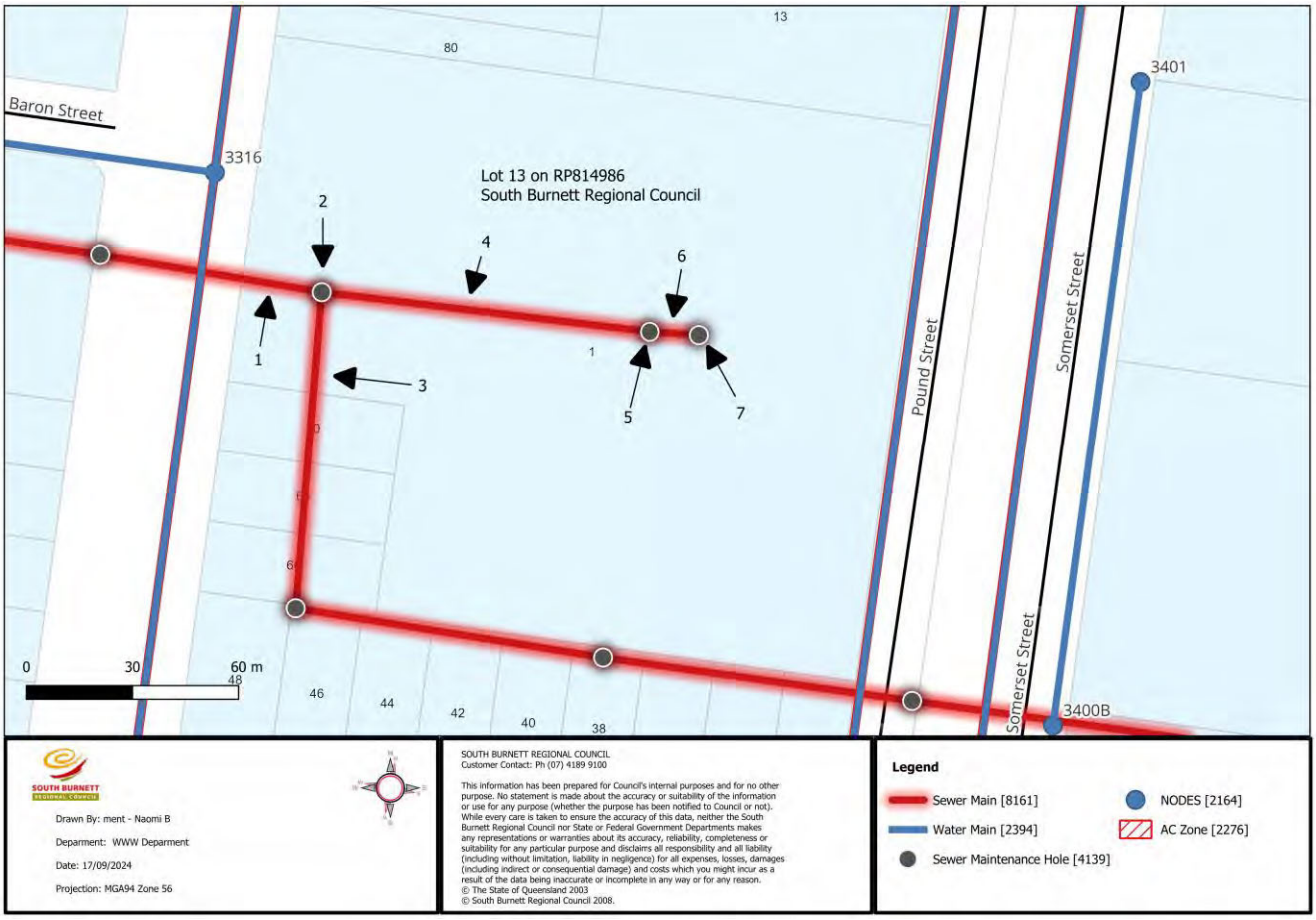


FIGURE 7-1 COUNCIL SEWER AND WATER RECORDS

There is an existing gravity sewerage reticulation main running through the centre and along the southern boundary of the subject site. The development will either need to comply with “build over” asset performance requirements, as identified within the Queensland Development Code (QDC) MP1.4. The existing sewerage reticulation main may be able to be decommissioned.

There are two water reticulation mains within the Pound Street and Kingaroy Street (D’Aguilar Highway) road reserve which would be suitable for a water service connection subject to the Council approval.

Due to the existence of water and sewer services at the site, it is expected that a water sewer connection should be readily achievable.

7.2 ELECTRICITY

There is overhead electricity along the northern boundary, as well as within the verges of both Kingaroy Street and Pound Street. The existing infrastructure will be required to be relocated to cater for the proposed vehicular accesses to the development.

Refer to Figures 7-2 and 7-3 for photographs showing existing electrical infrastructure along the frontage of Kingaroy Street and Pound Street respectively.



FIGURE 7-2 KINGAROY STREET OVERHEAD POWER



FIGURE 7-3 POUND STREET OVERHEAD POWER

The Ergon DBYD infrastructure map is presented in Figure 7-4. This indicates that there is no infrastructure along the site frontages.



FIGURE 7-4 ERGON ENERGY ASSET MAP

7.3 TELECOMMUNICATIONS AND NBN

Telstra and NBN records indicate there are cables present in both Kingaroy Street and Pound Street. Dial before you dig is attached to the rear of this report for reference.

8 SUMMARY

A preliminary investigation has been undertaken to determine the indicative engineering infrastructure requirements for the site. Contour has concluded the following key points:

- The proposed development will be designed, generally in accordance with relevant Council, QUDM and DTMR guidelines;
- The site is affected by flooding as per the Flood Hazard Overlay (OM3). A Flood Report has been prepared to assess the flood impacts of the proposed development and to determine the finished floor level;
- Stormwater drainage discharge is proposed to remain to the north (into the adjacent Duck Ponds) and into existing drainage infrastructure located within Kingaroy Street;
- Stormwater detention is not proposed as the Flood Report confirms that there is no material worsening off-site as the result of the proposed development;
- Stormwater quality management is not required in accordance with the State Planning Policy;
- There is existing gravity sewer, water reticulation, electrical and telecommunication infrastructure surrounding the site;
- Dial Before You Dig records are attached;
- Electrical easements impact the site; and
- Access to the site will require relocation of existing infrastructure (street lights and power poles).

9 QUALIFICATIONS

This report has been prepared, by Contour Consulting Engineers Pty Ltd, under the direction of a Registered Professional Engineer of Queensland, to document the process undertaken to determine the preliminary civil infrastructure requirements for the proposed development at 1 Pound Street, Kingaroy.

This report is only to be used in full, and may not be used to support objectives other than those set out herein, except where written approval is provided by Contour Consulting Engineers.

Appendix A. Conceptual Development Layout



DRAWING LIST

NUMBER	SHEET NAME	REV	DATE
A-DA 0001	COVER PAGE	D	08/10/25
A-DA 0010	DEVELOPMENT AREA SUMMARY	C	08/10/25
A-DA 1000	SITE PLAN	D	08/10/25
A-DA 1001	BUILDING A - GROUND FLOOR PLAN	D	08/10/25
A-DA 1002	BUILDING B - GROUND FLOOR & ROOF PLAN	B	08/10/25
A-DA 1010	BUILDING A - LEVEL 2 & ROOF	D	08/10/25
A-DA 2000	OVERALL SECTIONS	D	08/10/25
A-DA 2010	BUILDING A SECTIONS	D	08/10/25
A-DA 2011	BUILDING B SECTIONS	B	08/10/25
A-DA 3000	BUILDING A ELEVATIONS	D	08/10/25
A-DA 3001	BUILDING A ELEVATIONS	D	08/10/25
A-DA 3002	BUILDING B ELEVATIONS	B	08/10/25
A-DA 5000	3D VIEWS	B	08/10/25

Rev.	Date	Description	Ins.	Appr.
A	17/09/25	WIP FOR INFORMATION	JR	PW
B	24/09/25	WIP FOR COORDINATION	JR	PW
C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW

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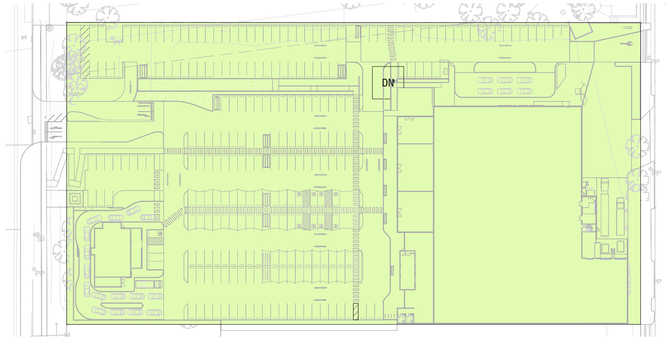
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COVER PAGE

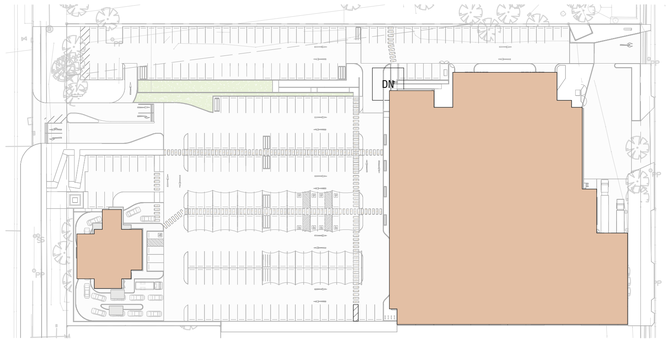
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Revision
D

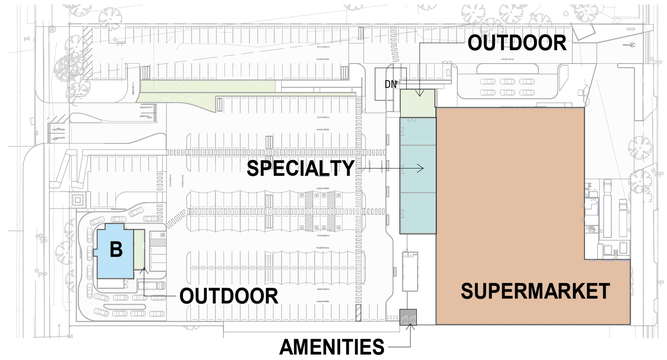
Rev.	Date	Description	Iss.	Appr.
A	30/09/25	WIP FOR COORDINATION	JR	PW
B	02/10/25	WIP FOR COORDINATION	JR	PW
C	08/10/25	WIP FOR COORDINATION	JR	PW



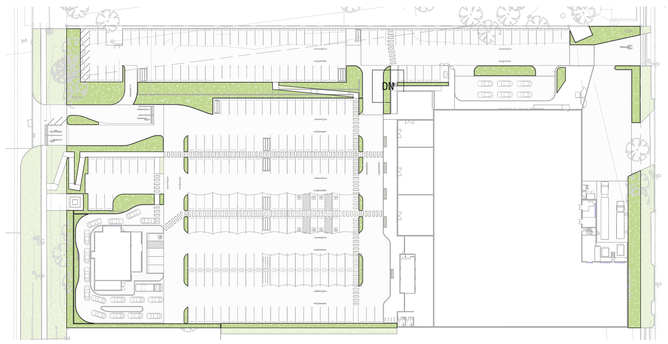
3 / 2000 SITE AREA DIAGRAM



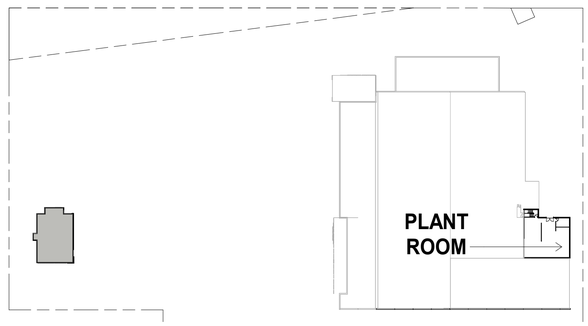
5 / 2000 SITE COVER DIAGRAM



1 / 2000 TOTAL GFA DIAGRAM - GROUND FLOOR



2 / 2000 PERVIOUS AREA DIAGRAM



4 / 2000 GFA DIAGRAM - MEZZANINE LEVEL

DEVELOPMENT SUMMARY:

SITE AREA	
	18,467 m²

SITE COVER	
	5,830 m² (32%)

GFA			
BUILDING A			
	SUPERMARKET	3,750 m²	
	SPECIALTY	455 m²	
	AMENITIES	30 m²	
			4,235 m²
BUILDING A OUTDOOR DINING			105 m²
BUILDING B			210 m²
BUILDING B OUTDOOR DINING			48 m²
			4,598 m²

PERVIOUS	
LANDSCAPE	1,715 m²

PARKING	
CARS	245
MOTORCYCLES	8
BIKES	8

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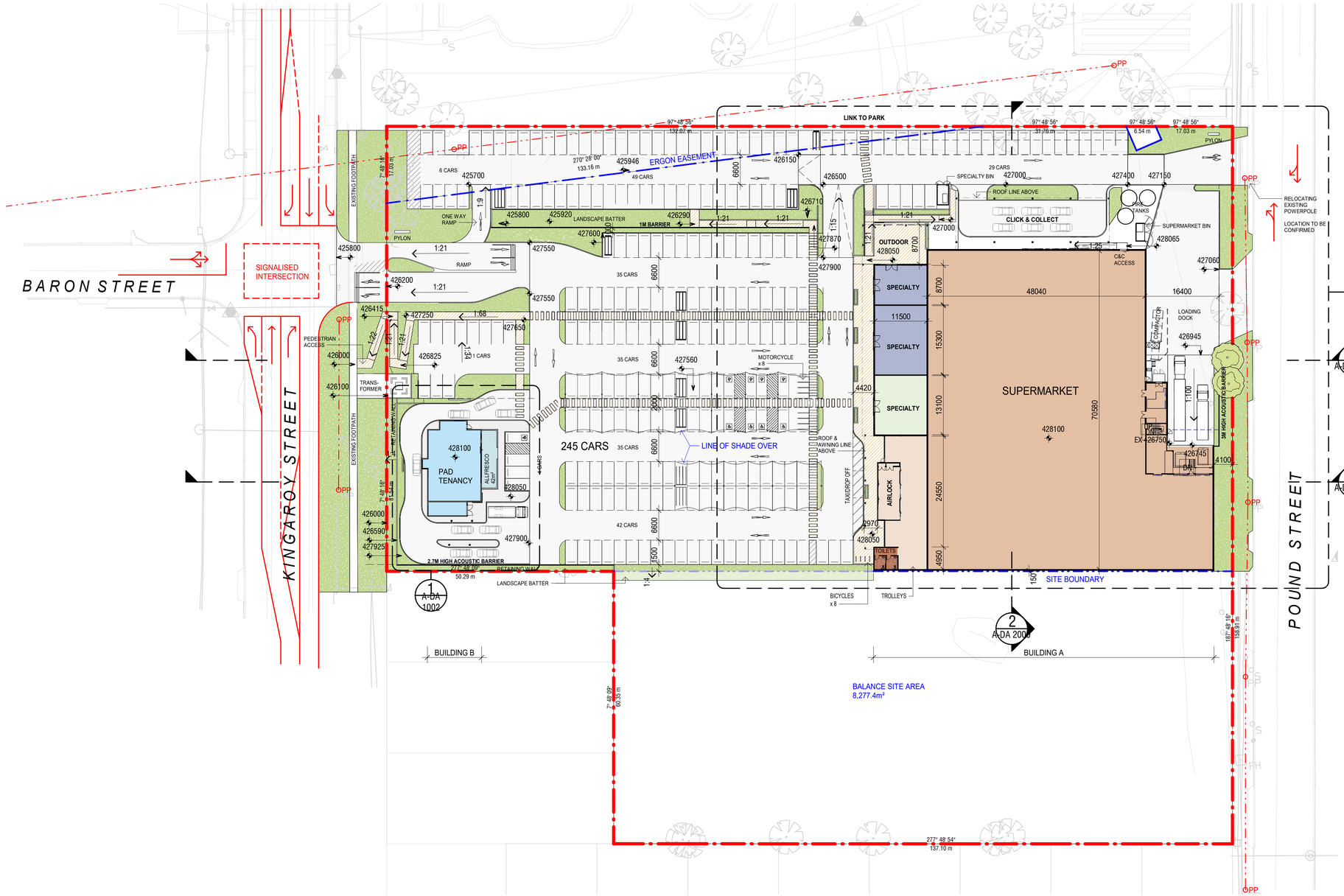
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Drawing Title
DEVELOPMENT AREA SUMMARY

Drawing Number **A-DA 0010**

Revision **C**



1 OVERALL SITE PLAN
2000 — 1 : 500

Rev.	Date	Description	Ins.	Appr.
A	17/09/25	WIP FOR INFORMATION	JR	PW
B	24/09/25	WIP FOR COORDINATION	JR	PW
C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW

LEGEND

PEDESTRIAN CONNECTION

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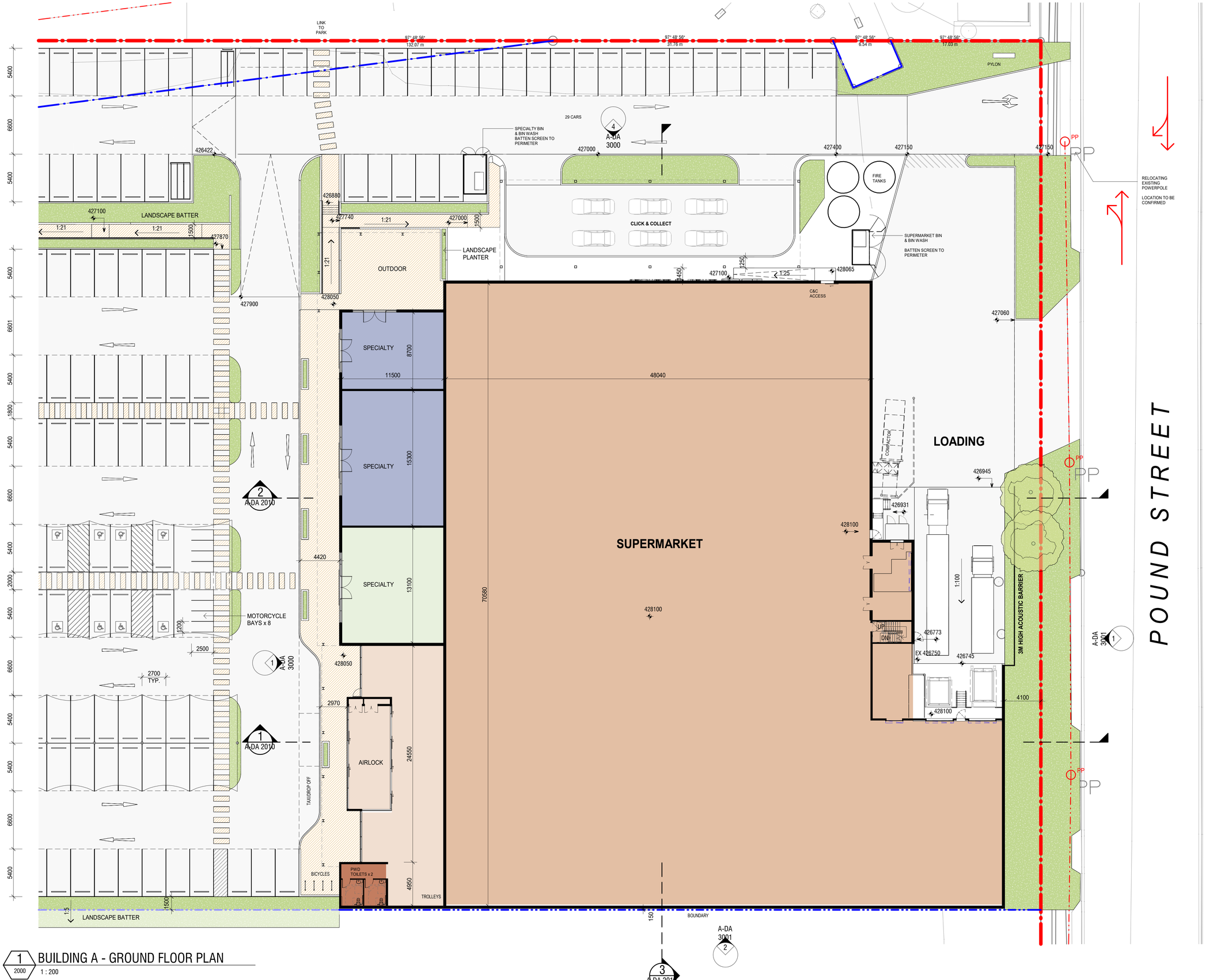
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Drawing Title
SITE PLAN

Drawing Number **A-DA-A-DA 1000**

Revision **D**

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B	24/09/25	WIP FOR COORDINATION	JR	PW
C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW



1 BUILDING A - GROUND FLOOR PLAN
2000
1 : 200

LEGEND

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Date Issued

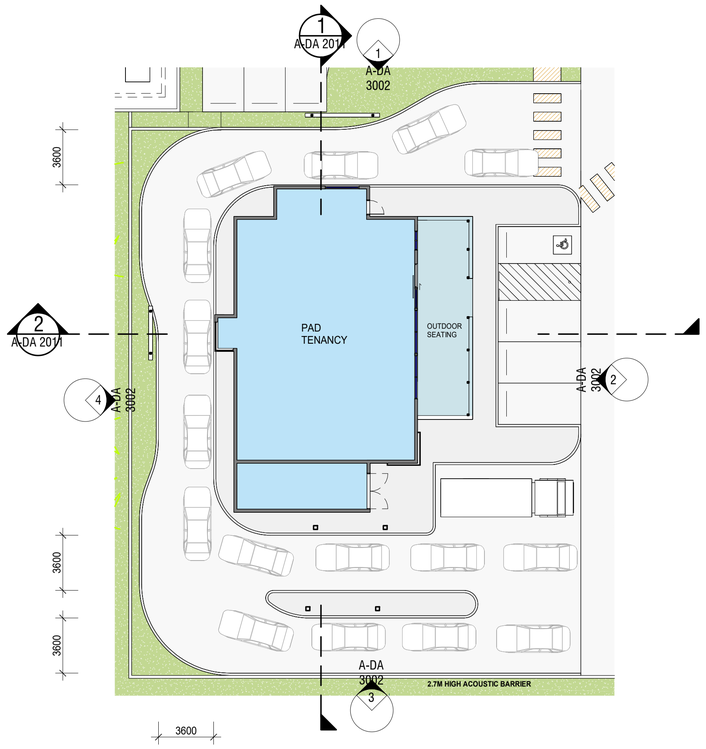
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Drawing Title
BUILDING A - GROUND FLOOR PLAN

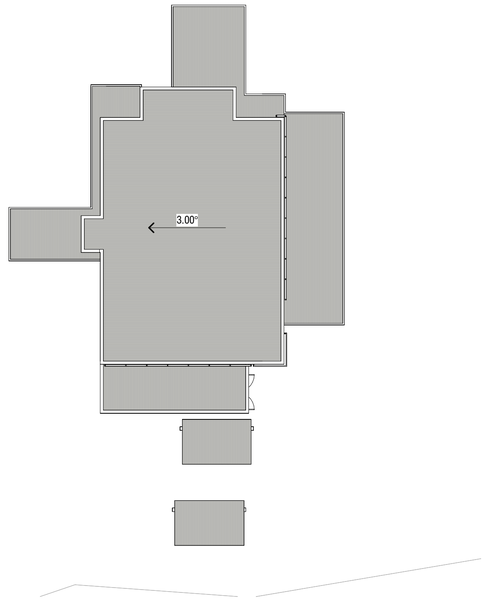
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Revision **D**

Rev.	Date	Description	Ins.	Appr.
A	30/09/25	WIP FOR COORDINATION	JR	PW
B	08/10/25	WIP FOR COORDINATION	JR	PW



1 A-DA 1000 BUILDING B - GROUND FLOOR PLAN
1 : 200



2 2000 BUILDING B ROOF PLAN
1 : 200

LEGEND

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Date Issued

Scale As indicated @A1

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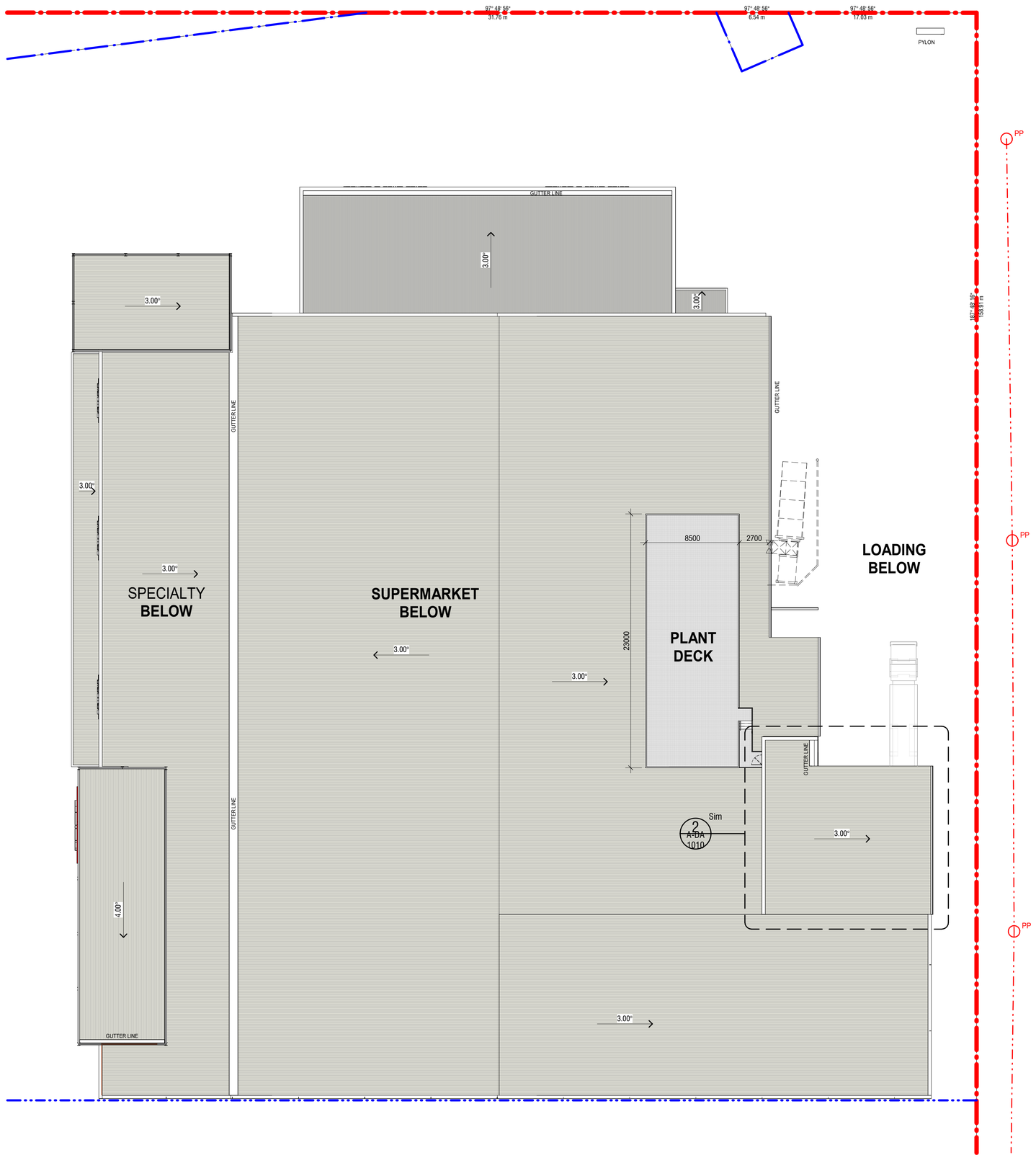
Drawing Title
BUILDING B - GROUND FLOOR & ROOF PLAN

Drawing Number **A-DA-A-DA 1002** Revision **B**

Rev.	Date	Description	Ins.	Appr.
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B	24/09/25	WIP FOR COORDINATION	JR	PW
C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW



2 PLANT LEVEL
2000 1 : 200



1 ROOF PLAN
2000 1 : 200

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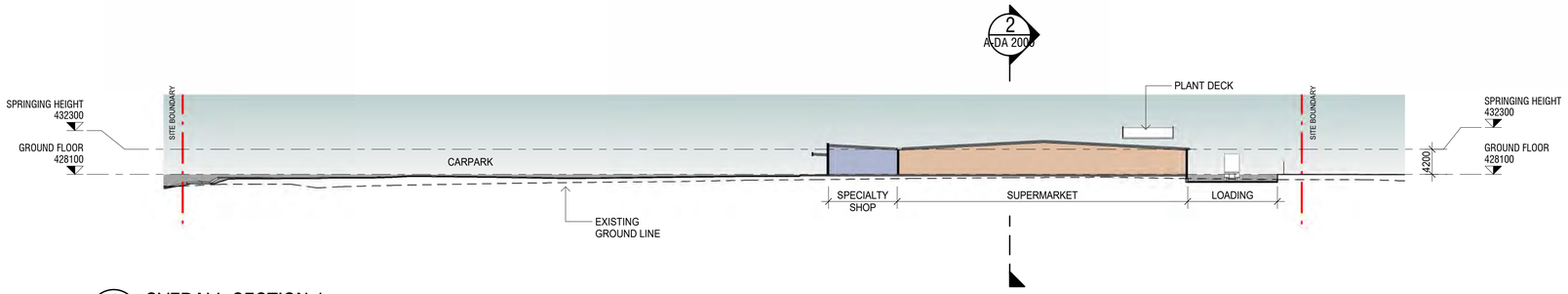
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Drawing Title
BUILDING A - LEVEL 2 & ROOF

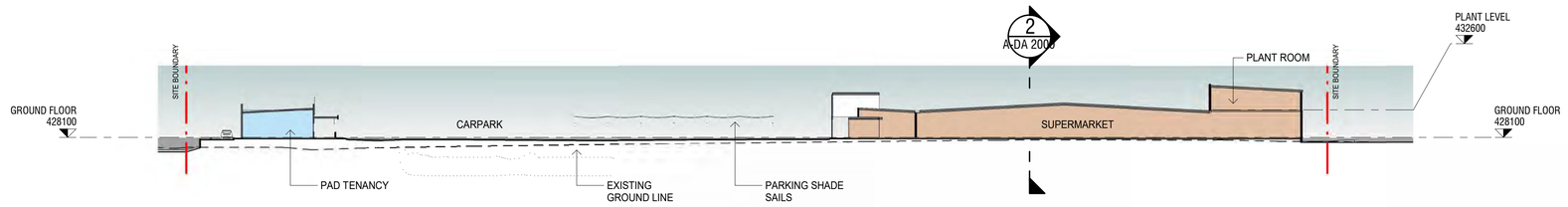
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Revision
D

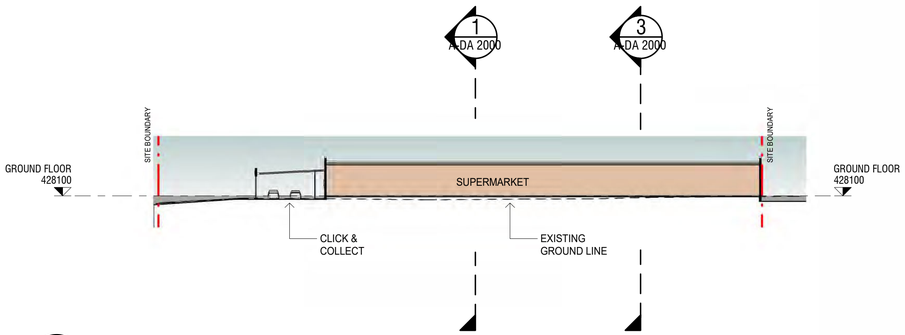
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B	24/09/25	WIP FOR COORDINATION	JR	PW
C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW



1 / 0010 OVERALL SECTION 1
1 : 500



3 / 0010 OVERALL SECTION 2
1 : 500



2 / 0010 OVERALL SECTION 3
1 : 500

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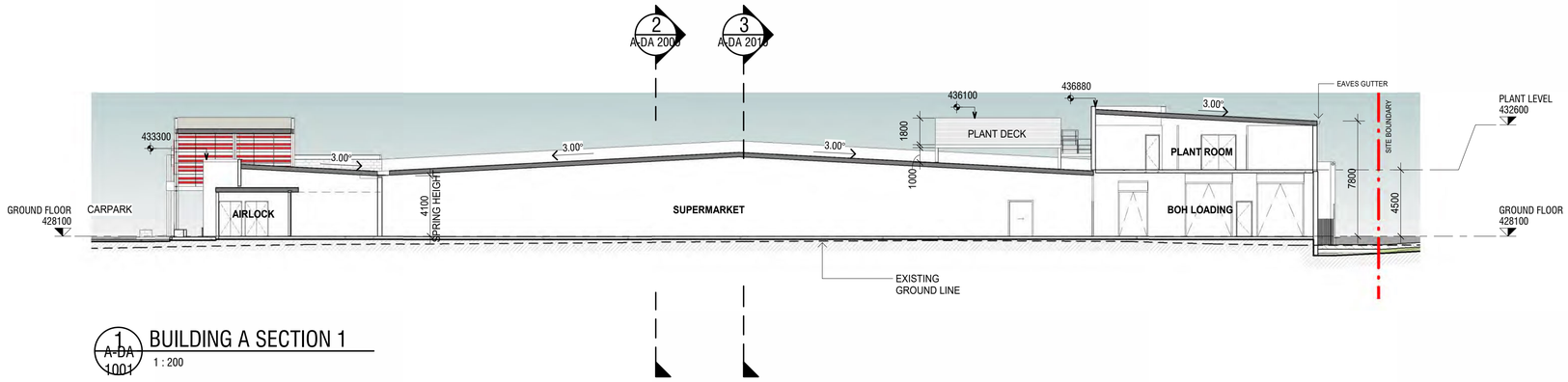
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Drawing Title
OVERALL SECTIONS

Drawing Number
A-DA-A-DA 2000

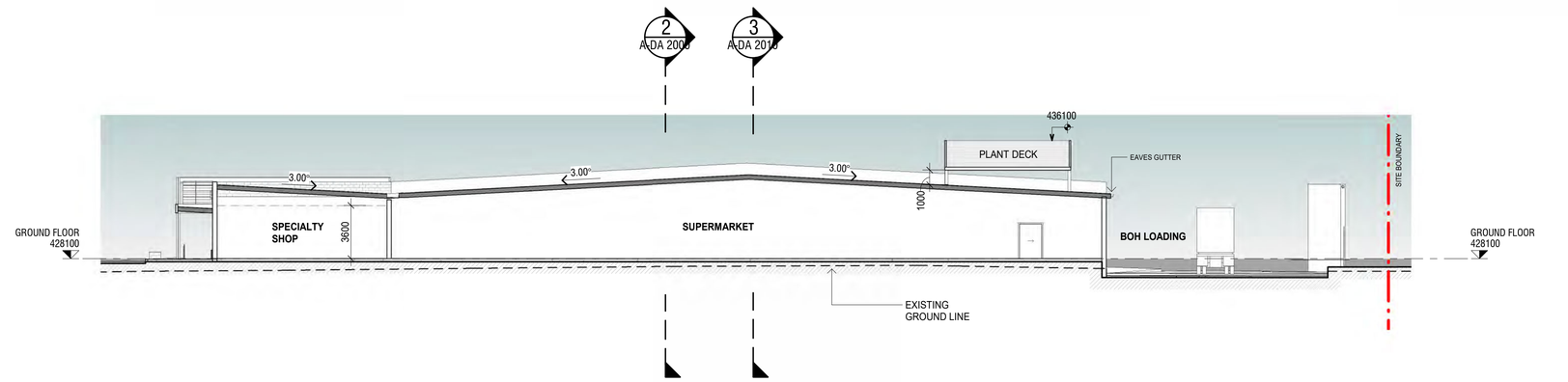
Revision
D

Rev.	Date	Description	Iss.	Appr.
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D	08/10/25	WIP FOR COORDINATION	JR	PW



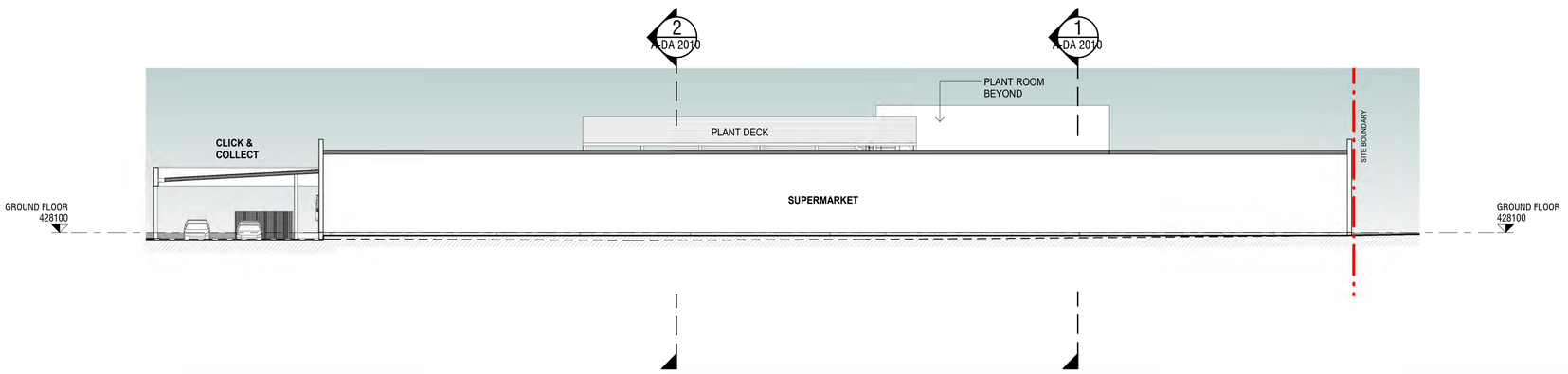
1 A-DA 1001 BUILDING A SECTION 1

1 : 200



2 A-DA 1001 BUILDING A SECTION 2

1 : 200



3 2000 BUILDING A SECTION 3

1 : 200

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Date Issued

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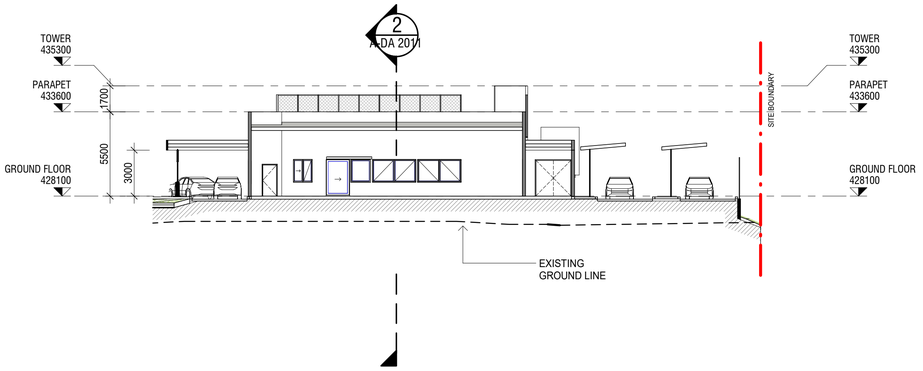
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Drawing Title
BUILDING A SECTIONS

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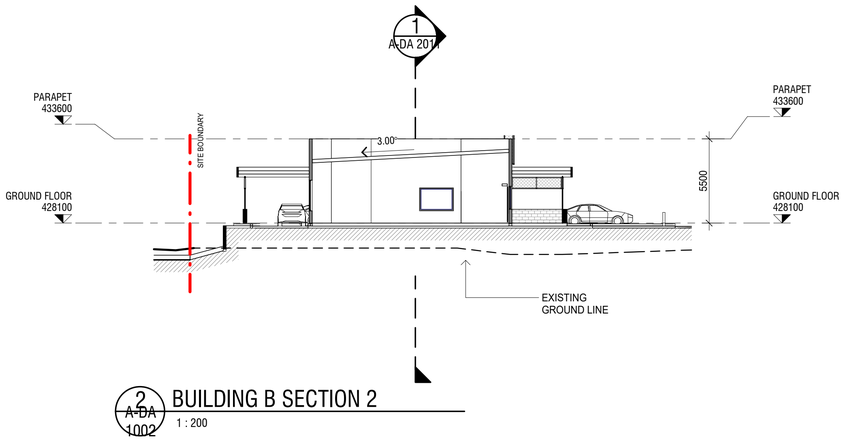
Revision
D

Rev.	Date	Description	Ins.	Appr.
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B	08/10/25	WIP FOR COORDINATION	JR	PW



1 A-DA 1002 BUILDING B SECTION 1

1 : 200



2 A-DA 1002 BUILDING B SECTION 2

1 : 200

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Scale 1 : 200 @A1

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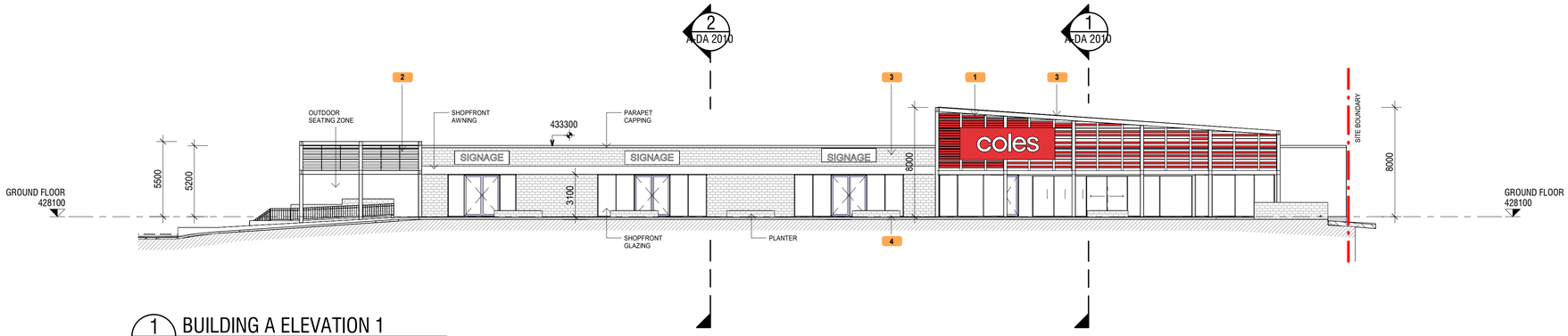
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BUILDING B SECTIONS

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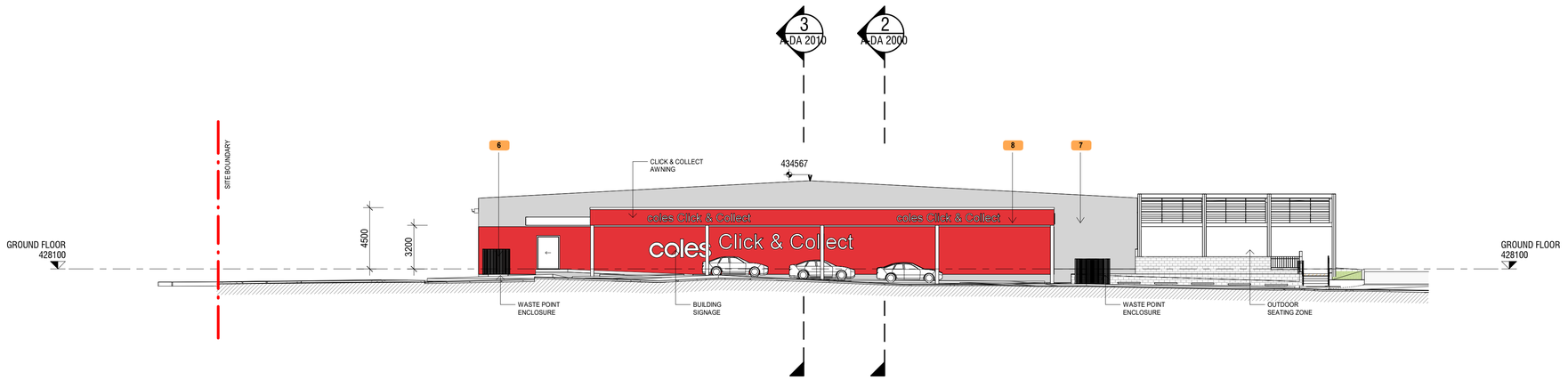
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B	24/09/25	WIP FOR COORDINATION	JR	PW
C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW



1 / 0010 BUILDING A ELEVATION 1

1 : 200



4 / 0010 BUILDING A ELEVATION 2

1 : 200

EXTERIOR MATERIAL PALETTE



1. ALUMINIUM BATTENS	2/3 STRUCTURAL ELEMENTS	4. FACADE CLADDING	5. PLANTERS	6. WASTE ENCLOSURES/ FENCE	7. FACADE PANELS	8. EXTERNAL CLADDING
Red Powder coated Aluminium battens	Black painted structural & architectural elements	Brick facade	Reclaimed bricks	TIMBER - LOOK ALUMINIUM BATTENS	PRE - CAST PANELS	RED PAINTED EXPRESS JOINT CFC

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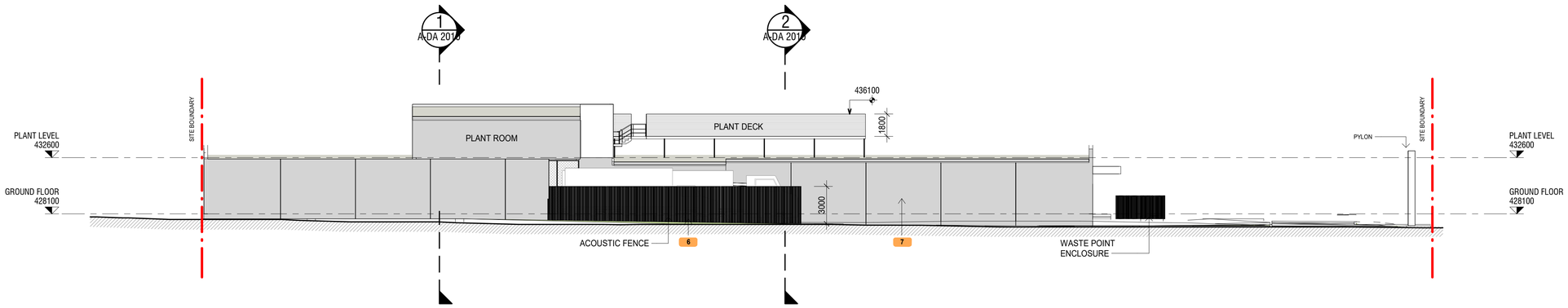
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Drawing Title
BUILDING A ELEVATIONS

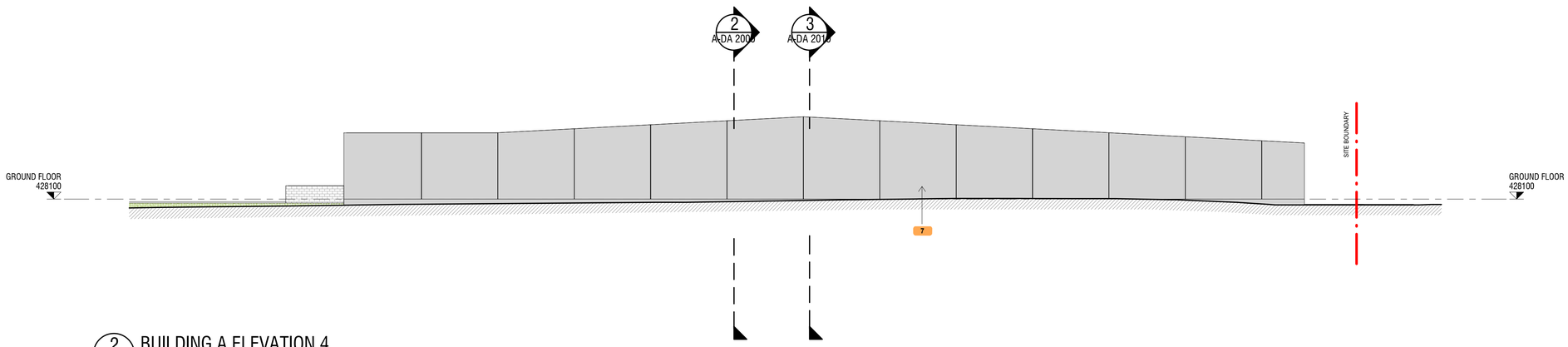
Drawing Number
A-DA-A-DA 3000

Revision
D

Rev.	Date	Description	Iss.	Appr.
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B	24/09/25	WIP FOR COORDINATION	JR	PW
C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW



1 / 0010 BUILDING A ELEVATION 3
1 : 200



2 / 0010 BUILDING A ELEVATION 4
1 : 200

EXTERIOR MATERIAL PALETTE



1. ALUMINIUM BATTENS

Red Powder coated Aluminium battens

2/3 STRUCTURAL ELEMENTS

Black painted structural & architectural elements

4. FACADE CLADDING

Brick facade

5. PLANTERS

Reclaimed bricks

6. WASTE ENCLOSURES/ FENCE

TIMBER - LOOK ALUMINIUM BATTENS

7. FACADE PANELS

PRE - CAST PANELS

8. EXTERNAL CLADDING

RED PAINTED EXPRESS JOINT CFC

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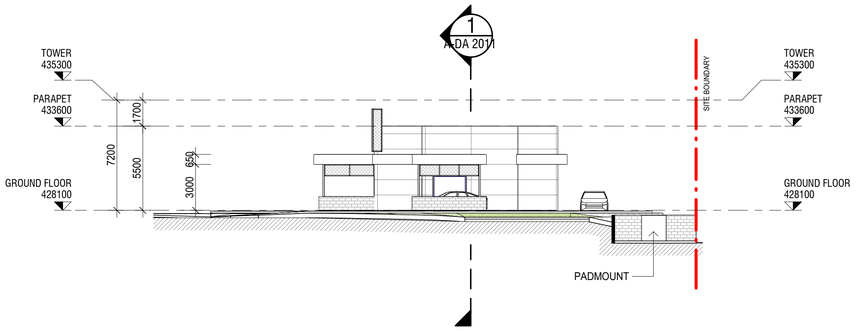
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Drawing Title
BUILDING A ELEVATIONS

Drawing Number **A-DA-A-DA 3001**

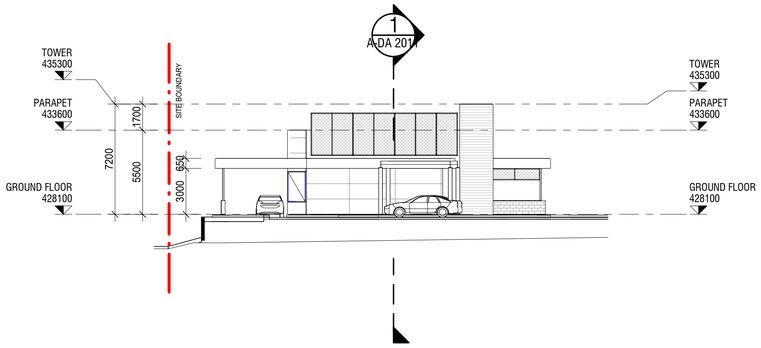
Revision **D**

Rev.	Date	Description	Ins.	Appr.
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B	08/10/25	WIP FOR COORDINATION	JR	PW



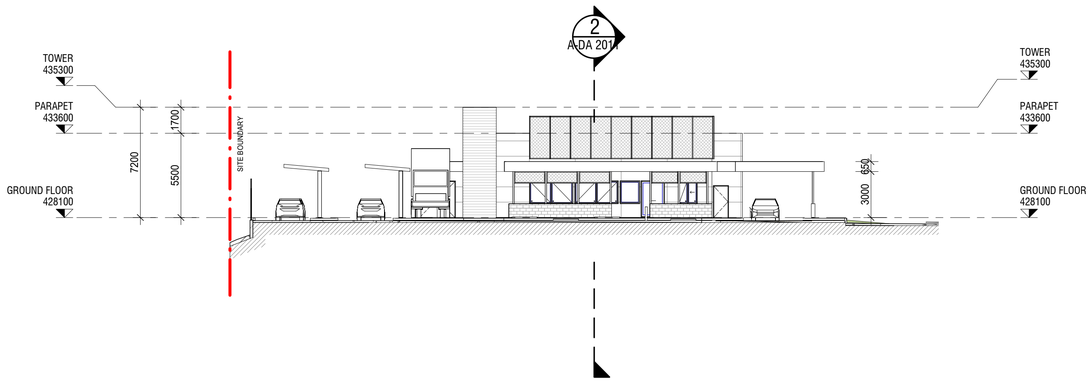
1 / 0010 BUILDING B ELEVATION 1

1 : 200



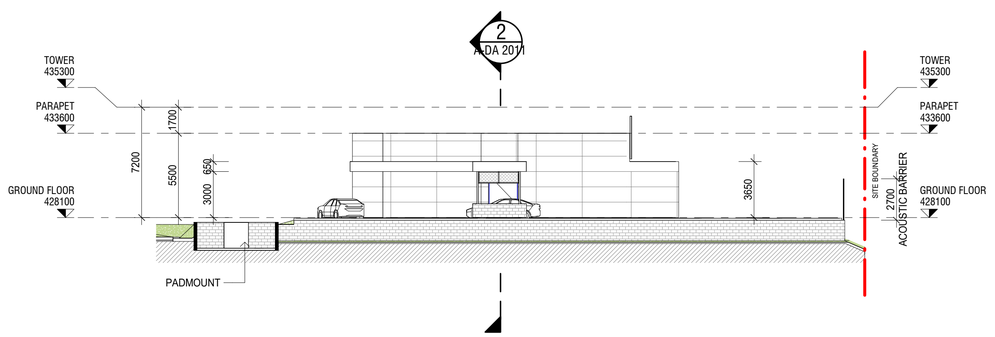
3 / 0010 BUILDING B ELEVATION 3

1 : 200



2 / 0010 BUILDING B ELEVATION 2

1 : 200



4 / 0010 BUILDING B ELEVATION 4

1 : 200

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Date Issued

Scale 1 : 200 @A1

0 5 10 20 30M

Drawing Title

BUILDING B ELEVATIONS

Drawing Number **A-DA-A-DA 3002**

Revision **B**

Rev.	Date	Description	Ins.	Appr.
A	30/09/25	WIP FOR COORDINATION	JR	PW
B	08/10/25	WIP FOR COORDINATION	JR	PW







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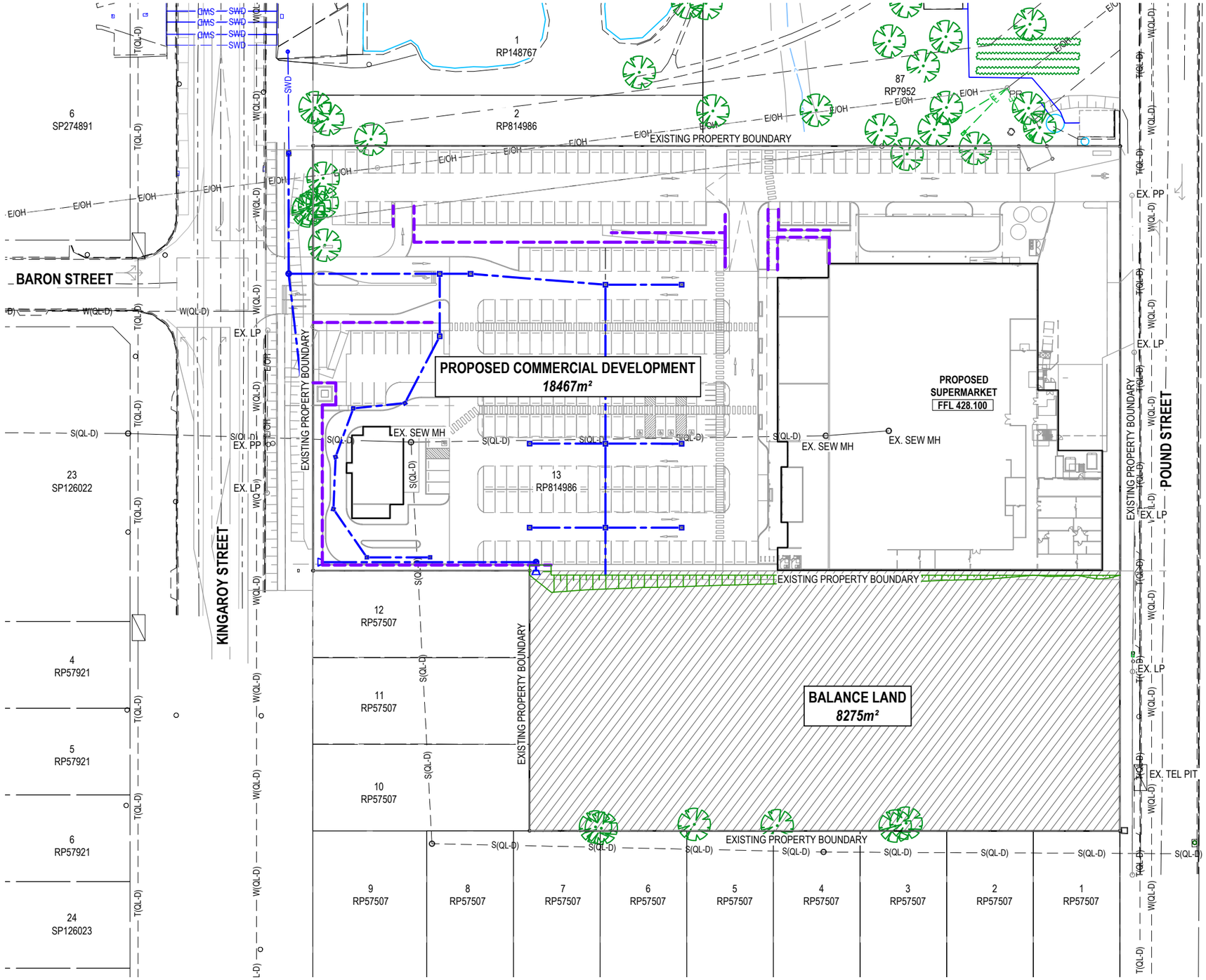
Scale @A1
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Drawing Title
3D VIEWS

Drawing Number
A-DA-A-DA 5000

Revision
B

Appendix B. Drawings



LEGEND

EXISTING FEATURES

- OVERALL RP BOUNDARY
- CADASTRAL EASEMENT
- SURVEYED RP BOUNDARY
- CADASTRAL RP BOUNDARY
- CHANGE IN GRADE
- EARTHWORKS BATTER
- RETAINING WALL
- ROAD CENTRELINE
- ROAD KERB & CHANNEL
- EDGE OF BITUMEN
- CONCRETE
- BUILDING
- FENCE
- SWD — STORMWATER
- DRAINAGE CHANNEL
- S(QL-D) — SEWER (QUALITY LEVEL D)
- W(QL-D) — WATER (QUALITY LEVEL D)
- E/OH — OVERHEAD ELECTRICAL
- E — ELECTRICAL
- T(QL-D) — TELSTRA (QUALITY LEVEL D)
- EDGE OF VEGETATION
- TREE TO REMAIN

LEGEND

PROPOSED FEATURES

- RP BOUNDARY
- RP EASEMENT
- EARTHWORKS BATTERS
- ROAD CENTRELINE
- RETAINING WALL
- STORMWATER DRAINAGE

0 10 20 30 40 50m

SCALE 1:1000 A3

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Checked:	MO
Vert. Datum:	AHD
Hori. Datum:	MGA GDA 2020
Date:	

DRAFT

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PLAN AMENDMENTS:

Rev	Date	Comment	Alt	Chkd	RPEQ
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PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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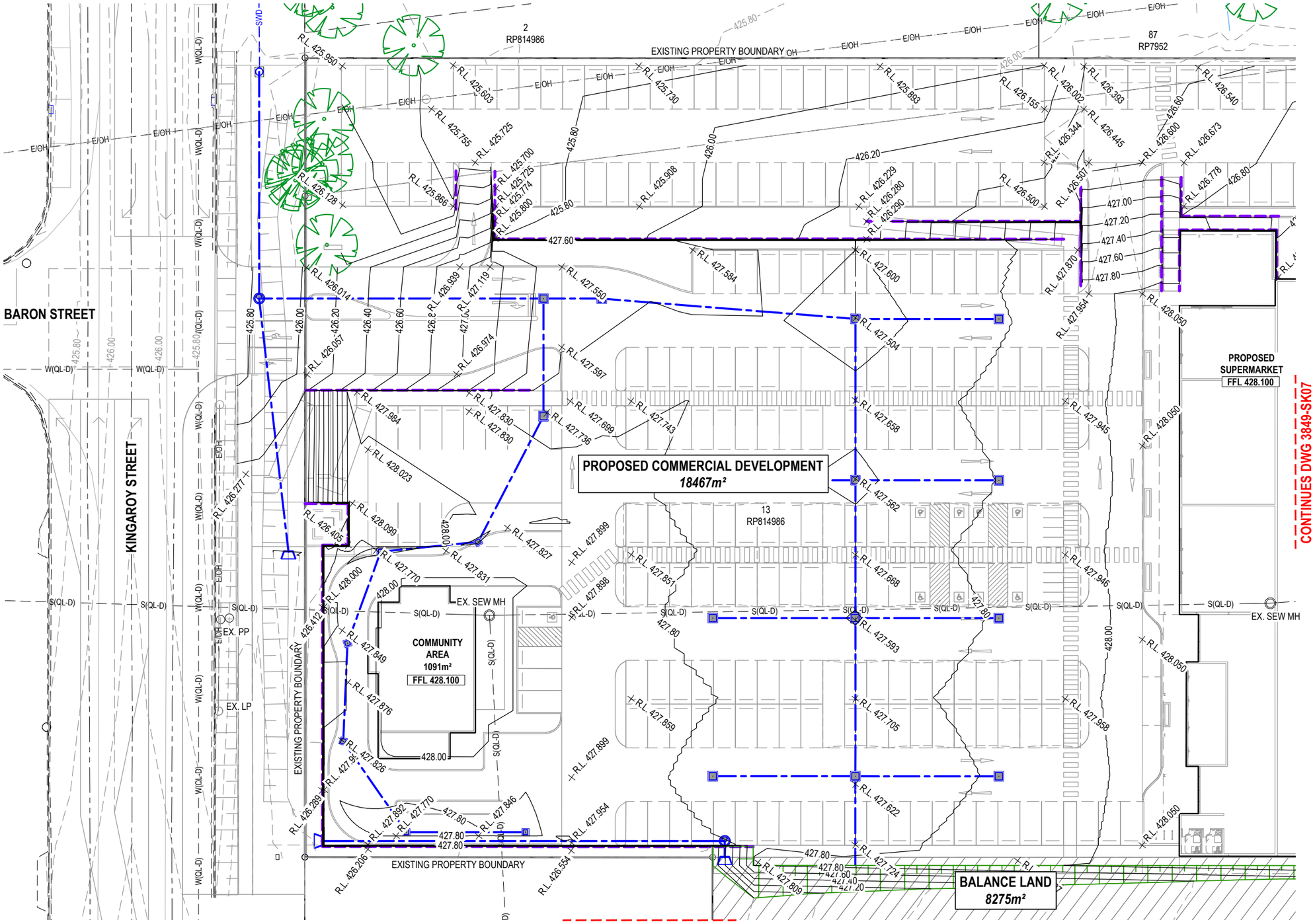
PLAN TITLE:

DEVELOPMENT LAYOUT PLAN

PRELIMINARY- NOT FOR CONSTRUCTION

PLAN No: 3849 - SK05 **REVISION:** A

FILE LOCATION: C:\12DS\DATA\CCE2K16DC01\03849 - LOT 13 POUND STREET, KINGAROY_31586\DESIGN - CIVIL\AUTOCAD\SKETCHES\3849-SK05.DWG



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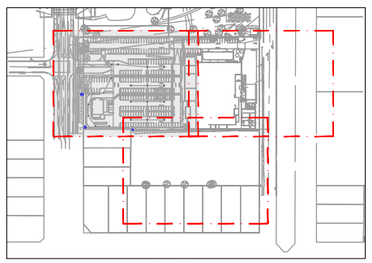
EXISTING FEATURES

- OVERALL RP BOUNDARY
- CADASTRAL EASEMENT
- SURVEYED RP BOUNDARY
- CADASTRAL RP BOUNDARY
- CHANGE IN GRADE
- EARTHWORKS BATTER
- RETAINING WALL
- ROAD CENTRELINE
- ROAD KERB & CHANNEL
- EDGE OF BITUMEN
- CONCRETE
- BUILDING
- FENCE
- SWD — SWD — STORMWATER
- DRAINAGE CHANNEL
- S(QL-D) — SEWER (QUALITY LEVEL D)
- W(QL-D) — WATER (QUALITY LEVEL D)
- E/OH — OVERHEAD ELECTRICAL
- E — E — ELECTRICAL
- T(QL-D) — TELSTRA (QUALITY LEVEL D)
- EDGE OF VEGETATION
- TREE TO REMAIN
- 12 — NATURAL CONTOUR

LEGEND

PROPOSED FEATURES

- RP BOUNDARY
- RP EASEMENT
- EARTHWORKS BATTERS
- ROAD CENTRELINE
- RETAINING WALL
- STORMWATER DRAINAGE
- 63 — DESIGN CONTOUR
- R.L. 16.341 — REDUCED LEVEL



KEY PLAN
NOT TO SCALE

NOTE:
- FOR ARCHITECTURAL DETAILS REFER ARKHRIGHT ARCHITECTS DWG A-SK-1001

0 5.0 10 15 20 25m
SCALE 1:500 A3

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PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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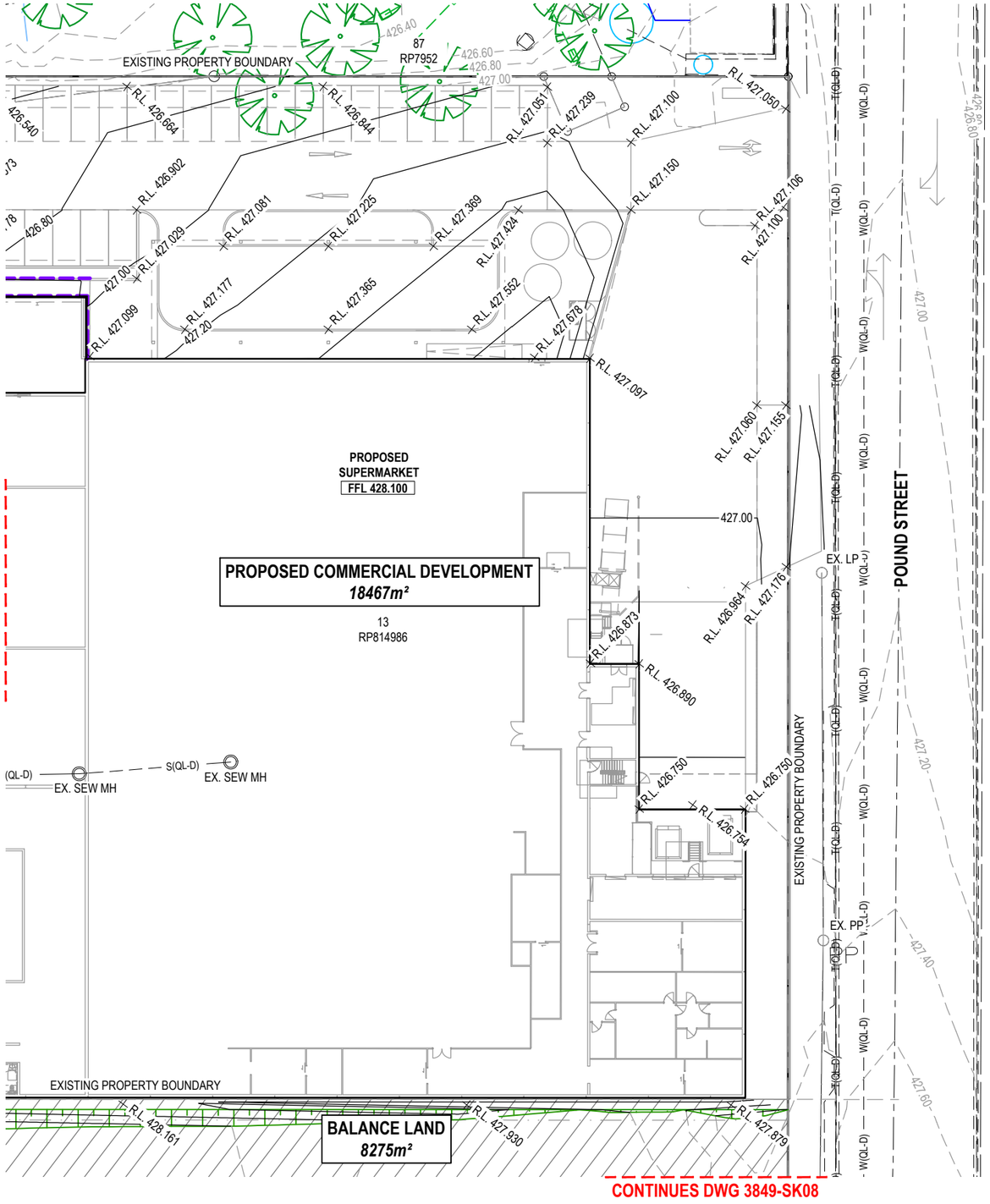
PLAN TITLE:

SITEWORKS PLAN - SHEET 1

PRELIMINARY- NOT FOR CONSTRUCTION

PLAN No: 3849 - SK06 **REVISION:** A

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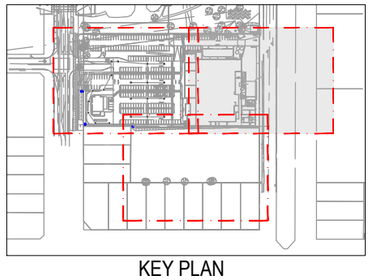
EXISTING FEATURES

- OVERALL RP BOUNDARY
- CADASTRAL EASEMENT
- SURVEYED RP BOUNDARY
- CADASTRAL RP BOUNDARY
- CHANGE IN GRADE
- EARTHWORKS BATTER
- RETAINING WALL
- ROAD CENTRELINE
- ROAD KERB & CHANNEL
- EDGE OF BITUMEN
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- S(QL-D) — SEWER (QUALITY LEVEL D)
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- E — E — ELECTRICAL
- T(QL-D) — TELSTRA (QUALITY LEVEL D)
- EDGE OF VEGETATION
- TREE TO REMAIN
- 12 — NATURAL CONTOUR

LEGEND

PROPOSED FEATURES

- RP BOUNDARY
- RP EASEMENT
- EARTHWORKS BATTERS
- ROAD CENTRELINE
- RETAINING WALL
- STORMWATER DRAINAGE
- 63 — DESIGN CONTOUR
- R.L. 16.341 — REDUCED LEVEL



KEY PLAN
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NOTE:
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0 5.0 10 15 20 25m
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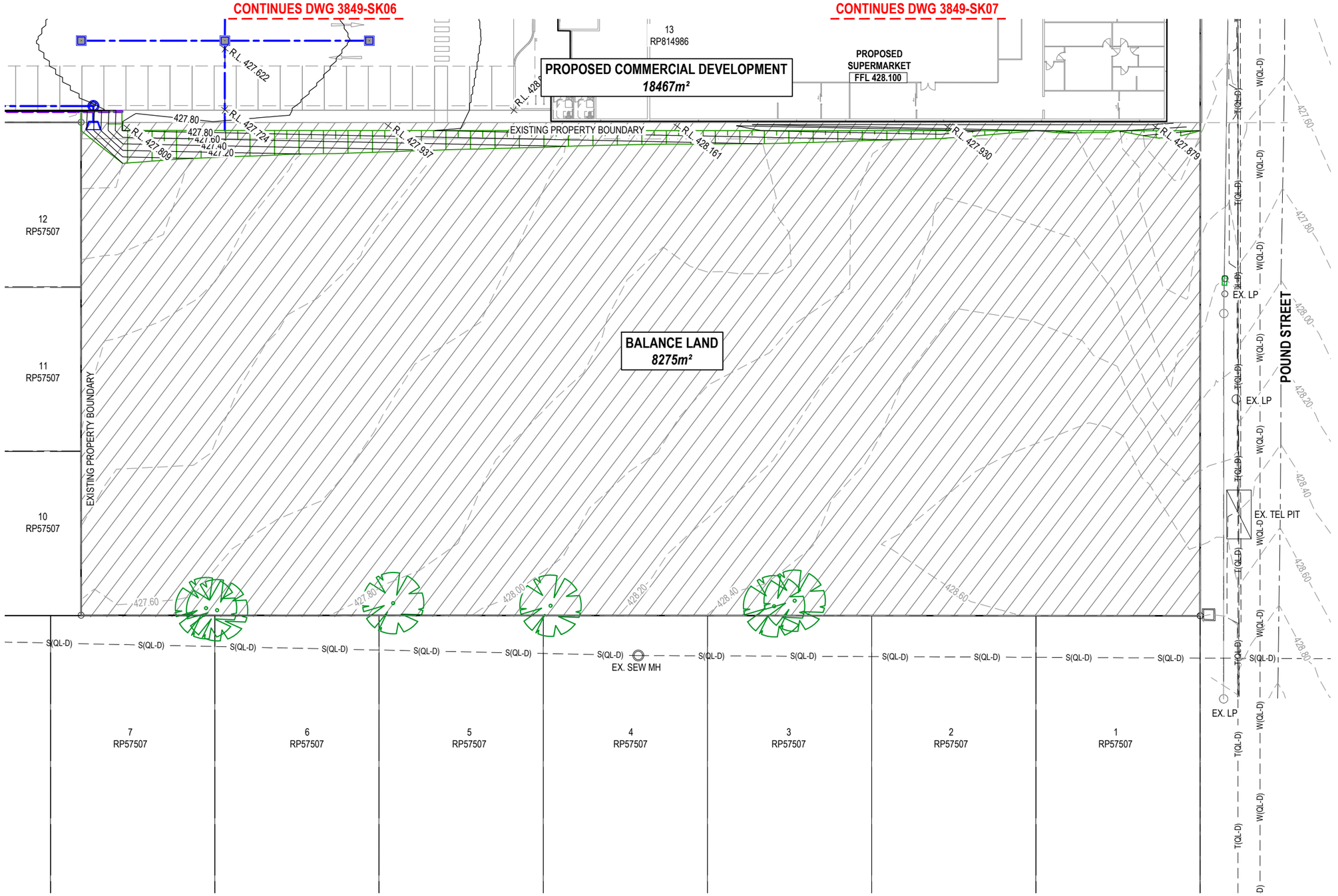
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SITEWORKS PLAN - SHEET 2

PRELIMINARY- NOT FOR CONSTRUCTION

PLAN No: 3849 - SK07 REVISION: A

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LEGEND

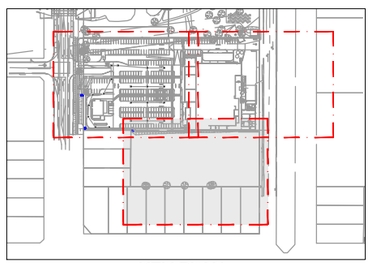
EXISTING FEATURES

- OVERALL RP BOUNDARY
- CADASTRAL EASEMENT
- SURVEYED RP BOUNDARY
- CADASTRAL RP BOUNDARY
- CHANGE IN GRADE
- EARTHWORKS BATTER
- RETAINING WALL
- ROAD CENTRELINE
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- E — ELECTRICAL
- T(QL-D) — TELSTRA (QUALITY LEVEL D)
- EDGE OF VEGETATION
- TREE TO REMAIN
- 12 — NATURAL CONTOUR

LEGEND

PROPOSED FEATURES

- RP BOUNDARY
- RP EASEMENT
- EARTHWORKS BATTERS
- ROAD CENTRELINE
- RETAINING WALL
- STORMWATER DRAINAGE
- 63 — DESIGN CONTOUR
- R.L. 16.341 — REDUCED LEVEL



KEY PLAN
NOT TO SCALE

NOTE:
- FOR ARCHITECTURAL DETAILS REFER ARKHRIGHT ARCHITECTS DWG A-SK-1001

0 5.0 10 15 20 25m

SCALE 1:500 A3

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PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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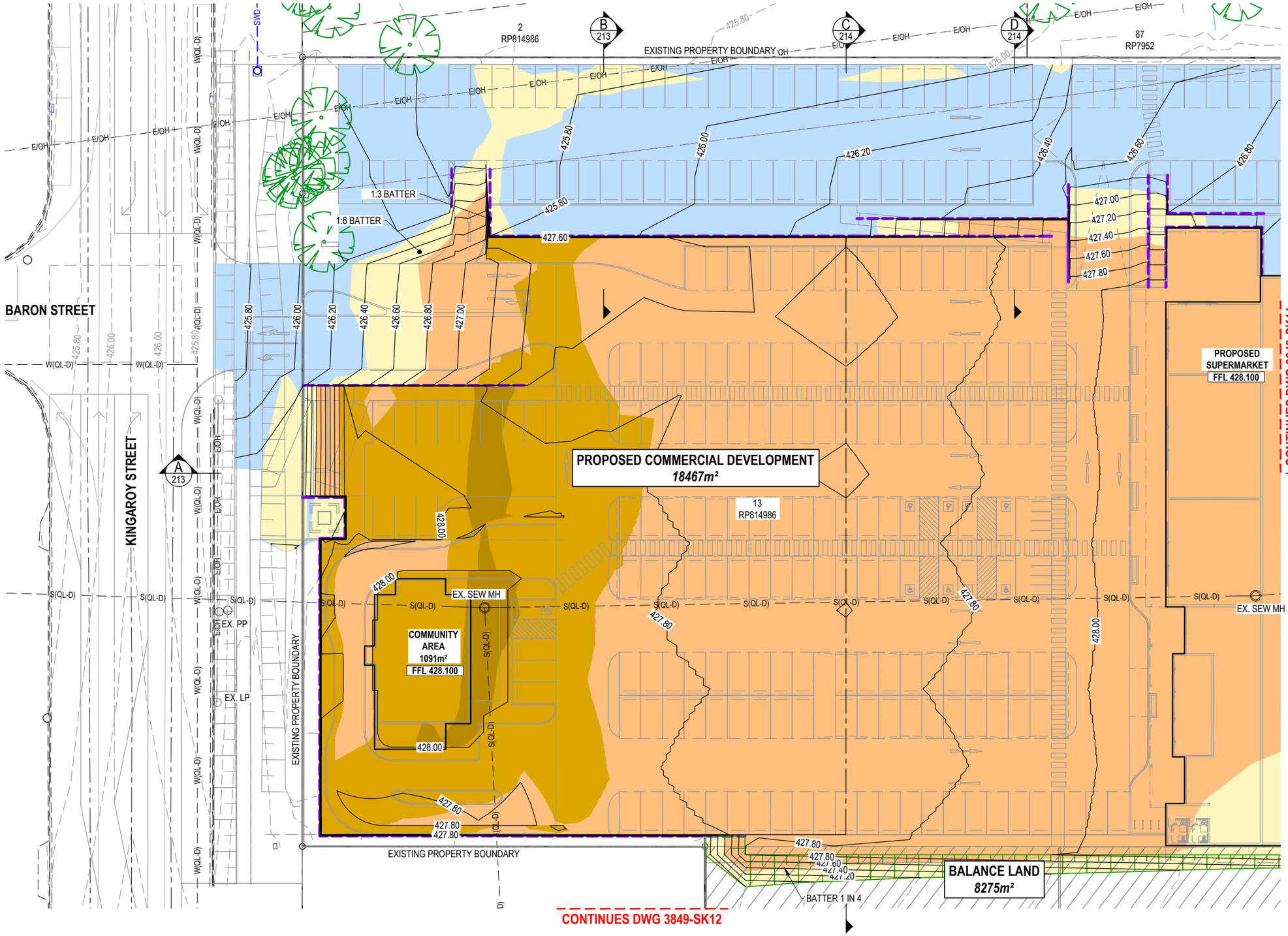
PLAN TITLE:

SITEWORKS PLAN - SHEET 3

PRELIMINARY- NOT FOR CONSTRUCTION

PLAN No: 3849 - SK08 **REVISION:** A

FILE LOCATION: C:\12DS\DATA\CCE2K16DC0103849 - LOT 13 POUND STREET, KINGAROY_31586\DESIGN - CIVIL\AUTOCAD\SKETCHES\3849-SK06.DWG



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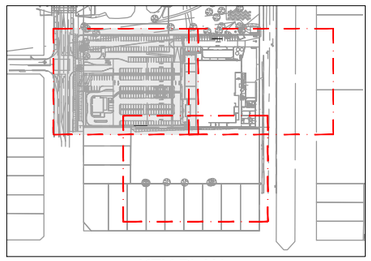
EXISTING FEATURES

- OVERALL RP BOUNDARY
- CADASTRAL EASEMENT
- SURVEYED RP BOUNDARY
- CADASTRAL RP BOUNDARY
- CHANGE IN GRADE
- EARTHWORKS BATTER
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- E/OH — OVERHEAD ELECTRICAL
- E — ELECTRICAL
- T(QL-D) — TELSTRA (QUALITY LEVEL D)
- EDGE OF VEGETATION
- TREE TO REMAIN
- 12 — NATURAL CONTOUR

LEGEND

PROPOSED FEATURES

- RP BOUNDARY
- RP EASEMENT
- EARTHWORKS BATTERS
- ROAD CENTRELINE
- RETAINING WALL
- 63 — DESIGN CONTOUR



KEY PLAN
NOT TO SCALE

NOTE:
- REFER TO DWG 3849-SK11 FOR EARTHWORK VOLUMES AND ELEVATION TABLE.
- FOR ARCHITECTURAL DETAILS REFER ARKHRIGHT ARCHITECTS DWG A-SK-1001

0 5.0 10 15 20 25m
SCALE 1:500 A3

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PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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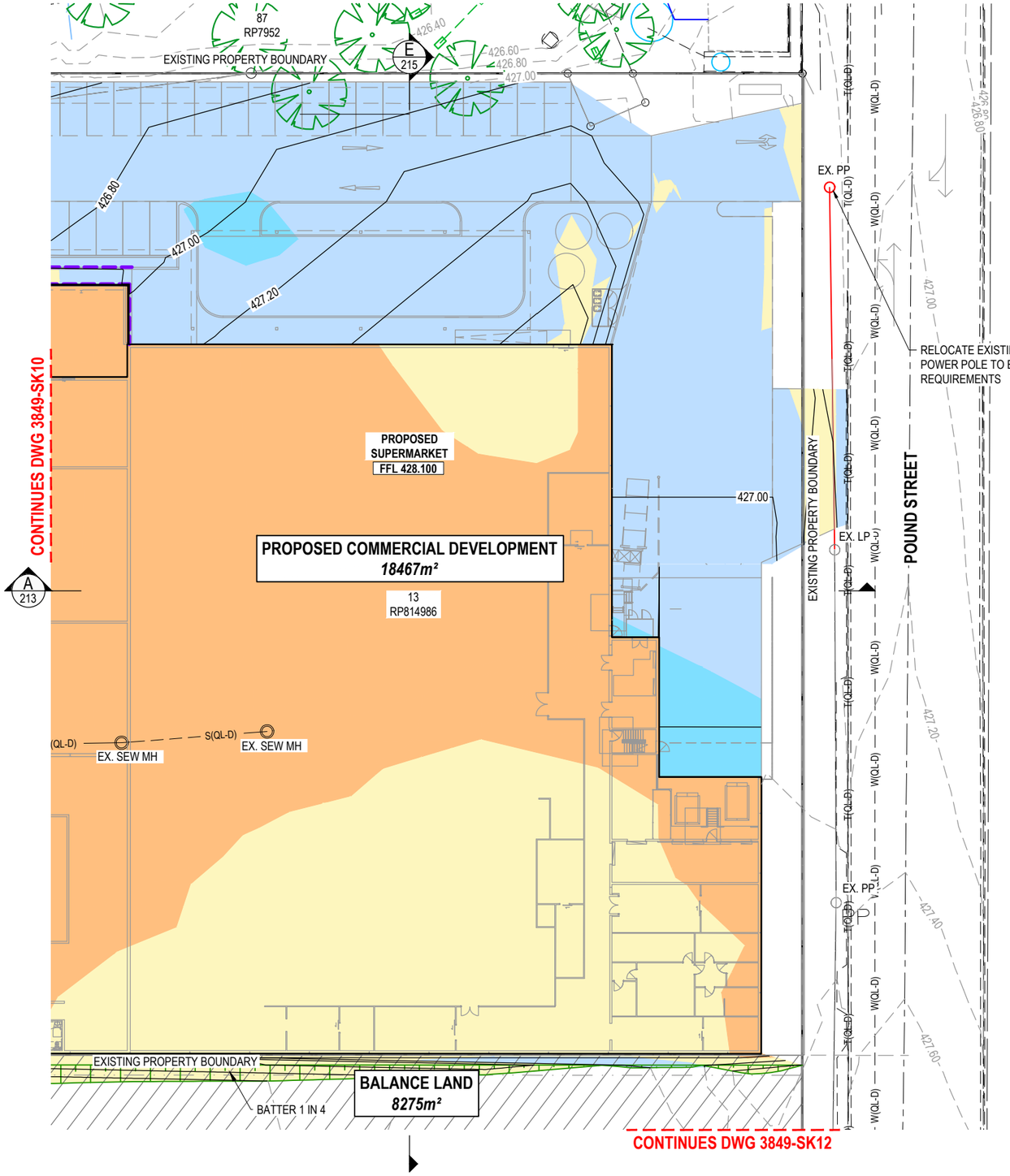
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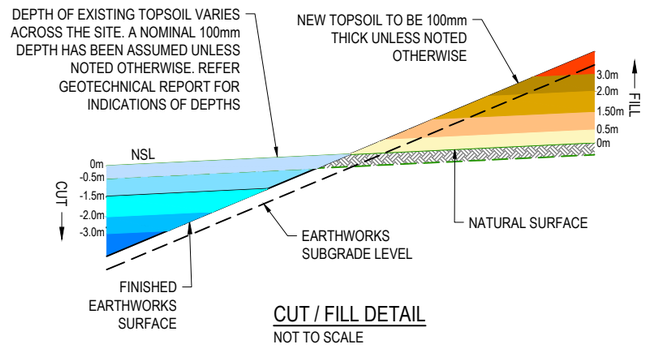
EARTHWORKS PLAN - SHEET 1

PRELIMINARY- NOT FOR CONSTRUCTION

PLAN No: 3849 - SK10 **REVISION:** A

FILE LOCATION: C:\12DS\DATA\CCE2K16DC01\03849 - LOT 13 POUND STREET, KINGAROY_31586\DESIGN - CIVIL\AUTOCAD\SKETCHES\3849-SK10.DWG





CUT / FILL DETAIL
NOT TO SCALE

THE EARTHWORKS COLOURS SHOWN ABOVE REPRESENT:
(NATURAL SURFACE)
VS
(FINISHED SURFACE)

PROPOSED COMMERCIAL DEVELOPMENT EARTHWORKS QUANTITIES

CUT TO FILL	1062m³
IMPORTED FILL	11032m³

NOTES:
- THE EARTHWORKS VOLUMES SHOWN ABOVE REPRESENT:
  (NATURAL SURFACE)
  VS
  (DESIGN SURFACE)
- NO BULKING FACTOR BEEN APPLIED
- CUT AND FILL VOLUMES ARE SOLID VOLUMES ONLY

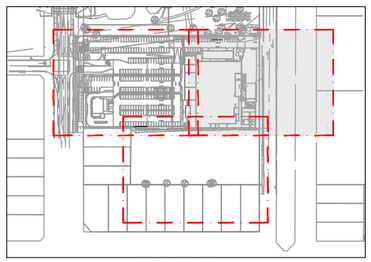
EXCLUDES PROVISIONS FOR:
- UNSUITABLE MATERIAL
- REMOVAL OF EXISTING PAVEMENT
- TRENCH SPOIL
- CONSTRUCTION METHODOLOGIES

LEGEND
EXISTING FEATURES

- OVERALL RP BOUNDARY
- CADASTRAL EASEMENT
- SURVEYED RP BOUNDARY
- CADASTRAL RP BOUNDARY
- CHANGE IN GRADE
- EARTHWORKS BATTER
- RETAINING WALL
- ROAD CENTRELINE
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- E — E — ELECTRICAL
- T(QL-D) — TELSTRA (QUALITY LEVEL D)
- EDGE OF VEGETATION
- TREE TO REMAIN
- 12 — NATURAL CONTOUR

LEGEND
PROPOSED FEATURES

- RP BOUNDARY
- RP EASEMENT
- EARTHWORKS BATTERS
- ROAD CENTRELINE
- RETAINING WALL
- 63 — DESIGN CONTOUR



KEY PLAN
NOT TO SCALE

NOTE:
- FOR ARCHITECTURAL DETAILS REFER ARKHRIGHT ARCHITECTS DWG A-SK-1001

0 5.0 10 15 20 25m
SCALE 1:500 A3

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PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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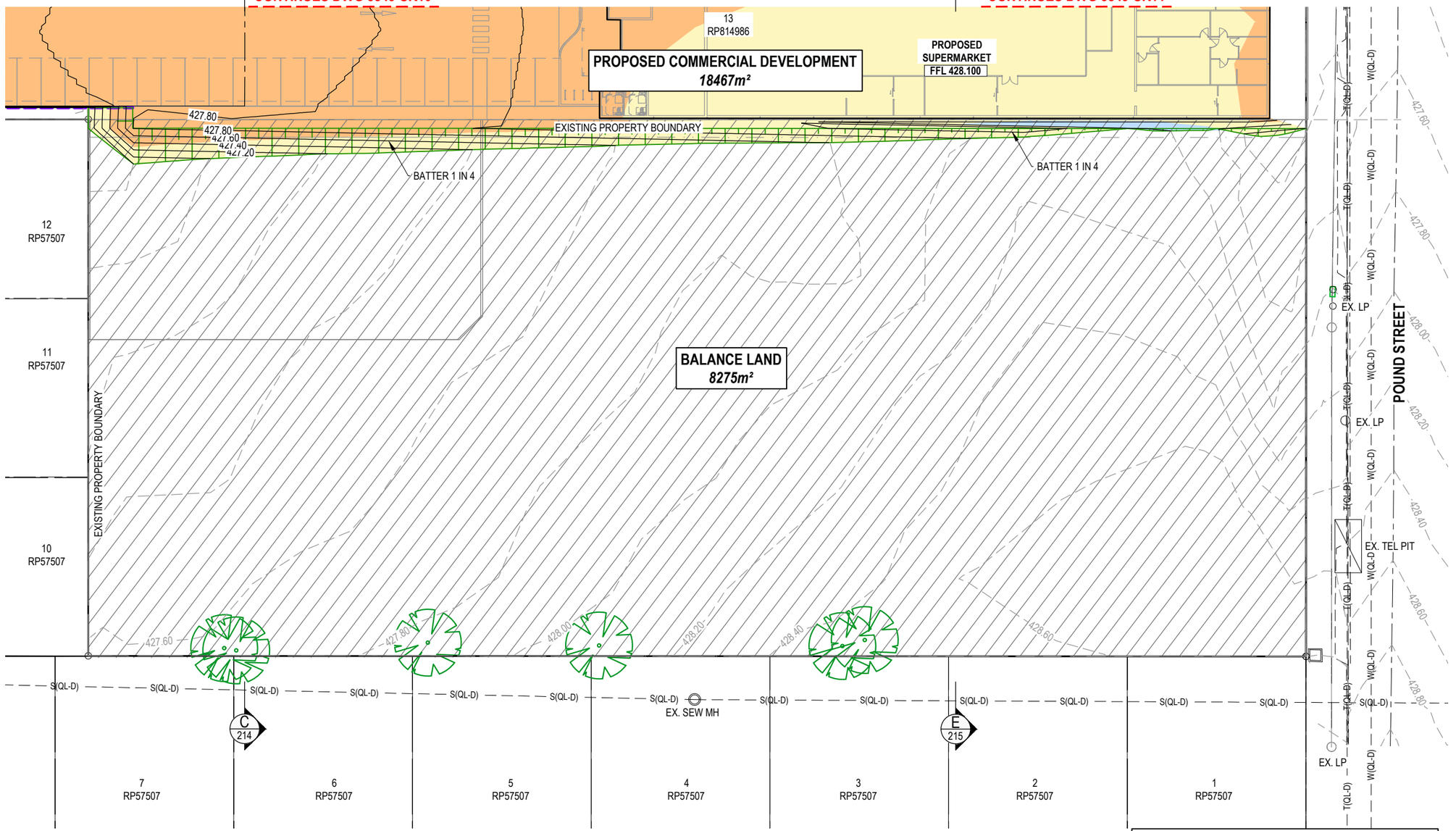
PLAN TITLE:

EARTHWORKS PLAN - SHEET 2

PRELIMINARY- NOT FOR CONSTRUCTION

PLAN No: 3849 - SK11 REVISION: A

FILE LOCATION: C:\12DS\DATA\CCE2K16DC0103849 - LOT 13 POUND STREET, KINGAROY_31586\DESIGN - CIVIL\AUTOCAD\SKETCHES\3849-SK10.DWG



LEGEND

EXISTING FEATURES

- OVERALL RP BOUNDARY
- CADASTRAL EASEMENT
- SURVEYED RP BOUNDARY
- CADASTRAL RP BOUNDARY
- CHANGE IN GRADE
- EARTHWORKS BATTER
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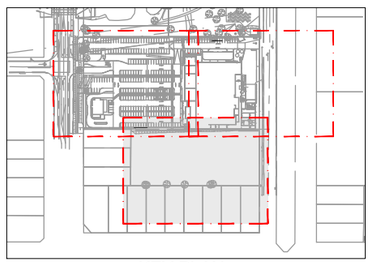
LEGEND

PROPOSED FEATURES

- RP BOUNDARY
- RP EASEMENT
- EARTHWORKS BATTERS
- ROAD CENTRELINE
- RETAINING WALL
- 63 — DESIGN CONTOUR

Elevations Table

Number	Minimum Elevation	Maximum Elevation	Color
1	-5.000	-3.000	
2	-3.000	-2.000	
3	-2.000	-1.500	
4	-1.500	-0.500	
5	-0.500	0.000	
6	0.000	0.500	
7	0.500	1.500	
8	1.500	2.000	
9	2.000	3.000	
10	3.000	4.000	



KEY PLAN
NOT TO SCALE

NOTE:
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0 5.0 10 15 20 25m

SCALE 1:500 A3

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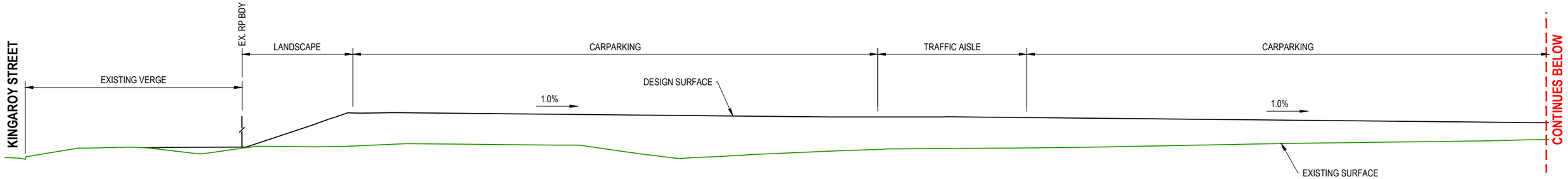
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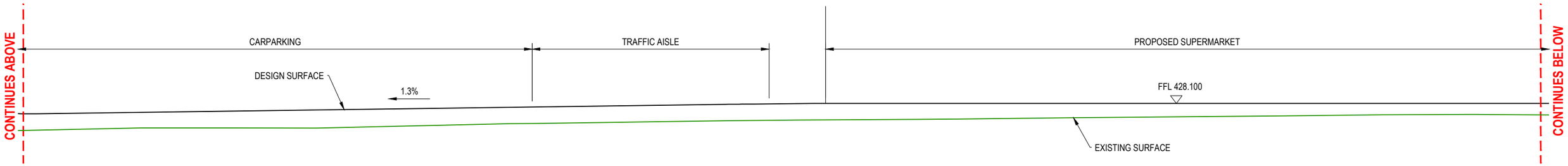
EARTHWORKS PLAN - SHEET 3

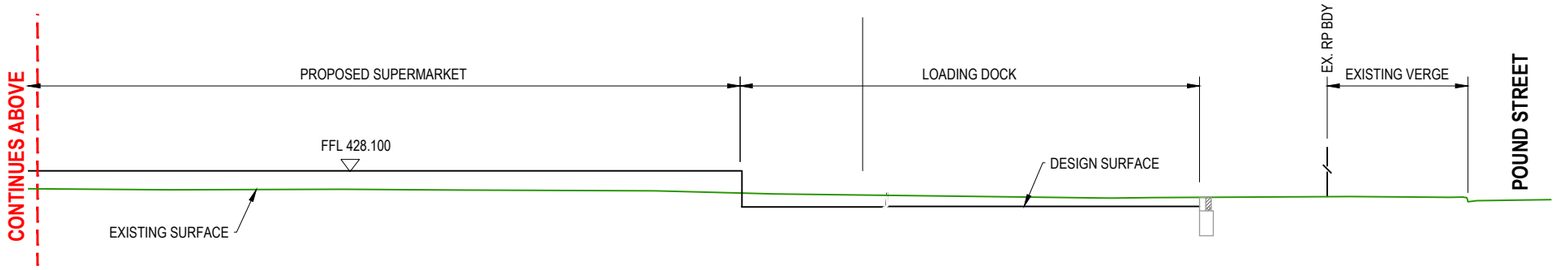
PRELIMINARY- NOT FOR CONSTRUCTION

PLAN No: 3849 - SK12 **REVISION:** A

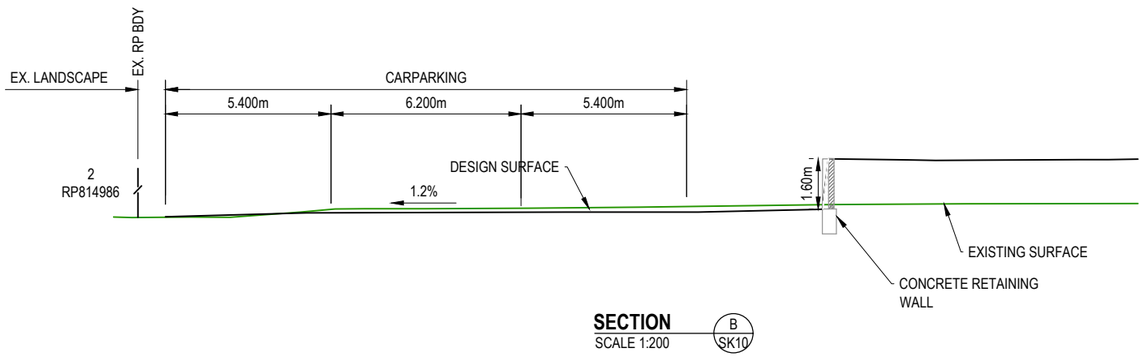
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SECTION A
SCALE 1:200 SK10 / SK11



SECTION B
SCALE 1:200 SK10

NOTE:
- FOR ARCHITECTURAL DETAILS REFER ARKHRIGHT ARCHITECTS DWG A-SK-1001

0 2 4 6 8 10m
SCALE 1:200 A3

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PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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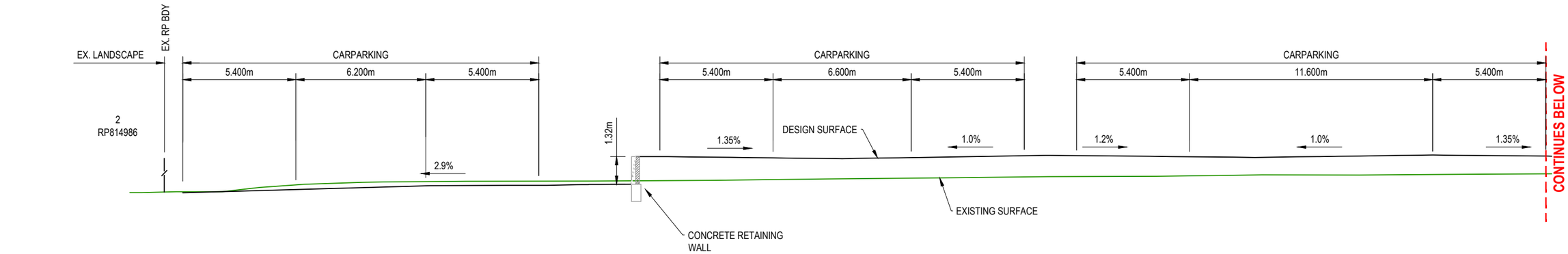
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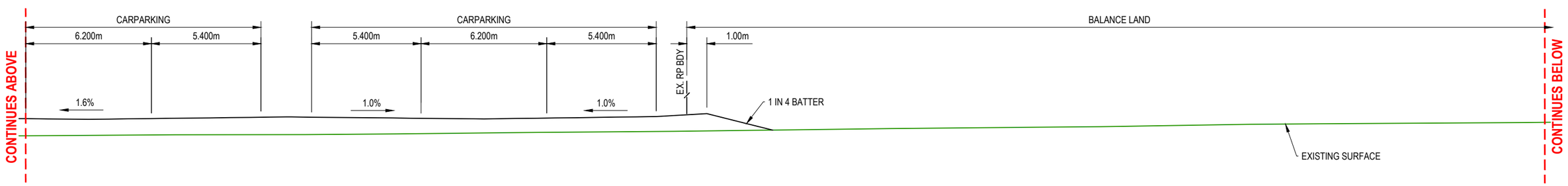
EARTHWORKS SECTIONS - SHEET 1

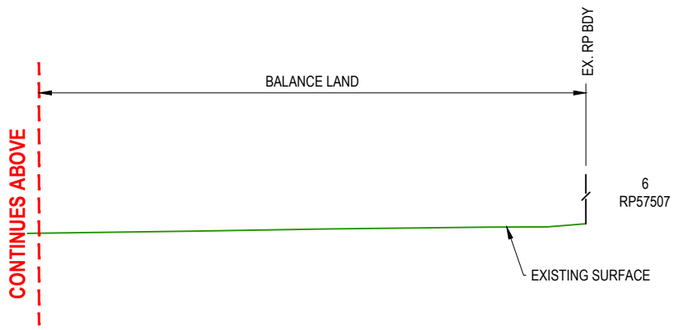
PRELIMINARY- NOT FOR CONSTRUCTION

PLAN No: 3849 - SK13 **REVISION:** A

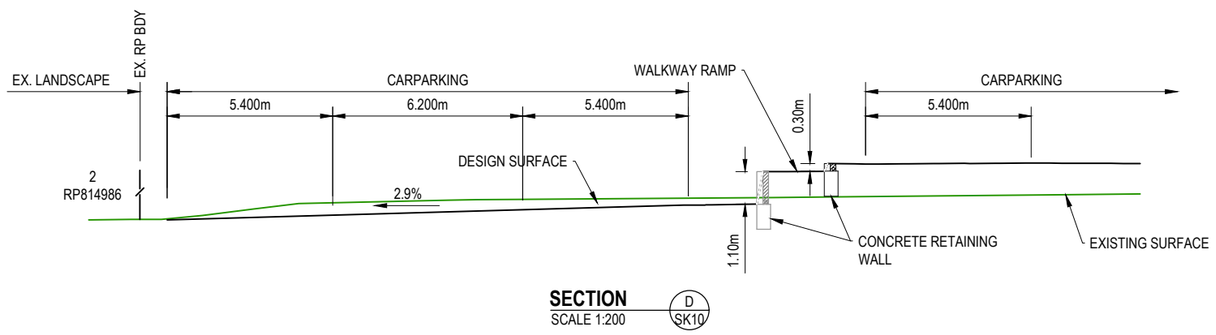
FILE LOCATION: C:\12DS\DATA\CCE2K16DC01\3849 - LOT 13 POUND STREET, KINGAROY_31586\DESIGN - CIVIL\AUTOCAD\SKETCHES\3849-SK10.DWG







SECTION C
SCALE 1:200 SK10 / SK12



SECTION D
SCALE 1:200 SK10

NOTE:
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0 2 4 6 8 10m
SCALE 1:200 A3

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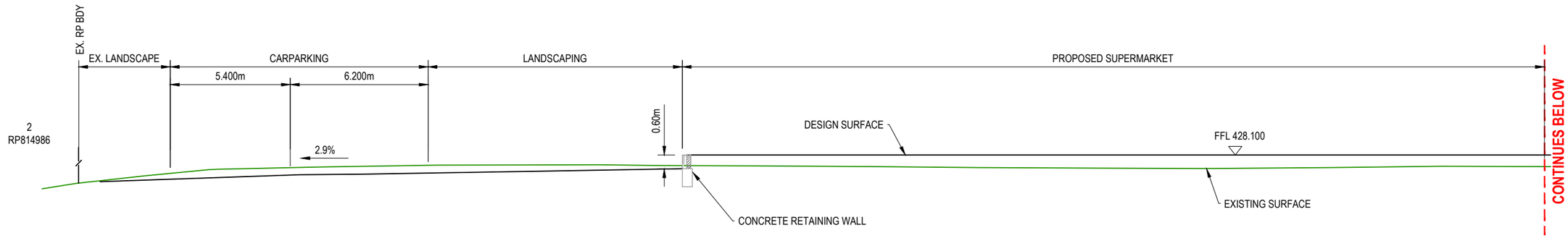
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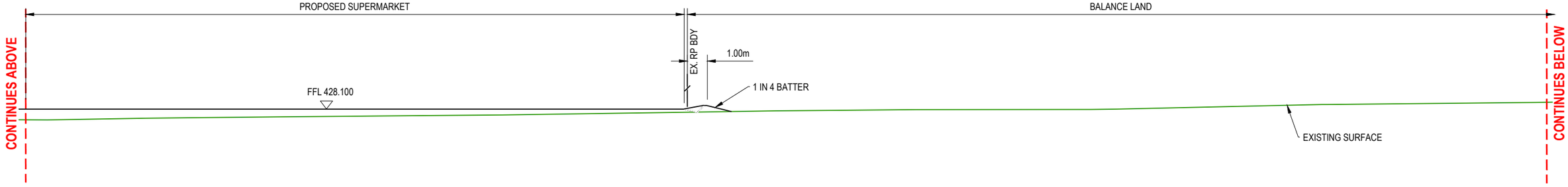
EARTHWORKS SECTIONS - SHEET 2

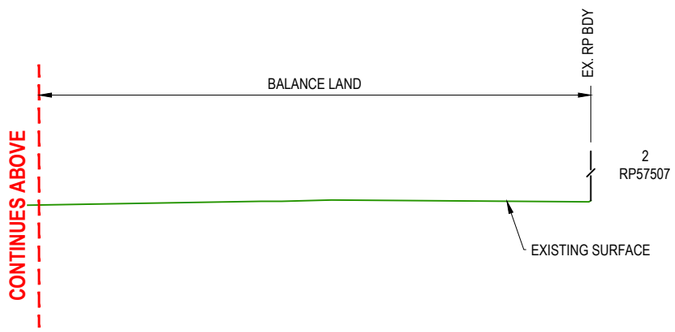
PRELIMINARY- NOT FOR CONSTRUCTION

PLAN No: 3849 - SK14 **REVISION:** A

FILE LOCATION: C:\12DS\DATA\CCE2K16DC0103849 - LOT 13 POUND STREET, KINGAROY_31586\DESIGN - CIVIL\AUTOCAD\SKETCHES\3849-SK10.DWG







SECTION E
SCALE 1:200 SK11 / SK12

NOTE:
- FOR ARCHITECTURAL DETAILS REFER ARKHRIGHT ARCHITECTS DWG A-SK-1001

0 2 4 6 8 10m
SCALE 1:200 A3

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PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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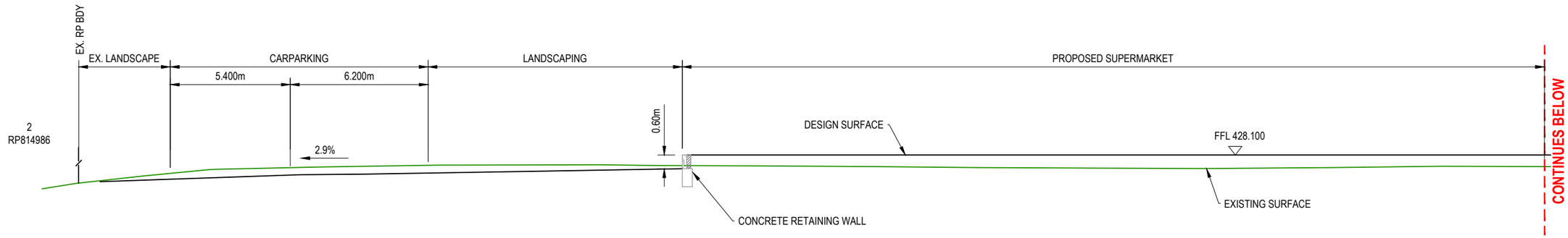
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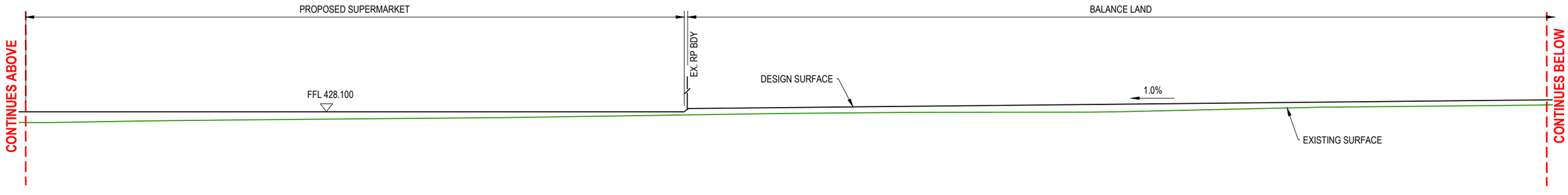
EARTHWORKS SECTIONS - SHEET 3

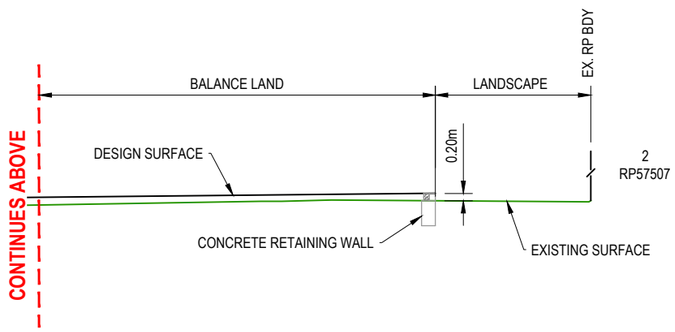
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PLAN No: 3849 - SK15 **REVISION:** A

FILE LOCATION: C:\12DS\DATA\CCE2K16DC0103849 - LOT 13 POUND STREET, KINGAROY_31586\DESIGN - CIVIL\AUTOCAD\SKETCHES\3849-SK10.DWG







SECTION E
SCALE 1:200 SK11 / SK12

NOTE:
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0 2 4 6 8 10m
SCALE 1:200 A3

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PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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PLAN TITLE:

EARTHWORKS SECTIONS - SHEET 3

PRELIMINARY- NOT FOR CONSTRUCTION

PLAN No: 3849 - SK15 **REVISION:** A

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BARON STREET

KINGAROY STREET

EXISTING PROPERTY BOUNDARY

2
RP814986

87
RP7952

13
RP814986

PROPOSED COMMERCIAL DEVELOPMENT

PROPOSED SUPERMARKET
FFL 428.100

COMMUNITY AREA
1091m²
FFL 428.100

EX. SEW MH

EX. PP

EX. LP

BALANCE LAND

LEGEND

EXISTING FEATURES

- OVERALL RP BOUNDARY
- CADASTRAL EASEMENT
- SURVEYED RP BOUNDARY
- CADASTRAL RP BOUNDARY
- CHANGE IN GRADE
- EARTHWORKS BATTER
- RETAINING WALL
- ROAD CENTRELINE
- ROAD KERB & CHANNEL
- EDGE OF BITUMEN
- CONCRETE
- BUILDING
- FENCE
- SWD — SWD — STORMWATER
- DRAINAGE CHANNEL
- S(QL-D) — SEWER (QUALITY LEVEL D)
- W(QL-D) — WATER (QUALITY LEVEL D)
- E/OH — OVERHEAD ELECTRICAL
- E — E — ELECTRICAL
- T(QL-D) — TELSTRA (QUALITY LEVEL D)
- EDGE OF VEGETATION
- TREE TO REMAIN
- 12 — NATURAL CONTOUR

LEGEND

PROPOSED FEATURES

- RP BOUNDARY
- RP EASEMENT
- EARTHWORKS BATTERS
- ROAD CENTRELINE
- RETAINING WALL
- STORMWATER DRAINAGE
- 63 — DESIGN CONTOUR
- 1/1 STORMWATER STRUCTURE NUMBER

KEY PLAN
NOT TO SCALE

NOTE:
- FOR ARCHITECTURAL DETAILS REFER ARKHRIGHT ARCHITECTS DWG A-SK-1001

0 5.0 10 15 20 25m
SCALE 1:500 A3

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PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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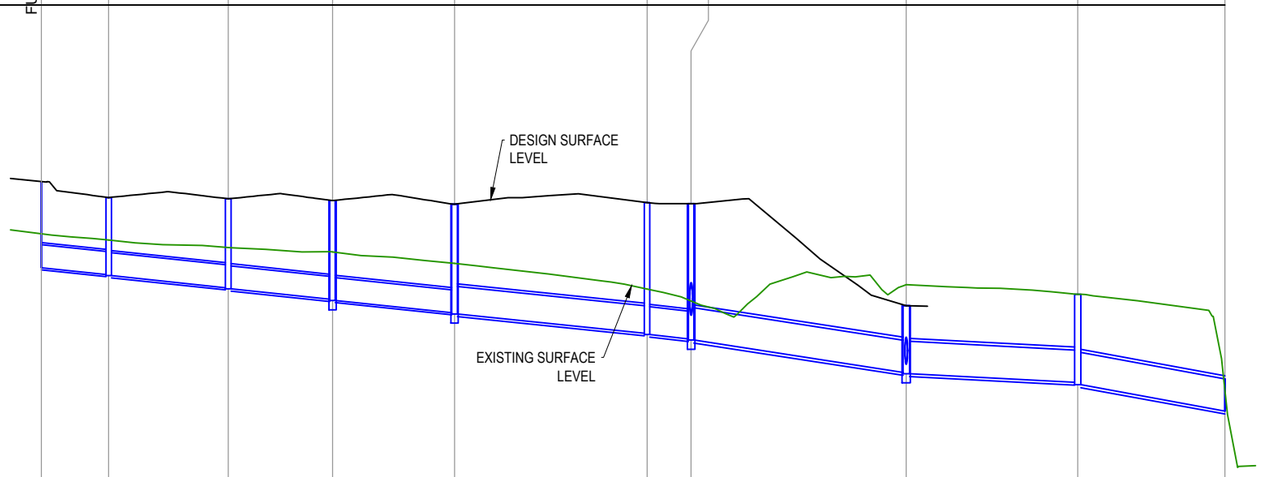
STORMWATER DRAINAGE PLAN

PRELIMINARY- NOT FOR CONSTRUCTION

PLAN No: 3849 - SK20 REVISION: A

FILE LOCATION: C:\12DS\DATA\CCE2K16DC0103849 - LOT 13 POUND STREET, KINGAROY_31586\DESIGN - CIVIL\AUTOCAD\SKETCHES\3849-SK20.DWG

STRUCTURE NAME	1-1	2-1	3-1	4-1	5-1	6-1	7-1	8-1	9-1	10-1
STRUCTURE DISCRIPTION Refer Local Authority Standard Drawings	FUTURE PIPE CONNECTION	FIELD INLET 900 x 900	FIELD INLET 900 x 900	FIELD INLET 900 x 900	FIELD INLET 900 x 900	FIELD INLET 900 x 900	FIELD INLET 900 x 900	MANHOLE 1050mm DIA	EXISTING STRUCTURE	HEADWALL



PIPE SIZE (mm)		375	375	375	375	450	450	525	525	EXISTING 525
PIPE CLASS		CL3	CL3	CL3	CL3	CL3	CL3	CL3	CL3	
PIPE GRADE (%)		1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.50%	0.50%	1.79%
PIPE SLOPE (1 in X)		100.00	100.00	100.00	100.00	100.00	100.00	66.67	200.00	55.83
FULL PIPE VELOCITY (m/s)										
PART FULL VELOCITY (m/s)										
DATUM RL		420.0								
PIPE FLOW (Cumecs)										
PIPE CAPACITY AT GRADE (Cumecs)										
H.G.L LEVEL			0.000	0.000					0.000	0.000
DEPTH TO INVERT		1.406	1.253 1.273	1.449 1.469	1.609 1.629	1.771 1.791	2.131 2.151	2.203 2.223	1.086 1.106	1.431 1.471
INVERT LEVEL		426.466	426.356 426.336	426.141 426.121	425.951 425.931	425.732 425.712	425.398 425.378	425.306 425.286	424.760 424.740	424.600 424.560
FINISHED SURFACE LEVEL	427.872		427.609	427.590	427.560	427.502	427.529	427.509	425.846	426.031 424.655
SETOUT CO-ORDINATES	E. 384364.602 N. 7063182.067	E. 384366.096 N. 7063192.965		E. 384368.744 N. 7063212.284	E. 384371.052 N. 7063229.127	E. 384373.755 N. 7063248.842	E. 384343.084 N. 7063255.570	E. 384335.969 N. 7063256.545	E. 384301.216 N. 7063261.308	E. 384305.012 N. 7063289.005
CHAINAGE	0.000	10.999	30.499	47.499	67.399	98.799	105.980	141.059	169.015	193.024
LENGTH		10.999m	19.500m	17.000m	19.900m	31.399m	7.182m	35.078m	27.956m	24.009m

LINE 1

0 10 20 30 40 50m SCALE 1:1000 (Horiz.) A3

0 1 2 3 4 5m SCALE 1:100 (Vert.) A3

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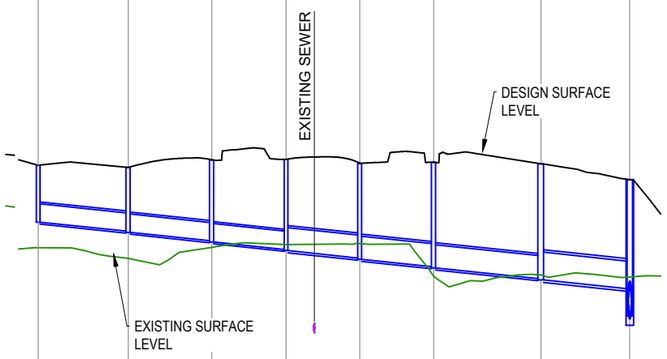
STORMWATER LONGITUDINAL SECTION - SHEET 2

PRELIMINARY- NOT FOR CONSTRUCTION

PLAN No: 3849 - SK22 **REVISION:** A

FILE LOCATION: C:\12DS\DATA\CCE2K16DC0103849 - LOT 13 POUND STREET, KINGAROY_31586\DESIGN - CIVIL\AUTOCAD\SKETCHES\3849-SK20.DWG

STRUCTURE NAME	1-2	2-2	3-2	4-2	5-2	6-2	7-2	7-1	1-3	2-3	3-3
STRUCTURE DISCRIPTION Refer Local Authority Standard Drawings	FIELD INLET 600 x 600	FIELD INLET 600 x 600	FIELD INLET 600 x 600	FIELD INLET 600 x 600	FIELD INLET 600 x 600	FIELD INLET 600 x 600	FIELD INLET 900 x 900	FIELD INLET 900 x 900	HEADWALL	MANHOLE 1050mm DIA	HEADWALL
PIPE SIZE (mm)	300	300	300	375	375	375	450		450	450	
PIPE CLASS	CL3	CL3	CL3	CL3	CL3	CL3	CL3		CL3	CL3	
PIPE GRADE (%)	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%		1.00%	0.97%	
PIPE SLOPE (1 in X)	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00	102.84	
FULL PIPE VELOCITY (m/s)											
PART FULL VELOCITY (m/s)											
DATUM RL	420.0								421.0		
PIPE FLOW (Cumecs)											
PIPE CAPACITY AT GRADE (Cumecs)											
H.G.L LEVEL										0.000	0.000
DEPTH TO INVERT	0.928	1.040	1.060	1.319	1.339	1.466	1.486	1.546	1.566	1.704	1.724	1.871	1.891	1.777	2.223	1.215	1.160	1.180	0.450	0.450
INVERT LEVEL	426.817	426.670	426.650	426.514	426.494	426.373	426.353	426.233	426.213	426.092	426.072	425.897	425.877	425.732	425.286	426.660	426.640	426.620	426.150	426.150
FINISHED SURFACE LEVEL	427.745	427.710	427.833	427.839	427.779	427.796	427.769	427.509		427.875	427.800			426.600						
SETOUT CO-ORDINATES	E. 384324.854 N. 7063191.652	E. 384310.290 N. 7063193.648	E. 384304.100 N. 7063205.795	E. 384306.256 N. 7063217.718	E. 384311.839 N. 7063228.329	E. 384323.905 N. 7063227.905	E. 384334.000 N. 7063242.179	E. 384335.969 N. 7063256.545		E. 384348.780 N. 7063185.243	E. 384349.052 N. 7063187.226			E. 384301.168 N. 7063193.787						
CHAINAGE	0.000	14.700	28.333	40.450	52.441	64.514	81.997	96.497		0.000	2.002			50.333						
LENGTH	14.700m	13.633m	12.117m	11.990m	12.073m	17.483m	14.500m			2.002m	48.331m									



LINE 2

LINE 3

0 10 20 30 40 50m SCALE 1:1000 (Horiz.) A3

0 1 2 3 4 5m SCALE 1:100 (Vert.) A3

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Drawn:	SF
Checked:	MO
Vert. Datum:	AHD
Hori. Datum:	MGA GDA 2020
Date:	

DRAFT

(RPEQ: [illegible] OF CONTOUR C/E PTY LTD)

PLAN AMENDMENTS:

Rev	Date	Comment	Alt	Chkd	RPEQ
A	3/10/2025	ORIGINAL ISSUE	SF	AK	MO

PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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PLAN TITLE:

STORMWATER LONGITUDINAL SECTION - SHEET 1

PRELIMINARY- NOT FOR CONSTRUCTION

PLAN No: 3849 - SK21 **REVISION:** A

FILE LOCATION: C:\12DS\DATA\CCE2K16DC0103849 - LOT 13 POUND STREET, KINGAROY_31586\DESIGN - CIVIL\AUTOCAD\SKETCHES\3849-SK20.DWG

Appendix C. Sewer and Water Search

Water & Sewer Main Location Search 2024/2025

PRIVACY COLLECTION NOTICE: South Burnett Regional Council collects your personal information for the purpose of processing this form and for use in any Council matters. Your personal information is handled in accordance with the *Information Privacy Act 2009* and will only be disclosed to a third party as per the South Burnett Regional Council Information Privacy Policy. **A hard copy of this electronic document is considered uncontrolled when printed.**

Applicant details			
Applicant (Business Name if applicable)	Contour Consulting Engineers		
Contact Given/Surname	Marcus Olive	Contact phone	54939777
Contact email	admin@contource.com.au		
Postal address	PO Box 5923 Maroochydore 4558		
Site address	1 Pound Street, Kingaroy		
Lot number	Lot 13	Registered plan number	RP814986

Notification by				
☐	☐ Post	☐ 4	☐ Email	☐ Collect

Details of service required			
Sewer main & water line location (both locations shown on same plan)		$ 57.50	
Applicant signature		Date	16/09/2024

Office Use Only			
Officer name		Date	
Amount received	$	Receipt number	
Comments			

Appendix D. Dial Before You Dig Records

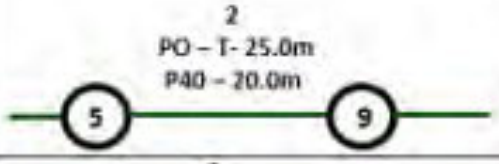
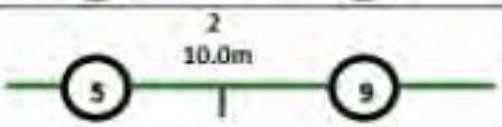
To:	Paul Brennan
Phone:	Not Supplied
Fax:	Not Supplied
Email:	admin@contource.com.au

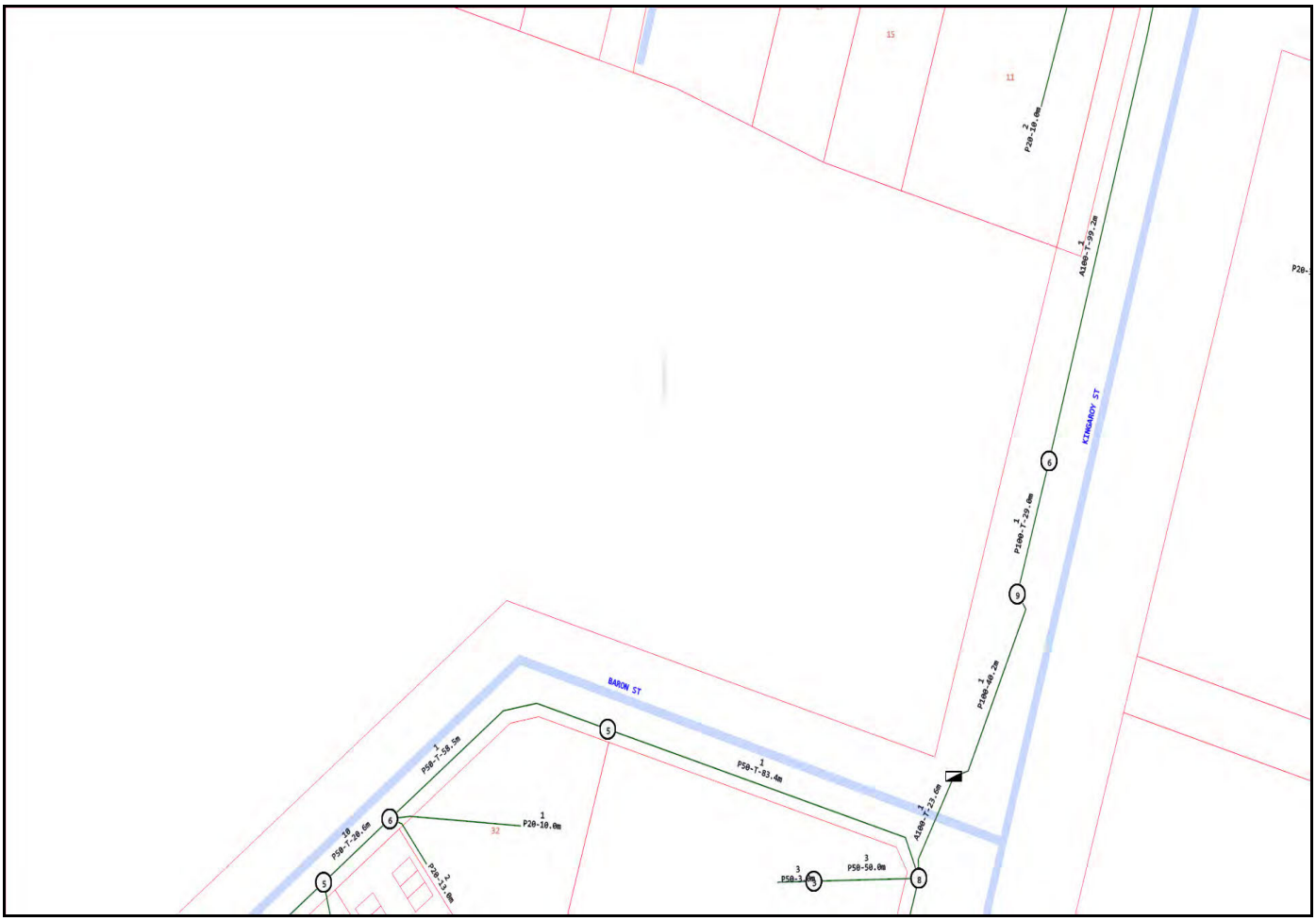
Dial before you dig Job #:	37554629
Sequence #	244442177
Issue Date:	09/09/2024
Location:	1 Pound Street , Kingaroy , QLD , 4610

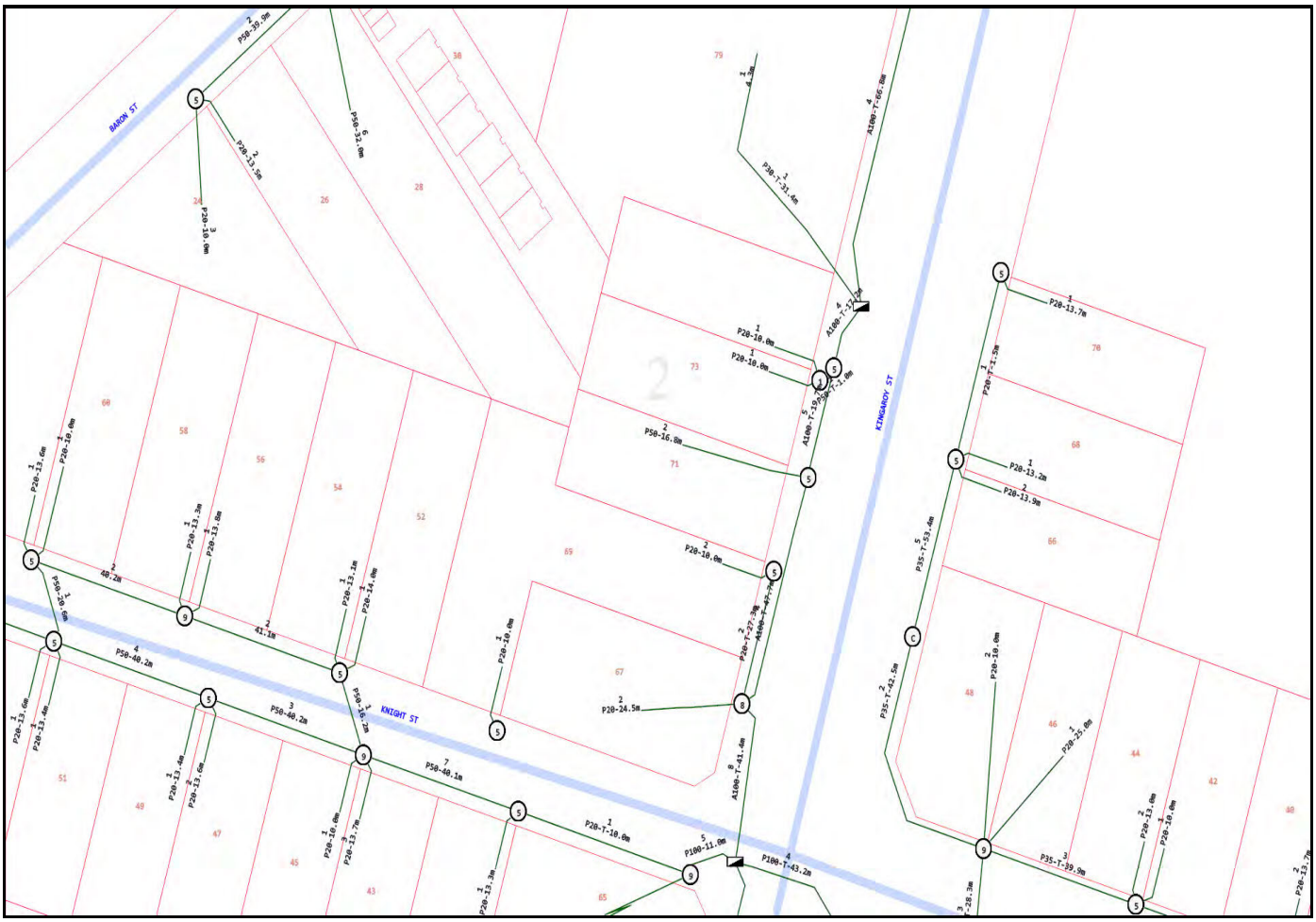
Indicative Plans are tiled below to demonstrate how to layout and read nbn asset plans

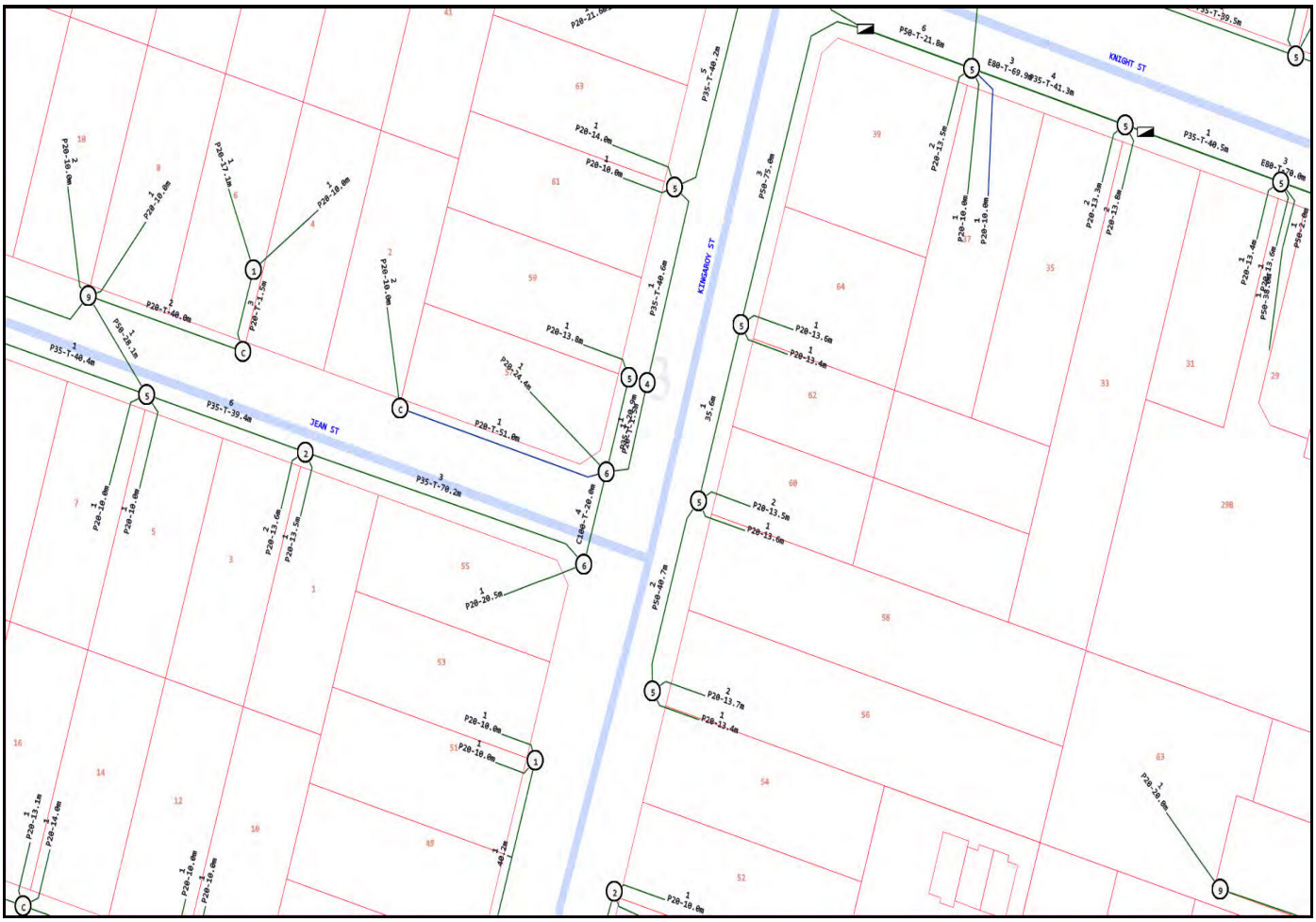
1	4
2	5
3	6

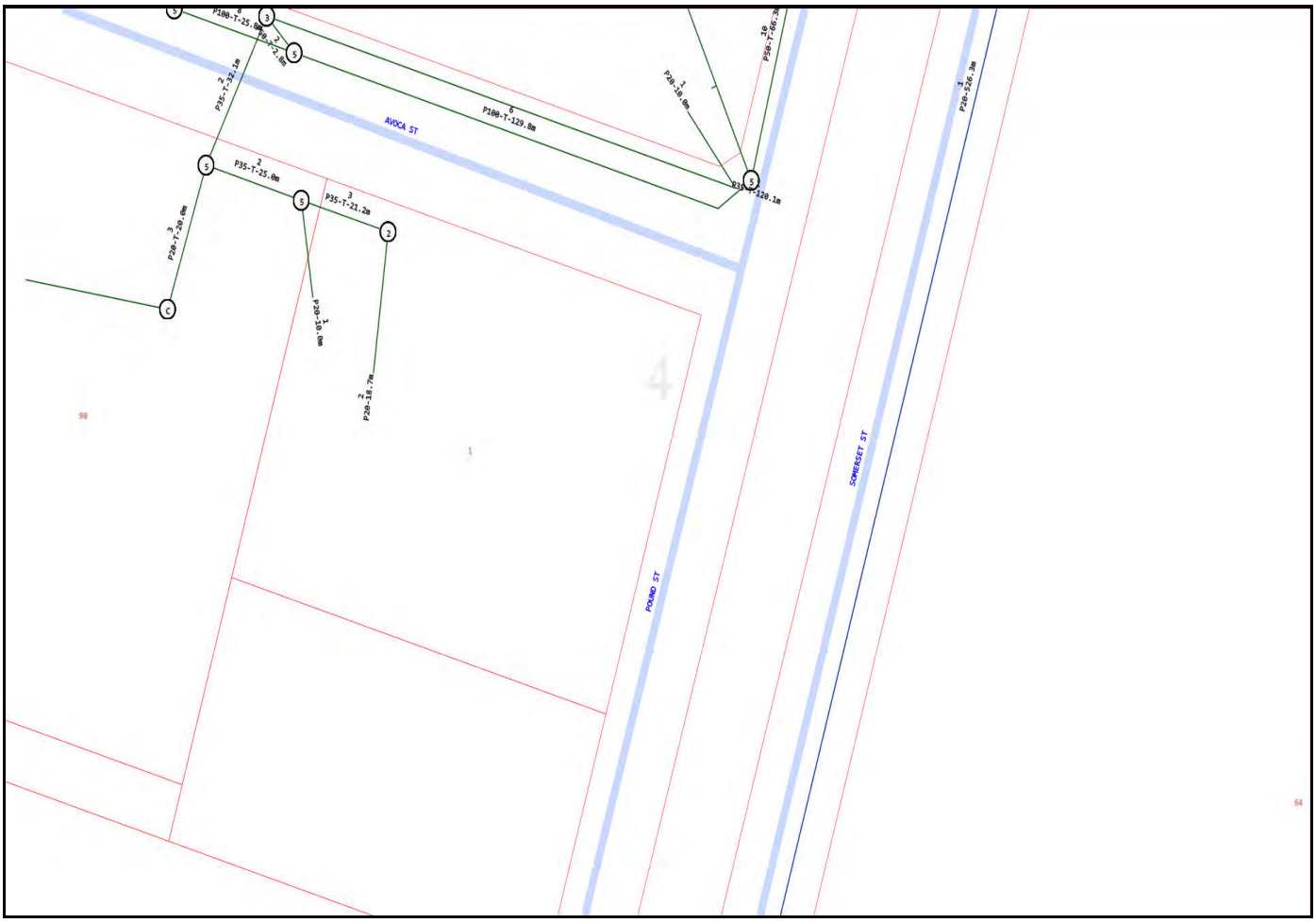
LEGEND

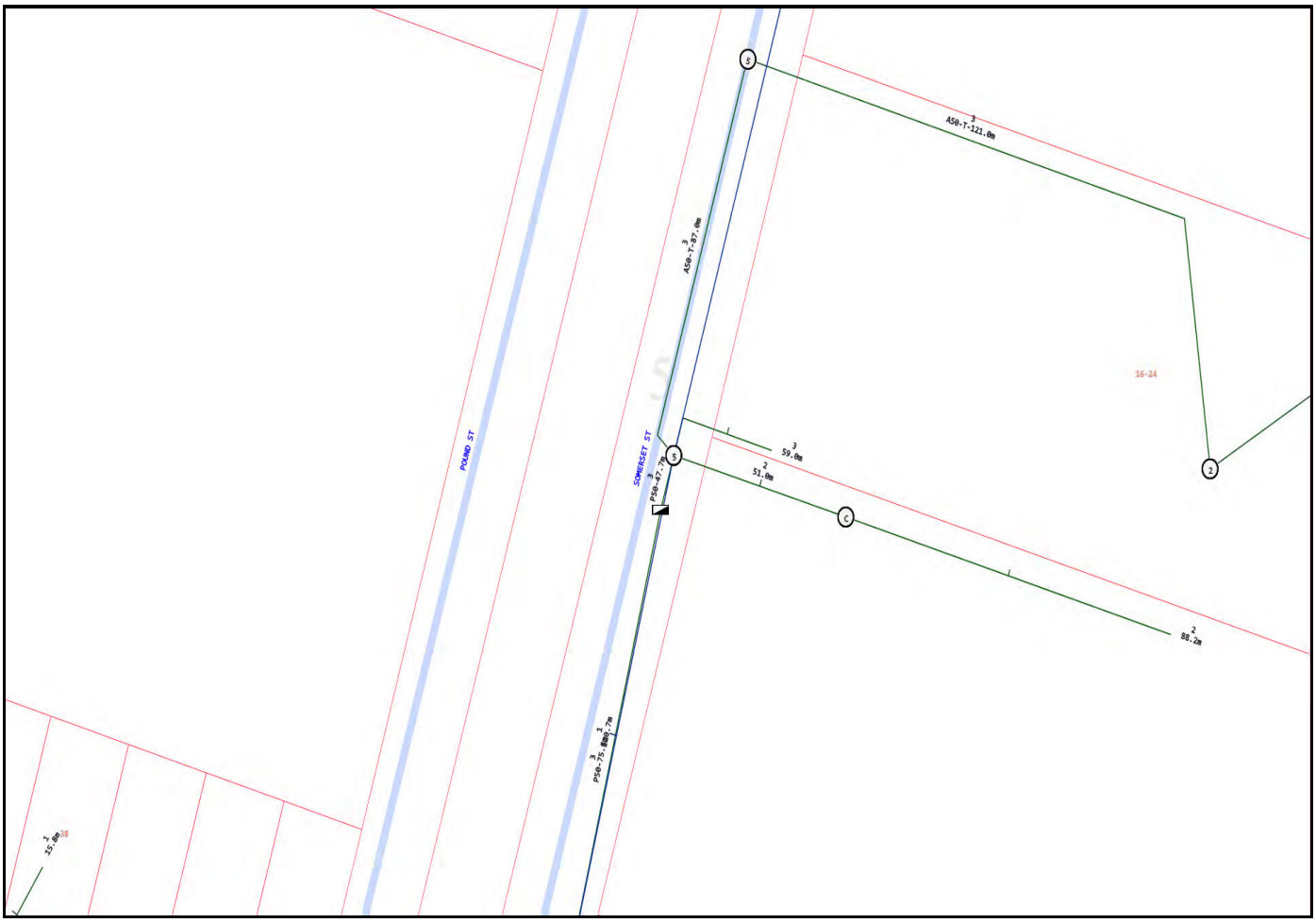
	Parcel and the location
	Pit with size "5"
	Power Pit with size "2E". Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.
	Manhole
	Pillar
	Cable count of trench is 2. One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart. One 40mm PVC conduit (P40) owned by NBN, between pits of sizes, "5" and "9" are 20.0m apart.
	2 Direct buried cables between pits of sizes ,"5" and "9" are 10.0m apart.
	Trench containing any INSERVICE/CONSTRUCTED (Copper/RF/Fibre) cables.
	Trench containing only DESIGNED/PLANNED (Copper/RF/Fibre/Power) cables.
	Trench containing any INSERVICE/CONSTRUCTED (Power) cables.
	Road and the street name "Broadway ST"
Scale	

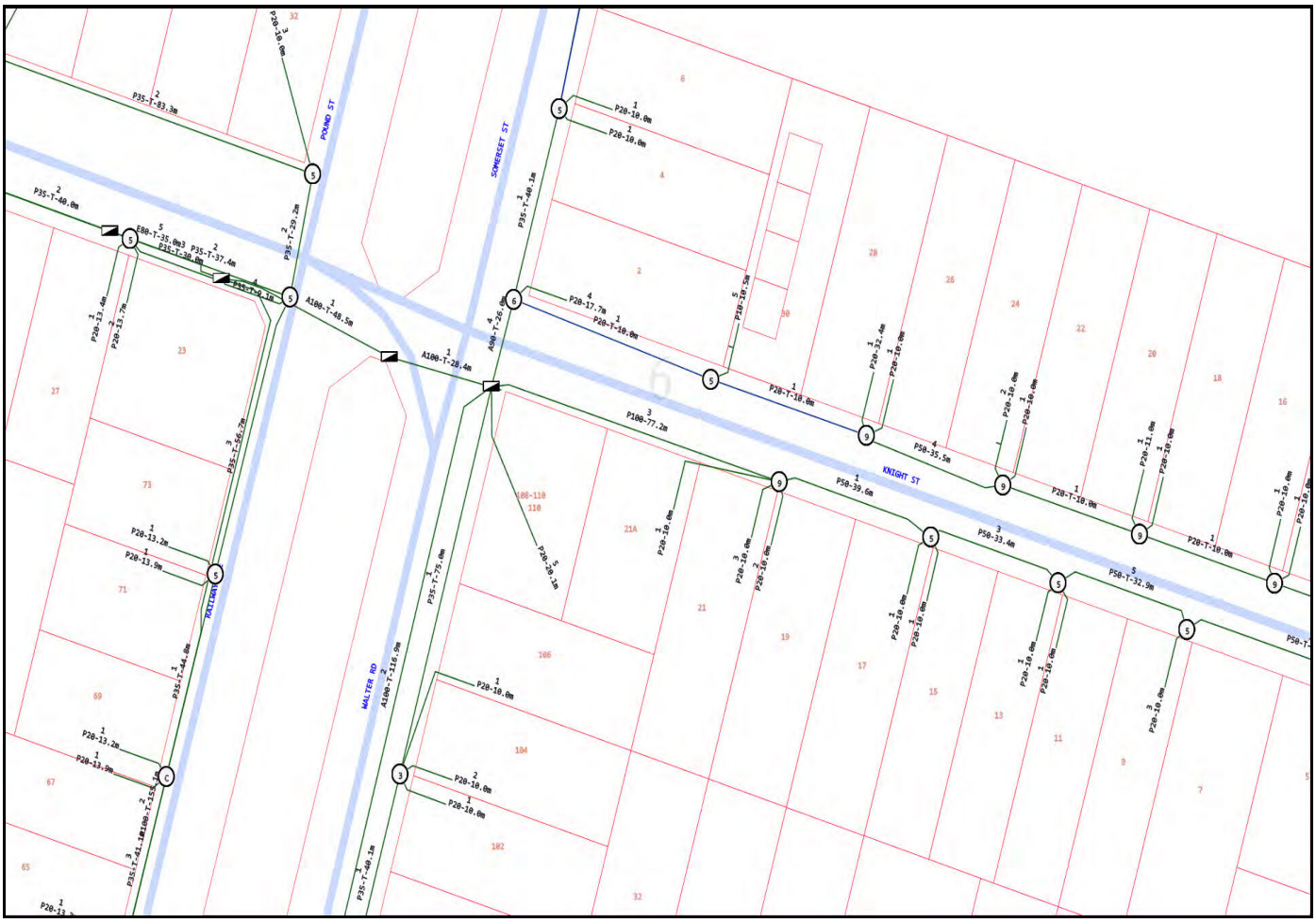

15
11
32
BARON ST
KINGAROY ST
P20-10.0m
A100-T-39.2m
P100-T-39.0m
P100-T-39.2m
A100-T-23.6m
P50-T-83.4m
P50-T-58.5m
P50-T-10.6m
P20-10.0m
P20-13.0m
P50-3.0m
P50-50.0m
P20-
5
6
8
9
10


BARON ST
KNIGHT ST
KINGHORN ST


JEAN ST
KINGAROY ST
KNIGHT ST


AVOCA ST
FOANO ST
SOMERSET ST
P100-T-129.8m
P35-T-25.0m
P35-T-21.2m
P20-T-30.0m
P20-10.0m
P20-46.7m
P20-226.3m
P35-T-120.1m
98
1
4
64

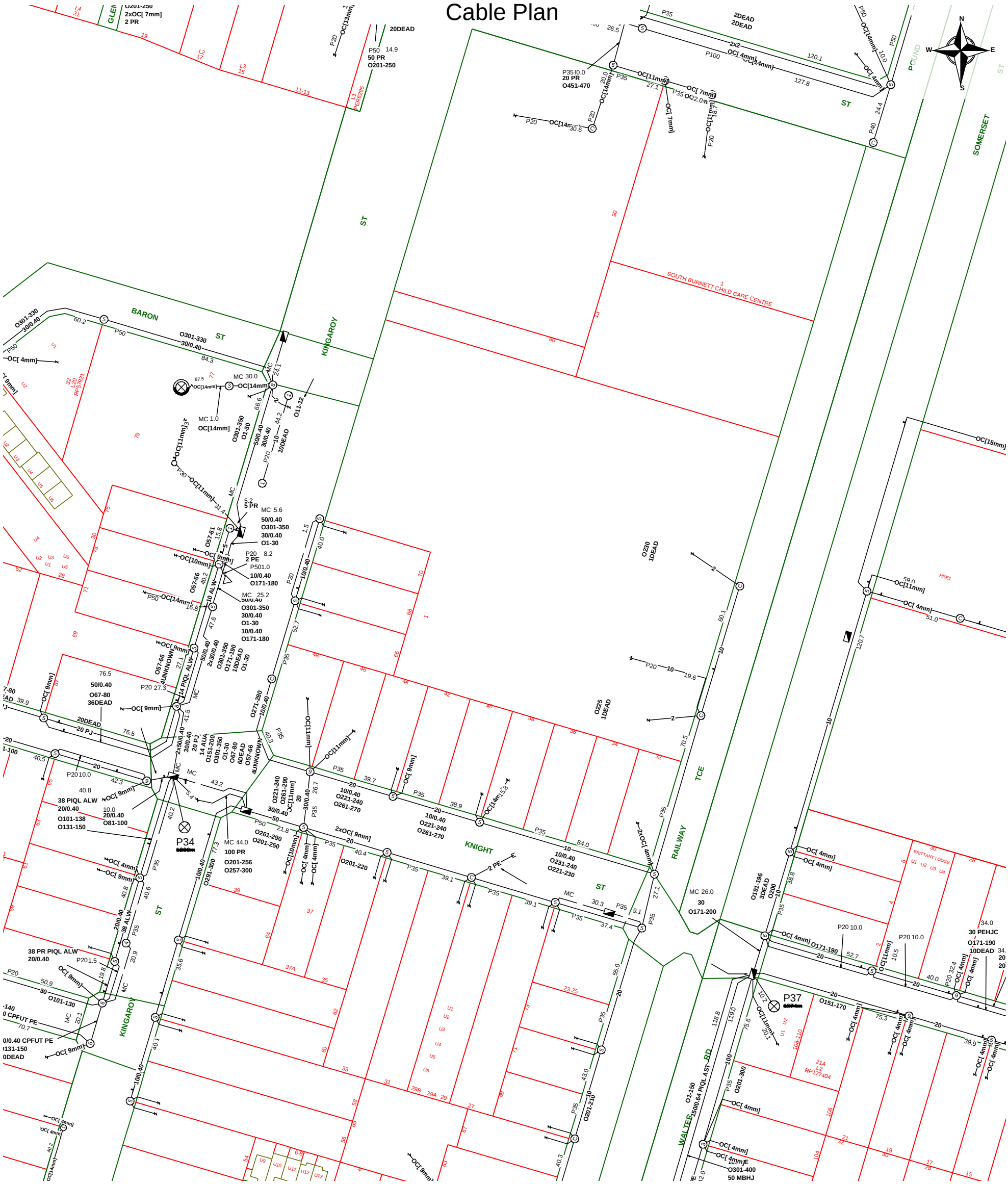

POUND ST
SOMERSET ST
A50-T-121.0m
A50-T-97.0m
59.0m
51.0m
88.2m
16-24



Emergency Contacts

You must immediately report any damage to the **nbn™** network that you are/become aware of. Notification may be by telephone - 1800 626 329.

Cable Plan



Report Damage: https://service.telstra.com.au/customer/general/forms/report-damage-to-telstra-equipment
Ph - 13 22 03
Email - Telstra.Plans@team.telstra.com
Planned Services - ph 1800 653 935 (AEST bus hrs only) General Enquiries

TELSTRA LIMITED A.C.N. 086 174 781

Generated On 10/09/2024 08:16:17

Sequence Number: 244442178

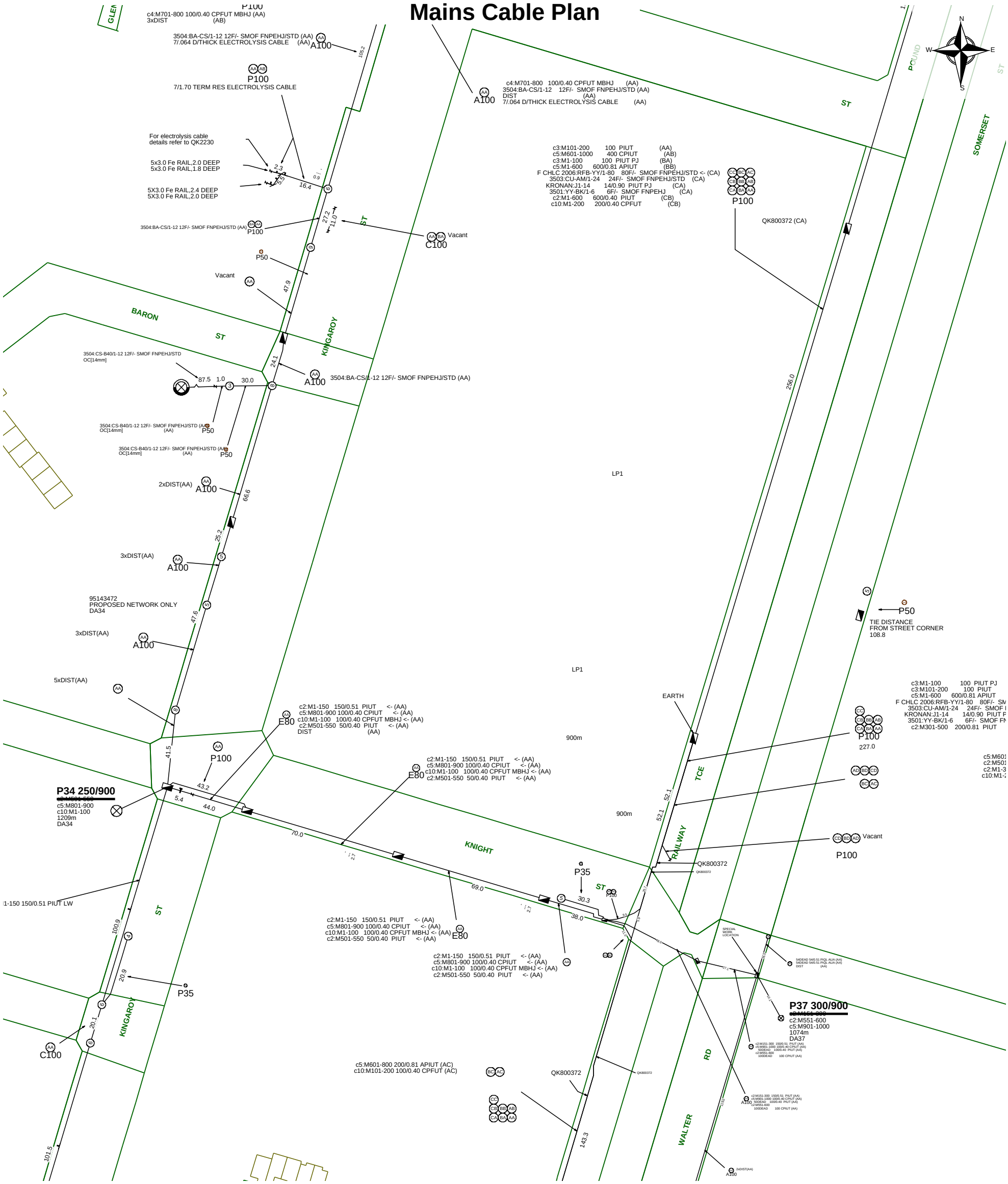
CAUTION: Critical Network Route in plot area.
DO NOT PROCEED with any excavation prior to seeking advice from Telstra Plan Services on : 1800 653 935

The above plan must be viewed in conjunction with the Mains Cable Plan on the following page

WARNING
Telstra plans and location information conform to Quality Level "D" of the Australian Standard AS 5488-Classification of Subsurface Utility Information.
As such,Telstra supplied location information is indicative only.Spatial accuracy is not applicable to Quality Level D.
Refer to AS 5488 for further details. The exact position of Telstra assets can only be validated by physically exposing it.
Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy.
Further on site investigation is required to validate the exact location of Telstra plant prior to commencing construction work.
A Certified Locating Organisation is an essential part of the process to validate the exact location of Telstra assets and to ensure the asset is protected during construction works.

See the Steps- Telstra Duty of Care that was provided in the email response.

Mains Cable Plan



Report Damage: https://service.telstra.com.au/customer/general/forms/report-damage-to-telstra-equipment Ph - 13 22 03 Email - Telstra.Plans@team.telstra.com Planned Services - ph 1800 653 935 (AEST bus hrs only) General Enquiries	Sequence Number: 244442178
TELSTRA LIMITED A.C.N. 086 174 781	CAUTION: Critical Network Route in plot area. DO NOT PROCEED with any excavation prior to seeking advice from Telstra Plan Services on : 1800 653 935
Generated On 10/09/2024 08:16:21	

WARNING
Telstra plans and location information conform to Quality Level "D" of the Australian Standard AS 5488-Classification of Subsurface Utility Information.
As such,Telstra supplied location information is indicative only.Spatial accuracy is not applicable to Quality Level D.
Refer to AS 5488 for further details. The exact position of Telstra assets can only be validated by physically exposing it.
Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy.
Further on site investigation is required to validate the exact location of Telstra plant prior to commencing construction work.
A Certified Locating Organisation is an essential part of the process to validate the exact location of Telstra assets and to ensure the asset is protected during construction works.

See the Steps- Telstra Duty of Care that was provided in the email response.

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For Emergency Situations please call 13 16 70

ERGON ENERGY NETWORK
Part of Energy Queensland

BYDA

Sequence: 244442179
Date: 10/09/2024

Scale: 1:2050

OVERVIEW



For a full list of Map Symbols, please refer to the supplied BYDA Symbology Legend page

AS5488 Category "D" Plan

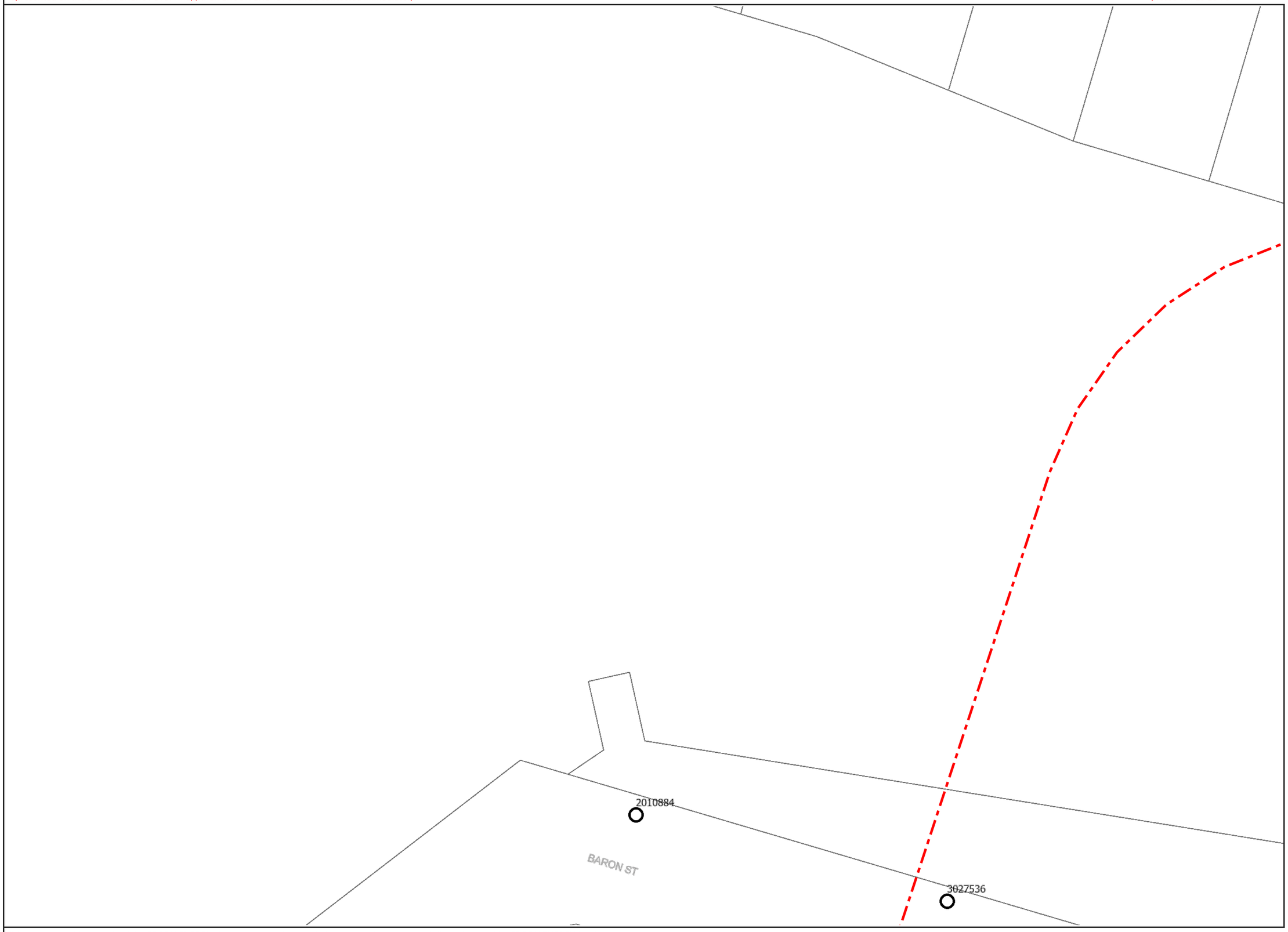
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ERGON ENERGY NETWORK
Part of Energy Queensland

BYDA

Sequence: 244442179
Date: 10/09/2024

Scale: 1:500
Tile No: 1

For a full list of Map Symbols, please refer to the supplied BYDA Symbology Legend page

AS5488 Category "D" Plan

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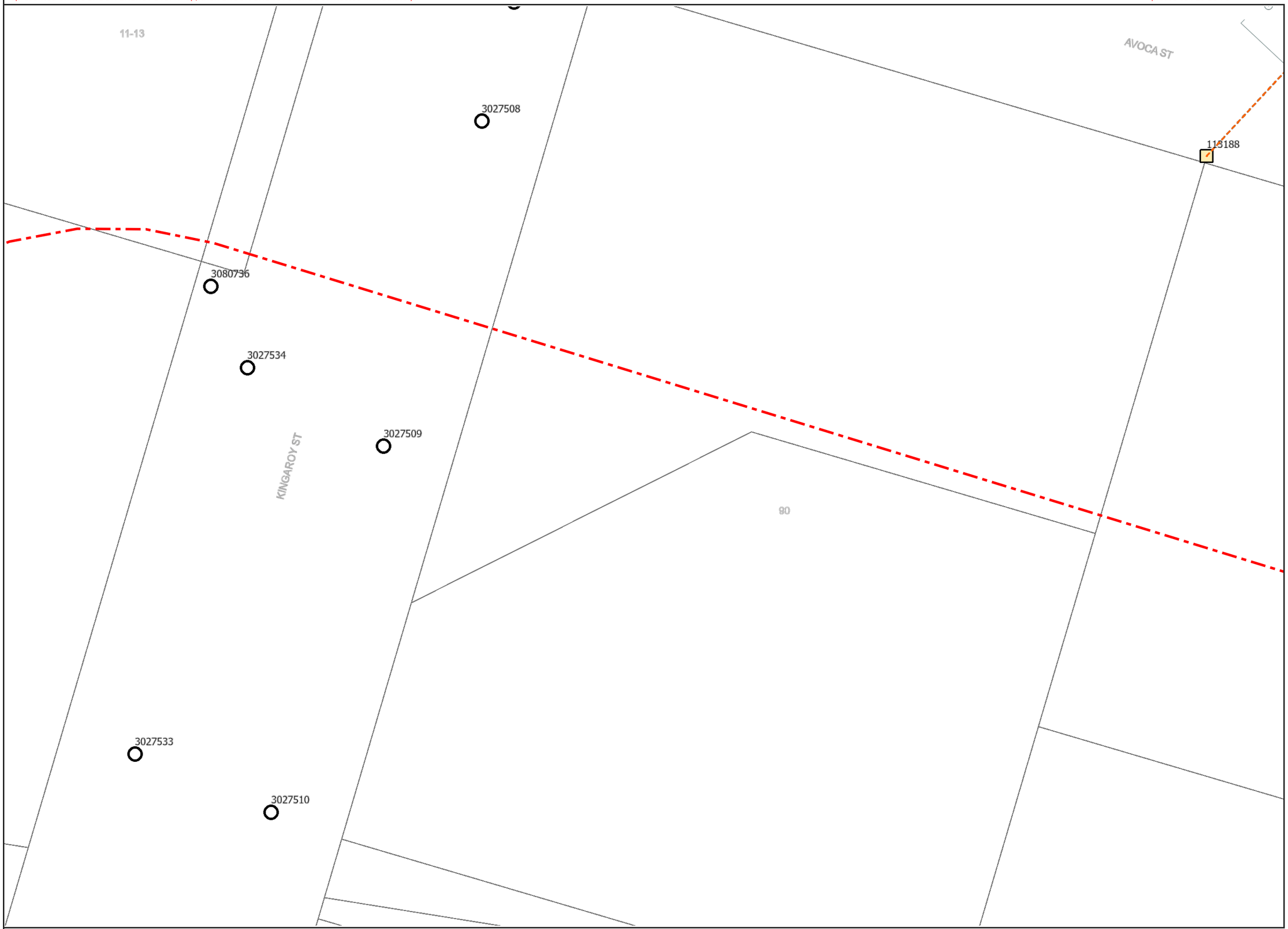
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Paper size A3 Map has been designed to be reproduced in colour

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ERGON ENERGY NETWORK
Part of Energy Queensland

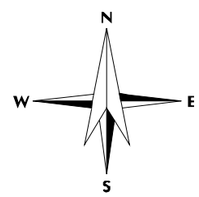
BYDA

Sequence: 244442179
Date: 10/09/2024

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For a full list of Map Symbols, please refer to the supplied BYDA Symbology Legend page

AS5488 Category "D" Plan

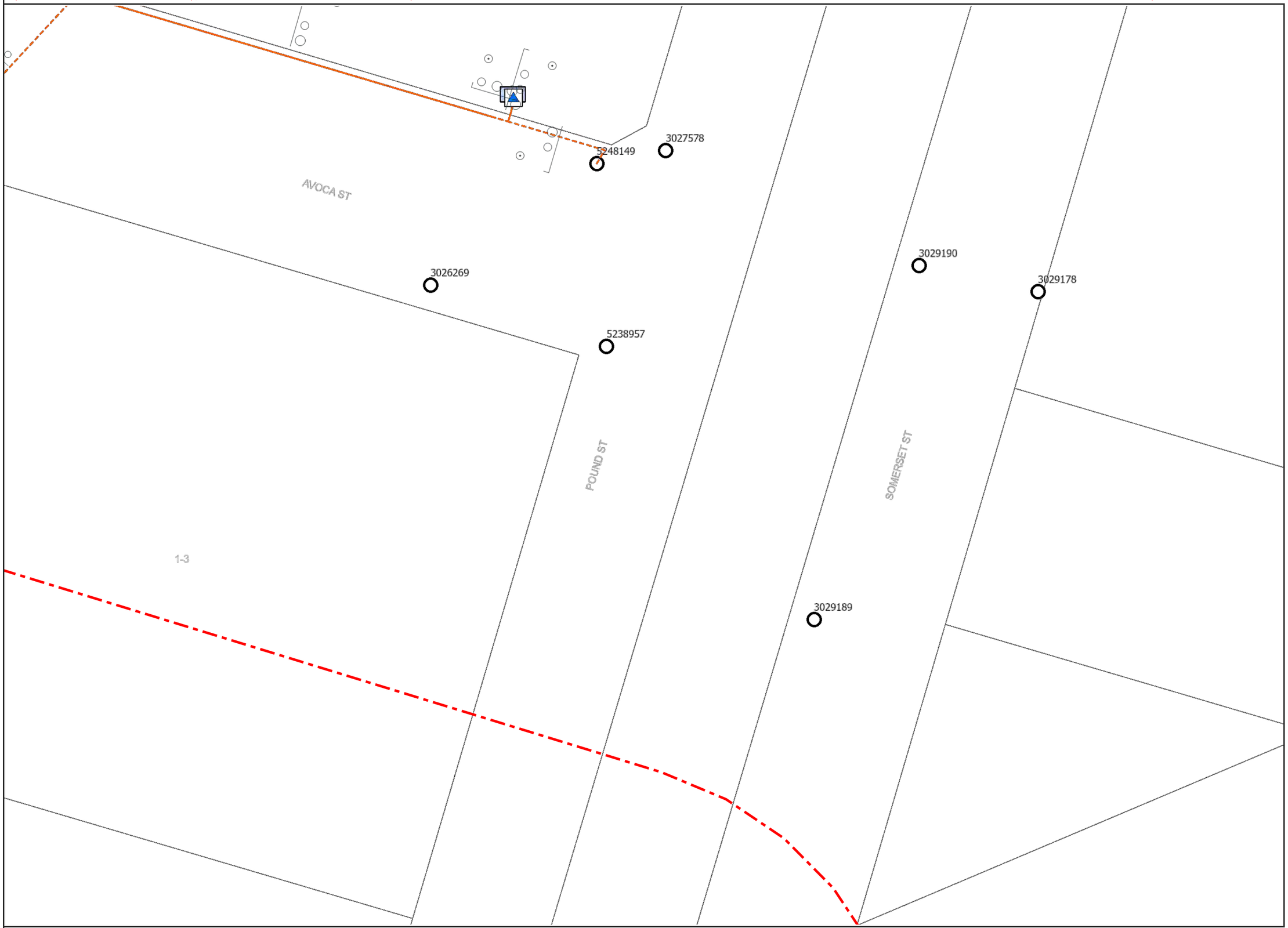


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ERGON ENERGY NETWORK
Part of Energy Queensland

BYDA

Sequence: 244442179
Date: 10/09/2024

Scale: 1:500
Tile No: 3

For a full list of Map Symbols, please refer to the supplied BYDA Symbology Legend page

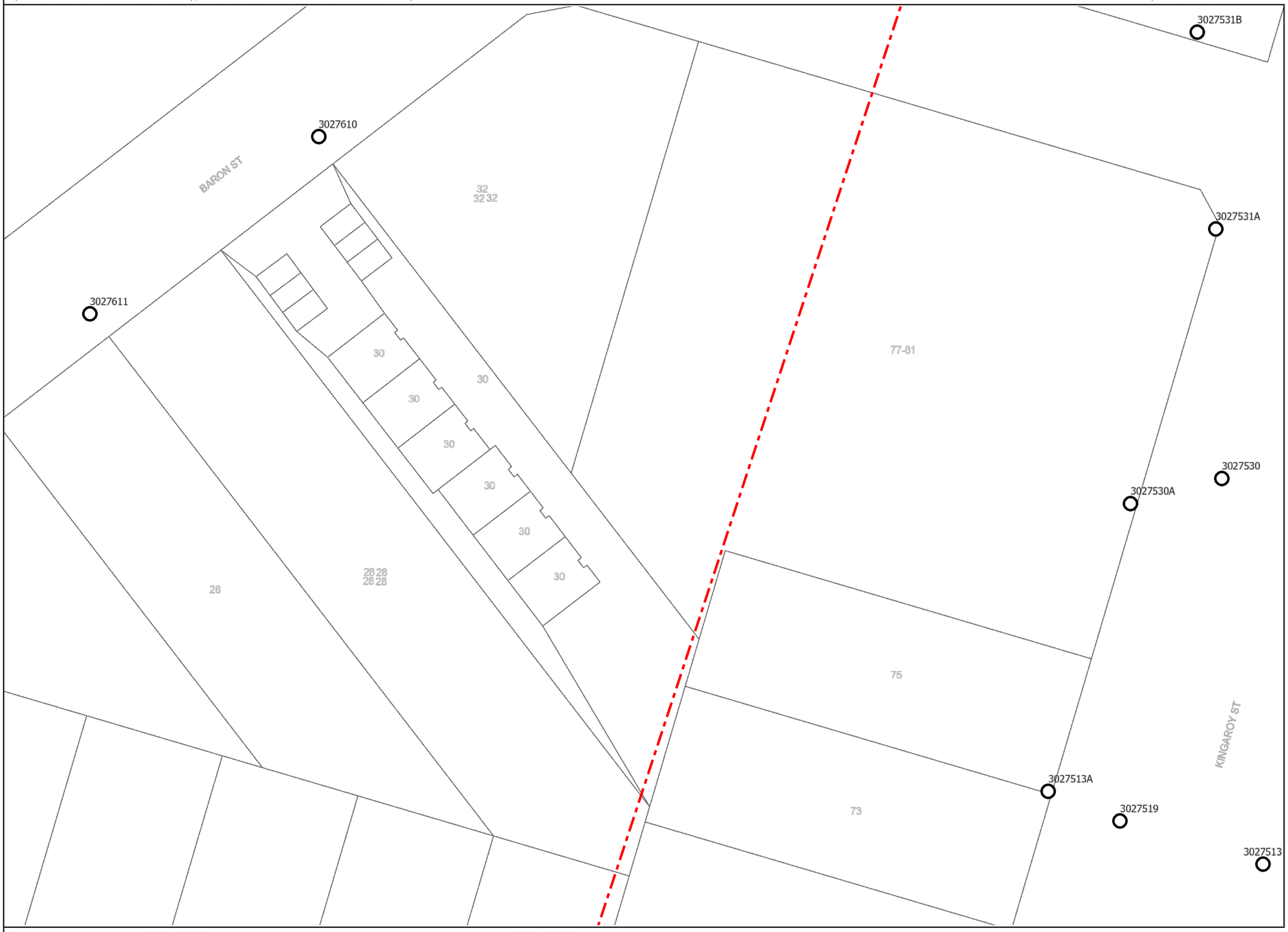
AS5488 Category "D" Plan

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Part of Energy Queensland

BYDA

Sequence: 244442179
Date: 10/09/2024

Scale: 1:500
Tile No: 4

For a full list of Map Symbols, please refer to the supplied BYDA Symbology Legend page

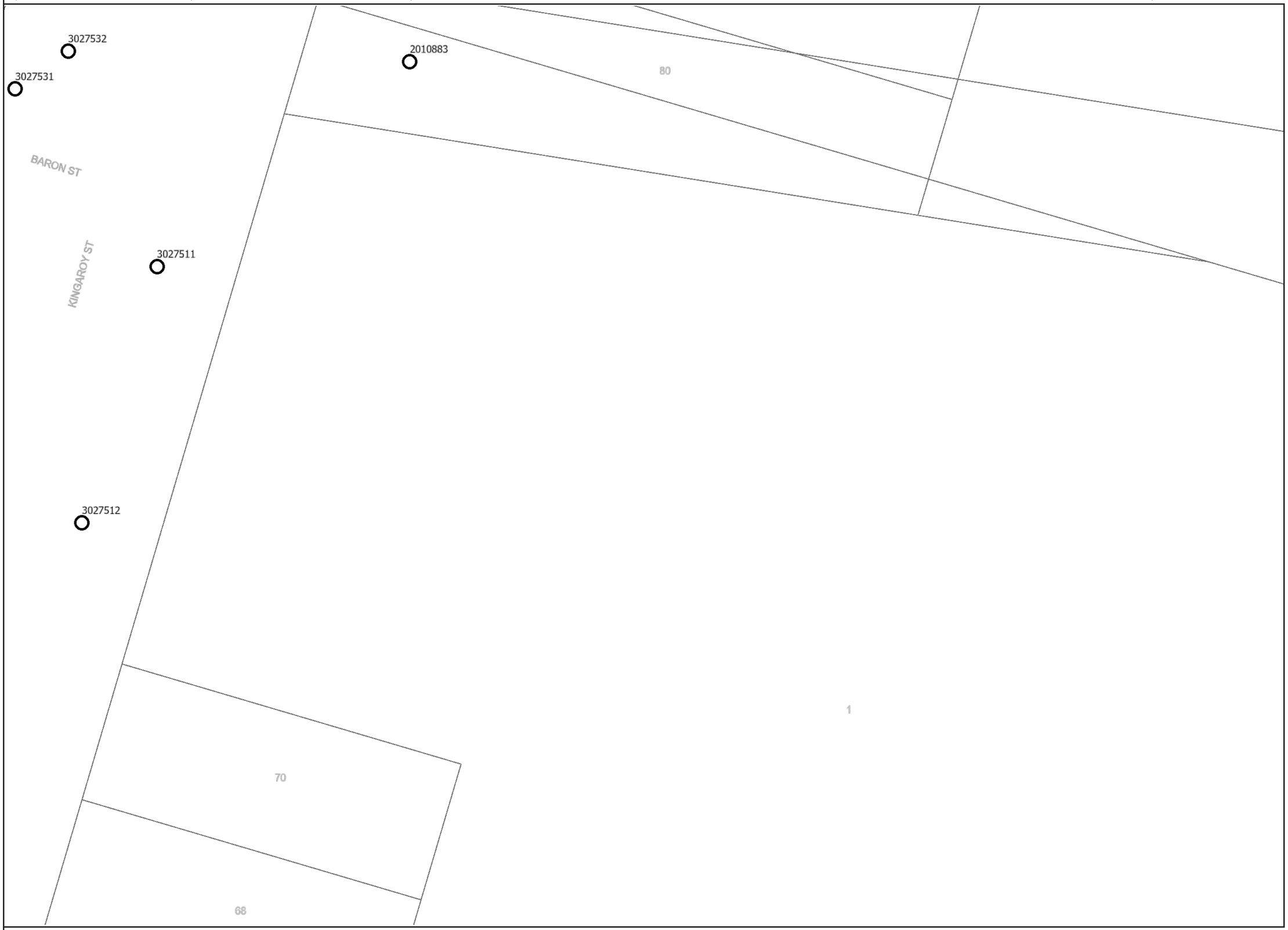
AS5488 Category “D” Plan

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Part of Energy Queensland

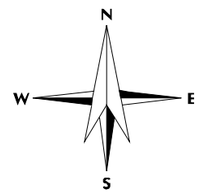
BYDA

Sequence: 244442179
Date: 10/09/2024

Scale: 1:500
Tile No: 5

For a full list of Map Symbols, please refer to the supplied BYDA Symbology Legend page

AS5488 Category "D" Plan

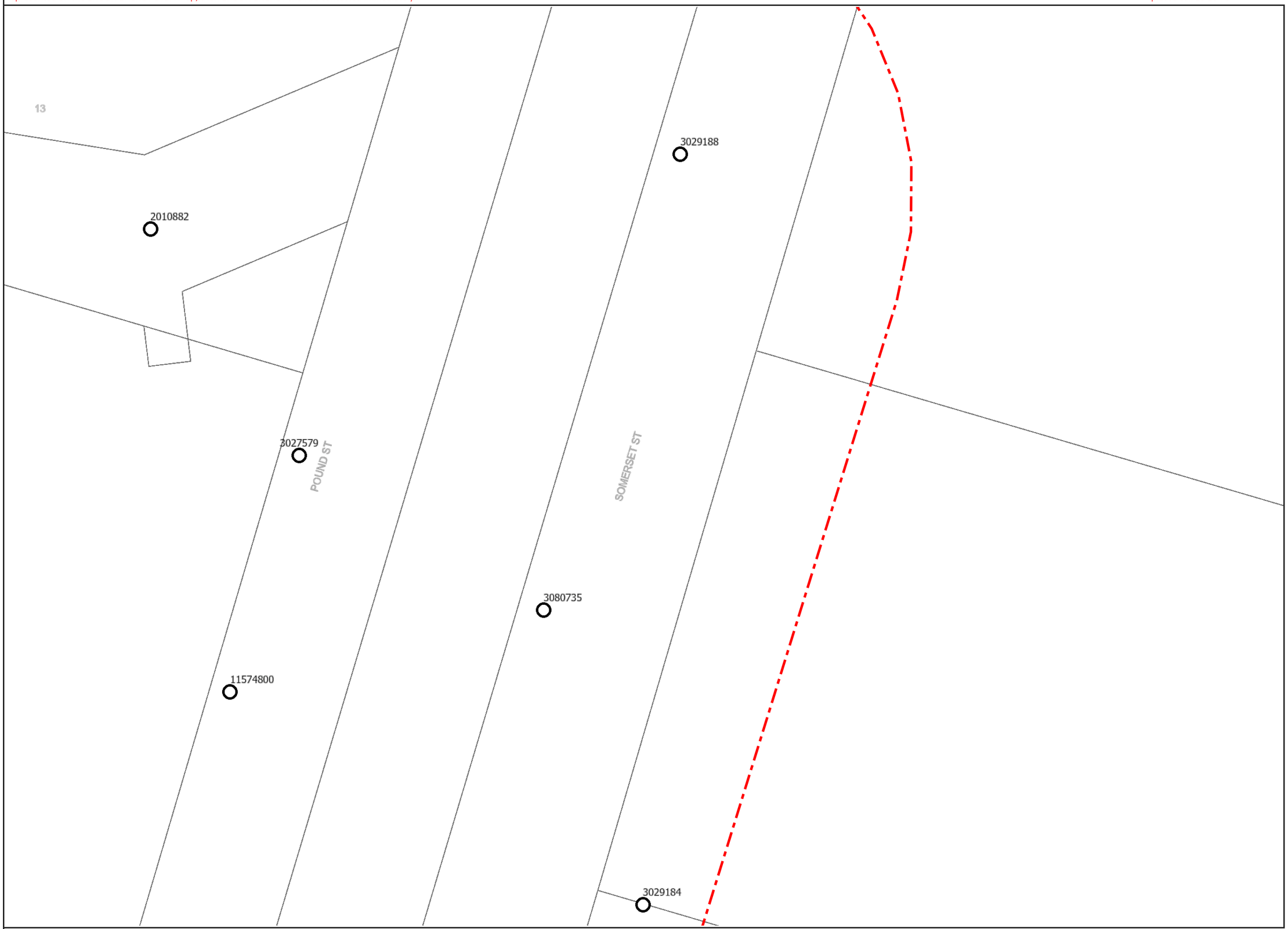


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ERGON ENERGY NETWORK
Part of Energy Queensland

BYDA

Sequence: 244442179
Date: 10/09/2024

Scale: 1:500
Tile No: 6

For a full list of Map Symbols, please refer to the supplied BYDA Symbology Legend page

AS5488 Category "D" Plan

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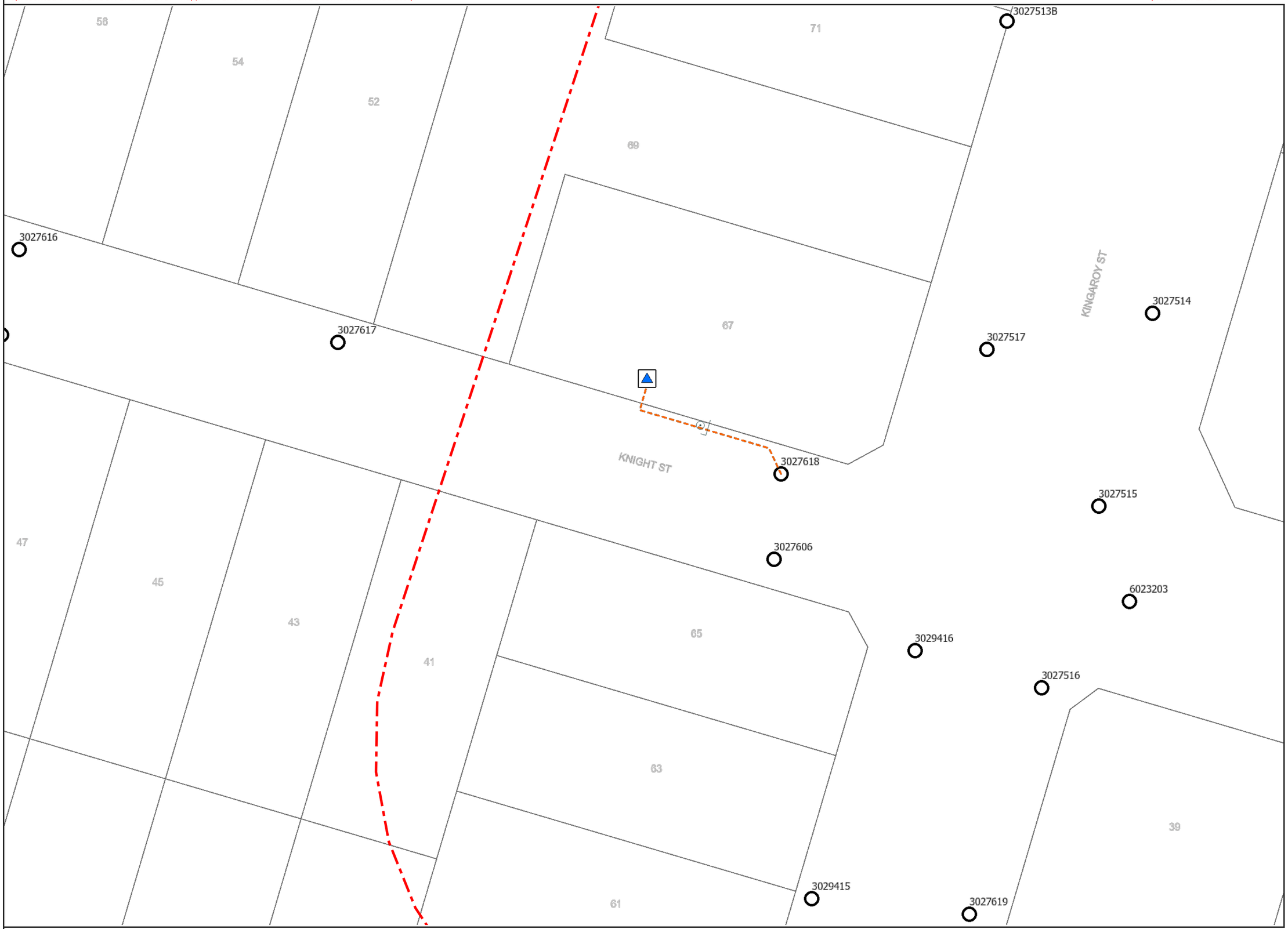
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Paper size A3 Map has been designed to be reproduced in colour

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ERGON ENERGY NETWORK
Part of Energy Queensland

BYDA

Sequence: 244442179
Date: 10/09/2024

Scale: 1:500
Tile No: 7

For a full list of Map Symbols, please refer to the supplied BYDA Symbology Legend page

AS5488 Category "D" Plan

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ERGON ENERGY NETWORK
Part of Energy Queensland

BYDA

Sequence: 244442179
Date: 10/09/2024

Scale: 1:500
Tile No: 8

For a full list of Map Symbols, please refer to the supplied BYDA Symbology Legend page

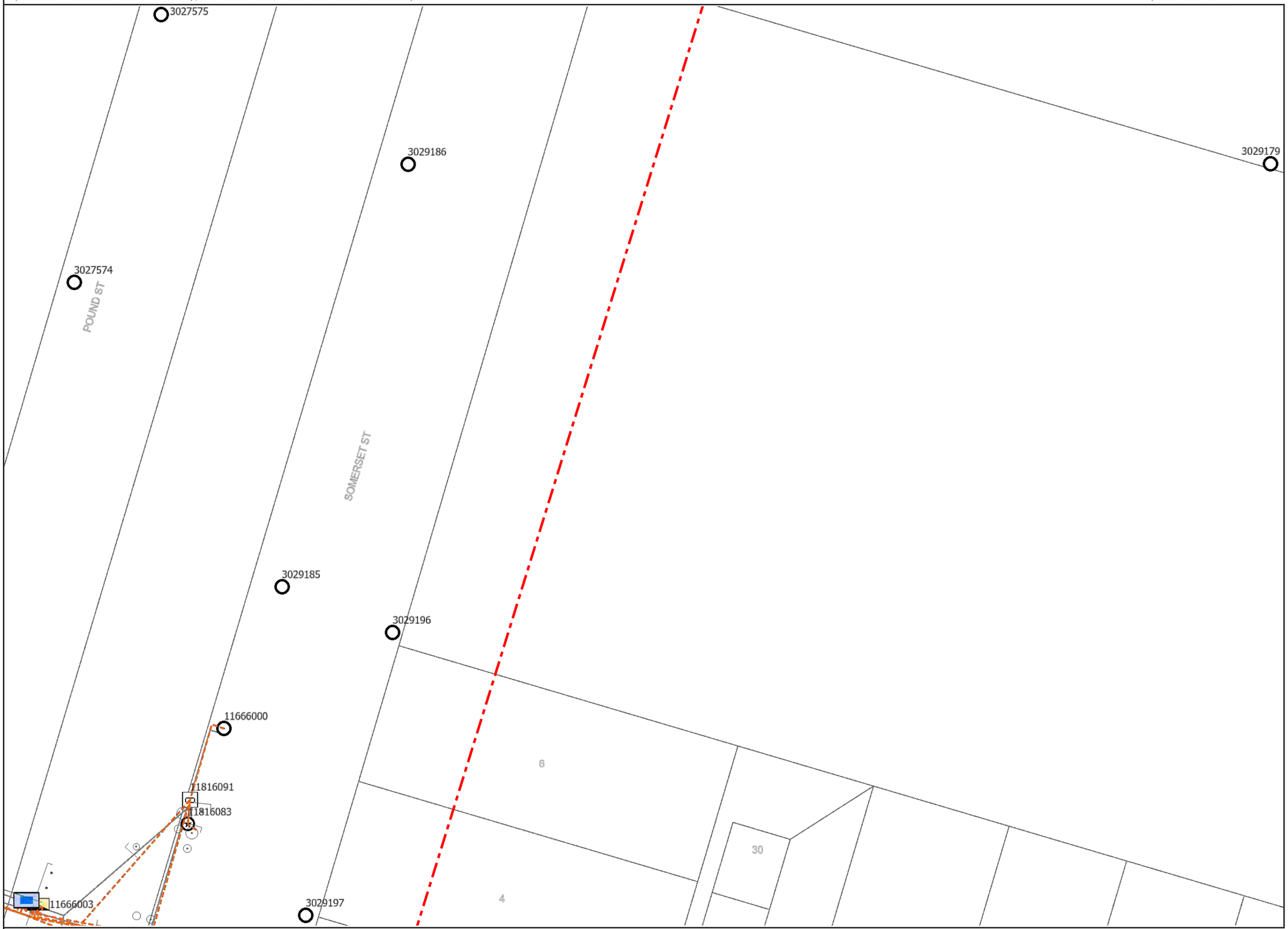
AS5488 Category "D" Plan

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Part of Energy Queensland

BYDA

Sequence: 244442179
Date: 10/09/2024
Scale: 1:500
Tile No: 9

For a full list of Map Symbols, please refer to the supplied BYDA Symbology Legend page

AS5488 Category "D" Plan

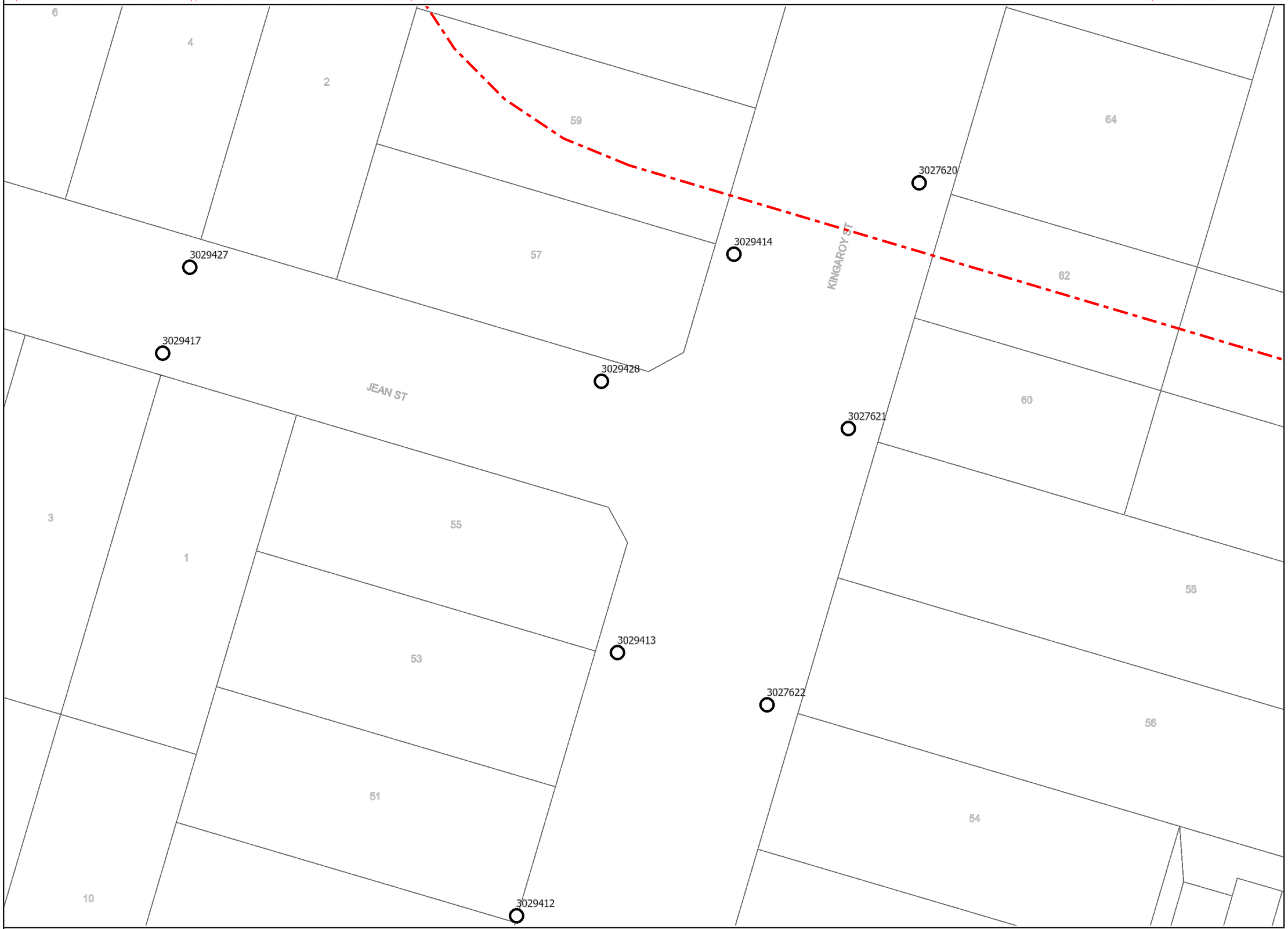
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ERGON ENERGY NETWORK
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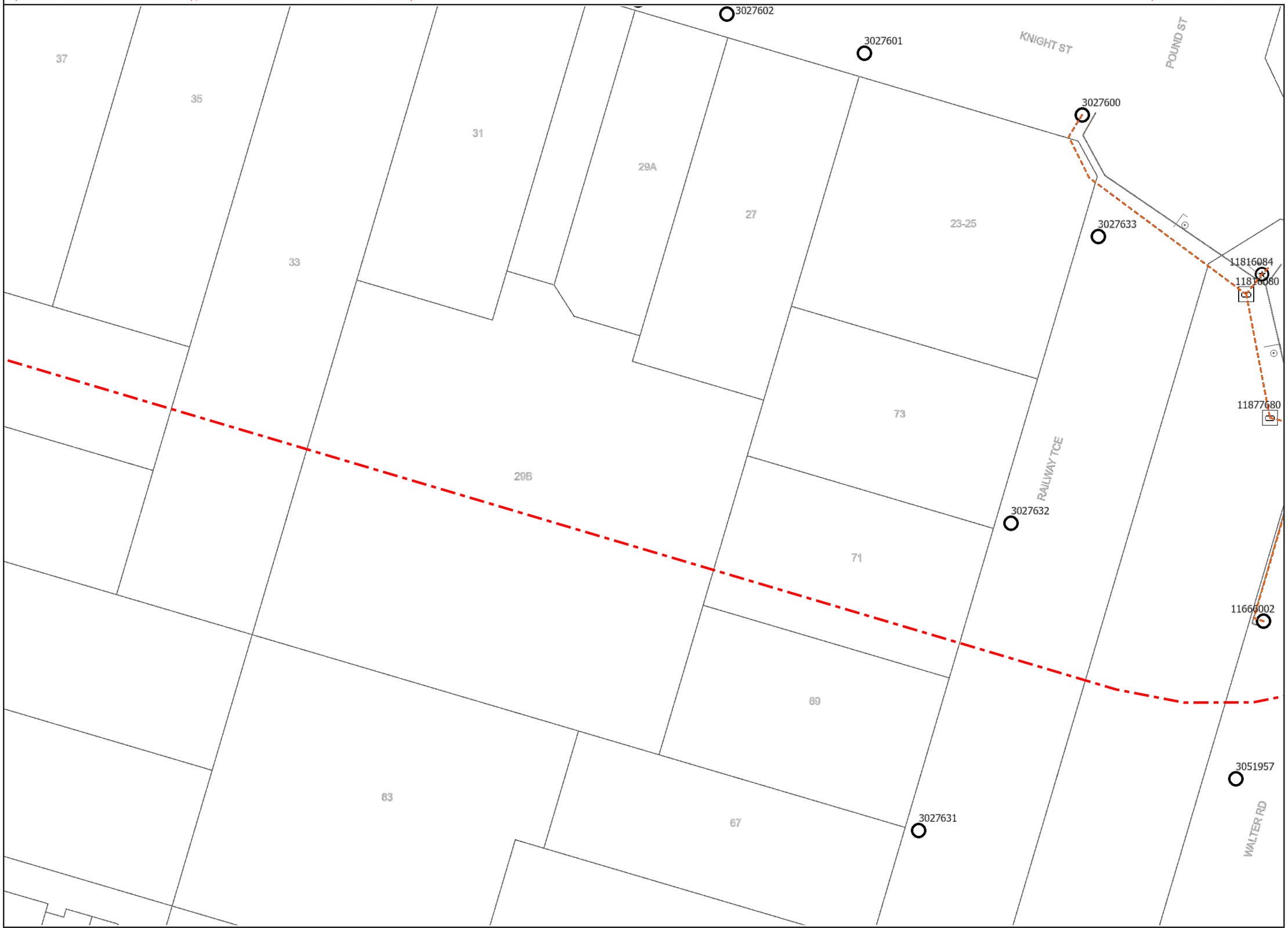
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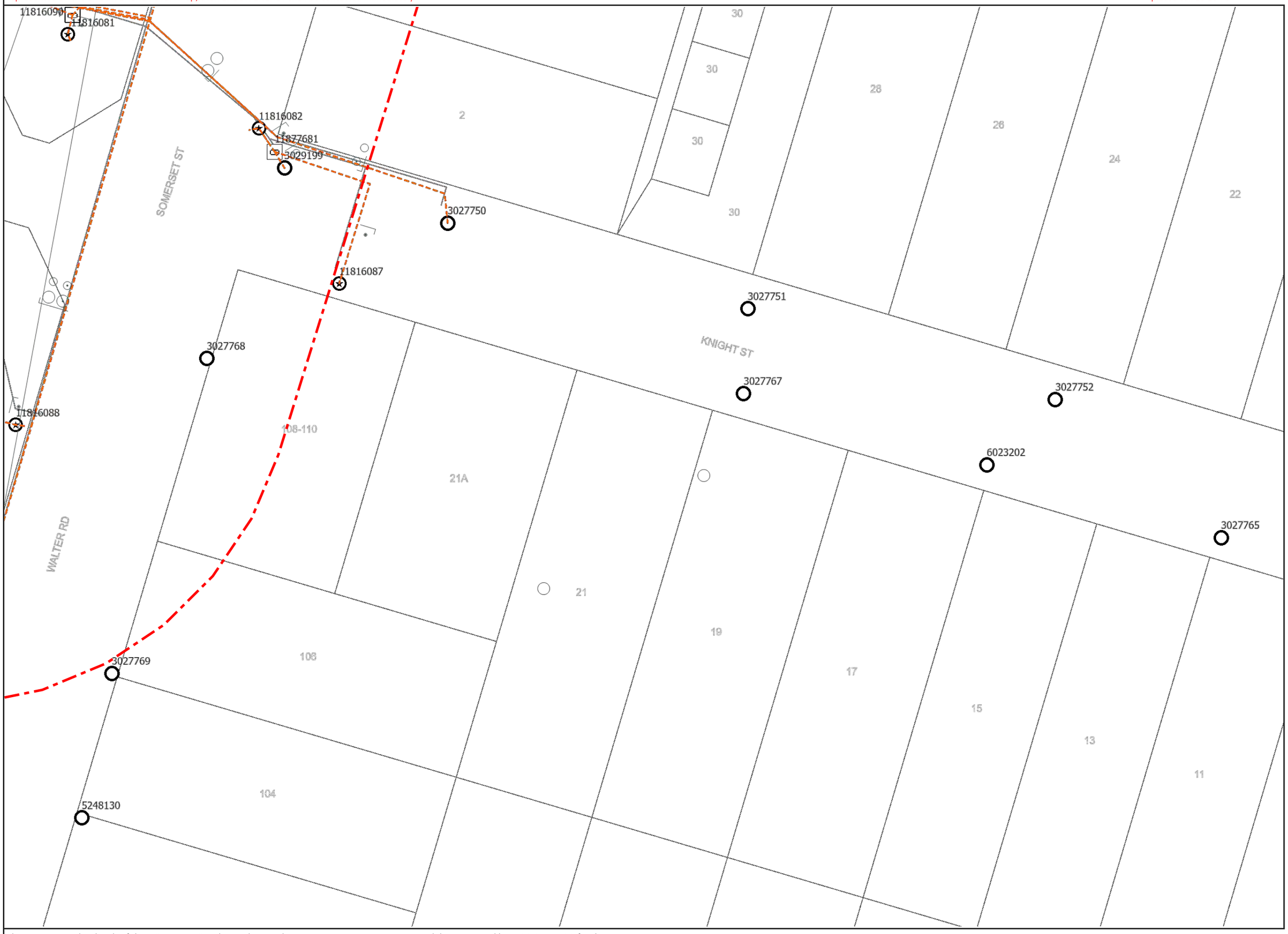
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STORMWATER MANAGEMENT PLAN

PROPOSED MATERIAL CHANGE OF USE (SHOPPING CENTRE) AND RECONFIGURING A LOT (1 INTO 2)

1 POUND STREET, KINGAROY

Prepared for: Coles Group Property Developments Pty Ltd
c/- Kilter

Reference: CIV03849-SWMP01

Revision 0

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1 INTRODUCTION

This Stormwater Management Plan (SWMP) has been prepared to support a development application at 1 Pound Street, Kingaroy (subject site). The subject site is described as Lot 13 on RP814986. The has an overall area of 26,740m^2. A site locality plan is presented in Figure 1-1 below:



FIGURE 1-1 LOCALITY PLAN (QLD GLOBE)

The proposed development is located within the 'Principal Centre Zone' as identified in the South Burnett Regional Council Planning Scheme.

1.1 DEVELOPMENT PROPOSAL

The following is proposed on the subject site:

- Reconfiguring a lot – one (1) lot into two (2) lots; and
- Material Change of Use – shopping centre on the northern lot.

The southern lot is proposed to be a balance lot. No change of use is proposed.

The proposed shopping centre consists of a supermarket and specialty stores. The shopping centre customer car parking is proposed to be from Kingaroy Street. A secondary access to the carparking, service areas and "Click and Collect" is provided from Pound Street. Contour Consulting Engineers has prepared the Development Layout Plan (refer to Plan No. 3849 – SK05), which is included in Appendix A. An extract from this plan is shown below in Figure 1-2.

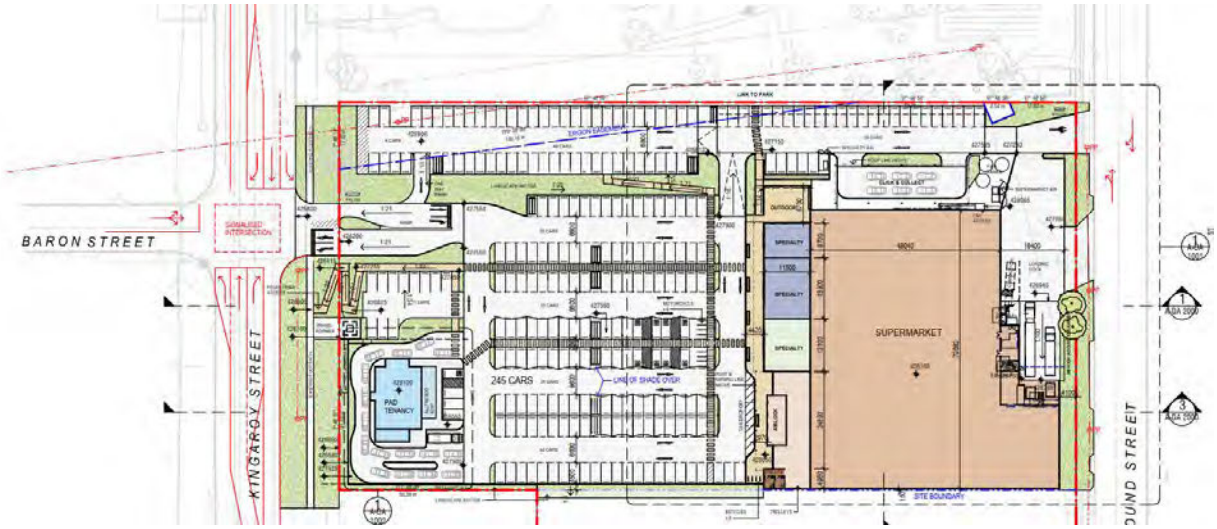


FIGURE 1-2 PROPOSED DEVELOPMENT LAYOUT – SHOPPING CENTRE

2 EXISTING SITE

The subject site is currently undeveloped and is predominantly grass-covered with minor scattered vegetation. There are no existing dwellings, buildings, or ancillary structures present on the site.

A variety of land uses bounds the site. To the north, it adjoins the Senior Citizens Park and a wet open drain known locally as the "Duck Ponds", which forms part of the Flood hazard overlay. The eastern boundary fronts Pound Street, a local access road, with land opposite comprising Low Impact Industry and Recreation and Open Space zoning, including a disused landscaping yard. To the west, the site is bound by Kingaroy Street (D'Aguilar Highway), a state-controlled road. The southern boundary adjoins smaller allotments zoned Principal Centre, which contain a mix of residential and commercial land uses.

The site's topography is relatively flat, with natural ground levels ranging from approximately RL 428m AHD at the southeast corner to RL 426m AHD at the northwest corner, as determined by detailed site survey. The site generally grades towards the northwest at an approximate slope of 1%, directing runoff toward the drainage feature in the park.

2.1 FLOOD HAZARD OVERLAY

A review of the Council's Flood Hazard Zone overlay indicates that the site is included within the overlay. An extract from Council's overlay is included in Figure 2-1.

Based on the mapping it appears that inundation of the site would be the result of flows within the unnamed tributary to Kingaroy creek to the north of the site. The catchment upstream of the site contributing to the drainage feature is approximately 18km2. Adjacent to the site the drainage feature consists of highly modified engineered channels and a constructed waterbody within the Senior Citizens Park. It is expected that conveyance rather than flood storage mechanisms would control flooding characteristics surrounding the site.

Contour understands that the mapping of the Flood Hazard Overlay has been derived from a broad-based rain-on-grid or similar type flood model. As a result, Contour has prepared a site-specific Flood Assessment for the subject site, which includes an assessment of any potential impacts of the proposal. Further reference is directed to this report (3849-FLD01)

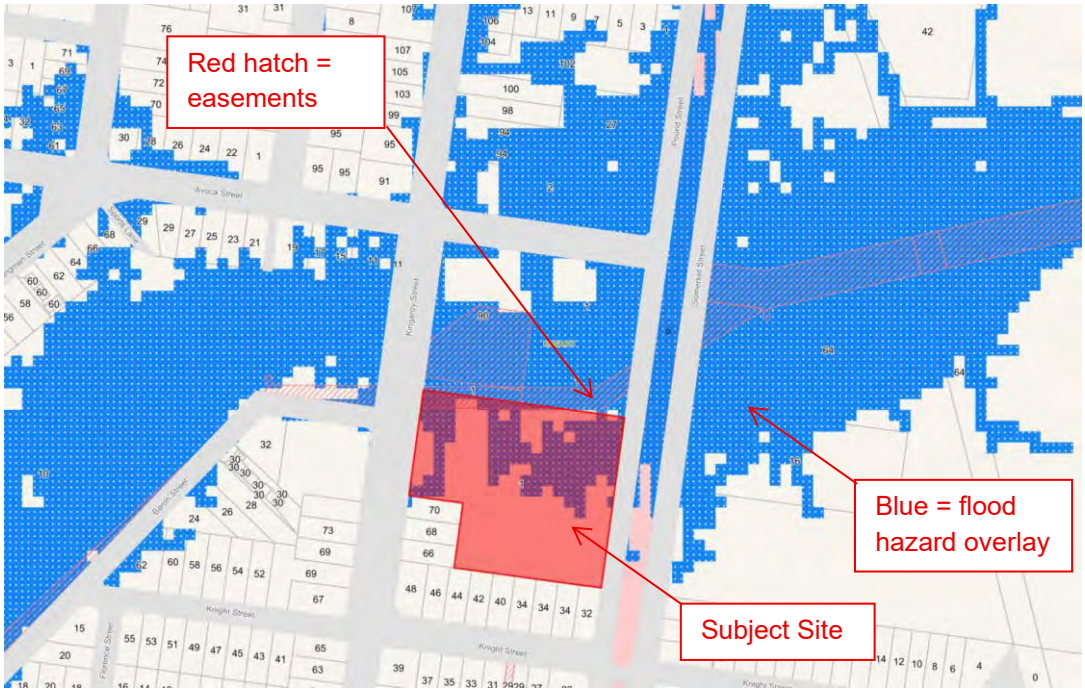


FIGURE 2-1 FLOOD HAZARD OVERLAY

2.2 EXISTING SITE DRAINAGE CHARACTERISTICS

The subject site currently drains via overland sheet flow from south to north, with ground levels falling from approximately RL 428m AHD at the south-eastern corner to RL 426m AHD at the north-western boundary. Refer to Figure 2-2 below for an extract of the Contour and Detail plan by ONF Surveyors. Site survey is included in Appendix B.

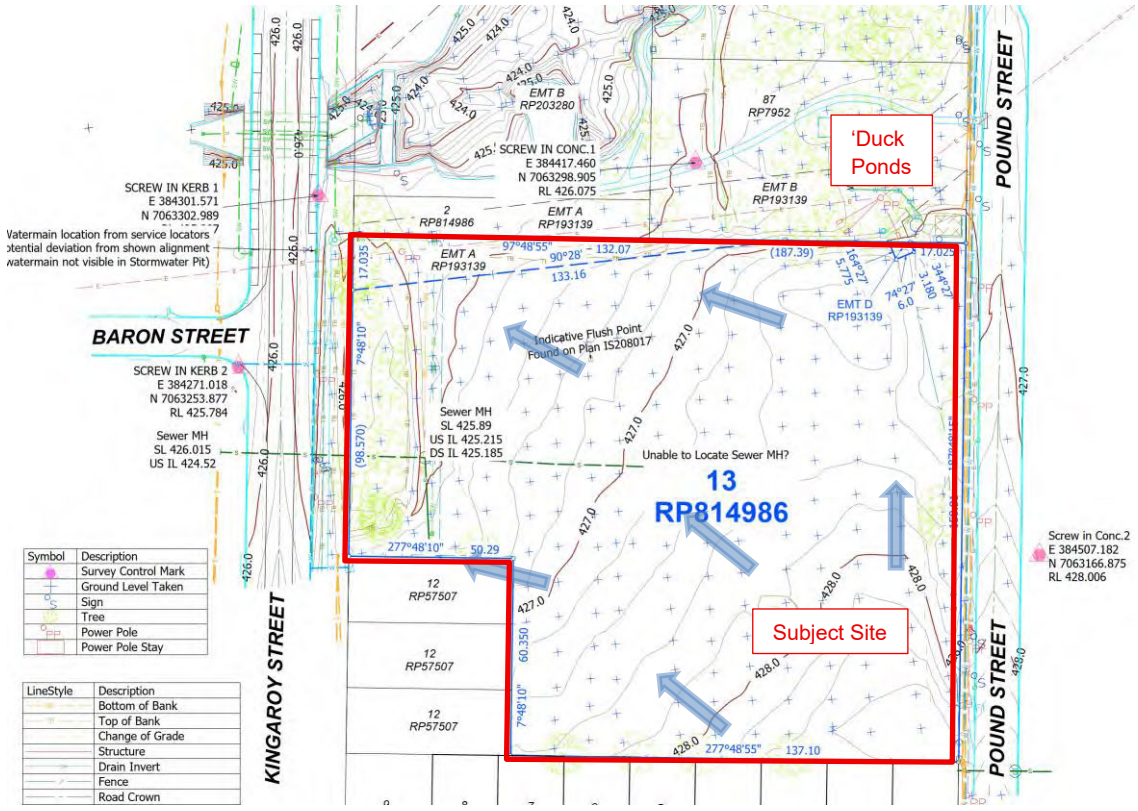


Figure 2-2 existing site levels and features from onf surveyors (flow directions added)

Stormwater runoff from the part of the site naturally drains into the wet open drain (Duck Ponds) located along the northern boundary, which forms part of the broader flood-affected drainage corridor. A small sub-catchment also drains towards Kingaroy Street at the west.

An easement is identified along this northern boundary, associated with the Ergon Energy infrastructure. Refer to Figure 2-3 below.

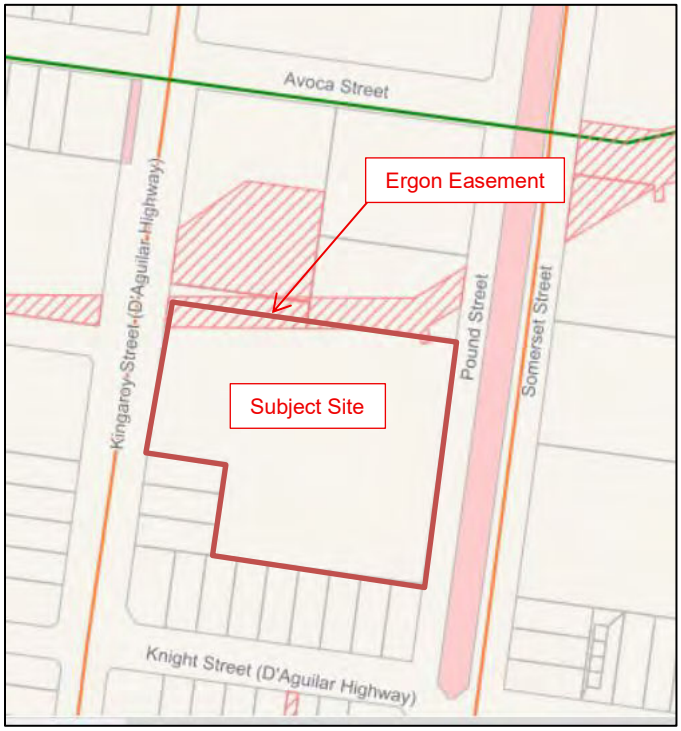


FIGURE 2-3 EXISTING EASEMENT

Within the site there is a limited amount of stormwater infrastructure located within the western portion of the site. This infrastructure collects water from the site and discharges it to the existing drainage infrastructure within Kingaroy Street. Pipe sizes within the site range from 300-450mm in diameter.

3 PROPOSED DRAINAGE

3.1 GENERAL

The proposed stormwater drainage design will generally comply with the requirements of the Queensland Urban Drainage Manual 2017 (QUDM), the South Burnett Regional Council Planning Scheme, and other relevant design codes and standards.

The site is located within the Principal Centre Zone and is proposed for reconfiguring a lot (1 lot into two lots) and material change of use (shopping centre). Accordingly, drainage infrastructure must be designed for urban conditions, with stormwater collected, conveyed, and discharged in accordance with best practice and without causing nuisance to adjoining properties.

Stormwater infrastructure will be designed to accommodate both minor and major storm events:

The minor drainage system will be designed to manage runoff from the 10% Annual Exceedance Probability (AEP) storm event (as per QUDM Table 7.3.1 for 'Central Business and Commercial' areas). The minor system will include:

- Inlet pits and underground pipe networks;
- Appropriate surface grading and overland flow channels to direct flows to collection points.

The major drainage system will manage flows from the 1% AEP event, designed in accordance with QUDM Table 7.3.2. It will include:

- Overland flow paths to safely convey runoff exceeding the capacity of the minor system;
- Surface detention, where necessary, such as within car parking areas (limited to acceptable flood depths);
- Connection to the existing drainage corridor to the north, which forms the lawful point of discharge.

A conceptual drainage layout is provided in Contour Plan 3849-SK20 (Appendix C), showing the proposed stormwater drainage.

There is an external catchment to the south of the site that is generally limited to the propertieis fronting Knight Street. This external catchment can be readily managed through the development site to a lawful point of discharge either Kingaroy Street of Pound Street.

On the northern lot, where the shopping centre is proposed, the runoff from the minor design storm is proposed to be captured by the internal pit and pipe drainage system and discharged into the culverts within Kingaroy Street Reserve. The runoff from events greater than the minor storm event (10% AEP) up to and including the major storm event (1% AEP) will continue to sheet flow across the northern boundary into the 'Duck Ponds' and to Kingaroy Street to the west.

The shopping centre drainage will be extended to the southern boundary to provide a discharge point for the southern lot.

4 WATER QUANTITY MANAGEMENT

It is not proposed to provide on-site detention as part of this development. This section outlines the justification for the exclusion of stormwater quantity mitigation measures.

Generally, stormwater detention/retention systems are designed for the purposes of (QUDM, 2017):

- Controlling local stormwater flooding;
- Controlling downstream creek flooding;
- Minimising the risk of accelerated channel erosion; and
- Controlling stormwater runoff to reduce stress on aquatic life.

With reference to Map 1 the site sits within the lower third of a much larger regional catchment with limited impervious areas and limited potential for future development in the catchment that would result in any cumulative impacts. The shape of the catchment is relatively narrow in the lower reaches and wider at the upper reaches, resulting in the upper catchment contributing a relatively large portion to the overall catchment area.

The proposed development and associated increase in the impervious area would result in the site discharging stormwater into the waterway prior to the peak discharge from the larger upper catchment areas. Discharging stormwater prior to the peak would avoid the risk of aggravation of coincident flood peaks, that could result with the inclusion of on-site detention.

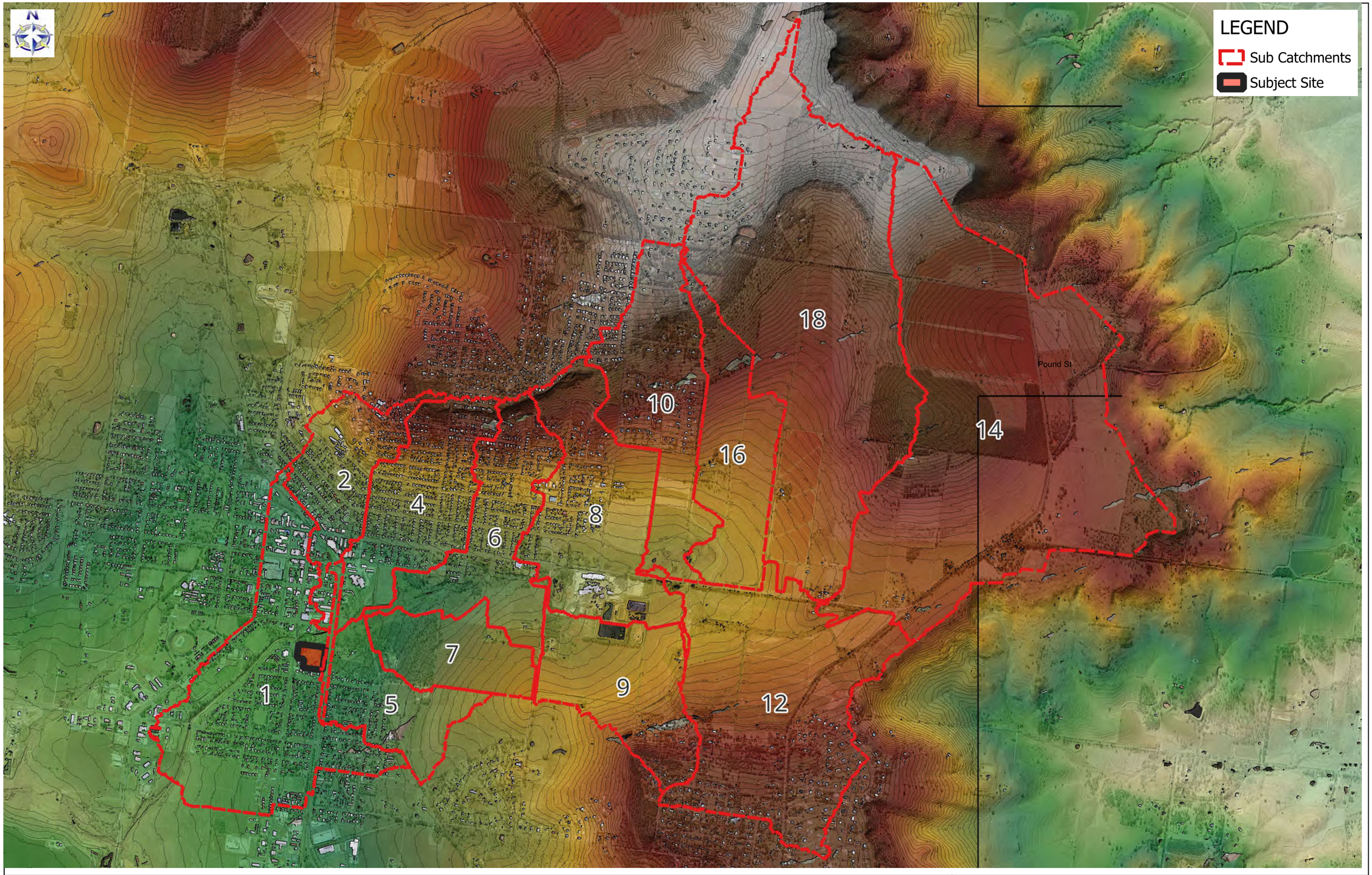
Contour has prepared a XP-RAFTS model of the site and external catchment in order to demonstrate that discharging the site without detention does not result in an increase in peak discharges downstream of the site. Analysis was undertaken for storm duration ranging from 30mins to 9 hours, with corresponding ARI's between 1 years and 100 years ARI. Ensemble analysis in accordance with ARR2016 was undertaken with the XP-RAFTS model with the assistance of Storm Injector.

4.1 Catchment Characteristics

Stormwater drainage catchments have been determined based topography, surface types and land use for both the subject site and contributing catchment. Catchment details, including XP-RAFTS parameters, for the model for the pre-developed conditions are outlined in *Table 3-1*. The model was modified for the post-developed conditions by subdividing catchment C1 into the broader catchment and the subject site. The fraction impervious of the subject site was modified to represent the increased imperviousness.

Table 3-1 Pre-Developed Catchments

Node	Area(ha)	Imp (%)	Slope (%)
C1	167.14	54%	1
C2	62.60	67%	6
C4	90.75	62%	2
C5	55.48	52%	2
C6	91.60	41%	4
C7	52.17	0%	3
C8	120.95	19%	3.4
C9	85.90	5%	3.8
C10	110.06	15%	4.1
C12	201.34	7%	3
C14	387.79	0%	1.25
C16	84.53	1%	3.8



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CATCHMENT PLAN

0 300 600 900 1,200 1,500 m

REV A

Map 1

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Table 3-2 Post-Developed Catchment updates

Node	Area(ha)	Imp (%)	Slope (%)
C1	165.93	54	1
Site	0.77	80	1

Catchment fraction imperious has been determined based on an assessment of the land use within the individual subcatchments. Adopted fraction impervious for each land use were adopted as per the Kingaroy Planning Scheme Table zoning and QUDM as detailed in *Table 4-3* below. For catchments with multiple land uses, the fraction impervious was based on the total impervious area within the catchment.

Table 4-3 Adopted Fraction impervious

Zone	Adopted Fraction Impervious (%)
Residential A	65
Residential B	50
Rural Residential B	20
Rural Residential C	20
Business and Commercial (core)	90
Business and Commercial (frame)	90
Rural	0

An initial and continuing loss model was incorporated into the XP-RAFTS model. Losses have been determined with reference to ARR Datahub. The Storm Loss is identified as 36mm with a 0.3mm continuing loss, as per *Figure 4-1* below. Within the XP-RAFTS model, this loss was applied to previous areas only. A static 1mm initial loss with 0mm continuing loss was applied to all impervious surfaces.

Storm Losses

Note: Burst Loss = Storm Loss - Preburst

Note: These losses are only for rural use and are **NOT FOR DIRECT USE** in urban areas

ID	27107.0
Storm Initial Losses (mm)	36.0
Storm Continuing Losses (mm/h)	0.3

Figure 4-1 ARR DATAHUB - STORM LOSSES

The ARR Datahub median pre-burst loses are presented in Figure 4-2 and were adopted for the model. Pre-burst depths were incorporated into the model via the inclusion of additional rainfall steps preceding the modelled burst storm.

Median Preburst Depths and Ratios

Values are of the format depth (ratio) with depth in mm

min (h)\AEP(%)	50	20	10	5	2	1
60 (1.0)	0.8 (0.022)	1.5 (0.030)	1.9 (0.033)	2.4 (0.035)	3.8 (0.049)	4.9 (0.056)
90 (1.5)	0.0 (0.000)	0.5 (0.009)	0.8 (0.012)	1.1 (0.014)	5.3 (0.060)	8.4 (0.087)
120 (2.0)	0.0 (0.000)	0.7 (0.012)	1.1 (0.017)	1.6 (0.020)	7.6 (0.082)	12.1 (0.118)
180 (3.0)	0.0 (0.000)	0.1 (0.001)	0.1 (0.002)	0.2 (0.002)	3.6 (0.036)	6.2 (0.056)
360 (6.0)	0.0 (0.000)	0.9 (0.013)	1.5 (0.018)	2.1 (0.022)	4.0 (0.035)	5.4 (0.042)
720 (12.0)	0.0 (0.000)	0.1 (0.001)	0.1 (0.001)	0.1 (0.001)	7.9 (0.060)	13.7 (0.093)

Figure 4-2 ARR DATAHUB – ADOPTED PRE-BURST DEPTHS

4.1 HYDROLOGICAL MODEL VALIDATION

Flows XP-RAFTS model has been validated against rational method calculations at two locations. One immediately upstream of the site and another further up the catchment. Rational Method Calcualtion Details are included in Appendix D. The validation is detailed in Table 4-4 The rational method calculated flows compare well with the flows derived from the XP-RAFTS model.

TABLE 4-4 RATIONAL METHOD VALIDATION

	Peak Discharge m^3/s					
	Catchment C2 outlet			Catchment C8 outlet		
AEP	Rational Method	RAFTS results	% Difference	Rational Method	RAFTS results	% Difference
10%	57.69	64.02	10%	49.75	53.41	7%
1%	114.39	115.21	1%	104.16	96.22	8%

4.2 XP-RAFTS Results

Critical duration storm peak flows for the pre and post developed cases are presented in *Table 3-5* below. The critical duration and temporal patterns are the same for both the pre- and post-developed catchment conditions.

Table 3-5 Peak Discharge Results Model Outlet.

	Pre-developed Peak Discharge(m3/s)	Post-developed (mitigated)Peak Discharge(m3/s)	% Change
63.2% AEP	30.29	30.27	-0.1%
50% AEP	35.13	35.11	-0.1%
20% AEP	49.38	49.34	-0.1%
10% AEP	60.76	60.77	0.0%
5% AEP	75.07	75.07	0.0%
2% AEP	96.11	96.07	0.0%
1% AEP	118.23	118.17	-0.1%

Based on *Table 3-5* it is evident that critical peak discharges are generally reduced as a result of the proposed development. Contour considers this effective non-worsening. It is noted that comparisons for other non-critical durations have been made and generally peak discharges for all storm durations were not increased when compared with the pre-developed case.

A hydrograph output for the 5% AEP event showing the local and regional catchment discharges is included as Figure 4-3. For the 5% AEP event the critical duration for the site is 30mins for the overall catchment the critical duration is 360 mins. This further demonstrates that discharging peak flows from the subject site prior to the arrival of the broader catchment is preferable to including on-site detention, which could result in the aggregation of flood peaks.

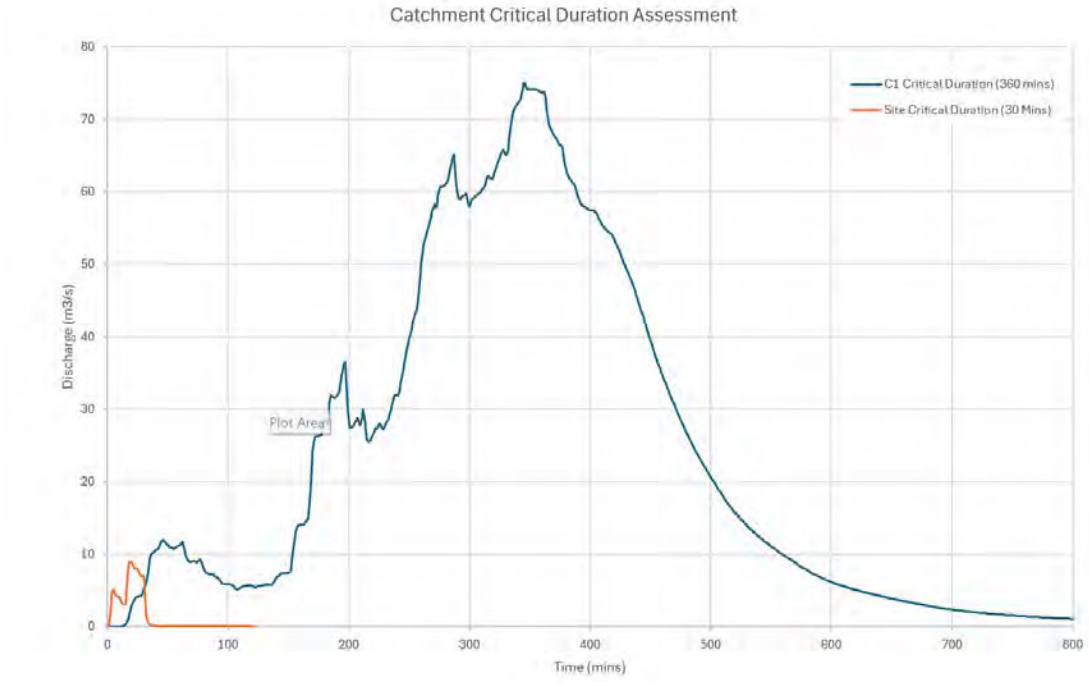


FIGURE 4-3 CRITICAL DURATION HYDROGRAPH

4.3 LAWFUL POINT OF DISCHARGE

Runoff from the proposed development is proposed to be discharged to the west into existing stormwater drainage within Kingaroy Street, and to the north into the “Duck Ponds” drainage system.

Detailed survey undertaken by ONF Surveyors indicates that there is currently allotment drainage within the subject site which discharges into the existing stormwater manhole located within Kingaroy Street at the northern boundary of the subject site. This existing stormwater drainage within Kingaroy Street is located within the eastern verge. It is proposed that this existing stormwater drainage within Kingaroy Street be extended to the upstream boundary of the subject site (the southern boundary) to improve drainage within Kingaroy Street.

The drainage system for the northern lot, where a shopping centre is proposed to be located, will be sized to capture and convey the 10% AEP minor design flows. This drainage system will be discharged into the existing manhole within the Kingaroy Street verge at the northern boundary of the subject site. This drainage system will be extended to the southern boundary to provide a discharge point for the southern lot. Refer to Contour drawing numbers 3849-SK20, 3849-SK21 & 3849-SK22 for the layout plan and longitudinal sections of this proposed arrangement. This retains the existing lawful point of discharge for the subject site. The new drainage works within the eastern verge of Kingaroy Street is able to be undertaken with minimal impacts to the existing footpath and services.

Overland runoff for events greater than the 10% AEP will continue to sheet flow across the northern boundary of the subject site and into the “Duck Ponds” drainage system located on the adjacent property.

The combined piped minor design storm discharge into Kingaroy Street and overland sheet flow into the adjoining “Duck Ponds” system to the north has been reflected in Contour’s flood model for the proposed development. The flood model undertaken indicates that this proposed strategy will not impact on Kingaroy Street or downstream properties. The minor and major storm stormwater discharge regime has been proposed to minimise the impacts on the adjoining downstream property (“Duck Ponds” drainage system and the Senior Citizens Park), Kingaroy Street, Energex Infrastructure located at the north of the subject site, and the floodplain in this locality.

The criteria for determining a lawful point of discharge are discussed in Section 3.9.1 of the Queensland Urban Drainage Manual (QUDM). The proposed development discharge is considered to be consistent with QUDM guidance as:

- Kingaroy Street is a road that is under the lawful control of the Department of Transport and Main Roads, and the existing downstream drainage system has sufficient capacity to cater for the proposed site discharge;
- The modelling undertaken indicates that the post-development flow conditions will not substantially worsen flow characteristics or cause damage to Kingaroy Street or downstream properties;
- The flow is conveyed in a lawful, managed manner and returns to an existing overland drainage path connected to the regional system.

Based on the above, it is considered that the development has provided a lawful point of discharge in accordance with QUDM and Council requirements.

5 WATER QUALITY MANAGEMENT

5.1 GENERAL

The objectives for stormwater quality management are outlined in Council's Planning Scheme Policy for Development Works and the State Planning Policy (SPP).

According to the SPP stormwater management design objectives (Table B), stormwater quality treatment systems are required where a material change of use involves a site area greater than 2,500m² and results in six or more dwellings, or where the development creates more than 25% impervious area. In addition, for areas within the Western Queensland climatic region, the requirement to achieve stormwater pollutant load reduction targets only applies to urban population centres greater than 25,000 persons.

The subject site is located at 1 Pound Street, Kingaroy, and has a total area of approximately 26,779m². Based on the SPP Interactive Mapping System, Kingaroy is located within the Western Queensland climate region. The 2021 Census (sourced from ABS) indicates that Kingaroy has a population of approximately 10,147. The proposed development is therefore not within an urban population centre in the Western Queensland climatic region for the SPP water quality objectives to be an applicable assessment benchmark.

Therefore, stormwater quality treatment infrastructure is not required for this development. However, litter baskets will be provided to each field inlet within the proposed development drainage system to capture litter and gross pollutants.

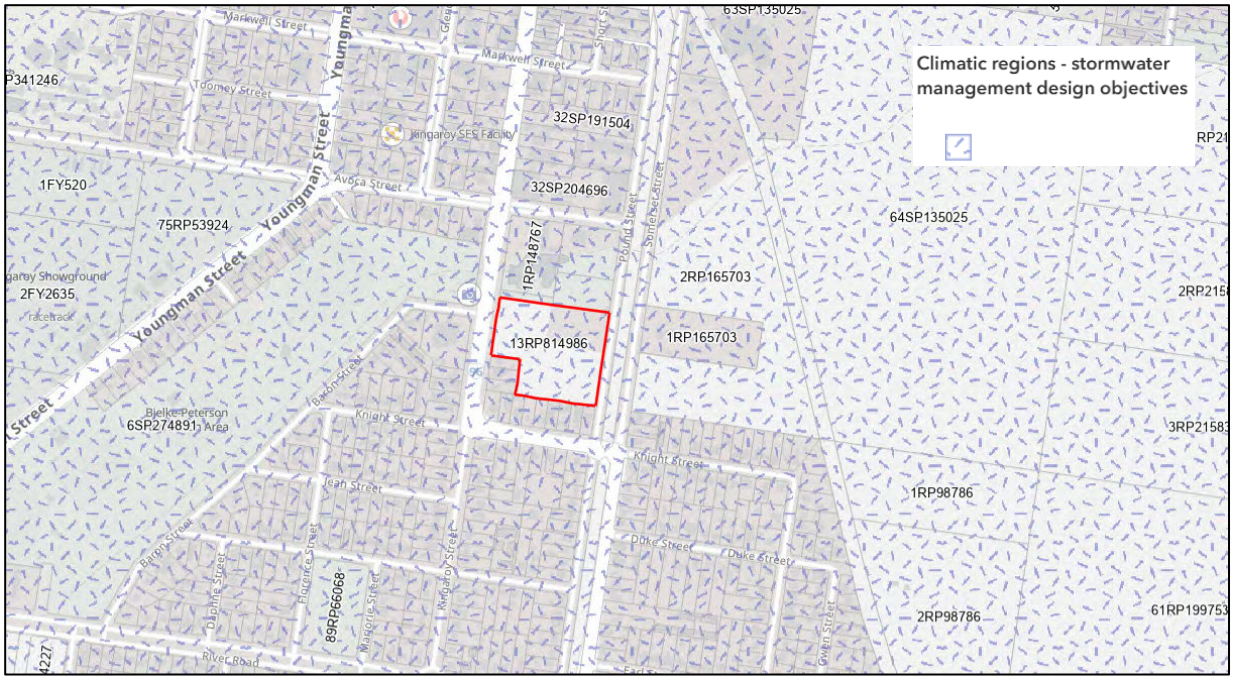


FIGURE 5-1 CLIMATE REGION FOR WESTERN QUEENSLAND (SPP MAPPING)

As such, industry best practice measures for stormwater quality during construction and operational phases are proposed as outlined below.

5.1.1 Construction Phase

The pollutants that would typically be generated during the construction of the proposed development are outlined in Table 4-1.

Pollutant	Source
Litter	Paper, construction packing, food packaging, cement bags, off-cuts
Sediment	Unprotected exposed soils and stockpiles during earthworks and building
Hydrocarbons	Fuel and oil spills, leaks from construction equipment
Toxic Materials	Cement slurry, asphalt prime, solvents, cleaning agents, wash waters (e.g. from tile works)
pH altering substances	Acid Sulphate Soils, cement slurry.

TABLE 4-1 TYPICALLY GENERATED POLLUTANTS DURING CONSTRUCTION

Best practice measures will be utilised during the construction phase to minimise the potential impacts of the above-mentioned pollutants. These may include erosion and sediment control measures in general accordance with Table A, Appendix 2 of the SPP, International Erosion Control Association 2008, Council's Erosion and Sediment Control Standard, and appropriate storage of materials and refuse.

6 SUMMARY

Preliminary hydraulic analysis has been undertaken to determine the indicative stormwater infrastructure requirements for the site. Contour has concluded the following key points:

- Stormwater drainage infrastructure is to be designed, generally in accordance with the QUDM and relevant Council guidelines;
- A lawful point of discharge has been provided via a formal underground stormwater drainage system, discharging to the existing drainage within Kingaroy Street;
- The northern portion of the site is mapped within a Defined Flood Event area. Site specific modelling has been undertaken that demonstrates the development does not cause impacts to downstream properties. Reference is made to Contour Flood Report 3849-FLD1
- A stormwater detention system is not considered necessary as the proposed commercial development. Modelling has demonstrated that peak discharges within the waterway are not increased as a result of the development.
- Permanent stormwater quality treatment infrastructure is not required, as the site is not located within an urban area of the Western Queensland climate region. This is consistent with the SPP water quality objectives Table B *Post construction phase – stormwater management design objectives*.

Based on our investigative works, we consider that Council has no impediment to the approval of this development within the context of stormwater engineering issues. We therefore recommend that Council approves the application subject to reasonable, relevant, equitable and justifiable conditions.

7 QUALIFICATIONS

This report has been prepared by Contour Consulting Engineers Pty Ltd, under the direction of a Registered Professional Engineer of Queensland. This report has been tailored to investigate issues in the context of the proposal and at the area of interest, as detailed herein.

The information contained in this report is not to be used outside of the subject area.

We consider that this report accurately reflects the conditions of the area of interest, at the time the study was undertaken. The results/recommendations/conclusions of this report are to be reviewed if the details of proposal change, or if conditions change, or if the amendment are made to built-infrastructure in the future,

This report is only to be used in full and may not be used to support objectives other than those set out herein, except where written approval, with comments, are provided by Contour Consulting Engineers Pty Ltd.

Contour Consulting Engineers Pty Ltd accepts no responsibility for the accuracy of information supplied to them by second and third parties.

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Appendix A. Development Layout Plan



DRAWING LIST

NUMBER	SHEET NAME	REV	DATE
A-DA 0001	COVER PAGE	D	08/10/25
A-DA 0010	DEVELOPMENT AREA SUMMARY	C	08/10/25
A-DA 1000	SITE PLAN	D	08/10/25
A-DA 1001	BUILDING A - GROUND FLOOR PLAN	D	08/10/25
A-DA 1002	BUILDING B - GROUND FLOOR & ROOF PLAN	B	08/10/25
A-DA 1010	BUILDING A - LEVEL 2 & ROOF	D	08/10/25
A-DA 2000	OVERALL SECTIONS	D	08/10/25
A-DA 2010	BUILDING A SECTIONS	D	08/10/25
A-DA 2011	BUILDING B SECTIONS	B	08/10/25
A-DA 3000	BUILDING A ELEVATIONS	D	08/10/25
A-DA 3001	BUILDING A ELEVATIONS	D	08/10/25
A-DA 3002	BUILDING B ELEVATIONS	B	08/10/25
A-DA 5000	3D VIEWS	B	08/10/25

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A	17/09/25	WIP FOR INFORMATION	JR	PW
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D	08/10/25	WIP FOR COORDINATION	JR	PW

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Status

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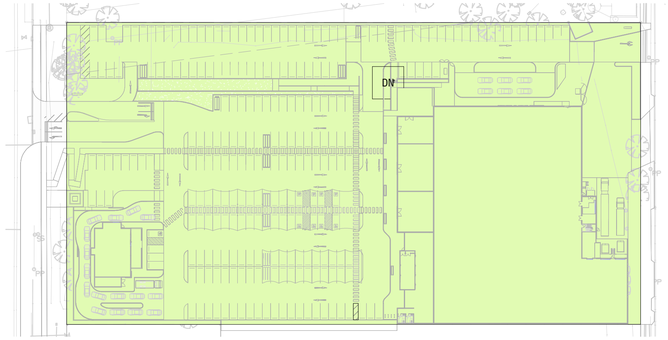
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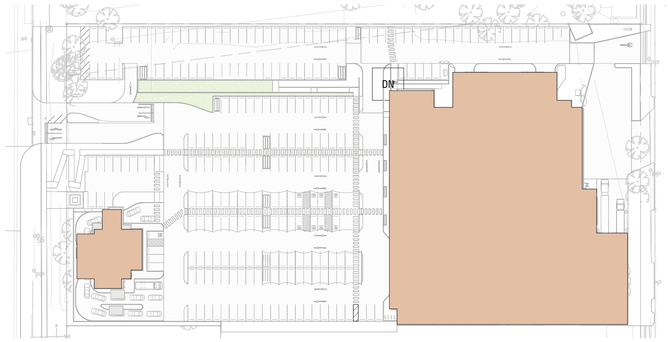
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Revision
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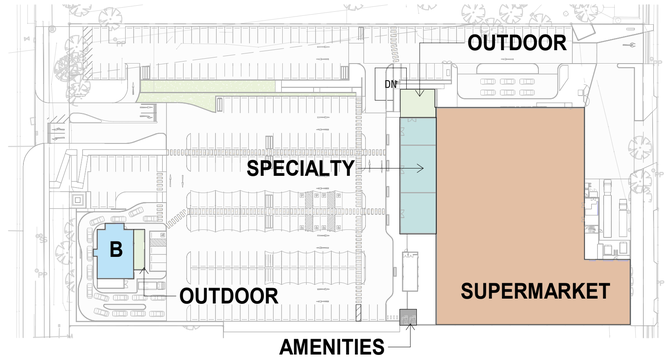
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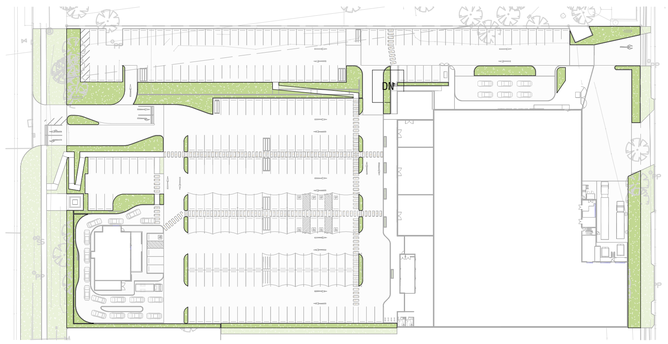
3 / 2000 SITE AREA DIAGRAM



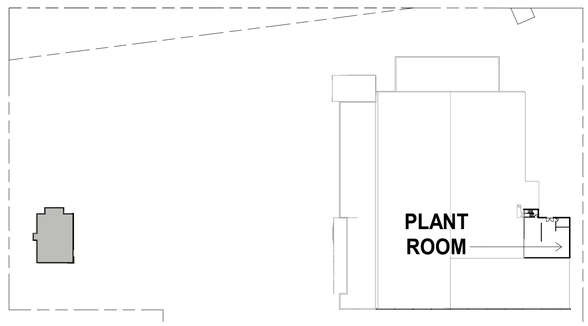
5 / 2000 SITE COVER DIAGRAM



1 / 2000 TOTAL GFA DIAGRAM - GROUND FLOOR



2 / 2000 PERVIOUS AREA DIAGRAM



4 / 2000 GFA DIAGRAM - MEZZANINE LEVEL

DEVELOPMENT SUMMARY:

SITE AREA	
	18,467 m²

SITE COVER	
	5,830 m² (32%)

GFA			
BUILDING A			
	SUPERMARKET	3,750 m²	
	SPECIALTY	455 m²	
	AMENITIES	30 m²	
			4,235 m²
BUILDING A OUTDOOR DINING			105 m²
BUILDING B			210 m²
BUILDING B OUTDOOR DINING			48 m²
			4,598 m²

PERVIOUS	
LANDSCAPE	1,715 m²

PARKING	
CARS	245
MOTORCYCLES	8
BIKES	8

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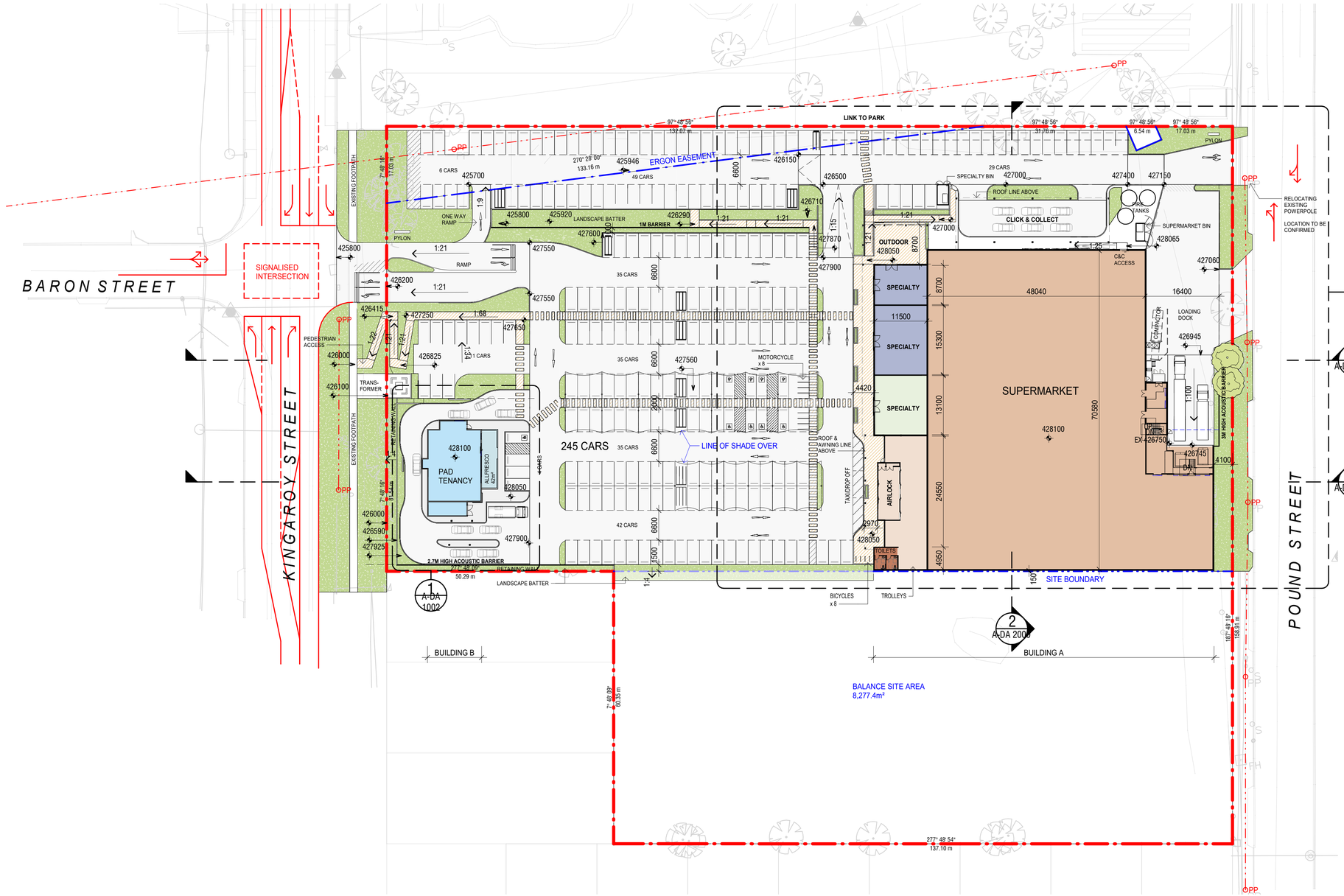
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DEVELOPMENT AREA SUMMARY

Drawing Number **A-DA 0010**

Revision **C**



1 OVERALL SITE PLAN
2000 — 1 : 500

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B	24/09/25	WIP FOR COORDINATION	JR	PW
C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW

LEGEND

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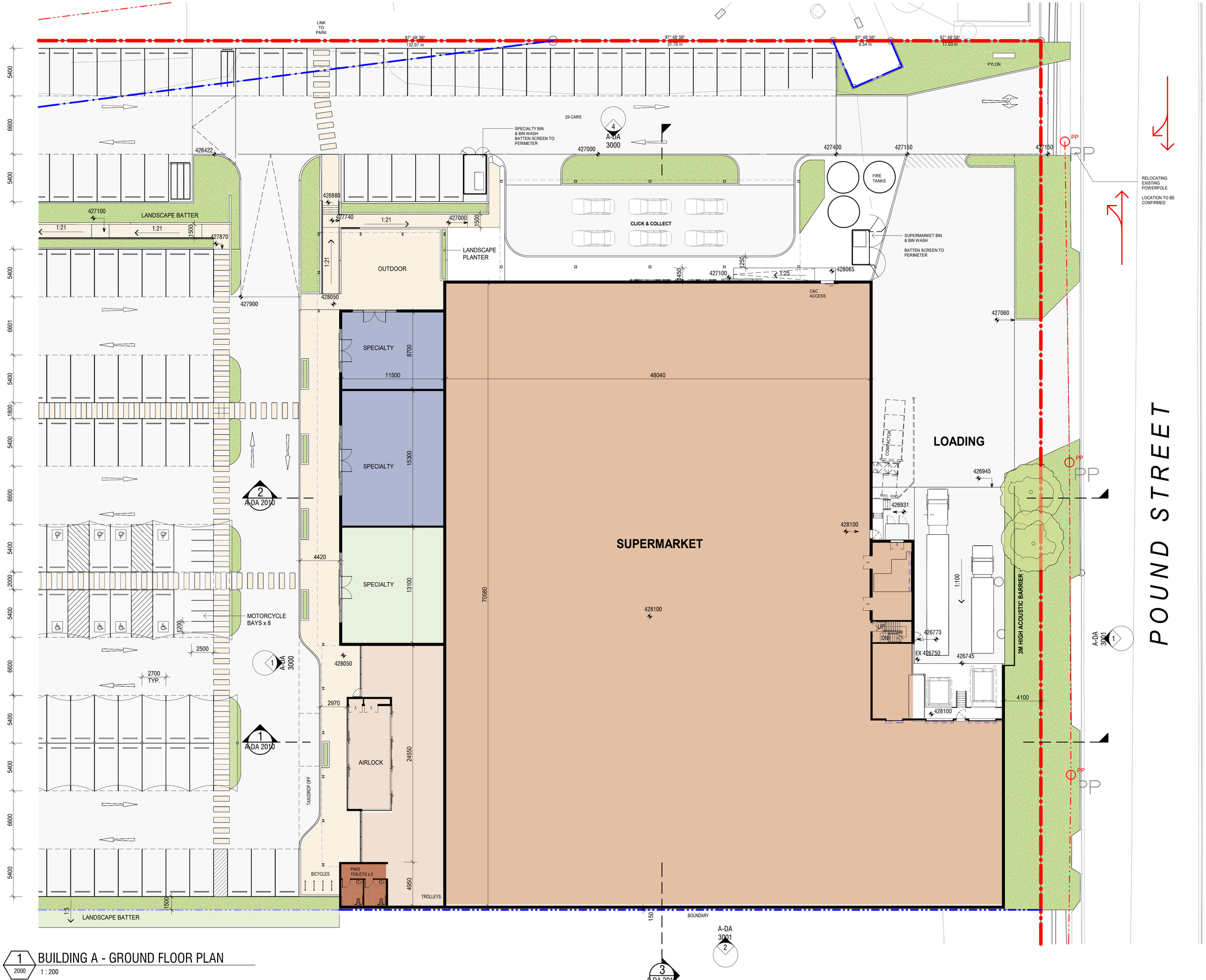
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Drawing Number **A-DA-A-DA 1000**

Revision **D**

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B	24/09/25	WIP FOR COORDINATION	JR	PW
C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW



1 BUILDING A - GROUND FLOOR PLAN
2000
1 : 200

LEGEND

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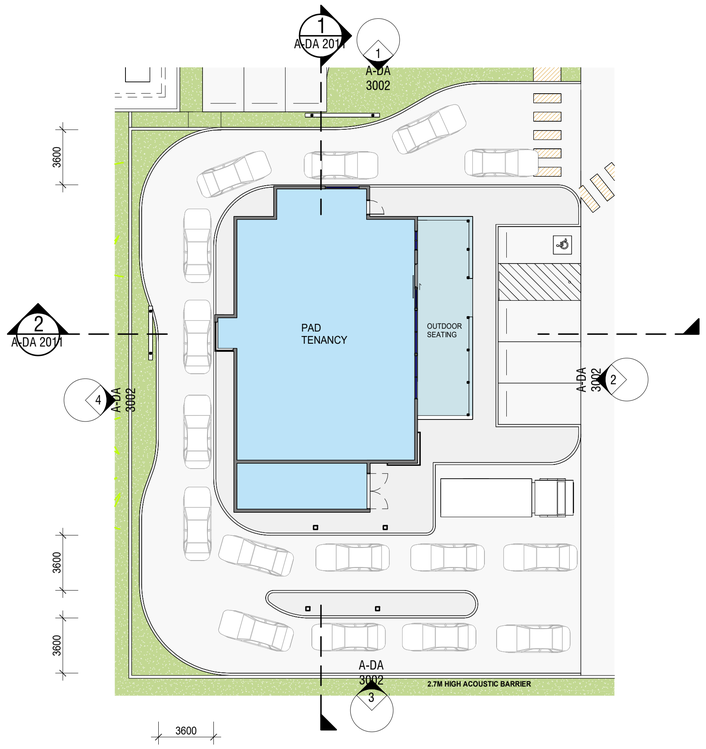
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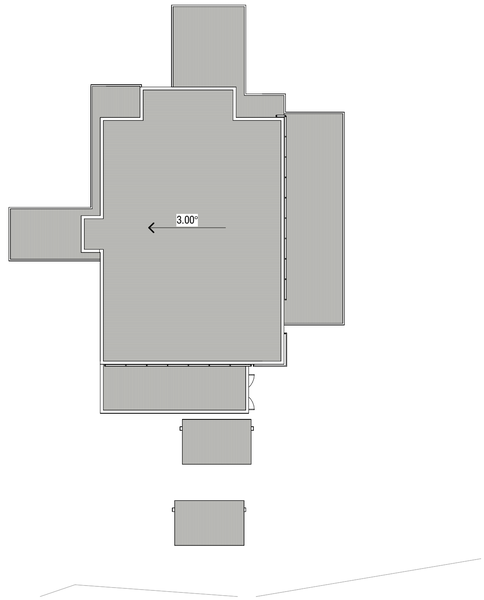
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B	08/10/25	WIP FOR COORDINATION	JR	PW



1 A-DA 1000 BUILDING B - GROUND FLOOR PLAN
1 : 200



2 2000 BUILDING B ROOF PLAN
1 : 200

LEGEND

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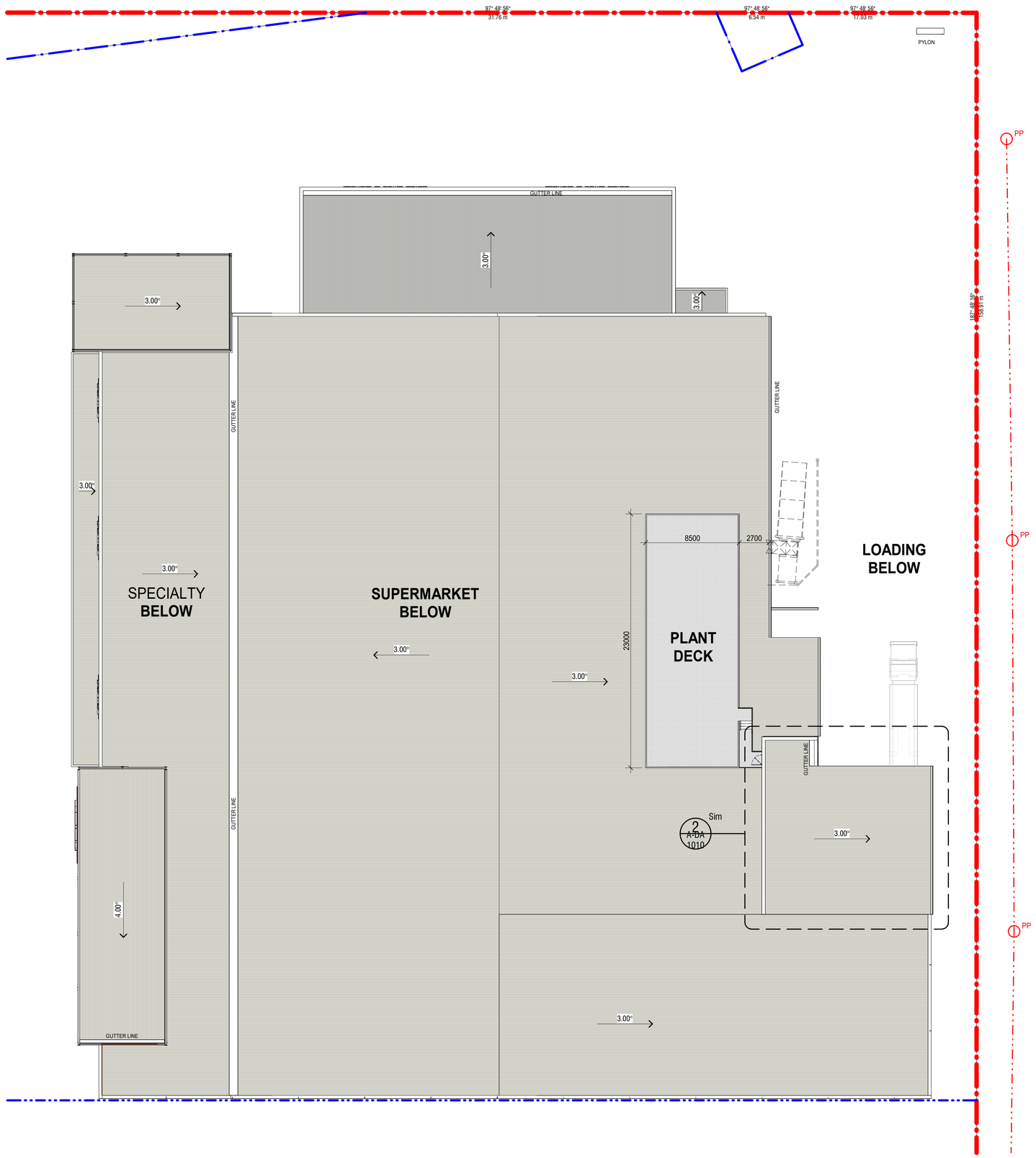
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Drawing Number **A-DA-A-DA 1002** Revision **B**

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C	30/09/25	WIP FOR COORDINATION	JR	PW
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2 PLANT LEVEL
2000 1 : 200



1 ROOF PLAN
2000 1 : 200

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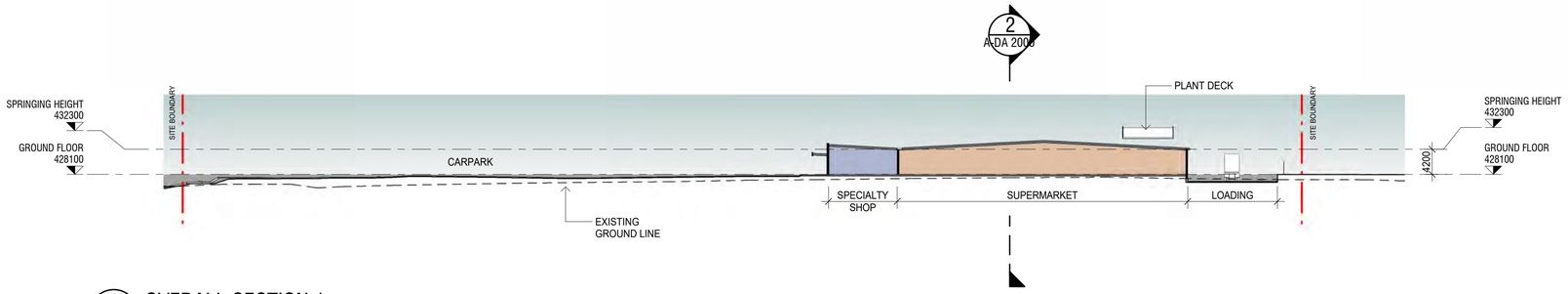
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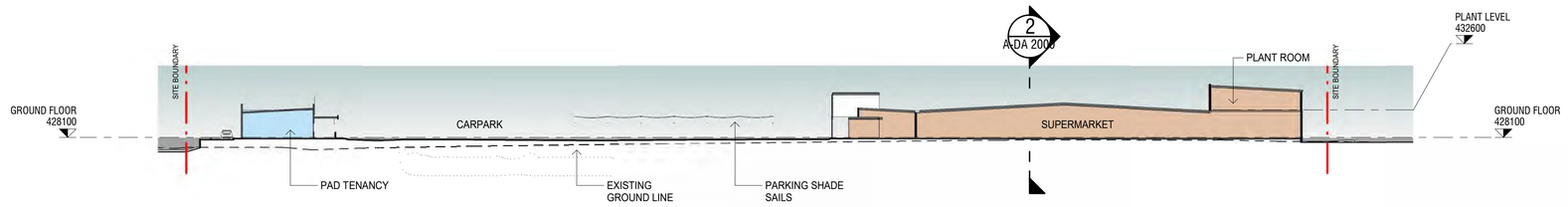
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Revision
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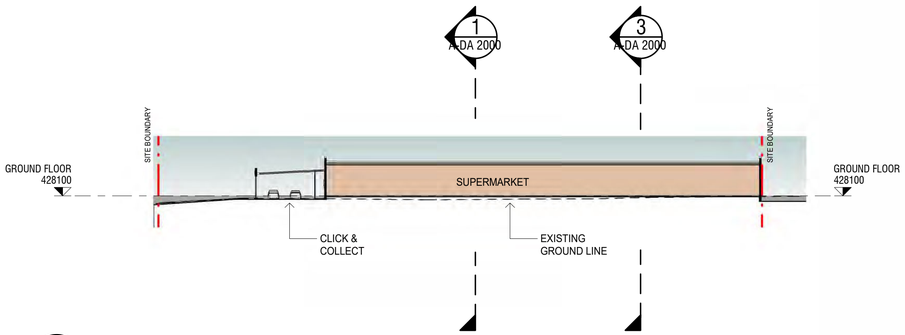
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1 / 0010 OVERALL SECTION 1
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3 / 0010 OVERALL SECTION 2
1 : 500



2 / 0010 OVERALL SECTION 3
1 : 500

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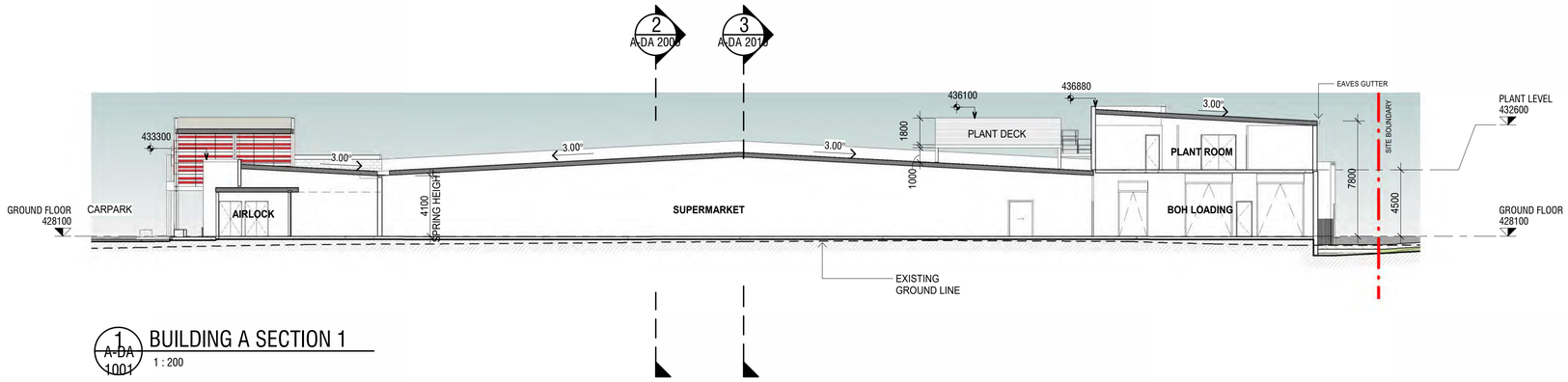
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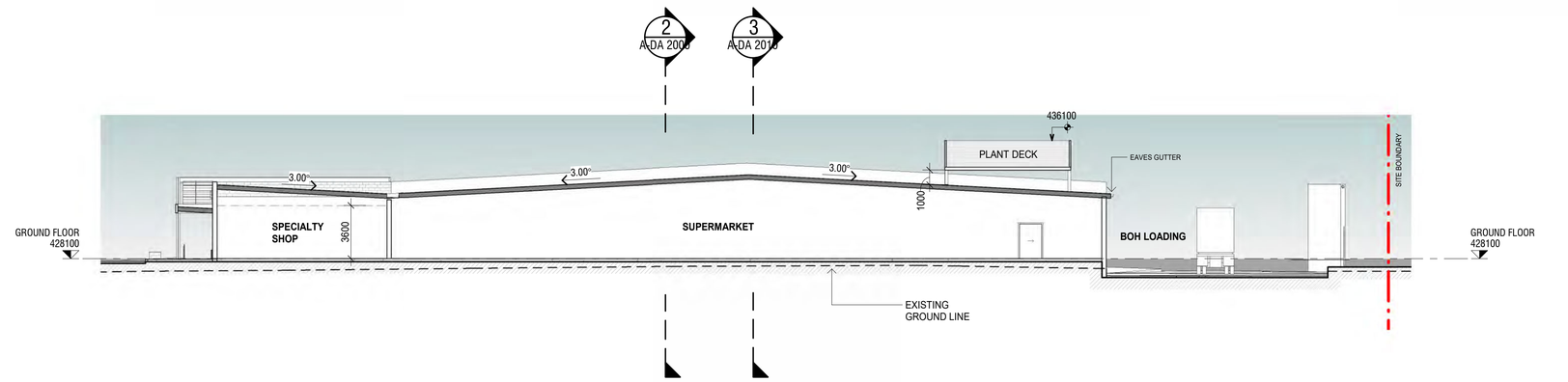
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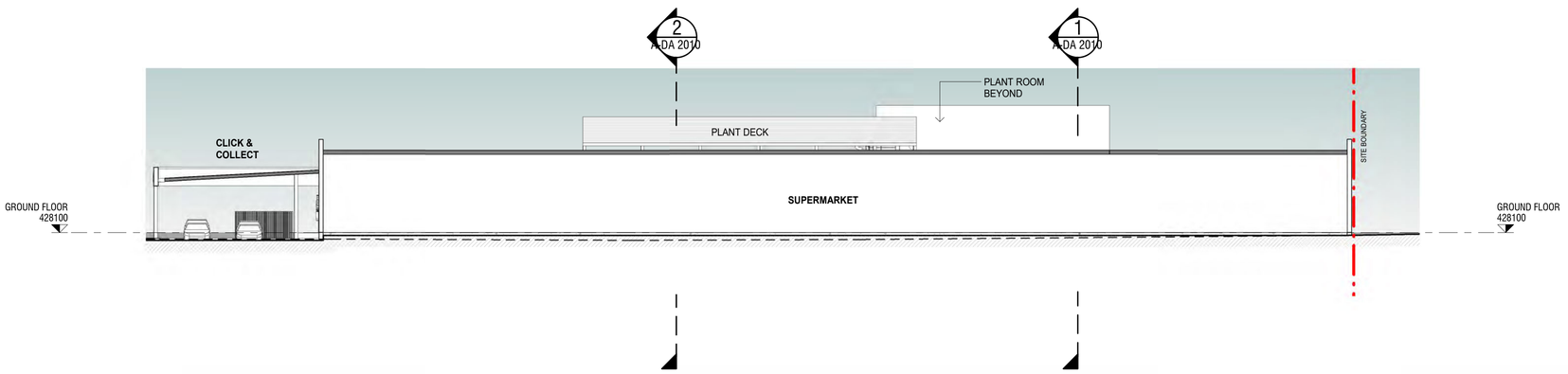
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2 A-DA 1001 BUILDING A SECTION 2

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3 2000 BUILDING A SECTION 3

1 : 200

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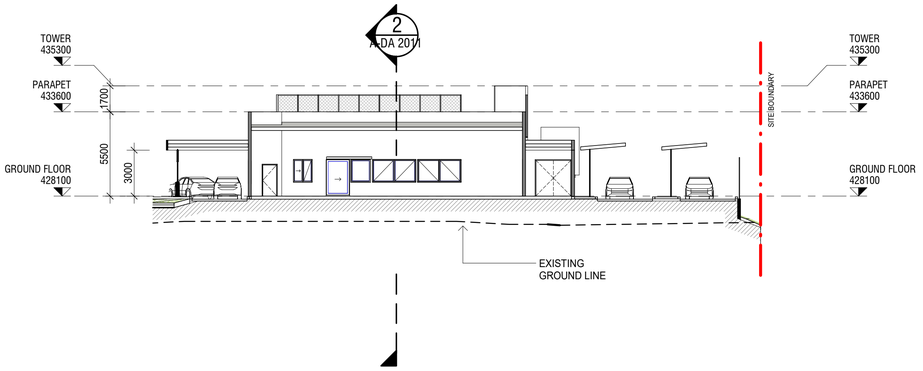
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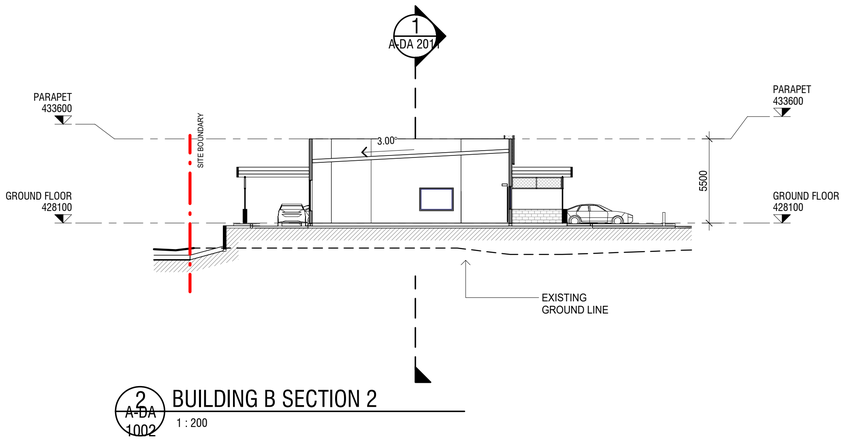
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Rev.	Date	Description	Ins.	Appr.
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B	08/10/25	WIP FOR COORDINATION	JR	PW



1 A-DA 1002 BUILDING B SECTION 1

1 : 200



2 A-DA 1002 BUILDING B SECTION 2

1 : 200

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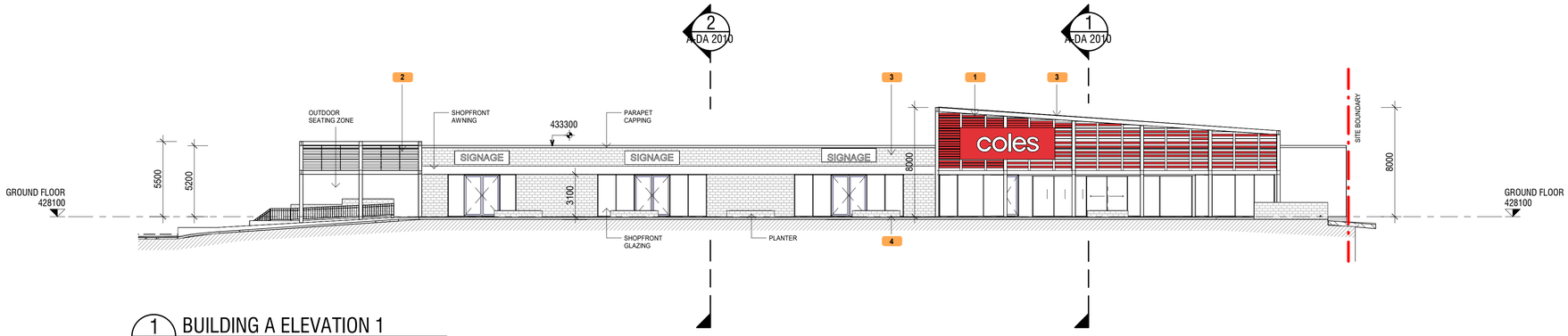
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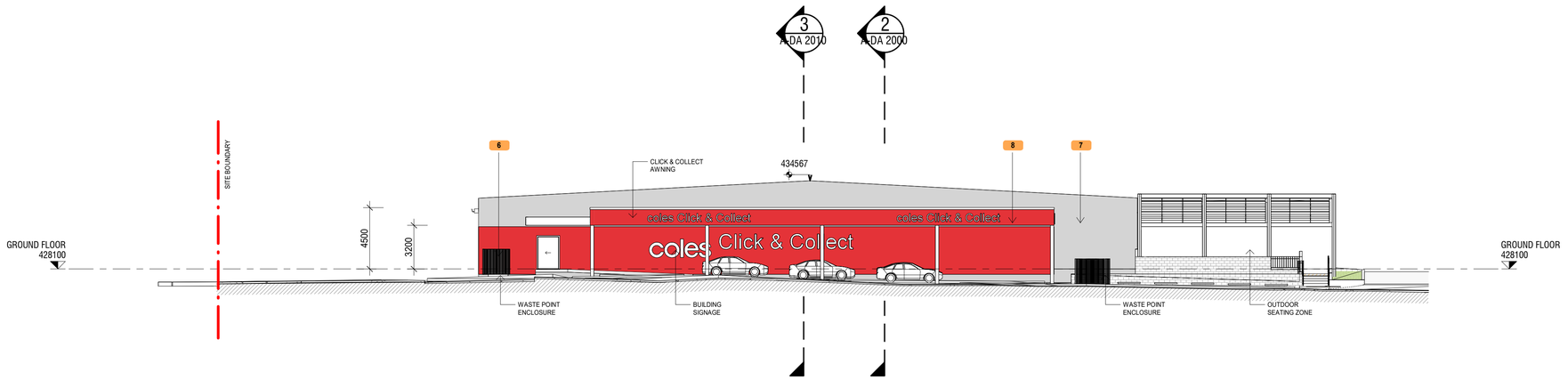
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C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW



1 / 0010 BUILDING A ELEVATION 1

1 : 200



4 / 0010 BUILDING A ELEVATION 2

1 : 200

EXTERIOR MATERIAL PALETTE



1. ALUMINIUM BATTENS	2/3 STRUCTURAL ELEMENTS	4. FACADE CLADDING	5. PLANTERS	6. WASTE ENCLOSURES/ FENCE	7. FACADE PANELS	8. EXTERNAL CLADDING
Red Powder coated Aluminium battens	Black painted structural & architectural elements	Brick facade	Reclaimed bricks	TIMBER - LOOK ALUMINIUM BATTENS	PRE - CAST PANELS	RED PAINTED EXPRESS JOINT CFC

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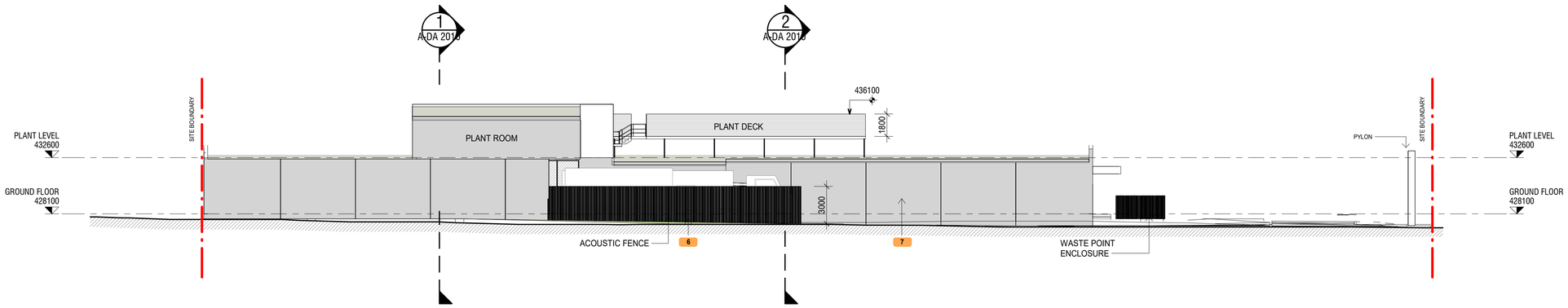
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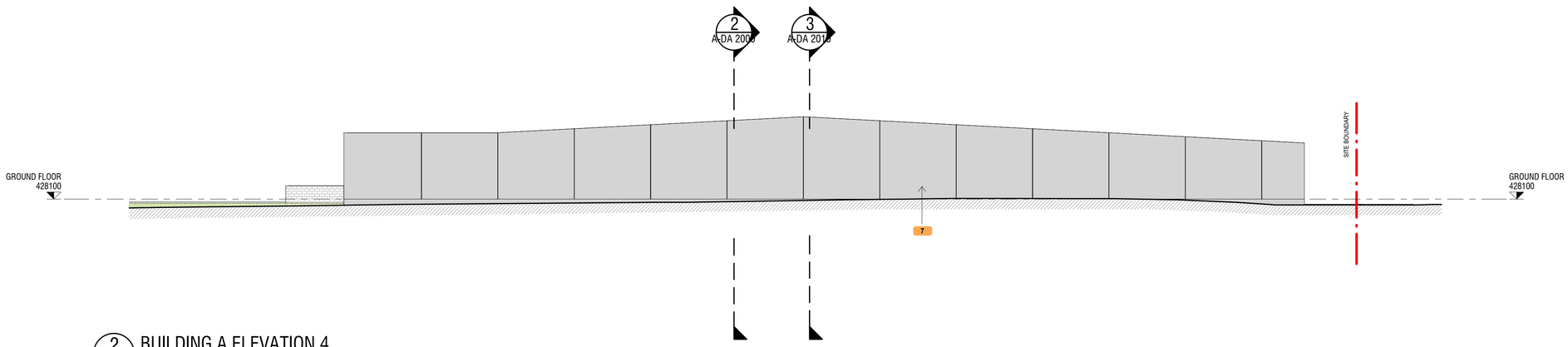
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C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW



1 / 0010 BUILDING A ELEVATION 3
1 : 200



2 / 0010 BUILDING A ELEVATION 4
1 : 200

EXTERIOR MATERIAL PALETTE



1. ALUMINIUM BATTENS

Red Powder coated Aluminium battens

2/3 STRUCTURAL ELEMENTS

Black painted structural & architectural elements

4. FACADE CLADDING

Brick facade

5. PLANTERS

Reclaimed bricks

6. WASTE ENCLOSURES/ FENCE

TIMBER - LOOK ALUMINIUM BATTENS

7. FACADE PANELS

PRE - CAST PANELS

8. EXTERNAL CLADDING

RED PAINTED EXPRESS JOINT CFC

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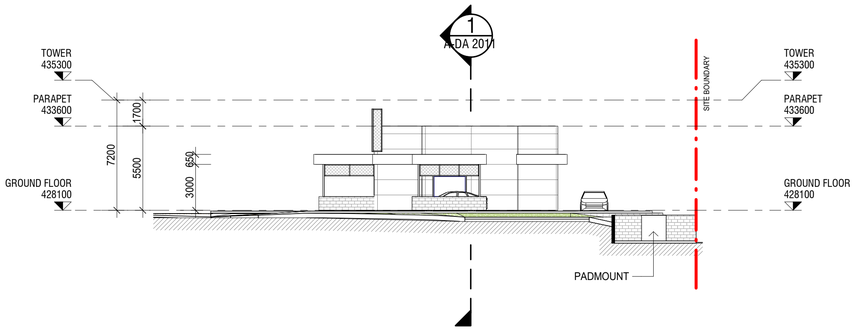
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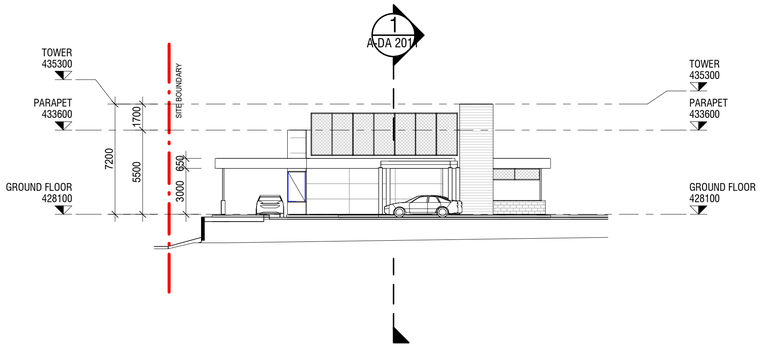
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B	08/10/25	WIP FOR COORDINATION	JR	PW



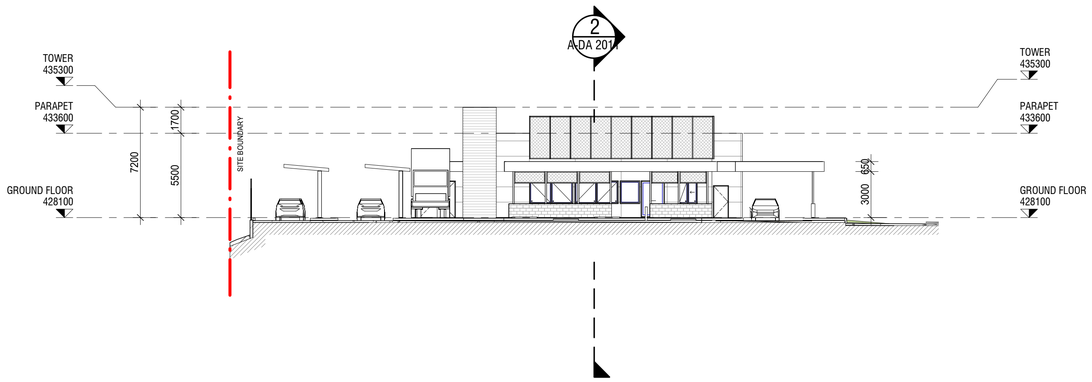
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1 : 200



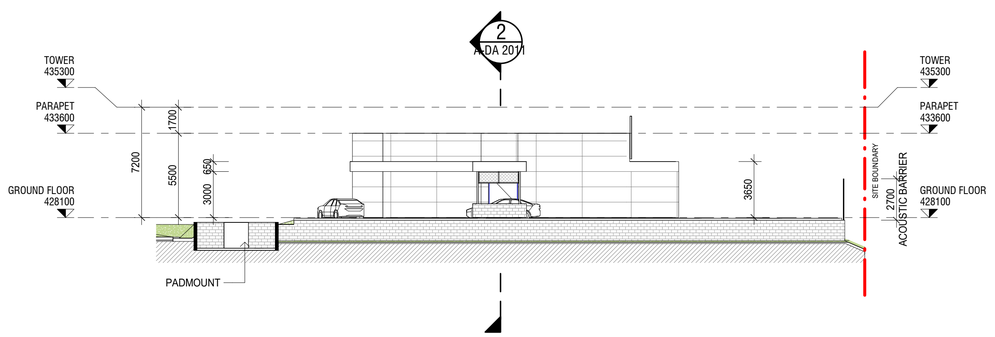
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1 : 200



2 / 0010 BUILDING B ELEVATION 2

1 : 200



4 / 0010 BUILDING B ELEVATION 4

1 : 200

arkhright architects

Arkhright Architects Pty Ltd
1/21 AGARS STREET
PADDINGTON QLD 4064

www.arkhright.com
admin@arkhright.com
07 3543 5649

ABN 44 678 592 535

Project

COLES KINGAROY

coles

Status

Date Plotted 8/10/2025 3:34:30 PM

Date Issued

Scale 1 : 200 @A1

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Drawing Title

BUILDING B ELEVATIONS

Drawing Number **A-DA-A-DA 3002**

Revision **B**

Rev.	Date	Description	Ins.	Appr.
A	30/09/25	WIP FOR COORDINATION	JR	PW
B	08/10/25	WIP FOR COORDINATION	JR	PW







arkhright architects

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PADDINGTON QLD 4064

www.arkhright.com
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07 3543 5649

ABN 44 678 592 535

Project
COLES KINGAROY

coles

Status

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Date Issued

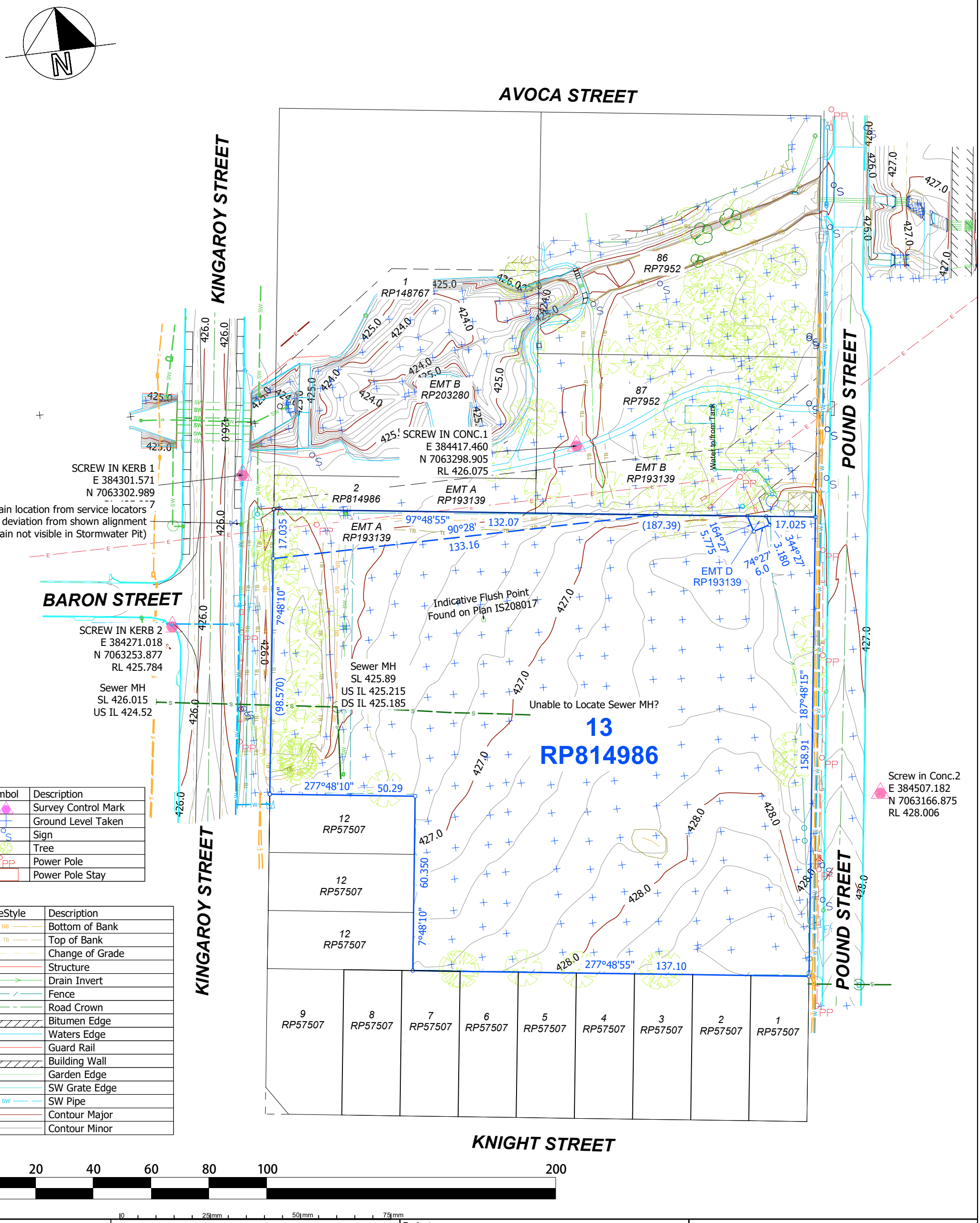
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Drawing Title
3D VIEWS

Drawing Number
A-DA-A-DA 5000

Revision
B

Appendix B. Site Survey



Symbol	Description
	Survey Control Mark
	Ground Level Taken
S	Sign
	Tree
PP	Power Pole
	Power Pole Stay

LineStyle	Description
BB	Bottom of Bank
TB	Top of Bank
	Change of Grade
	Structure
	Drain Invert
	Fence
	Road Crown
	Bitumen Edge
	Waters Edge
	Guard Rail
	Building Wall
	Garden Edge
	SW Grate Edge
SW	SW Pipe
	Contour Major
	Contour Minor

0 20 40 60 80 100 200

0 25mm 50mm 75mm

Notes:

The title boundaries shown hereon were not marked by the author at the time of survey and have been determined by plan dimensions only and not by field measurement.

Services shown hereon have been located where possible by field survey. Prior to any demolition, excavation or construction on the site, the physical location of all services should be confirmed and an investigation into the location of possible further underground services undertaken.

Services Plotted Via Services located by GPR and EMF

All displayed spatial references are **GROUND** based coordinates, based about **Screw in Conc.1**

Easting	Northing	Reduced Level
384417.460	7063298.905	426.075

To convert Ground to Grid apply scale 0.999765 at origin Screw in Conc.1.

MERIDIAN	Horizontal Co-Ord Origin
MGA20 Zone56	PSM10033

Easting	Northing	Reduced Level
384380.436	7063834.601	474.749

Level Datum	Level Origin	Surveyed	Date
AHD	PSM10033	M.V.	15/4/25-30/4/25
Reduced Level		**Drawn**	**Date**
474.749		D.I.M.	13/5/25

Project:

CONTOUR AND DETAIL

LOT 13 ON RP814986

- Pound Street, KINGAROY -

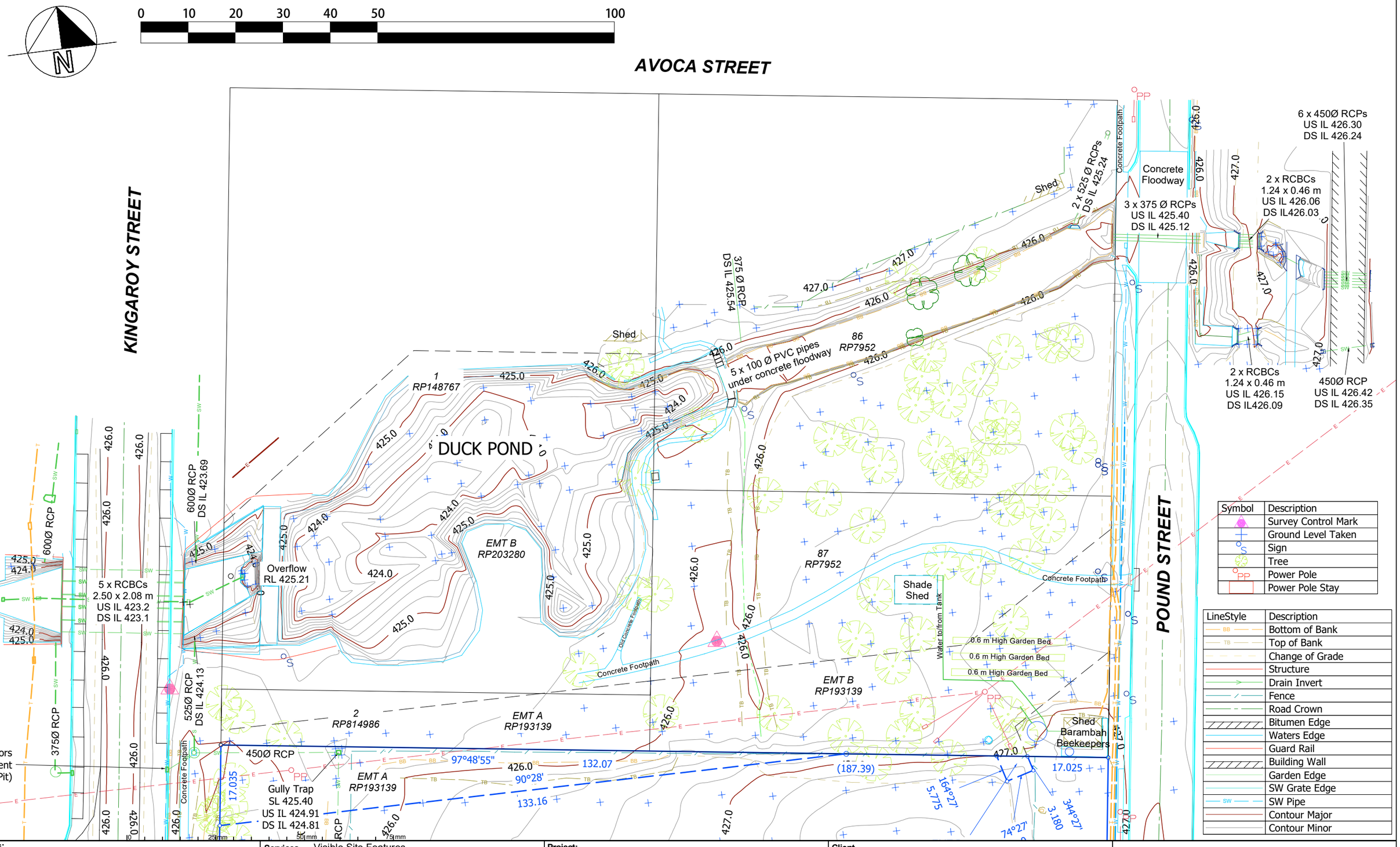
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COLES GROUP PROPERTY DEVELOPMENTS LTD

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Brisbane & Sunshine Coast - Ph. 5422 0200
South Burnett & Western Downs - Ph.4162 2647
Email: admin@onfsurveyors.com.au

Computer File "L:\PROJECTS\LOCATION\KINGAROY\12964K_Pound Street\12964K Survey Dat 12964.mjo"

Drawing Number	Rev	Job No.	Scale (A3)	Sheet
12964-D1	-	12964	1:1250	1 of 3



Symbol	Description
	Survey Control Mark
	Ground Level Taken
S	Sign
	Tree
PP	Power Pole
	Power Pole Stay

LineStyle	Description
BB	Bottom of Bank
TB	Top of Bank
	Change of Grade
	Structure
	Drain Invert
	Fence
	Road Crown
	Bitumen Edge
	Waters Edge
	Guard Rail
	Building Wall
	Garden Edge
SW	SW Grate Edge
SW	SW Pipe
	Contour Major
	Contour Minor

Notes:

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Surveyed	Date	Level Datum	Level Origin
M.V.	15/4/25-30/4/25	AHD	PSM10033
Drawn	**Date**	**Reduced Level**	
D.I.M.	13/5/25	474.749	

Services Plotted Via Visible Site Features and Records

All displayed spatial references are **GROUND** based coordinates, based about **Screw in Conc.1**

Easting	Northing	Reduced Level
384417.460	7063298.905	426.075

To convert Ground to Grid apply scale 0.999765 at origin Screw in Conc.1.

MERIDIAN		Horizontal Co-Ord Origin
MGA20 Zone56		PSM10033
Easting	**Northing**	**Reduced Level**
384380.436	7063834.601	474.749

Project:

CONTOUR AND DETAIL

LOT 13 ON RP814986

- Pound Street, KINGAROY -

Drawing Number	Rev	Job No.	Scale (A3)	Sheet
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Client

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South Burnett & Western Downs - Ph.4162 2647
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Watermain location from service locators
Potential deviation from shown alignment
(watermain not visible in Stormwater Pit)

BARON STREET

KINGAROY STREET

POUND STREET

450Ø RCP

Gully Trap
SL 425.40
US IL 424.91
DS IL 424.81

EMT A
RP193139

EMT D
RP193139

Gully Trap
SL 425.67??
US IL 425.03
DS IL 424.96

Sewer MH
SL 425.89
US IL 425.215
DS IL 425.185

Sewer MH
SL 426.015
US IL 424.52

Unable to Locate Sewer MH?

Gully Trap
SL 425.85
US IL 425.18
DS IL 425.21

300Ø RCP

Gully Trap
SL ???
DS IL 425.21

13
RP814986

12
RP57507

9
RP57507

8
RP57507

7
RP57507

6
RP57507

5
RP57507

4
RP57507

3
RP57507

2
RP57507

1
RP57507

Symbol	Description
	Survey Control Mark
	Ground Level Taken
S	Sign
	Tree
PP	Power Pole
	Power Pole Stay

LineStyle	Description
BB	Bottom of Bank
TB	Top of Bank
	Change of Grade
	Structure
	Drain Invert
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	Road Crown
	Bitumen Edge
	Waters Edge
	Guard Rail
	Building Wall
	Garden Edge
	SW Grate Edge
SW	SW Pipe
	Contour Major
	Contour Minor

0 10 20 30 40 50 100

0 25mm 50mm 75mm

Notes:

The title boundaries shown hereon were not marked by the author at the time of survey and have been determined by plan dimensions only and not by field measurement.

Services shown hereon have been located where possible by field survey. Prior to any demolition, excavation or construction on the site, the physical location of all services should be confirmed and an investigation into the location of possible further underground services undertaken.

Services Plotted Via Visible Site Features and Records

All displayed spatial references are **GROUND** based coordinates, based about **Screw in Conc.1**

Easting	Northing	Reduced Level
384417.460	7063298.905	426.075

To convert Ground to Grid apply scale 0.999765 at origin Screw in Conc.1.

Surveyed	Date	Level Datum	Level Origin
M.V.	15/4/25-30/4/25	AHD	PSM10033
Drawn	**Date**	**Reduced Level**	
D.I.M.	13/5/25	474.749	

MERIDIAN		Horizontal Co-Ord Origin
MGA20 Zone56		PSM10033
Easting	**Northing**	**Reduced Level**
384380.436	7063834.601	474.749

Project:

CONTOUR AND DETAIL

LOT 13 ON RP814986

- Pound Street, KINGAROY -

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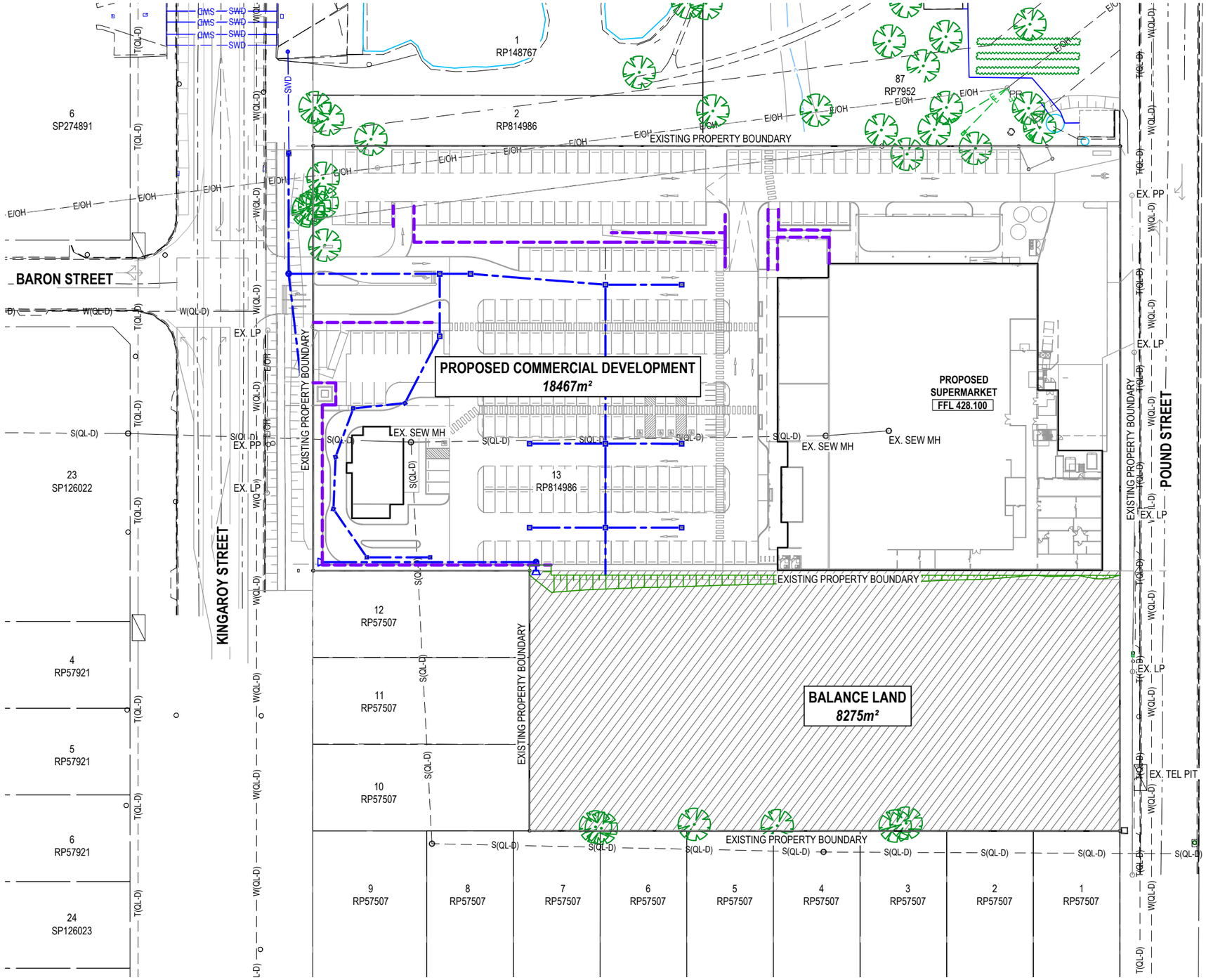
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Appendix C. Contour Preliminary Engineering Servicing Plans



LEGEND

EXISTING FEATURES

- OVERALL RP BOUNDARY
- CADASTRAL EASEMENT
- SURVEYED RP BOUNDARY
- CADASTRAL RP BOUNDARY
- CHANGE IN GRADE
- EARTHWORKS BATTER
- RETAINING WALL
- ROAD CENTRELINE
- ROAD KERB & CHANNEL
- EDGE OF BITUMEN
- CONCRETE
- BUILDING
- FENCE
- SWD — STORMWATER
- DRAINAGE CHANNEL
- S(QL-D) — SEWER (QUALITY LEVEL D)
- W(QL-D) — WATER (QUALITY LEVEL D)
- E/OH — OVERHEAD ELECTRICAL
- E — ELECTRICAL
- T(QL-D) — TELSTRA (QUALITY LEVEL D)
- EDGE OF VEGETATION
- TREE TO REMAIN

LEGEND

PROPOSED FEATURES

- RP BOUNDARY
- RP EASEMENT
- EARTHWORKS BATTERS
- ROAD CENTRELINE
- RETAINING WALL
- STORMWATER DRAINAGE

0 10 20 30 40 50m

SCALE 1:1000 A3

CONTOUR

A.B.N. 62 117 061 659

SUNSHINE COAST OFFICE
Suite 512 & 513, Level 5
Tower 2, 55 Plaza Pde
Maroochydore, Qld 4558

NORTH LAKES OFFICE
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North Lakes, Qld 4509

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Rev	Date	Comment	Alt	Chkd	RPEQ
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PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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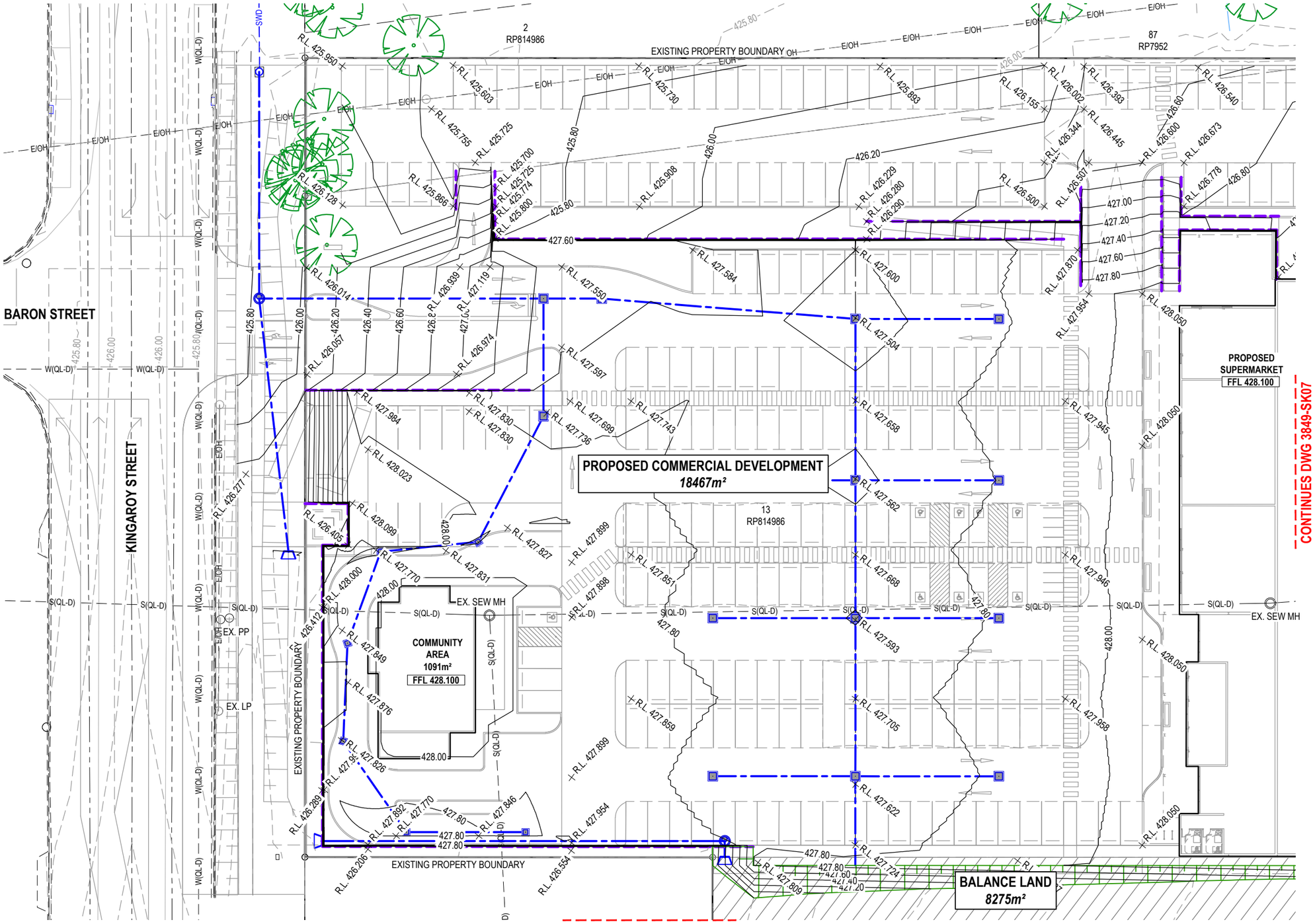
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DEVELOPMENT LAYOUT PLAN

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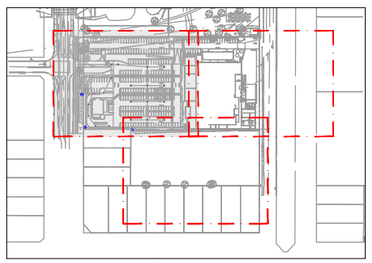
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- SURVEYED RP BOUNDARY
- CADASTRAL RP BOUNDARY
- CHANGE IN GRADE
- EARTHWORKS BATTER
- RETAINING WALL
- ROAD CENTRELINE
- ROAD KERB & CHANNEL
- EDGE OF BITUMEN
- CONCRETE
- BUILDING
- FENCE
- SWD — SWD — STORMWATER
- DRAINAGE CHANNEL
- S(QL-D) — SEWER (QUALITY LEVEL D)
- W(QL-D) — WATER (QUALITY LEVEL D)
- E/OH — OVERHEAD ELECTRICAL
- E — E — ELECTRICAL
- T(QL-D) — TELSTRA (QUALITY LEVEL D)
- EDGE OF VEGETATION
- TREE TO REMAIN
- 12 — NATURAL CONTOUR

LEGEND

PROPOSED FEATURES

- RP BOUNDARY
- RP EASEMENT
- EARTHWORKS BATTERS
- ROAD CENTRELINE
- RETAINING WALL
- STORMWATER DRAINAGE
- 63 — DESIGN CONTOUR
- R.L. 16.341 — REDUCED LEVEL



KEY PLAN
NOT TO SCALE

NOTE:
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0 5.0 10 15 20 25m
SCALE 1:500 A3

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PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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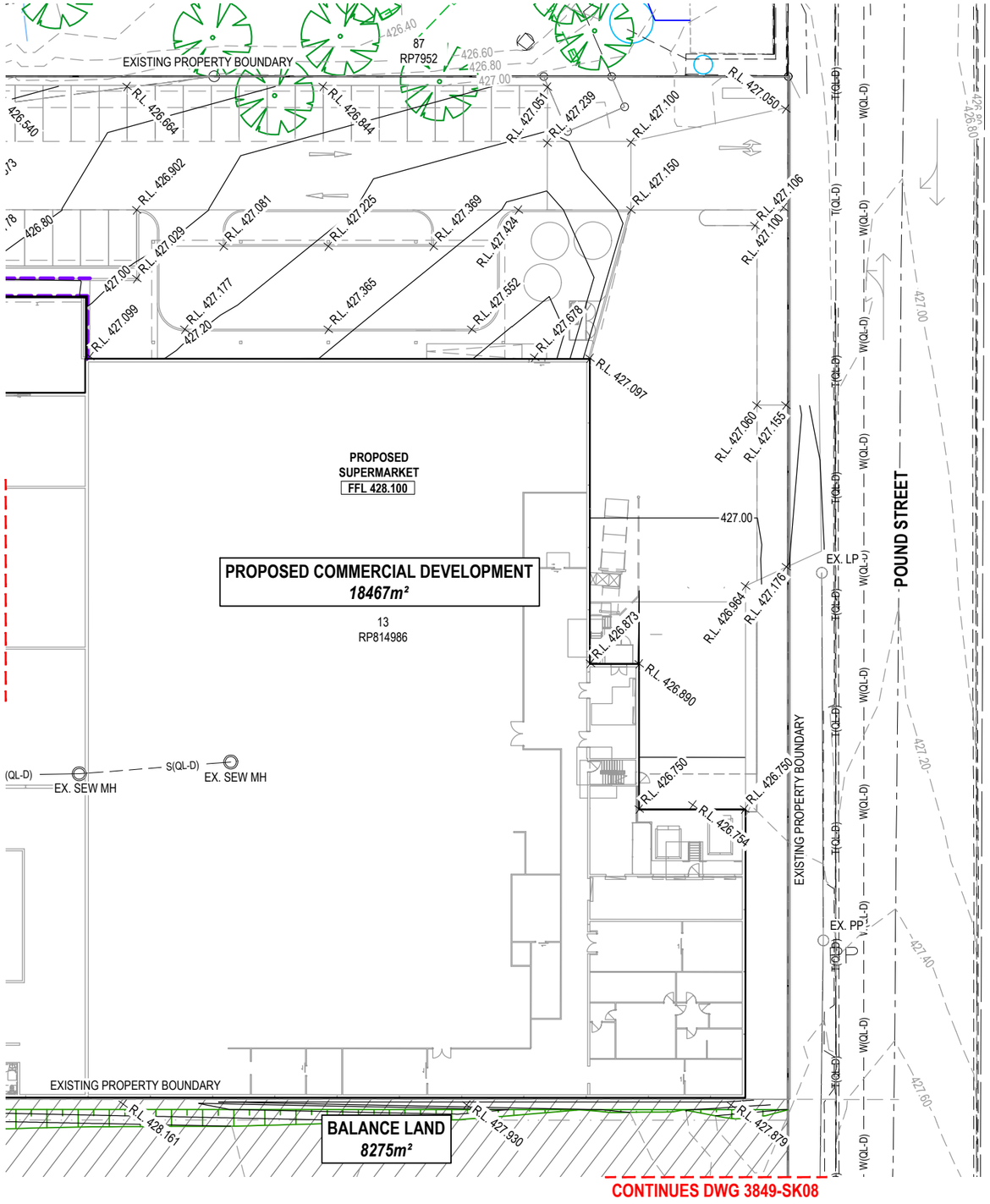
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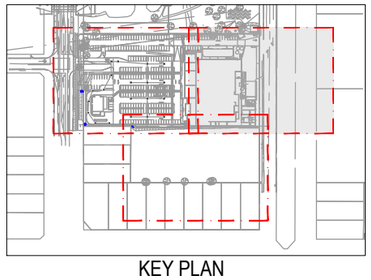
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- CADASTRAL RP BOUNDARY
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- 12 — NATURAL CONTOUR

LEGEND

PROPOSED FEATURES

- RP BOUNDARY
- RP EASEMENT
- EARTHWORKS BATTERS
- ROAD CENTRELINE
- RETAINING WALL
- STORMWATER DRAINAGE
- 63 — DESIGN CONTOUR
- R.L. 16.341 — REDUCED LEVEL



KEY PLAN
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NOTE:
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SCALE 1:500 A3

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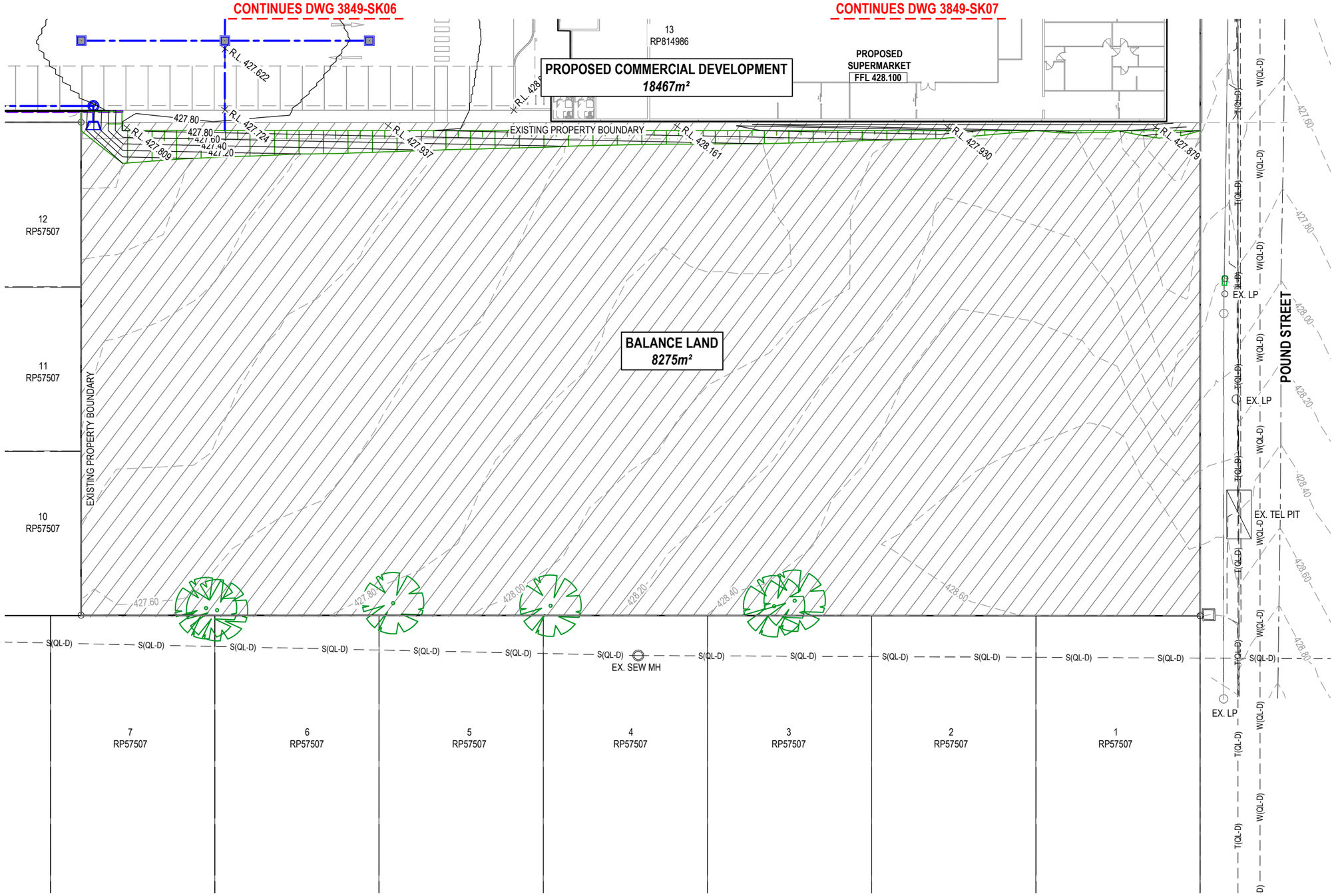
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SITEWORKS PLAN - SHEET 2

PRELIMINARY- NOT FOR CONSTRUCTION

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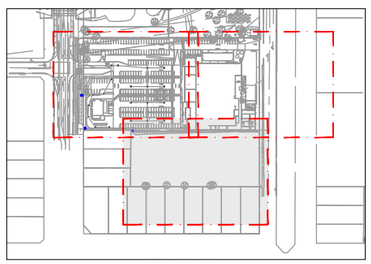
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- SURVEYED RP BOUNDARY
- CADASTRAL RP BOUNDARY
- CHANGE IN GRADE
- EARTHWORKS BATTER
- RETAINING WALL
- ROAD CENTRELINE
- ROAD KERB & CHANNEL
- EDGE OF BITUMEN
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- S(QL-D) — SEWER (QUALITY LEVEL D)
- W(QL-D) — WATER (QUALITY LEVEL D)
- E/OH — OVERHEAD ELECTRICAL
- E — ELECTRICAL
- T(QL-D) — TELSTRA (QUALITY LEVEL D)
- EDGE OF VEGETATION
- TREE TO REMAIN
- 12 — NATURAL CONTOUR

LEGEND

PROPOSED FEATURES

- RP BOUNDARY
- RP EASEMENT
- EARTHWORKS BATTERS
- ROAD CENTRELINE
- RETAINING WALL
- STORMWATER DRAINAGE
- 63 — DESIGN CONTOUR
- R.L. 16.341 — REDUCED LEVEL



KEY PLAN
NOT TO SCALE

NOTE:
- FOR ARCHITECTURAL DETAILS REFER ARKHRIGHT ARCHITECTS DWG A-SK-1001

0 5.0 10 15 20 25m

SCALE 1:500 A3

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Hori. Datum:	MGA GDA 2020
Date:	

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Rev	Date	Comment	Alt	Chkd	RPEQ
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PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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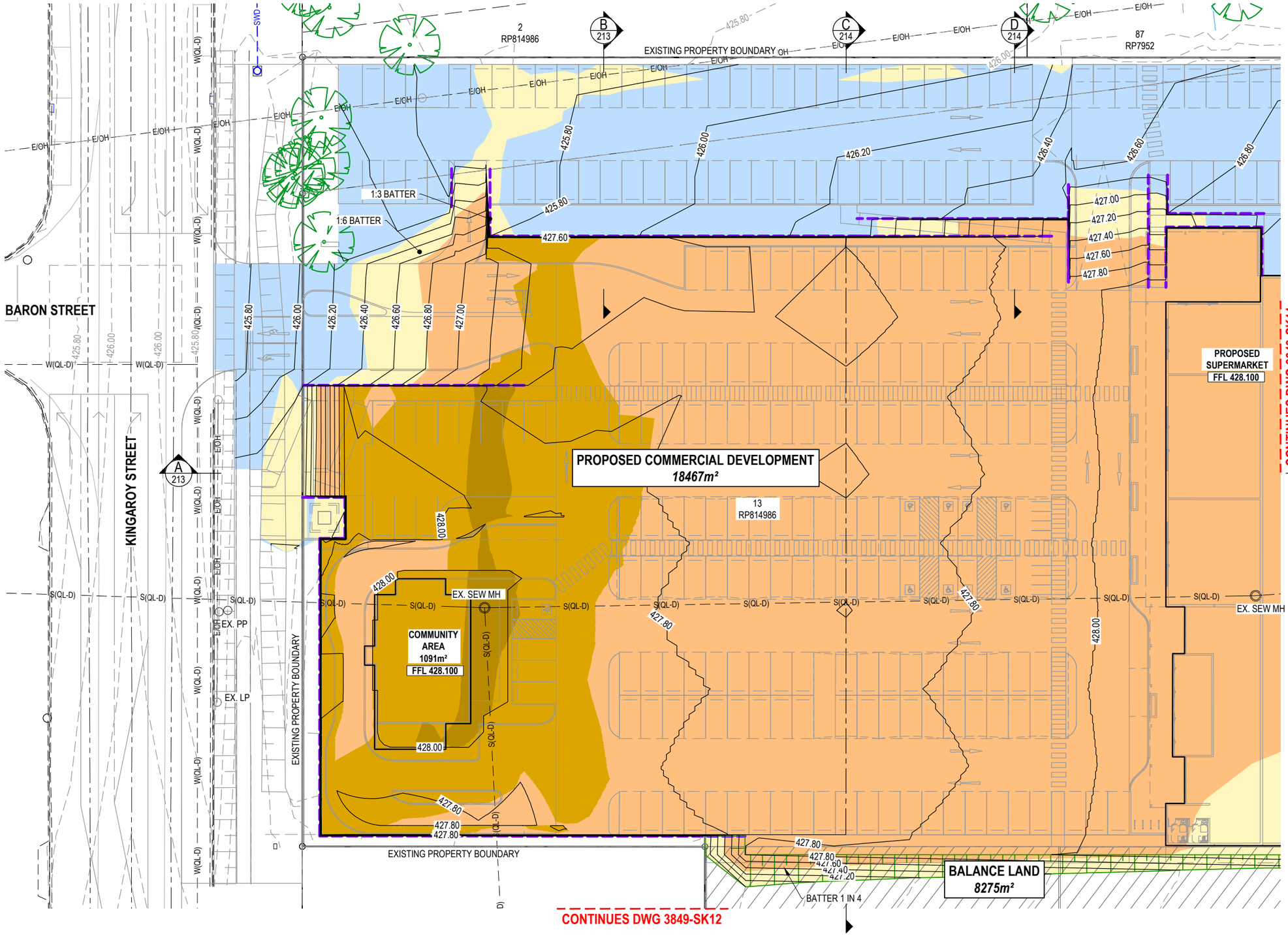
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SITEWORKS PLAN - SHEET 3

PRELIMINARY- NOT FOR CONSTRUCTION

PLAN No: 3849 - SK08 **REVISION:** A

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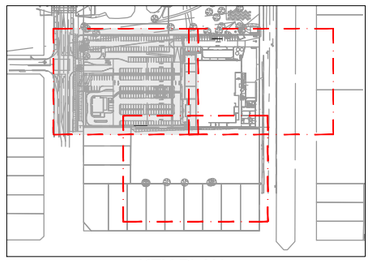
EXISTING FEATURES

- OVERALL RP BOUNDARY
- CADASTRAL EASEMENT
- SURVEYED RP BOUNDARY
- CADASTRAL RP BOUNDARY
- CHANGE IN GRADE
- EARTHWORKS BATTER
- RETAINING WALL
- ROAD CENTRELINE
- ROAD KERB & CHANNEL
- EDGE OF BITUMEN
- CONCRETE
- BUILDING
- FENCE
- SWD — STORMWATER
- DRAINAGE CHANNEL
- S(QL-D) — SEWER (QUALITY LEVEL D)
- W(QL-D) — WATER (QUALITY LEVEL D)
- E/OH — OVERHEAD ELECTRICAL
- E — ELECTRICAL
- T(QL-D) — TELSTRA (QUALITY LEVEL D)
- EDGE OF VEGETATION
- TREE TO REMAIN
- 12 — NATURAL CONTOUR

LEGEND

PROPOSED FEATURES

- RP BOUNDARY
- RP EASEMENT
- EARTHWORKS BATTERS
- ROAD CENTRELINE
- RETAINING WALL
- 63 — DESIGN CONTOUR



KEY PLAN
NOT TO SCALE

NOTE:
- REFER TO DWG 3849-SK11 FOR EARTHWORK VOLUMES AND ELEVATION TABLE.
- FOR ARCHITECTURAL DETAILS REFER ARKHRIGHT ARCHITECTS DWG A-SK-1001

0 5.0 10 15 20 25m
SCALE 1:500 A3

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Maroochydore, Qld 4558
Ph. (07) 5493 9777

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Hori. Datum:	MGA GDA 2020
Date:	

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PLAN AMENDMENTS:

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PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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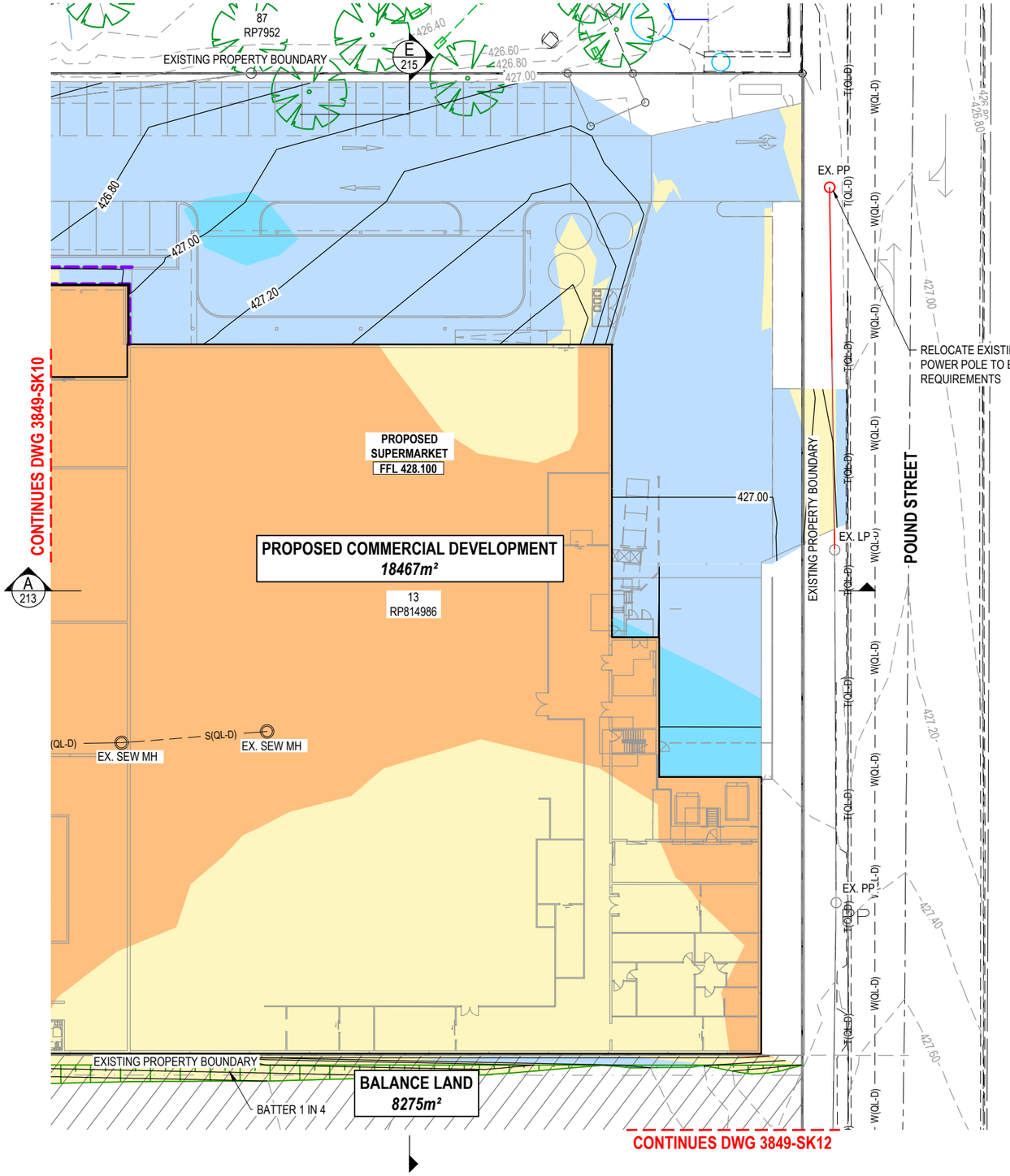
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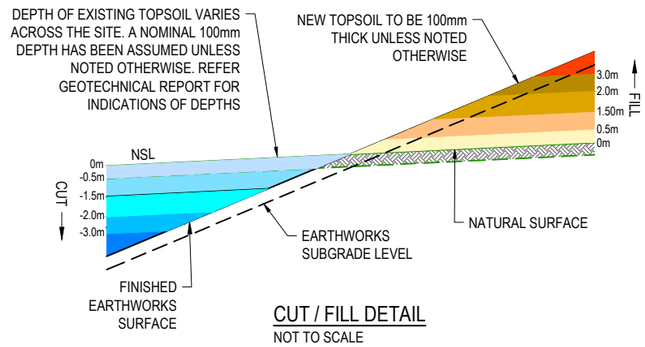
EARTHWORKS PLAN - SHEET 1

PRELIMINARY- NOT FOR CONSTRUCTION

PLAN No: 3849 - SK10 **REVISION:** A

FILE LOCATION: C:\12DS\DATA\CCE2K16DC01\03849 - LOT 13 POUND STREET, KINGAROY_31586\DESIGN - CIVIL\AUTOCAD\SKETCHES\3849-SK10.DWG





CUT / FILL DETAIL
NOT TO SCALE

THE EARTHWORKS COLOURS SHOWN ABOVE REPRESENT:
(NATURAL SURFACE)
VS
(FINISHED SURFACE)

PROPOSED COMMERCIAL DEVELOPMENT EARTHWORKS QUANTITIES

CUT TO FILL	1062m³
IMPORTED FILL	11032m³

NOTES:
- THE EARTHWORKS VOLUMES SHOWN ABOVE REPRESENT:
  (NATURAL SURFACE)
  VS
  (DESIGN SURFACE)
- NO BULKING FACTOR BEEN APPLIED
- CUT AND FILL VOLUMES ARE SOLID VOLUMES ONLY

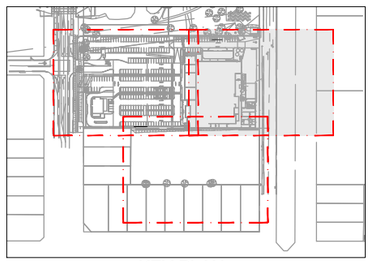
EXCLUDES PROVISIONS FOR:
- UNSUITABLE MATERIAL
- REMOVAL OF EXISTING PAVEMENT
- TRENCH SPOIL
- CONSTRUCTION METHODOLOGIES

LEGEND
EXISTING FEATURES

- OVERALL RP BOUNDARY
- CADASTRAL EASEMENT
- SURVEYED RP BOUNDARY
- CADASTRAL RP BOUNDARY
- CHANGE IN GRADE
- EARTHWORKS BATTER
- RETAINING WALL
- ROAD CENTRELINE
- ROAD KERB & CHANNEL
- EDGE OF BITUMEN
- CONCRETE
- BUILDING
- FENCE
- SWD — SWD — STORMWATER
- DRAINAGE CHANNEL
- S(QL-D) — SEWER (QUALITY LEVEL D)
- W(QL-D) — WATER (QUALITY LEVEL D)
- E/OH — OVERHEAD ELECTRICAL
- E — E — ELECTRICAL
- T(QL-D) — TELSTRA (QUALITY LEVEL D)
- EDGE OF VEGETATION
- TREE TO REMAIN
- 12 — NATURAL CONTOUR

LEGEND
PROPOSED FEATURES

- RP BOUNDARY
- RP EASEMENT
- EARTHWORKS BATTERS
- ROAD CENTRELINE
- RETAINING WALL
- 63 — DESIGN CONTOUR



KEY PLAN
NOT TO SCALE

NOTE:
- FOR ARCHITECTURAL DETAILS REFER ARKHRIGHT ARCHITECTS DWG A-SK-1001

0 5.0 10 15 20 25m
SCALE 1:500 A3

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A	3/10/2025	ORIGINAL ISSUE	SF	AK	MO

PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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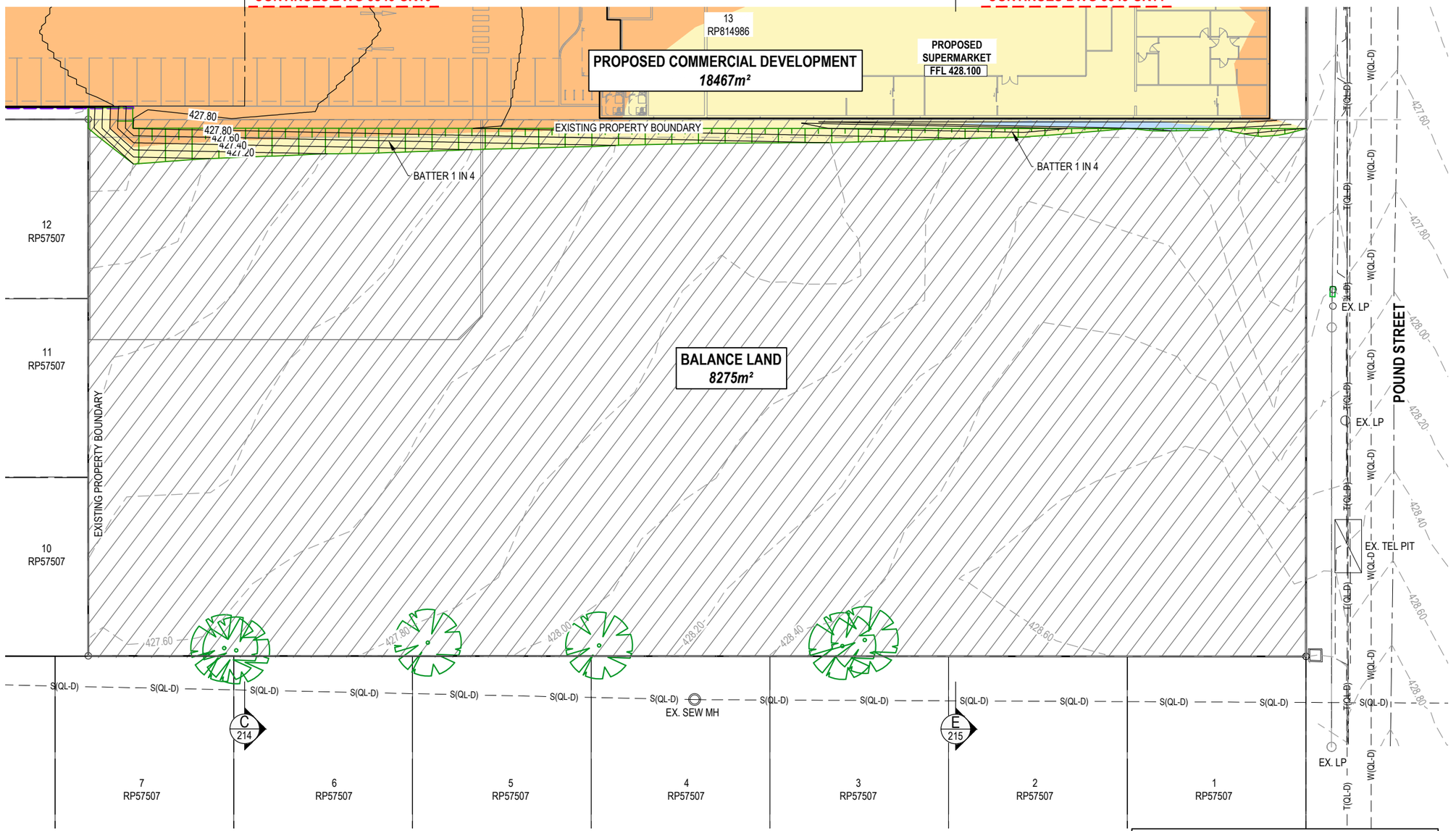
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EARTHWORKS PLAN - SHEET 2

PRELIMINARY- NOT FOR CONSTRUCTION

PLAN No: 3849 - SK11 REVISION: A

FILE LOCATION: C:\12DS\DATA\CCE2K16DC0103849 - LOT 13 POUND STREET, KINGAROY_31586\DESIGN - CIVIL\AUTOCAD\SKETCHES\3849-SK10.DWG



LEGEND

EXISTING FEATURES

- OVERALL RP BOUNDARY
- CADASTRAL EASEMENT
- SURVEYED RP BOUNDARY
- CADASTRAL RP BOUNDARY
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- EARTHWORKS BATTER
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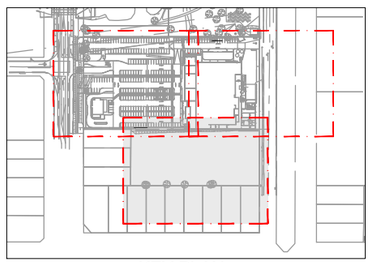
LEGEND

PROPOSED FEATURES

- RP BOUNDARY
- RP EASEMENT
- EARTHWORKS BATTERS
- ROAD CENTRELINE
- RETAINING WALL
- 63 — DESIGN CONTOUR

Elevations Table

Number	Minimum Elevation	Maximum Elevation	Color
1	-5.000	-3.000	
2	-3.000	-2.000	
3	-2.000	-1.500	
4	-1.500	-0.500	
5	-0.500	0.000	
6	0.000	0.500	
7	0.500	1.500	
8	1.500	2.000	
9	2.000	3.000	
10	3.000	4.000	



KEY PLAN
NOT TO SCALE

NOTE:
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0 5.0 10 15 20 25m

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PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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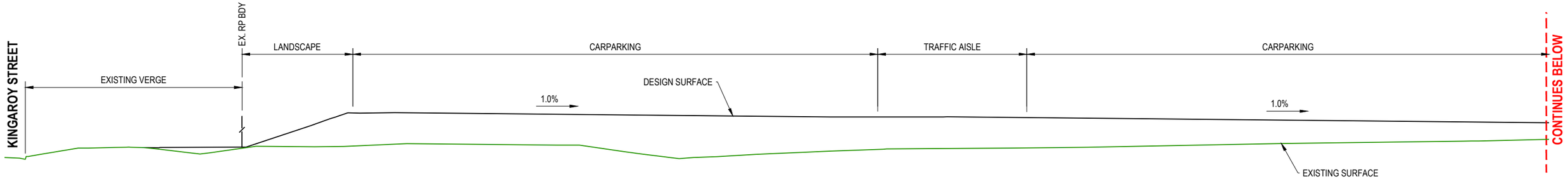
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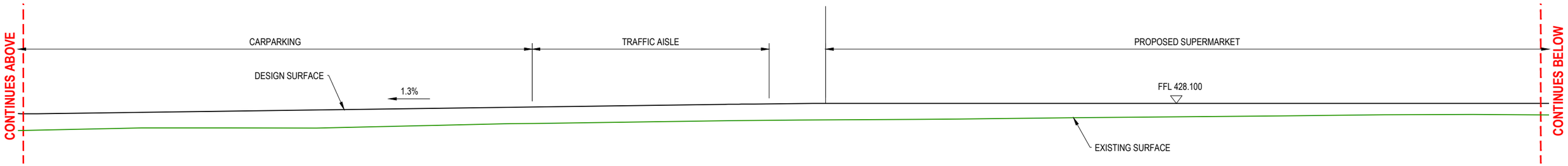
EARTHWORKS PLAN - SHEET 3

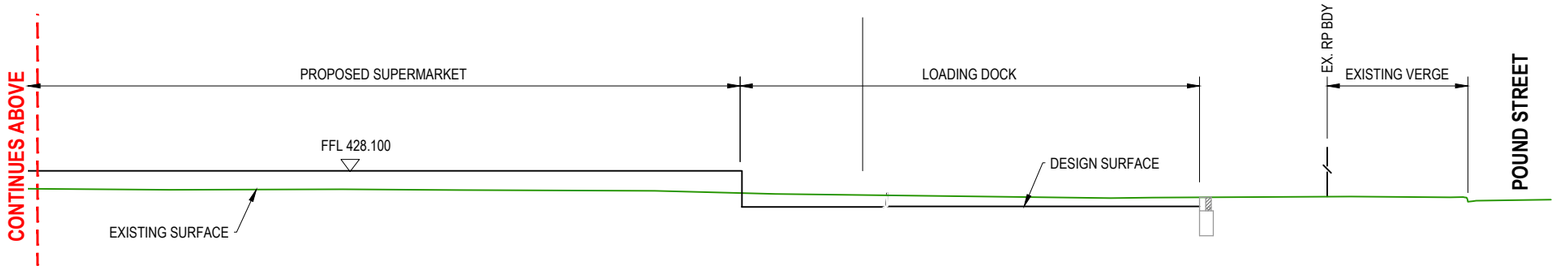
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PLAN No: 3849 - SK12 **REVISION:** A

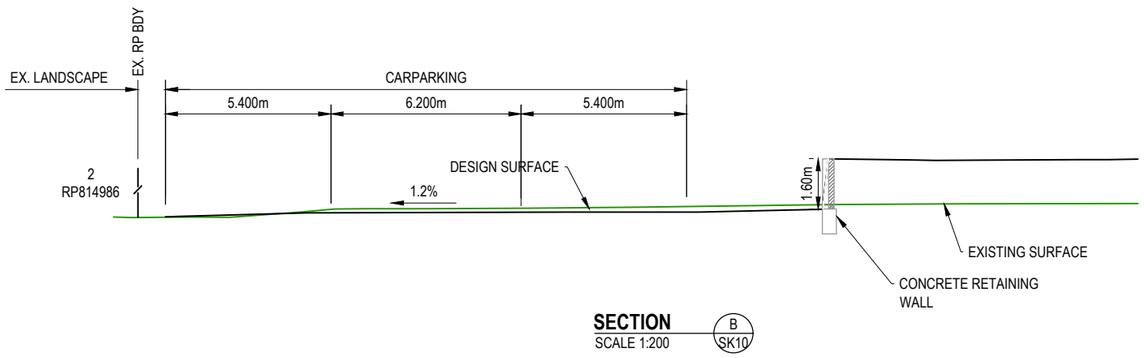
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SECTION A
SCALE 1:200 SK10 / SK11



SECTION B
SCALE 1:200 SK10

NOTE:
- FOR ARCHITECTURAL DETAILS REFER ARKHRIGHT ARCHITECTS DWG A-SK-1001

0 2 4 6 8 10m
SCALE 1:200 A3

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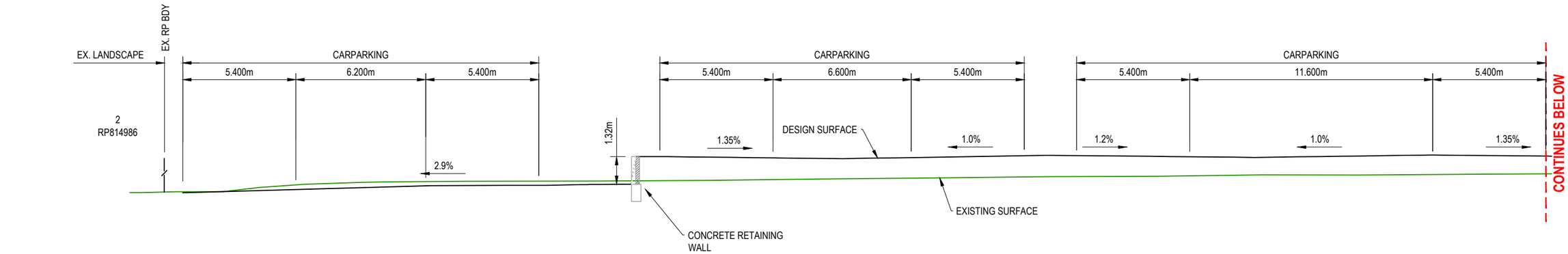
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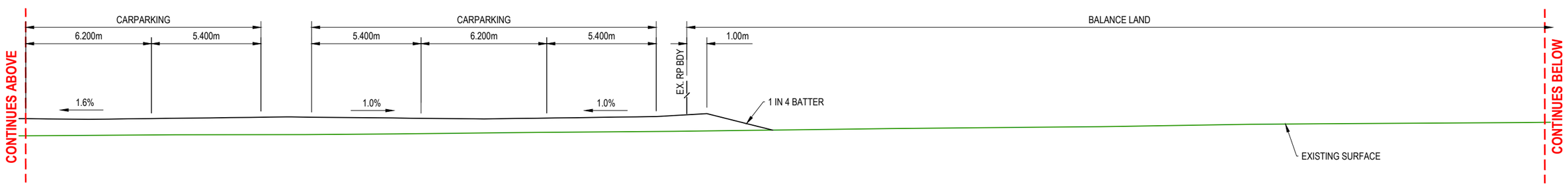
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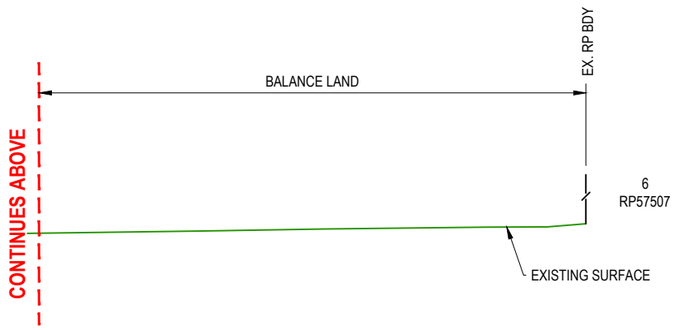
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PLAN No: 3849 - SK13 **REVISION:** A

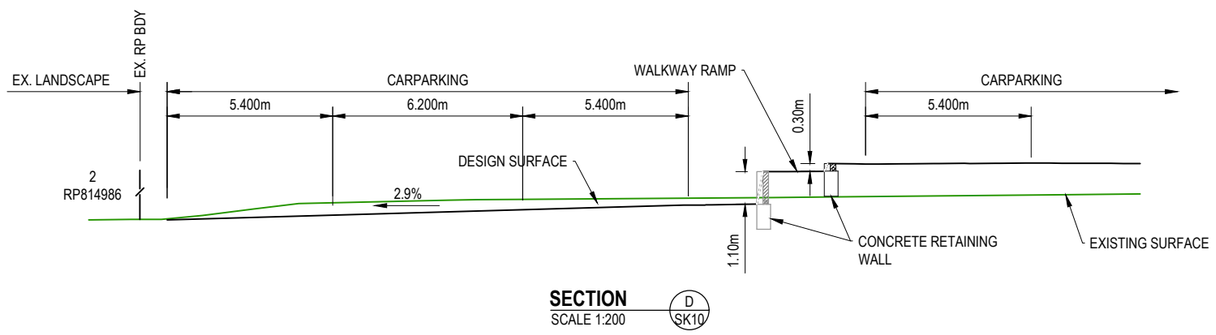
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SECTION C
SCALE 1:200 SK10 / SK12



SECTION D
SCALE 1:200 SK10

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PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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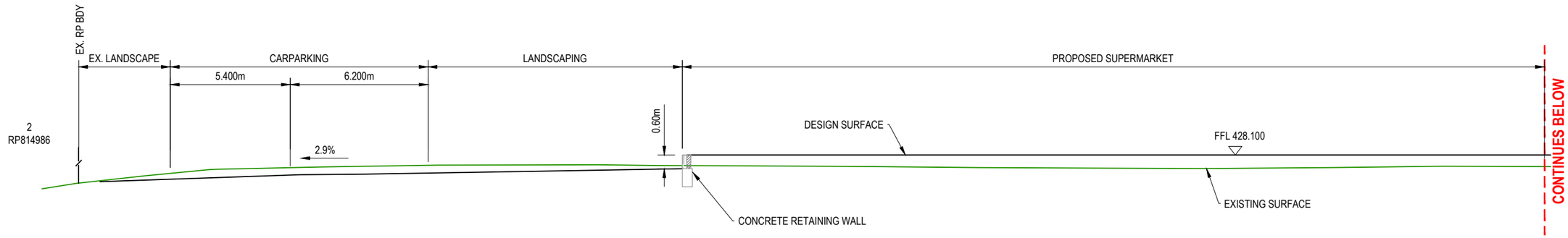
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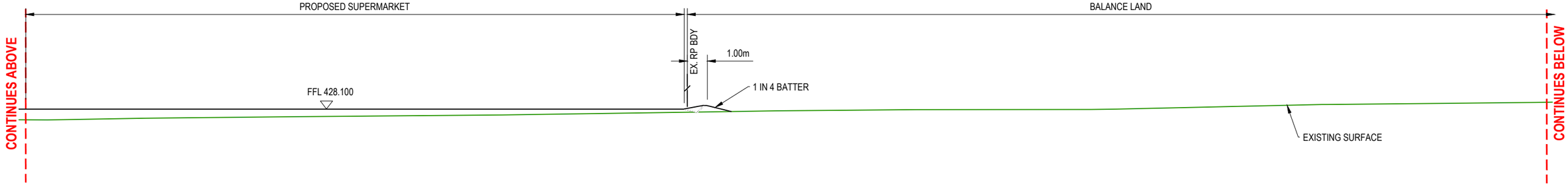
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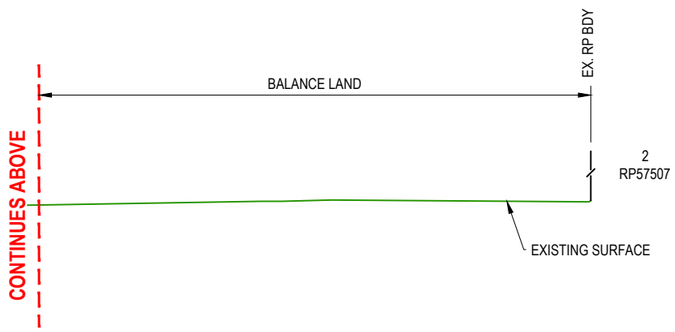
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PLAN No: 3849 - SK14 **REVISION:** A

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SECTION E
SCALE 1:200 SK11 / SK12

NOTE:
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0 2 4 6 8 10m
SCALE 1:200 A3

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PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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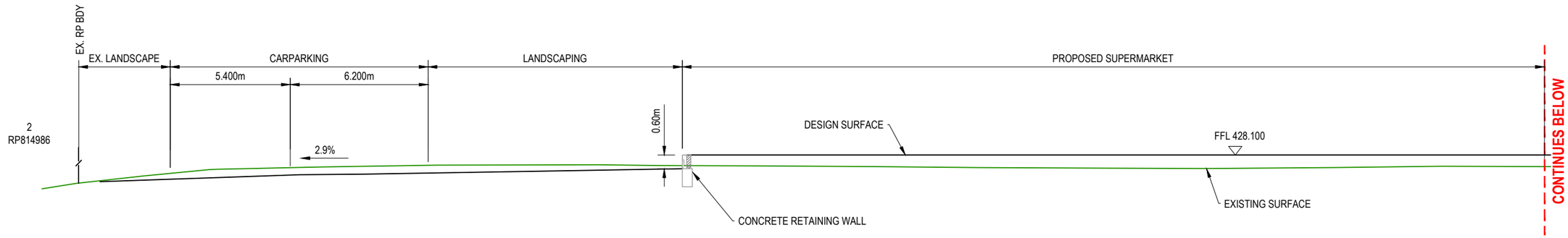
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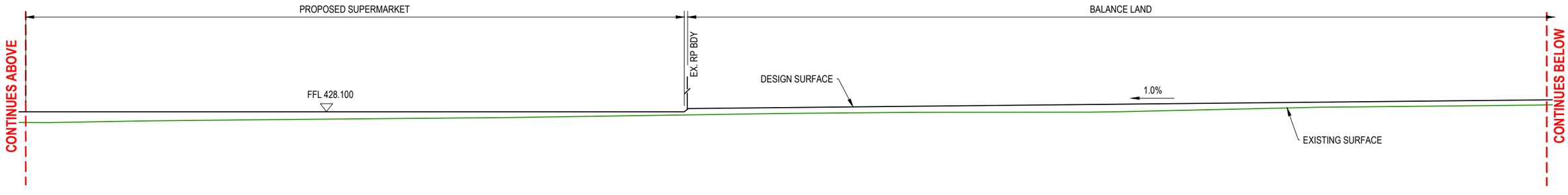
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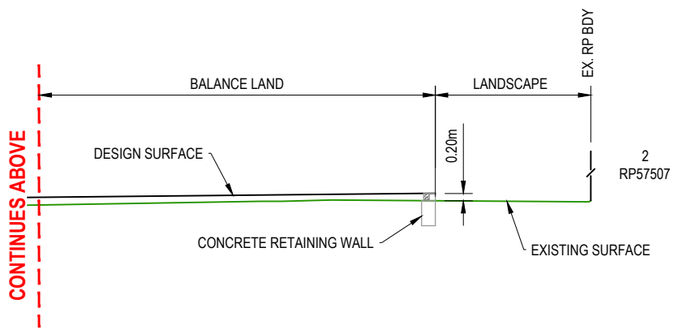
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PLAN No: 3849 - SK15 **REVISION:** A

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SECTION E
SCALE 1:200 SK11 / SK12

NOTE:
- FOR ARCHITECTURAL DETAILS REFER ARKHRIGHT ARCHITECTS DWG A-SK-1001

0 2 4 6 8 10m
SCALE 1:200 A3

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PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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EARTHWORKS SECTIONS - SHEET 3

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BARON STREET

KINGAROY STREET

EXISTING PROPERTY BOUNDARY

2
RP814986

87
RP7952

13
RP814986

PROPOSED COMMERCIAL DEVELOPMENT

PROPOSED SUPERMARKET
FFL 428.100

COMMUNITY AREA
1091m²
FFL 428.100

EX. SEW MH

EX. PP

EX. LP

BALANCE LAND

LEGEND

EXISTING FEATURES

- OVERALL RP BOUNDARY
- CADASTRAL EASEMENT
- SURVEYED RP BOUNDARY
- CADASTRAL RP BOUNDARY
- CHANGE IN GRADE
- EARTHWORKS BATTER
- RETAINING WALL
- ROAD CENTRELINE
- ROAD KERB & CHANNEL
- EDGE OF BITUMEN
- CONCRETE
- BUILDING
- FENCE
- SWD — SWD — STORMWATER
- DRAINAGE CHANNEL
- S(QL-D) — SEWER (QUALITY LEVEL D)
- W(QL-D) — WATER (QUALITY LEVEL D)
- E/OH — OVERHEAD ELECTRICAL
- E — E — ELECTRICAL
- T(QL-D) — TELSTRA (QUALITY LEVEL D)
- EDGE OF VEGETATION
- TREE TO REMAIN
- 12 — NATURAL CONTOUR

LEGEND

PROPOSED FEATURES

- RP BOUNDARY
- RP EASEMENT
- EARTHWORKS BATTERS
- ROAD CENTRELINE
- RETAINING WALL
- STORMWATER DRAINAGE
- 63 — DESIGN CONTOUR
- 1/1 STORMWATER STRUCTURE NUMBER

KEY PLAN
NOT TO SCALE

NOTE:
- FOR ARCHITECTURAL DETAILS REFER ARKHRIGHT ARCHITECTS DWG A-SK-1001

0 5.0 10 15 20 25m
SCALE 1:500 A3

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PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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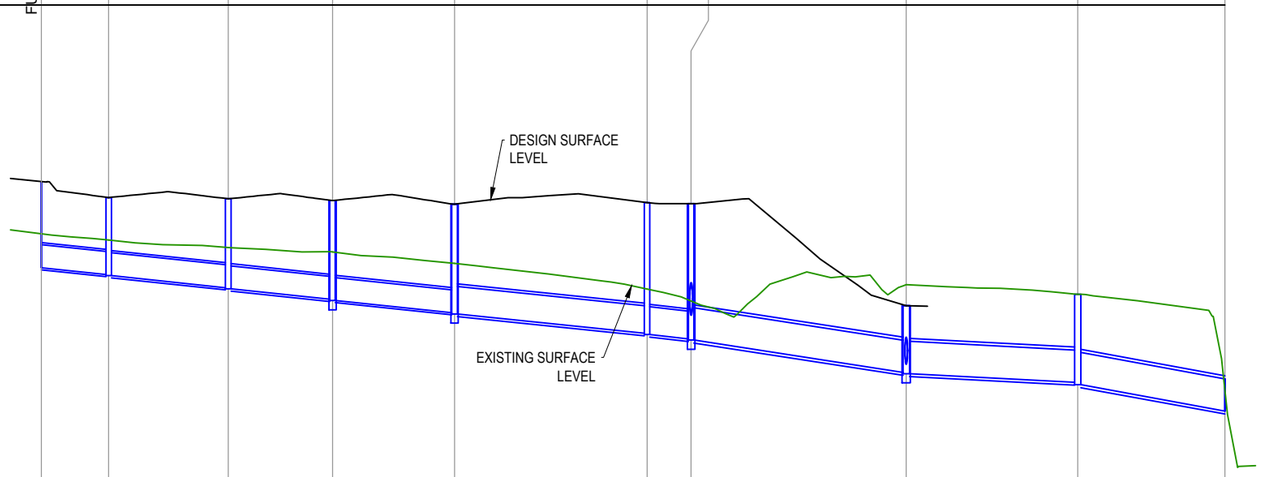
STORMWATER DRAINAGE PLAN

PRELIMINARY- NOT FOR CONSTRUCTION

PLAN No: 3849 - SK20 REVISION: A

FILE LOCATION: C:\12DS\DATA\CCE2K16DC0103849 - LOT 13 POUND STREET, KINGAROY_31586\DESIGN - CIVIL\AUTOCAD\SKETCHES\3849-SK20.DWG

STRUCTURE NAME	1-1	2-1	3-1	4-1	5-1	6-1	7-1	8-1	9-1	10-1
STRUCTURE DISCRIPTION Refer Local Authority Standard Drawings	FUTURE PIPE CONNECTION	FIELD INLET 900 x 900	FIELD INLET 900 x 900	FIELD INLET 900 x 900	FIELD INLET 900 x 900	FIELD INLET 900 x 900	FIELD INLET 900 x 900	MANHOLE 1050mm DIA	EXISTING STRUCTURE	HEADWALL



PIPE SIZE (mm)		375	375	375	375	450	450	525	525	EXISTING 525
PIPE CLASS		CL3	CL3	CL3	CL3	CL3	CL3	CL3	CL3	
PIPE GRADE (%)		1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.50%	0.50%	1.79%
PIPE SLOPE (1 in X)		100.00	100.00	100.00	100.00	100.00	100.00	66.67	200.00	55.83
FULL PIPE VELOCITY (m/s)										
PART FULL VELOCITY (m/s)										
DATUM RL		420.0								
PIPE FLOW (Cumecs)										
PIPE CAPACITY AT GRADE (Cumecs)										
H.G.L LEVEL			0.000	0.000					0.000	0.000
DEPTH TO INVERT		1.406	1.253 1.273	1.449 1.469	1.609 1.629	1.771 1.791	2.131 2.151	2.203 2.223	1.086 1.106	1.431 1.471
INVERT LEVEL		426.466	426.356 426.336	426.141 426.121	425.951 425.931	425.732 425.712	425.398 425.378	425.306 425.286	424.760 424.740	424.600 424.560
FINISHED SURFACE LEVEL	427.872		427.609	427.590	427.560	427.502	427.529	427.509	425.846	426.031 424.655
SETOUT CO-ORDINATES	E. 384364.602 N. 7063182.067	E. 384366.096 N. 7063192.965		E. 384368.744 N. 7063212.284	E. 384371.052 N. 7063229.127	E. 384373.755 N. 7063248.842	E. 384343.084 N. 7063255.570	E. 384335.969 N. 7063256.545	E. 384301.216 N. 7063261.308	E. 384305.012 N. 7063289.005
CHAINAGE	0.000	10.999	30.499	47.499	67.399	98.799	105.980	141.059	169.015	193.024
LENGTH		10.999m	19.500m	17.000m	19.900m	31.399m	7.182m	35.078m	27.956m	24.009m

LINE 1

0 10 20 30 40 50m SCALE 1:1000 (Horiz.) A3

0 1 2 3 4 5m SCALE 1:100 (Vert.) A3

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PROPOSED COMMERCIAL DEVELOPMENT AT 1 POUND STREET, KINGAROY FOR COLES SUPERMARKETS

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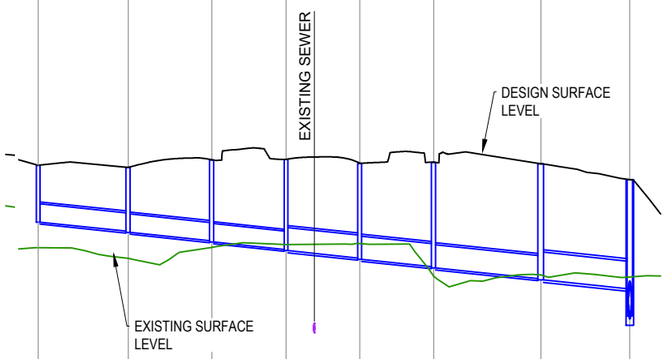
STORMWATER LONGITUDINAL SECTION - SHEET 2

PRELIMINARY- NOT FOR CONSTRUCTION

PLAN No: 3849 - SK22 **REVISION:** A

FILE LOCATION: C:\12DS\DATA\CCE2K16DC0103849 - LOT 13 POUND STREET, KINGAROY_31586\DESIGN - CIVIL\AUTOCAD\SKETCHES\3849-SK20.DWG

STRUCTURE NAME	1-2	2-2	3-2	4-2	5-2	6-2	7-2	7-1	1-3	2-3	3-3
STRUCTURE DISCRIPTION Refer Local Authority Standard Drawings	FIELD INLET 600 x 600	FIELD INLET 600 x 600	FIELD INLET 600 x 600	FIELD INLET 600 x 600	FIELD INLET 600 x 600	FIELD INLET 600 x 600	FIELD INLET 900 x 900	FIELD INLET 900 x 900	HEADWALL	MANHOLE 1050mm DIA	HEADWALL
PIPE SIZE (mm)	300	300	300	375	375	375	450		450	450	
PIPE CLASS	CL3	CL3	CL3	CL3	CL3	CL3	CL3		CL3	CL3	
PIPE GRADE (%)	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%		1.00%	0.97%	
PIPE SLOPE (1 in X)	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00	102.84	
FULL PIPE VELOCITY (m/s)											
PART FULL VELOCITY (m/s)											
DATUM RL	420.0								421.0		
PIPE FLOW (Cumecs)											
PIPE CAPACITY AT GRADE (Cumecs)											
H.G.L LEVEL										0.000	0.000
DEPTH TO INVERT	0.928	1.040	1.060	1.319	1.339	1.466	1.486	1.546	1.566	1.704	1.724	1.871	1.891	1.777	2.223	1.215	1.160	1.180	0.450	0.450
INVERT LEVEL	426.817	426.670	426.650	426.514	426.494	426.373	426.353	426.233	426.213	426.092	426.072	425.897	425.877	425.732	425.286	426.660	426.640	426.620	426.150	426.150
FINISHED SURFACE LEVEL	427.745	427.710	427.833	427.839	427.779	427.796	427.769	427.509		427.875	427.800			426.600						
SETOUT CO-ORDINATES	E. 384324.854 N. 7063191.652	E. 384310.290 N. 7063193.648	E. 384304.100 N. 7063205.795	E. 384306.256 N. 7063217.718	E. 384311.839 N. 7063228.329	E. 384323.905 N. 7063227.905	E. 384334.000 N. 7063242.179	E. 384335.969 N. 7063256.545		E. 384348.780 N. 7063185.243	E. 384349.052 N. 7063187.226			E. 384301.168 N. 7063193.787						
CHAINAGE	0.000	14.700	28.333	40.450	52.441	64.514	81.997	96.497		0.000	2.002			50.333						
LENGTH	14.700m	13.633m	12.117m	11.990m	12.073m	17.483m	14.500m			2.002m	48.331m									



LINE 2

LINE 3

0 10 20 30 40 50m SCALE 1:1000 (Horiz.) A3

0 1 2 3 4 5m SCALE 1:100 (Vert.) A3

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PLAN TITLE:

STORMWATER LONGITUDINAL SECTION - SHEET 1

PRELIMINARY- NOT FOR CONSTRUCTION

PLAN No: 3849 - SK21 **REVISION:** A

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Appendix D. Rational Method Calculations

RATIONAL METHOD CALCULATION SHEET

PROJECT DETAILS

PROJECT	Site Address	DATE	3/10/2025

CATCHMENTS

NAME	Location C2	Location C8
AREA Total (ha)	1681.000	1329.000
FRACT. Imp (fi)	0.14	0.05
TOC (min)	189	165
C10 (override)		
Rainfall Intensity	ARR2016	ARR2016
AREA Perv. (ha)	1450.703	1262.550
AREA Imp. (ha)	230.297	66.450

COEFFICIENTS OF DISCHARGE

C1	0.461	0.436
C2	0.490	0.464
C5	0.548	0.518
C10	0.576	0.545
C20	0.605	0.573
C50	0.663	0.627
C100	0.692	0.654

ADOPTED RAINFALL INTENSITIES (MM/HR)

I1	12.8	14.2
I2	16.4	18.2
I5	20.9	23.2
I10	23.8	26.5
I20	27.4	30.6
I50	32.1	35.9
I100	35.7	39.8

PEAK FLOWS (CU.M/S)

63% AEP (Q1)	27.622	22.929
39% AEP (Q2)	37.587	31.201
18% AEP (Q5)	53.482	44.460
10% AEP(Q10)	64.020	53.419
5% AEP (Q20)	77.404	64.629
2% AEP (Q50)	99.387	83.024
1% AEP (Q100)	115.216	96.226

TIME OF CONCENTRATION CALCULATION SHEET 3/10/2025

Project	Site Address

CATCHMENT

Name	Location C2	Location C8																						
STANDARD INLET TIME																								
Road or Paved Area?																								
Slope (%)																								
t (min)																								
OVERLAND (FRIENDS EQUATION - QUDM 4.5)																								
L (m)																								
Hortons 'n'																								
S (%)																								
t (min)																								
KERB/CHANNEL (MANNINGS - QUDM Figure 4.6)																								
L (m)																								
S (%)																								
t (min)																								
PIPED (MANNINGS - QUDM 4.8)																								
L (m)																								
Mannings 'n'																								
S (%)																								
Dia (m)																								
t (min)																								
FLOW TRAVEL TIME IN PIPES AND CHANNELS - ARGUE 1986 (QUDM - FIGURE 4.5)																								
Flow distance (m)																								
Fall of channel (m)																								
Time (graph)																								
Multiplier																								
t (min)																								
FLOW TRAVEL TIME IN PIPES AND CHANNELS - ARGUE 1986 (QUDM - FIGURE 4.5)																								
Flow distance (m)																								
Fall of channel (m)																								
Time (graph)																								
Multiplier																								
t (min)																								
CREEK/RURAL (STREAM VELOCITY - QUDM T4.6.6)																								
L (m)	1000.0	1000.0																						
S (%)	7.0%	7.0%																						
Flood Plain Storage	Med.	Med.																						
t (min)	11.1	11.1																						
CREEK/RURAL (STREAM VELOCITY - QUDM T4.6.6)																								
L (m)	7500.0	6500.0																						
S (%)	1.6%	1.6%																						
Flood Plain Storage	Good	Med.																						
t (min)	178.6	154.8																						
CREEK/RURAL (STREAM VELOCITY - QUDM T4.6.6)																								
L (m)																								
S (%)																								
Flood Plain Storage																								
t (min)																								
TOTAL TIME OF CONCENTRATION																								
t (min)	**189.7**	**165.9**																						

Environmental Noise Assessment

Proposed Retail Development

1 Pound Street, Kingaroy

Coles Group Property Developments Ltd

25BRA0182 R01_0



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Revision Record

No.	Author	Reviewed/Approved	Description	Date
A	I Llamas	A. Ashworth	Internal draft	18/09/2025
0	I Llamas		Client Issue	03/10/2025

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Level 8/369 Ann Street, Brisbane. PO Box 12015 Brisbane QLD 4003

Executive Summary

Colliers was engaged by Coles Group Property Developments Ltd to undertake an environmental noise assessment of a proposed retail development located at 1 Pound Street, Kingaroy. The assessment was based on the South Burnett Regional Council Planning Scheme 2017 version 1.4.

The noise impact from onsite activities was assessed for the proposed operating hours and is predicted to comply with the relevant criteria at the nearest noise sensitive receivers based on the inclusion of acoustic barriers and management strategies outlined in Section 6 of this report.

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1 Introduction

1.1 Background

Colliers was engaged by Coles Group Property Developments Ltd to undertake an environmental noise assessment of a proposed retail development located at 1 Pound Street, Kingaroy. This report will form part of the development application for consideration by South Burnett Regional Council.

1.2 References

This report is based on the following:

- South Burnett Regional Council Planning Scheme 2017 version 1.4
- Environmental noise criteria contained in the *Environmental Protection (Noise) Policy 2019* (EPP2019)
- Development plans shown in Appendix A
- Site inspection, noise measurements, analysis and calculations conducted by Colliers

1.3 Scope

The assessment includes the following:

- Description of the site.
- Statement of assessment criteria relating to environmental noise emissions.
- Assessment of noise generated by the development onto nearby sensitive receivers.
- Analysis of measured and predicted noise levels.
- Details of noise control recommendations to be incorporated to achieve predicted compliance.

2 Site Description

2.1 Site Location

The site is described by the following:

- 1 Pound Street, Kingaroy
- Lot 13 on RP814986

The site is comprised of two areas, the development site and a balance site as shown in Figure 1.

Figure 1: Site Locality



2.2 Current Site Conditions

The development site is bound by Pound Street to the east, Kingaroy Street to the west, open land to the north, and residential properties along with the balance site area to the south. The subject site and adjoining residential receivers are located within the centre zone. The current acoustic environment at the site location is primarily comprised of noises from commercial establishments and local road traffic noise from Kingaroy Street and Pound Street.

3 The Proposed Development

3.1 Development Description

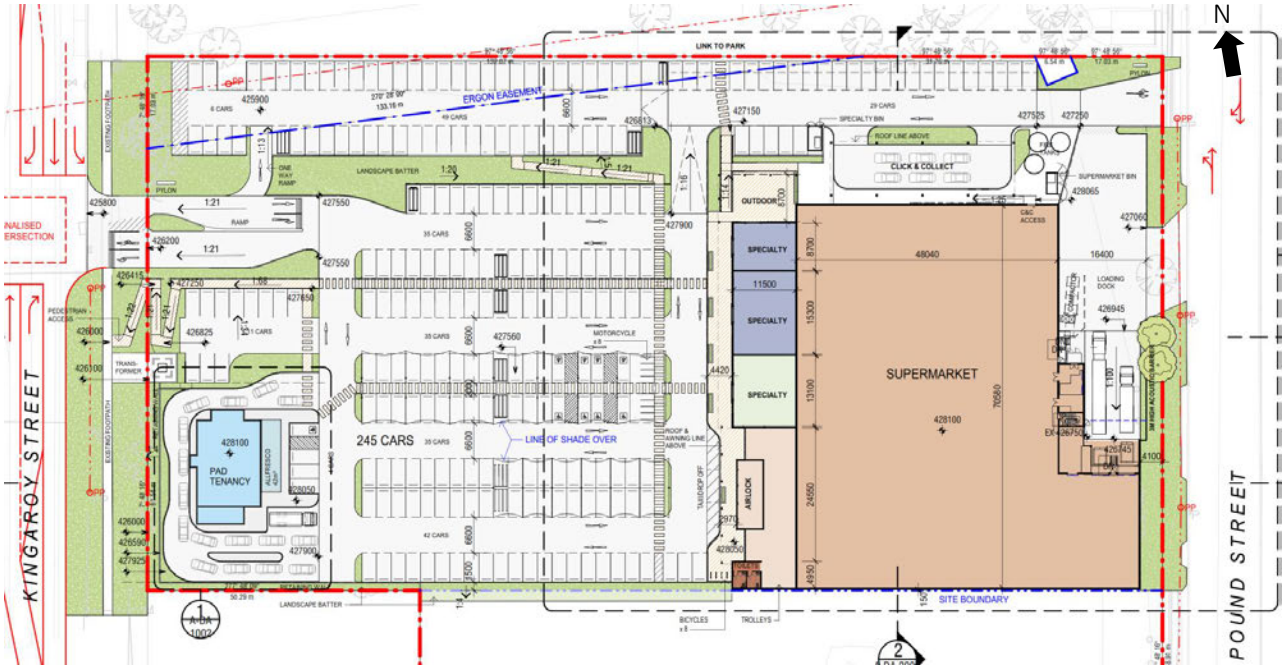
The proposal is to develop a vacant site into a retail development with associated supermarket, specialty tenancies, a pad tenancy and car parking. Vehicle access is proposed at the western end via Kingaroy Street and at the eastern end via Pound Street.

The proposed operating hours for the development are as follows:

- Supermarket and specialty stores will operate from 7:00 am to 10:00 pm daily.
- Pad Tenancy will operate 24 hours, 7 days
- Supermarket loading and pad tenancy dock operations are proposed to operate 24 hours, 7 days.

A site plan of the proposed development is presented in Figure 2. Further samples of the development plans are shown in Appendix A.

Figure 2: Site Plan



4 Noise Criteria

The South Burnett Regional Council Planning Scheme does not specify acoustic criteria. The environmental noise criteria contained in the *Environmental Protection (Noise) Policy 2019* (EPP2019) has been used for this assessment. Details of the criteria and established noise limits are presented in the following sections.

4.1 Acoustic Quality Objectives

Table 1 presents the acoustic quality objectives at noise sensitive receivers as detailed in Schedule 1 of the EPP2019.

Table 1: Acoustic Quality Objectives at Noise Sensitive Receivers

Sensitive Receiver	Time of Day	Acoustic Quality Objectives, dB(A)		
		$L_{Aeq,adj,1hr}$	$L_{A10,adj,1hr}$	$L_{A1,adj,1hr}$
Dwelling (Outdoors)	Day and Evening (7am – 10pm)	50	55	65
Dwelling (Indoors)	Day and Evening (7am – 10pm)	35	40	45
	Night (10pm – 7am)	30	35	40

4.2 Sleep Disturbance

The *Planning for Noise Control Guideline* (Department of Environment and Science, Qld Government), specifies maximum noise levels for sleep disturbance based on research by the World Health Organization (WHO).

Based on the following parameters:

- Windows “wide open” (7dB façade noise reduction)
- 10% probability of awakening

The guideline specifies an external, free-field noise criteria of 49dB(A) $L_{max.}$

5 Analysis – Offsite Receivers

An assessment of on-site activities associated with the proposed development was conducted to determine potential impacts on the nearest noise offsite sensitive receivers.

5.1 Noise Sensitive Receivers

This assessment will focus on the nearest offsite noise sensitive receivers as outlined below and shown in Figure 3. If compliance can be achieved at these nearest receivers, then all remaining noise sensitive locations are expected to comply.

- Receiver 1: Residential lots in a centre zone located to the southwest of the site.
- Receiver 2: Residential lots in a centre zone located to the south of the site.
- Receiver 3: Residential lots in a centre zone located to the southeast of the site.
- Receiver 4: Residential lot in a centre zone located to the southwest of the site.

Figure 3: Noise Sensitive Receivers



5.2 Noise Source Levels

Table 2 presents the typical transient noise sources associated with the development with the potential to impact the nearest sensitive receivers. The noise source levels were calculated to one metre and include corrections for tonality and impulsiveness as per AS1055. The number of events was estimated for a 'peak' one-hour time period providing a 'worst case scenario' applied to all time periods.

Table 2: Typical Noise Sources Associated with the Development

Noise Source Description	Measured Duration (sec)	Noise Level at 1m, dB(A)				'Peak' events per hour (Day and Eve)	'Peak' events per hour (Night)
		$L_{Aeq,T}$	$L_{A10,T}$	$L_{A1,T}$	L_{Max}		
Car door close	2	75*	77*	83*	83*	1590	N/A
Car pass-by	6	69	75	75	N/A^	795	N/A
Car engine start	3	72	74	74	75	397	N/A
Truck pass-by	20	80	82	83	N/A^	20	20
Truck reverse	30	92#	95#	96#	96#	20	20
Truck brakes	4	78	81	90	90	20	20
Delivery (refrigerated)	120	85#	86#	86#	86#	2	2
Waste Collection	40	93*	94*	105*	105*	4	N/A
Outdoor Dining	60	83	86	88	N/A^	50%	N/A
Conversation	60	73	76	78	N/A^	50%	N/A
Drive Thru Pass by	6	69	75	75	N/A^	100	50
Speaker box (drive-thru)	10	76	81	83	83	100	50

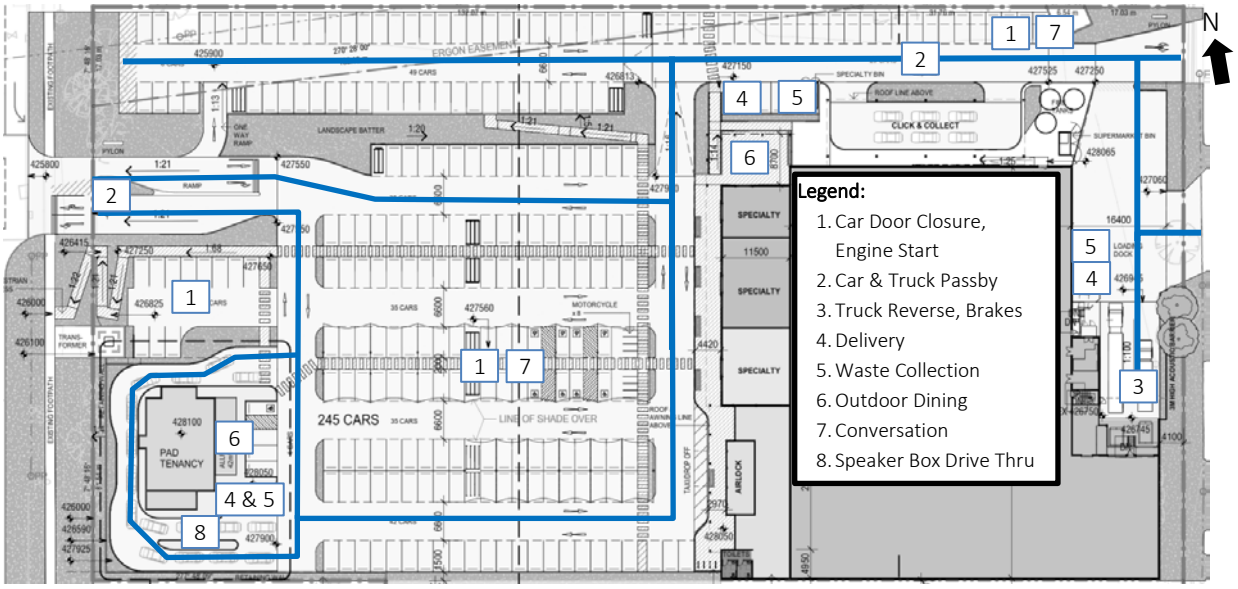
*Includes 2dB(A) adjustment for impulsiveness characteristics in accordance with AS1055

Includes 5dB(A) adjustment to account for tonal noise characteristics in accordance with AS1055

^People and vehicle pass-by noise, and other 'non-impact' type sources, are excluded from Lmax assessment in accordance with the noise policy

Noise source locations, as described in Section 5.3, are shown in Figure 4.

Figure 4: Noise Source Locations



5.3 Calculation Assumptions

The following assumptions have been made for noise calculations:

- The onsite traffic generation rate (supplied by Colliers Traffic Engineering) in the peak (1 hour) period was applied. It is predicted that night time traffic generation rate will be 50% of the peak period.
- Car movements were predicted from the nearest driveway to the sensitive receiver. Car door closures and engine starts were predicted from the centre of the parking area. This approach was adopted to account for the spatial distribution of vehicle noise sources across the car park, which vary in distance with respect to the receiver.
- Truck movements and truck noises are predicted to occur at the supermarket's dedicated loading dock.
- Deliveries and waste collection are predicted to occur at the designated loading dock of the pad tenancy and the supermarket. Deliveries and waste collection for specialty stores are predicted to occur at the car park north of the stores.
- Waste collections are predicted to occur during daytime and evening only.
- Associated loading docks for pad tenancy, specialty stores and supermarket are predicted to operate 24 hours for 7 days.
- Outdoor dining is predicted to occur during approximately 50% of the assessment period and will be restricted to daytime and evening hours only.
- The drive thru speaker noise is predicted at the drive thru area and predicted to be based on the drive thru pass by frequency.

- Conversation noise was based on 'male (conservative), normal voice' speech levels as per published data contained in Harris CM, Handbook of Acoustical Measurements and Noise Control – 3rd ed. Ch 16.3, Mc Graw-Hill Inc. Conversation was assumed to occur during day and evening periods, during 50% of the assessment period.
- Recommended acoustic barriers as detailed in Section 6.1.
- Noise attenuation of 7dB through an open window at a receiver was applied for internal noise level predictions. It is noted that between 15 and 20dB could be expected to be achieved through a closed window or door.
- Building attenuation where applicable.

5.4 Predicted Noise Levels at Receivers

The predicted noise levels from typical onsite activities are based on the noise sources presented in Table 2, the assumptions outlined in Section 5.3, and the recommended acoustic barriers detailed in Section 6.1. Sample calculations are included in Appendix B.

5.4.1 Acoustic Quality Objectives

Table 3 presents the predicted onsite noise emission levels at the nearest offsite sensitive receivers. The acoustic quality objective (AQO) criteria are specified in the table heading.

Table 3: Predicted Noise Levels at Receivers – ACQ (Including Acoustic Barrier)

Receiver	Noise Source	Predicted Noise Level, dB(A)								
		$L_{Aeq, 1hr}$			$L_{A10, 1 hr}$			$L_{A1, 1hr}$		
	Criteria	Day & Eve		Night	Day & Eve		Night	Day & Eve		Night
		Outdoor	Indoor	Indoor	Outdoor	Indoor	Indoor	Outdoor	Indoor	Indoor
		50	**35**	**30**	**55**	**40**	**35**	**65**	**45**	**40**
1	Car door close	24	17	N/A	26	19	N/A	32	25	N/A
	Car pass-by	20	13	N/A	26	19	N/A	26	19	N/A
	Car engine start	17	10	N/A	19	12	N/A	19	12	N/A
	Truck pass-by	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Truck reverse	18	11	11	21	14	14	22	15	15
	Truck brakes	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Delivery	28	21	21	29	22	22	29	22	22
	Waste Collection	34	27	N/A	35	28	N/A	46	39	N/A
	Outdoor Dining	38	31	N/A	41	34	N/A	43	36	N/A
	Conversation	31	24	N/A	34	27	N/A	36	29	N/A
	Drive Thru Pass by	28	21	15	34	27	24	34	27	24
	Speaker box	35	28	23	40	33	30	42	35	32
	Cumulative	**42**	**35**	**26**	**45**	**38**	**32**	**49**	**42**	**33**

Receiver	Noise Source	Predicted Noise Level, dB(A)								
		$L_{Aeq, 1hr}$			$L_{A10, 1 hr}$			$L_{A1, 1hr}$		
	Criteria	Day & Eve		Night	Day & Eve		Night	Day & Eve		Night
		Outdoor	Indoor	Indoor	Outdoor	Indoor	Indoor	Outdoor	Indoor	Indoor
		50	35	30	55	40	35	65	45	40
2	Car door close	32	25	N/A	34	27	N/A	40	33	N/A
	Car pass-by	28	21	N/A	34	27	N/A	34	27	N/A
	Car engine start	25	18	N/A	27	20	N/A	27	20	N/A
	Truck pass-by	<10	<10	<10	10	<10	<10	11	<10	<10
	Truck reverse	22	15	15	25	18	18	26	19	19
	Truck brakes	<10	<10	<10	<10	<10	<10	11	<10	<10
	Delivery	13	6	6	14	<10	<10	14	<10	<10
	Waste Collection	17	10	N/A	18	11	N/A	29	22	N/A
	Outdoor Dining	31	24	N/A	34	27	N/A	36	29	N/A
	Conversation	24	17	N/A	27	20	N/A	29	22	N/A
	Drive Thru Pass by	6	-1	-6	12	5	2	12	5	2
	Speaker box	17	10	5	22	15	12	24	17	14
	Cumulative	**36**	**29**	**16**	**40**	**33**	**19**	**43**	**36**	**21**
3	Car door close	28	21	N/A	30	23	N/A	36	29	N/A
	Car pass-by	25	18	N/A	31	24	N/A	31	24	N/A
	Car engine start	21	14	N/A	23	16	N/A	23	16	N/A
	Truck pass-by	28	21	21	30	23	23	31	24	24
	Truck reverse	32	25	25	35	28	28	36	29	29
	Truck brakes	9	2	2	12	5	5	21	14	14
	Delivery	21	14	14	22	15	15	22	15	15
	Waste Collection	26	19	N/A	27	20	N/A	38	31	N/A
	Outdoor Dining	32	25	N/A	35	28	N/A	37	30	N/A
	Conversation	28	21	N/A	31	24	N/A	33	26	N/A
	Drive Thru Pass by	14	7	1	20	13	10	20	13	10
	Speaker box	22	15	10	27	20	17	29	22	19
	Cumulative	**38**	**31**	**27**	**41**	**34**	**30**	**44**	**37**	**31**
4	Car door close	33	26	N/A	35	28	N/A	41	34	N/A
	Car pass-by	29	22	N/A	35	28	N/A	35	28	N/A
	Car engine start	26	19	N/A	28	21	N/A	28	21	N/A
	Truck pass-by	1	-6	-6	3	-4	-4	4	-3	-3
	Truck reverse	15	8	8	18	11	11	19	12	12
	Truck brakes	-8	-15	-15	-5	-12	-12	4	-3	-3
	Delivery	27	20	20	28	21	21	28	21	21
	Waste Collection	33	26	N/A	34	27	N/A	45	38	N/A
	Outdoor Dining	20	13	N/A	23	16	N/A	25	18	N/A

Receiver	Noise Source	Predicted Noise Level, dB(A)								
		$L_{Aeq, 1hr}$			$L_{A10, 1 hr}$			$L_{A1, 1hr}$		
	Criteria	Day & Eve		Night	Day & Eve		Night	Day & Eve		Night
		Outdoor	Indoor	Indoor	Outdoor	Indoor	Indoor	Outdoor	Indoor	Indoor
		50	35	30	55	40	35	65	45	40
	Conversation	35	28	N/A	38	31	N/A	40	33	N/A
	Drive Thru Pass by	24	17	12	30	23	20	30	23	20
	Speaker box	22	15	10	27	20	17	29	22	19
	Cumulative	**40**	**33**	**21**	**43**	**36**	**25**	**48**	**41**	**25**

Noise sources are predicted to comply at receivers during relevant time periods with the inclusion of acoustic barriers as detailed in Section 6.1.

5.4.2 Night-Time Noise Criteria - L_{max}

Table 4 presents the predicted night-time noise levels for 'short duration / impact' type noise sources at the nearest sensitive receivers,

Table 4: Predicted Night-Time Noise Levels

Receiver	Noise Source	Predicted Internal Noise Level L_{Amax} dB(A)	Complies with Criteria?
			49dB(A)
1	Car door close	N/A	N/A
	Car pass-by	N/A	N/A
	Car engine start	N/A	N/A
	Truck pass-by	N/A	N/A
	Truck reverse	30	✓
	Truck brakes	24	✓
	Delivery (refrigerated)	40	✓
	Waste Collection	N/A	N/A
	Outdoor Dining	N/A	N/A
	Conversation	N/A	N/A
	Drive Thru Pass by	41	✓
	Speaker box	48	✓
2	Car door close	N/A	N/A
	Car pass-by	N/A	N/A
	Car engine start	N/A	N/A
	Truck pass-by	N/A	N/A
	Truck reverse	34	✓
	Truck brakes	28	✓
	Delivery (refrigerated)	26	✓
	Waste Collection	N/A	N/A

Receiver	Noise Source	Predicted Internal Noise Level L_{Amax} dB(A)	Complies with Criteria? 49dB(A)
	Outdoor Dining	N/A	N/A
	Conversation	N/A	N/A
	Drive Thru Pass by	20	✓
	Speaker box	29	✓
3	Car door close	N/A	N/A
	Car pass-by	N/A	N/A
	Car engine start	N/A	N/A
	Truck pass-by	N/A	N/A
	Truck reverse	44	✓
	Truck brakes	38	✓
	Delivery (refrigerated)	34	✓
	Waste Collection	N/A	N/A
	Outdoor Dining	N/A	N/A
	Conversation	N/A	N/A
	Drive Thru Pass by	27	✓
	Speaker box	35	✓
4	Car door close	N/A	N/A
	Car pass-by	N/A	N/A
	Car engine start	N/A	N/A
	Truck pass-by	N/A	N/A
	Truck reverse	26	✓
	Truck brakes	20	✓
	Delivery (refrigerated)	40	✓
	Waste Collection	N/A	N/A
	Outdoor Dining	N/A	N/A
	Conversation	N/A	N/A
	Drive Thru Pass by	38	✓
	Speaker box	35	✓

Noise sources are predicted to comply with the L_{max} criteria during the night time period.

6 Recommendations

The recommended acoustic treatments are presented in the sections below to achieve predicted compliance with the relevant assessment criteria.

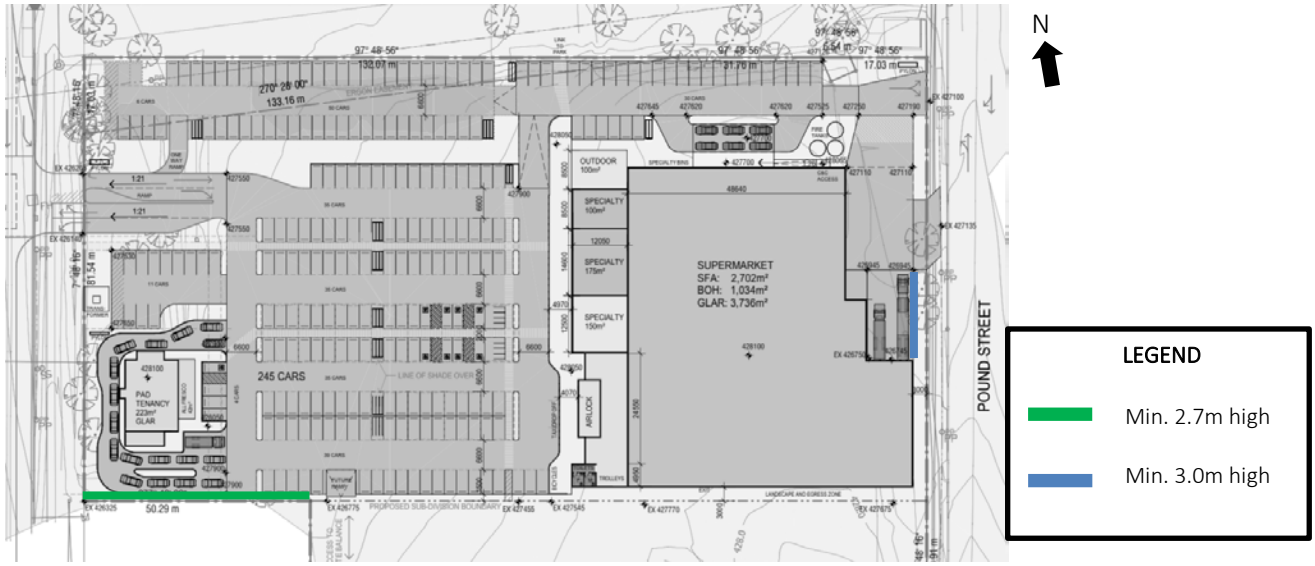
6.1 Acoustic Barrier

Noise generated from the site has been assessed at the nearest sensitive receivers. In order to comply with the relevant noise criteria, an acoustic barrier is recommended at the location, height and extent as shown in Figure 5.

The acoustic barrier should:

- Be the minimum height relative to the finished site level or finished floor level.
- Be of solid construction and have no gaps or holes for the extent shown.
- Be constructed of a material with a surface mass not less than 12.5kg/m^2.
- Be constructed of the following materials (but not limited to): lapped timber (minimum 40% overlap); plywood; masonry; compressed fibre cement sheet; minimum 7mm thick aluminium or minimum 2.5mm thick steel; glazing; earth mound or combination of the above.

Figure 5: Recommended Acoustic Barriers



6.2 Management Strategies

The following management strategies are recommended to minimise noise annoyance:

- Waste collection activities to occur between 07:00 am to 10:00 pm.
- The trading hours for the supermarket and specialty tenancies are from 7:00 am to 10:00 pm daily.

- Use of the outdoor dining area associated with the pad tenancy is limited to daytime and evening periods only
- Any grates or other protective covers in the car parks and access driveways must be rigidly fixed in position to eliminate clanging, and be maintained.
- Speed bumps (if proposed) should be built into the finished surface of the car park / driveways and not be made of metal.

6.3 Mechanical Plant Noise

Detailed mechanical plant selections are not available at this stage. It is recommended that an external mechanical plant noise assessment be conducted during the detailed design stage once plant selections are finalised, to ensure compliance with the noise emission criteria.

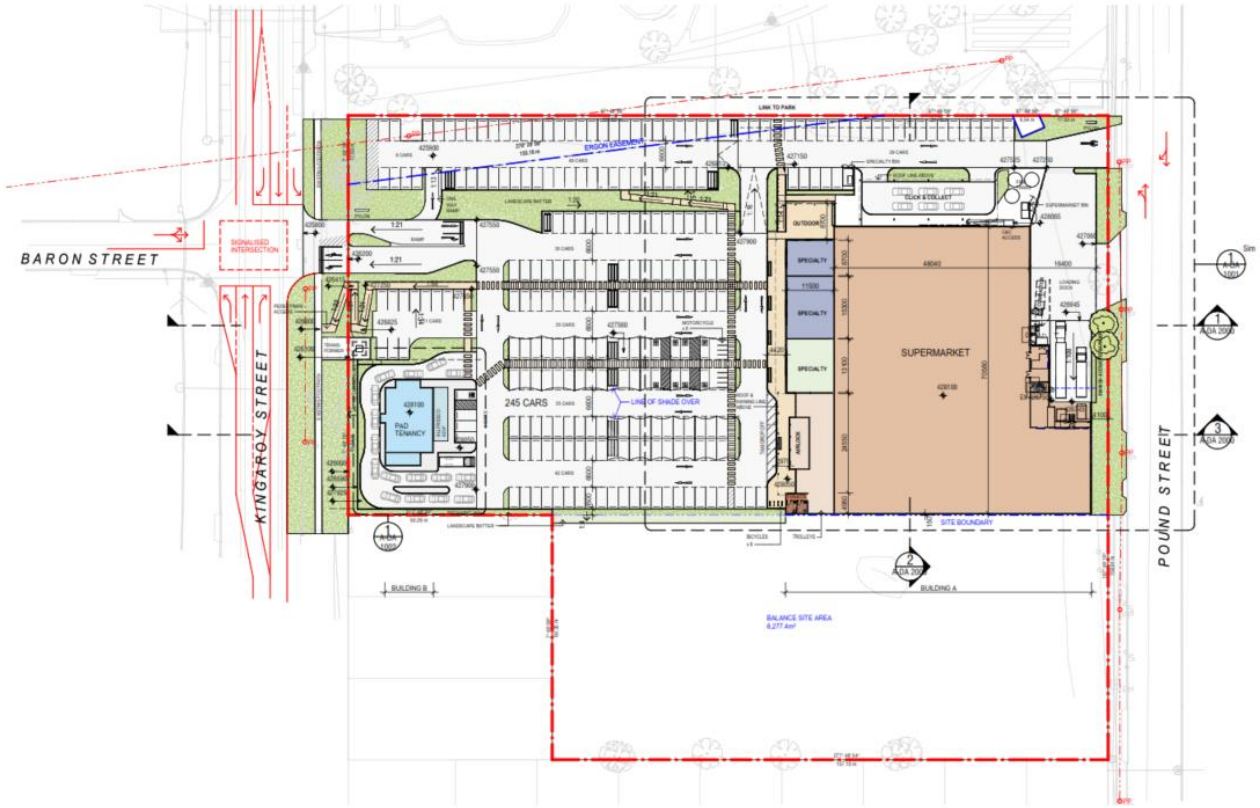
Where plant noise output exceeds allowable limits, solutions such as selecting quieter equipment, acoustic barriers and acoustic louvres may be required.

7 Conclusion

Colliers was engaged Coles Group Property Developments Ltd to undertake an environmental noise assessment of a proposed retail development located at 1 Pound Street, Kingaroy.

Compliance with the South Burnett Regional Council Planning Scheme requirements is predicted based on the implementation of the recommendations outlined in Section 6 of this report.

Appendix A Development Plans



1 OVERALL SITE PLAN
1 : 500

LEGEND

PEDESTRIAN CONNECTION

arkhright architects

Arkhright Architects Pty Ltd
1/21 AGARS STREET
PADDINGTON QLD 4064

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COLES KINGAROY

coles

Status

Date Plotted 30/09/2025 1:22:29 PM

Date Issued

Scale As indicated @A1

SITE PLAN

Drawing Number A-DA-A-DA 1000

Revision C

Colliers

Appendix B Calculations

Day and Evening Assessment

i. L_{eq}

Noise Source	Duration	Leq	Events	Leq period	Distance to Receivers R1	R2	R3	R4
				1 hour	W	SW	S	N
Car door close	2	75	1388	74	61	123	187	108
Car pass-by	6	69	694	70	61	123	170	108
Car engine start	3	72	347	67	61	123	187	108
Truck pass-by	20	80	20	70	165	102	130	243
Truck reverse	30	92	20	84	165	102	130	243
Truck brakes	4	78	20	61	165	102	130	243
Delivery (refrigerated)	120	85	2	73	15	83	130	92
Waste Collection	40	93	4	79	15	102	145	92
Outdoor Dining	60	83	30	80	25	112	251	95
Conversation	60	73	60	73	25	75	168	83
Drive Thru Pass by	6	69	100	61	6	73	240	73
Speaker box (drive-thru)	10	76	100	70	9	96	250	83
0								
Noise level after Distance loss								
Car door close					38	32	28	33
Car pass-by					34	28	25	29
Car engine start					31	25	21	26
Truck pass-by					26	30	28	23
Truck reverse					40	44	42	37
Truck brakes					17	21	19	14
Delivery (refrigerated)					50	35	31	34
Waste Collection					56	39	36	40
Outdoor Dining					52	39	32	40
Conversation					45	35	28	35
Drive Thru Pass by					46	24	14	24
Speaker box (drive-thru)					51	31	22	32
Shielding losses (building, barrier etc)								
Car door close					14	0	0	0
Car pass-by					14	0	0	0
Car engine start					14	0	0	0
Truck pass-by					22	22	0	22
Truck reverse					22	22	10	22
Truck brakes					22	22	10	22
Delivery (refrigerated)					22	22	10	7
Waste Collection					22	22	10	7
Outdoor Dining					14	8	0	20
Conversation					14	11	0	0
Drive Thru Pass by					18	18	0	0
Speaker box (drive-thru)					16	14	0	10
External Noise Level at Receiver					R1	R2	R3	R4
Car door close					24	32	28	33
Car pass-by					20	28	25	29
Car engine start					17	25	21	26
Truck pass-by					4	8	28	1
Truck reverse					18	22	32	15
Truck brakes					-5	-1	9	-8
Delivery (refrigerated)					28	13	21	27
Waste Collection					34	17	26	33
Outdoor Dining					38	31	32	20
Conversation					31	24	28	35
Drive Thru Pass by					28	6	14	24
Speaker box (drive-thru)					35	17	22	22
Cumulative					42	36	38	40
Internal	-7	dB						
Car door close					17	25	21	26
Car pass-by					13	21	18	22
Car engine start					10	18	14	19
Truck pass-by					-3	1	21	-6
Truck reverse					11	15	25	8
Truck brakes					-12	-8	2	-15
Delivery (refrigerated)					21	6	14	20
Waste Collection					27	10	19	26
Outdoor Dining					31	24	25	13
Conversation					24	17	21	28
Drive Thru Pass by					21	-1	7	17
Speaker box (drive-thru)					28	10	15	15
Cumulative					35	29	31	33

ii. L_{A10}

Noise Source	Duration	L10	Events	L10 period	Distance to Receivers R1	R2	R3	R4
				1 hour	W	SW	S	N
Car door close	2	77	1388	76	61	123	187	108
Car pass-by	6	75	694	76	61	123	170	108
Car engine start	3	74	347	69	61	123	187	108
Truck pass-by	20	82	20	72	165	102	130	243
Truck reverse	30	95	20	87	165	102	130	243
Truck brakes	4	81	20	64	165	102	130	243
Delivery (refrigerated)	120	86	2	74	15	83	130	92
Waste Collection	40	94	4	80	15	102	145	92
Outdoor Dining	60	86	30	83	25	112	251	95
Conversation	60	76	60	76	25	75	168	83
Drive Thru Pass by	6	75	100	67	6	73	240	73
Speaker box (drive-thru)	10	81	100	75	9	96	250	83
Noise level after Distance loss								
Car door close					40	34	30	35
Car pass-by					40	34	31	35
Car engine start					33	27	23	28
Truck pass-by					28	32	30	25
Truck reverse					43	47	45	40
Truck brakes					20	24	22	17
Delivery (refrigerated)					51	36	32	35
Waste Collection					57	40	37	41
Outdoor Dining					55	42	35	43
Conversation					48	38	31	38
Drive Thru Pass by					52	30	20	30
Speaker box (drive-thru)					56	36	27	37
Shielding losses (building, barrier etc)								
Car door close					14	0	0	0
Car pass-by					14	0	0	0
Car engine start					14	0	0	0
Truck pass-by					22	22	0	22
Truck reverse					22	22	10	22
Truck brakes					22	22	10	22
Delivery (refrigerated)					22	22	10	7
Waste Collection					22	22	10	7
Outdoor Dining					14	8	0	20
Conversation					14	11	0	0
Drive Thru Pass by					18	18	0	0
Speaker box (drive-thru)					16	14	0	10
External Noise Level at Receiver					R1	R2	R3	R4
Car door close					26	34	30	35
Car pass-by					26	34	31	35
Car engine start					19	27	23	28
Truck pass-by					6	10	30	3
Truck reverse					21	25	35	18
Truck brakes					-2	2	12	-5
Delivery (refrigerated)					29	14	22	28
Waste Collection					35	18	27	34
Outdoor Dining					41	34	35	23
Conversation					34	27	31	38
Drive Thru Pass by					34	12	20	30
Speaker box (drive-thru)					40	22	27	27
Cumulative					45	40	41	43
Internal	-7	dB						
Car door close					19	27	23	28
Car pass-by					19	27	24	28
Car engine start					12	20	16	21
Truck pass-by					-1	3	23	-4
Truck reverse					14	18	28	11
Truck brakes					-9	-5	5	-12
Delivery (refrigerated)					22	7	15	21
Waste Collection					28	11	20	27
Outdoor Dining					34	27	28	16
Conversation					27	20	24	31
Drive Thru Pass by					27	5	13	23
Speaker box (drive-thru)					33	15	20	20
Cumulative					38	33	34	36

iii. L_{A1}

Noise Source	Duration	L1	Events	L1 period	Distance to Receivers R1	R2	R3	R4
				1 hour	W	SW	S	N
Car door close	2	83	1388	82	61	123	187	108
Car pass-by	6	75	694	76	61	123	170	108
Car engine start	3	74	347	69	61	123	187	108
Truck pass-by	20	83	20	73	165	102	130	243
Truck reverse	30	96	20	88	165	102	130	243
Truck brakes	4	90	20	73	165	102	130	243
Delivery (refrigerated)	120	86	2	74	15	83	130	92
Waste Collection	40	105	4	91	15	102	145	92
Outdoor Dining	60	88	30	85	25	112	251	95
Conversation	60	78	60	78	25	75	168	83
Drive Thru Pass by	6	75	100	67	6	73	240	73
Speaker box (drive-thru)	10	83	100	77	9	96	250	83
Noise level after Distance loss								
Car door close					46	40	36	41
Car pass-by					40	34	31	35
Car engine start					33	27	23	28
Truck pass-by					29	33	31	26
Truck reverse					44	48	46	41
Truck brakes					29	33	31	26
Delivery (refrigerated)					51	36	32	35
Waste Collection					68	51	48	52
Outdoor Dining					57	44	37	45
Conversation					50	40	33	40
Drive Thru Pass by					52	30	20	30
Speaker box (drive-thru)					58	38	29	39
Shielding losses (building, barrier etc)								
Car door close					14	0	0	0
Car pass-by					14	0	0	0
Car engine start					14	0	0	0
Truck pass-by					22	22	0	22
Truck reverse					22	22	10	22
Truck brakes					22	22	10	22
Delivery (refrigerated)					22	22	10	7
Waste Collection					22	22	10	7
Outdoor Dining					14	8	0	20
Conversation					14	11	0	0
Drive Thru Pass by					18	18	0	0
Speaker box (drive-thru)					16	14	0	10
External Noise Level at Receiver					R1	R2	R3	R4
Car door close					32	40	36	41
Car pass-by					26	34	31	35
Car engine start					19	27	23	28
Truck pass-by					7	11	31	4
Truck reverse					22	26	36	19
Truck brakes					7	11	21	4
Delivery (refrigerated)					29	14	22	28
Waste Collection					46	29	38	45
Outdoor Dining					43	36	37	25
Conversation					36	29	33	40
Drive Thru Pass by					34	12	20	30
Speaker box (drive-thru)					42	24	29	29
Cumulative					49	43	44	48
Internal	-7	dB						
Car door close					25	33	29	34
Car pass-by					19	27	24	28
Car engine start					12	20	16	21
Truck pass-by					0	4	24	-3
Truck reverse					15	19	29	12
Truck brakes					0	4	14	-3
Delivery (refrigerated)					22	7	15	21
Waste Collection					39	22	31	38
Outdoor Dining					36	29	30	18
Conversation					29	22	26	33
Drive Thru Pass by					27	5	13	23
Speaker box (drive-thru)					35	17	22	22
Cumulative					42	36	37	41

Night Assessment

i. Leq

Noise Source	Duration	Leq	Events	Leq period	Distance to Receivers R1	R2	R3	R4
				1 hour	W	SW	S	N
Car door close	2	75	0	N/A	61	123	187	108
Car pass-by	6	69	0	N/A	61	123	170	108
Car engine start	3	72	0	N/A	61	123	187	108
Truck pass-by	20	80	20	70	165	102	130	243
Truck reverse	30	92	20	84	165	102	130	243
Truck brakes	4	78	20	61	165	102	130	243
Delivery (refrigerated)	120	85	2	73	15	83	130	92
Waste Collection	40	93	0	N/A	15	102	145	92
Outdoor Dining	60	83	30	N/A	25	112	251	95
Conversation	60	73	0	N/A	25	75	168	83
Drive Thru Pass by	6	69	30	56	6	73	240	73
Speaker box (drive-thru)	10	76	30	65	9	96	250	83
0								
Noise level after Distance loss								
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					26	30	28	23
Truck reverse					40	44	42	37
Truck brakes					17	21	19	14
Delivery (refrigerated)					50	35	31	34
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					40	19	8	19
Speaker box (drive-thru)					46	26	17	27
Shielding losses (building, barrier etc)								
Car door close					14	0	0	0
Car pass-by					14	0	0	0
Car engine start					14	0	0	0
Truck pass-by					22	22	0	22
Truck reverse					22	22	10	22
Truck brakes					22	22	10	22
Delivery (refrigerated)					22	22	10	7
Waste Collection					22	22	10	7
Outdoor Dining					14	8	0	20
Conversation					14	11	0	0
Drive Thru Pass by					18	18	0	0
Speaker box (drive-thru)					16	14	0	10
External Noise Level at Receiver					R1	R2	R3	R4
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					4	8	28	1
Truck reverse					18	22	32	15
Truck brakes					-5	-1	9	-8
Delivery (refrigerated)					28	13	21	27
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					22	1	8	19
Speaker box (drive-thru)					30	12	17	17
Cumulative					0	0	0	0
Internal	-7	dB						
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					-3	1	21	-6
Truck reverse					11	15	25	8
Truck brakes					-12	-8	2	-15
Delivery (refrigerated)					21	6	14	20
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					15	-6	1	12
Speaker box (drive-thru)					23	5	10	10
Cumulative					26	16	27	21

ii. L_{A10}

Noise Source	Duration	L10	Events	L10 period	Distance to Receivers R1	R2	R3	R4
				1 hour	W	SW	S	N
Car door close	2	77	0	N/A	61	123	187	108
Car pass-by	6	75	0	N/A	61	123	170	108
Car engine start	3	74	0	N/A	61	123	187	108
Truck pass-by	20	82	20	72	165	102	130	243
Truck reverse	30	95	20	87	165	102	130	243
Truck brakes	4	81	20	64	165	102	130	243
Delivery (refrigerated)	120	86	2	74	15	83	130	92
Waste Collection	40	94	0	N/A	15	102	145	92
Outdoor Dining	60	86	0	N/A	25	112	251	95
Conversation	60	76	0	N/A	25	75	168	83
Drive Thru Pass by	6	75	50	64	6	73	240	73
Speaker box (drive-thru)	10	81	50	72	9	96	250	83
Noise level after Distance loss								
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					28	32	30	25
Truck reverse					43	47	45	40
Truck brakes					20	24	22	17
Delivery (refrigerated)					51	36	32	35
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					49	27	17	27
Speaker box (drive-thru)					53	33	24	34
Shielding losses (building, barrier etc)								
Car door close					14	0	0	0
Car pass-by					14	0	0	0
Car engine start					14	0	0	0
Truck pass-by					22	22	0	22
Truck reverse					22	22	10	22
Truck brakes					22	22	10	22
Delivery (refrigerated)					22	22	10	7
Waste Collection					22	22	10	7
Outdoor Dining					14	8	0	20
Conversation					14	11	0	0
Drive Thru Pass by					18	18	0	0
Speaker box (drive-thru)					16	14	0	10
External Noise Level at Receiver					R1	R2	R3	R4
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					6	10	30	3
Truck reverse					21	25	35	18
Truck brakes					-2	2	12	-5
Delivery (refrigerated)					29	14	22	28
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					31	9	17	27
Speaker box (drive-thru)					37	19	24	24
Cumulative					0	0	0	0
Internal	-7	dB						
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					-1	3	23	-4
Truck reverse					14	18	28	11
Truck brakes					-9	-5	5	-12
Delivery (refrigerated)					22	7	15	21
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					24	2	10	20
Speaker box (drive-thru)					30	12	17	17
Cumulative					32	19	30	25

iii. L_{A1}

Noise Source	Duration	L1	Events	L1 period	Distance to Receivers R1	R2	R3	R4
				1 hour	W	SW	S	N
Car door close	2	83	0	N/A	61	123	187	108
Car pass-by	6	75	0	N/A	61	123	170	108
Car engine start	3	74	0	N/A	61	123	187	108
Truck pass-by	20	83	20	73	165	102	130	243
Truck reverse	30	96	20	88	165	102	130	243
Truck brakes	4	90	20	73	165	102	130	243
Delivery (refrigerated)	120	86	2	74	15	83	130	92
Waste Collection	40	105	0	N/A	15	102	145	92
Outdoor Dining	60	88	0	N/A	25	112	251	95
Conversation	60	78	0	N/A	25	75	168	83
Drive Thru Pass by	6	75	50	64	6	73	240	73
Speaker box (drive-thru)	10	83	50	74	9	96	250	83
Noise level after Distance loss								
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					29	33	31	26
Truck reverse					44	48	46	41
Truck brakes					29	33	31	26
Delivery (refrigerated)					51	36	32	35
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					49	27	17	27
Speaker box (drive-thru)					55	35	26	36
Shielding losses (building, barrier etc)								
Car door close					14	0	0	0
Car pass-by					14	0	0	0
Car engine start					14	0	0	0
Truck pass-by					22	22	0	22
Truck reverse					22	22	10	22
Truck brakes					22	22	10	22
Delivery (refrigerated)					22	22	10	7
Waste Collection					22	22	10	7
Outdoor Dining					14	8	0	20
Conversation					14	11	0	0
Drive Thru Pass by					18	18	0	0
Speaker box (drive-thru)					16	14	0	10
External Noise Level at Receiver					R1	R2	R3	R4
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					7	11	31	4
Truck reverse					22	26	36	19
Truck brakes					7	11	21	4
Delivery (refrigerated)					29	14	22	28
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					31	9	17	27
Speaker box (drive-thru)					39	21	26	26
Cumulative					0	0	0	0
Internal	-7	dB						
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					0	4	24	-3
Truck reverse					15	19	29	12
Truck brakes					0	4	14	-3
Delivery (refrigerated)					22	7	15	21
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					24	2	10	20
Speaker box (drive-thru)					32	14	19	19
Cumulative					33	21	31	25

iv. L_{Max}

Noise Source	Duration	Lmax	Events	L1 period	Distance to Receivers R1	R2	R3	R4
				1 hour	W	SW	S	N
Car door close	2	83	0	N/A	61	123	187	108
Car pass-by	6	75	0	N/A	61	123	170	108
Car engine start	3	74	0	N/A	61	123	187	108
Truck pass-by	20	83	20	N/A	165	102	130	243
Truck reverse	30	96	20	96	165	102	130	243
Truck brakes	4	90	20	90	165	102	130	243
Delivery (refrigerated)	120	86	2	86	15	83	130	92
Waste Collection	40	105	0	N/A	15	102	145	92
Outdoor Dining	60	88	0	N/A	25	112	251	95
Conversation	60	78	0	N/A	25	75	168	83
Drive Thru Pass by	6	75	50	75	6	73	240	73
Speaker box (drive-thru)	10	83	50	83	9	96	250	83
Noise level after Distance loss								
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					N/A	N/A	N/A	N/A
Truck reverse					52	56	54	48
Truck brakes					46	50	48	42
Delivery (refrigerated)					62	48	44	47
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					59	38	27	38
Speaker box (drive-thru)					64	43	35	45
Shielding losses (building, barrier etc)								
Car door close					14	0	0	0
Car pass-by					14	0	0	0
Car engine start					14	0	0	0
Truck pass-by					22	22	0	22
Truck reverse					22	22	10	22
Truck brakes					22	22	10	22
Delivery (refrigerated)					22	22	10	7
Waste Collection					22	22	10	7
Outdoor Dining					14	8	0	20
Conversation					14	11	0	0
Drive Thru Pass by					18	18	0	0
Speaker box (drive-thru)					16	14	0	10
External Noise Level at Receiver					R1	R2	R3	R4
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					N/A	N/A	N/A	N/A
Truck reverse					30	34	44	26
Truck brakes					24	28	38	20
Delivery (refrigerated)					40	26	34	40
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					41	20	27	38
Speaker box (drive-thru)					48	29	35	35

FLOOD IMPACT ASSESSMENT

PROPOSED MATERIAL CHANGE OF USE (SHOPPING CENTRE) AND RECONFIGURING A LOT (1 INTO 2)

1 Pound Street, Kingaroy

for:
Coles Group Property Developments Pty Ltd
c/- Kilter

Reference: 3849-FLD01

Revision: A

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Date	Name	Signature	Document Status
10/10/2025	Scott Campbell (RPEQ: 31503)		A

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Rev	Date	Comments	Status	Author	Reviewer
A	10/10/2025	Issued for Approval	A	SC	SC

A - Approval	B - Building Approval	C - Construction	P - Preliminary
R - Revision	T - For Tender	X - Information	D - Draft

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1 INTRODUCTION

This Flood Impact Assessment has been prepared in support of a development application at 1 Pound Street, Kingaroy (subject site). The subject site is described as Lot 13 on RP814986. The has an overall area of 26,740m^2.

The purpose of this report is to address flood impacts associated with the proposed development at the subject site. A site locality plan is presented in Figure 1-1 below. This report will therefore:

- Identify the pre-development and post-development flood levels and extents;
- Determine the potential impact to the site and surrounding land resulting from development; and
- Provide recommendations for the development to ensure that the site does not result in an actionable nuisance or adverse impact to surrounding land.
- Assess the development against the relevant performance outcomes of the Flood Hazard Overlay section of the relevant zone code.



FIGURE 1-1 EXISTING SITE (SOURCE: QUEENSLAND GLOBE GIS)

1.1 DEVELOPMENT PROPOSAL

The following is proposed on the subject site:

- Reconfiguring a lot – one (1) lot into two (2) lots; and
- Material Change of Use – shopping centre on the northern lot.

The southern lot is proposed to be a balance lot. No change of use is proposed.

The proposed shopping centre consists of a supermarket and specialty stores. The shopping centre customer car parking is proposed to be from Kingaroy Street. A secondary access to the carparking, service areas and "Click and Collect" is provided from Pound Street.

The development has been detailed by Arkhright Architects and can be viewed in **Appendix A** of this report. An extract from the proposed development layout is presented below as Figure 1-2:

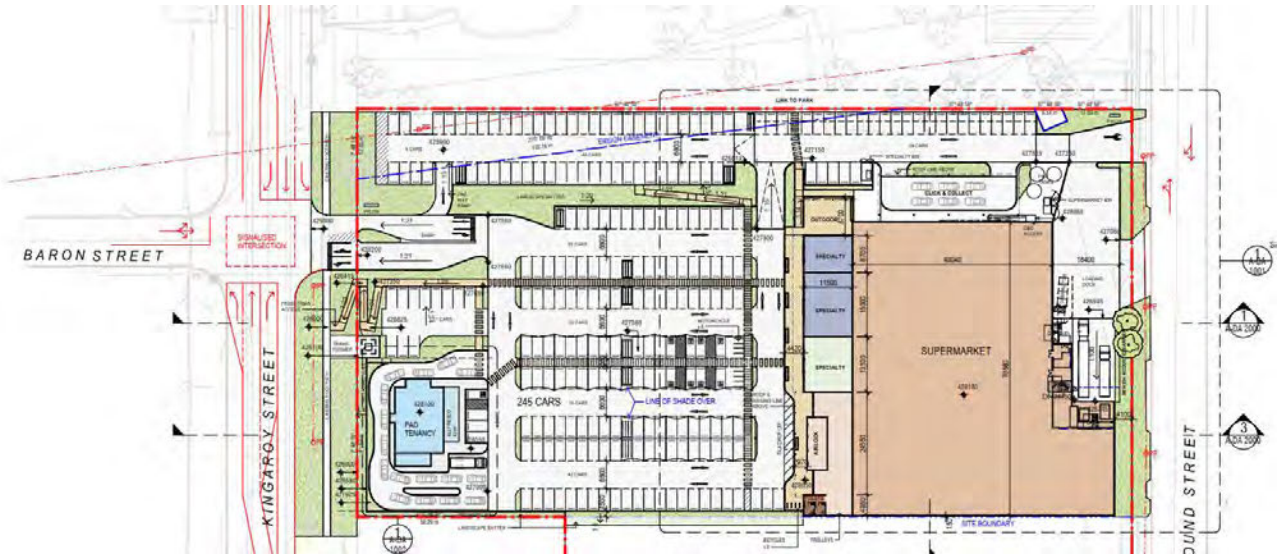


FIGURE 1-2 PROPOSED DEVELOPMENT LAYOUT – SHOPPING CENTRE

Further information regarding the proposed development can be found in the Engineering Report (3849-ENG01 Rev A) and Stormwater Report (3849-SWMR01 REV A) prepared by Contour submitted in support of the aforementioned development application/s.

2 EXISTING SITE

The site and surrounds have been surveyed by ONF surveyors, and the detail survey plan is provided in **Appendix B**. The site generally grades towards the Kingaroy Street frontage from southeast to northwest. Surface levels within the site range from approximately RL 425m AHD in the north-western corner to approximate RL 428m AHD in the south-eastern corner.

2.1 FLOOD AND OVERLAND PLANNING OVERLAY

A review of Council mapping identifies that areas within the site are subject to the flood hazard overlay. Reference is made to Figure 2-1. It is understood that the mapping is based on coarse “rain-on-grid” modelling and only provides an indication for where areas may be impacted. It As a result, Contour has prepared detailed flood modelling to refine the Council’s overlay.

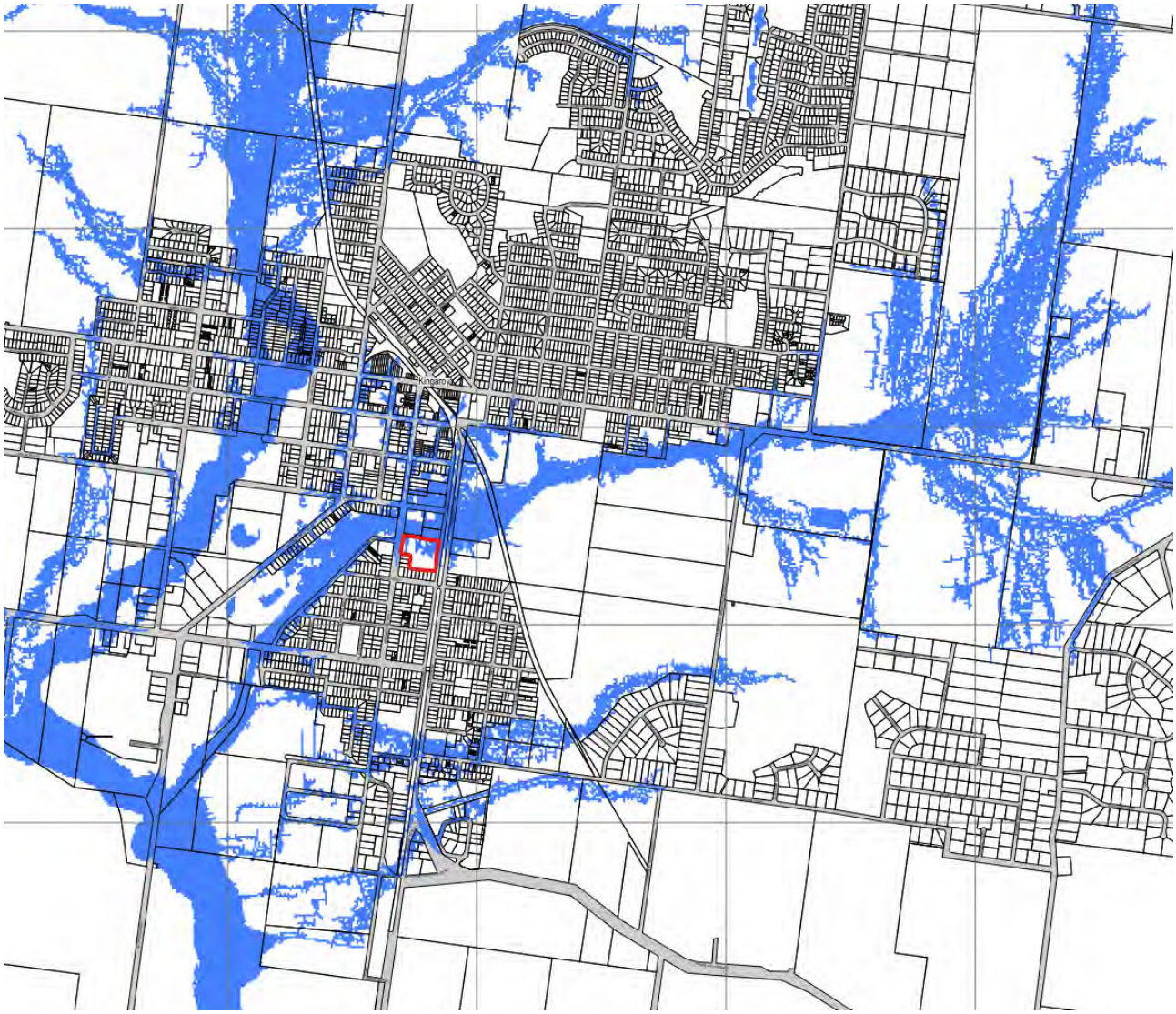


FIGURE 2-1 SOUTH BURNNETT FLOOD HAZARD OVERLAY

3 HYDROLOGICAL MODEL SETUP.

This section outlines the hydrological assessments undertaken for the catchments surrounding the subject site. XP-RAFTS has been utilised as the modelling package for the hydrological assessment of the contributing catchments. Storm Injector was utilised with the XP-RAFTS model to enable analysis of ensemble temporal patterns in accordance with ARR2016. The hydrological models' outputs form an input into the hydraulic model.

3.1 CATCHMENT ASSESSMENT

Stormwater drainage catchments contributing to the flood overlay have been determined based on topography, surface types, and land-use categories. Catchment boundaries are shown in Map 1. Catchment details are provided in Table 2-1. The site is located within catchment C1.

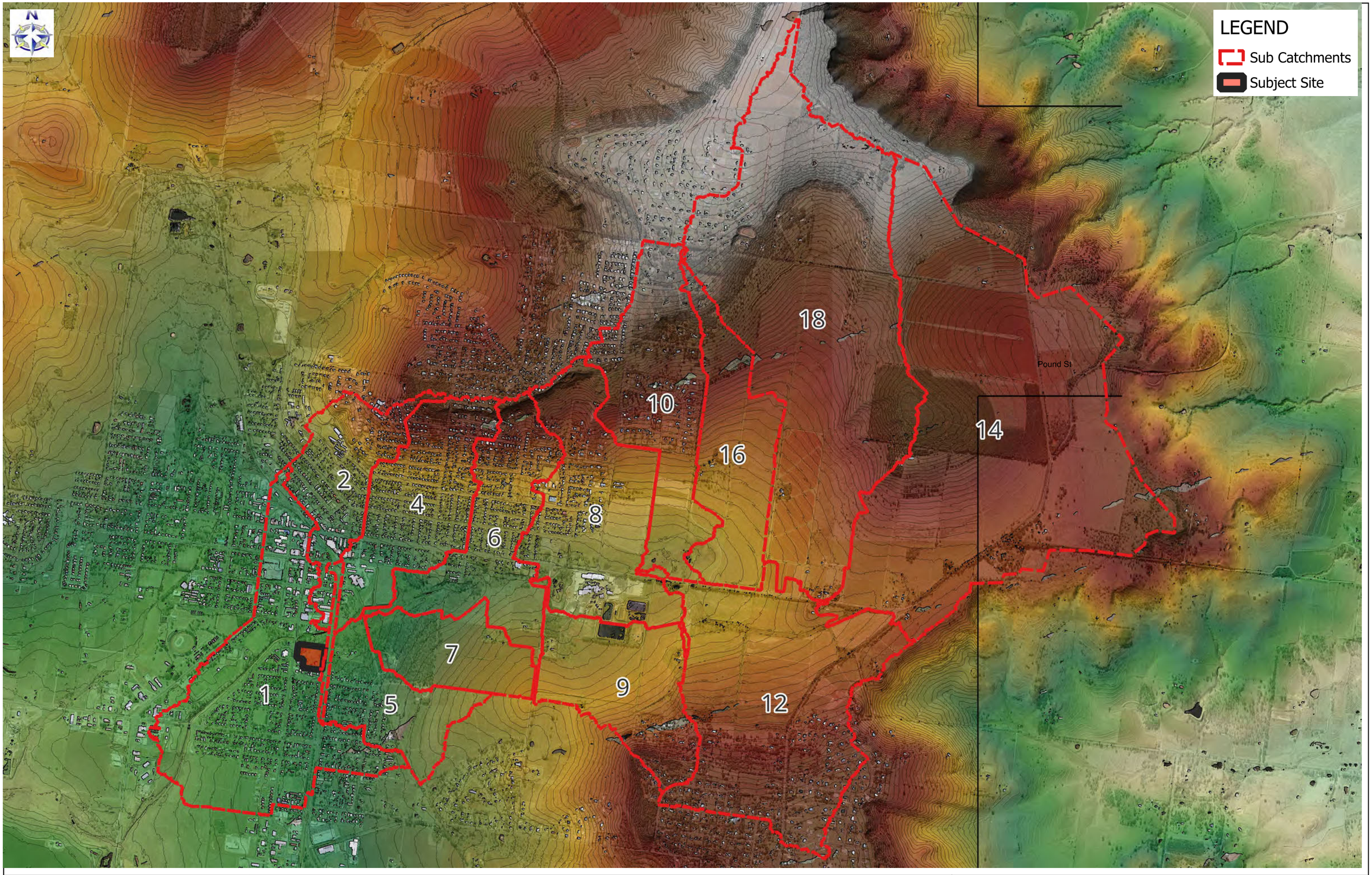
Table 3-1 Catchment Details

Catchment name	Area (ha)	Existing Fraction Impervious	Slope
C1	167.14	54%	1
C2	62.60	67%	6
C4	90.75	62%	2
C5	55.48	52%	2
C6	91.60	41%	4
C7	52.17	0%	3
C8	120.95	19%	3.4
C9	85.90	5%	3.8
C10	110.06	15%	4.1
C12	201.34	7%	3
C14	387.79	0%	1.25
C16	84.53	1%	3.8
C18	338.73	2%	2.5

Catchment fraction imperious has been determined based on an assessment of the land use within the individual sub-catchments. Adopted fraction impervious for each land use were adopted as per the Kingaroy Planning Scheme Table zoning and QUDM as detailed in Table 3-2 below. For catchments with multiple land uses, the fraction impervious was based on the total impervious area within the catchment.

TABLE 3-2 ADOPTED FRACTION IMPERVIOUS

Zone	Adopted Fraction Impervious (%)
Residential A	65
Residential B	50
Rural Residential B	20
Rural Residential C	20
Business and Commercial (core)	90
Business and Commercial (frame)	90
Rural	0



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CATCHMENT PLAN

0 300 600 900 1,200 1,500 m

REV A

Map 1

C:\12d\data\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz

3.1.1 RAINFALL AND LOSSES

Rainfall data was obtained from the ARR Data Hub with the use of Storm Injector. Rainfall data has adopted the latest BOM IFD data available.

Aerial reduction factors have been adopted in accordance with ARR2016 parameters and applied through Storm Injector.

An initial and continuing loss model was incorporated into the XP-RAFTS model. Losses have been determined with reference to ARR Datahub. The Storm Loss is identified as 36mm with a 0.3mm continuing loss, as per *Figure 3-1* below. Within the XP-RAFTS model, this loss was applied to pervious areas only. A static 1mm initial loss with 0mm continuing loss was applied to all impervious surfaces.

Storm Losses

Note: Burst Loss = Storm Loss - Preburst

Note: These losses are only for rural use and are **NOT FOR DIRECT USE** in urban areas

ID	27107.0
Storm Initial Losses (mm)	36.0
Storm Continuing Losses (mm/h)	0.3

Figure 3-1 ARR DATAHUB - STORM LOSSES

The ARR Datahub median pre-burst loses are presented in Figure 3-2 and were adopted for the model. Pre-Burst depths were utilised to determine the relevant storm burst loss for each design event and applied within Storm Injector.

Median Preburst Depths and Ratios

Values are of the format depth (ratio) with depth in mm

min (h)\AEP(%)	50	20	10	5	2	1
60 (1.0)	0.8 (0.022)	1.5 (0.030)	1.9 (0.033)	2.4 (0.035)	3.8 (0.049)	4.9 (0.056)
90 (1.5)	0.0 (0.000)	0.5 (0.009)	0.8 (0.012)	1.1 (0.014)	5.3 (0.060)	8.4 (0.087)
120 (2.0)	0.0 (0.000)	0.7 (0.012)	1.1 (0.017)	1.6 (0.020)	7.6 (0.082)	12.1 (0.118)
180 (3.0)	0.0 (0.000)	0.1 (0.001)	0.1 (0.002)	0.2 (0.002)	3.6 (0.036)	6.2 (0.056)
360 (6.0)	0.0 (0.000)	0.9 (0.013)	1.5 (0.018)	2.1 (0.022)	4.0 (0.035)	5.4 (0.042)
720 (12.0)	0.0 (0.000)	0.1 (0.001)	0.1 (0.001)	0.1 (0.001)	7.9 (0.060)	13.7 (0.093)

Figure 3-2 ARR DATAHUB – ADOPTED PRE-BURST DEPTHS

Climate Change factors have been adopted based on ARR version 4.2 data obtained from the Data Hub based on Shared Socioeconomic Pathway 2-4.5. Rainfall factors are detailed in Figure 3-3.

SSP2-4.5

Year	<1 hour	1.5 Hours	2 Hours	3 Hours	4.5 Hours	6 Hours	9 Hours	12 Hours	18 Hours	>24 Hours
2030	**1.18**	**1.17**	**1.16**	**1.14**	**1.13**	**1.12**	**1.12**	**1.11**	**1.1**	**1.1**
2040	1.22	1.2	1.19	1.17	1.16	1.15	1.14	1.13	1.12	1.12
2050	**1.27**	**1.24**	**1.23**	**1.21**	**1.19**	**1.18**	**1.17**	**1.16**	**1.15**	**1.14**
2060	1.3	1.27	1.25	1.23	1.21	1.2	1.19	1.18	1.16	1.16
2070	1.33	1.3	1.28	1.26	1.24	1.22	1.21	1.19	1.18	1.17
2080	1.37	1.33	1.31	1.28	1.26	1.24	1.22	1.21	1.2	1.19
2090	**1.4**	**1.36**	**1.34**	**1.31**	**1.28**	**1.26**	**1.24**	**1.23**	**1.21**	**1.2**
2100	1.41	1.37	1.35	1.32	1.29	1.27	1.25	1.24	1.22	1.21

FIGURE 3-3 ARR DATAHUB- ADOPTED CLIMATE CHANGE FACTORS

3.2 STORM DURATIONS AND PATTERNS

Storm durations of between 30 minutes and 9 hours were modelled. An assessment of the critical durations was undertaken in the hydrology package for the catchment discharge immediately upstream of the site. Table 3-3 details the peak flow, critical durations and temporal patterns that have been adopted for the model. Peak discharges represent the total discharges at node C2. Individual subcatchments have adopted the respective subcatchment hydrographs.

TABLE 3-3 ADOPTED PEAK DISCHARGES C1 OUTLET

AEP	Peak Discharge (m3/s)	Critical Duration min	Median Pattern.
63.2% AEP	25.18	30	10
20% AEP	42.79	540	4
10% AEP	57.69	360	4
5% AEP	68.95	360	1
2% AEP	92.86	120	1
1% AEP	114.39	120	1
1% AEP including Climate Change	170.56	120	1

It is noted that the development will increase the fraction impervious; however, considering the relatively small size of the catchment compared to the broader catchment, hydrological inputs have not been modified for the post-developed hydraulics model. The Contour Stormwater Management Plan provides further details that the development site does not result in increases to peak discharges; as such, it is conservative to assume the pre-developed flows as inputs into the hydraulics package.

3.3 Hydrological Model Validation

Flows XP-RAFTS model has been validated against rational method calculations at two locations. One immediately upstream of the site and another further up the catchment. Rational Method Calculation Details are included in Appendix C. The validation is detailed in **Table 3-4** The rational method calculated flows compare well with the flows derived from the XP-RAFTS model.

TABLE 3-4 RATIONAL METHOD VALIDATION

	Peak Discharge m^3/s					
	Catchment C2 outlet			Catchment C8 outlet		
AEP	Rational Method	RAFTS results	% Difference	Rational Method	RAFTS results	% Difference
10%	57.69	64.02	10%	49.75	53.41	7%
1%	114.39	115.21	1%	104.16	96.22	8%

3.3.1 Time of Concentration Calculations

Time of concentration has been calculated generally in accordance with QUDM. Considering the large and rural nature of most of the catchment, calculations were undertaken using the modified stream flow velocity method as per Table 4.6.4 of QUDM.

4 HYDRAULIC MODEL SETUP

The most recent version of TUFLOW at the time of writing was used - version 2023-03-AD. The following was uniformly adopted within the Contour model, with more specific changes detailed in Section 4.11 for individual development scenarios.

4.1 SOURCE DATA

The Contour model has incorporated data based on:

- 2011 LiDAR aerial survey;
- Aerial imagery provided by ESRI ArcGIS and Queensland Globe; and
- Survey Provided by ONF Surveyors.

4.2 MODEL EXTENTS & BOUNDARY CONDITIONS

A schematic of the Contour model is presented in Map 1, with the '2d code' boundary and the various sub-catchments shown below. Generally, runoff within the catchment is directed toward Kingaroy Creek. The total catchment area considered is approximately 18.49sq.km. The model extents include the existing residential areas surrounding the site as well as vast rural lands to the northwest.

The downstream boundary of the site has been adopted to be downstream at the River Road crossing as a HQ boundary type. This boundary is approximately 1.3km downstream of the site and is sufficiently removed so as not to influence the results in the area of interest. This was confirmed by sensitivity testing during model development.

A grid resolution of 4m was adopted across the model domain.

4.3 MODEL TOPOGRAPHY

Model topography was adopted from the 2011 LiDAR survey. The detailed site survey was stamped into the LIDAR data. Minor topographical adjustments were incorporated into the Contour model where necessary to ensure that culvert inlet/outlet levels were consistent with Council GIS and/or survey records.

4.4 SURFACE ROUGHNESS

Surface roughness was varied across the site and catchment based on the aerial imagery. Manning's 'n' values were adopted as per Table 4-1.

TABLE 4-1 SURFACE ROUGHNESS VALUES

Value	Description	Manning's n
1	Low Grass/Grazing	Depth Varying between 0.25 and 0.025
10	Roads/Footpaths	0.015
12	Waterbodies	0.03
20	Buildings	0.3

4.5 1D NETWORK

The Council network was incorporated via '1d nwk' shapefiles based on survey data. Blockages were considered and accounted for as per recommendation within QUDM.

Map 2 shows the extent of pits and pipes whilst a complete database of the 1d pit/pipe network is shown below in Table 3-3.

TABLE 4-3 CULVERT DETAILS

Culvert ID	Type	Size	Upstream IL	Downstream IL
KINGST1	RCBC	5/2.5x2.08	423.2	423.1
POUND1	CULVERT	3/900	425.4	425.12
POUND2	RCBC	2/1.24x0.46	426.06	426.03
POUND3	CULVERT	1/450	426.009	426.002
POUND4	CULVERT	6/450	426.3	426.24
POUND5	RCBC	2/1.24x0.46	426.15	426.09
POUND6	CULVERT	1/450	426.42	426.35
DUCK2	CULVERT	5/100	425.276	425.253
CLARK1	CULVERT	3/375	446	445.43



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EXISTING Model Schematic

0 170 340 510 680 850 m

REV A

Map 2

C:\12dSidata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz

4.6 MODEL SCENARIOS

Hydraulic scenarios were adopted for the Contour model, as per Table 4- below.

TABLE 4-4 TUFLOW MODEL SCENARIOS

Scenario	TUFLOW ID	Description
Pre-development Base Case	EXG	Existing scenario, with parameters as detailed above in Section 4.
Post-development Scenario	DEV	Design scenario incorporating development layout – refer to Section 4.7.

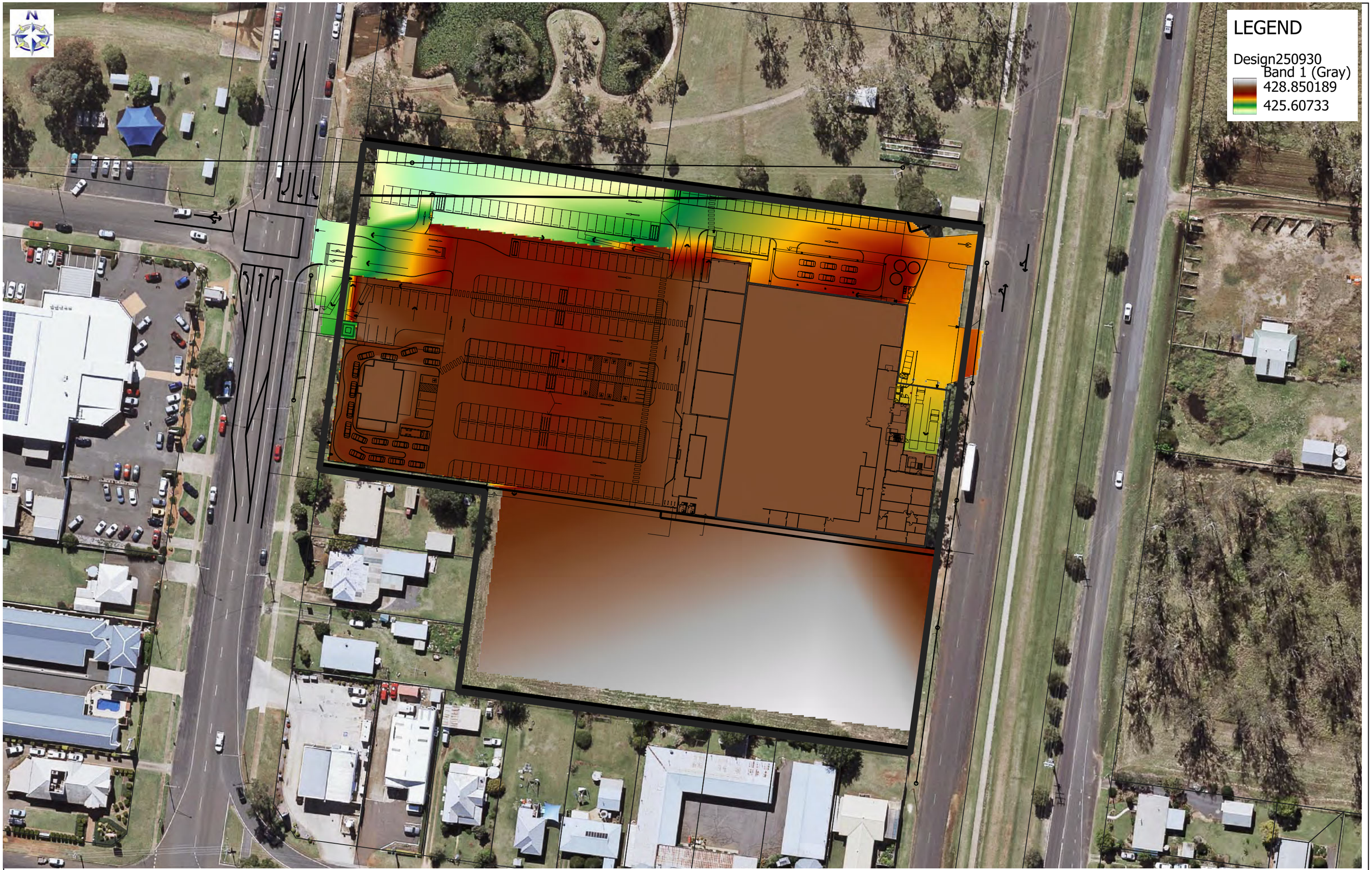
4.7 POST-DEVELOPMENT SCENARIO

The proposed developed model has adopted the same parameters as per the base case model, with changes being limited to the inclusion of the post-developed earthworks model.

The proposed topography for the development has been derived through 12d modelling. Significant features of the post-developed model include the minimisation of earthworks within the northern carpark area and filling of the balance area to achieve minimum freeboard.

The intent of minimising earthworks in the northern carpark is to ensure that off-site impacts do not result from the proposed development.

Maps 3 depicts the developed case model, including topography.



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DEVELOPED CASE SCHEMATIC

0 15 30 45 60 75 m

REV A

Map 3

C:\12dSIdata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz

5 RESULTS

TUFLOW model outputs for the 63.2%, 20%, 10%, 5%, 2%, 1% AEP and 1% AEP (CC) events are presented in **Appendix D**. A summary of the result outputs is included in Table 5-1 below. It is noted that these results have considered the median peak of all 10 ARR16/19 temporal patterns.

TABLE 5-1 TUFLOW FIGURE OUTPUTS

Map	AEP	Scenario	Description
4	1	Flood Hazard - Base	Water Surface level
5	1	Flood Hazard - Base	Depth
6	1	Flood Hazard - Base	Velocity
7	1	Flood Hazard - DEV	Water Surface level
8	1	Flood Hazard - DEV	Depth
9	1	Flood Hazard - DEV	Velocity
10	1CC	Flood Hazard - DEV	Water Surface level - Climate Change
11	1CC	Flood Hazard - DEV	Depth - Climate Change
12	1CC	Flood Hazard - DEV	Velocity - Climate Change
13	2	Flood Hazard - Base	Water Surface level
14	2	Flood Hazard - Base	Depth
15	2	Flood Hazard - Base	Velocity
16	2	Flood Hazard - DEV	Water Surface level
17	2	Flood Hazard - DEV	Depth
18	2	Flood Hazard - DEV	Velocity
19	5	Flood Hazard - Base	Water Surface level
20	5	Flood Hazard - Base	Depth
21	5	Flood Hazard - Base	Velocity
22	5	Flood Hazard - DEV	Water Surface level
23	5	Flood Hazard - DEV	Depth
24	5	Flood Hazard - DEV	Velocity
25	10	Flood Hazard - Base	Water Surface level
26	10	Flood Hazard - Base	Depth
27	10	Flood Hazard - Base	Velocity
28	10	Flood Hazard - DEV	Water Surface level
29	10	Flood Hazard - DEV	Depth
30	10	Flood Hazard - DEV	Velocity
31	20	Flood Hazard - Base	Water Surface level
32	20	Flood Hazard - Base	Depth
33	20	Flood Hazard - Base	Velocity
34	20	Flood Hazard - DEV	Water Surface level
35	20	Flood Hazard - DEV	Depth
36	20	Flood Hazard - DEV	Velocity
37	63	Flood Hazard - Base	Water Surface level
38	63	Flood Hazard - Base	Depth
39	63	Flood Hazard - Base	Velocity
40	63	Flood Hazard - DEV	Water Surface level

41	63	Flood Hazard - DEV	Depth
42	63	Flood Hazard - DEV	Velocity
43	1	Flood Hazard	Flood Level Impact
44	2	Flood Hazard	Flood Level Impact
45	5	Flood Hazard	Flood Level Impact
46	10	Flood Hazard	Flood Level Impact
47	20	Flood Hazard	Flood Level Impact
48	63	Flood Hazard	Flood Level Impact

6 OVERLAND FLOW RESULT DISCUSSION

6.1 EXISTING FLOOD FLOW BEHAVIOUR

Conveyance mechanisms dominate the flood characteristics surrounding the site. This is supported by the following;

- Flood levels at the western boundary of the site (downstream) are lower than the flood level at the eastern boundary of the site (upstream).
- Within the park to the north of the site, and the downstream drainage channel, flood velocities are relatively high.

During more frequent events (63%AEP), flooding is generally contained to the site to the north, apart from a small area within the site, contained in a drainage channel at the northwestern corner, where depths are less than 100mm.

Flooding at the site progressively increases for rarer events. The maximum depth of flooding on site during the 1% AEP event is in the order of 800mm, located within the drainage channel. Flood velocities within the site for the 1% AEP event are relatively slow across areas that are proposed to be filled. The peak velocities at such areas are less than 0.3m/s.

The existing culvert arrangement under Kingaroy Street appears to have a capacity of less than the 20% AEP event. Flood levels across the western portion of the site are influenced by the backwater level from the culverts and the formation of Kingaroy Street.

6.2 IMPACT FROM DEVELOPMENT

Impacts to water surface level are shown in Maps 43 to 48 contained in **Appendix E**. A 20mm peak flood height afflux was adopted as the threshold for no appreciable change.

Based on the mapping, it is evident that the proposed development does not result in off-site impacts.

Within the site, there are changes to the flood extent as a result of the proposed earthworks on-site. In the areas of the lower carpark, the extent of inundation has increased, whereas in the upper carpark, it has decreased.

6.2.1 MINIMUM FINISHED FLOOR LEVELS

Table 6-1details the minimum finished freeboards for the various buildings across the site. It is noted that these are minimum levels and the proposed levels can be higher than this to suit other purposes.
It is proposed that the minimum finished floor levels for the development are provided based on the 1% AEP, including Climate Change event. It is noted that the South Burnet Planning Scheme does not provide any specific guidance regarding the inclusion of climate change for setting minimum finished floor levels. However, Contour have included an assessment of the climate change scenario as the current best practice.

Given that there is a hydraulic gradient across the site, the minimum finished floor levels at the upstream end are higher than those at the downstream end. The minimum finished floor levels to be adopted have been taken perpendicular to the direction of flow and include a minimum of 300mm freeboard, in accordance with QUDM.

TABLE 6-1 MINIMUM FINISHED FLOOR LEVELS

Building	Flood Level (1%AEP including Climate Change)	Minimum Finished Floor Level
A(Supermarket and Specialty)	427.76	428.06
B (Fast food)	426.87	427.17

7 SUMMARY

Contour Consulting Engineers has undertaken Flood Modelling in support of this Overland Flow Flood Impact assessment. Based on the assessments undertaken Contour has concluded the following key points;

- Modelling has been prepared generally as per council planning scheme and recommendations within ARR2019;
- Modelling validates well against the rational method flows;
- Flood mapping has been prepared for the 63.2%, 20% 10%, 5%, 2%, 1% and 1% Climate Change events. Mapping outputs include Flood level, depth and velocity;
- The proposed development does not result in unacceptable impacts with respect to level for the design or severe storm events;
- Minimum finished floor levels are recommended for the proposed buildings as detailed in Section 6.2.1;
- Assessment of the development against the relevant Flood Overlay performance outcomes of the planning scheme has been undertaken and compliance has been achieved refer **Appendix E**.

8 LIMITATIONS AND CLOSURE

This report has been prepared by Contour Consulting Engineers Pty Ltd, under the direction of a Registered Professional Engineer of Queensland. This report has been tailored to investigate issues in the context of the proposal and at the area of interest, as detailed herein.

The information contained in this report is not to be used outside of the subject area.

We consider that this report accurately reflects the conditions of the area of interest, at the time the study was undertaken. The results/recommendations/conclusions of this report are to be reviewed if the details of proposal change, or if conditions change, or if the amendment are made to built-infrastructure in the future,

This report is only to be used in full and may not be used to support objectives other than those set out herein, except where written approval, with comments, are provided by Contour Consulting Engineers Pty Ltd.

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Appendix A. Development Layout Plan



DRAWING LIST

NUMBER	SHEET NAME	REV	DATE
A-DA 0001	COVER PAGE	D	08/10/25
A-DA 0010	DEVELOPMENT AREA SUMMARY	C	08/10/25
A-DA 1000	SITE PLAN	D	08/10/25
A-DA 1001	BUILDING A - GROUND FLOOR PLAN	D	08/10/25
A-DA 1002	BUILDING B - GROUND FLOOR & ROOF PLAN	B	08/10/25
A-DA 1010	BUILDING A - LEVEL 2 & ROOF	D	08/10/25
A-DA 2000	OVERALL SECTIONS	D	08/10/25
A-DA 2010	BUILDING A SECTIONS	D	08/10/25
A-DA 2011	BUILDING B SECTIONS	B	08/10/25
A-DA 3000	BUILDING A ELEVATIONS	D	08/10/25
A-DA 3001	BUILDING A ELEVATIONS	D	08/10/25
A-DA 3002	BUILDING B ELEVATIONS	B	08/10/25
A-DA 5000	3D VIEWS	B	08/10/25

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A	17/09/25	WIP FOR INFORMATION	JR	PW
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C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW

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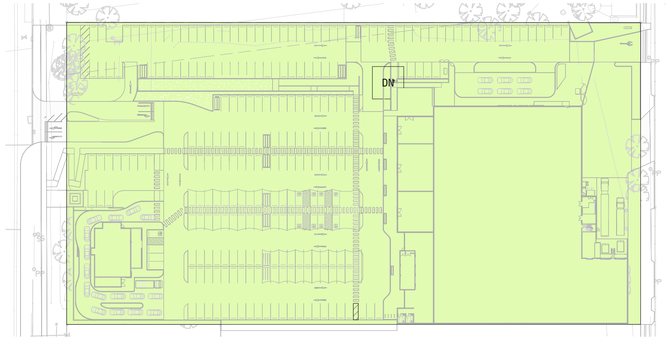
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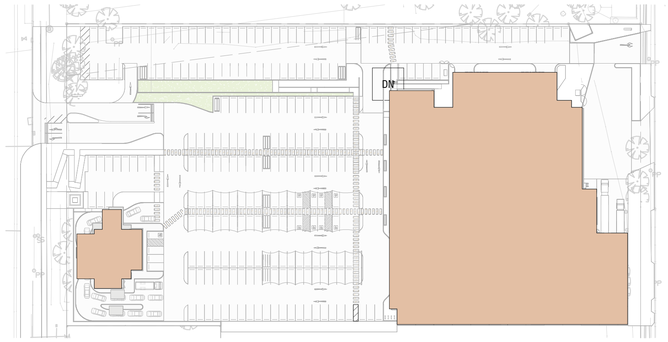
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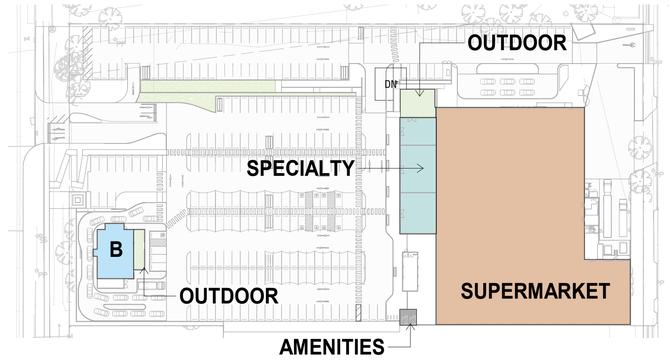
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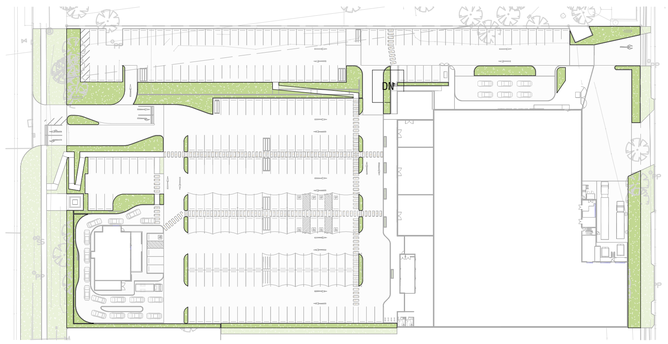
3 / 2000 SITE AREA DIAGRAM



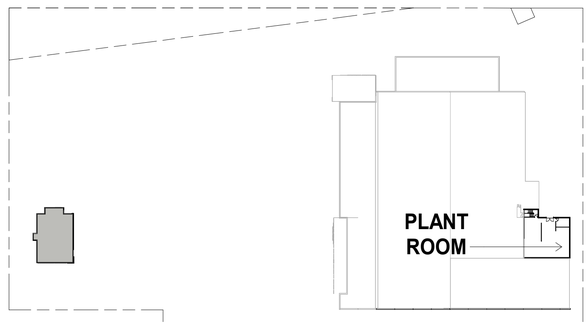
5 / 2000 SITE COVER DIAGRAM



1 / 2000 TOTAL GFA DIAGRAM - GROUND FLOOR



2 / 2000 PERVIOUS AREA DIAGRAM



4 / 2000 GFA DIAGRAM - MEZZANINE LEVEL

DEVELOPMENT SUMMARY:

SITE AREA	
	18,467 m²

SITE COVER	
	5,830 m² (32%)

GFA			
BUILDING A			
	SUPERMARKET	3,750 m²	
	SPECIALTY	455 m²	
	AMENITIES	30 m²	
			4,235 m²
BUILDING A OUTDOOR DINING			105 m²
BUILDING B			210 m²
BUILDING B OUTDOOR DINING			48 m²
			4,598 m²

PERVIOUS	
LANDSCAPE	1,715 m²

PARKING	
CARS	245
MOTORCYCLES	8
BIKES	8

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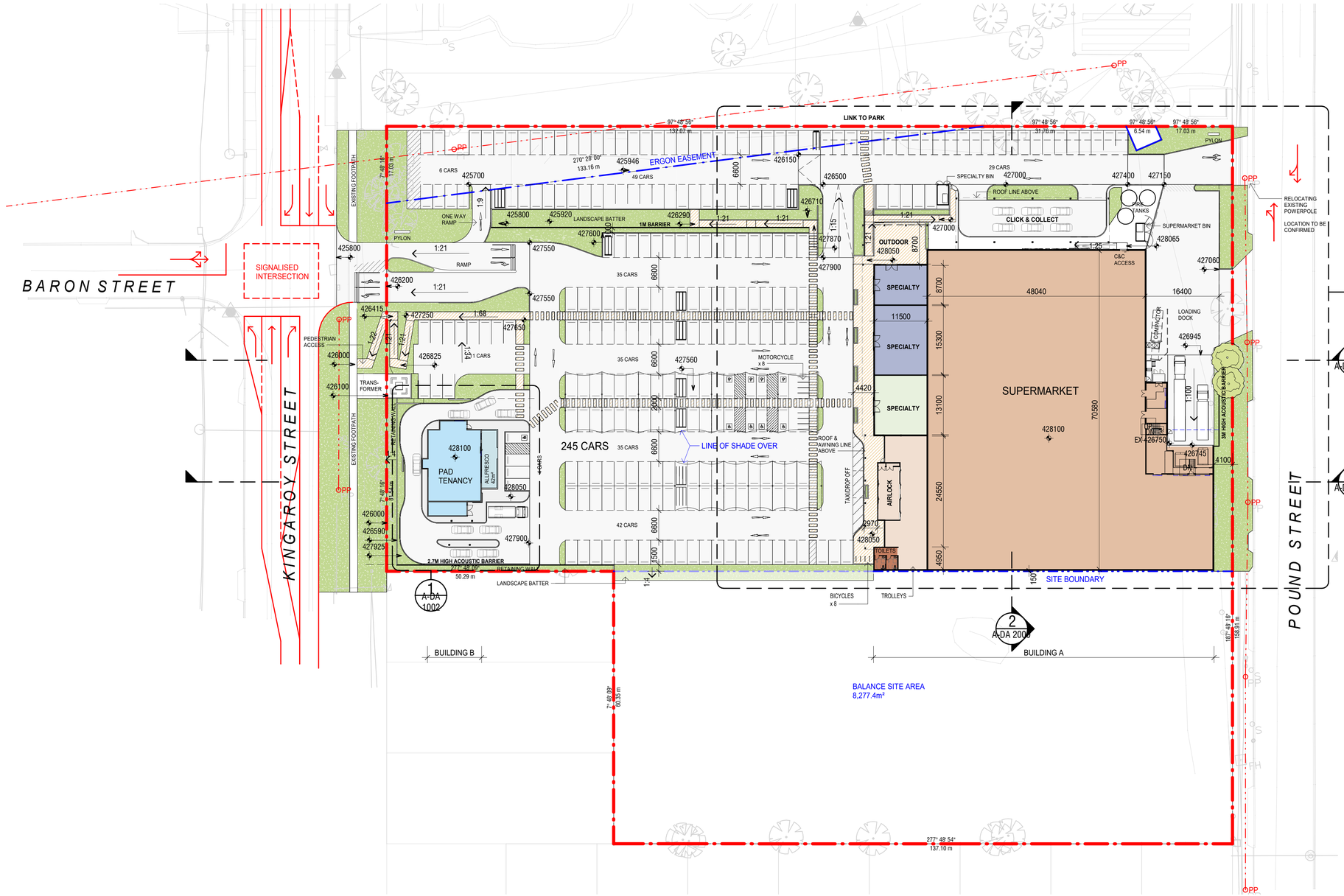
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DEVELOPMENT AREA SUMMARY

Drawing Number **A-DA 0010**

Revision **C**



1 OVERALL SITE PLAN
2000 1 : 500

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D	08/10/25	WIP FOR COORDINATION	JR	PW

LEGEND

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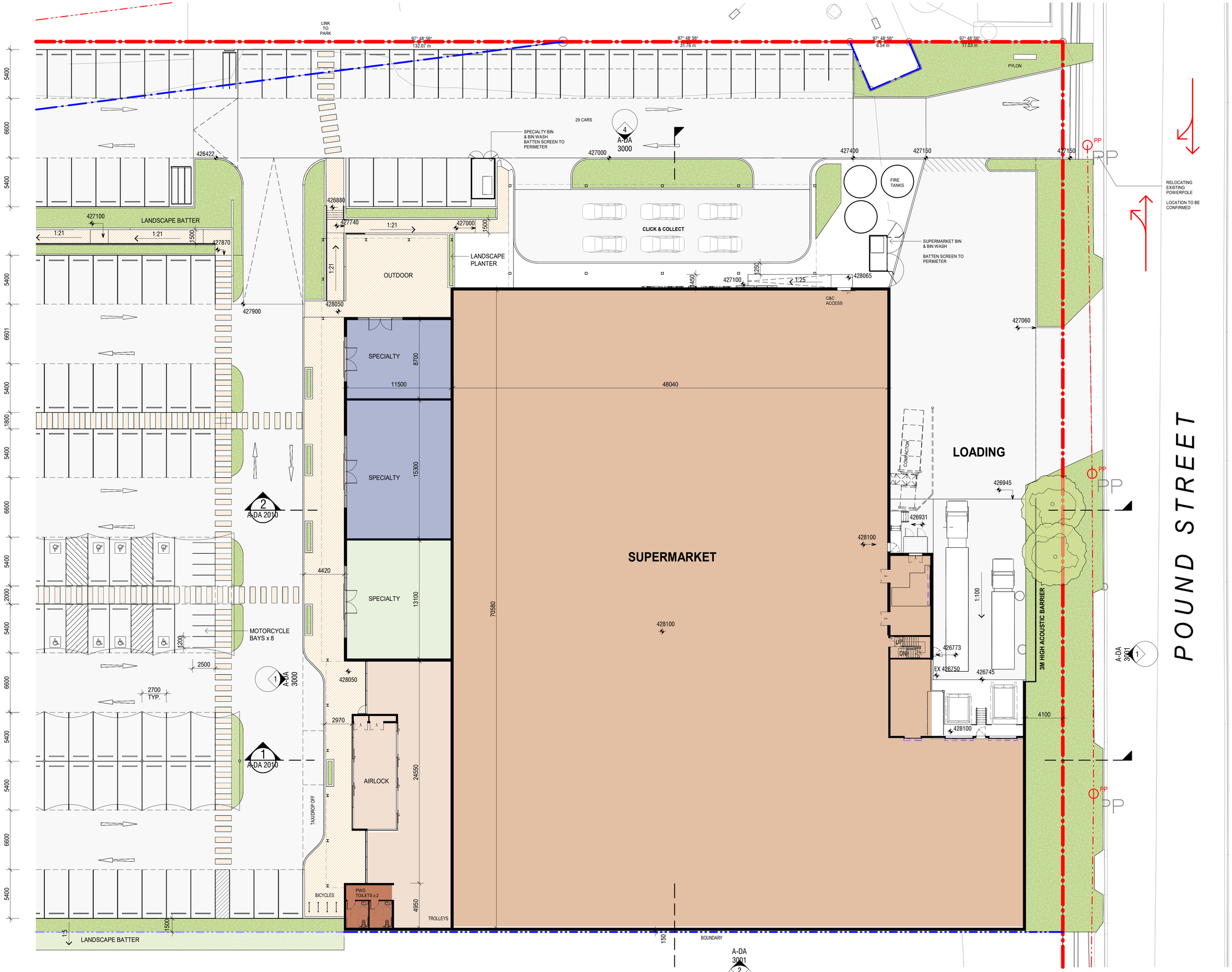
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Drawing Number
A-DA-A-DA 1000

Revision
D

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C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW



1 BUILDING A - GROUND FLOOR PLAN
2000
1 : 200

LEGEND

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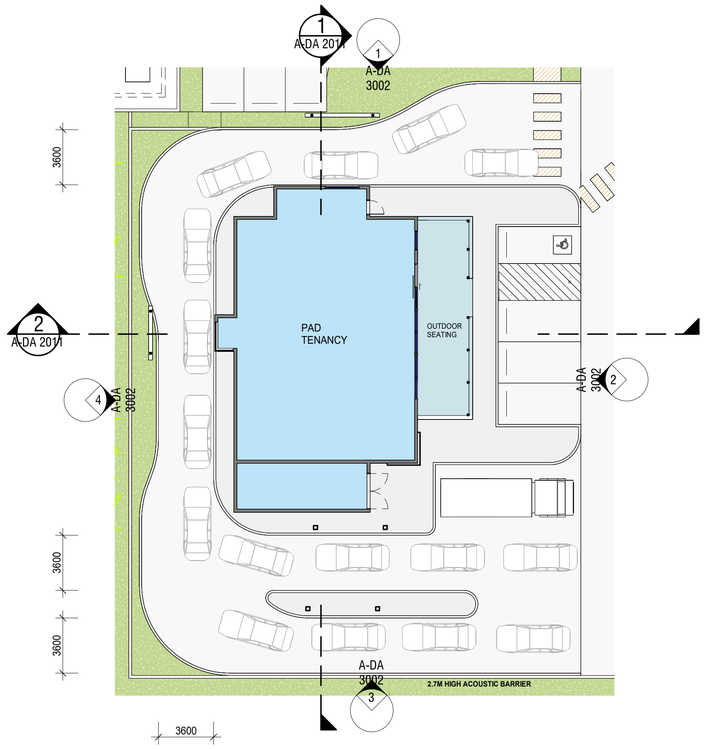
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BUILDING A - GROUND FLOOR PLAN

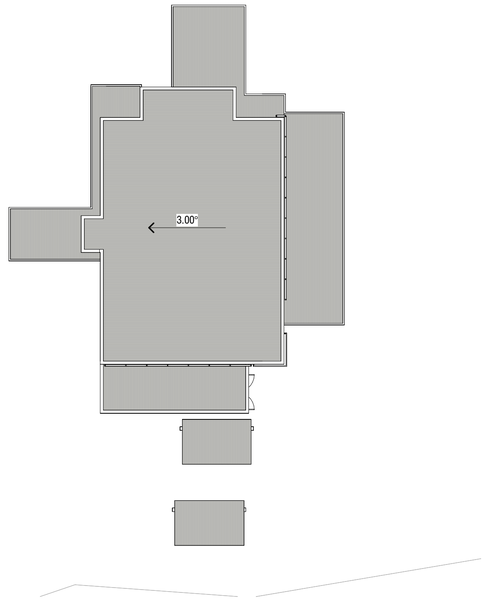
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Rev.	Date	Description	Ins.	Appr.
A	30/09/25	WIP FOR COORDINATION	JR	PW
B	08/10/25	WIP FOR COORDINATION	JR	PW



1 A-DA 1000 BUILDING B - GROUND FLOOR PLAN
1 : 200



2 2000 BUILDING B ROOF PLAN
1 : 200

LEGEND

PEDESTRIAN CONNECTION

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admin@arkhright.com
07 3543 5649

ABN 44 678 592 535

Project
COLES KINGAROY

coles

Status

Date Plotted 8/10/2025 3:34:08 PM

Date Issued

Scale As indicated @A1

0 5 10 20 30M

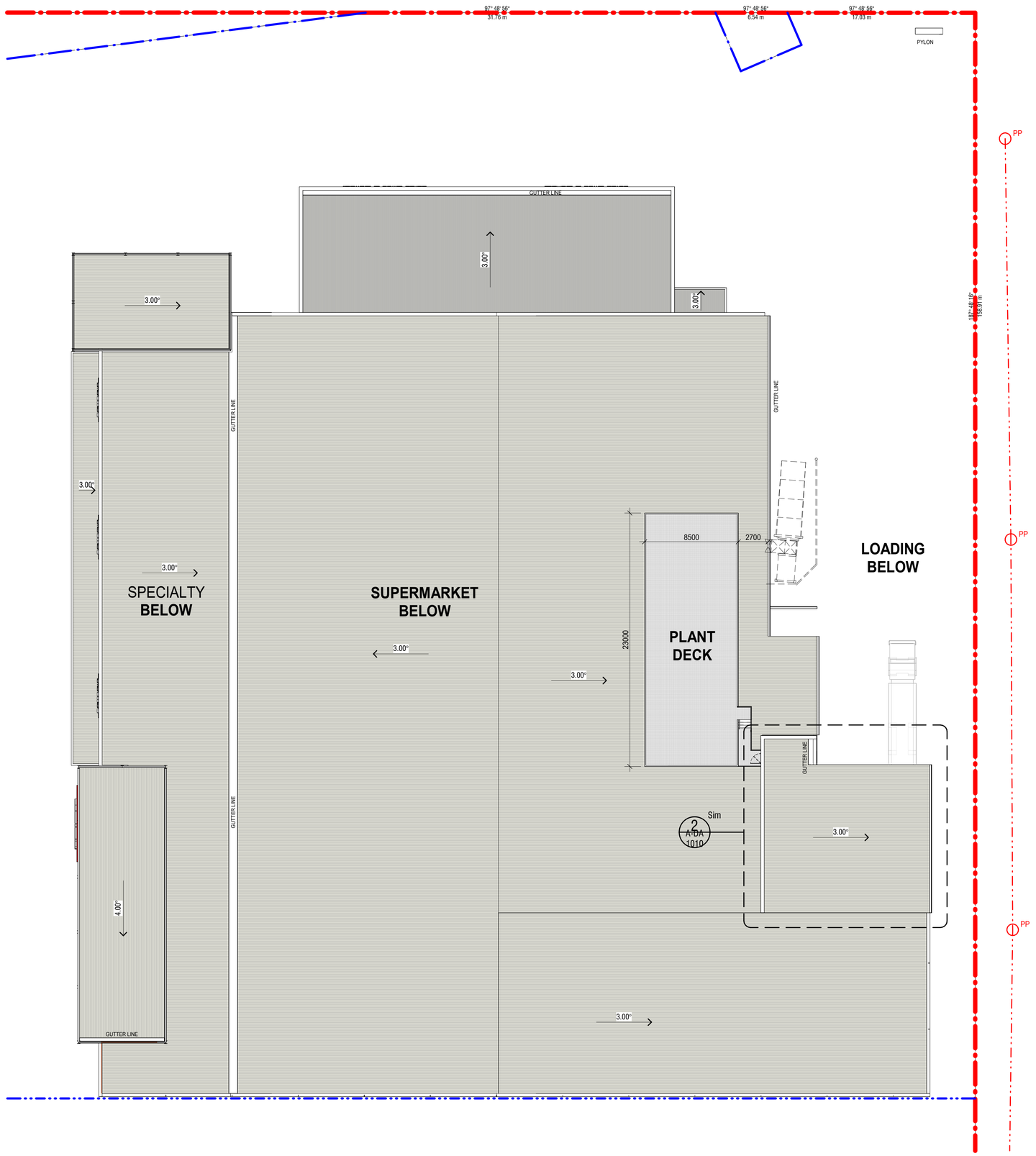
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BUILDING B - GROUND FLOOR & ROOF PLAN

Drawing Number **A-DA-A-DA 1002** Revision **B**

Rev.	Date	Description	Ins.	Appr.
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B	24/09/25	WIP FOR COORDINATION	JR	PW
C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW



2 PLANT LEVEL
2000 1 : 200



1 ROOF PLAN
2000 1 : 200

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Status

Date Plotted 8/10/2025 3:34:09 PM

Date Issued

Scale 1 : 200 @A1

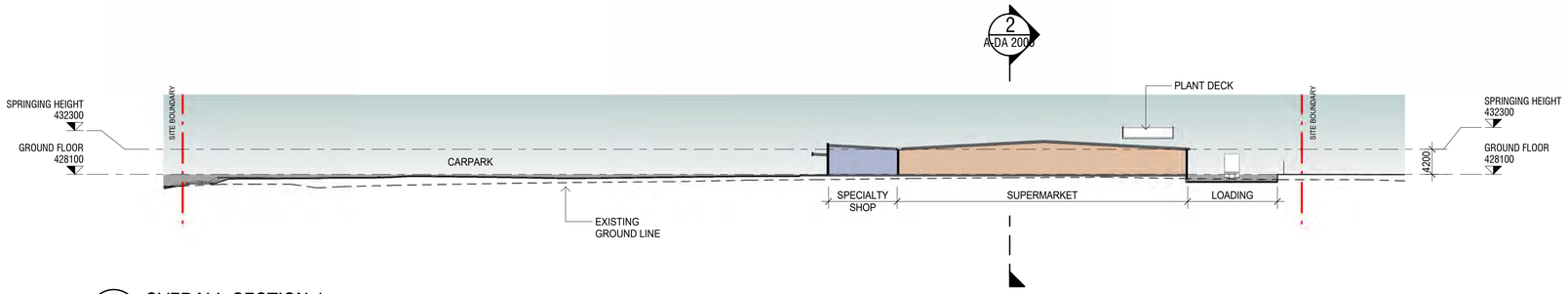
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Drawing Title
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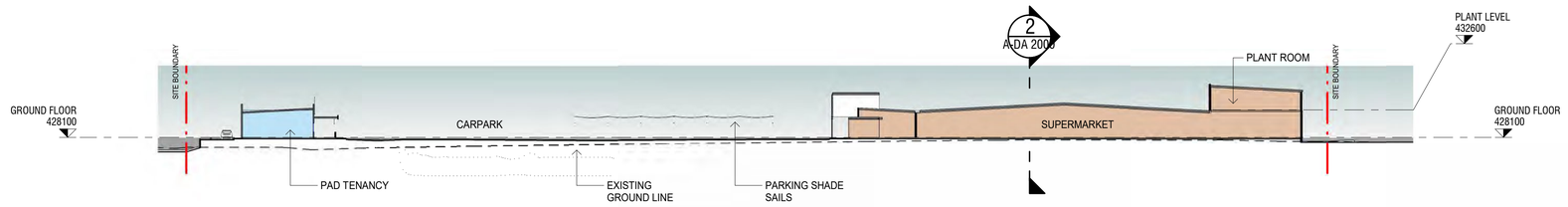
Drawing Number
A-DA-A-DA 1010

Revision
D

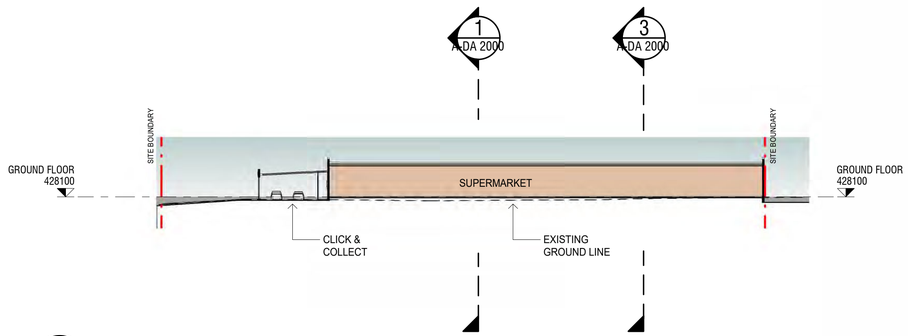
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B	24/09/25	WIP FOR COORDINATION	JR	PW
C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW



1 / 0010 OVERALL SECTION 1
1 : 500



3 / 0010 OVERALL SECTION 2
1 : 500



2 / 0010 OVERALL SECTION 3
1 : 500

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Date Plotted 8/10/2025 3:34:11 PM

Date Issued

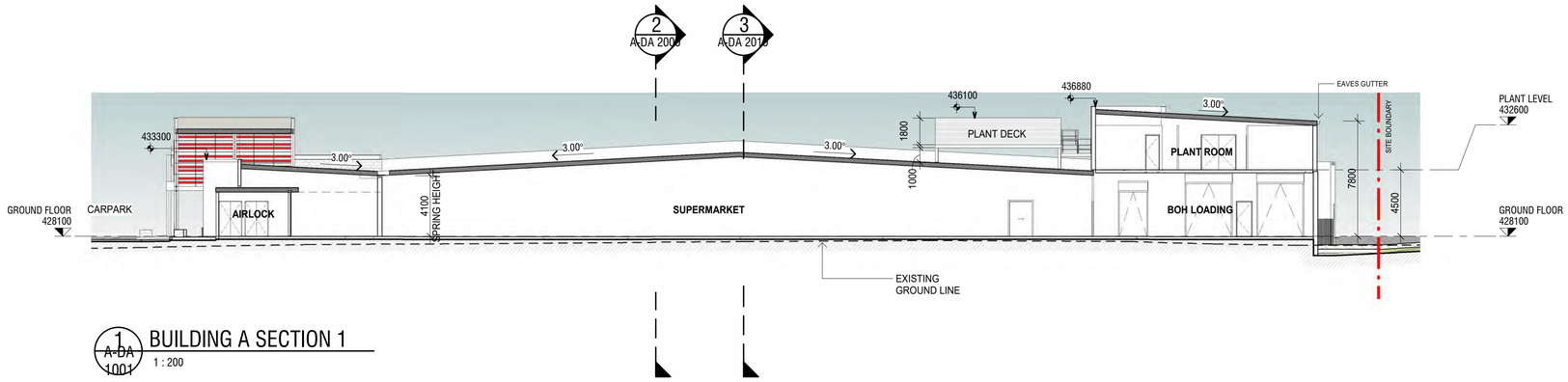
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Drawing Title
OVERALL SECTIONS

Drawing Number
A-DA-A-DA 2000

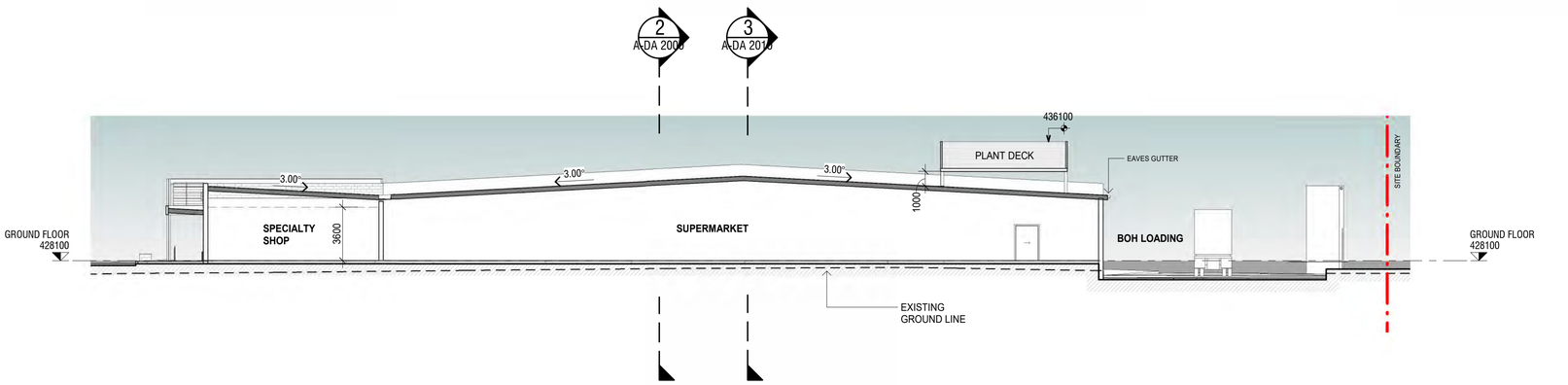
Revision
D

Rev.	Date	Description	Iss.	Appr.
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B	24/09/25	WIP FOR COORDINATION	JR	PW
C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW



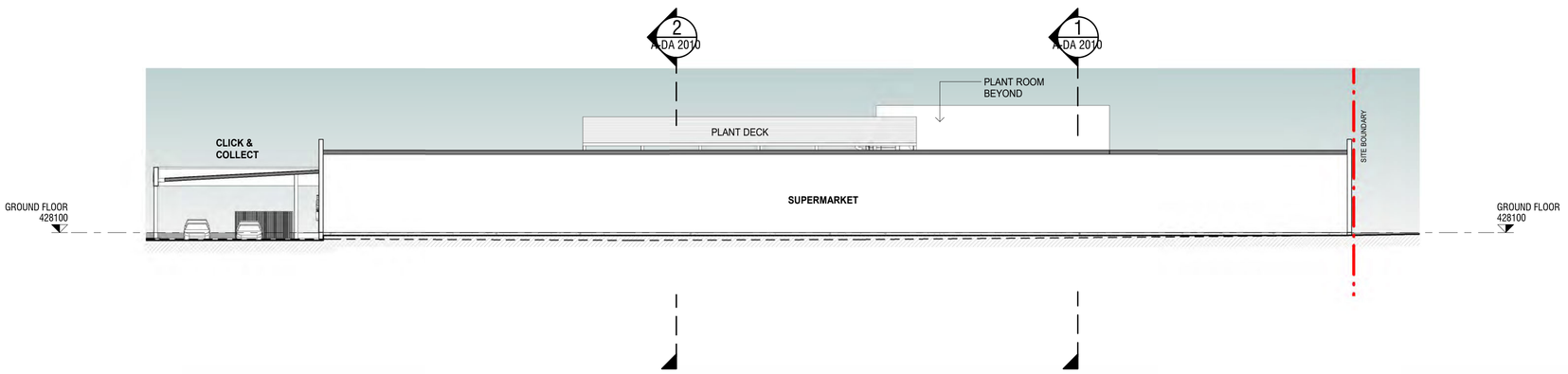
1 A-DA 1001 BUILDING A SECTION 1

1 : 200



2 A-DA 1001 BUILDING A SECTION 2

1 : 200



3 2000 BUILDING A SECTION 3

1 : 200

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Status

Date Plotted 8/10/2025 3:34:17 PM

Date Issued

Scale 1 : 200 @A1

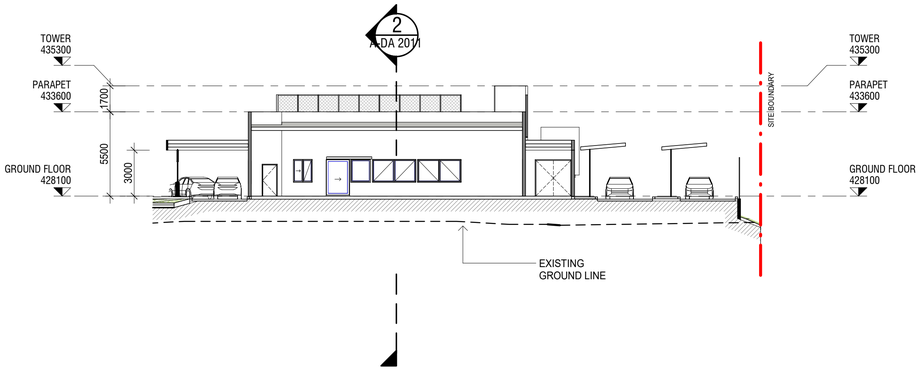
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Drawing Title
BUILDING A SECTIONS

Drawing Number
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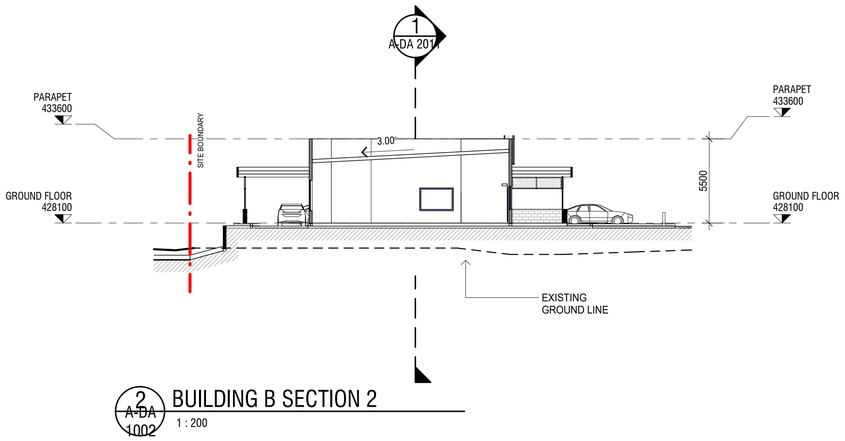
Revision
D

Rev.	Date	Description	Ins.	Appr.
A	30/09/25	WIP FOR COORDINATION	JR	PW
B	08/10/25	WIP FOR COORDINATION	JR	PW



1 A-DA 1002 BUILDING B SECTION 1

1 : 200



2 A-DA 1002 BUILDING B SECTION 2

1 : 200

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Project

COLES KINGAROY

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Status

Date Plotted 8/10/2025 3:34:19 PM

Date Issued

Scale 1 : 200 @A1

0 5 10 20 30M

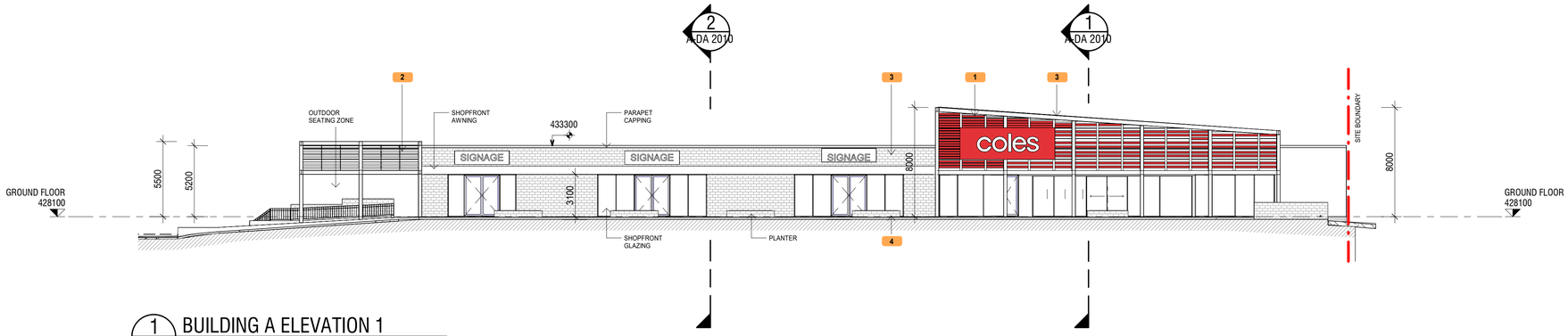
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BUILDING B SECTIONS

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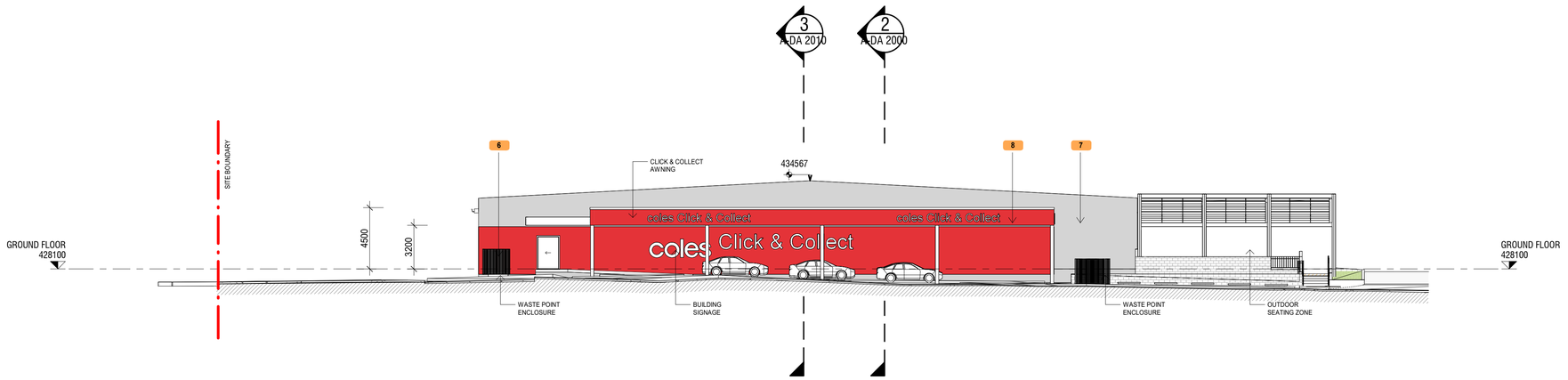
Revision **B**

Rev.	Date	Description	Ins.	Appr.
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B	24/09/25	WIP FOR COORDINATION	JR	PW
C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW



1 / 0010 BUILDING A ELEVATION 1

1 : 200



4 / 0010 BUILDING A ELEVATION 2

1 : 200

EXTERIOR MATERIAL PALETTE



1. ALUMINIUM BATTENS	2/3 STRUCTURAL ELEMENTS	4. FACADE CLADDING	5. PLANTERS	6. WASTE ENCLOSURES/ FENCE	7. FACADE PANELS	8. EXTERNAL CLADDING
Red Powder coated Aluminium battens	Black painted structural & architectural elements	Brick facade	Reclaimed bricks	TIMBER - LOOK ALUMINIUM BATTENS	PRE - CAST PANELS	RED PAINTED EXPRESS JOINT CFC

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Project
COLES KINGAROY

coles

Status

Date Plotted 8/10/2025 3:34:24 PM

Date Issued

Scale As indicated @A1

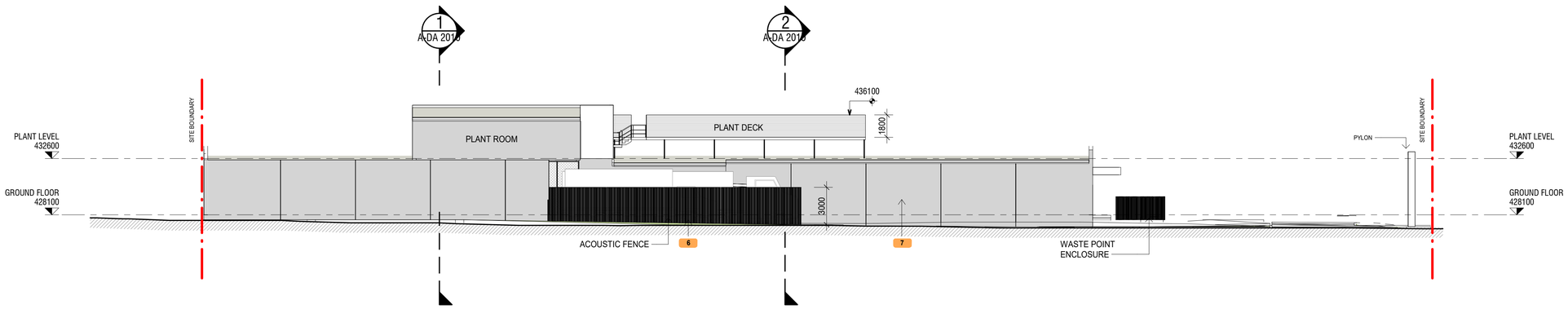
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Drawing Title
BUILDING A ELEVATIONS

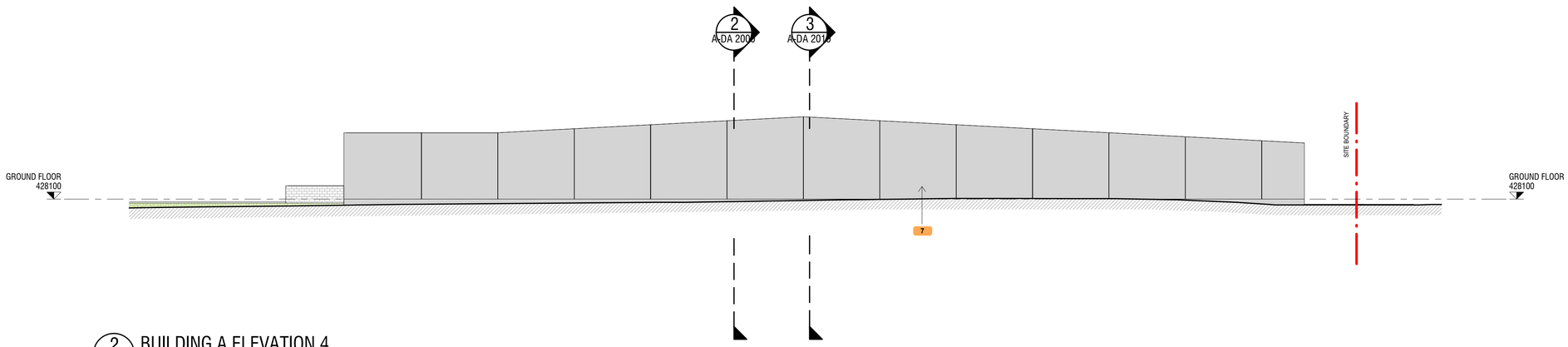
Drawing Number
A-DA-A-DA 3000

Revision
D

Rev.	Date	Description	Iss.	Appr.
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B	24/09/25	WIP FOR COORDINATION	JR	PW
C	30/09/25	WIP FOR COORDINATION	JR	PW
D	08/10/25	WIP FOR COORDINATION	JR	PW



1 / 0010 BUILDING A ELEVATION 3
1 : 200



2 / 0010 BUILDING A ELEVATION 4
1 : 200

EXTERIOR MATERIAL PALETTE



1. ALUMINIUM BATTENS

Red Powder coated Aluminium battens

2/3 STRUCTURAL ELEMENTS

Black painted structural & architectural elements

4. FACADE CLADDING

Brick facade

5. PLANTERS

Reclaimed bricks

6. WASTE ENCLOSURES/ FENCE

TIMBER - LOOK ALUMINIUM BATTENS

7. FACADE PANELS

PRE - CAST PANELS

8. EXTERNAL CLADDING

RED PAINTED EXPRESS JOINT CFC

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Project
COLES KINGAROY

coles

Status

Date Plotted 8/10/2025 3:34:27 PM

Date Issued

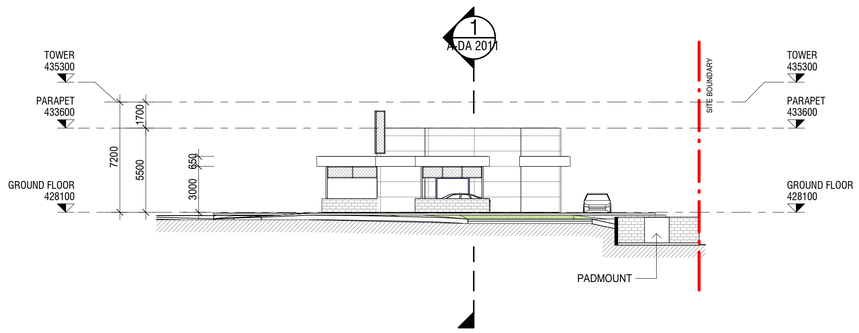
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Drawing Title
BUILDING A ELEVATIONS

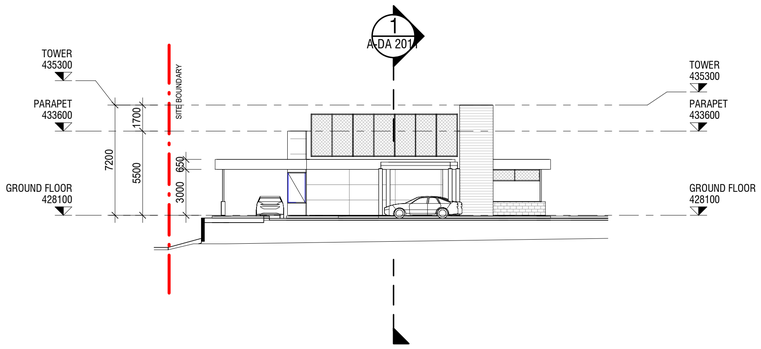
Drawing Number
A-DA-A-DA 3001

Revision
D

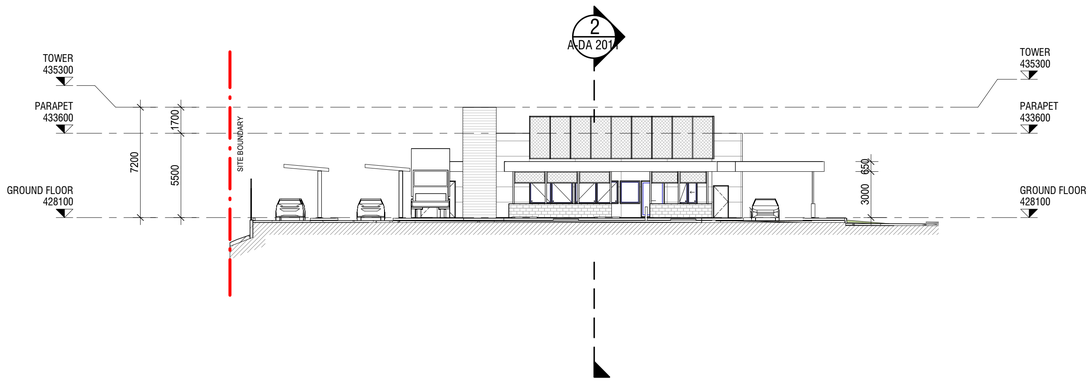
Rev.	Date	Description	Ins.	Appr.
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B	08/10/25	WIP FOR COORDINATION	JR	PW



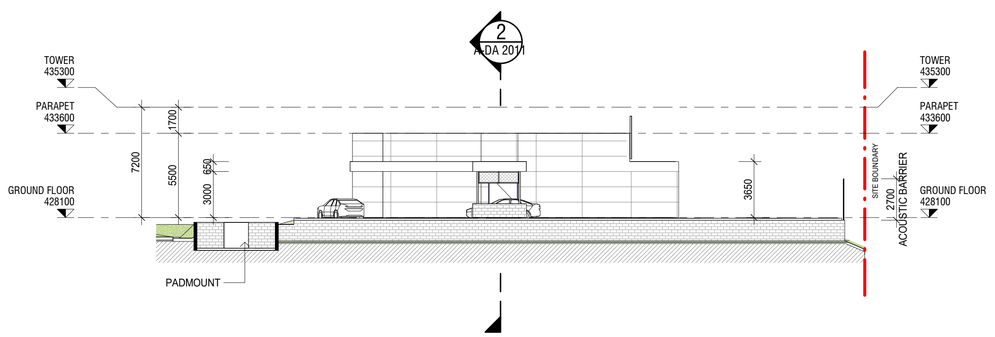
1 / 0010 BUILDING B ELEVATION 1
1 : 200



3 / 0010 BUILDING B ELEVATION 3
1 : 200



2 / 0010 BUILDING B ELEVATION 2
1 : 200



4 / 0010 BUILDING B ELEVATION 4
1 : 200

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Project
COLES KINGAROY

coles

Status

Date Plotted 8/10/2025 3:34:30 PM

Date Issued

Scale 1 : 200 @A1
0 5 10 20 30M

Drawing Title
BUILDING B ELEVATIONS

Drawing Number **A-DA-A-DA 3002**

Revision **B**

Rev.	Date	Description	Ins.	Appr.
A	30/09/25	WIP FOR COORDINATION	JR	PW
B	08/10/25	WIP FOR COORDINATION	JR	PW







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Project
COLES KINGAROY

coles

Status

Date Plotted 8/10/2025 3:34:42 PM

Date Issued

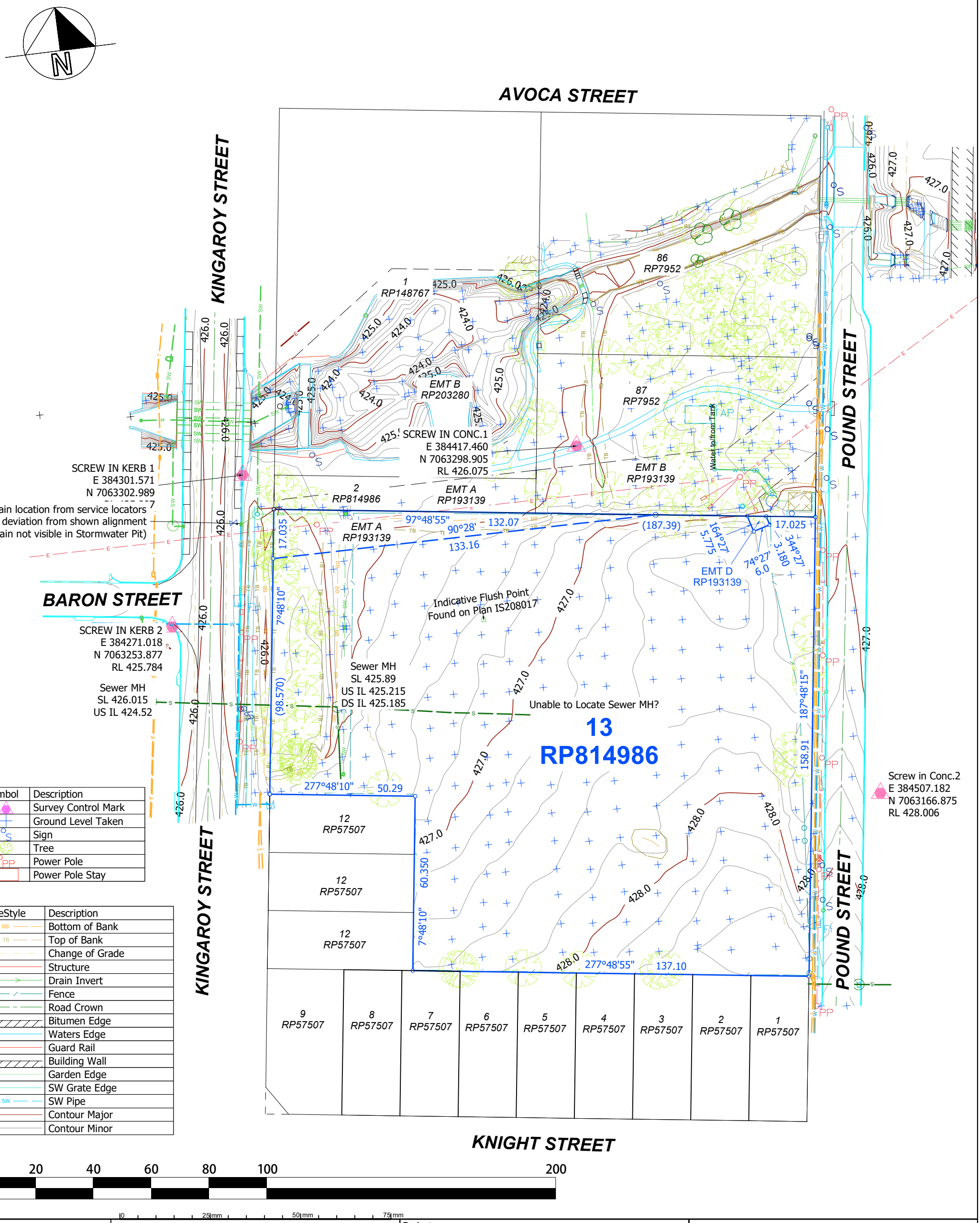
Scale @A1
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Drawing Title
3D VIEWS

Drawing Number
A-DA-A-DA 5000

Revision
B

Appendix B. Detail Survey



Symbol	Description
	Survey Control Mark
	Ground Level Taken
S	Sign
	Tree
PP	Power Pole
	Power Pole Stay

LineStyle	Description
BB	Bottom of Bank
TB	Top of Bank
	Change of Grade
	Structure
	Drain Invert
	Fence
	Road Crown
	Bitumen Edge
	Waters Edge
	Guard Rail
	Building Wall
	Garden Edge
	SW Grate Edge
SW	SW Pipe
	Contour Major
	Contour Minor

Notes:

The title boundaries shown hereon were not marked by the author at the time of survey and have been determined by plan dimensions only and not by field measurement.

Services shown hereon have been located where possible by field survey. Prior to any demolition, excavation or construction on the site, the physical location of all services should be confirmed and an investigation into the location of possible further underground services undertaken.

Services Plotted Via Services located by GPR and EMF

All displayed spatial references are **GROUND** based coordinates, based about **Screw in Conc.1**

Easting	Northing	Reduced Level
384417.460	7063298.905	426.075

To convert Ground to Grid apply scale 0.999765 at origin Screw in Conc.1.

MERIDIAN	Horizontal Co-Ord Origin
MGA20 Zone56	PSM10033

Easting	Northing	Reduced Level
384380.436	7063834.601	474.749

Level Datum	Level Origin	Surveyed	Date
AHD	PSM10033	M.V.	15/4/25-30/4/25
Reduced Level		Drawn	Date
474.749		D.I.M.	13/5/25

Project:

CONTOUR AND DETAIL

LOT 13 ON RP814986

- Pound Street, KINGAROY -

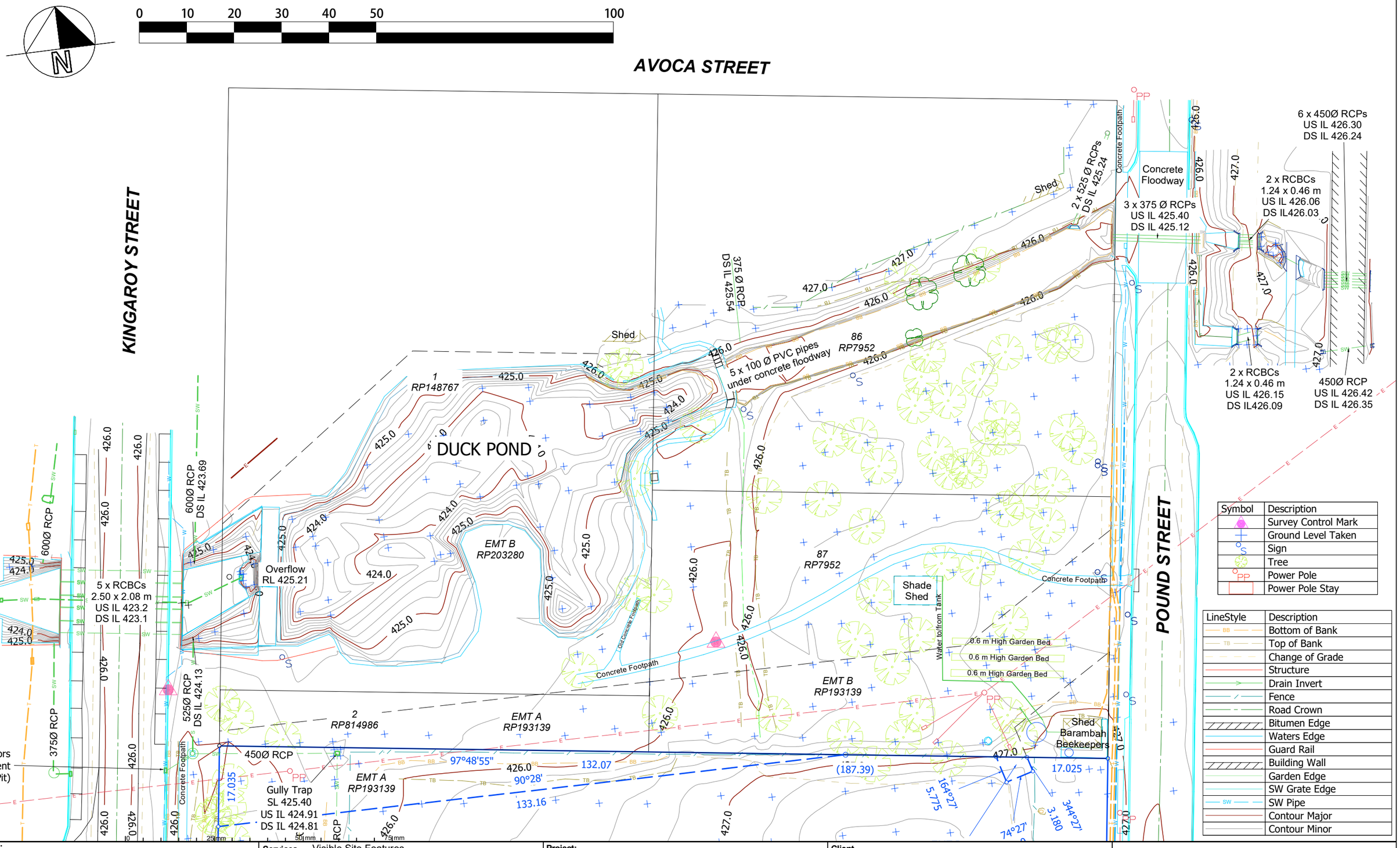
Client

COLES GROUP PROPERTY DEVELOPMENTS LTD

ONF SURVEYORS
Brisbane & Sunshine Coast - Ph. 5422 0200
South Burnett & Western Downs - Ph.4162 2647
Email: admin@onfsurveyors.com.au

Computer File "L:\PROJECTS\LOCATION\KINGAROY\12964K_Pound Street\12964K Survey Dat 12964.mjo"

Drawing Number	Rev	Job No.	Scale (A3)	Sheet
12964-D1	-	12964	1:1250	1 of 3



Symbol	Description
	Survey Control Mark
	Ground Level Taken
S	Sign
	Tree
PP	Power Pole
	Power Pole Stay

LineStyle	Description
BB	Bottom of Bank
TB	Top of Bank
	Change of Grade
	Structure
	Drain Invert
	Fence
	Road Crown
	Bitumen Edge
	Waters Edge
	Guard Rail
	Building Wall
	Garden Edge
SW	SW Grade Edge
SW	SW Pipe
	Contour Major
	Contour Minor

Notes:

The title boundaries shown hereon were not marked by the author at the time of survey and have been determined by plan dimensions only and not by field measurement.

Services shown hereon have been located where possible by field survey. Prior to any demolition, excavation or construction on the site, the physical location of all services should be confirmed and an investigation into the location of possible further underground services undertaken.

Surveyed	Date	Level Datum	Level Origin
M.V.	15/4/25-30/4/25	AHD	PSM10033
Drawn	**Date**	**Reduced Level**	
D.I.M.	13/5/25	474.749	

Services Plotted Via Visible Site Features and Records

All displayed spatial references are **GROUND** based coordinates, based about **Screw in Conc.1**

Easting	Northing	Reduced Level
384417.460	7063298.905	426.075

To convert Ground to Grid apply scale 0.999765 at origin Screw in Conc.1.

MERIDIAN		Horizontal Co-Ord Origin
MGA20 Zone56		PSM10033
Easting	**Northing**	**Reduced Level**
384380.436	7063834.601	474.749

Project:

CONTOUR AND DETAIL

LOT 13 ON RP814986

- Pound Street, KINGAROY -

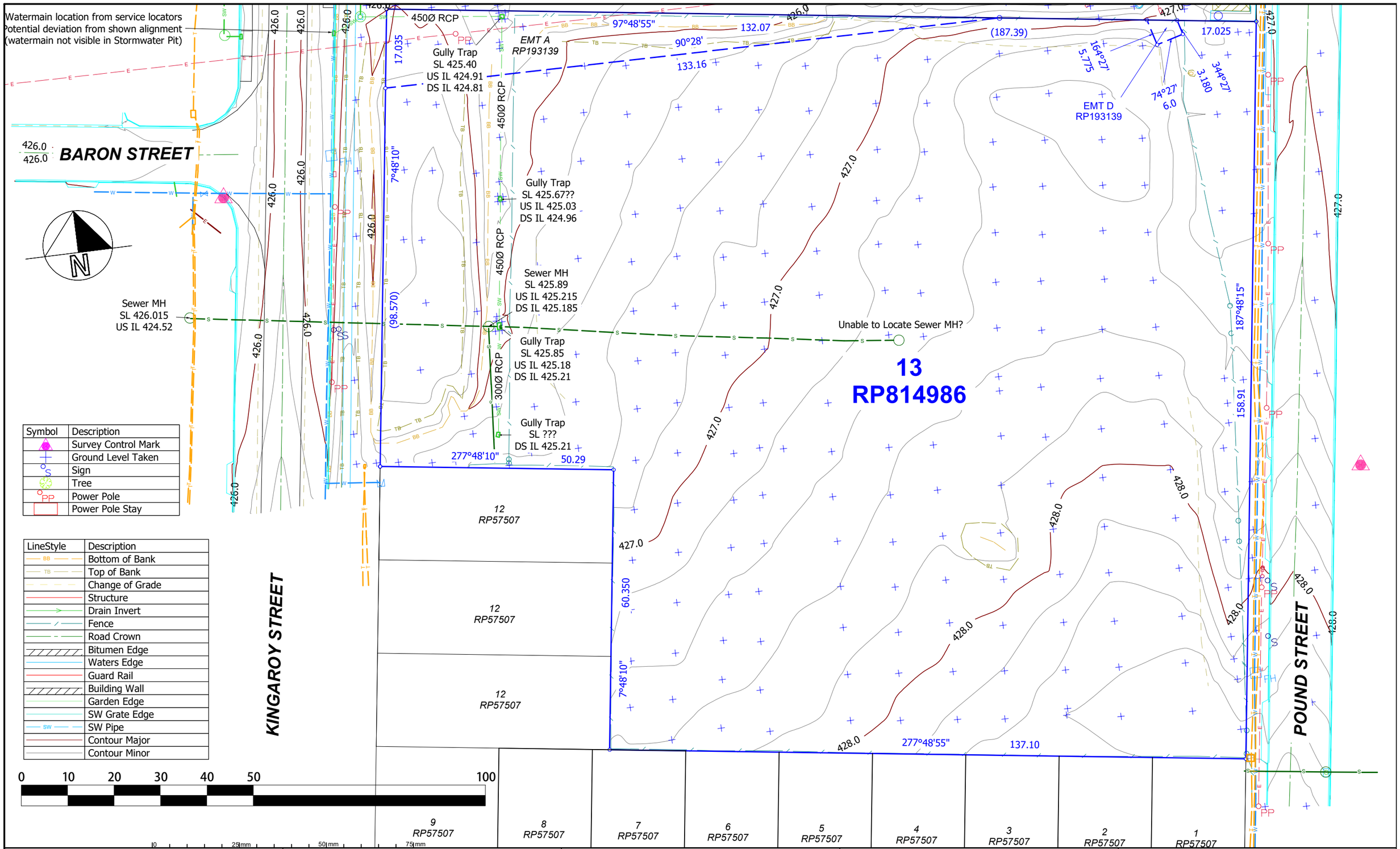
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12964-D1	A	12964	1:750	2 of 3

Client

COLES GROUP PROPERTY DEVELOPMENTS LTD

Computer File
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South Burnett & Western Downs - Ph.4162 2647
Email: admin@onfsurveyors.com.au



Symbol	Description
	Survey Control Mark
	Ground Level Taken
S	Sign
	Tree
PP	Power Pole
	Power Pole Stay

LineStyle	Description
BB	Bottom of Bank
TB	Top of Bank
	Change of Grade
	Structure
	Drain Invert
	Fence
	Road Crown
	Bitumen Edge
	Waters Edge
	Guard Rail
	Building Wall
	Garden Edge
	SW Grate Edge
SW	SW Pipe
	Contour Major
	Contour Minor

Notes:

The title boundaries shown hereon were not marked by the author at the time of survey and have been determined by plan dimensions only and not by field measurement.

Services shown hereon have been located where possible by field survey. Prior to any demolition, excavation or construction on the site, the physical location of all services should be confirmed and an investigation into the location of possible further underground services undertaken.

Services Plotted Via Visible Site Features and Records

All displayed spatial references are **GROUND** based coordinates, based about **Screw in Conc.1**

Easting	Northing	Reduced Level
384417.460	7063298.905	426.075

To convert Ground to Grid apply scale 0.999765 at origin Screw in Conc.1.

Surveyed	Date	Level Datum	Level Origin
M.V.	15/4/25-30/4/25	AHD	PSM10033
Drawn	**Date**	**Reduced Level**	
D.I.M.	13/5/25	474.749	

MERIDIAN	Horizontal Co-Ord Origin
MGA20 Zone56	PSM10033

Easting	Northing	Reduced Level
384380.436	7063834.601	474.749

Project:

CONTOUR AND DETAIL

LOT 13 ON RP814986

- Pound Street, KINGAROY -

Drawing Number	Rev	Job No.	Scale (A3)	Sheet
12964-D1	A	12964	1:750	3 of 3

Computer File "L:\PROJECTS\LOCATION\KINGAROY\12964K_Pound Street\12964K Survey Data\12964.mjo"

Client

COLES GROUP PROPERTY DEVELOPMENTS LTD

ONF SURVEYORS
Brisbane & Sunshine Coast - Ph. 5422 0200
South Burnett & Western Downs - Ph.4162 2647
Email: admin@onfsurveyors.com.au

Appendix C. Rational Method

RATIONAL METHOD CALCULATION SHEET

PROJECT DETAILS

PROJECT	Site Address	**DATE**	3/10/2025

CATCHMENTS

NAME	Location C2	Location C8
AREA Total (ha)	1681.000	1329.000
FRACT. Imp (fi)	0.14	0.05
TOC (min)	189	165
C10 (override)		
Rainfall Intensity	ARR2016	ARR2016
AREA Perv. (ha)	1450.703	1262.550
AREA Imp. (ha)	230.297	66.450

COEFFICIENTS OF DISCHARGE

C1	0.461	0.436
C2	0.490	0.464
C5	0.548	0.518
C10	0.576	0.545
C20	0.605	0.573
C50	0.663	0.627
C100	0.692	0.654

ADOPTED RAINFALL INTENSITIES (MM/HR)

I1	12.8	14.2
I2	16.4	18.2
I5	20.9	23.2
I10	23.8	26.5
I20	27.4	30.6
I50	32.1	35.9
I100	35.7	39.8

PEAK FLOWS (CU.M/S)

63% AEP (Q1)	27.622	22.929
39% AEP (Q2)	37.587	31.201
18% AEP (Q5)	53.482	44.460
10% AEP(Q10)	64.020	53.419
5% AEP (Q20)	77.404	64.629
2% AEP (Q50)	99.387	83.024
1% AEP (Q100)	115.216	96.226

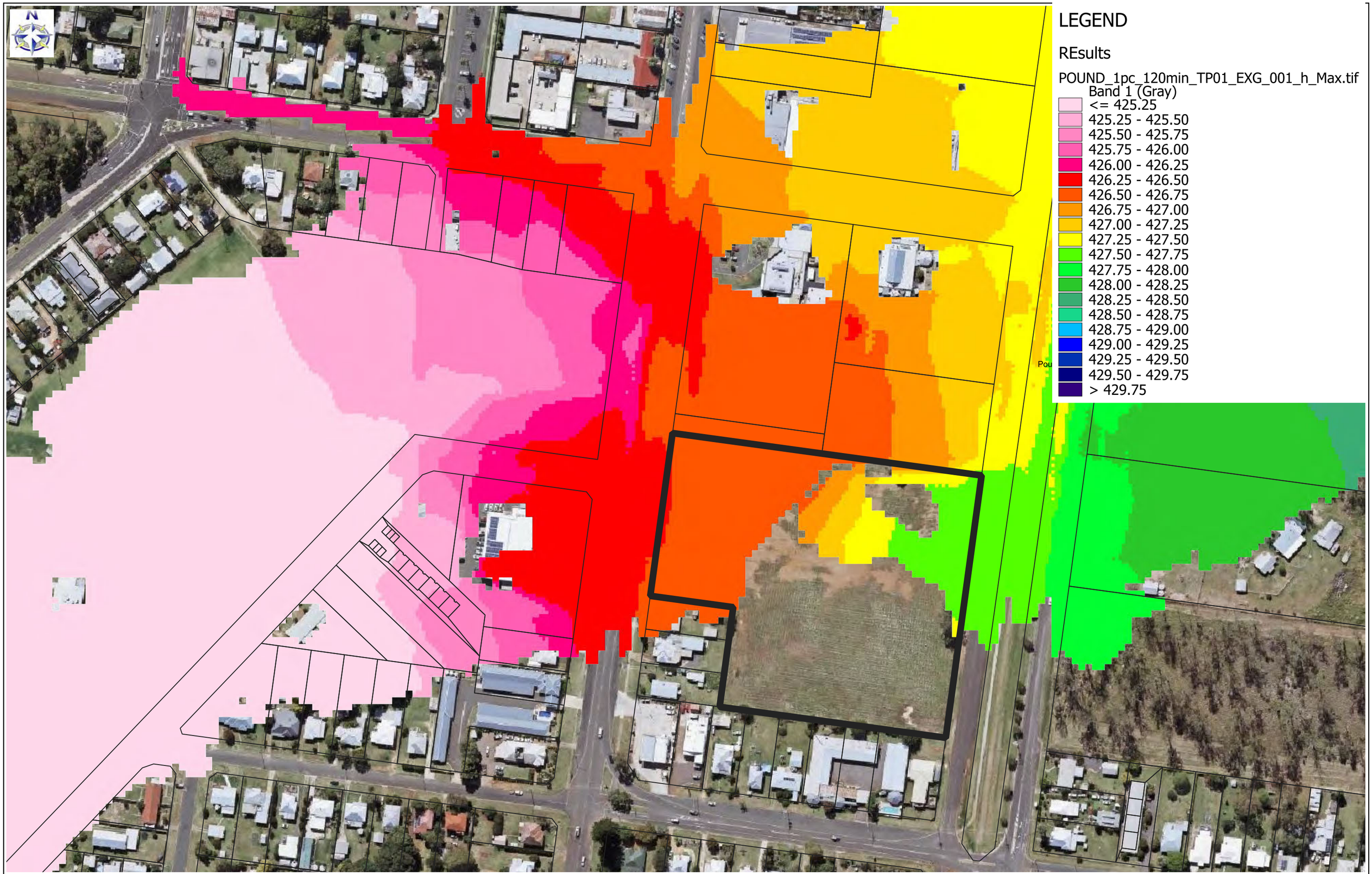
TIME OF CONCENTRATION CALCULATION SHEET 3/10/2025

Project: Site Address

CATCHMENT

Name	Location C2	Location C8																						
STANDARD INLET TIME																								
Road or Paved Area?																								
Slope (%)																								
t (min)																								
OVERLAND (FRIENDS EQUATION - QUDM 4.5)																								
L (m)																								
Hortons 'n'																								
S (%)																								
t (min)																								
KERB/CHANNEL (MANNINGS - QUDM Figure 4.6)																								
L (m)																								
S (%)																								
t (min)																								
PIPED (MANNINGS - QUDM 4.8)																								
L (m)																								
Mannings 'n'																								
S (%)																								
Dia (m)																								
t (min)																								
FLOW TRAVEL TIME IN PIPES AND CHANNELS - ARGUE 1986 (QUDM - FIGURE 4.5)																								
Flow distance (m)																								
Fall of channel (m)																								
Time (graph)																								
Multiplier																								
t (min)																								
FLOW TRAVEL TIME IN PIPES AND CHANNELS - ARGUE 1986 (QUDM - FIGURE 4.5)																								
Flow distance (m)																								
Fall of channel (m)																								
Time (graph)																								
Multiplier																								
t (min)																								
CREEK/RURAL (STREAM VELOCITY - QUDM T4.6.6)																								
L (m)	1000.0	1000.0																						
S (%)	7.0%	7.0%																						
Flood Plain Storage	Med.	Med.																						
t (min)	11.1	11.1																						
CREEK/RURAL (STREAM VELOCITY - QUDM T4.6.6)																								
L (m)	7500.0	6500.0																						
S (%)	1.6%	1.6%																						
Flood Plain Storage	Good	Med.																						
t (min)	178.6	154.8																						
CREEK/RURAL (STREAM VELOCITY - QUDM T4.6.6)																								
L (m)																								
S (%)																								
Flood Plain Storage																								
t (min)																								
TOTAL TIME OF CONCENTRATION																								
t (min)	**189.7**	**165.9**																						

Appendix D. Flood Maps



CONTOUR
A.B.N 62 117 061 659

SUNSHINE COAST HEAD OFFICE
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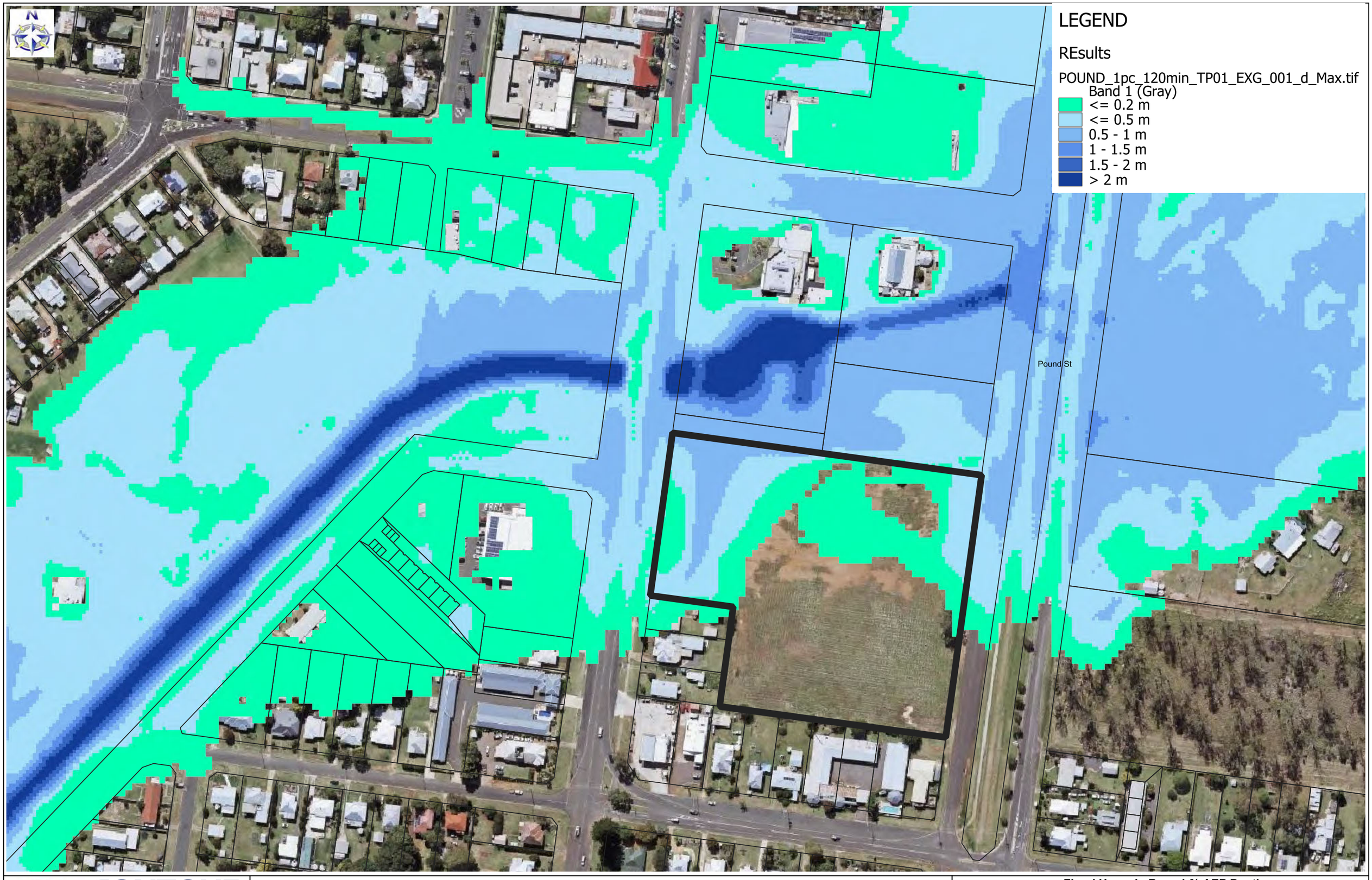
Flood Hazard - Base 1 % AEP Water Surface level

0 30 60 90 120 150 m

REV A

Map 4

C:\12dSidata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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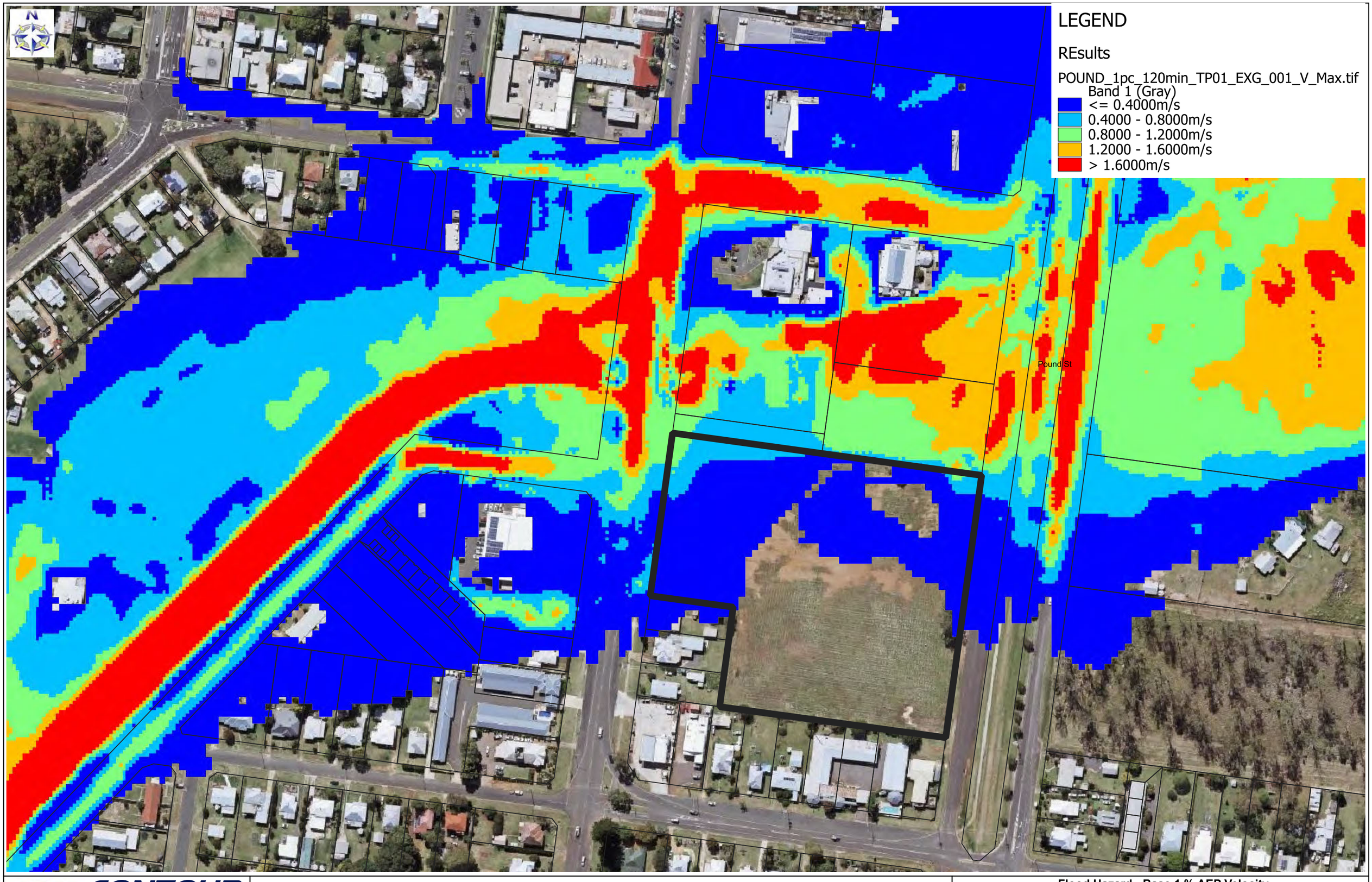
Flood Hazard - Base 1 % AEP Depth

0 30 60 90 120 150 m

REV A

Map 5

C:\12dSldata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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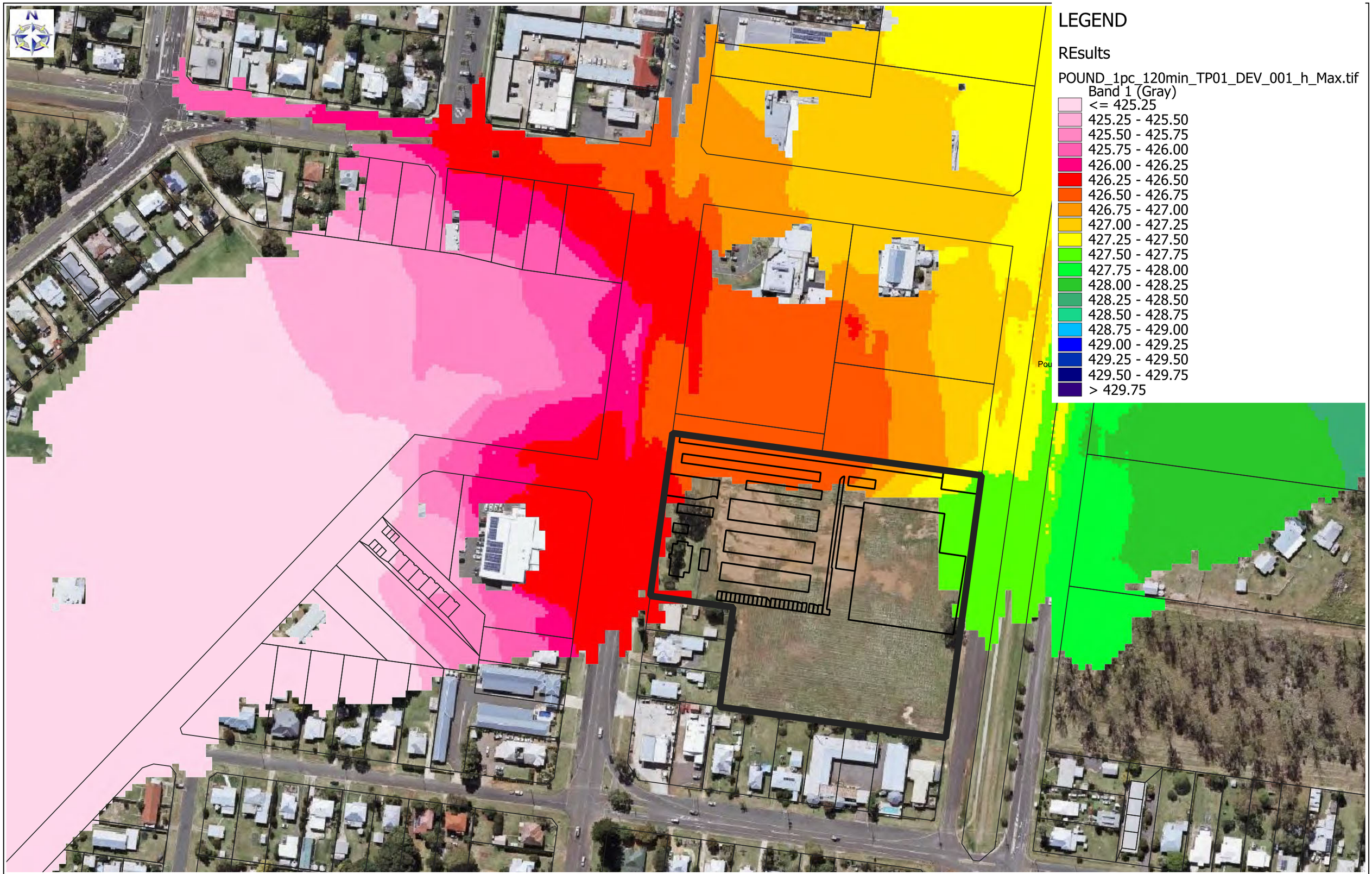
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Flood Hazard - Base 1 % AEP Velocity

0 30 60 90 120 150 m

REV A

Map 6



CONTOUR
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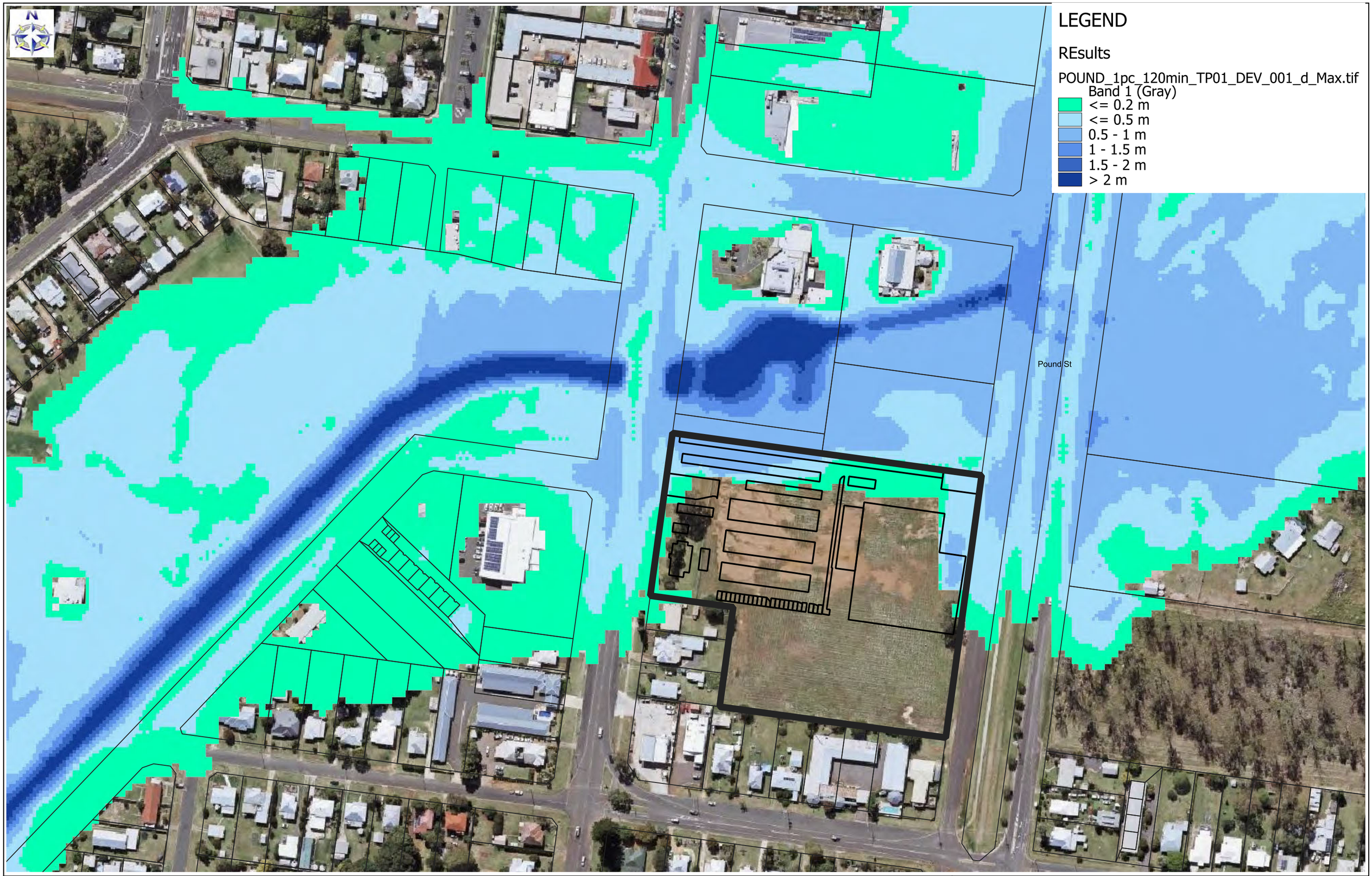
Flood Hazard - DEV 1 % AEP Water Surface level

0 30 60 90 120 150 m

REV A

Map 7

C:\12dSdata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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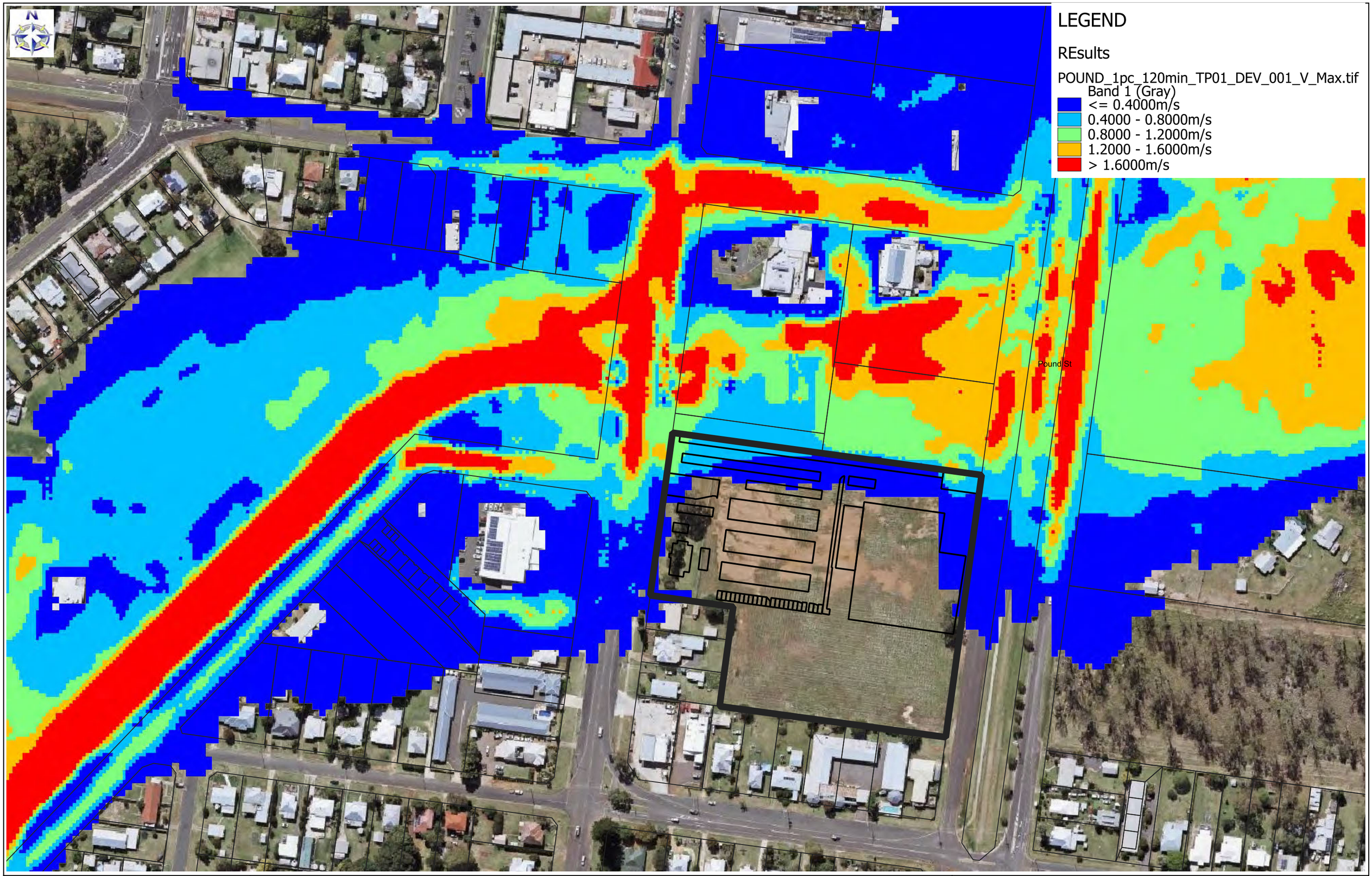
Flood Hazard - DEV 1 % AEP Depth

0 30 60 90 120 150 m

REV A

Map 8

C:\12dSdata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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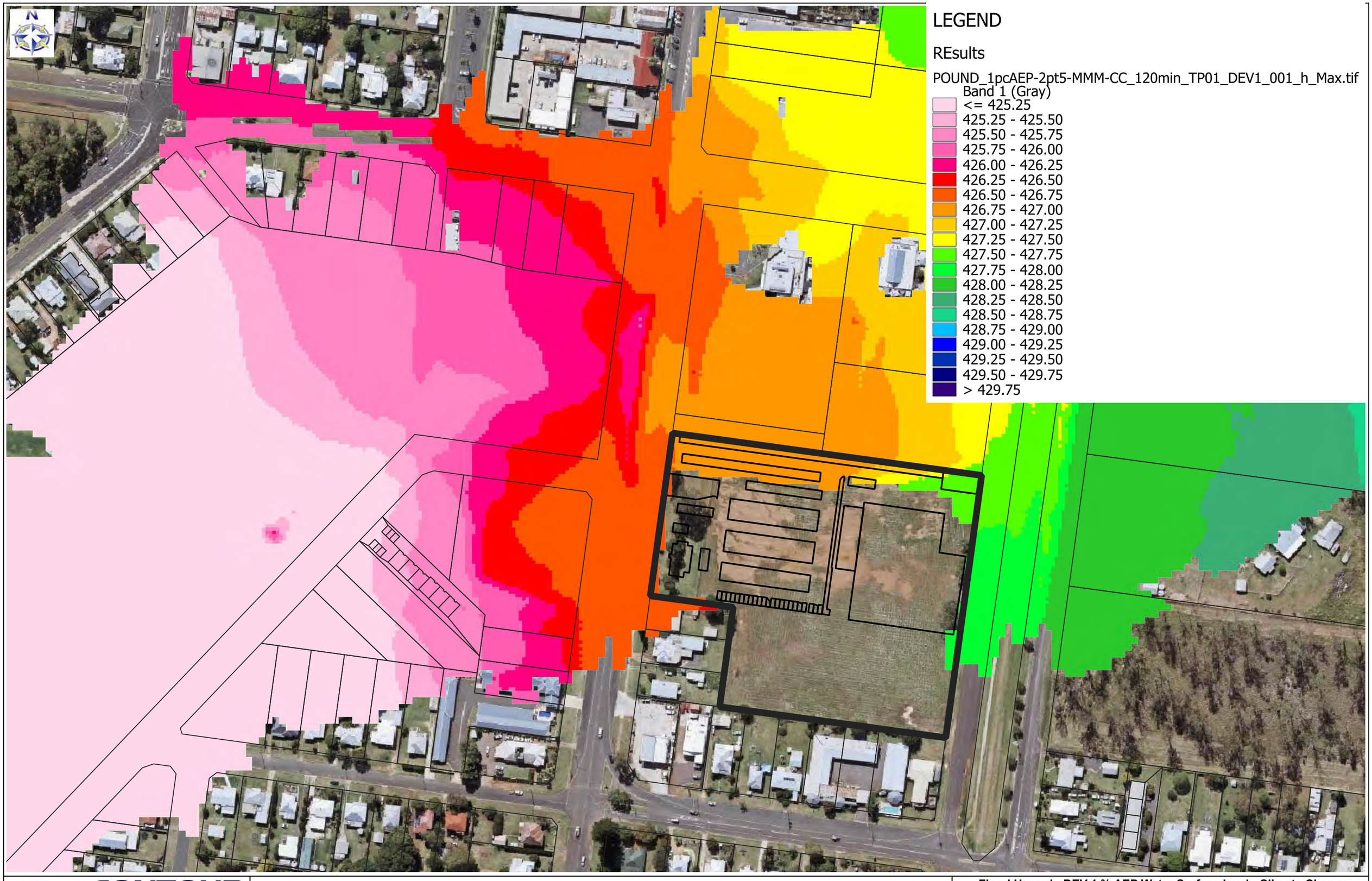
Flood Hazard - DEV 1 % AEP Velocity

0 30 60 90 120 150 m

REV A

Map 9

C:\12dSldata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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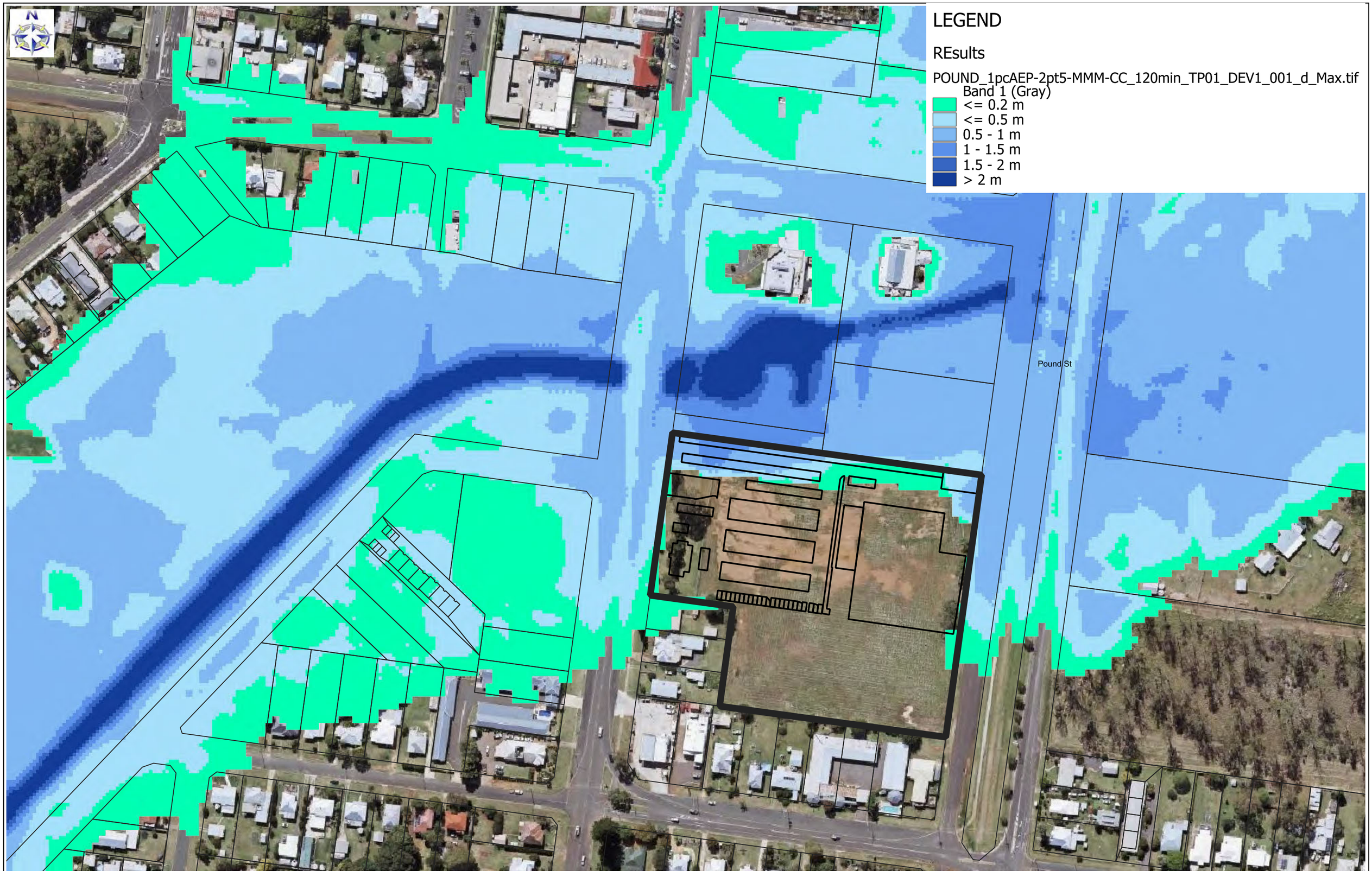
Flood Hazard - DEV 1 % AEP Water Surface level - Climate Change

0 30 60 90 120 150 m

REV A

Map 10

C:\12dSidata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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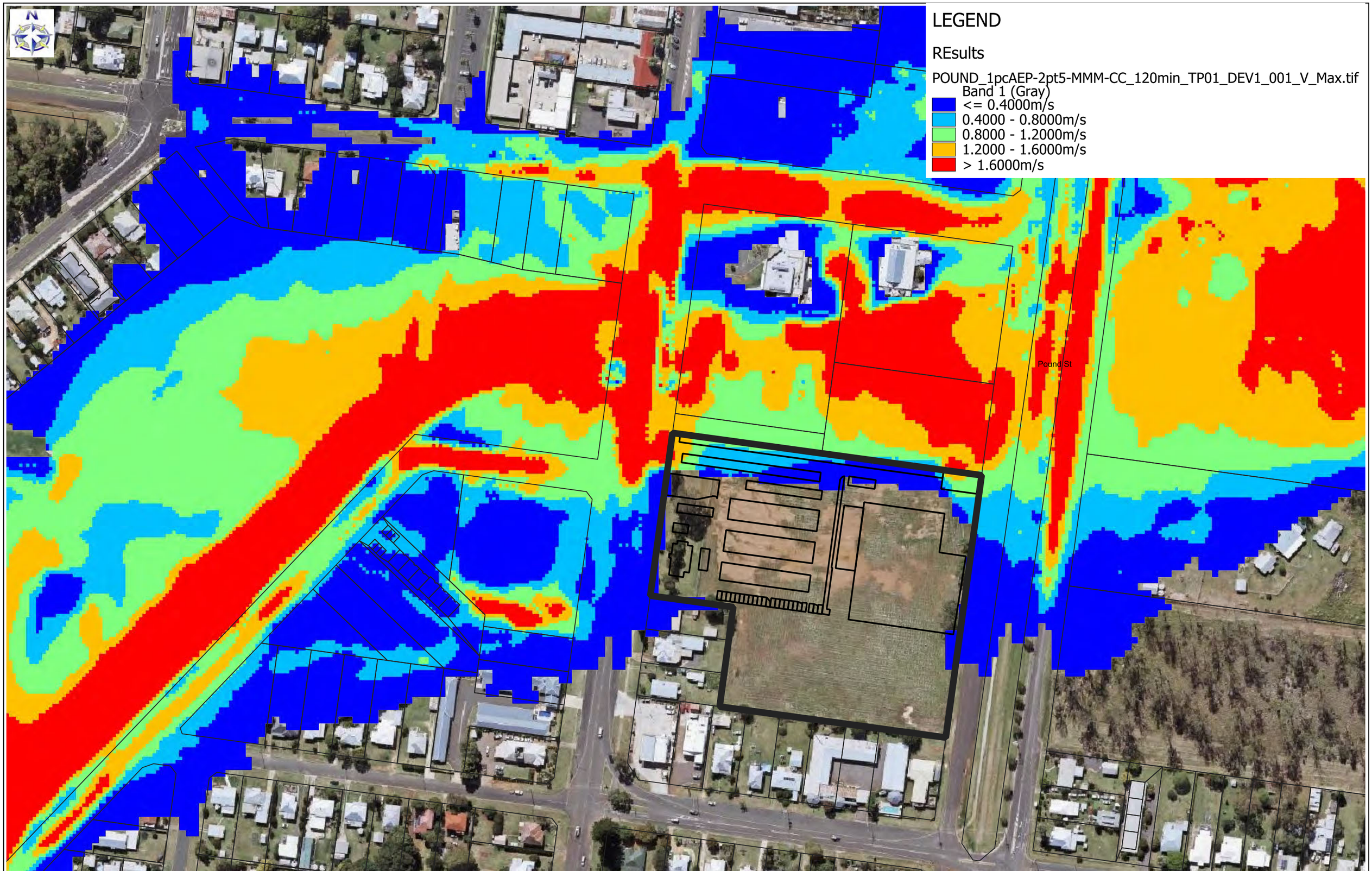
Flood Hazard - DEV 1 % AEP Depth - Climate Change

0 30 60 90 120 150 m

REV A

Map 11

C:\12dSIdata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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Flood Hazard - DEV 1 % AEP Velocity - Climate Change

0 30 60 90 120 150 m

REV A

Map 12

C:\12dSldata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz

LEGEND

REsults

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Band 1 (Gray)
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425.25 - 425.50
425.50 - 425.75
425.75 - 426.00
426.00 - 426.25
426.25 - 426.50
426.50 - 426.75
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428.75 - 429.00
429.00 - 429.25
429.25 - 429.50
429.50 - 429.75
> 429.75

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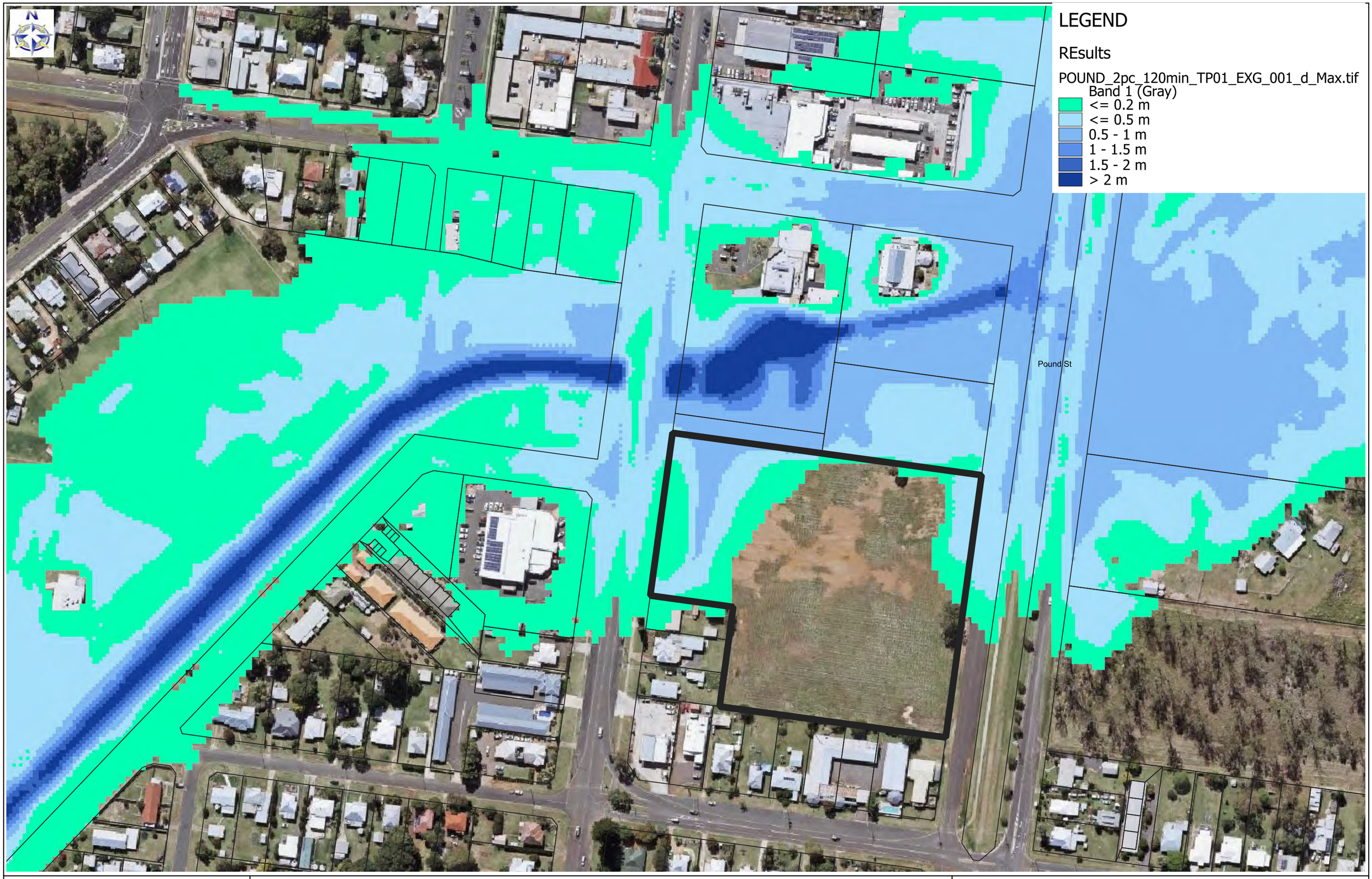
Flood Hazard - Base 2 % AEP Water Surface level

0 30 60 90 120 150 m

REV A

Map 13

C:\12dSidata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



CONTOUR

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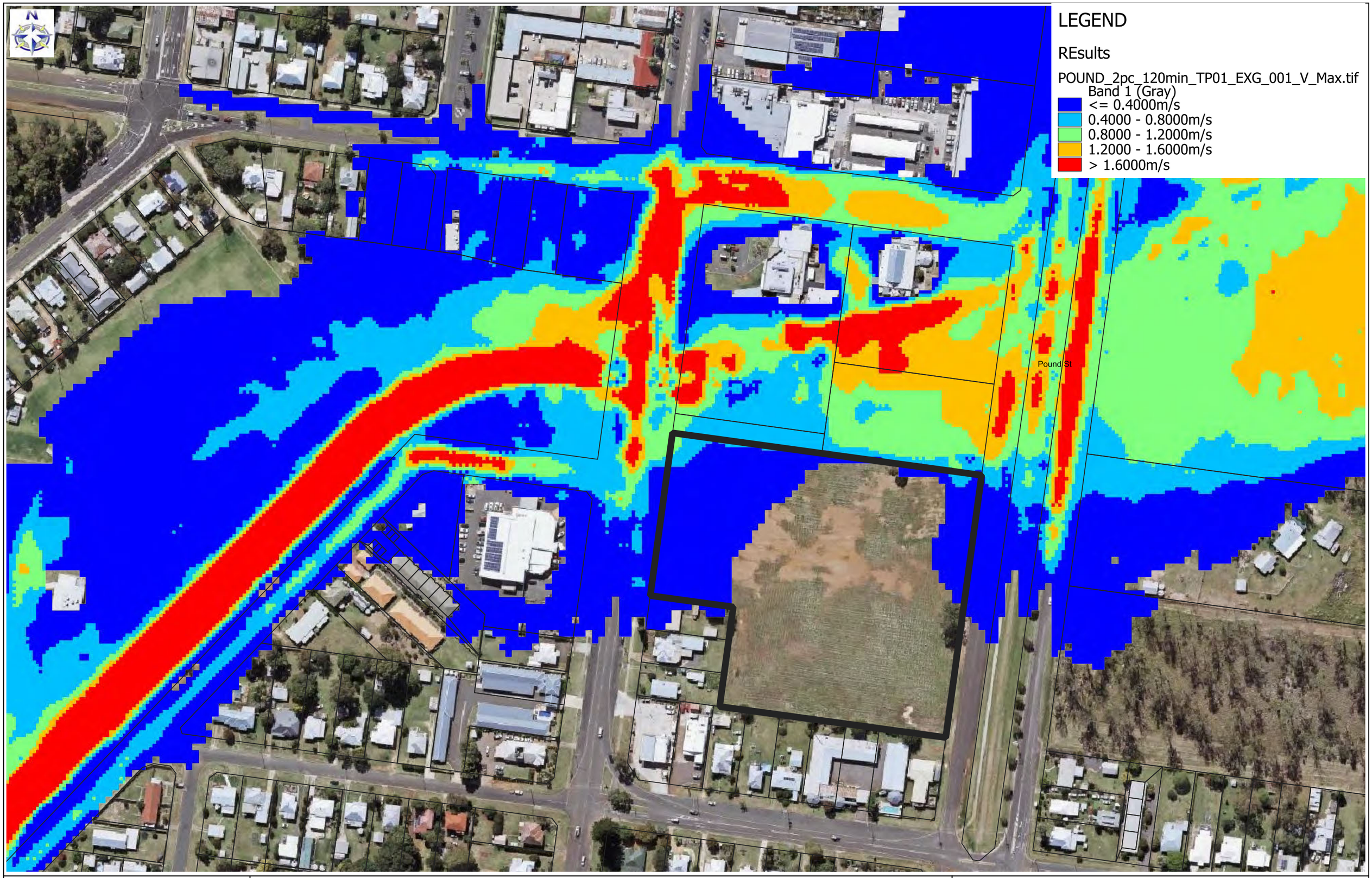
Flood Hazard - Base 2 % AEP Depth

0 30 60 90 120 150 m

REV A

Map 14

C:\12dSidata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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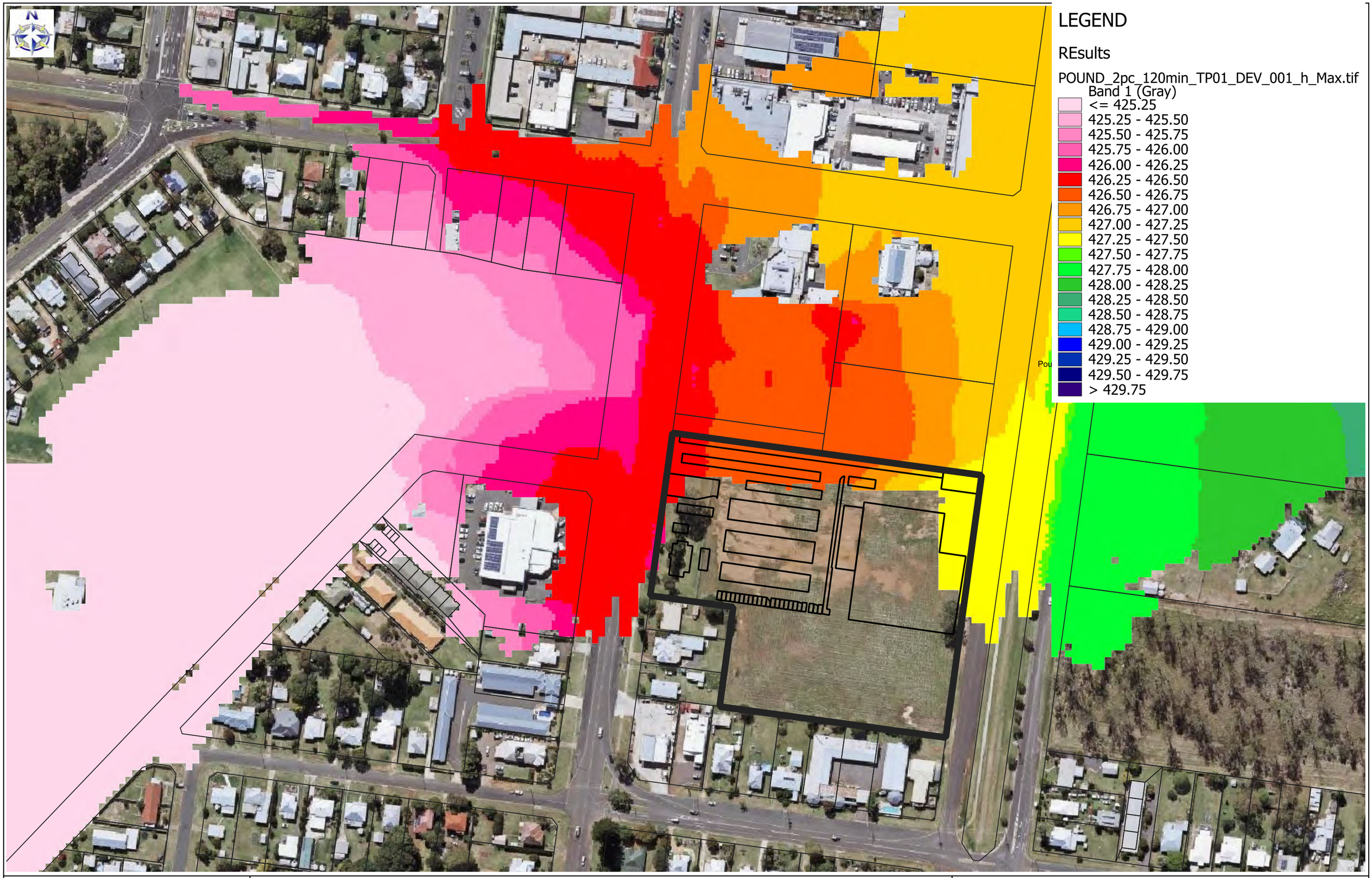
Flood Hazard - Base 2 % AEP Velocity

0 30 60 90 120 150 m

REV A

Map 15

C:\12dSidata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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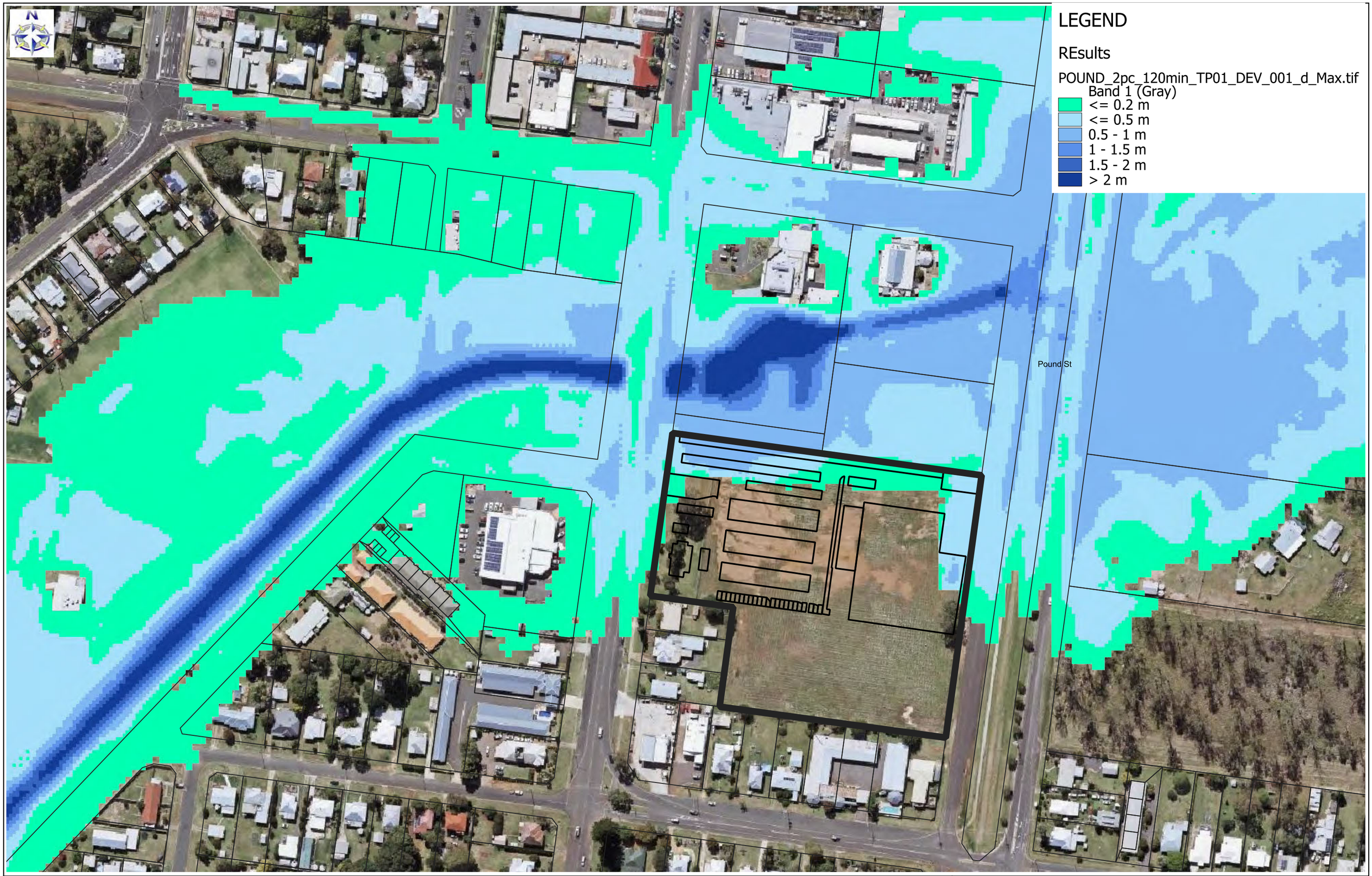
Flood Hazard - DEV 2 % AEP Water Surface level

0 30 60 90 120 150 m

REV A

Map 16

C:\12dSidata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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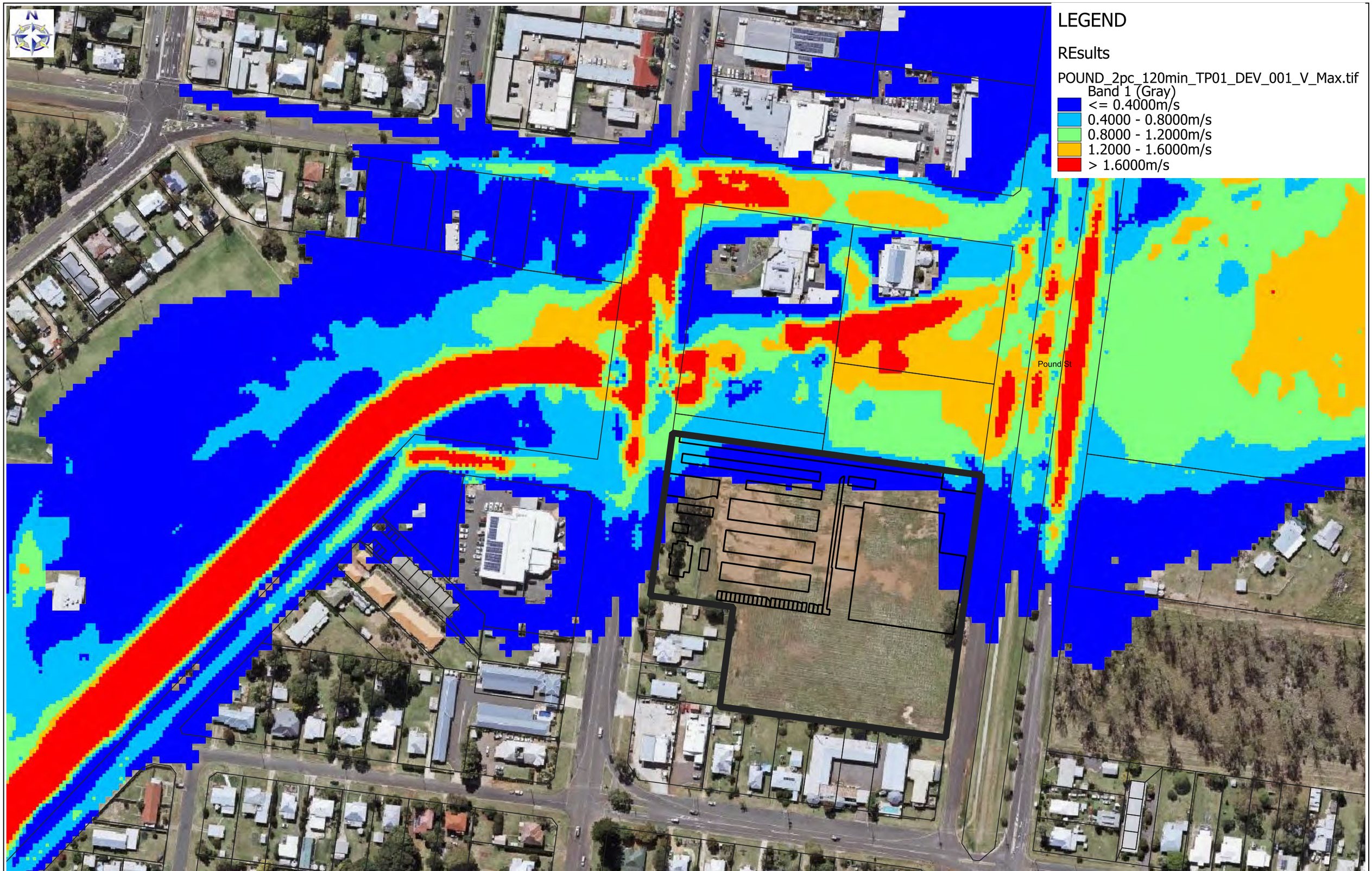
Flood Hazard - DEV 2 % AEP Depth

0 30 60 90 120 150 m

REV A

Map 17

C:\12dSIdata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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Flood Hazard - DEV 2 % AEP Velocity

0 30 60 90 120 150 m

REV A

Map 18

C:\12dSldata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz

LEGEND

REsults

POUND_5pc_360min_TP04_EXG_001_h_Max.tif
Band 1 (Gray)

- <= 425.25
- 425.25 - 425.50
- 425.50 - 425.75
- 425.75 - 426.00
- 426.00 - 426.25
- 426.25 - 426.50
- 426.50 - 426.75
- 426.75 - 427.00
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- 429.25 - 429.50
- 429.50 - 429.75
- > 429.75

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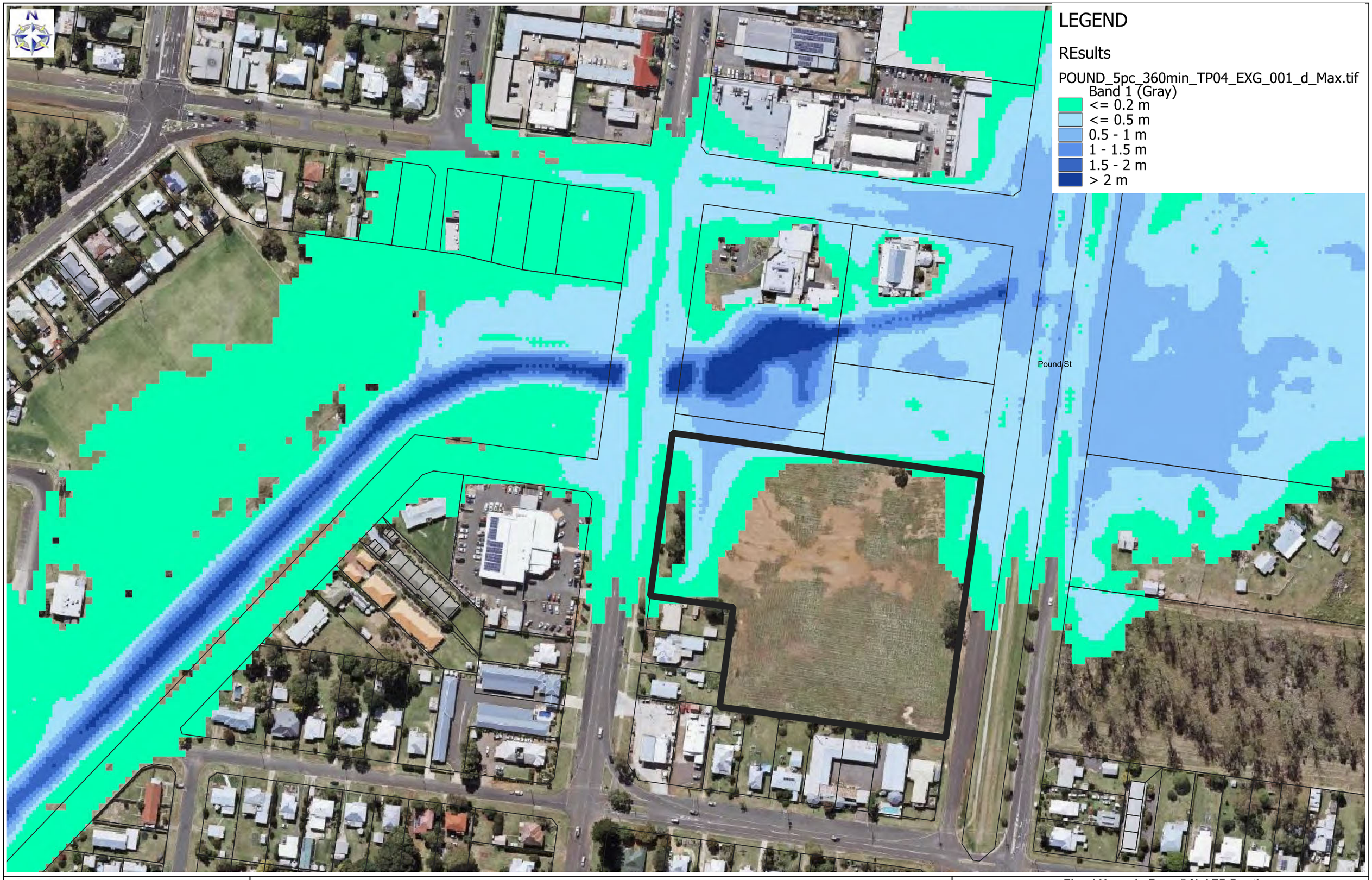
Flood Hazard - Base 5 % AEP Water Surface level

0 30 60 90 120 150 m

REV A

Map 19

C:\12d\Sdata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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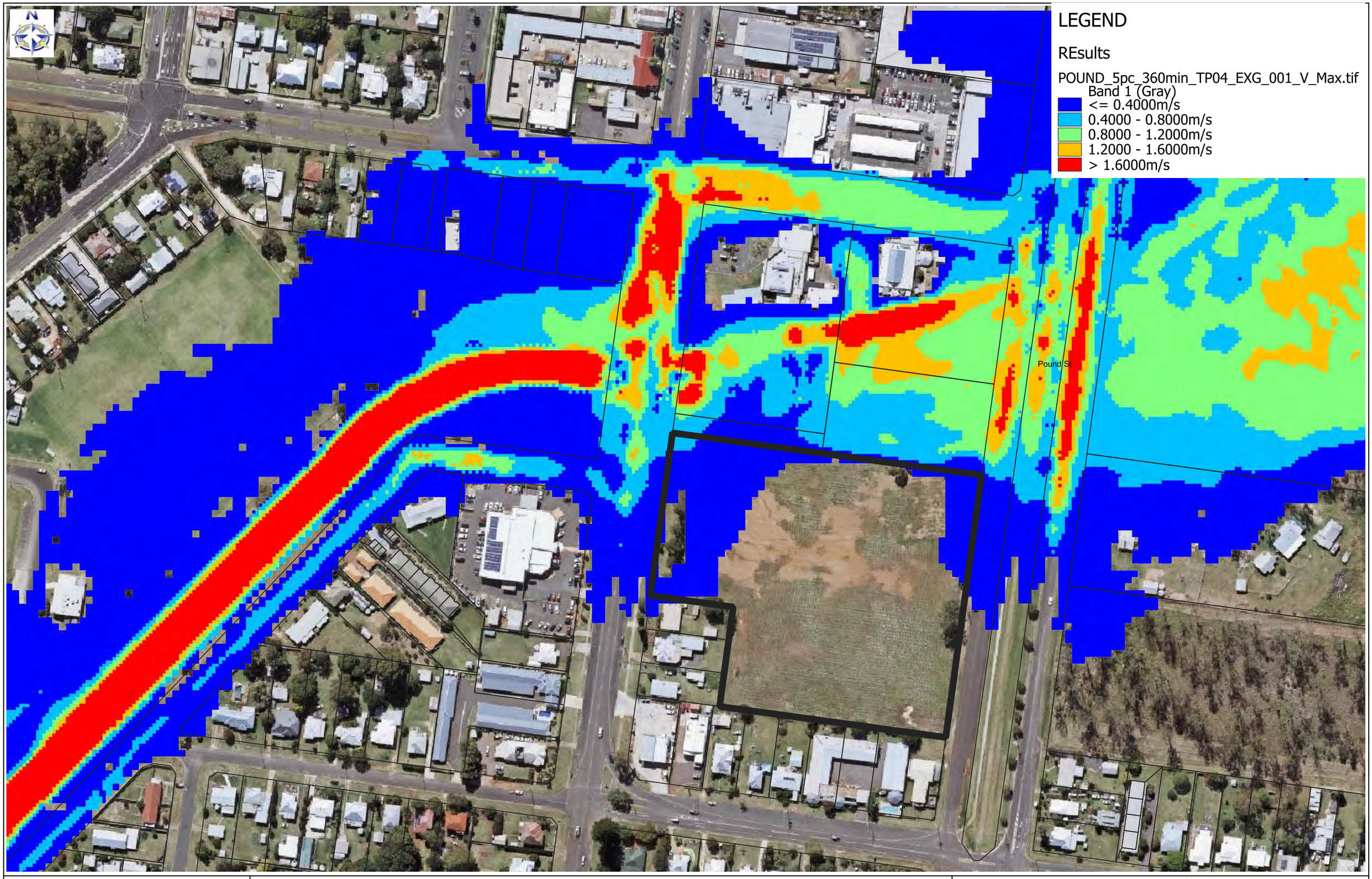
Flood Hazard - Base 5 % AEP Depth

0 30 60 90 120 150 m

REV A

Map 20

C:\12dSdata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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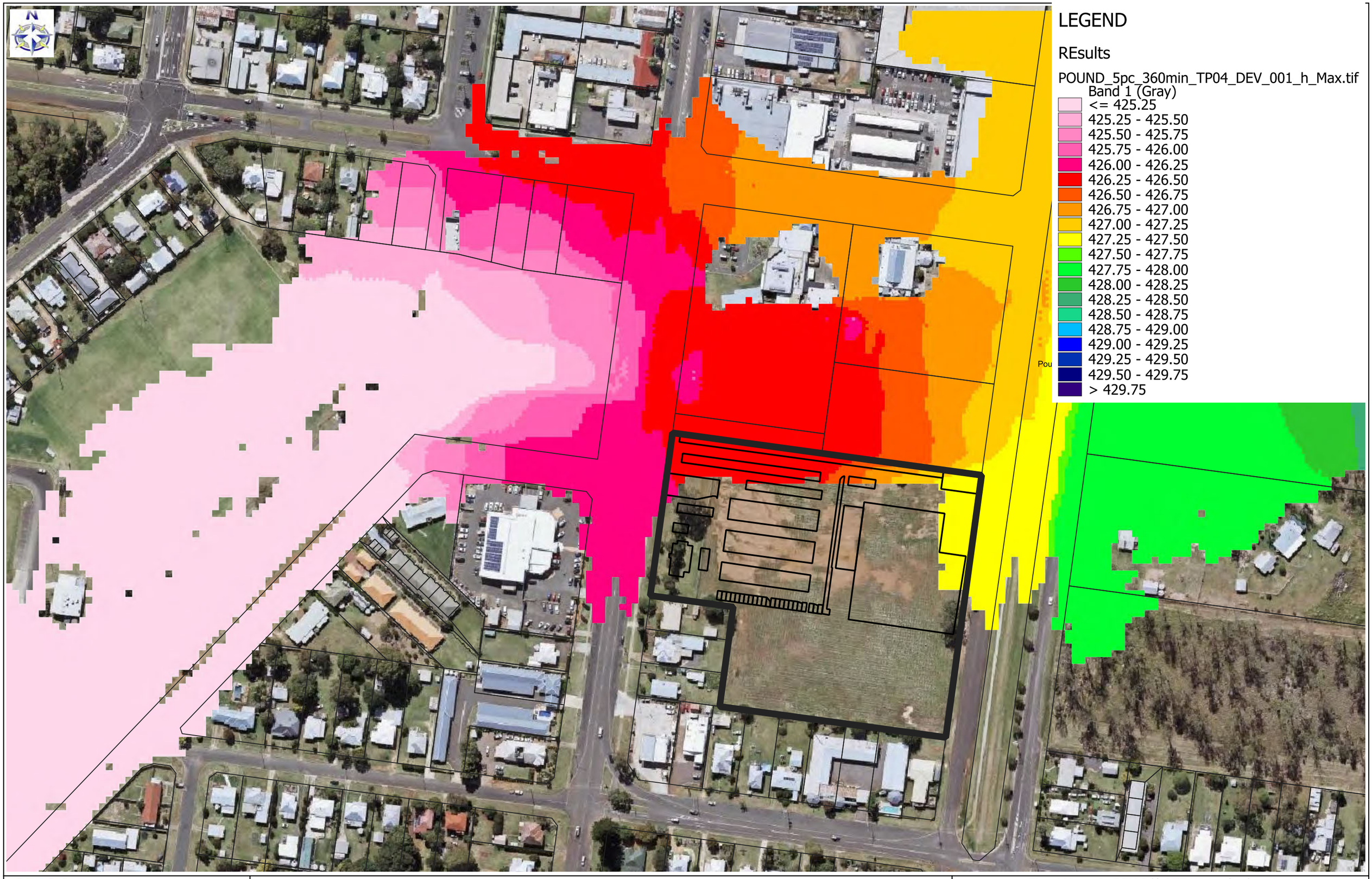
Flood Hazard - Base 5 % AEP Velocity

0 30 60 90 120 150 m

REV A

Map 21

C:\12dSidata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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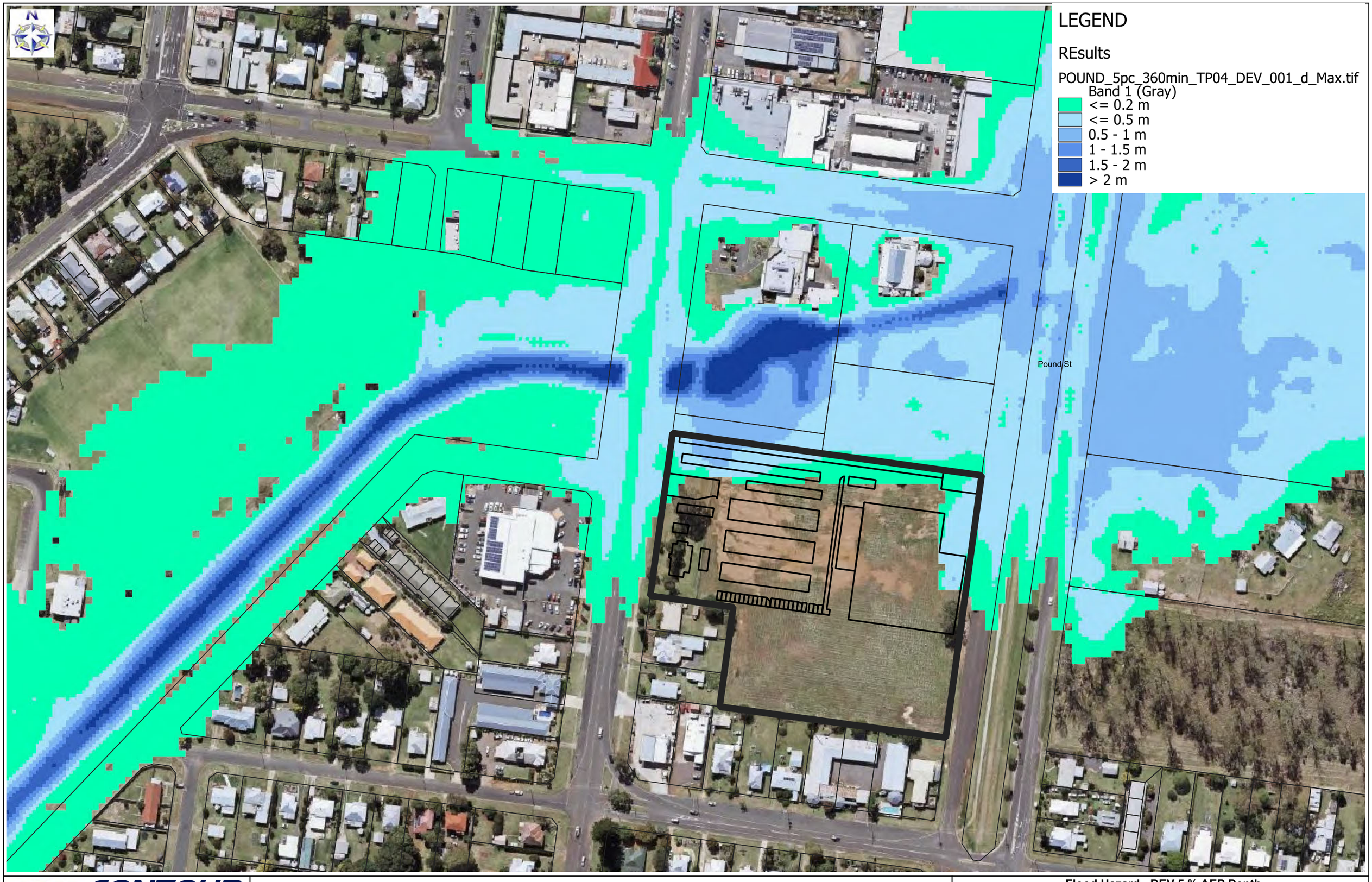
Flood Hazard - DEV 5 % AEP Water Surface level

0 30 60 90 120 150 m

REV A

Map 22

C:\12d\data\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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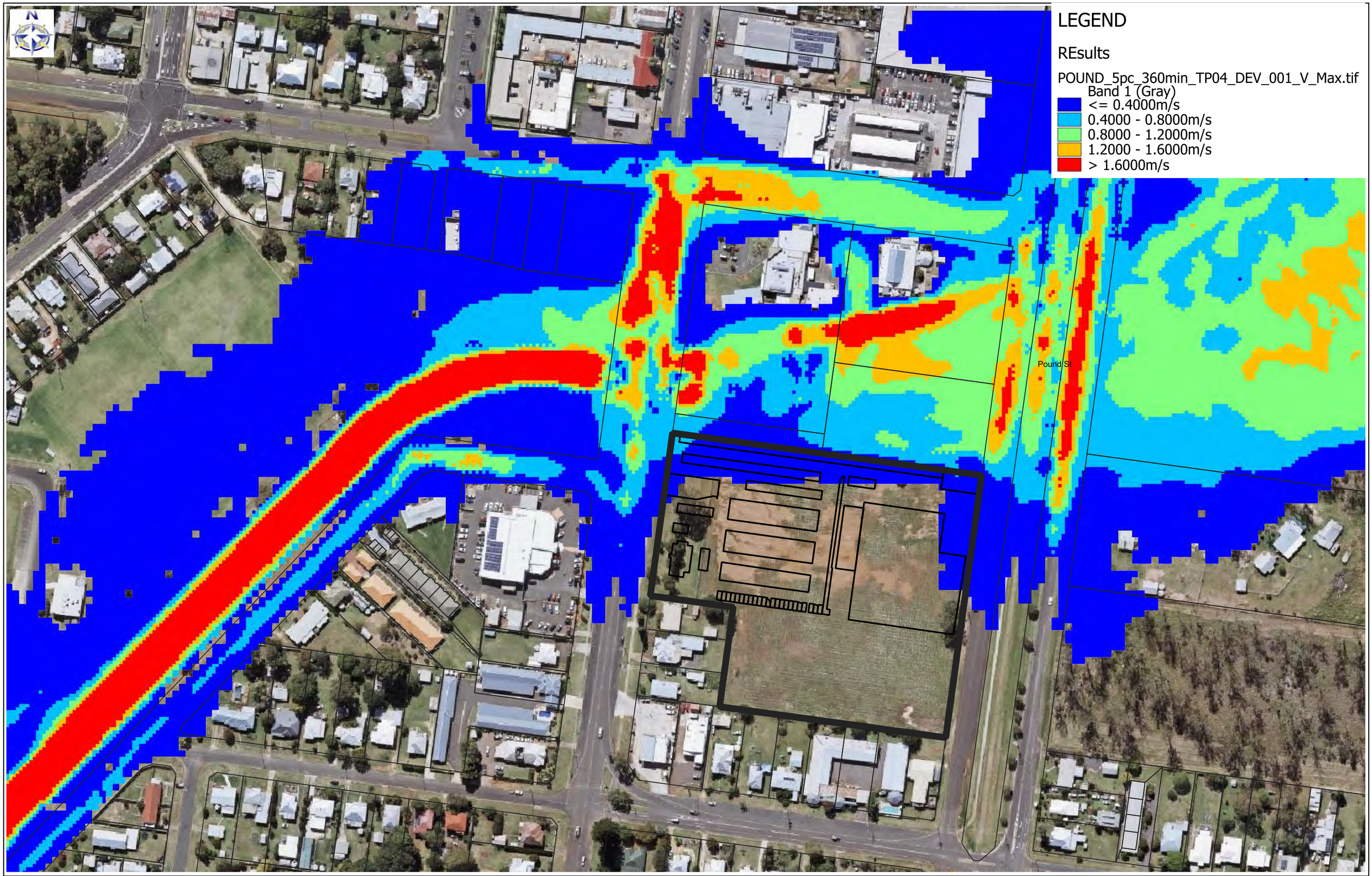
Flood Hazard - DEV 5 % AEP Depth

0 30 60 90 120 150 m

REV A

Map 23

C:\12dSidata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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Flood Hazard - DEV 5 % AEP Velocity

0 30 60 90 120 150 m

REV A

Map 24

C:\12dSldata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz

LEGEND

REsults

POUND_10pc_360min_TP04_EXG_001_h_Max.tif
Band 1 (Gray)

- <= 425.25
- 425.25 - 425.50
- 425.50 - 425.75
- 425.75 - 426.00
- 426.00 - 426.25
- 426.25 - 426.50
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- 428.50 - 428.75
- 428.75 - 429.00
- 429.00 - 429.25
- 429.25 - 429.50
- 429.50 - 429.75
- > 429.75

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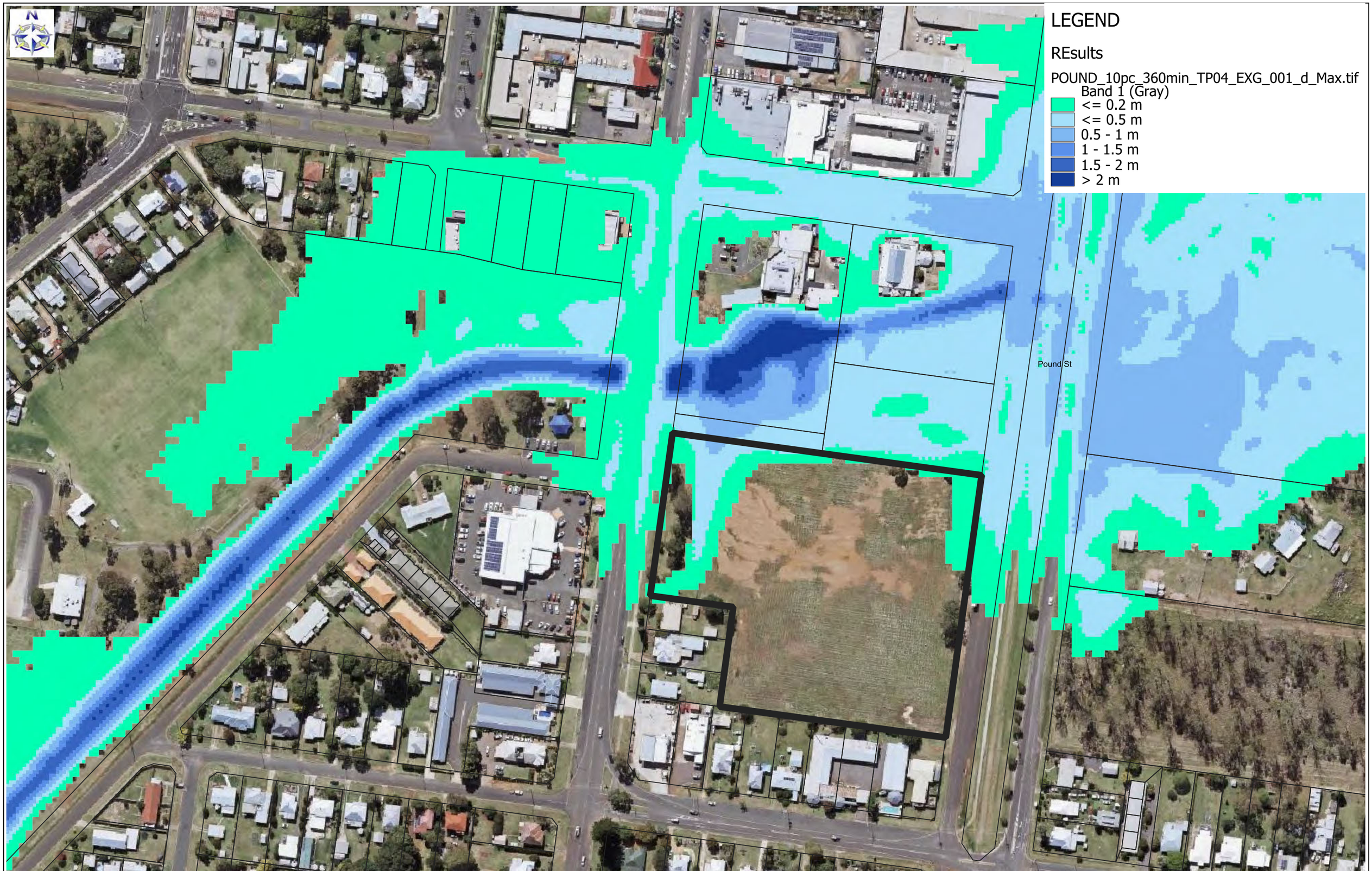
Flood Hazard - Base 10 % AEP Water Surface level

0 30 60 90 120 150 m

REV A

Map 25

C:\12d\data\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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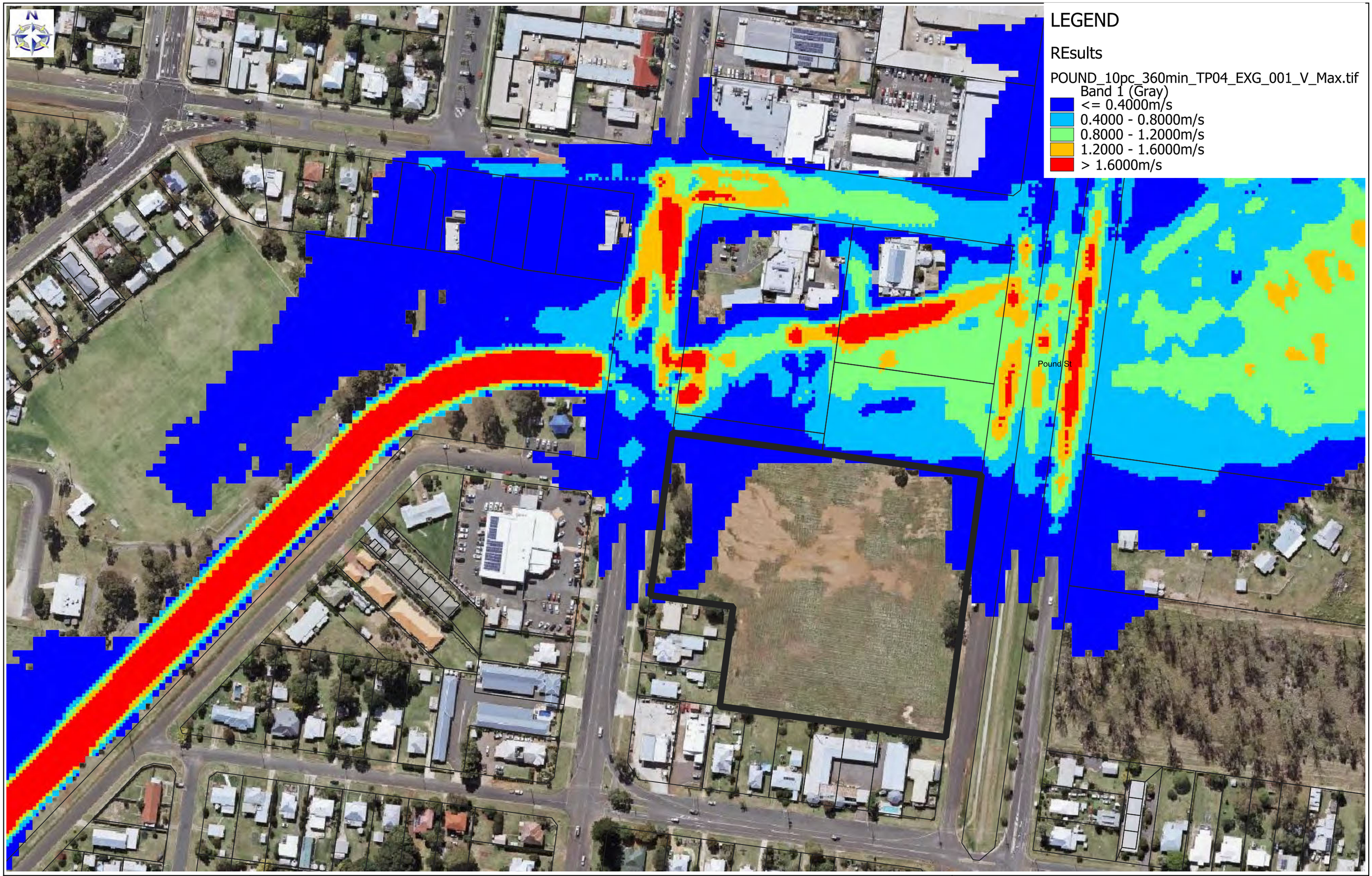
Flood Hazard - Base 10 % AEP Depth

0 30 60 90 120 150 m

REV A

Map 26

C:\12dSldata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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Flood Hazard - Base 10 % AEP Velocity

0 30 60 90 120 150 m

REV A

Map 27

C:\12dSidata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz

LEGEND

REsults

POUND_10pc_360min_TP04_DEV_001_h_Max.tif
Band 1 (Gray)

- <= 425.25
- 425.25 - 425.50
- 425.50 - 425.75
- 425.75 - 426.00
- 426.00 - 426.25
- 426.25 - 426.50
- 426.50 - 426.75
- 426.75 - 427.00
- 427.00 - 427.25
- 427.25 - 427.50
- 427.50 - 427.75
- 427.75 - 428.00
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- 428.50 - 428.75
- 428.75 - 429.00
- 429.00 - 429.25
- 429.25 - 429.50
- 429.50 - 429.75
- > 429.75

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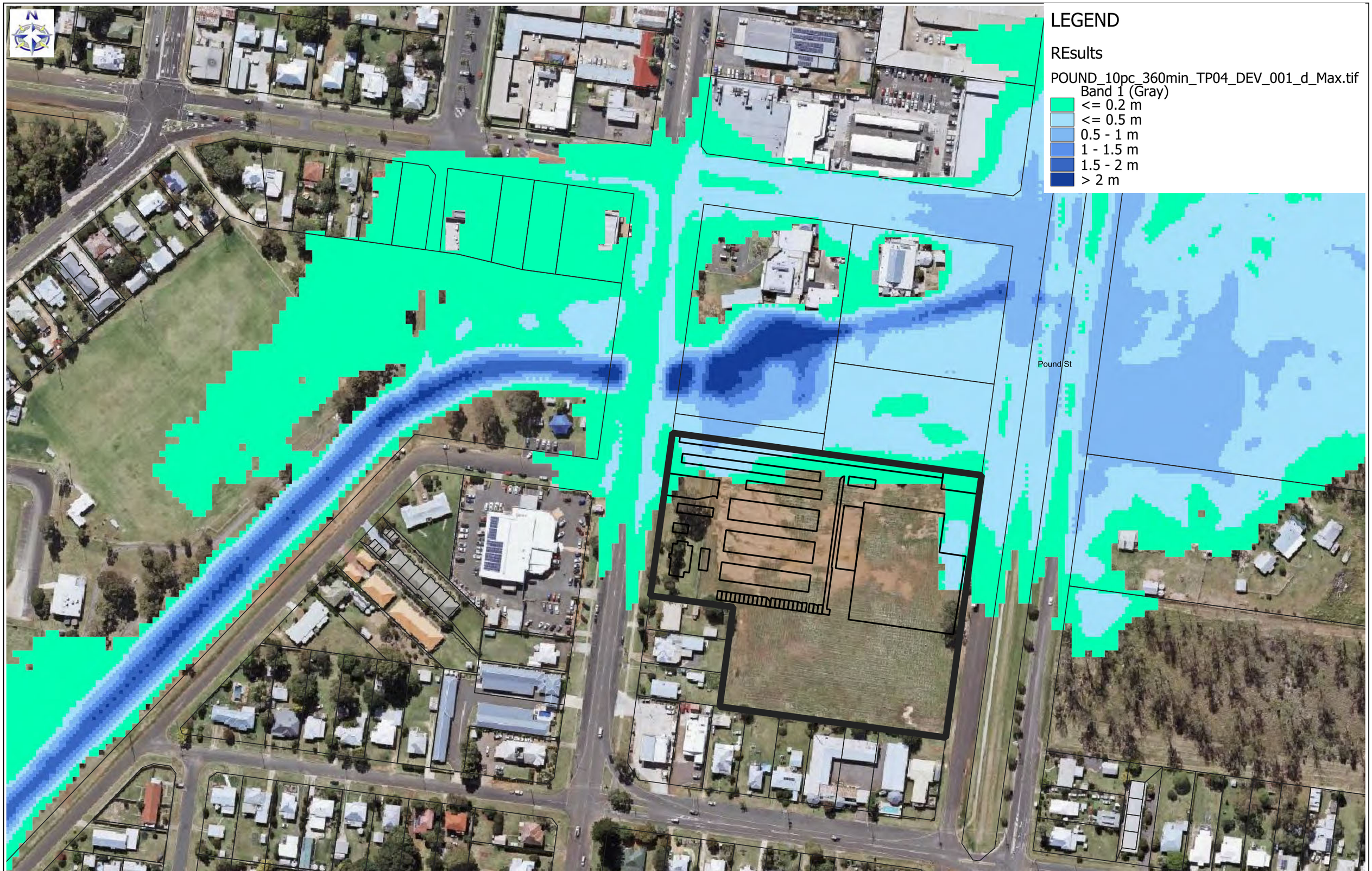
Flood Hazard - DEV 10 % AEP Water Surface level

0 30 60 90 120 150 m

REV A

Map 28

C:\12dSidata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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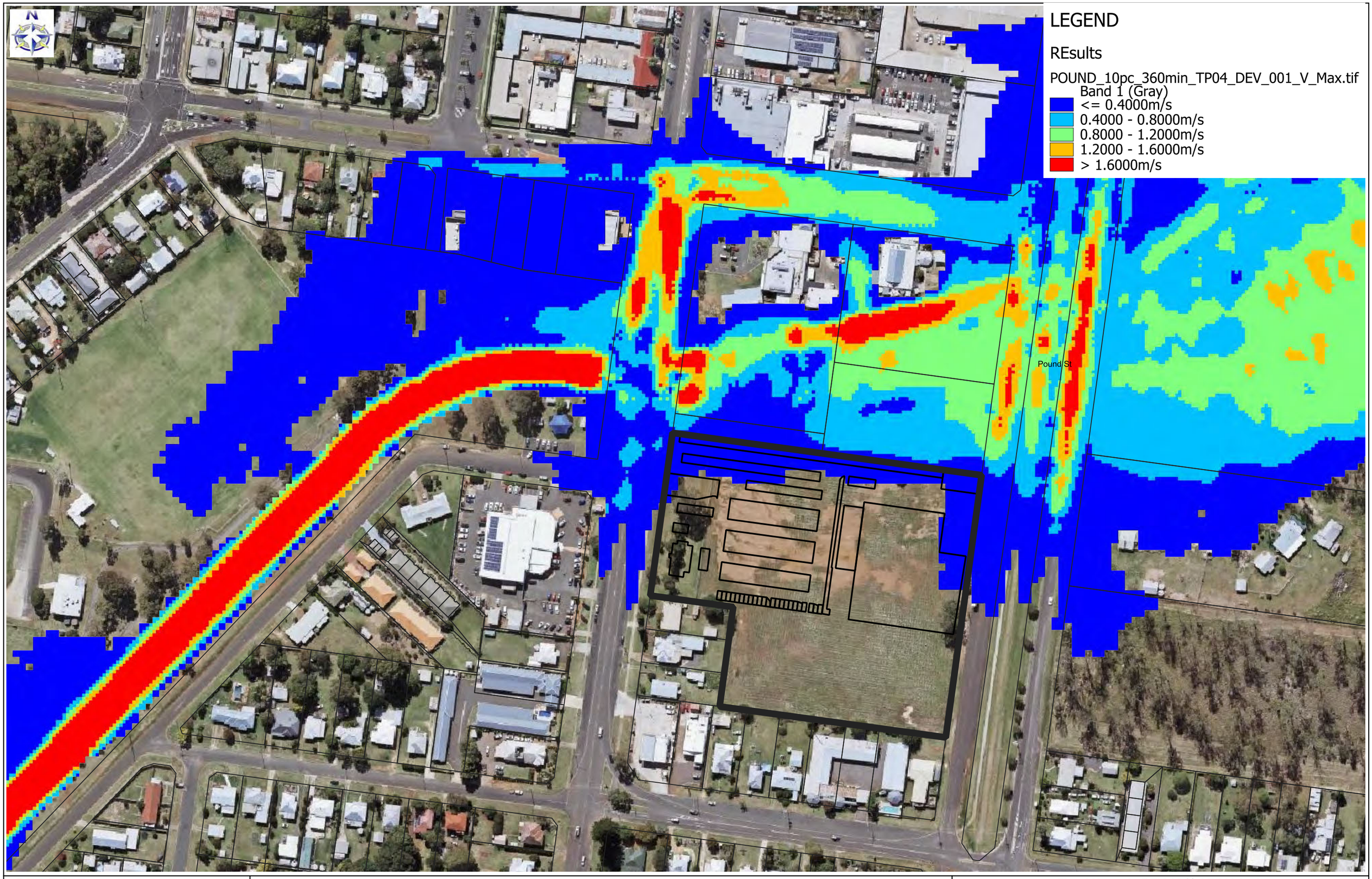
Flood Hazard - DEV 10 % AEP Depth

0 30 60 90 120 150 m

REV A

Map 29

C:\12dSldata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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Flood Hazard - DEV 10 % AEP Velocity

0 30 60 90 120 150 m

REV A

Map 30

C:\12dSidata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz

LEGEND

REsults

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Band 1 (Gray)
<= 425.25
425.25 - 425.50
425.50 - 425.75
425.75 - 426.00
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429.00 - 429.25
429.25 - 429.50
429.50 - 429.75
> 429.75

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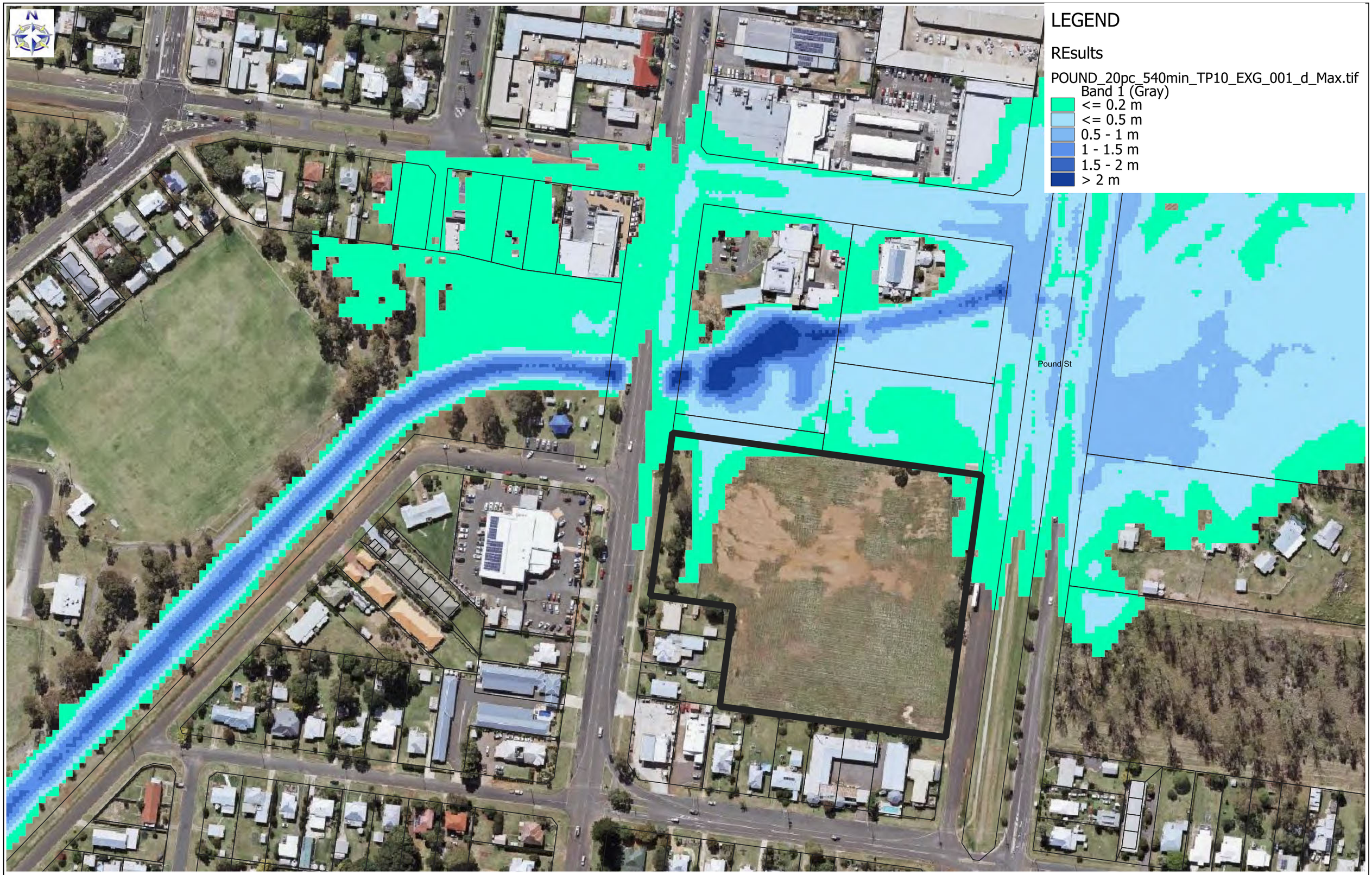
Flood Hazard - Base 20 % AEP Water Surface level

0 30 60 90 120 150 m

REV A

Map 31

C:\12dSidata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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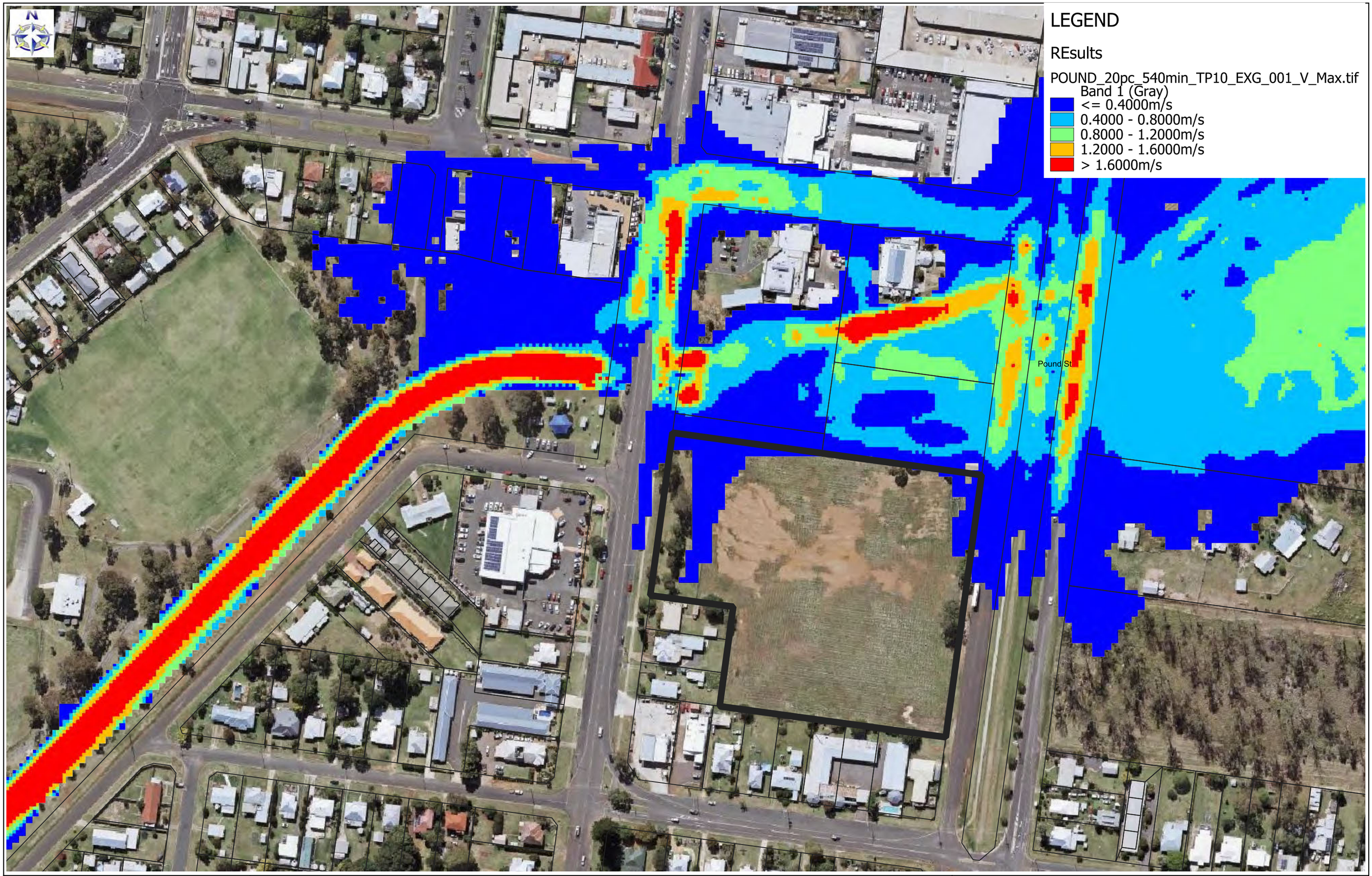
Flood Hazard - Base 20 % AEP Depth

0 30 60 90 120 150 m

REV A

Map 32

C:\12dSidata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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Flood Hazard - Base 20 % AEP Velocity

0 30 60 90 120 150 m

REV A

Map 33

C:\12dSldata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz

LEGEND

REsults

POUND_20pc_540min_TP10_DEV_001_h_Max.tif
Band 1 (Gray)

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- 425.25 - 425.50
- 425.50 - 425.75
- 425.75 - 426.00
- 426.00 - 426.25
- 426.25 - 426.50
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- 426.75 - 427.00
- 427.00 - 427.25
- 427.25 - 427.50
- 427.50 - 427.75
- 427.75 - 428.00
- 428.00 - 428.25
- 428.25 - 428.50
- 428.50 - 428.75
- 428.75 - 429.00
- 429.00 - 429.25
- 429.25 - 429.50
- 429.50 - 429.75
- > 429.75

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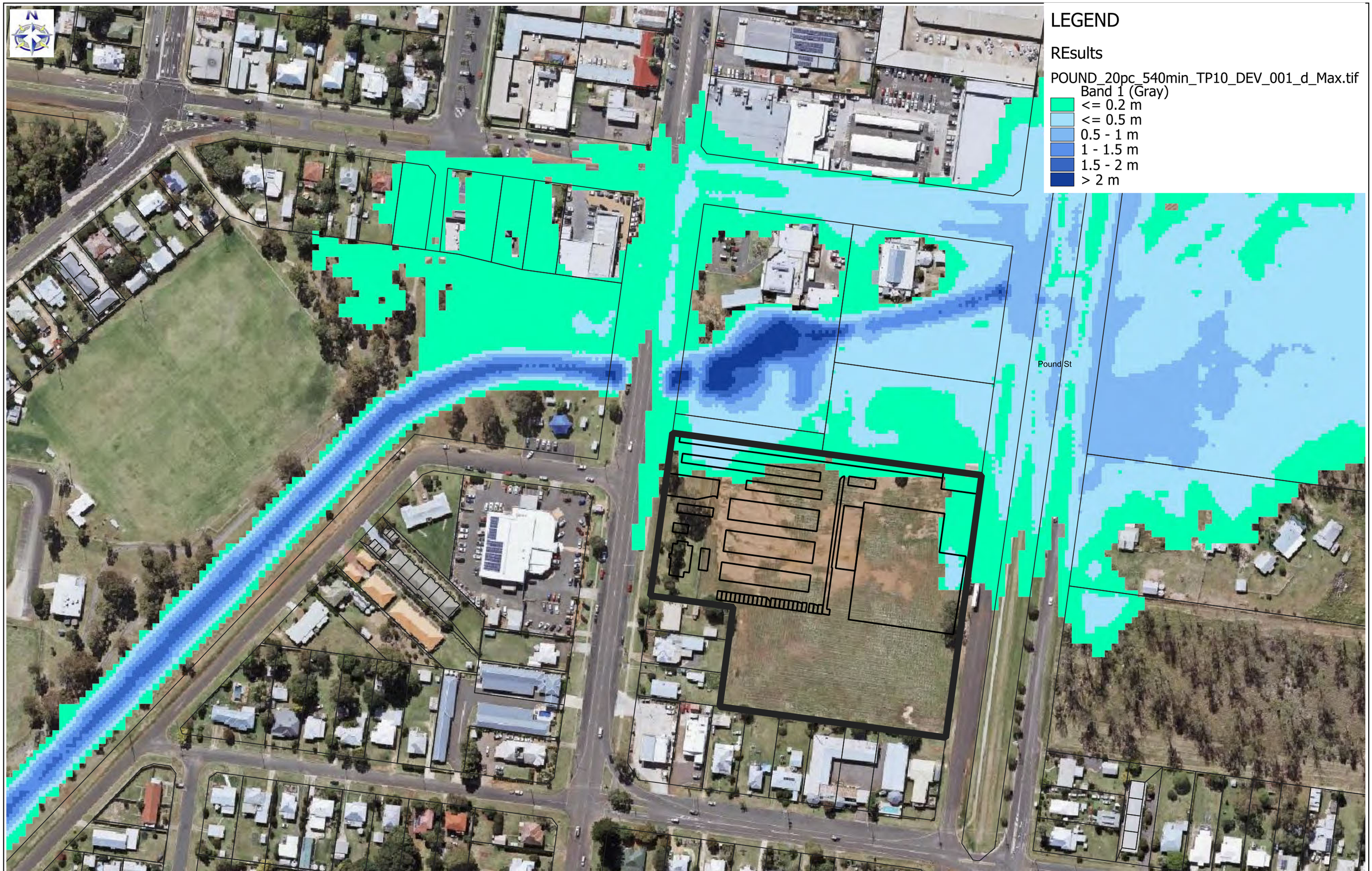
Flood Hazard - DEV 20 % AEP Water Surface level

0 30 60 90 120 150 m

REV A

Map 34

C:\12dSdata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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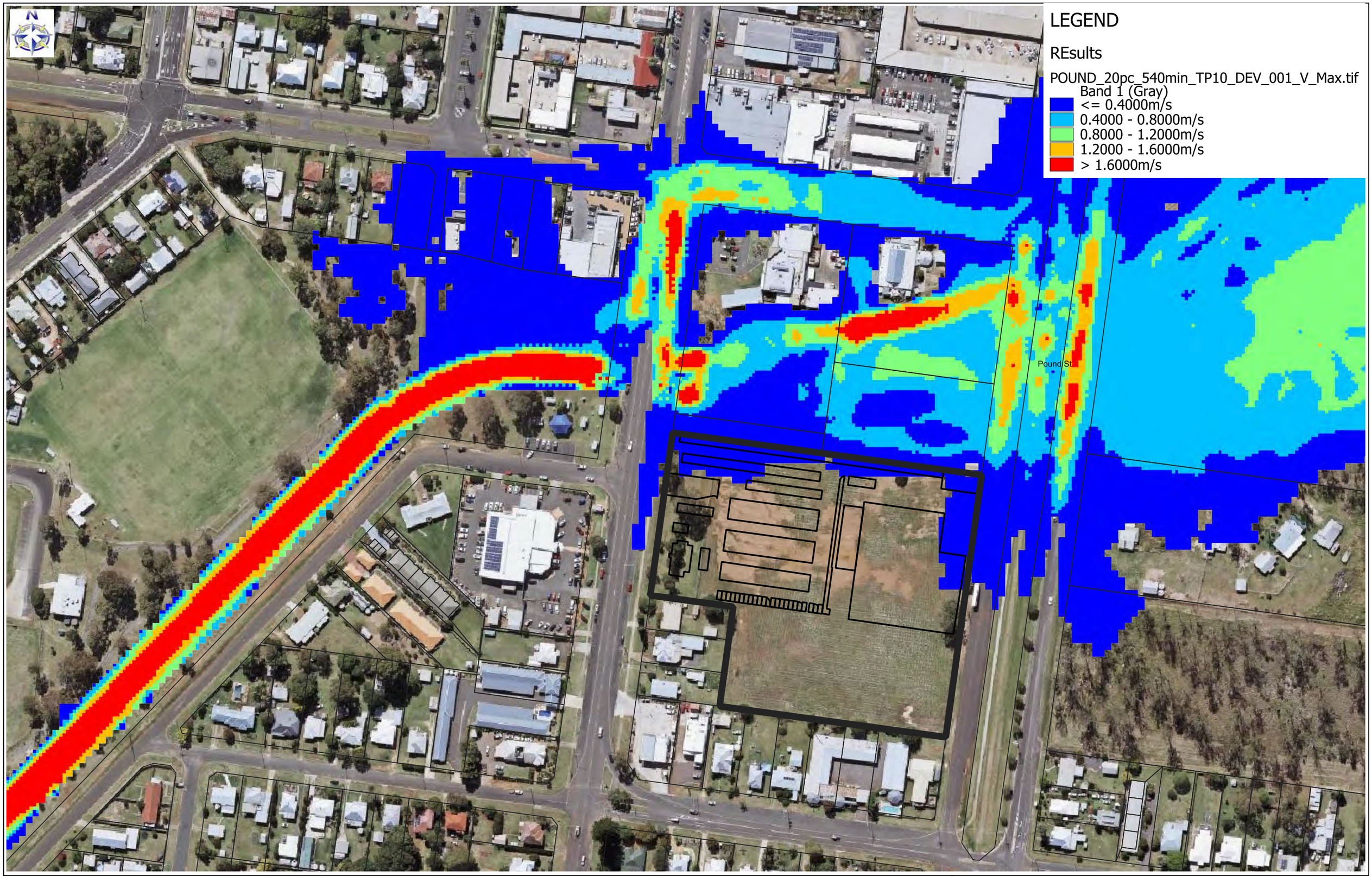
Flood Hazard - DEV 20 % AEP Depth

0 30 60 90 120 150 m

REV A

Map 35

C:\12d\data\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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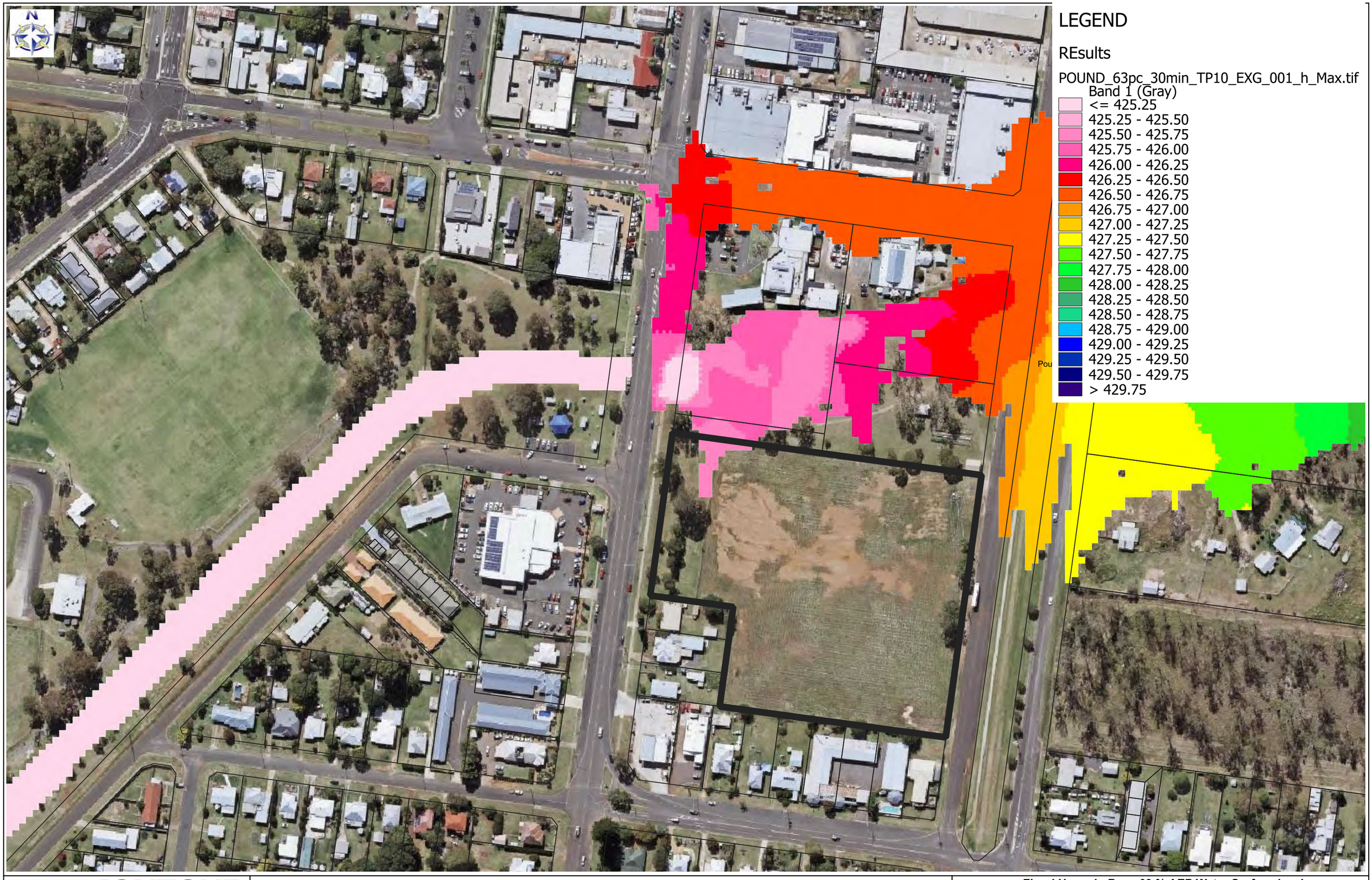
Flood Hazard - DEV 20 % AEP Velocity

0 30 60 90 120 150 m

REV A

Map 36

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Flood Hazard - Base 63 % AEP Water Surface level

0 30 60 90 120 150 m

REV A

Map 37

C:\12dSdata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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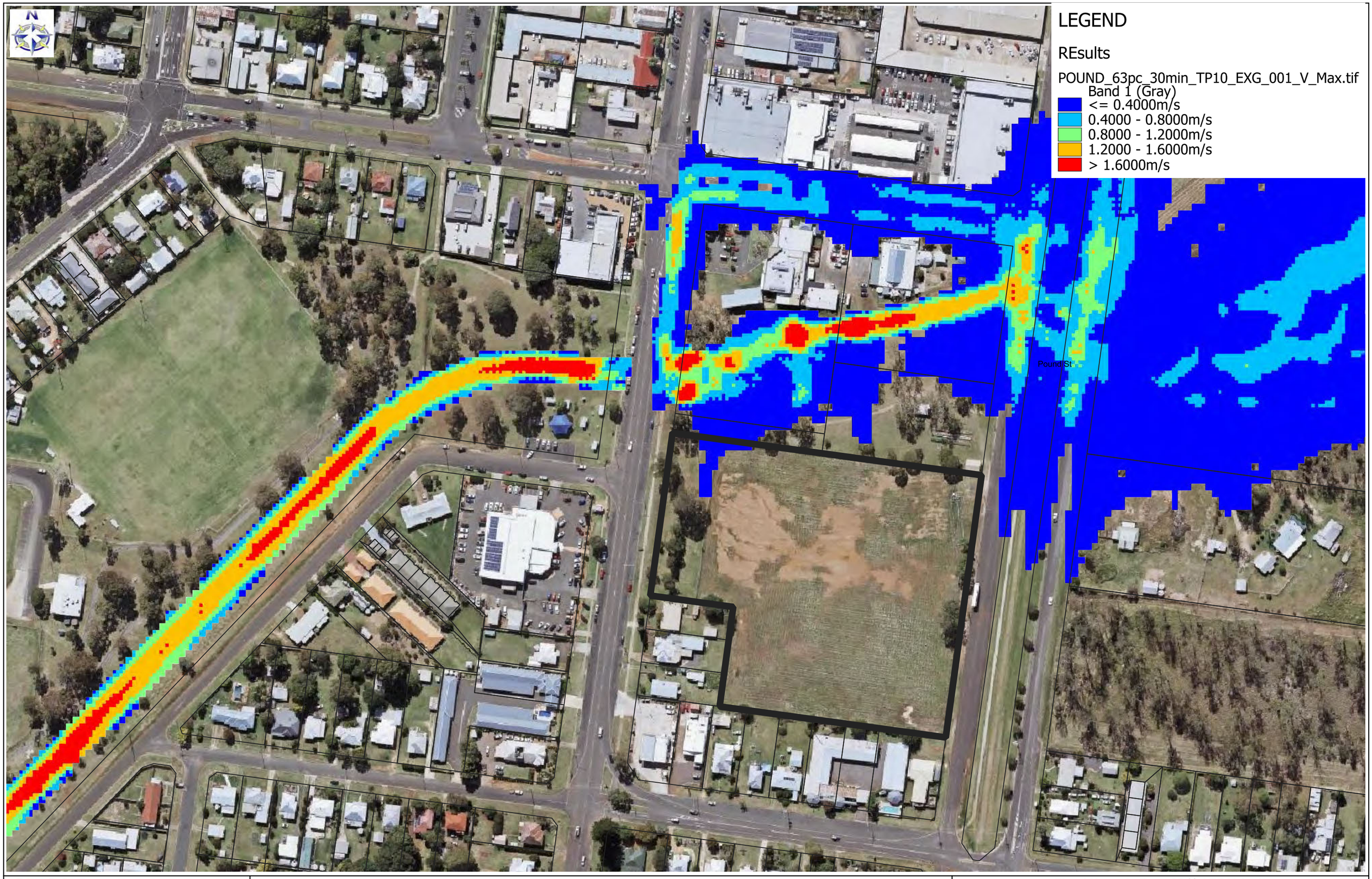
Flood Hazard - Base 63 % AEP Depth

0 30 60 90 120 150 m

REV A

Map 38

C:\12d\Sdata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



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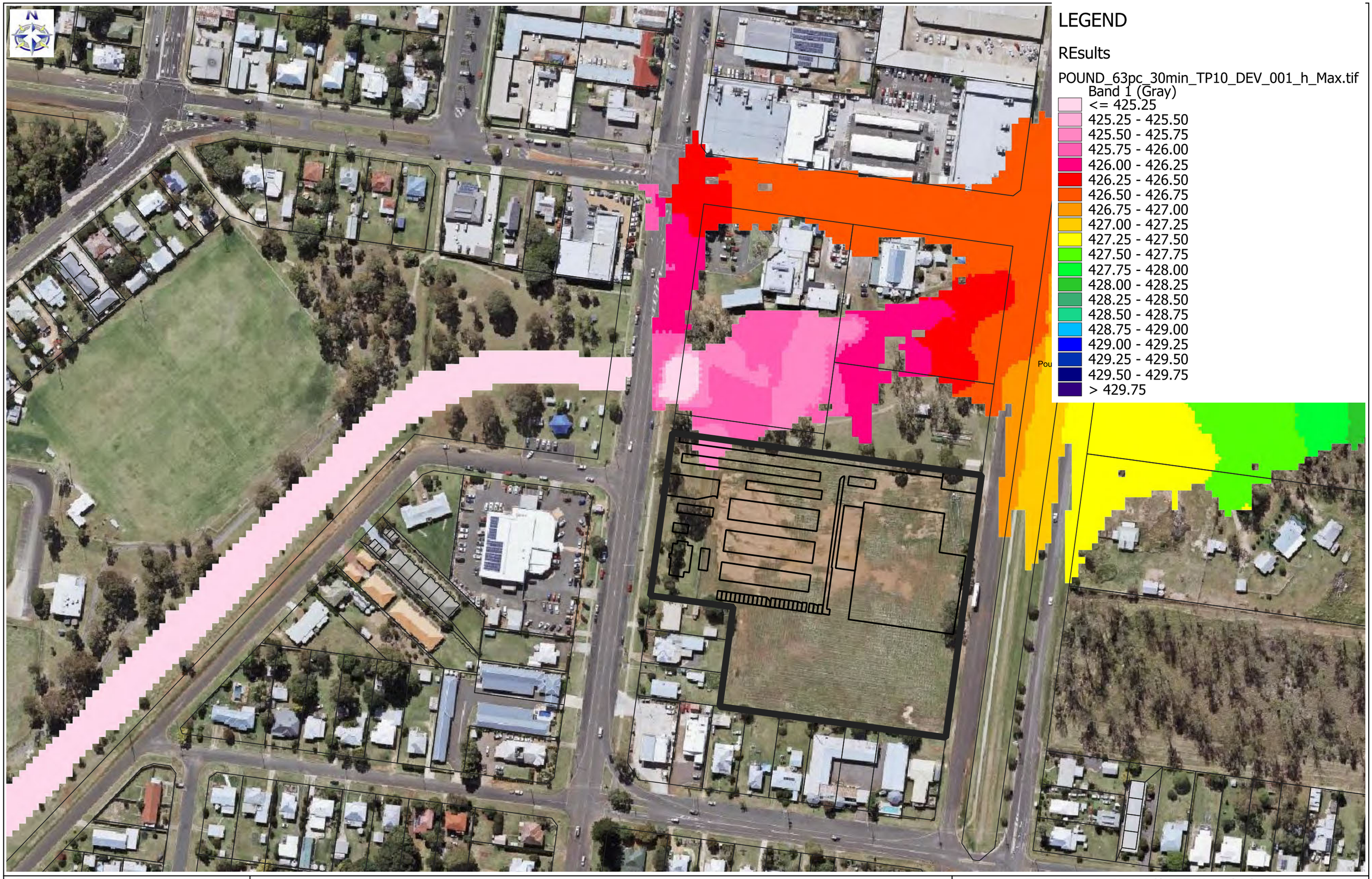
Flood Hazard - Base 63 % AEP Velocity

0 30 60 90 120 150 m

REV A

Map 39

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Flood Hazard - DEV 63 % AEP Water Surface level

0 30 60 90 120 150 m

REV A

Map 40

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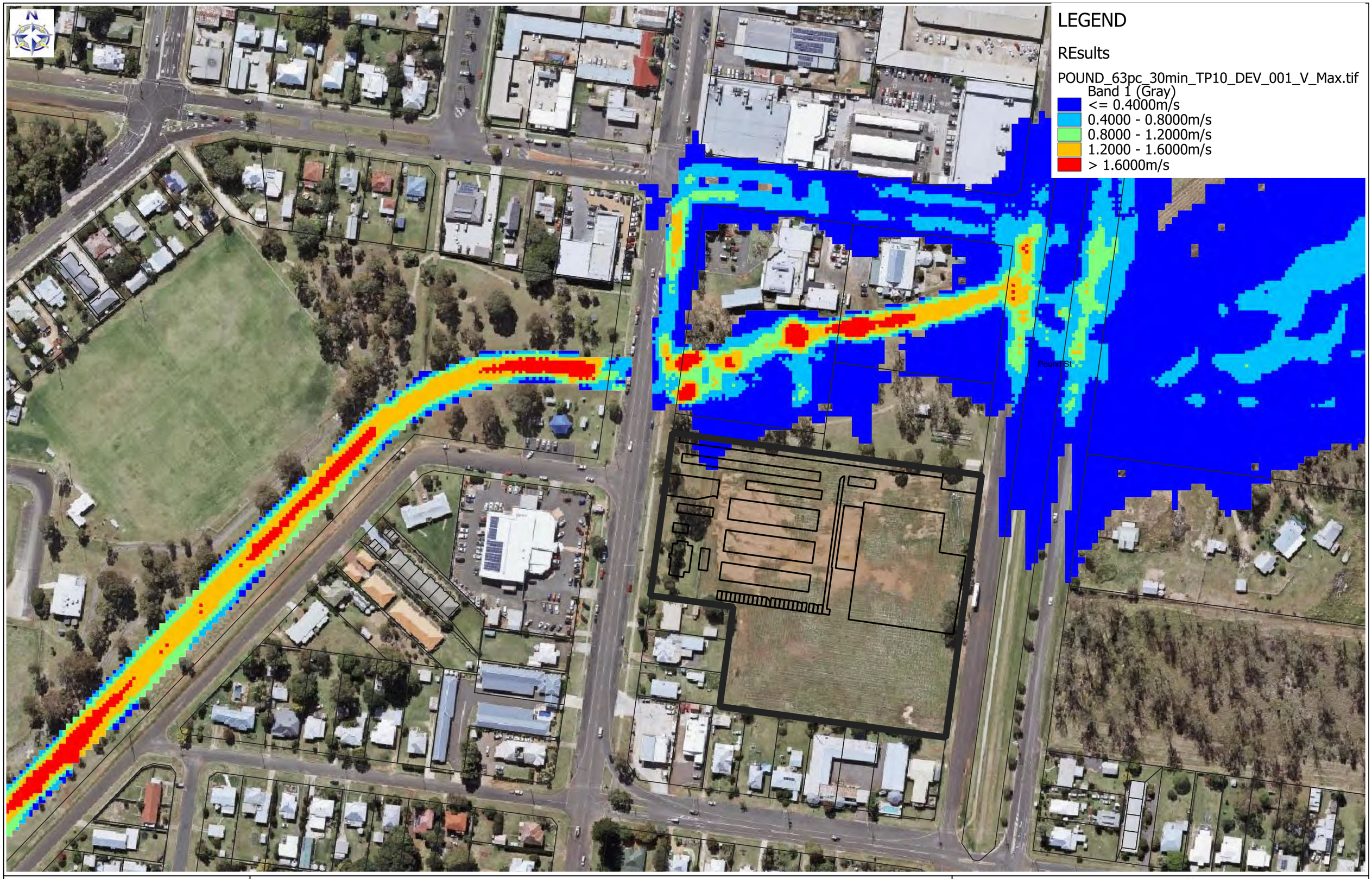
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Flood Hazard - DEV 63 % AEP Depth

0 30 60 90 120 150 m

REV A

Map 41



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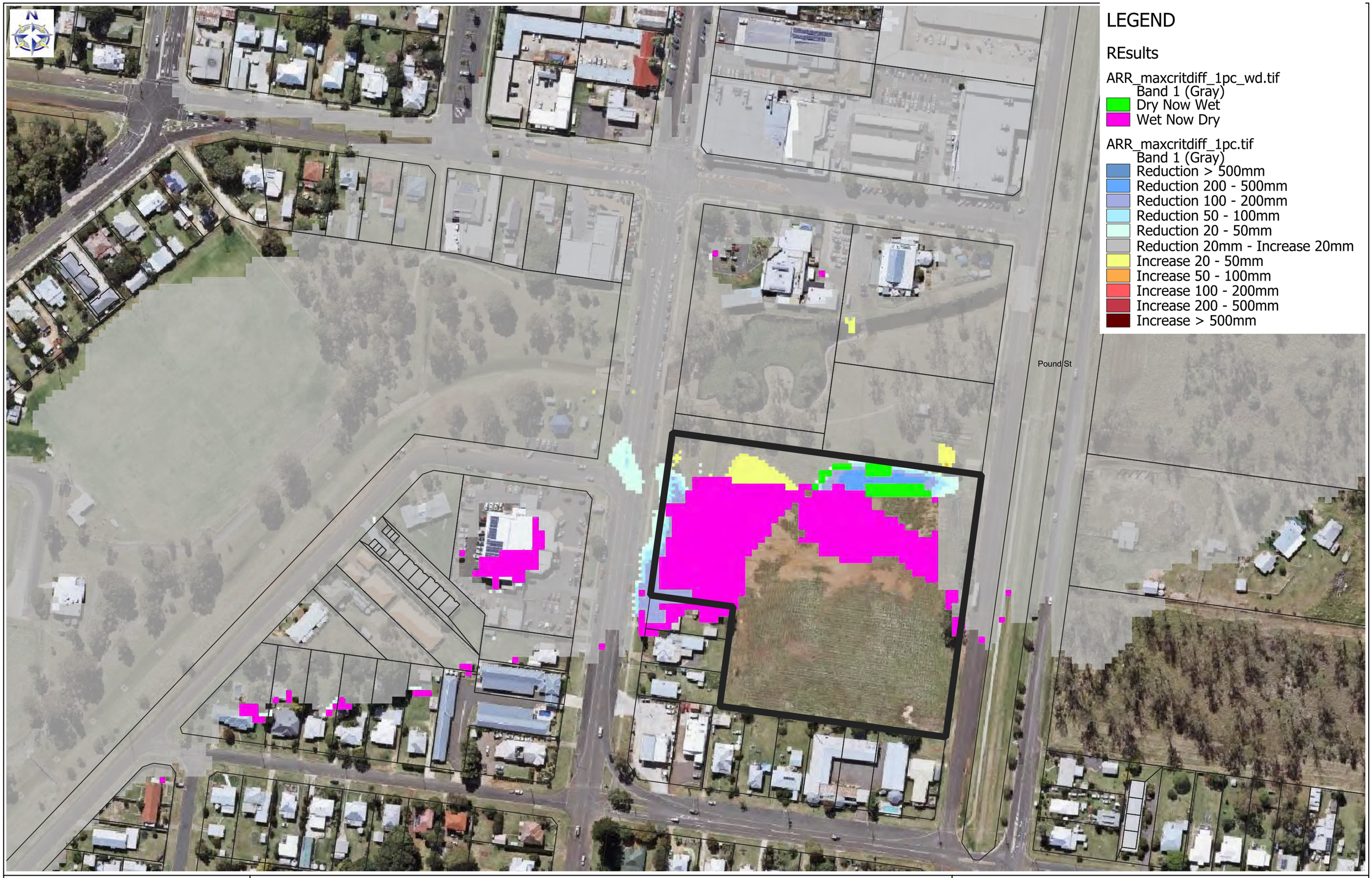
Flood Hazard - DEV 63 % AEP Velocity

0 30 60 90 120 150 m

REV A

Map 42

C:\12dSidata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



LEGEND

REsults

ARR_maxcritdiff_1pc_wd.tif
Band 1 (Gray)
Dry Now Wet
Wet Now Dry

ARR_maxcritdiff_1pc.tif
Band 1 (Gray)
Reduction > 500mm
Reduction 200 - 500mm
Reduction 100 - 200mm
Reduction 50 - 100mm
Reduction 20 - 50mm
Reduction 20mm - Increase 20mm
Increase 20 - 50mm
Increase 50 - 100mm
Increase 100 - 200mm
Increase 200 - 500mm
Increase > 500mm

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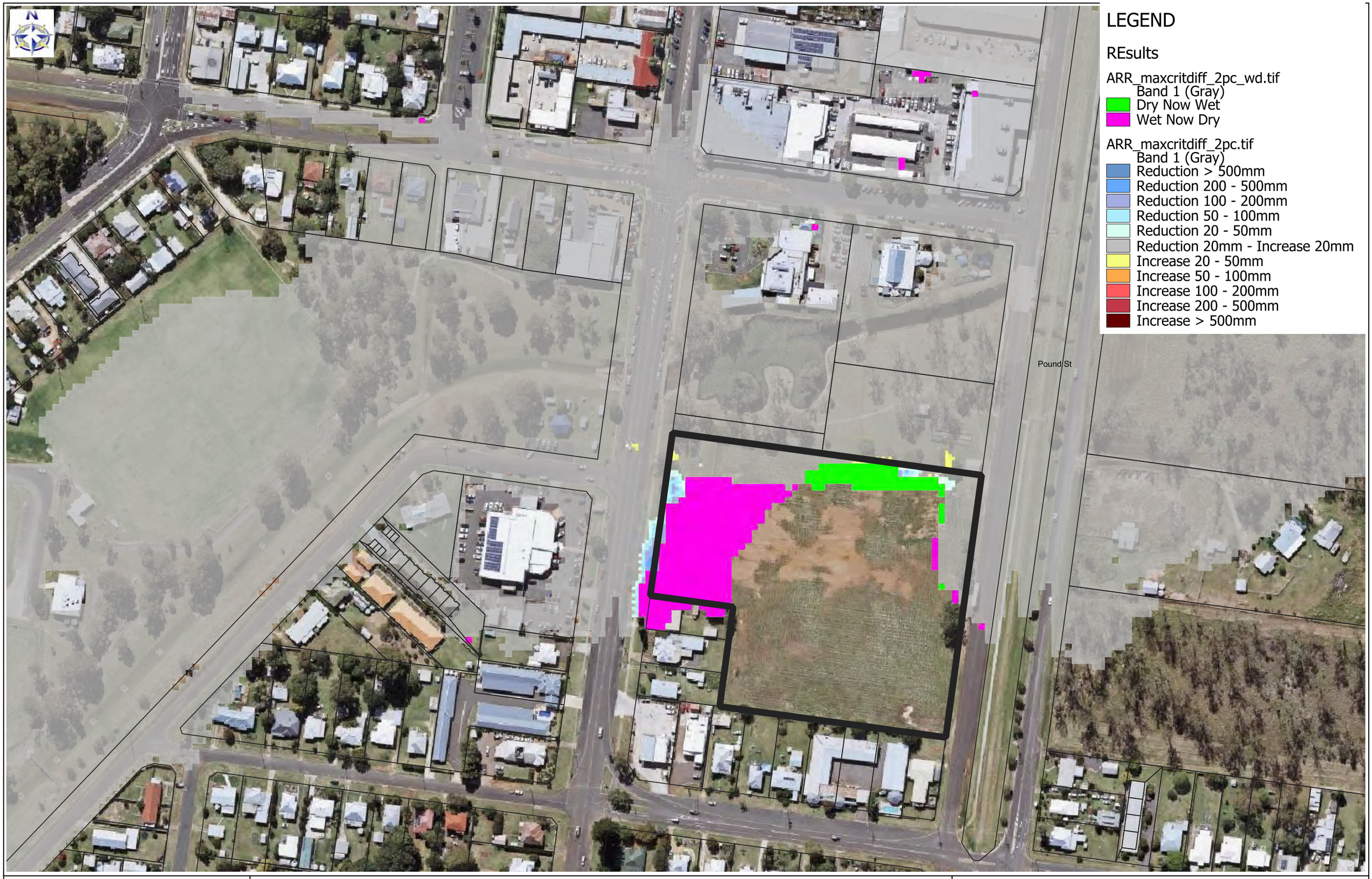
Flood Hazard 1 % AEP Flood Level Impact

0 30 60 90 120 150 m

REV A

Map 43

C:\12dSidata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



LEGEND

REsults

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- Wet Now Dry

ARR_maxcritdiff_2pc.tif
Band 1 (Gray)
- Reduction > 500mm
- Reduction 200 - 500mm
- Reduction 100 - 200mm
- Reduction 50 - 100mm
- Reduction 20 - 50mm
- Reduction 20mm - Increase 20mm
- Increase 20 - 50mm
- Increase 50 - 100mm
- Increase 100 - 200mm
- Increase 200 - 500mm
- Increase > 500mm

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Flood Hazard 2 % AEP Flood Level Impact

0 30 60 90 120 150 m

REV A

Map 44

C:\12dSidata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



LEGEND

REsults

ARR_maxcritdiff_5pc_wd.tif
Band 1 (Gray)
- Dry Now Wet
- Wet Now Dry

ARR_maxcritdiff_5pc.tif
Band 1 (Gray)
- Reduction > 500mm
- Reduction 200 - 500mm
- Reduction 100 - 200mm
- Reduction 50 - 100mm
- Reduction 20 - 50mm
- Reduction 20mm - Increase 20mm
- Increase 20 - 50mm
- Increase 50 - 100mm
- Increase 100 - 200mm
- Increase 200 - 500mm
- Increase > 500mm

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Flood Hazard 5 % AEP Flood Level Impact

0 30 60 90 120 150 m

REV A

Map 45

C:\12dSdata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



LEGEND

REsults

ARR_maxcritdiff_10pc_wd.tif
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Dry Now Wet
Wet Now Dry

ARR_maxcritdiff_10pc.tif
Band 1 (Gray)
Reduction > 500mm
Reduction 200 - 500mm
Reduction 100 - 200mm
Reduction 50 - 100mm
Reduction 20 - 50mm
Reduction 20mm - Increase 20mm
Increase 20 - 50mm
Increase 50 - 100mm
Increase 100 - 200mm
Increase 200 - 500mm
Increase > 500mm

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Flood Hazard 10 % AEP Flood Level Impact

0 30 60 90 120 150 m

REV A

Map 46

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LEGEND

REsults

ARR_maxcritdiff_20pc_wd.tif
Band 1 (Gray)
- Dry Now Wet
- Wet Now Dry

ARR_maxcritdiff_20pc.tif
Band 1 (Gray)
- Reduction > 500mm
- Reduction 200 - 500mm
- Reduction 100 - 200mm
- Reduction 50 - 100mm
- Reduction 20 - 50mm
- Reduction 20mm - Increase 20mm
- Increase 20 - 50mm
- Increase 50 - 100mm
- Increase 100 - 200mm
- Increase 200 - 500mm
- Increase > 500mm

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Flood Hazard 20 % AEP Flood Level Impact

0 30 60 90 120 150 m

REV A

Map 47

C:\12dSldata\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz



LEGEND

REsults

ARR_maxcritdiff_63pc_wd.tif
Band 1 (Gray)
Dry Now Wet
Wet Now Dry

ARR_maxcritdiff_63pc.tif
Band 1 (Gray)
Reduction > 500mm
Reduction 200 - 500mm
Reduction 100 - 200mm
Reduction 50 - 100mm
Reduction 20 - 50mm
Reduction 20mm - Increase 20mm
Increase 20 - 50mm
Increase 50 - 100mm
Increase 100 - 200mm
Increase 200 - 500mm
Increase > 500mm

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Flood Hazard 63 % AEP Flood Level Impact

0 30 60 90 120 150 m

REV A

Map 48

C:\12d\data\CCE2K16DC01\03849 - Lot 13 Pound Street, Kingaroy_31586\Design - Civil\Engineering\TUFLOW\QGIS.qgz

Appendix E. Code Response

Flood Hazard Overlay		Complies	Comments
PO12 *Development is not exposed to risk from flood events by responding to flood potential and maintains personal safety at all times*	AO12.1 All new allotments include an area of sufficient size to accommodate the intended land use outside the area identified on Overlay Map 03. and AO12.2 New buildings are not located within the area identified on Overlay Map 03; or AO12.3 Development is sited above the 1% AEP flood event where known, or the highest known flood event, as follows: (a) Habitable floor levels - 500mm; (b) Non-habitable floor levels - 300mm; (c) On-site sewage treatment and storage areas for potential contaminants - 300mm; (d) All other development - 0mm. and AO12.4 Building work below the nominated flood level allows for the flow through of flood water at ground level: (a) The structure below flood level is unenclosed; or (b) Any enclosure below flood level aligns with the direction of water flow; or (c) Any enclosure not aligning with the direction of water flow must have openings that are at least 50%		Complies with Acceptable outcome. The proposed buildings achieve 300mm freeboard to non-habitable floors in accordance with the acceptable outcome. There is no building work proposed below the 1% AEP flood event.

	of the enclosed area with a minimum opening of 75mm. and AO12.5 Resilient building materials are used below the nominated flood level in accordance with the relevant building assessment provisions. and AO12.6 Signage is provided on site indicating the position and path of all safe evacuation routes off the site.		
PO13 Development directly, indirectly and cumulatively avoids any significant increase in water flow, velocity or flood level, and does not increase the potential for flood damage either on site or other properties	Works associated with the proposed development do not: (a) involve a net increase in filling greater than 50m3;or (b) result in any reductions of on- site flood storage capacity and contain within the site any changes to depth / duration/velocity of flood waters; or (c) change flood characteristics outside the site in ways that result in (i) loss of flood storage; (ii) loss of/changes to flow paths; (iii) acceleration or retardation of flows; or (iv) any reduction in flood warning times.		Complies with Performance outcome. Flood modelling indicates that the developed does not directly cause increases in flood level or velocity or potential for flood damage. With respect to cumulative impacts, the nature of the flooding is conveyance-driven. As the development does not impact the conveyance capacity and only occupies minor areas of flood storage there is limited risk of other minor loss of flood storage resulting in cumulative impacts.
PO14 Development avoids the release of hazardous materials into floodwaters.	AO14.1 Materials manufactured or stored on site are *not hazardous in nature. or*		Complies with Performance outcome. No hazardous material will be stored on site.

	AO14.2 *Hazardous materials and any associated manufacturing equipment are located above the nominated flood level. .*		
PO15 *Community infrastructure in any area mapped as Flood Hazard is able to function effectively during and immediately after flood events.*	*No Outcome Specified*		NA.

Environmental Noise Assessment

Proposed Retail Development

1 Pound Street, Kingaroy

Coles Group Property Developments Ltd

25BRA0182 R01_0



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Revision Record

No.	Author	Reviewed/Approved	Description	Date
A	I Llamas	A. Ashworth	Internal draft	18/09/2025
0	I Llamas		Client Issue	03/10/2025

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Level 8/369 Ann Street, Brisbane. PO Box 12015 Brisbane QLD 4003

Executive Summary

Colliers was engaged by Coles Group Property Developments Ltd to undertake an environmental noise assessment of a proposed retail development located at 1 Pound Street, Kingaroy. The assessment was based on the South Burnett Regional Council Planning Scheme 2017 version 1.4.

The noise impact from onsite activities was assessed for the proposed operating hours and is predicted to comply with the relevant criteria at the nearest noise sensitive receivers based on the inclusion of acoustic barriers and management strategies outlined in Section 6 of this report.

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1 Introduction

1.1 Background

Colliers was engaged by Coles Group Property Developments Ltd to undertake an environmental noise assessment of a proposed retail development located at 1 Pound Street, Kingaroy. This report will form part of the development application for consideration by South Burnett Regional Council.

1.2 References

This report is based on the following:

- South Burnett Regional Council Planning Scheme 2017 version 1.4
- Environmental noise criteria contained in the *Environmental Protection (Noise) Policy 2019* (EPP2019)
- Development plans shown in Appendix A
- Site inspection, noise measurements, analysis and calculations conducted by Colliers

1.3 Scope

The assessment includes the following:

- Description of the site.
- Statement of assessment criteria relating to environmental noise emissions.
- Assessment of noise generated by the development onto nearby sensitive receivers.
- Analysis of measured and predicted noise levels.
- Details of noise control recommendations to be incorporated to achieve predicted compliance.

2 Site Description

2.1 Site Location

The site is described by the following:

- 1 Pound Street, Kingaroy
- Lot 13 on RP814986

The site is comprised of two areas, the development site and a balance site as shown in Figure 1.

Figure 1: Site Locality



2.2 Current Site Conditions

The development site is bound by Pound Street to the east, Kingaroy Street to the west, open land to the north, and residential properties along with the balance site area to the south. The subject site and adjoining residential receivers are located within the centre zone. The current acoustic environment at the site location is primarily comprised of noises from commercial establishments and local road traffic noise from Kingaroy Street and Pound Street.

3 The Proposed Development

3.1 Development Description

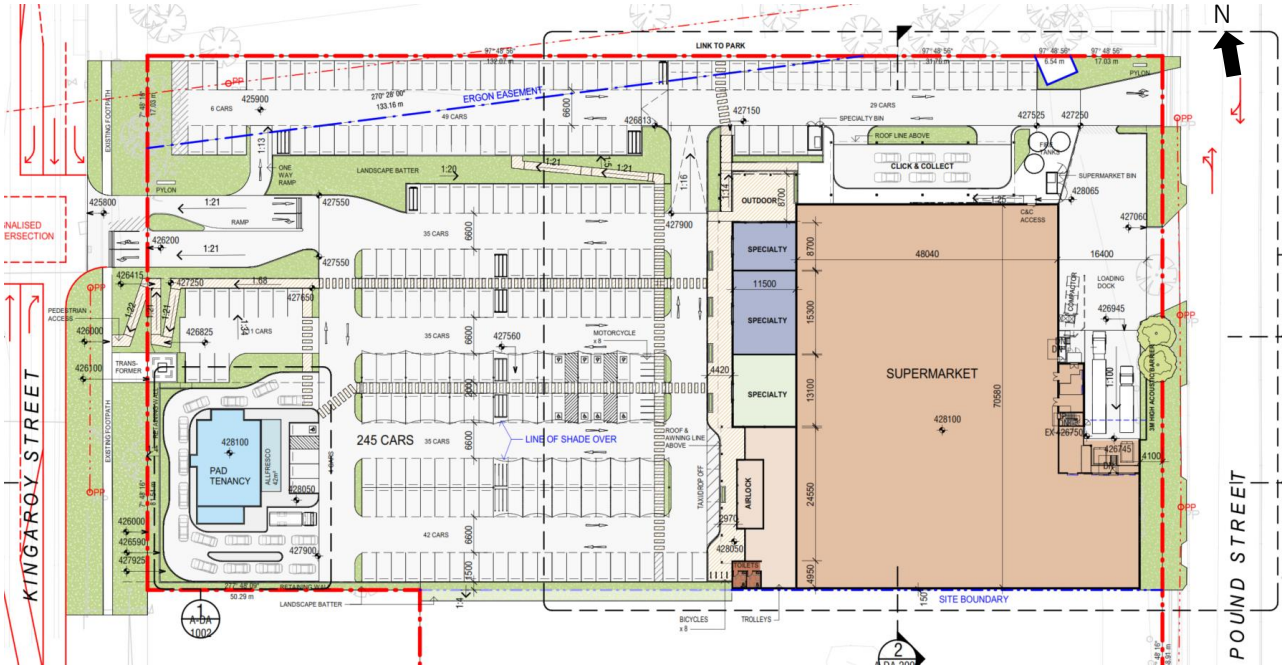
The proposal is to develop a vacant site into a retail development with associated supermarket, specialty tenancies, a pad tenancy and car parking. Vehicle access is proposed at the western end via Kingaroy Street and at the eastern end via Pound Street.

The proposed operating hours for the development are as follows:

- Supermarket and specialty stores will operate from 7:00 am to 10:00 pm daily.
- Pad Tenancy will operate 24 hours, 7 days
- Supermarket loading and pad tenancy dock operations are proposed to operate 24 hours, 7 days.

A site plan of the proposed development is presented in Figure 2. Further samples of the development plans are shown in Appendix A.

Figure 2: Site Plan



4 Noise Criteria

The South Burnett Regional Council Planning Scheme does not specify acoustic criteria. The environmental noise criteria contained in the *Environmental Protection (Noise) Policy 2019* (EPP2019) has been used for this assessment. Details of the criteria and established noise limits are presented in the following sections.

4.1 Acoustic Quality Objectives

Table 1 presents the acoustic quality objectives at noise sensitive receivers as detailed in Schedule 1 of the EPP2019.

Table 1: Acoustic Quality Objectives at Noise Sensitive Receivers

Sensitive Receiver	Time of Day	Acoustic Quality Objectives, dB(A)		
		$L_{Aeq,adj,1hr}$	$L_{A10,adj,1hr}$	$L_{A1,adj,1hr}$
Dwelling (Outdoors)	Day and Evening (7am – 10pm)	50	55	65
Dwelling (Indoors)	Day and Evening (7am – 10pm)	35	40	45
	Night (10pm – 7am)	30	35	40

4.2 Sleep Disturbance

The *Planning for Noise Control Guideline* (Department of Environment and Science, Qld Government), specifies maximum noise levels for sleep disturbance based on research by the World Health Organization (WHO).

Based on the following parameters:

- Windows “wide open” (7dB façade noise reduction)
- 10% probability of awakening

The guideline specifies an external, free-field noise criteria of 49dB(A) $L_{max.}$

5 Analysis – Offsite Receivers

An assessment of on-site activities associated with the proposed development was conducted to determine potential impacts on the nearest noise offsite sensitive receivers.

5.1 Noise Sensitive Receivers

This assessment will focus on the nearest offsite noise sensitive receivers as outlined below and shown in Figure 3. If compliance can be achieved at these nearest receivers, then all remaining noise sensitive locations are expected to comply.

- Receiver 1: Residential lots in a centre zone located to the southwest of the site.
- Receiver 2: Residential lots in a centre zone located to the south of the site.
- Receiver 3: Residential lots in a centre zone located to the southeast of the site.
- Receiver 4: Residential lot in a centre zone located to the southwest of the site.

Figure 3: Noise Sensitive Receivers



5.2 Noise Source Levels

Table 2 presents the typical transient noise sources associated with the development with the potential to impact the nearest sensitive receivers. The noise source levels were calculated to one metre and include corrections for tonality and impulsiveness as per AS1055. The number of events was estimated for a 'peak' one-hour time period providing a 'worst case scenario' applied to all time periods.

Table 2: Typical Noise Sources Associated with the Development

Noise Source Description	Measured Duration (sec)	Noise Level at 1m, dB(A)				'Peak' events per hour (Day and Eve)	'Peak' events per hour (Night)
		$L_{Aeq,T}$	$L_{A10,T}$	$L_{A1,T}$	L_{Max}		
Car door close	2	75*	77*	83*	83*	1590	N/A
Car pass-by	6	69	75	75	N/A^	795	N/A
Car engine start	3	72	74	74	75	397	N/A
Truck pass-by	20	80	82	83	N/A^	20	20
Truck reverse	30	92#	95#	96#	96#	20	20
Truck brakes	4	78	81	90	90	20	20
Delivery (refrigerated)	120	85#	86#	86#	86#	2	2
Waste Collection	40	93*	94*	105*	105*	4	N/A
Outdoor Dining	60	83	86	88	N/A^	50%	N/A
Conversation	60	73	76	78	N/A^	50%	N/A
Drive Thru Pass by	6	69	75	75	N/A^	100	50
Speaker box (drive-thru)	10	76	81	83	83	100	50

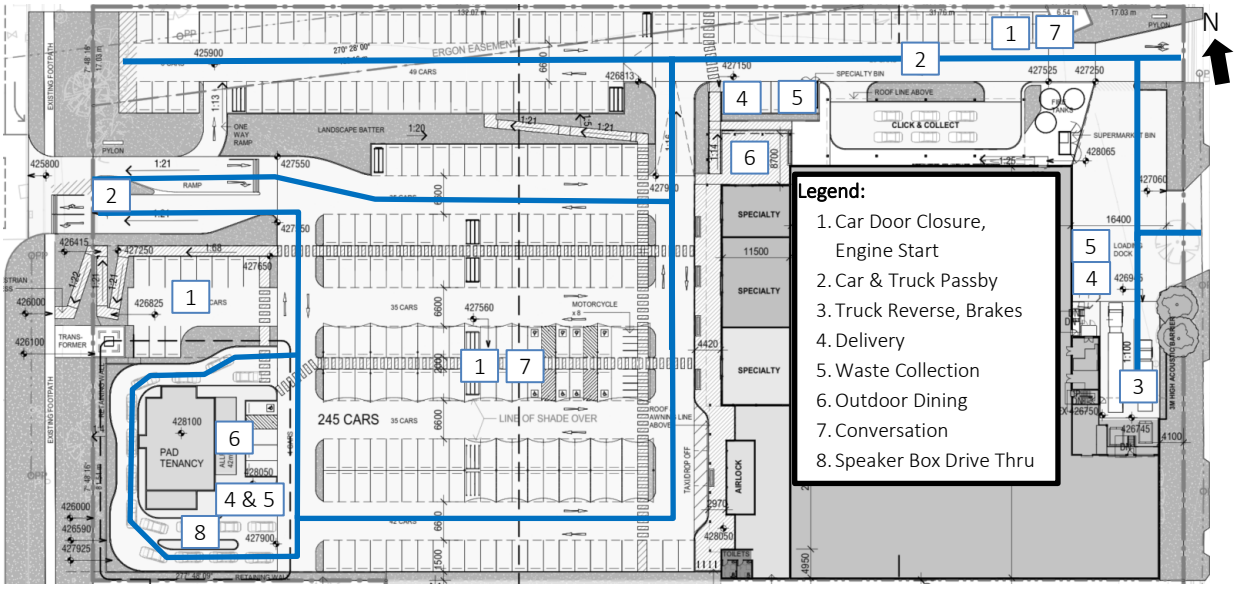
*Includes 2dB(A) adjustment for impulsiveness characteristics in accordance with AS1055

Includes 5dB(A) adjustment to account for tonal noise characteristics in accordance with AS1055

^People and vehicle pass-by noise, and other 'non-impact' type sources, are excluded from Lmax assessment in accordance with the noise policy

Noise source locations, as described in Section 5.3, are shown in Figure 4.

Figure 4: Noise Source Locations



5.3 Calculation Assumptions

The following assumptions have been made for noise calculations:

- The onsite traffic generation rate (supplied by Colliers Traffic Engineering) in the peak (1 hour) period was applied. It is predicted that night time traffic generation rate will be 50% of the peak period.
- Car movements were predicted from the nearest driveway to the sensitive receiver. Car door closures and engine starts were predicted from the centre of the parking area. This approach was adopted to account for the spatial distribution of vehicle noise sources across the car park, which vary in distance with respect to the receiver.
- Truck movements and truck noises are predicted to occur at the supermarket's dedicated loading dock.
- Deliveries and waste collection are predicted to occur at the designated loading dock of the pad tenancy and the supermarket. Deliveries and waste collection for specialty stores are predicted to occur at the car park north of the stores.
- Waste collections are predicted to occur during daytime and evening only.
- Associated loading docks for pad tenancy, specialty stores and supermarket are predicted to operate 24 hours for 7 days.
- Outdoor dining is predicted to occur during approximately 50% of the assessment period and will be restricted to daytime and evening hours only.
- The drive thru speaker noise is predicted at the drive thru area and predicted to be based on the drive thru pass by frequency.

- Conversation noise was based on 'male (conservative), normal voice' speech levels as per published data contained in Harris CM, Handbook of Acoustical Measurements and Noise Control – 3rd ed. Ch 16.3, Mc Graw-Hill Inc. Conversation was assumed to occur during day and evening periods, during 50% of the assessment period.
- Recommended acoustic barriers as detailed in Section 6.1.
- Noise attenuation of 7dB through an open window at a receiver was applied for internal noise level predictions. It is noted that between 15 and 20dB could be expected to be achieved through a closed window or door.
- Building attenuation where applicable.

5.4 Predicted Noise Levels at Receivers

The predicted noise levels from typical onsite activities are based on the noise sources presented in Table 2, the assumptions outlined in Section 5.3, and the recommended acoustic barriers detailed in Section 6.1. Sample calculations are included in Appendix B.

5.4.1 Acoustic Quality Objectives

Table 3 presents the predicted onsite noise emission levels at the nearest offsite sensitive receivers. The acoustic quality objective (AQO) criteria are specified in the table heading.

Table 3: Predicted Noise Levels at Receivers – ACQ (Including Acoustic Barrier)

Receiver	Noise Source	Predicted Noise Level, dB(A)								
		$L_{Aeq, 1hr}$			$L_{A10, 1 hr}$			$L_{A1, 1hr}$		
	Criteria	Day & Eve		Night	Day & Eve		Night	Day & Eve		Night
		Outdoor	Indoor	Indoor	Outdoor	Indoor	Indoor	Outdoor	Indoor	Indoor
		50	**35**	**30**	**55**	**40**	**35**	**65**	**45**	**40**
1	Car door close	24	17	N/A	26	19	N/A	32	25	N/A
	Car pass-by	20	13	N/A	26	19	N/A	26	19	N/A
	Car engine start	17	10	N/A	19	12	N/A	19	12	N/A
	Truck pass-by	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Truck reverse	18	11	11	21	14	14	22	15	15
	Truck brakes	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Delivery	28	21	21	29	22	22	29	22	22
	Waste Collection	34	27	N/A	35	28	N/A	46	39	N/A
	Outdoor Dining	38	31	N/A	41	34	N/A	43	36	N/A
	Conversation	31	24	N/A	34	27	N/A	36	29	N/A
	Drive Thru Pass by	28	21	15	34	27	24	34	27	24
	Speaker box	35	28	23	40	33	30	42	35	32
	Cumulative	**42**	**35**	**26**	**45**	**38**	**32**	**49**	**42**	**33**

Receiver	Noise Source	Predicted Noise Level, dB(A)								
		$L_{Aeq, 1hr}$			$L_{A10, 1 hr}$			$L_{A1, 1hr}$		
	Criteria	Day & Eve		Night	Day & Eve		Night	Day & Eve		Night
		Outdoor	Indoor	Indoor	Outdoor	Indoor	Indoor	Outdoor	Indoor	Indoor
		50	35	30	55	40	35	65	45	40
2	Car door close	32	25	N/A	34	27	N/A	40	33	N/A
	Car pass-by	28	21	N/A	34	27	N/A	34	27	N/A
	Car engine start	25	18	N/A	27	20	N/A	27	20	N/A
	Truck pass-by	<10	<10	<10	10	<10	<10	11	<10	<10
	Truck reverse	22	15	15	25	18	18	26	19	19
	Truck brakes	<10	<10	<10	<10	<10	<10	11	<10	<10
	Delivery	13	6	6	14	<10	<10	14	<10	<10
	Waste Collection	17	10	N/A	18	11	N/A	29	22	N/A
	Outdoor Dining	31	24	N/A	34	27	N/A	36	29	N/A
	Conversation	24	17	N/A	27	20	N/A	29	22	N/A
	Drive Thru Pass by	6	-1	-6	12	5	2	12	5	2
	Speaker box	17	10	5	22	15	12	24	17	14
	Cumulative	**36**	**29**	**16**	**40**	**33**	**19**	**43**	**36**	**21**
3	Car door close	28	21	N/A	30	23	N/A	36	29	N/A
	Car pass-by	25	18	N/A	31	24	N/A	31	24	N/A
	Car engine start	21	14	N/A	23	16	N/A	23	16	N/A
	Truck pass-by	28	21	21	30	23	23	31	24	24
	Truck reverse	32	25	25	35	28	28	36	29	29
	Truck brakes	9	2	2	12	5	5	21	14	14
	Delivery	21	14	14	22	15	15	22	15	15
	Waste Collection	26	19	N/A	27	20	N/A	38	31	N/A
	Outdoor Dining	32	25	N/A	35	28	N/A	37	30	N/A
	Conversation	28	21	N/A	31	24	N/A	33	26	N/A
	Drive Thru Pass by	14	7	1	20	13	10	20	13	10
	Speaker box	22	15	10	27	20	17	29	22	19
	Cumulative	**38**	**31**	**27**	**41**	**34**	**30**	**44**	**37**	**31**
4	Car door close	33	26	N/A	35	28	N/A	41	34	N/A
	Car pass-by	29	22	N/A	35	28	N/A	35	28	N/A
	Car engine start	26	19	N/A	28	21	N/A	28	21	N/A
	Truck pass-by	1	-6	-6	3	-4	-4	4	-3	-3
	Truck reverse	15	8	8	18	11	11	19	12	12
	Truck brakes	-8	-15	-15	-5	-12	-12	4	-3	-3
	Delivery	27	20	20	28	21	21	28	21	21
	Waste Collection	33	26	N/A	34	27	N/A	45	38	N/A
	Outdoor Dining	20	13	N/A	23	16	N/A	25	18	N/A

Receiver	Noise Source	Predicted Noise Level, dB(A)								
		$L_{Aeq, 1hr}$			$L_{A10, 1 hr}$			$L_{A1, 1hr}$		
	Criteria	Day & Eve		Night	Day & Eve		Night	Day & Eve		Night
		Outdoor	Indoor	Indoor	Outdoor	Indoor	Indoor	Outdoor	Indoor	Indoor
		50	35	30	55	40	35	65	45	40
	Conversation	35	28	N/A	38	31	N/A	40	33	N/A
	Drive Thru Pass by	24	17	12	30	23	20	30	23	20
	Speaker box	22	15	10	27	20	17	29	22	19
	Cumulative	**40**	**33**	**21**	**43**	**36**	**25**	**48**	**41**	**25**

Noise sources are predicted to comply at receivers during relevant time periods with the inclusion of acoustic barriers as detailed in Section 6.1.

5.4.2 Night-Time Noise Criteria - L_{max}

Table 4 presents the predicted night-time noise levels for 'short duration / impact' type noise sources at the nearest sensitive receivers,

Table 4: Predicted Night-Time Noise Levels

Receiver	Noise Source	Predicted Internal Noise Level L_{Amax} dB(A)	Complies with Criteria?
			49dB(A)
1	Car door close	N/A	N/A
	Car pass-by	N/A	N/A
	Car engine start	N/A	N/A
	Truck pass-by	N/A	N/A
	Truck reverse	30	✓
	Truck brakes	24	✓
	Delivery (refrigerated)	40	✓
	Waste Collection	N/A	N/A
	Outdoor Dining	N/A	N/A
	Conversation	N/A	N/A
	Drive Thru Pass by	41	✓
	Speaker box	48	✓
2	Car door close	N/A	N/A
	Car pass-by	N/A	N/A
	Car engine start	N/A	N/A
	Truck pass-by	N/A	N/A
	Truck reverse	34	✓
	Truck brakes	28	✓
	Delivery (refrigerated)	26	✓
	Waste Collection	N/A	N/A

Receiver	Noise Source	Predicted Internal Noise Level L_{Amax} dB(A)	Complies with Criteria? 49dB(A)
	Outdoor Dining	N/A	N/A
	Conversation	N/A	N/A
	Drive Thru Pass by	20	✓
	Speaker box	29	✓
3	Car door close	N/A	N/A
	Car pass-by	N/A	N/A
	Car engine start	N/A	N/A
	Truck pass-by	N/A	N/A
	Truck reverse	44	✓
	Truck brakes	38	✓
	Delivery (refrigerated)	34	✓
	Waste Collection	N/A	N/A
	Outdoor Dining	N/A	N/A
	Conversation	N/A	N/A
	Drive Thru Pass by	27	✓
	Speaker box	35	✓
4	Car door close	N/A	N/A
	Car pass-by	N/A	N/A
	Car engine start	N/A	N/A
	Truck pass-by	N/A	N/A
	Truck reverse	26	✓
	Truck brakes	20	✓
	Delivery (refrigerated)	40	✓
	Waste Collection	N/A	N/A
	Outdoor Dining	N/A	N/A
	Conversation	N/A	N/A
	Drive Thru Pass by	38	✓
	Speaker box	35	✓

Noise sources are predicted to comply with the L_{max} criteria during the night time period.

6 Recommendations

The recommended acoustic treatments are presented in the sections below to achieve predicted compliance with the relevant assessment criteria.

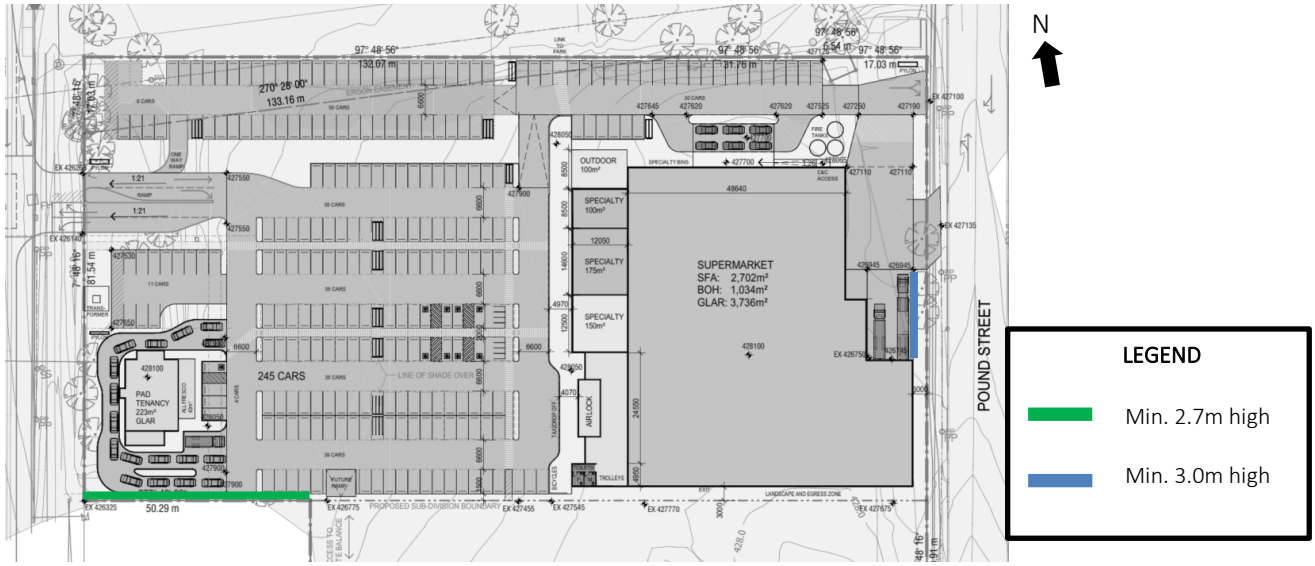
6.1 Acoustic Barrier

Noise generated from the site has been assessed at the nearest sensitive receivers. In order to comply with the relevant noise criteria, an acoustic barrier is recommended at the location, height and extent as shown in Figure 5.

The acoustic barrier should:

- Be the minimum height relative to the finished site level or finished floor level.
- Be of solid construction and have no gaps or holes for the extent shown.
- Be constructed of a material with a surface mass not less than 12.5kg/m^2.
- Be constructed of the following materials (but not limited to): lapped timber (minimum 40% overlap); plywood; masonry; compressed fibre cement sheet; minimum 7mm thick aluminium or minimum 2.5mm thick steel; glazing; earth mound or combination of the above.

Figure 5: Recommended Acoustic Barriers



6.2 Management Strategies

The following management strategies are recommended to minimise noise annoyance:

- Waste collection activities to occur between 07:00 am to 10:00 pm.
- The trading hours for the supermarket and specialty tenancies are from 7:00 am to 10:00 pm daily.

- Use of the outdoor dining area associated with the pad tenancy is limited to daytime and evening periods only
- Any grates or other protective covers in the car parks and access driveways must be rigidly fixed in position to eliminate clanging, and be maintained.
- Speed bumps (if proposed) should be built into the finished surface of the car park / driveways and not be made of metal.

6.3 Mechanical Plant Noise

Detailed mechanical plant selections are not available at this stage. It is recommended that an external mechanical plant noise assessment be conducted during the detailed design stage once plant selections are finalised, to ensure compliance with the noise emission criteria.

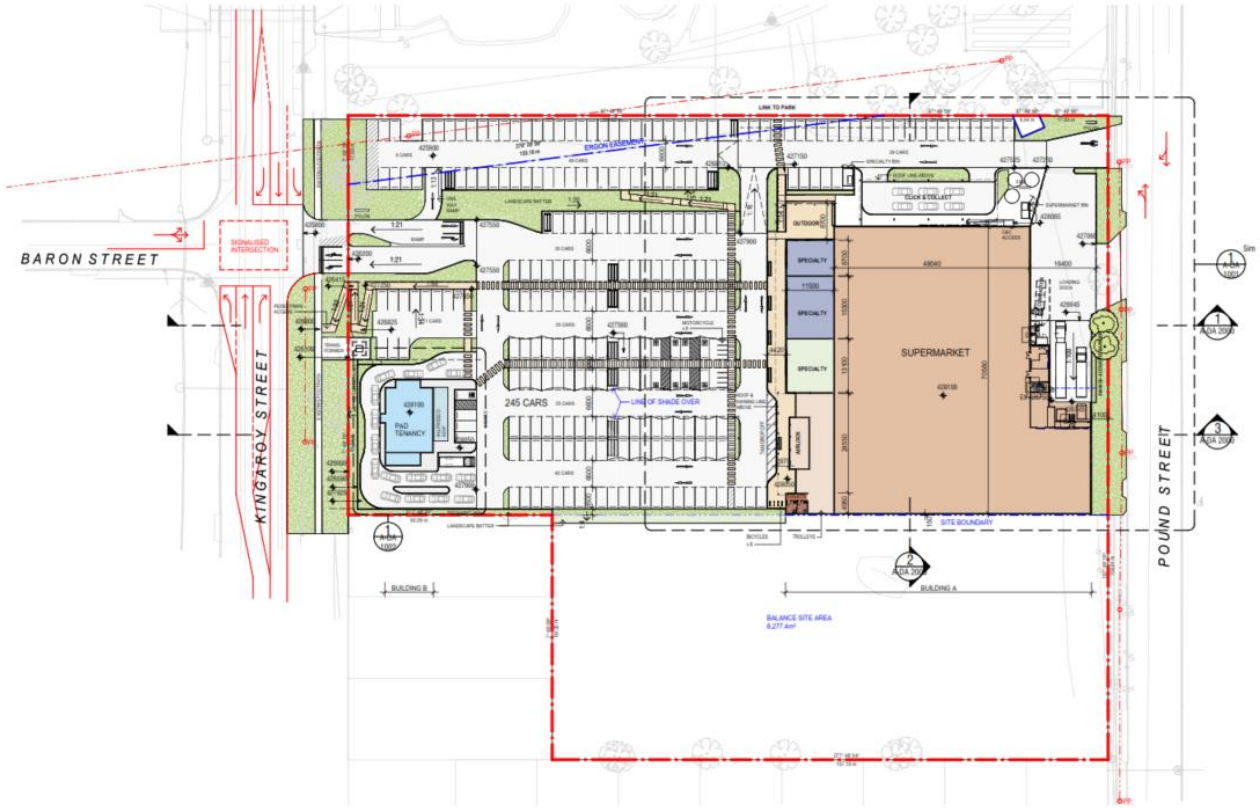
Where plant noise output exceeds allowable limits, solutions such as selecting quieter equipment, acoustic barriers and acoustic louvres may be required.

7 Conclusion

Colliers was engaged Coles Group Property Developments Ltd to undertake an environmental noise assessment of a proposed retail development located at 1 Pound Street, Kingaroy.

Compliance with the South Burnett Regional Council Planning Scheme requirements is predicted based on the implementation of the recommendations outlined in Section 6 of this report.

Appendix A Development Plans



1 OVERALL SITE PLAN
1 : 500

LEGEND

PEDESTRIAN CONNECTION

arkhright architects

Arkhright Architects Pty Ltd
1/21 AGARS STREET
PADDINGTON QLD 4064

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ABN 44 678 592 535

COLES KINGAROY

coles

Status

Date Plotted 30/09/2025 1:22:29 PM

Date Issued

Scale As indicated @A1

SITE PLAN

Drawing Number A-DA-A-DA 1000

Revision C

Colliers

Appendix B Calculations

Day and Evening Assessment

i. L_{eq}

Noise Source	Duration	Leq	Events	Leq period	Distance to Receivers R1	R2	R3	R4
				1 hour	W	SW	S	N
Car door close	2	75	1388	74	61	123	187	108
Car pass-by	6	69	694	70	61	123	170	108
Car engine start	3	72	347	67	61	123	187	108
Truck pass-by	20	80	20	70	165	102	130	243
Truck reverse	30	92	20	84	165	102	130	243
Truck brakes	4	78	20	61	165	102	130	243
Delivery (refrigerated)	120	85	2	73	15	83	130	92
Waste Collection	40	93	4	79	15	102	145	92
Outdoor Dining	60	83	30	80	25	112	251	95
Conversation	60	73	60	73	25	75	168	83
Drive Thru Pass by	6	69	100	61	6	73	240	73
Speaker box (drive-thru)	10	76	100	70	9	96	250	83
0								
Noise level after Distance loss								
Car door close					38	32	28	33
Car pass-by					34	28	25	29
Car engine start					31	25	21	26
Truck pass-by					26	30	28	23
Truck reverse					40	44	42	37
Truck brakes					17	21	19	14
Delivery (refrigerated)					50	35	31	34
Waste Collection					56	39	36	40
Outdoor Dining					52	39	32	40
Conversation					45	35	28	35
Drive Thru Pass by					46	24	14	24
Speaker box (drive-thru)					51	31	22	32
Shielding losses (building, barrier etc)								
Car door close					14	0	0	0
Car pass-by					14	0	0	0
Car engine start					14	0	0	0
Truck pass-by					22	22	0	22
Truck reverse					22	22	10	22
Truck brakes					22	22	10	22
Delivery (refrigerated)					22	22	10	7
Waste Collection					22	22	10	7
Outdoor Dining					14	8	0	20
Conversation					14	11	0	0
Drive Thru Pass by					18	18	0	0
Speaker box (drive-thru)					16	14	0	10
External Noise Level at Receiver					R1	R2	R3	R4
Car door close					24	32	28	33
Car pass-by					20	28	25	29
Car engine start					17	25	21	26
Truck pass-by					4	8	28	1
Truck reverse					18	22	32	15
Truck brakes					-5	-1	9	-8
Delivery (refrigerated)					28	13	21	27
Waste Collection					34	17	26	33
Outdoor Dining					38	31	32	20
Conversation					31	24	28	35
Drive Thru Pass by					28	6	14	24
Speaker box (drive-thru)					35	17	22	22
Cumulative					42	36	38	40
Internal	-7	dB						
Car door close					17	25	21	26
Car pass-by					13	21	18	22
Car engine start					10	18	14	19
Truck pass-by					-3	1	21	-6
Truck reverse					11	15	25	8
Truck brakes					-12	-8	2	-15
Delivery (refrigerated)					21	6	14	20
Waste Collection					27	10	19	26
Outdoor Dining					31	24	25	13
Conversation					24	17	21	28
Drive Thru Pass by					21	-1	7	17
Speaker box (drive-thru)					28	10	15	15
Cumulative					35	29	31	33

ii. L_{A10}

Noise Source	Duration	L10	Events	L10 period	Distance to Receivers R1	R2	R3	R4
				1 hour	W	SW	S	N
Car door close	2	77	1388	76	61	123	187	108
Car pass-by	6	75	694	76	61	123	170	108
Car engine start	3	74	347	69	61	123	187	108
Truck pass-by	20	82	20	72	165	102	130	243
Truck reverse	30	95	20	87	165	102	130	243
Truck brakes	4	81	20	64	165	102	130	243
Delivery (refrigerated)	120	86	2	74	15	83	130	92
Waste Collection	40	94	4	80	15	102	145	92
Outdoor Dining	60	86	30	83	25	112	251	95
Conversation	60	76	60	76	25	75	168	83
Drive Thru Pass by	6	75	100	67	6	73	240	73
Speaker box (drive-thru)	10	81	100	75	9	96	250	83
Noise level after Distance loss								
Car door close					40	34	30	35
Car pass-by					40	34	31	35
Car engine start					33	27	23	28
Truck pass-by					28	32	30	25
Truck reverse					43	47	45	40
Truck brakes					20	24	22	17
Delivery (refrigerated)					51	36	32	35
Waste Collection					57	40	37	41
Outdoor Dining					55	42	35	43
Conversation					48	38	31	38
Drive Thru Pass by					52	30	20	30
Speaker box (drive-thru)					56	36	27	37
Shielding losses (building, barrier etc)								
Car door close					14	0	0	0
Car pass-by					14	0	0	0
Car engine start					14	0	0	0
Truck pass-by					22	22	0	22
Truck reverse					22	22	10	22
Truck brakes					22	22	10	22
Delivery (refrigerated)					22	22	10	7
Waste Collection					22	22	10	7
Outdoor Dining					14	8	0	20
Conversation					14	11	0	0
Drive Thru Pass by					18	18	0	0
Speaker box (drive-thru)					16	14	0	10
External Noise Level at Receiver					R1	R2	R3	R4
Car door close					26	34	30	35
Car pass-by					26	34	31	35
Car engine start					19	27	23	28
Truck pass-by					6	10	30	3
Truck reverse					21	25	35	18
Truck brakes					-2	2	12	-5
Delivery (refrigerated)					29	14	22	28
Waste Collection					35	18	27	34
Outdoor Dining					41	34	35	23
Conversation					34	27	31	38
Drive Thru Pass by					34	12	20	30
Speaker box (drive-thru)					40	22	27	27
Cumulative					45	40	41	43
Internal	-7	dB						
Car door close					19	27	23	28
Car pass-by					19	27	24	28
Car engine start					12	20	16	21
Truck pass-by					-1	3	23	-4
Truck reverse					14	18	28	11
Truck brakes					-9	-5	5	-12
Delivery (refrigerated)					22	7	15	21
Waste Collection					28	11	20	27
Outdoor Dining					34	27	28	16
Conversation					27	20	24	31
Drive Thru Pass by					27	5	13	23
Speaker box (drive-thru)					33	15	20	20
Cumulative					38	33	34	36

iii. L_{A1}

Noise Source	Duration	L1	Events	L1 period	Distance to Receivers R1	R2	R3	R4
				1 hour	W	SW	S	N
Car door close	2	83	1388	82	61	123	187	108
Car pass-by	6	75	694	76	61	123	170	108
Car engine start	3	74	347	69	61	123	187	108
Truck pass-by	20	83	20	73	165	102	130	243
Truck reverse	30	96	20	88	165	102	130	243
Truck brakes	4	90	20	73	165	102	130	243
Delivery (refrigerated)	120	86	2	74	15	83	130	92
Waste Collection	40	105	4	91	15	102	145	92
Outdoor Dining	60	88	30	85	25	112	251	95
Conversation	60	78	60	78	25	75	168	83
Drive Thru Pass by	6	75	100	67	6	73	240	73
Speaker box (drive-thru)	10	83	100	77	9	96	250	83
Noise level after Distance loss								
Car door close					46	40	36	41
Car pass-by					40	34	31	35
Car engine start					33	27	23	28
Truck pass-by					29	33	31	26
Truck reverse					44	48	46	41
Truck brakes					29	33	31	26
Delivery (refrigerated)					51	36	32	35
Waste Collection					68	51	48	52
Outdoor Dining					57	44	37	45
Conversation					50	40	33	40
Drive Thru Pass by					52	30	20	30
Speaker box (drive-thru)					58	38	29	39
Shielding losses (building, barrier etc)								
Car door close					14	0	0	0
Car pass-by					14	0	0	0
Car engine start					14	0	0	0
Truck pass-by					22	22	0	22
Truck reverse					22	22	10	22
Truck brakes					22	22	10	22
Delivery (refrigerated)					22	22	10	7
Waste Collection					22	22	10	7
Outdoor Dining					14	8	0	20
Conversation					14	11	0	0
Drive Thru Pass by					18	18	0	0
Speaker box (drive-thru)					16	14	0	10
External Noise Level at Receiver					R1	R2	R3	R4
Car door close					32	40	36	41
Car pass-by					26	34	31	35
Car engine start					19	27	23	28
Truck pass-by					7	11	31	4
Truck reverse					22	26	36	19
Truck brakes					7	11	21	4
Delivery (refrigerated)					29	14	22	28
Waste Collection					46	29	38	45
Outdoor Dining					43	36	37	25
Conversation					36	29	33	40
Drive Thru Pass by					34	12	20	30
Speaker box (drive-thru)					42	24	29	29
Cumulative					49	43	44	48
Internal	-7	dB						
Car door close					25	33	29	34
Car pass-by					19	27	24	28
Car engine start					12	20	16	21
Truck pass-by					0	4	24	-3
Truck reverse					15	19	29	12
Truck brakes					0	4	14	-3
Delivery (refrigerated)					22	7	15	21
Waste Collection					39	22	31	38
Outdoor Dining					36	29	30	18
Conversation					29	22	26	33
Drive Thru Pass by					27	5	13	23
Speaker box (drive-thru)					35	17	22	22
Cumulative					42	36	37	41

Night Assessment

i. Leq

Noise Source	Duration	Leq	Events	Leq period	Distance to Receivers R1	R2	R3	R4
				1 hour	W	SW	S	N
Car door close	2	75	0	N/A	61	123	187	108
Car pass-by	6	69	0	N/A	61	123	170	108
Car engine start	3	72	0	N/A	61	123	187	108
Truck pass-by	20	80	20	70	165	102	130	243
Truck reverse	30	92	20	84	165	102	130	243
Truck brakes	4	78	20	61	165	102	130	243
Delivery (refrigerated)	120	85	2	73	15	83	130	92
Waste Collection	40	93	0	N/A	15	102	145	92
Outdoor Dining	60	83	30	N/A	25	112	251	95
Conversation	60	73	0	N/A	25	75	168	83
Drive Thru Pass by	6	69	30	56	6	73	240	73
Speaker box (drive-thru)	10	76	30	65	9	96	250	83
0								
Noise level after Distance loss								
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					26	30	28	23
Truck reverse					40	44	42	37
Truck brakes					17	21	19	14
Delivery (refrigerated)					50	35	31	34
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					40	19	8	19
Speaker box (drive-thru)					46	26	17	27
Shielding losses (building, barrier etc)								
Car door close					14	0	0	0
Car pass-by					14	0	0	0
Car engine start					14	0	0	0
Truck pass-by					22	22	0	22
Truck reverse					22	22	10	22
Truck brakes					22	22	10	22
Delivery (refrigerated)					22	22	10	7
Waste Collection					22	22	10	7
Outdoor Dining					14	8	0	20
Conversation					14	11	0	0
Drive Thru Pass by					18	18	0	0
Speaker box (drive-thru)					16	14	0	10
External Noise Level at Receiver					R1	R2	R3	R4
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					4	8	28	1
Truck reverse					18	22	32	15
Truck brakes					-5	-1	9	-8
Delivery (refrigerated)					28	13	21	27
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					22	1	8	19
Speaker box (drive-thru)					30	12	17	17
Cumulative					0	0	0	0
Internal	-7	dB						
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					-3	1	21	-6
Truck reverse					11	15	25	8
Truck brakes					-12	-8	2	-15
Delivery (refrigerated)					21	6	14	20
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					15	-6	1	12
Speaker box (drive-thru)					23	5	10	10
Cumulative					26	16	27	21

ii. L_{A10}

Noise Source	Duration	L10	Events	L10 period	Distance to Receivers R1	R2	R3	R4
				1 hour	W	SW	S	N
Car door close	2	77	0	N/A	61	123	187	108
Car pass-by	6	75	0	N/A	61	123	170	108
Car engine start	3	74	0	N/A	61	123	187	108
Truck pass-by	20	82	20	72	165	102	130	243
Truck reverse	30	95	20	87	165	102	130	243
Truck brakes	4	81	20	64	165	102	130	243
Delivery (refrigerated)	120	86	2	74	15	83	130	92
Waste Collection	40	94	0	N/A	15	102	145	92
Outdoor Dining	60	86	0	N/A	25	112	251	95
Conversation	60	76	0	N/A	25	75	168	83
Drive Thru Pass by	6	75	50	64	6	73	240	73
Speaker box (drive-thru)	10	81	50	72	9	96	250	83
Noise level after Distance loss								
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					28	32	30	25
Truck reverse					43	47	45	40
Truck brakes					20	24	22	17
Delivery (refrigerated)					51	36	32	35
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					49	27	17	27
Speaker box (drive-thru)					53	33	24	34
Shielding losses (building, barrier etc)								
Car door close					14	0	0	0
Car pass-by					14	0	0	0
Car engine start					14	0	0	0
Truck pass-by					22	22	0	22
Truck reverse					22	22	10	22
Truck brakes					22	22	10	22
Delivery (refrigerated)					22	22	10	7
Waste Collection					22	22	10	7
Outdoor Dining					14	8	0	20
Conversation					14	11	0	0
Drive Thru Pass by					18	18	0	0
Speaker box (drive-thru)					16	14	0	10
External Noise Level at Receiver					R1	R2	R3	R4
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					6	10	30	3
Truck reverse					21	25	35	18
Truck brakes					-2	2	12	-5
Delivery (refrigerated)					29	14	22	28
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					31	9	17	27
Speaker box (drive-thru)					37	19	24	24
Cumulative					0	0	0	0
Internal	-7	dB						
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					-1	3	23	-4
Truck reverse					14	18	28	11
Truck brakes					-9	-5	5	-12
Delivery (refrigerated)					22	7	15	21
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					24	2	10	20
Speaker box (drive-thru)					30	12	17	17
Cumulative					32	19	30	25

iii. L_{A1}

Noise Source	Duration	L1	Events	L1 period	Distance to Receivers R1	R2	R3	R4
				1 hour	W	SW	S	N
Car door close	2	83	0	N/A	61	123	187	108
Car pass-by	6	75	0	N/A	61	123	170	108
Car engine start	3	74	0	N/A	61	123	187	108
Truck pass-by	20	83	20	73	165	102	130	243
Truck reverse	30	96	20	88	165	102	130	243
Truck brakes	4	90	20	73	165	102	130	243
Delivery (refrigerated)	120	86	2	74	15	83	130	92
Waste Collection	40	105	0	N/A	15	102	145	92
Outdoor Dining	60	88	0	N/A	25	112	251	95
Conversation	60	78	0	N/A	25	75	168	83
Drive Thru Pass by	6	75	50	64	6	73	240	73
Speaker box (drive-thru)	10	83	50	74	9	96	250	83
Noise level after Distance loss								
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					29	33	31	26
Truck reverse					44	48	46	41
Truck brakes					29	33	31	26
Delivery (refrigerated)					51	36	32	35
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					49	27	17	27
Speaker box (drive-thru)					55	35	26	36
Shielding losses (building, barrier etc)								
Car door close					14	0	0	0
Car pass-by					14	0	0	0
Car engine start					14	0	0	0
Truck pass-by					22	22	0	22
Truck reverse					22	22	10	22
Truck brakes					22	22	10	22
Delivery (refrigerated)					22	22	10	7
Waste Collection					22	22	10	7
Outdoor Dining					14	8	0	20
Conversation					14	11	0	0
Drive Thru Pass by					18	18	0	0
Speaker box (drive-thru)					16	14	0	10
External Noise Level at Receiver					R1	R2	R3	R4
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					7	11	31	4
Truck reverse					22	26	36	19
Truck brakes					7	11	21	4
Delivery (refrigerated)					29	14	22	28
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					31	9	17	27
Speaker box (drive-thru)					39	21	26	26
Cumulative					0	0	0	0
Internal	-7	dB						
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					0	4	24	-3
Truck reverse					15	19	29	12
Truck brakes					0	4	14	-3
Delivery (refrigerated)					22	7	15	21
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					24	2	10	20
Speaker box (drive-thru)					32	14	19	19
Cumulative					33	21	31	25

iv. L_{Max}

Noise Source	Duration	Lmax	Events	L1 period	Distance to Receivers R1	R2	R3	R4
				1 hour	W	SW	S	N
Car door close	2	83	0	N/A	61	123	187	108
Car pass-by	6	75	0	N/A	61	123	170	108
Car engine start	3	74	0	N/A	61	123	187	108
Truck pass-by	20	83	20	N/A	165	102	130	243
Truck reverse	30	96	20	96	165	102	130	243
Truck brakes	4	90	20	90	165	102	130	243
Delivery (refrigerated)	120	86	2	86	15	83	130	92
Waste Collection	40	105	0	N/A	15	102	145	92
Outdoor Dining	60	88	0	N/A	25	112	251	95
Conversation	60	78	0	N/A	25	75	168	83
Drive Thru Pass by	6	75	50	75	6	73	240	73
Speaker box (drive-thru)	10	83	50	83	9	96	250	83
Noise level after Distance loss								
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					N/A	N/A	N/A	N/A
Truck reverse					52	56	54	48
Truck brakes					46	50	48	42
Delivery (refrigerated)					62	48	44	47
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					59	38	27	38
Speaker box (drive-thru)					64	43	35	45
Shielding losses (building, barrier etc)								
Car door close					14	0	0	0
Car pass-by					14	0	0	0
Car engine start					14	0	0	0
Truck pass-by					22	22	0	22
Truck reverse					22	22	10	22
Truck brakes					22	22	10	22
Delivery (refrigerated)					22	22	10	7
Waste Collection					22	22	10	7
Outdoor Dining					14	8	0	20
Conversation					14	11	0	0
Drive Thru Pass by					18	18	0	0
Speaker box (drive-thru)					16	14	0	10
External Noise Level at Receiver					R1	R2	R3	R4
Car door close					N/A	N/A	N/A	N/A
Car pass-by					N/A	N/A	N/A	N/A
Car engine start					N/A	N/A	N/A	N/A
Truck pass-by					N/A	N/A	N/A	N/A
Truck reverse					30	34	44	26
Truck brakes					24	28	38	20
Delivery (refrigerated)					40	26	34	40
Waste Collection					N/A	N/A	N/A	N/A
Outdoor Dining					N/A	N/A	N/A	N/A
Conversation					N/A	N/A	N/A	N/A
Drive Thru Pass by					41	20	27	38
Speaker box (drive-thru)					48	29	35	35

DELIVERING FOR QUEENSLAND | Queensland Government

Department of
State Development,
Infrastructure and Planning

SARA reference: 2512-49632 SRA
Council reference: MCU25/0041, RAL25/0048 and OPW25/0020

11 December 2025

Coles Group Property Developments Ltd
C/- Mewing Planning Consultants
GPO Box 1506
BRISBANE QLD 4001
jared.stewart@mewing.com.au

Attention: Jared Stewart

Dear Jared

Referral confirmation notice
(Given under Chapter 1, Part 2, section 7 of the Development Assessment Rules version 3.0)

The development application described below is taken to be properly referred to the State Assessment and Referral Agency (SARA) under Part 2: Referral of the Development Assessment Rules.

Location details

Street address:	1 Pound Street, Kingaroy
Real property description:	Lot 13 on RP814986
Local government area:	South Burnett Regional Council

Application details

Development Permit	Material change of use for Shopping Centre, Reconfiguring a lot for Subdivision (1 lot into 2 lots) and Operational work for Earthworks

The referral confirmation period ended on 11 December 2025. SARA's assessment will be under the following provisions of the Planning Regulation 2017:

- Schedule 10, Part 9, Division 4, Subdivision 1, Table 1, Item 1 (10.9.4.1.1.1) — Development impacting on state transport infrastructure
- Schedule 10, Part 9, Division 4, Subdivision 2, Table 1, Item 1 (10.9.4.2.1.1) — Reconfiguring a lot near a state transport corridor
- Schedule 10, Part 9, Division 4, Subdivision 2, Table 3, Item 1 (10.9.4.2.3.1) — Reconfiguring a lot near a state-controlled road intersection
- Schedule 10, Part 9, Division 4, Subdivision 2, — Material change of use of premises near a state

Mackay Isaac Whitsunday regional office
Level 4, 44 Nelson Street, Mackay
PO Box 257, Mackay QLD 4740

Table 4, Item 1 (10.9.4.2.4.1)	transport corridor or that is a future state transport corridor

For further information please contact Brian Kiruhi, Planning Officer, on 07 3522 8606 or via email MIWSARA@dsdilgp.qld.gov.au who will be pleased to assist.

Yours sincerely



Jarod Platt
Principal Planning Officer

cc South Burnett Regional Council, info@sbrc.qld.gov.au

420 Flinders Street, Townsville QLD 4810
PO Box 1090, Townsville QLD 4810
ergon.com.au

25 March 2026

Chief Executive Officer
South Burnett Regional Council

Attention: Vanessa
Via email: info@sbrc.qld.gov.au

cc Coles Group Property Developments Ltd
c/- Mewing Planning Consultants Pty Ltd
Attention: Jared Stewart
Via email: jared.stewart@mewing.com.au

Dear Sir/Madam,

Ergon Advice Agency Response – Material Change of Use for Shopping Centre, Reconfiguring a Lot for subdivision (1 Lot into 2 Lots) and Operational Works for Earthworks located at 1 Pound Street, Kingaroy formally described as Lot 13 on RP814986
Council Ref: MCU25/0041, RAL25/0048 & OPW25/0020
Applicant Ref: 24314
Our Ref: ECM 24554925 - 39475438

This Referral Agency response is given under section 56 of the *Planning Act 2016.*

Response	
Outcome	Approved in full - subject to conditions
Referral assessment capacity	Advice
Matters referral assessment made against (S55(2))	The purpose of the *Electricity Act 1994* and *Electricity Safety Act* 2002
Reasons for decision (S56(7)(b))	The works do not conflict with: ▪ the objectives set out within Part 2, Section 3 of the *Electricity Act 1994*

Have you seen our fact sheets?
See the 'considerations when developing around electricity infrastructure' section of our website
www.ergon.com.au/referralagency

- the purpose of the *Electricity Safety Act 2002* as set out within Part 1 Division 2 Section 4 & 5.

The works do not adversely impact on the safe, efficient, and economically viable operation of the supply network.

Development Details	
Applicant	Coles Group Property Developments Ltd c/- Mewing Planning Consultants Pty Ltd
Assessment Manager	South Burnett Regional Council
Council Application No.	MCU25/0041, RAL25/0048 & OPW25/0020
Street Address	1 Pound Street, Kingaroy
RPD	13 RP814986
Development Type	Material Change of Use for Shopping Centre, Reconfiguring a Lot for subdivision (1 Lot into 2 Lots) and Operational Works for Earthworks
Referral Trigger	☒ Schedule 10, Part 9, Division 2, Table 1, Item 1 (10.9.2.1.1) – Reconfiguring a lot subject to an easement for the benefit of a distribution entity under the Electricity Act for a supply network; ☒ Schedule 10, Part 9, Division 2, Table 2, Item 1 (10.9.2.2.1) – Material Change of use of premises subject to an easement for the benefit of a distribution entity under the Electricity Act and the easement is for a supply network ☒ Schedule 10, Part 9, Division 2, Table 3, Item 1 (10.9.2.3.1) - Operational Work on premises subject to an easement for the benefit of a distribution entity under the Electricity Act for a supply network;
Impacted Electrical Infrastructure	Easement A RP193139 – 11kV O/H Line (Feeder: KR-E) and Pole (ID:2010883)

Ergon provides the following response to the application in accordance with Section 56(1) of the *Planning Act 2016:*

Component of Development	Advice Agency direction
MCU/ ROL/ OPW	☒ S56(1)(b)(i) – approval subject to stated development conditions

In accordance with Section 56(1) should the Assessment Manager decide to approve the proposed Development Application, as an Advice Agency, Ergon requires that the assessment manager impose the below conditions. These

conditions have been imposed in response to the matters prescribed under Section 55 (2) of the *Planning Act 2016.*

Table 1			
Plans forming part of this Approval			
Title	*Plan No.*	*Issue*	*Date*
Overall Site Plan	*A-DA-A-DA 1000*	*E*	*14 November 2025*
Development Layout Plan	*3849-SK05*	*A*	*3 October 2025*
Earthworks Plan – Sheet 1	*3489-SK10*	*A*	*3 October 2025*

Table 2		
Documents forming part of this Approval		
Plan Name	*Document No*	*Date*
Coles Kingaroy Landscape Concept Design Report	*740 SD_LR001_C*	*6 February 2026*
Response to Information Request for Combined Application for Material Change of Use for Shopping Centre, Reconfiguring a Lot for Subdivision (1 Lot into 2 Lots) & Operational Works (Earthworks)	*CIV3849*	*9 March 2026*

Table 3			
Condition		Timing	Purpose/Reason
1	Carry out the approved development generally in accordance with the approved plans and documents outlined within Table 1 and 2 of this approval and the following: ▪ The specifications, facts and circumstances as set out in the development application submitted to Ergon; and	At all times	To ensure the development is carried out generally in accordance with the plans of development submitted within the application

	▪ Where a discrepancy or conflict exists between the written conditions of the approval and the approved plans, the requirements of the written conditions prevail		
2	Any alterations to the plans and document(s) identified within Table 1 and 2 of this response are to be resubmitted to Ergon for comment	At all times	To ensure the development is carried out generally in accordance with the plans of development submitted within the application
3	Earthworks within 5m of the electricity pole are to be supervised by a geotechnical engineer as stated in the Contour Civil report, reference CIV3849	At all times	To ensure the safe and efficient operation of the supply network.
4	Changes in ground levels relevant to the overhead electricity infrastructure are supported in principle. Submit to Ergon for review and approval detailed civil design drawings. *Note -* *Changes in ground levels near overhead electricity infrastructure must maintain compliance with the requirements of the Electrical Safety Regulation 2013.*	Prior to commencement of works	To ensure the safe and efficient operation of the supply network.
5	No buildings, structures or retaining walls are approved within Easement A RP193139	At all times	To ensure the safe and efficient operation of the supply network.
6	Services proposed within Easement A RP193139 are to be designed to comply with the following:	Prior to commencement of works	To ensure the safe and efficient operation of the supply network.

	▪ services are to be aligned to the outer extremity of the easement; ▪ where services cross the easement, they are to be done so at 90 degrees to the overhead conductor(s); ▪ services are not to be located within 10 metres of a pole or stay; ▪ services are to be designed and constructed to support the movements of a 36 tonne vehicle. Submit to Ergon for final review and approval detailed civil design plans detailing all proposed service alignments relevant to Easement A RP193139		
7	Landscaping works within Easement A RP193139 are supported in principle. Submit to Ergon for review and approval detailed landscape design plans which reflect the outputs of the approved landscape concept plan. Submitted plans are to include the location of towers/ poles and overhead conductors (accounting for crossarms where applicable) and	Prior to commencement of works	To ensure the safe and efficient operation of the supply network.

	proposed planting exclusion zones.		

General Advice:

- Compliance with the *Electrical Safety Act 2002*, including any Code of Practice under the Act and the *Electrical Safety Regulation 2013* including any safety exclusion zones defined in the Regulation is mandatory

  Should any doubt exist in maintaining the prescribed clearance to the overhead conductors and electrical infrastructure then the applicant is obliged under the Act to seek advice from Ergon.

- Any costs incurred by Ergon as a result of the works on the easement are to be met by the property Developer / owner.

- This response does not constitute an approval to commence any works within the easement. Consent to commence works relevant to the conditions of the easement is required. All works on easement (including but not limited to earthworks, drainage and detention basins, road construction, underground and overhead services installation) require detailed submissions, assessment, and consent (or otherwise) by Ergon.

- All works proposed to be undertaken in close proximity to overhead or underground electrical lines are to be undertaken in accordance with Ergons's Works Practice Manual WP1323. This document refers to various standards, guidelines, calculations, legal requirements, technical details, and other information relevant to working near high voltage infrastructure. A copy of WP1323 can be found online via Ergon's document library (Document library | Ergon).

Should you require any further information on the above matter, please contact Tammara Scott on 0492 137 878 or via email at townplanning@ergon.com.au.

Yours faithfully,



Tammara Scott
Town Planner

Chapter 6 Dispute resolution

Part 1 Appeal rights

229 Appeals to tribunal or P&E Court

(1) Schedule 1 of the *Planning Act 2016* states –
  (a) Matters that may be appealed to –
    (i) either a tribunal or the P&E Court; or
    (ii) only a tribunal; or
    (iii) only the P&E Court; and
  (b) The person-
    (i) who may appeal a matter (**the *appellant***); and
    (ii) who is a respondent in an appeal of the matter; and
    (iii) who is a co-respondent in an appeal of the matter; and
    (iv) who may elect to be a co-respondent in an appeal of the matter.

(Refer to Schedule 1 of the Planning Act 2016)

(2) An appellant may start an appeal within the appeal period.
(3) The ***appeal period*** is –
  (a) for an appeal by a building advisory agency – 10 business days after a decision notice for the decision is given to the agency; or
  (b) for an appeal against a deemed refusal – at any time after the deemed refusal happens; or
  (c) for an appeal against a decision of the Minister, under chapter 7, part 4, to register premises or to renew the registration of premises – 20 business days after a notice us published under section 269(3)(a) or (4); or
  (d) for an appeal against an infrastructure charges notice – 20 business days after the infrastructure charges notice is given to the person; or
  (e) for an appeal about a deemed approval of a development application for which a decision notice has not been given – 30 business days after the applicant gives the deemed approval notice to the assessment manager; or
  (f) for any other appeal – 20 business days after a notice of the decision for the matter, including an enforcement notice, is given to the person.

  Note –
  See the P&E Court Act for the court's power to extend the appeal period.

(4) Each respondent and co-respondent for an appeal may be heard in the appeal.
(5) If an appeal is only about a referral agency's response, the assessment manager may apply to the tribunal or P&E Court to withdraw from the appeal.
(6) To remove any doubt. It is declared that an appeal against an infrastructure charges notice must not be about-
  (a) the adopted charge itself; or
  (b) for a decision about an offset or refund-
    (i) the establishment cost of trunk infrastructure identified in a LGIP; or
    (ii) the cost of infrastructure decided using the method included in the local government's charges resolution.

230 Notice of appeal

(1) An appellant starts an appeal by lodging, with the registrar of the tribunal or P&E Court, a notice of appeal that-
  (a) is in the approved form; and
  (b) succinctly states the grounds of the appeal.
(2) The notice of appeal must be accompanied by the required fee.
(3) The appellant or, for an appeal to a tribunal, the registrar must, within the service period, give a copy of the notice of appeal to –
  (a) the respondent for the appeal ; and
  (b) each co-respondent for the appeal; and
  (c) for an appeal about a development application under schedule 1, table 1, item 1 – each principal submitter for the development application; and
  (d) for and appeal about a change application under schedule 1, table 1, item 2 – each principal submitter for the change application; and
  (e) each person who may elect to become a co-respondent for the appeal, other than an eligible submitter who is not a principal submitter in an appeal under paragraph (c) or (d); and
  (f) for an appeal to the P&E Court – the chief executive; and
  (g) for an appeal to a tribunal under another Act – any other person who the registrar considers appropriate.
(4) The *service period* is –
  (a) if a submitter or advice agency started the appeal in the P&E Court – 2 business days after the appeal has started; or
  (b) otherwise – 10 business days after the appeal is started.
(5) A notice of appeal given to a person who may elect to be a co-respondent must state the effect of subsection (6).
(6) A person elects to be a co-respondent by filing a notice of election, in the approved form, within 10 business days after the notice of appeal is given to the person.

231 Other appeals

(1) Subject to this chapter, schedule 1 and the P&E Court Act, unless the Supreme Court decides a decision or other matter under this Act is affected by jurisdictional error, the decision or matter is non-appealable.
(2) The *Judicial Review Act 1991*, part 5 applies to the decision or matter to the extent it is affected by jurisdictional error.
(3) A person who, but for subsection (1) could have made an application under the Judicial Review Act 1991 in relation to the decision or matter, may apply under part 4 of that Act for a statement of reasons in relation to the decision or matter.
(4) In this section –
  decision includes-
  (a) conduct engaged in for the purpose of making a decision; and
  (b) other conduct that relates to the making of a decision; and
  (c) the making of a decision or failure to make a decision; and
  (d) a purported decision ; and
  (e) a deemed refusal.
  non-appealable, for a decision or matter, means the decision or matter-
  (a) is final and conclusive; and
  (b) may not be challenged, appealed against, reviewed, quashed, set aside or called into question in any other way under the Judicial Review Act 1991 or otherwise, whether by the Supreme Court, another court, a tribunal or another entity; and
  (c) is not subject to any declaratory, injunctive or other order of the Supreme Court, another court, a tribunal or another entity on any ground.

232 Rules of the P&E Court

(1) A person who is appealing to the P&E Court must comply with the rules of the court that apply to the appeal.
However, the P&E Court may hear and decide an appeal even if the person has not complied with the rules of the P&E Court.