CIVIL ENGINEERING REPORT

CHILDCARE CENTRE AND SWIM SCHOOL DEVELOPMENT
FLAGSTONIAN DRIVE, FLAGSTONE

Prepared By:

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Level 5
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4066 • Australia

6 May 2022

REVISION STATUS

MPN Reference No:	9337
Client:	Satara Investments Australia
Site Address:	Flagstonian Drive Flagstone
Report Title:	Civil Engineering Report

DOCUMENT CONTROL

Version	Date	Author	Reviewer	Approved	RPEQ
Issue A	06/05/2022	Lachlan Stephenson	Sam Rowen		16903

EXECUTIVE SUMMARY

This report has been commissioned by Satara Investments Australia in support of the Development Application for the proposed childcare centre and swim school development on land located at Flagstonian Drive Flagstone.

This report addresses the following Engineering aspects of the proposed development:

- Topography
- Water
- Sewer
- Roadworks
- Earthworks
- Electricity and Telecommunications
- Gas
- Codes.

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1 PURPOSE

This Civil Engineering Report has been prepared in support of the proposed childcare centre and swim school development at Flagstonian Drive Flagstone.

2 INTRODUCTION

2.1 Project Description

The current proposal involves the construction of a new, single storey childcare centre with on grade car parking and outdoor play areas and a new swim school.

Pedestrian access into the site will be from the external road network beside both the childcare and the swim school.

The proposed development is depicted on the architectural plans prepared by Alto Architecture attached in Appendix 1, with excerpt below.

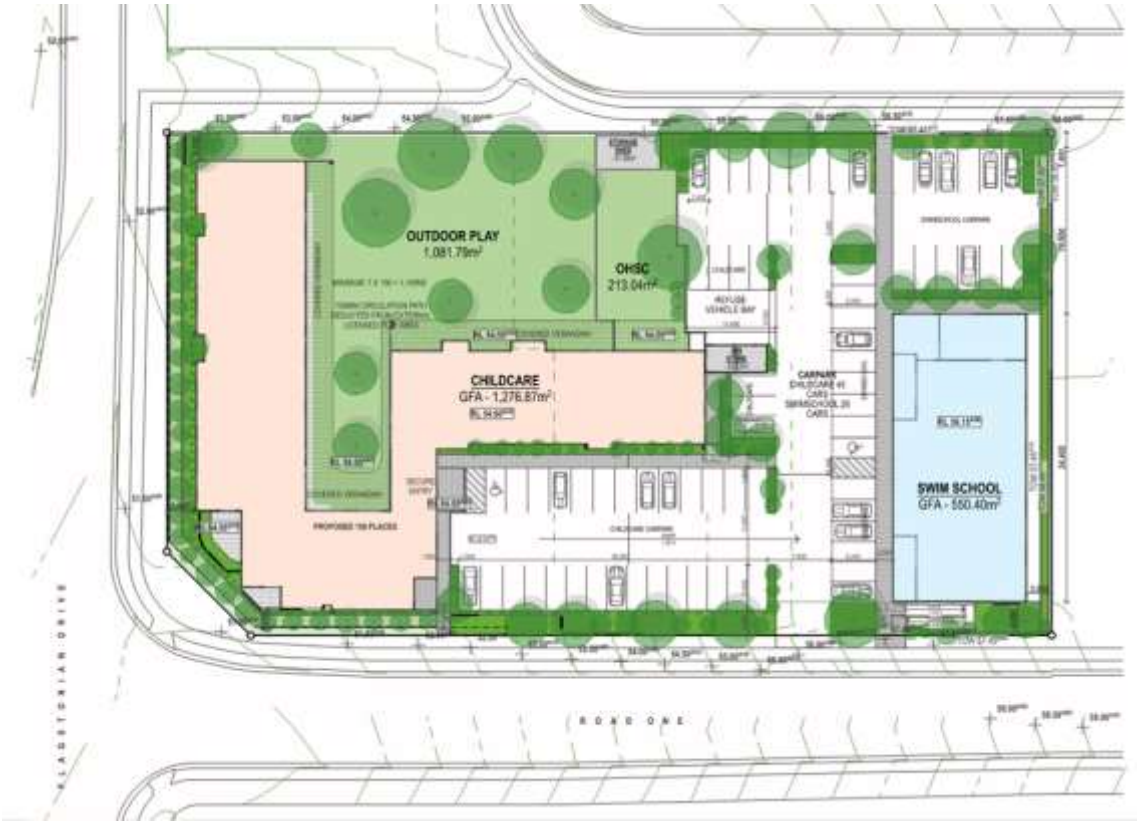

Figure 1 – Proposed Development

3 SITE CHARACTERISTICS

3.1 Site location

The site is located at Flagstonian Drive, Flagstone and is formally known as lot 905 Flagstonian Drive.

The site is bounded by Flagstonian Drive to the west, public roads to the north and south and existing residential allotments to the east.

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Figure 2 – Site Location

3.2 Topography and Existing Site Drainage

The site is currently vacant having recently undergone allotment earthworks and retaining construction.

The site generally falls to the west and south west towards Flagstonian Drive.

Stormwater runoff from the existing site sheet flows across the site to the south west and into the existing stormwater pits on the western and southern site frontage before discharge to the road reserve.

There are no external upstream catchments which drain through the site.

4 SITE DATA

Site data has been obtained from the following sources of information:

- As constructed data
- Dial Before You Dig (DBYD)
- Discussions with relevant authorities
- Logan City Council
- Logan City Council GIS Mapping
- EDQ
- Relevant reports
- Satellite imagery
- Site survey
- Site inspection

5 STORMWATER

A site-based Stormwater Management Plan has been completed for the development and will be lodged under separate cover.

6 WATER SUPPLY

Inspection of the water network from As Constructed plans shows the following services in the vicinity of the site:

- An existing 150mm PVC water main running east to west along the southern verge of Road 1 to the south of the site;
- An existing 250mm PVC water main running north to south along the eastern verge of Flagstonian Drive; and
- An existing 150mm property connection from the main in Road 1 located central to the southern boundary of the site.

It is proposed to utilise the existing connection to the site subject to confirmation by the hydraulic consultant.

The connection size will be confirmed in consultation with Logan Water and the hydraulic consultant during the detailed design stage.

The existing and proposed water infrastructure in the vicinity of the site is shown on MPN Plan 9337 – DA.04 attached in Appendix 2.

7 SEWER

Inspection of the sewer network from As Constructed plans shows the following services in the vicinity of the site:

- An existing 150mm PVC sewer main east to west along the northern verge of Road 1 to the south of the site; and
- An existing 150mm property connection from the main in Road 1 located central to the southern boundary of the site.

It is proposed to utilise the existing connection to the site subject to confirmation by the hydraulic consultant.

The connection size will be confirmed in consultation with Logan Water and the hydraulic consultant during the detailed design stage.

The proposed sewer system is shown on MPN Plan 9337 – DA.04 attached in Appendix 2.

8 ROADWORKS

The development will be accessed via a new driveway crossover off Road 1 to the south of the site. Minor verge works will be required for the site access due to the current verge grades.

A traffic report discussing the access arrangements and traffic requirements of the proposed development has been prepared by QTraffic under separate cover.

The proposed internal car parking layout is shown on the Architectural Plans prepared by Alto Architects attached in Appendix 1.

All roadworks and car parks will be designed and constructed in accordance with the relevant Logan City Council and Australian Standards.

9 EARTHWORKS

The proposed development site has recently undergone earthworks and retaining wall construction to provide a level area for the future building pad and landscaped/play areas. Additional minor earthworks will be required to create the specific grading required for the car park areas and site specific pad levels for the buildings.

The design and construction of the earthworks will be undertaken in accordance with the recommendations of AS 3798 – Guidelines on Earthworks for Commercial and Residential Developments.

Any excavated material not suitable for reuse as fill will be removed from the site and disposed of appropriately in an approved landfill.

All filling operations will be completed under level 1 geotechnical supervision.

A preliminary bulk earthworks layout and sections are shown on MPN Plans 9337–DA.01-02 attached in Appendix 2.

As no excavations are proposed to expose subsoil at or below RL 5.0m, the development is not subject to the State Planning Policy July 2017 and consequently, will not require an Acid Sulfate Soil investigation to be undertaken as part of the Development Application.

10 ELECTRICITY AND COMMUNICATIONS

The development will be serviced for electricity and telecommunications via new connections to the existing underground and overhead infrastructure in the roads bounding the site. The electricity and telecommunications services will need to be connected to the internal network to provide the required level of service in accordance with the appropriate authority and Australian standards.

11 GAS

There are no gas mains in the vicinity of the site. If gas is required to service the proposed development, APA will need to be contacted to arrange a connection.

12 CODES

The following Logan City Council Code have been addressed as part of this development.

- Filling and excavation
- Infrastructure

The code responses are attached in Appendix 3.

13 CONCLUSION

This Civil Engineering Report demonstrates that under the proposed plans, the development will be adequately serviced for sewer and water from the proposed connections to the infrastructure mains. Electricity and telecommunications will be provided to the development with connections undertaken in accordance with the requirements of the relevant authorities.

A new water meter and connection to the existing water main in Road 1 will be installed to service the development.

The development site sewer will discharge to the new property sewer connection located centrally to the southern boundary.

The development will be accessed via a new driveway crossover off Road 1 to the south of the site.

The development will be serviced for electricity and telecommunications via new connections to the existing underground infrastructure in the roads bounding the site.

Roadworks completed on site will be undertaken in accordance with the relevant Logan City Council and Australian Standards.

As no excavation is proposed to expose subsoil at or below RL 5.0m, the development would not be subject to the State Planning Policy July 2017 and consequently there is no requirement for an Acid Sulfate Soil investigation to be undertaken as part of the Development Application.

If gas is required to service the development, APA will need to be contacted to arrange a connection to the site.

14 LIMITATIONS OF REPORT

MPN have prepared this report for the proposed development at Flagstonian Drive, Flagstone in accordance with MPN's proposal to Satara Investments Australia. This report is provided for the exclusive use of Satara Investments Australia for this specific project and its requirements. It should not be used or relied upon by a third party and MPN accept no responsibility for the use of this report by any party other than Satara Investments Australia.

Appendix 1
Architectural Plans

Perspective View from the corner of Flagstonian Drive & 'Road One'

Flagstonian Drive Flagstone QLD 4280 AUSTRALIA

Stage 2Di Lot 905

TOWN PLANNING SUBMISSION

PROJECT SUMMARY

Site Area	6,282m^2
Proposed Development	Childcare Centre & Swimschool
Carparking	Childcare: Drop-off 19 car spaces Staff: 26 car spaces Swimschool: 26 car spaces
New GFA	Childcare Centre 1,277m^2 Swimschool 550m^2
Proposed Site Cover	2,210m^2 (35%) includes covered verandahs, entry awning & bin store
Road Frontage	159.7m
Cross-over Width	6.5m
Impervious Area	4,374m^2

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DATE ISSUE DETAILS
16/05/22 A Town Planning Lodgement

PROJECT NAME:
Proposed Childcare Centre & Swimschool

ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO. TP-000
Scale @ **A3 -**
200908FLA-Master 21.pln

LAYOUT NAME Cover Page

ISSUE NO. **P6**
200908FLA
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LOCALITY KEY

1. PROPOSED SITE
   CHILDCARE & SWIM SCHOOL
2. NEW RESIDENTIAL SUBDIVISIONS
   SANDY CREEK
3.

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PROJECT NAME:
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ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO. TP-001
Scale @ **A3 - 00**
200908FLA-Master 21.pln

LAYOUT NAME Locality Plan

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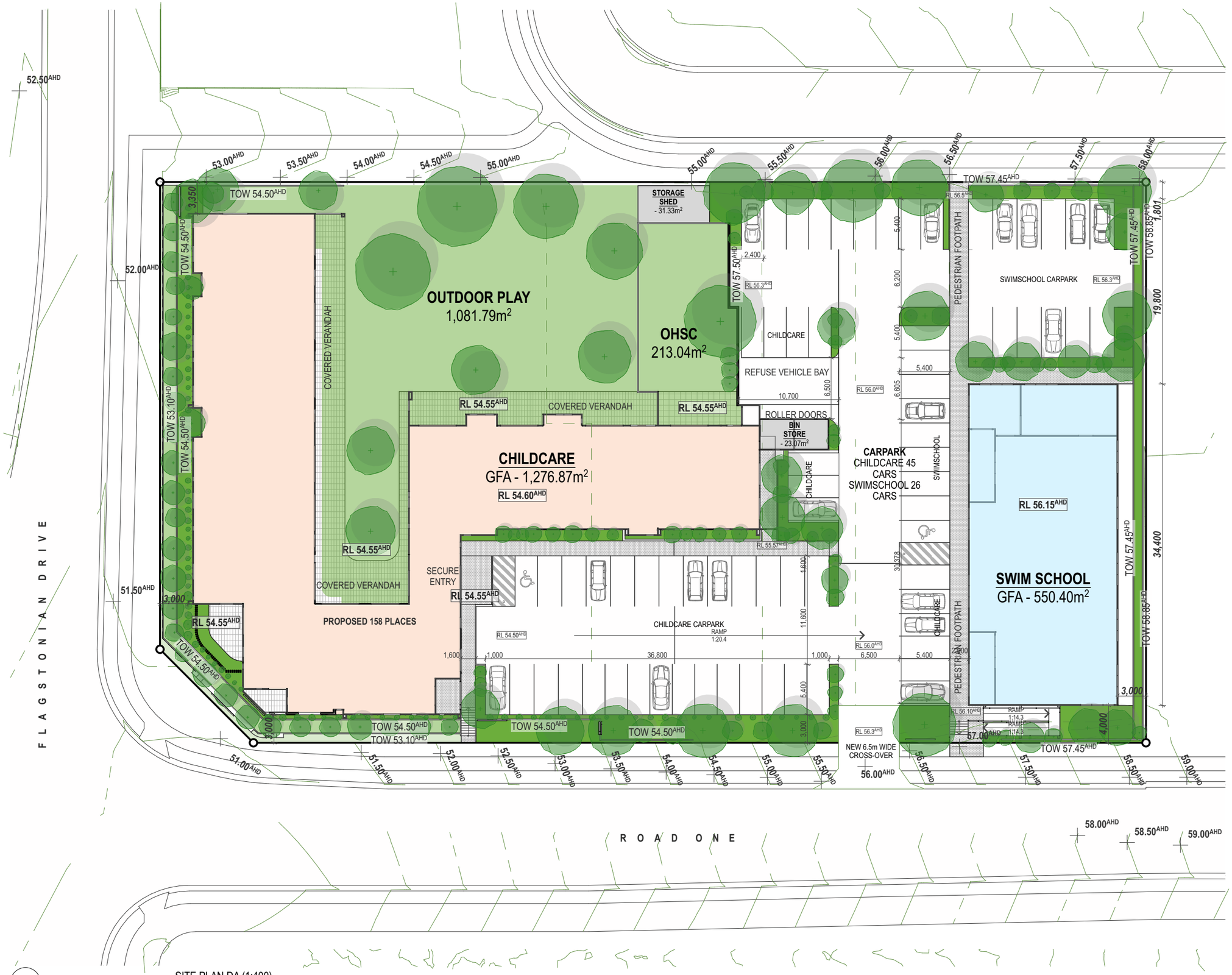
Printed : 13/5/22



1 SITE PLAN DA (1:400)
1:400

Project Statistics

Chidlcare Centre GFA:1,277m²

0-5 yrs: 158 Places
Out of Hours School Care: 30 places
Drop-Off Cars: 19 cars
Staff Cars: 26 cars
Total Carparks: 45 Cars

Swimschool GFA: 550m²

Swimschool Carparks: 26 Cars

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PROJECT NAME:
Proposed Childcare Centre & Swimschool

ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO. TP-100
LAYOUT NAME Site Plan
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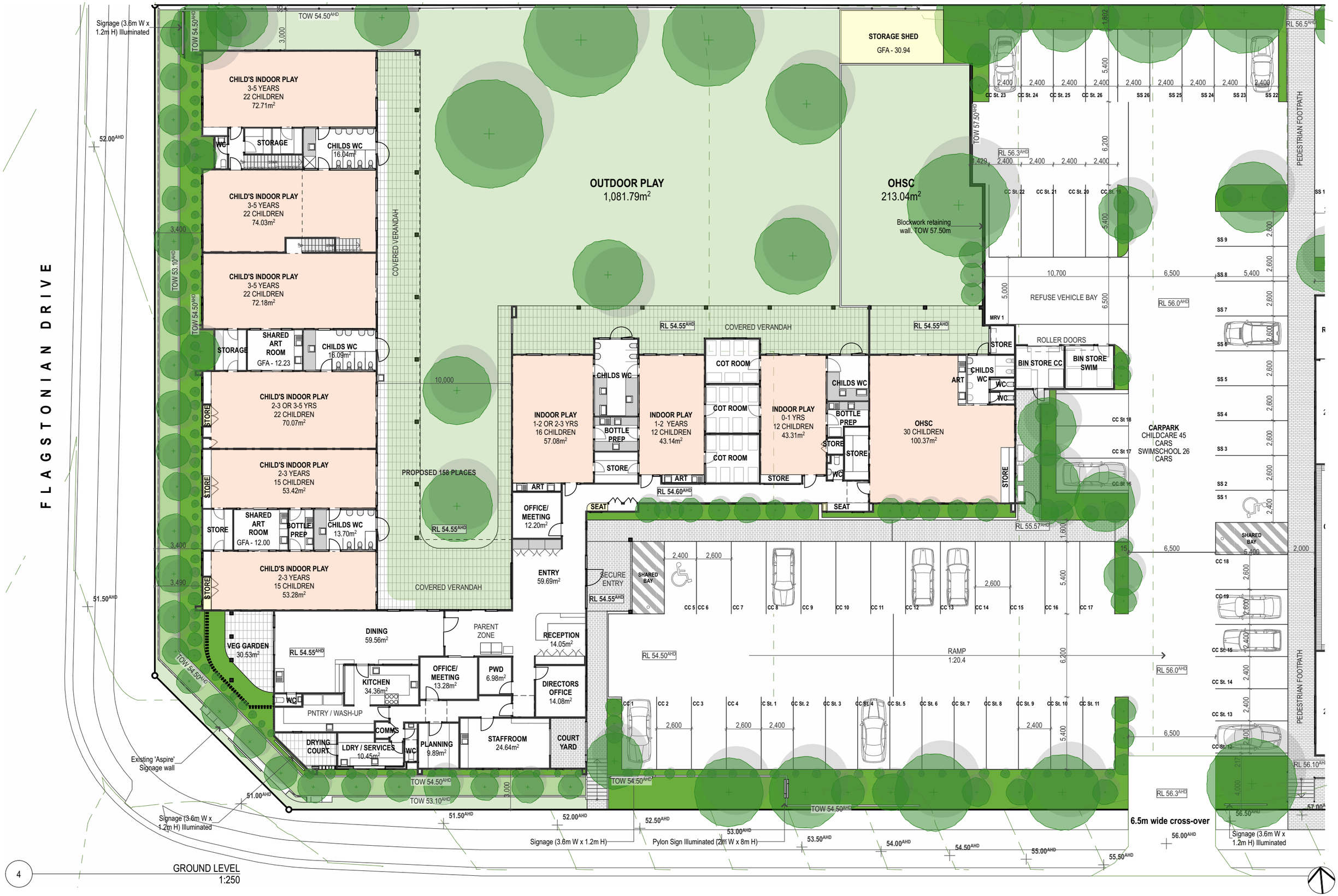

4 GROUND LEVEL
1:250

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PROJECT NAME:
Proposed Childcare Centre & Swimschool

ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO. TP-200
LAYOUT NAME Childcare Ground Plan
ISSUE NO. **P6**
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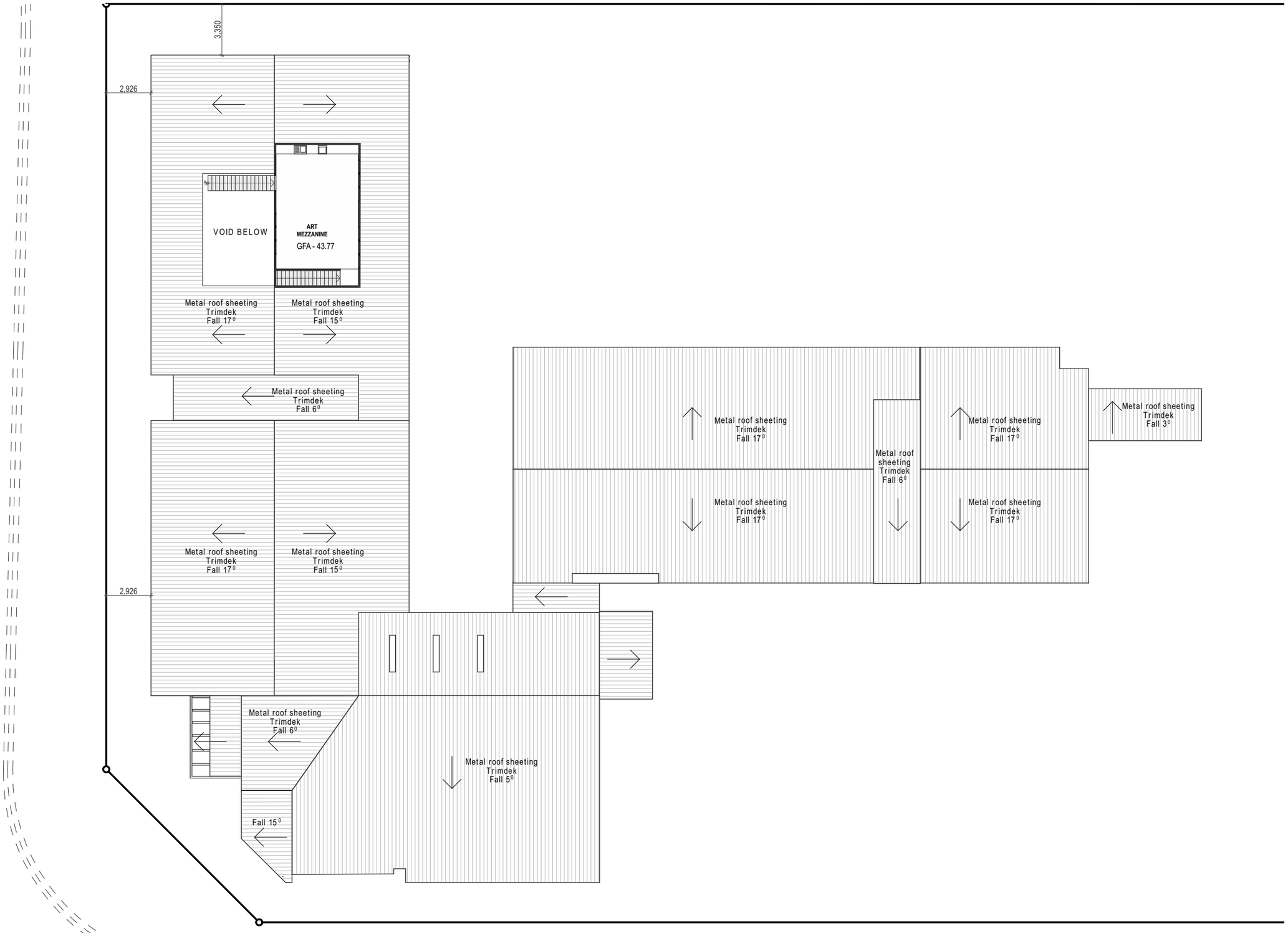
Printed : 13/5/22



1 LEVEL 01
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DATE ISSUE DETAILS
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PROJECT NAME:
Proposed Childcare Centre & Swimschool

ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO. TP-201
Scale @ **A3 - 0**
200908FLA-Master 21.pln

LAYOUT NAME Childcare Roof Plan

ISSUE NO. **P6**
200908FLA
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1 SWIMSCHOOL GROUND PLAN
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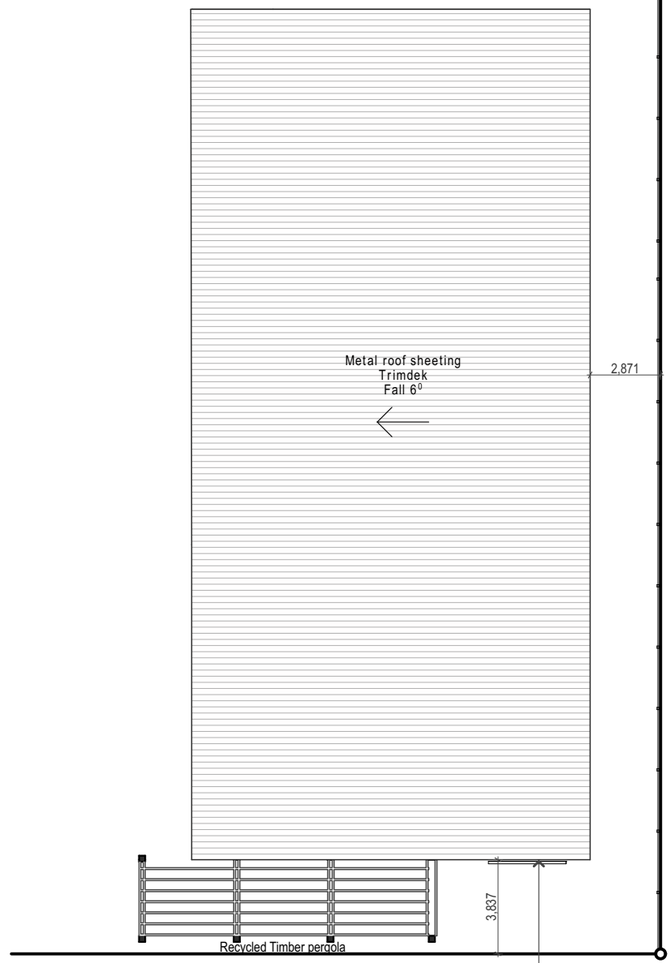

2 SWIM SCHOOL ROOF PLAN
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DATE ISSUE DETAILS
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PROJECT NAME:
Proposed Childcare Centre & Swimschool

ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO. TP-202
LAYOUT NAME SwimSchool Plan
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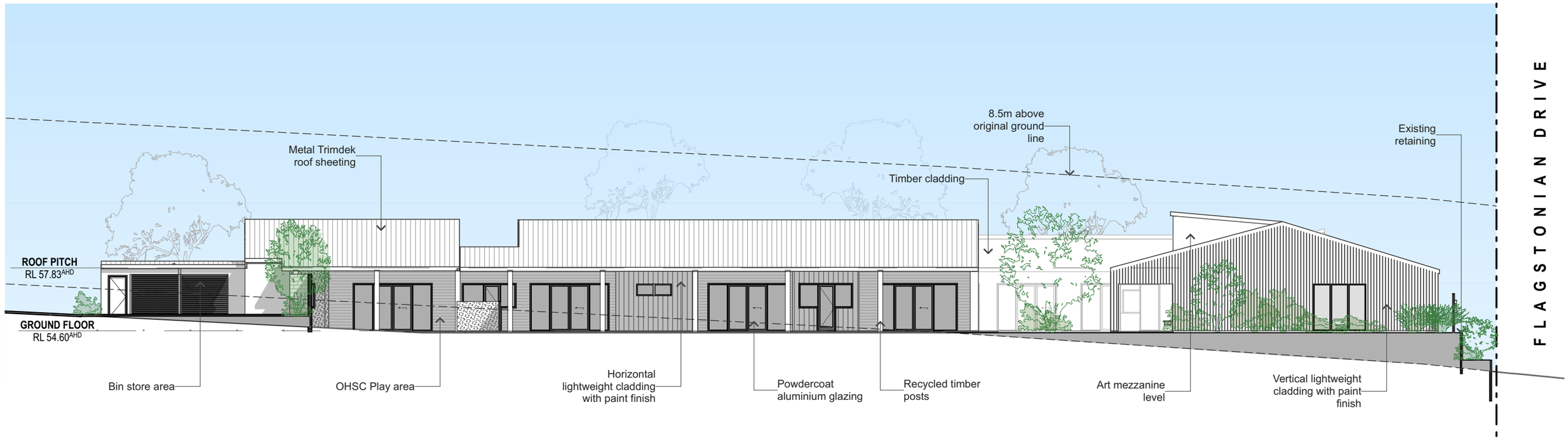

2 CHILDCARE CENTRE NORTH ELEVATION
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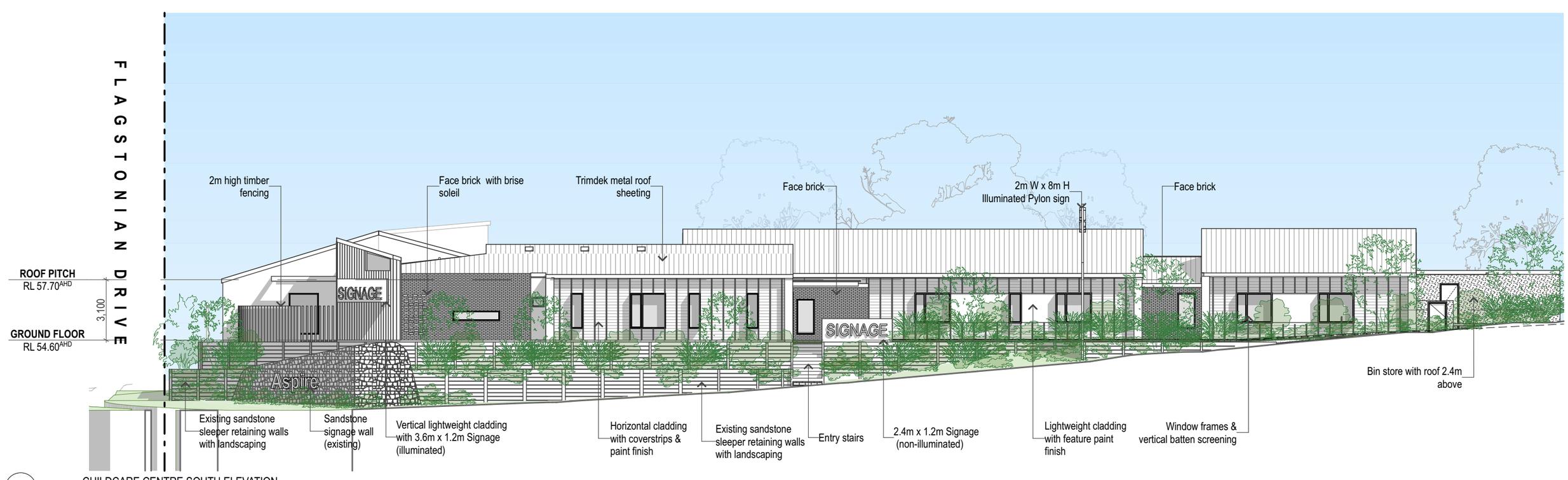

1 CHILDCARE CENTRE SOUTH ELEVATION
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PROJECT NAME:
Proposed Childcare Centre & Swimschool

ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO. TP-400
LAYOUT NAME Childcare North & South Elevation
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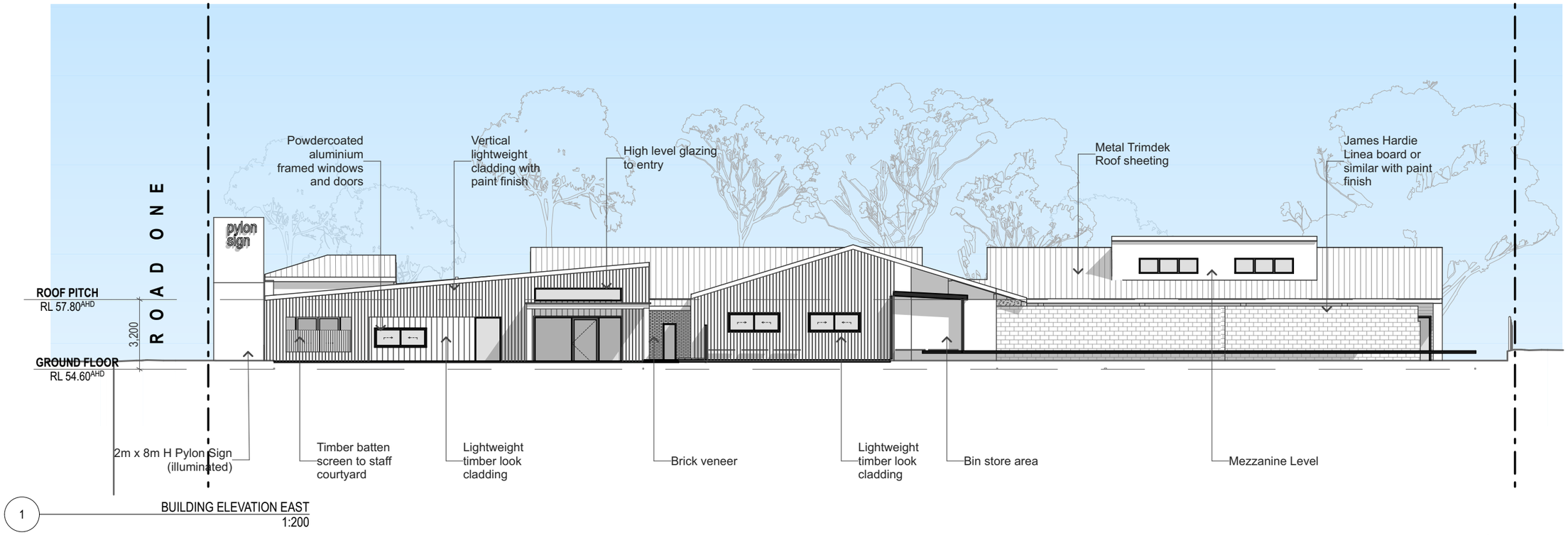
Printed : 13/5/22



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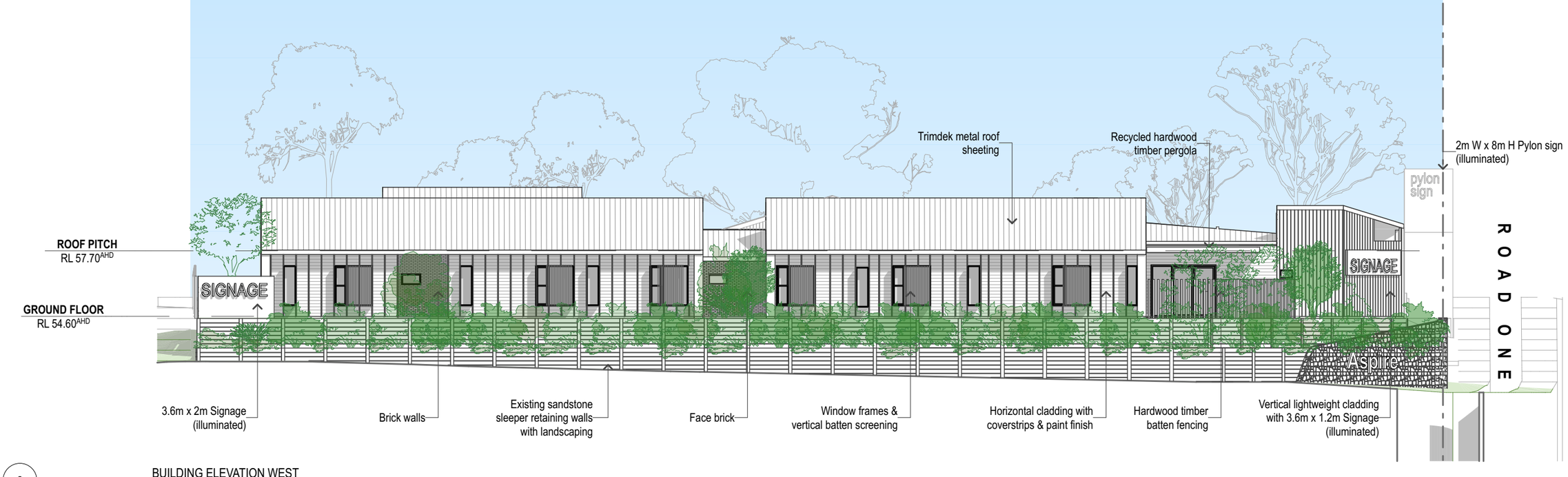

2 BUILDING ELEVATION WEST
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DATE ISSUE DETAILS
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PROJECT NAME:
Proposed Childcare Centre & Swimschool

ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO. TP-401
LAYOUT NAME Childcare East & West Elevation
ISSUE NO. **P6**
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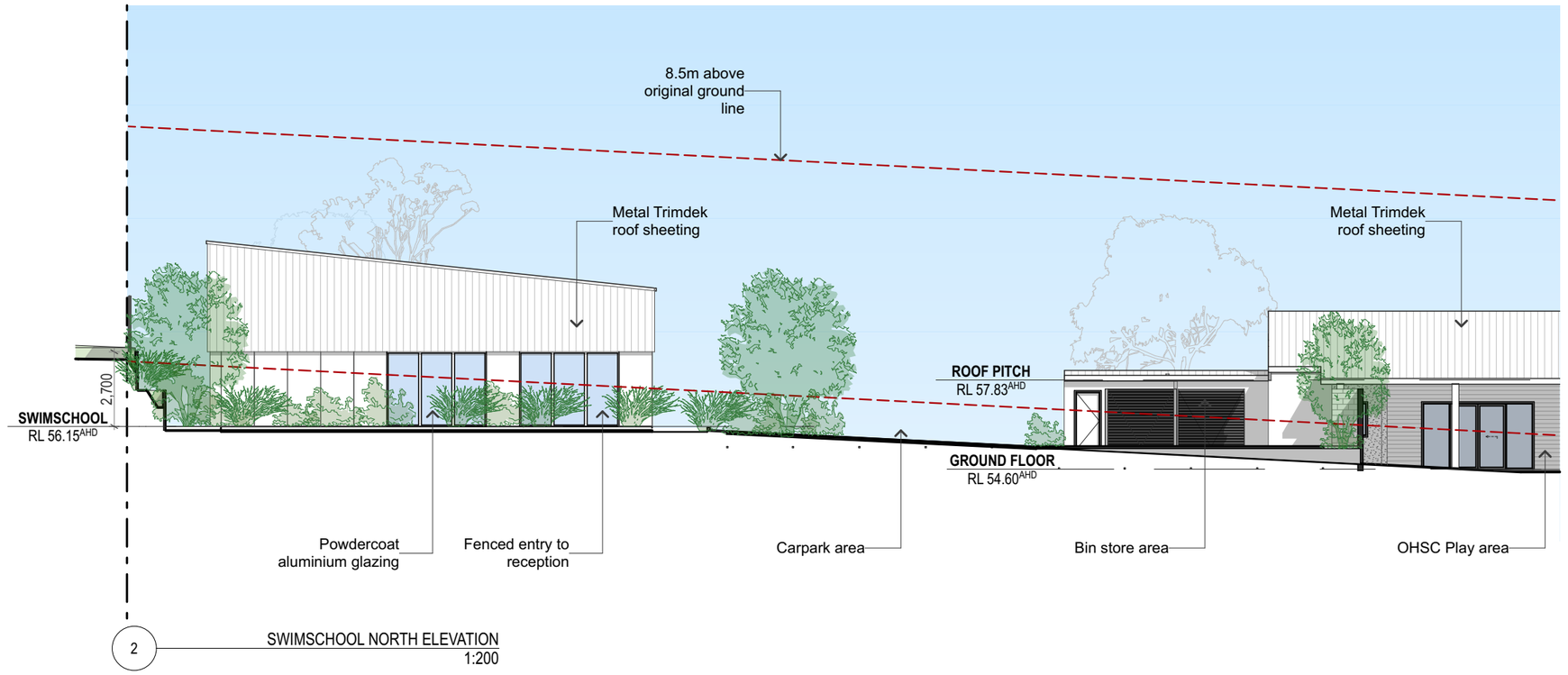
Printed : 13/5/22



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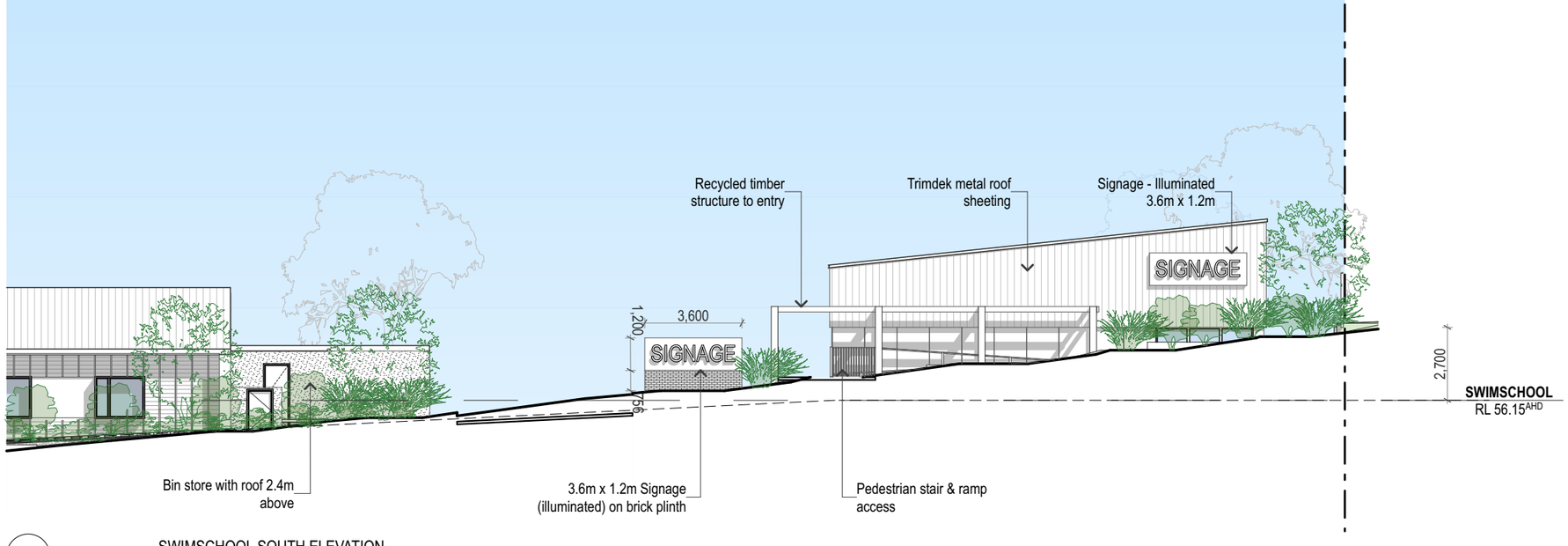

1 SWIMSCHOOL SOUTH ELEVATION
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PROJECT NAME:
Proposed Childcare Centre & Swimschool

ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO. TP-402
LAYOUT NAME Swimschool Elevations
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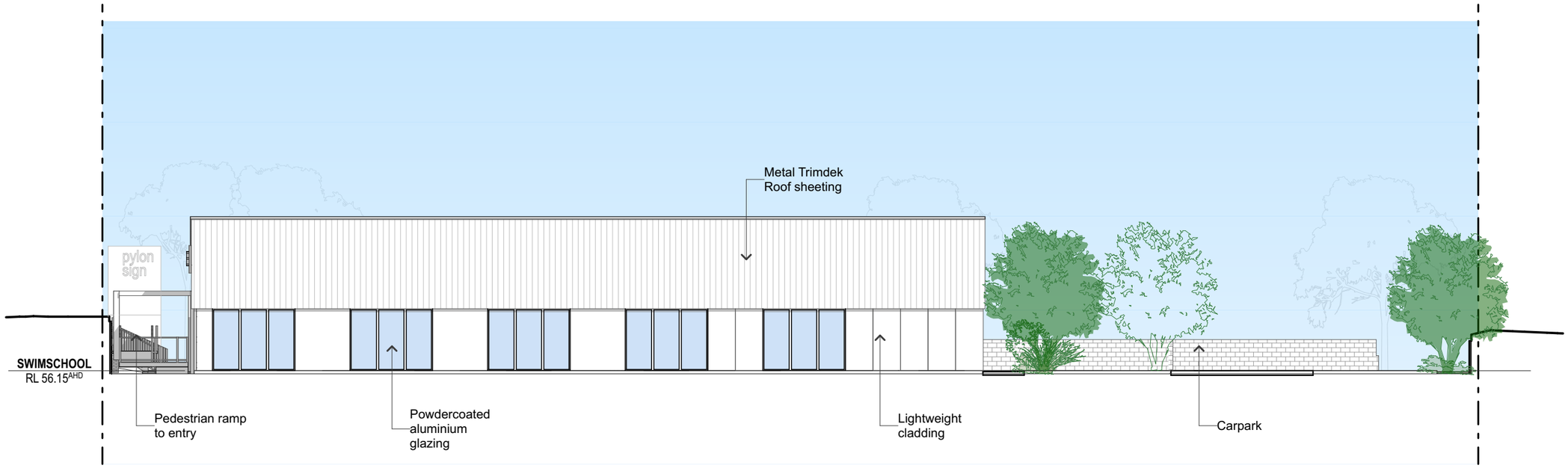

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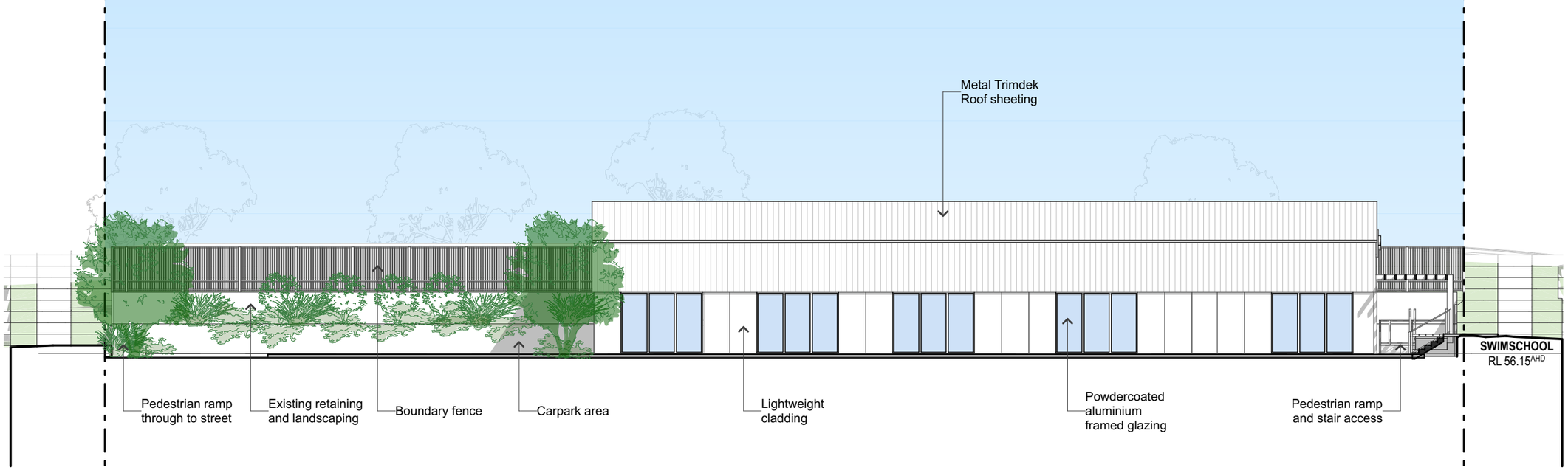

2 SWIMSCHOOL WEST ELEVATION
1:200

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PROJECT NAME:
Proposed Childcare Centre & Swimschool

ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO. TP-403
LAYOUT NAME Swimschool Elevations
ISSUE NO. **P6**
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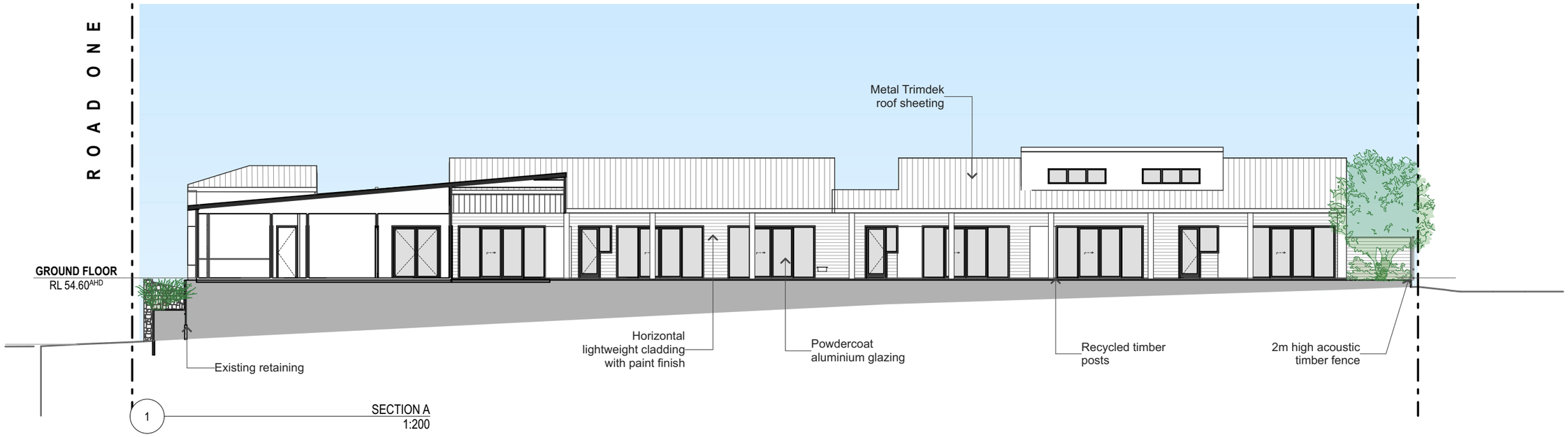

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ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO. TP-500
LAYOUT NAME Sections A & B
ISSUE NO. **P6**
Scale @ **A3 - 0**
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Perspective View from 'Road One'

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ADDRESS: Flagstonian Drive , Flagstone, QLD 4280

DRAWING NO. TP-901
LAYOUT NAME External 3D View
ISSUE NO. **P6**
Scale @ **A3 -**
200908FLA-Master 21.pln
200908FLA
Printed : 13/5/22

Appendix 2
MPN Plans

CAPRICORN STREET

COLLEGE DRIVE

FLAGSTONIAN DRIVE

CHILDCARE CARPARK

SWIM SCHOOL CARPARK

BIN STORAGE

CHILDCARE FFL 54.60

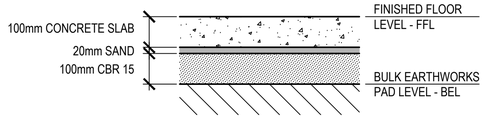
SWIM SCHOOL FFL 56.15

EXISTING RETAINING WALLS TO REMAIN

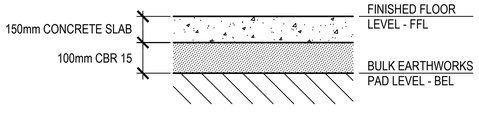
EXISTING RETAINING WALLS TO REMAIN

LEGEND

EXISTING		PROPOSED
	PROPERTY BOUNDARY	
5.00	CONTOUR	5.00
	BUILDING	
	CONCRETE	
	EDGE OF BITUMEN	
	KERB	
	KERB AND CHANNEL	
	KERB RAMP	
SW	STORM WATER MAIN	
RW	ROOFWATER	
W	WATER MAIN	
S	SEWER MAIN	
T	TELECOMMUNICATIONS	
E	U/G ELECTRICITY	
	O/H ELECTRICITY	
	FENCE	
RET — WALL	RETAINING WALL	RET — WALL
	TOP OF BATTER	
	FACE OF BATTER	
	TOE OF BATTER	
	SWALE DRAIN	
	BULK EARTHWORKS LEVEL	BE 22.22
	TREE	
	BOREHOLE	BH1
	TEST PIT	TP1
	CUT AREA	
	FILL AREA	



BUILDING WORKING PLATFORM DETAIL
N.T.S.



CAR PARK WORKING PLATFORM DETAIL
N.T.S.

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NOT FOR CONSTRUCTION

ISSUE	DATE	AMENDMENT	BY	APP
A	10.05.22	PRELIMINARY ISSUE	VL	LS

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CLIENT:
C/- TOWN PLANNING ALLIANCE

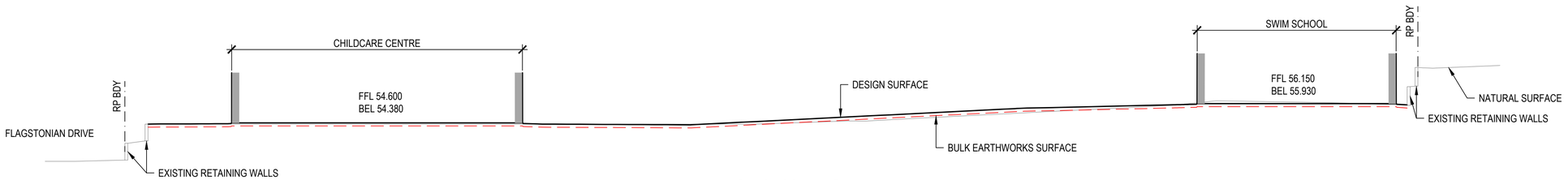
CHILDCARE CENTRE AND SWIM SCHOOL DEVELOPMENT
LOT 905 FLAGSTONIAN DRIVE
FLAGSTONE, QLD 4280

BULK EARTHWORKS PLAN

DESIGN: JB	DRAWN: VL	SCALES: AS SHOWN
CHKD:	APPRD:	DATE:

mpn JOB	DRAWING No.	REV
9337	DA.01	A

PRELIMINARY



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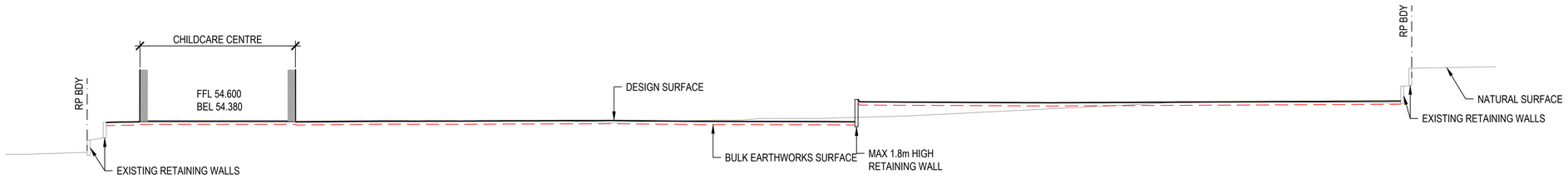

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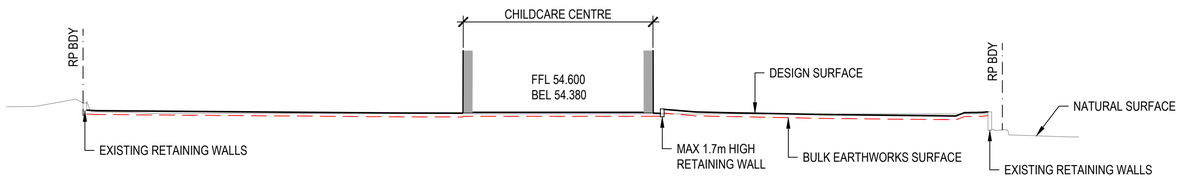

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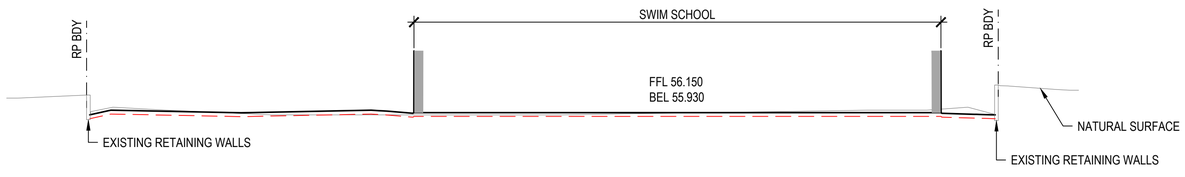

SECTION D
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NOT FOR CONSTRUCTION

ISSUE	DATE	AMENDMENT	BY	APP
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CLIENT:
C/- TOWN PLANNING ALLIANCE

CHILDCARE CENTRE AND SWIM SCHOOL DEVELOPMENT
LOT 905 FLAGSTONIAN DRIVE
FLAGSTONE, QLD 4280

BULK EARTHWORKS SECTIONS

DESIGN: JB	DRAWN: VL	SCALES: AS SHOWN
CHKD:	APPRD:	DATE:

mpn JOB	DRAWING No.	REV
9337	DA.02	A

PRELIMINARY

CAPRICORN STREET

FLAGSTONIAN DRIVE

COLLEGE DRIVE

LANDSCAPE

CHILDCARE CARPARK

SWIM SCHOOL CARPARK

BIN STORAGE

CHILDCARE FFL 54.60

ROOF

ROAD

SWIM SCHOOL FFL 56.15

FIELD INLET PIT WITH OCEANGUARD

FIELD INLET PIT WITH OCEANGUARD

FIELD INLET PIT WITH OCEANGUARD

EXISTING FIELD INLET TO BE CONVERTED TO KERB IN LINE GULLY

GULLY PIT SL 51.32

USIL 49.185 DSIL 49.045

USIL49.66 DSIL 49.305

SL 54.44

SL 54.56

USIL 52.9

GULLY PIT SL 50.745

USIL49.415 DSIL 49.2

GULLY PIT DSIL 52.525

USIL52.9 DSIL 52.525

SL 53.875

USIL 52.455 DSIL 52.285

USIL 52.23 DSIL 48.56

USIL 49.415

TBx2

REDUCER

TEE

LEGEND

EXISTING		PROPOSED
	PROPERTY BOUNDARY	
5.00	CONTOUR	5.00
	BUILDING	
	CONCRETE	
	EDGE OF BITUMEN	
	KERB	
	KERB AND CHANNEL	
SW	STORM WATER MAIN	
W	WATER MAIN	
T	TELECOMMUNICATIONS	
E	U/G ELECTRICITY	
	O/H ELECTRICITY	
	FENCE	
RET WALL	RETAINING WALL	RET WALL
	SWALE DRAIN	
	CONCRETE CHANNEL	
	SUBSOIL DRAIN	
	FINISHED SURFACE LEVEL	FSL 22.22
	ROOF AREA	
	ROAD AREA	
	LANDSCAPE AREA	

TREATMENT TABLE

MUSIC NODE	TREATMENT TYPE	CATCHMENT AREA (Ha)	IMPERVIOUS AREA (%)
ROOF	OFFSITE	0.226	100
LANDSCAPE	OFFSITE	0.182	30
ROAD	OFFSITE	0.220	100
TOTAL		0.628	

0 2 4 6 8 10

SCALE 1:200 (A1) 1:400 (A3)

NOT FOR CONSTRUCTION

ISSUE	DATE	AMENDMENT	BY	APP
A	10.05.22	PRELIMINARY ISSUE	VL	LS

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CHILDCARE CENTRE AND SWIM SCHOOL DEVELOPMENT

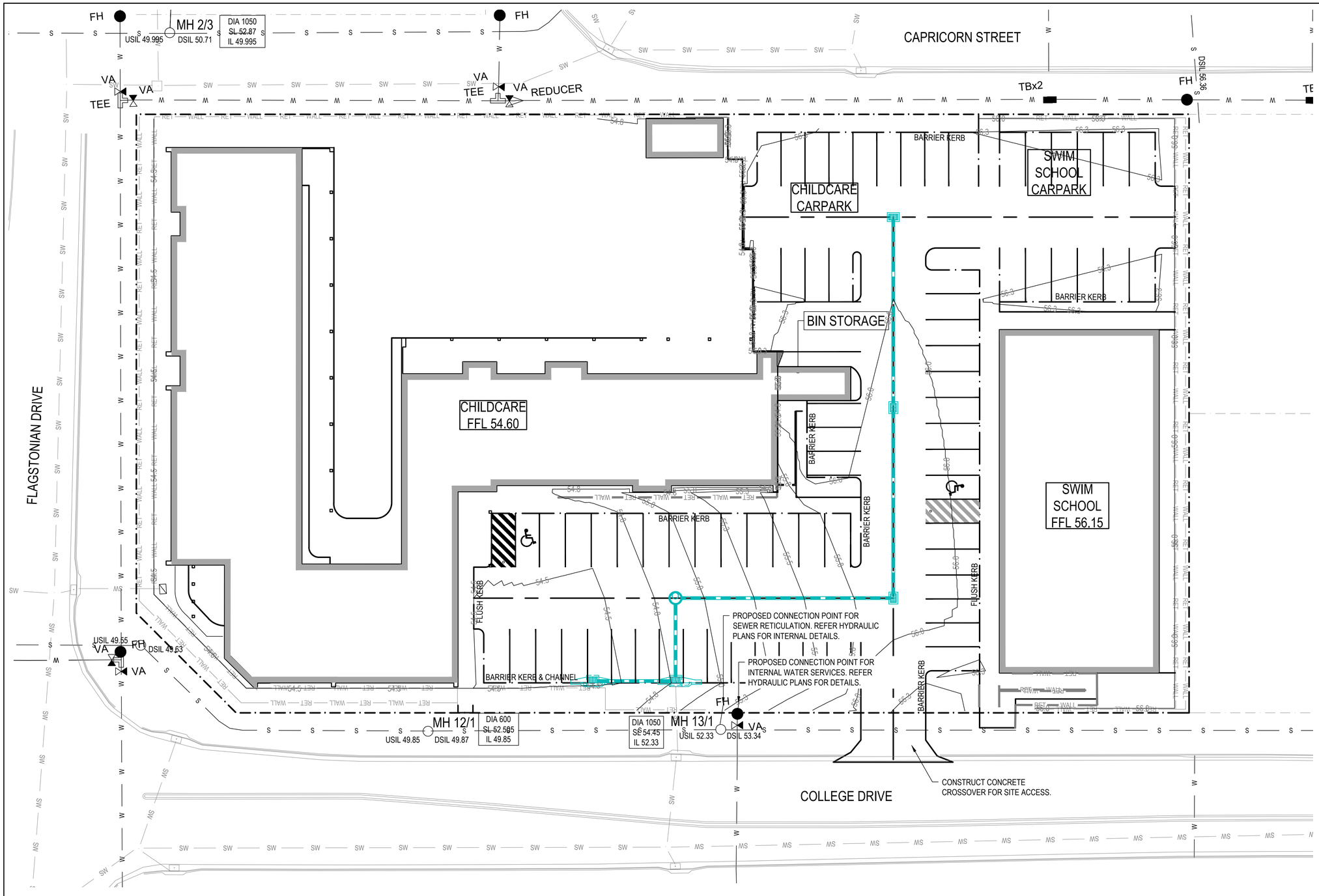
LOT 905 FLAGSTONIAN DRIVE
FLAGSTONE, QLD 4280

STORMWATER TREATMENT PLAN

DESIGN: JB	DRAWN: VL	SCALES: AS SHOWN
CHKD:	APPRD:	DATE:

mpn JOB	DRAWING No.	REV
9337	DA.03	A

PRELIMINARY



LEGEND

EXISTING		PROPOSED
	PROPERTY BOUNDARY	
	EASEMENT BOUNDARY	
5.00	CONTOUR	
	BUILDING	
	CONCRETE	
	KERB	
	KERB AND CHANNEL	
	KERB RAMP	
SW	STORM WATER MAIN	
SW	STORM WATER MANHOLE	
SW	STORM WATER GULLY PIT	
RW	ROOFWATER	
W	WATER	W
S	SEWER	S
S	SEWER MANHOLE	
G	GAS	
T	TELECOMMUNICATIONS	
E	U/GROUND ELECTRICITY	
	OVERHEAD ELECTRICITY	
X X	ABANDONED SERVICE	
	FENCE	
RET WALL	RETAINING WALL	RET WALL
	SWALE DRAIN	
	TREE	
	SERVICE TO BE ABANDONED	

N

0 1 2 3 4 5

SCALE 1:100 (A1) 1:200 (A3)

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ISSUE	DATE	AMENDMENT	BY	APP
A	10.05.22	PRELIMINARY ISSUE	VL	LS

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CHILDCARE CENTRE AND SWIM SCHOOL DEVELOPMENT

LOT 905 FLAGSTONIAN DRIVE
FLAGSTONE, QLD 4280

SERVICES CONNECTION PLAN

DESIGN: JB	DRAWN: VL	SCALES: AS SHOWN
CHKD:	APPRD:	DATE:

mpn JOB	DRAWING No.	REV
9337	DA.04	A

PRELIMINARY

Appendix 3
Code Responses

FILLING AND EXCAVATION CODE
Performance Criteria and Acceptable Solution
Child Care Centre and Swim School
Flagstonian Drive Flagstone
06 May 2022

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	RESPONSE
PO1 The discharge of sediments and pollutants from filling or excavation does not adversely affect a waterway or the stormwater network.	**AO1** The discharge of sediments and pollutants to a waterway or stormwater network complies with part 3.3—Filling and excavation standards in planning scheme policy 5—Infrastructure.	**RO1** Complies – Erosion and sediment control plans will be submitted and approved as part of an operational works application. The erosion and sediment control measures will comply with part 3.3-Filling and excavation standards in planning scheme policy 5-Infrastructure.
PO2 Topsoil and spoil stockpiled on the premises do not adversely affect natural processes and ecosystems.	**AO2** Topsoil and spoil is stockpiled to comply with part 3.3–Filling and excavation standards in planning scheme policy 5–Infrastructure.	**RO2** Complies – Topsoil and spoil will be stockpiled on site in accordance with part 3.3-Filling and excavation standards in planning scheme policy 5-Infrastructure. Earthworks plans will be submitted and approved as part of an operational works application.
PO3 Filling is carried out using stable, solid and clean earth, free of organic and putrescible waste, rubbish and refuse material.	**AO3** Filling complies with part 3.3–Filling and excavation standards in planning scheme policy 5–Infrastructure.	**RO3** Complies – All fill material used during the construction of the development will comply with part 3.3-Filling and excavation standards in planning scheme policy 5-Infrastructure. Earthworks plans will be submitted and approved as part of an operational works application.

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	RESPONSE
Protection of existing and planned infrastructure.		
PO4 Filling or excavation works do not adversely affect infrastructure, including any services.	**AO4** Filling or excavation works comply with part 3.3–Filling and excavation standards in planning scheme policy 5–Infrastructure.	**RO4** Complies – All filling and excavation works proposed as part of the development will comply with part 3.3-Filling and excavation standards in planning scheme policy 5-Infrastructure. Earthworks plans will be submitted and approved as part of an operational works application.
Protection and enhancement of personal health and safety and premises.		
PO5 Filling or excavation works do not adversely affect personal health and safety.	**AO5** Filling or excavation works comply with part 3.3–Filling and excavation standards in planning scheme policy 5–Infrastructure.	**RO5** Complies – All filling and excavation works proposed as part of the development will comply with part 3.3-Filling and excavation standards in planning scheme policy 5-Infrastructure. Earthworks plans will be submitted and approved as part of an operational works application.
Surface water flow		
PO6 Surface water drainage does not cause any of the following: a) ponding on any premises; or b) a hazard or adversely affect personal health and safety and premises; or c) diversion or concentration of flow from or onto adjoining premises or infrastructure.	**AO6** Surface water drainage complies with part 3.3–Filling or excavation standards in planning scheme policy 5–Infrastructure.	**RO6** Complies – All surface water drainage works proposed as part of the development will comply with part 3.3-Filling and excavation standards in planning scheme policy 5-Infrastructure. Earthworks plans will be submitted and approved as part of an operational works application.

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	RESPONSE
Batters		
PO7 A batter: a) does not adversely affect the natural physical processes and ecosystems; b) protects existing and planned infrastructure; c) is safe, stable and easily maintained; d) is landscaped to enhance visual amenity.	**AO7** A batter is designed and constructed to comply with the standards specified in section 3.3.6–Batters and retaining walls in planning scheme policy 5–Infrastructure.	**RO7** No new batters required on site
Retaining walls		
PO8 A retaining wall: a) is not constructed of timber and are not located on existing or proposed lot boundaries, or movement networks; b) does not adversely affect the natural physical processes and ecosystems; c) is located to avoid conflict with adjoining premises; d) is located such that existing and planned infrastructure is not adversely affected; e) protects the visual amenity of adjoining premises or a public open space; f) is located within the premises that is being filled; g) is located within the premises that is cut and is designed to take any surcharge loading allowable on the uphill lot; h) is safe and stable; i) enables easy access for maintenance.	**AO8** A retaining wall is designed and constructed to comply with the standards specified in section 3.3.6.2–Retaining walls in planning scheme policy 5–Infrastructure.	**RO8** Complies – All retaining walls proposed as part of the development have been previously designed and constructed. Earthworks plans will be submitted and approved as part of an operational works application.
Filling of a dam		

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	RESPONSE
PO9 The filling of a dam: a) does not adversely affect the natural physical processes and ecosystems; b) creates a safe and stable surface; c) is integrated into the landscape.	**AO9** The filling of a dam complies with part 3.3–Filling and excavation standards in planning scheme policy 5–Infrastructure.	**RO9** Not applicable – No dams are proposed to be filled as part of the development.

INFRASTRUCTURE CODE
Performance Criteria and Acceptable Solution
Child Care Centre and Swim School
Flagstonian Drive Flagstone
06 May 2022

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	RESPONSE
For accepted development (subject to requirements) and assessable development		
Provision, design, construction and location of infrastructure		
PO1 Development is demonstrated to be capable of being serviced by necessary infrastructure.	**AO1** Reports, plans and drawings are provided in accordance with part 2 of planning scheme policy 5–Infrastructure.	**RO1** Complies – Reports, plans and drawings have been provided in support of the development application in accordance with part 2 of Planning Scheme Policy 5-Infrastructure.
PO2 Development: (a) provides necessary infrastructure to service the development; (b) provides that the design, construction and location of necessary infrastructure: (i) protects existing and planned infrastructure networks; (ii) services proposed development; (iii) integrates with existing and planned infrastructure networks; (iv) delivers a standard of service that is efficient and equitable; (v) minimises the cost to the community for the life of the infrastructure by providing a suitable design life, ease of maintenance and ease of replacement; (vi) protects personal health, safety and premises; (vii) protects environmental values.	**AO2** Development: (a) in a water supply service area connects to the water network in accordance with the SEQ Water Supply and Sewerage Design and Construction Code; (b) not in a water supply service area provides a tank with a minimum storage capacity of 45,000 litres; (c) in a sewerage supply service area connects to the waste water network in accordance with the SEQ Water Supply and Sewerage Design and Construction Code; (d) not in a sewerage supply service area complies with part 1 of the Queensland Plumbing and Wastewater Code; (e) provides stormwater infrastructure in accordance with part 3.6 of planning scheme policy 5–Infrastructure; (f) provides a movement network infrastructure in accordance with part 3.4 of planning scheme policy 5–Infrastructure; (g) provides parks in accordance with part 3.12 of planning scheme policy 5–Infrastructure; (h) provides road lighting in accordance with part 3.5 of planning scheme policy 5–Infrastructure; (i) provides electricity reticulation in accordance with part 3.8 of planning scheme policy 5–Infrastructure;	**RO2** Complies – The proposed development will be connected to existing water and sewer infrastructure mains and provide new infrastructure mains to service the development in accordance with the relevant service authority's requirements and Planning Scheme Policy 5-Infrastructure.

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	RESPONSE
	(j) provides gas and telecommunications reticulation in accordance with part 3.9 of planning scheme policy 5–Infrastructure. Editor's note—The delivery of any part of a network identified in the plans for trunk infrastructure is governed by Part 4–Local government infrastructure plan.	
Location of development		
PO3 Development is located to protect existing and planned infrastructure networks.	**AO3** Development is located outside: (a) planned widening of a road or a new road identified in Table 7.3.1.1–Road encroachment maps of planning scheme policy 5—Infrastructure; (b) planned public transport network identified on Figure 3.4.1.3.1—Public transport network in planning scheme policy 5—Infrastructure; (c) a planned cycle network identified on Figure 3.4.1.2.1–Cycle network in planning scheme policy 5–Infrastructure; (d) a planned network identified in Local government infrastructure plan map–LGIP-07.00 Plan for trunk parks infrastructure in Schedule 3–Local government infrastructure plan mapping and tables.	**RO3** Complies – The proposed incorporates planned infrastructure networks identified in Planning Scheme Policy 5-Infrastructure and Logan City Council LGIP Plans where applicable.

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	RESPONSE
Fire fighting		
PO4 Development in a water service area accessed by common private title provides: (a) fire hydrant infrastructure; (b) unimpeded access for emergency services vehicles. Editor's note—The term common private title refers to areas such as access roads in community title developments or strata title unit access, which are private and under group or body corporate control.	**AO4** Development in a water service area accessed by common private title complies with the Acceptable outcomes of the SPP code: Fire services in developments accessed by common private title in Appendix 1 of the state planning policy.	**RO4** Not applicable – No part of the proposed development is accessed by common private title.
PO5 Development not in a water service area provides sufficient water storage with adequate pressure, volume and flow to service development for fire fighting purposes.	**AO5** Development: (a) is connected to a reticulated water supply scheme that has sufficient flow and pressure characteristics for fire fighting purposes at all times with a minimum pressure and flow of 10 litres per second at 200kPa; or (b) has an on-site water storage in accordance with **Error! Reference source not found.**, dedicated or retained for fire fighting purposes that is made of fire resistant materials and is: (i) a separate tank; or (ii) a reserve section in the bottom part of the main water supply tankwater tank . Editor's note—The requirement in AO5 is; – in addition to the requirement for potable water supply/storage in AO2 in Table 9.4.3.3.1–Infrastructure code: accepted development (subject to requirements) and assessable development; – reflected in AO5 in Table 8.2.3.3.1–Bushfire hazard overlay code: accepted development (subject to requirements) and assessable development.	**RO5** Complies – The development will either be connected to a reticulated water supply scheme that has sufficient flow and pressure characteristics for fire fighting purposes at all times with a minimum pressure and flow of 10 litres per second at 200kPa or an on site solution will be provided if the existing water network does not meet these requirements.

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	RESPONSE
Disposal of trade waste		
PO6 The disposal of trade waste in a sewerage supply service area does not adversely affect the sewerage network.	**AO6** The disposal of trade waste in a sewerage supply service area complies with the sewer admission standards in section 3.2.6–Sewer admission standards in planning scheme policy 3–Environmental management.	**RO6** Complies – The disposal of trade waste from the development will comply with the sewer admission standards in section 3.2.6 - Sewer Admission Standards in Planning Scheme Policy 3 - Environmental Management.
Roof water drainage and surface water drainage		
PO7 Development provides stormwater infrastructure for the drainage of the premises so as not to cause any of the following: (a) ponding of stormwater on the premises; (b) a hazard to personal health and safety; (c) damage to premises; (d) an increased risk of flooding to premises within the catchment.	**AO7** Development complies with the standards for stormwater infrastructure specified in part 3.6 of planning scheme policy 5–Infrastructure.	**RO7** Complies – Stormwater drainage will be provided as part of the development which will comply with the standards for stormwater infrastructure specified in part 3.6 of planning scheme policy 5-Infrastructure.
Natural flow of surface water		
PO8 Development provides that the natural flow of surface water is: (a) not altered so as to cause a risk to personal health and safety or damage to property; (b) not increased in intensity, velocity or frequency; (c) not concentrated onto adjoining premises.	**AO8** Development complies with the standards for stormwater infrastructure specified in part 3.6 of planning scheme policy 5–Infrastructure.	**RO8** Complies – Stormwater drainage will be provided as part of the development which will comply with the standards for stormwater infrastructure specified in part 3.6 of planning scheme policy 5-Infrastructure. Refer to the Stormwater Management Plan for further information.

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	RESPONSE
Water sensitive urban design		
PO9 Development which provides stormwater infrastructure incorporates water sensitive urban design principles having regard to: (a) protecting existing natural features and ecological processes; (b) protecting the natural hydrologic behaviour of catchments; (c) protecting the existing natural flow and water quality regimes of waterways; (d) protecting water quality of surface and ground waters; (e) minimising demand on the water network; (f) minimising sewage discharges to the natural environment; (g) integrating water into the landscape to enhance visual and ecological values.	**AO9** Development complies with the standards for stormwater infrastructure specified in part 3.6 of planning scheme policy 5–Infrastructure.	**RO9** Complies – Stormwater drainage will be provided as part of the development which will comply with the standards for stormwater infrastructure specified in part 3.6 of planning scheme policy 5-Infrastructure. Refer to the Stormwater Management Plan for further information.
Movement network		
PO10 The projected traffic levels for a use do not adversely affect the planned standards of service for a road or intersection.	**AO10** Development does not cause or contribute to projected traffic levels: (a) exceeding the maximum vehicle trips per day in Table 3.4.1.4.2 in planning scheme policy 5–Infrastructure; or (b) exceeding the maximum control delays through intersections in peak periods in Table 3.4.1.4.3 in planning scheme policy 5—Infrastructure.	**RO10** Complies – Refer to the Traffic Consultant's Report for further information.

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	RESPONSE
Integrated movement concept report		
PO11 Development which generates more than 3,000 vehicle trips per average weekday is designed to integrate the movement network to minimise the transportation costs required to service the use.	**AO11** Development which generates more than 3,000 vehicle trips per average weekday provides an integrated movement concept report which integrates the planning of the movement network in accordance with part 2 and 3 of planning scheme policy 5–Infrastructure.	**RO11** Not applicable – The development is not expected to generate more than 3,000 vehicle trips.
For assessable development only		
Land use and transport integration		
PO12 Development within 400 metres of existing or future public passenger transport facilities where the total site are is 5,000m2 or more: (a) supports a road hierarchy which facilitates efficient, safe and accessible bus services connecting to existing and future public passenger transport facilities; (b) enhances connectivity between existing and future public passenger transport facilities and other transport modes; (c) optimises the walkable catchment to existing and future public passenger transport facilities; (d) provides for direct and safe access to and use of existing or future public passenger transport facilities. Note—SPP code: Land use and transport integration in Appendix 4 of the state planning policy provides guidance to achieve this outcome.	**AO12** No acceptable outcome provided.	**RO12** Not applicable