

## Appendix H: Engineering Services Report

Prepared by Ensilon Pty Ltd



## CIVIL ENGINEERING REPORT

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**Proposed Childcare & Education Centre  
AELC Development 2 Pty Ltd  
ATF AELC Developments 2 Unit Trust  
Lot 3, 92 Chambers Flat Road, Waterford West  
Lot 3 on GTP101608**

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Prepared for:

**AELC Development 2 Pty Ltd  
ATF AELC Developments 2 Unit Trust**

Approved by:


**Mr Tristan Nelson  
Director  
Cozens Regan Group Pty Ltd  
RPEQ: 15735**

Original:  
**February 2026**

**DOCUMENT CONTROL RECORD**

**Report Details**

**Client:** AELC Development 2 Pty Ltd  
ATF AELC Developments 2 Unit Trust  
**Document Name:** Concept Stormwater Management Plan  
**Site Address:** Lot 3, 92 Chambers Flat Road, Waterford West  
Lot 3 on GTP101608  
**Job Number:** 250654  
**File Name:** 250654\_ENG\_REPORT\_A

Issue	Rev	Approved	Date	Distributed to:	Qty.
Preliminary	A		20/02/2026	AELC Development 2 Pty Ltd ATF AELC Developments 2 Unit Trust	1

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## Table of Contents

1.0	INTRODUCTION.....	4
2.0	THE SITE .....	4
2.2	SITE DESCRIPTION .....	5
2.3	DESCRIPTION OF DEVELOPMENT .....	5
3.0	EARTHWORKS.....	5
4.0	EROSION AND SEDIMENT CONTROL.....	5
5.0	SEWERAGE RETICULATION .....	6
6.0	WATER RETICULATION .....	6
7.0	ROADWORKS AND ACCESS.....	6
8.0	OTHER SERVICES .....	7
9.0	CONCLUSION .....	7
	APPENDIX A.....	8
	APPENDIX B.....	9
	APPENDIX C .....	10
	APPENDIX D .....	11

Proposed Childcare & Education Centre  
 AELC Development 2 Pty Ltd  
 ATF AELC Developments 2 Unit Trust  
 Lot 3, 92 Chambers Flat Road, Waterford West

## 1.0 INTRODUCTION

Cozens Regan Group Pty Ltd has been commissioned by AELC Development 2 Pty Ltd ATF AELC Developments 2 Unit Trust to prepare an Engineering Report for the Proposed Childcare Development at 440-448 Chambers Flat Road, Logan Reserve.

This Civil Engineering Report is required to support a proposed Material Change of Use application to Logan City Council.

This Civil Engineering Report summarises our various preliminary investigations and designs into the existing services. The Report addresses the existing engineering constraints and proposes solutions to demonstrate feasibility and which are tailored to enable practical and cost effective development of the project.

## 2.0 THE SITE

The subject site comprises of one lot described as Lot 3 on GTP101608 at 92 Chambers Flat Road, Waterford West. The site is bound by Moffatt Road to the South West, Chambers Flat Road to the North West, existing commercial development to the North East, and residential properties to other boundaries. The subject site is shown in Figure 1 below.



Figure 1 – Aerial Photograph (QLD Globe)

## **2.2 SITE DESCRIPTION**

The site is currently vacant, with sparse trees and good grass coverage.

The site generally falls from the South to North at an approximate grade of 5%. The levels of the site range from RL 18.80m down to RL 15.30m.

The total area of the site is 4,123m<sup>2</sup>.

Stormwater from the site currently flows as a mixture of sheet and concentrated flow to the existing kerb and channel in Chambers Flat Road. All stormwater from site is then collected by the existing piped stormwater drainage system within Chambers Flat Road.

Details of the existing site including services and site contours are provided by detail survey a copy of which is contained in Appendix A.

## **2.3 DESCRIPTION OF DEVELOPMENT**

The proposed development involves the construction of an Child Care Centre development including associated carparking, landscaping and servicing works.

Refer to the Site Plan contained within Appendix B for more information in regards to the proposed development.

## **3.0 EARTHWORKS**

The bulk earthworks proposed for the development will involve cut to fill across the site and is focused around providing acceptable vehicular/pedestrian access to all buildings along with providing building platforms with freeboard above the 1% AEP & PMF flood level.

Retaining walls are proposed around the perimeter of the site.

Refer Concept Earthworks Plans/Sections 250654/SK4-SK5 contained in Appendix C for more information.

All earthworks are required to be carried out to Level 1 Geotechnical Supervision and in accordance with the Erosion and Sediment Control Plan requirements outlined in the Erosion and Sediment Control Plan and Stormwater Management Plan prepared by Cozens Regan Group Pty Ltd.

## **4.0 EROSION AND SEDIMENT CONTROL**

The site is subject to compliance with the requirements of the Logan City Council's City Plan - Schedule 6 - Planning scheme policies - SC6.2.5 Infrastructure, and the requirements of the Environmental Protection Act 1994.

Concept Erosion and Sediment Control requirements are outlined within the Site Based Stormwater Management Plan prepared by Cozens Regan Group Pty Ltd., including all the requirements for maintenance of the structures during the construction phase and required methods of reporting.

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The Local Authority By-Law and Statutory Authority provisions related to Workplace Health & Safety, Dust and Smoke Nuisance, Environment and Occupational Noise Suppression will be required to be enforced as part of the general site works contractual arrangements.

## **5.0 SEWERAGE RETICULATION**

The development site is not known to be currently connected to Councils gravity sewer reticulation network. An existing Council reticulation sewer is located within the near verge of Chambers Flat Road along the frontage of the site and it is proposed to be provide a new 150mm diameter property connection to this sewer to service the site.

The proposed child care development will be provided within an internal private sanitary drainage system that shall connect by gravity to the new property connection along Chambers Flat Road.

Refer to 250654/SK03– Concept Engineering Services Plan which provide more information relating to the existing sewer infrastructure and proposed connection point.

Detailed design and construction of the sewer connections shall be in accordance with the requirements of SEQ Water Supply and Sewer and Code and subject to approval.

Design and construction of the private sanitary drain shall be in accordance with the requirements of Plumbing and Drainage Code AS3500 and subject to Council Plumbing and Drainage approval.

## **6.0 WATER RETICULATION**

The development site is not known to be currently connected to Councils Water reticulation network.

An existing council watermain currently exists in the near verge of Chambers Flat Road.

The development is proposed to be provided with a new water meter connection to service the development to the existing main along Chambers Flat Road.

The size and final location of the meter is to be confirmed during detailed design.

The development shall be provided with a private internal water reticulation system in accordance with AS3500.

Refer to 250654/SK03 – Concept Engineering Services Plan which provides more information relating to the existing water infrastructure and the proposed connection point.

Design and construction of the water connection shall be in accordance with the requirements of SEQ Water Supply and Sewer and Code, Logan City Council and subject to approval.

Design and construction of the private water supply shall be in accordance with the requirements of Plumbing and Drainage Code AS3500 and subject to Council Plumbing and Drainage approval.

## **7.0 ROADWORKS AND ACCESS**

Refer to the Traffic Consultant report for details relating to the proposed access arrangements.

## **8.0 OTHER SERVICES**

Electrical and Telecommunications overhead and underground services are understood to be located nearby within Chambers Flat Road and available for connection. It is recommended the capacity and availability of these services be confirmed during detailed design.

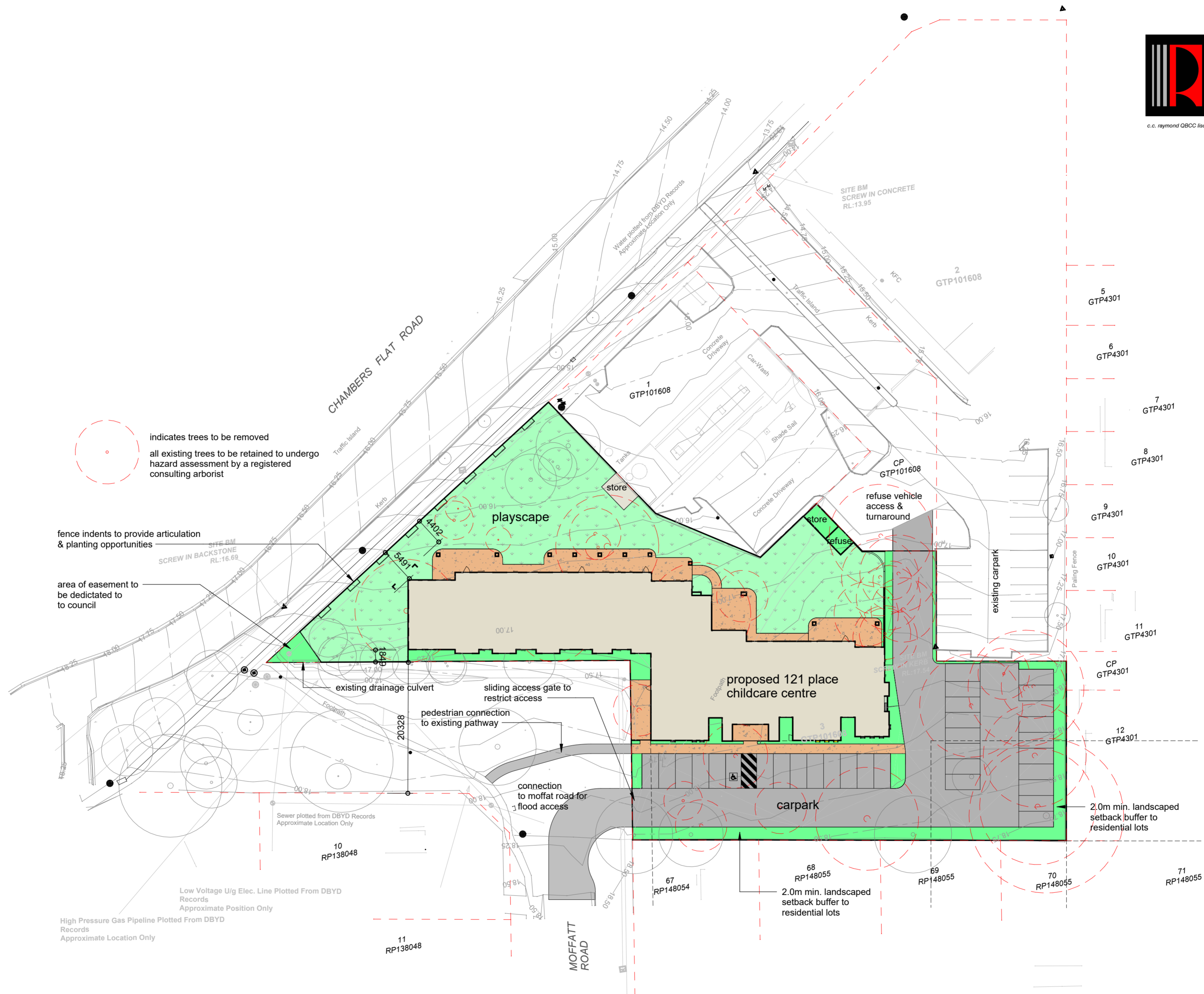
## **9.0 CONCLUSION**

This civil engineering report has shown that the proposed development for this site can be serviced and constructed using suitable engineering solutions to council's requirements. All preliminary comments and assumptions are subject to confirmation by detail design.

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Lot 3, 92 Chambers Flat Road, Waterford West**



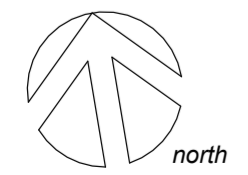
**APPENDIX A**  
*ARCHITECTURAL SITE PLAN*



indicates trees to be removed  
 all existing trees to be retained to undergo hazard assessment by a registered consulting arborist

fence indents to provide articulation & planting opportunities  
 area of easement to be dedicated to council

Low Voltage U/g Elec. Line Plotted From DBYD Records Approximate Position Only  
 High Pressure Gas Pipeline Plotted From DBYD Records Approximate Location Only



overall site plan

0 12.5m 1:250 (A2)

note: this proposal is subject to site survey and development approval(s) from the relevant authority.  
 this drawing shall not be copied or used without authorisation and is protected by copyright.  
 these drawings are for sketch/DA only and not to be used for construction

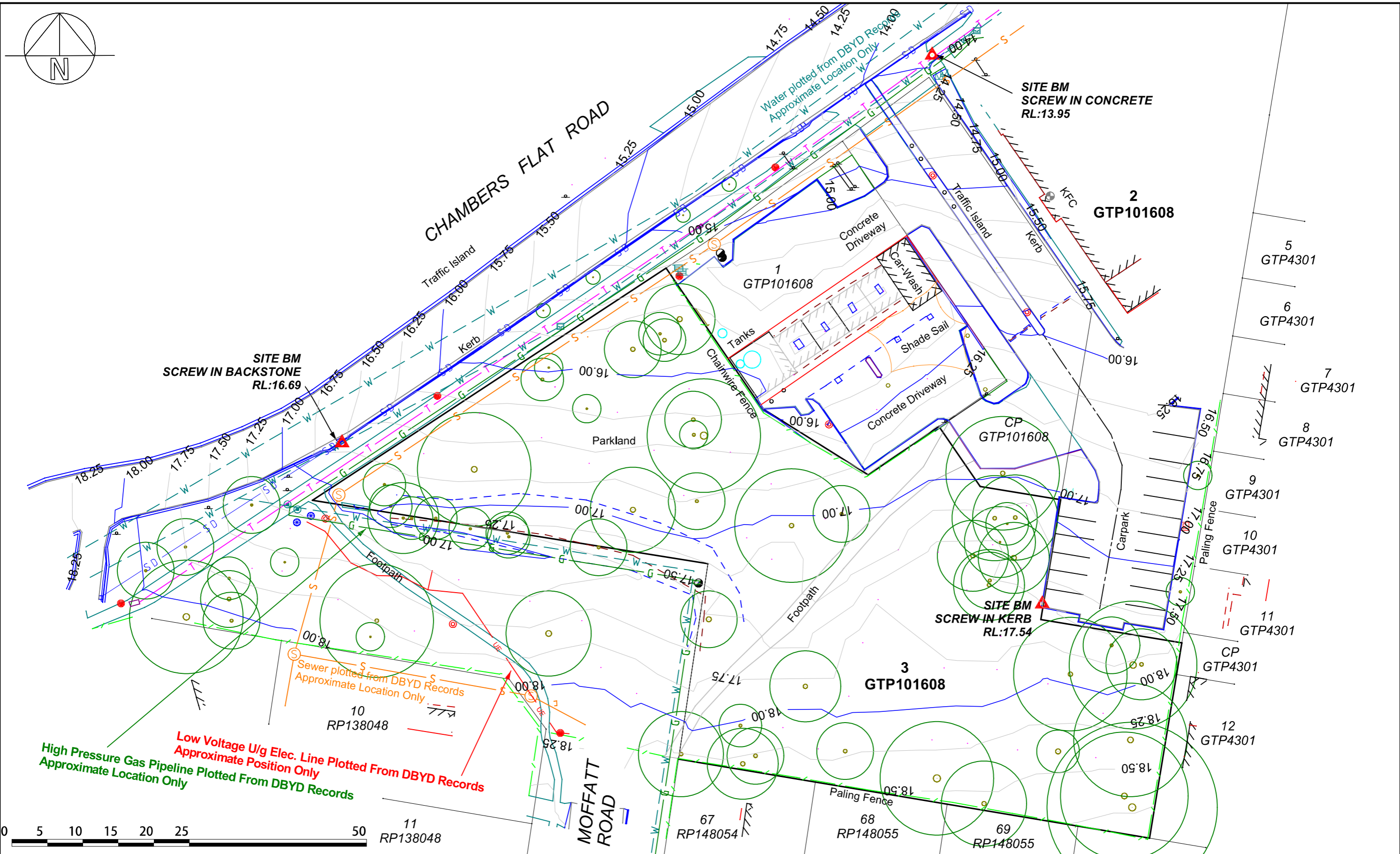
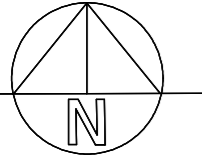
proposed early learning college, lot 3, 92 chambers flat road, waterford west

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Lot 3, 92 Chambers Flat Road, Waterford West



## **APPENDIX B**

### *DETAIL SURVEY PLAN*



REVISION NOTES :- Survey is on MGA2020 Meridian and co-ordinate system.  A ground Scale Factor has been applied. If required, to convert to MGA 2020 Zone 56 Scale (Grid) apply a scale factor of 0.99950156	Horizontal Co-Ord System MGA2020 (Zone 56)	Contour Interval 0.25m	Level Datum AHD		Client <b>AELC Group Investments Pty Ltd</b>	Project -Contour and Detail Survey- 92 Chambers Flat Road						
	Horizontal Co-Ord Origin: Corrs vide Nail in Conc.	Level Origin PM35600	Value 23.99m		Easting 511238.803 Northing 6938043.190	Surveyed SMK Date 25/06/2025	Computer File C:\PROJECTS\1766	Scale (A3) 1:500	Job No. 1766	Locality Waterford-West	Drawing Number 1766_D1	Rev A
	Azimuth MGA2020	Field Book TSC5	Drawn SMK Date 04/07/2025									
	0 5 10 15 20 25 50 RP138048 67 RP148054 68 RP148055 69 RP148055											

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## **APPENDIX C**

### *CONCEPT ENGINEERING PLANS*

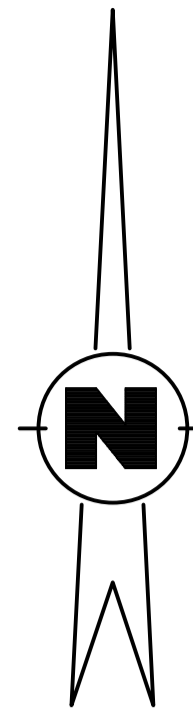
**IMPORTANT NOTE:**



ALL UNDERGROUND SERVICES SHOULD BE LOCATED ONSITE BY RELEVANT AUTHORITIES BEFORE ANY WORK IS COMMENCED.

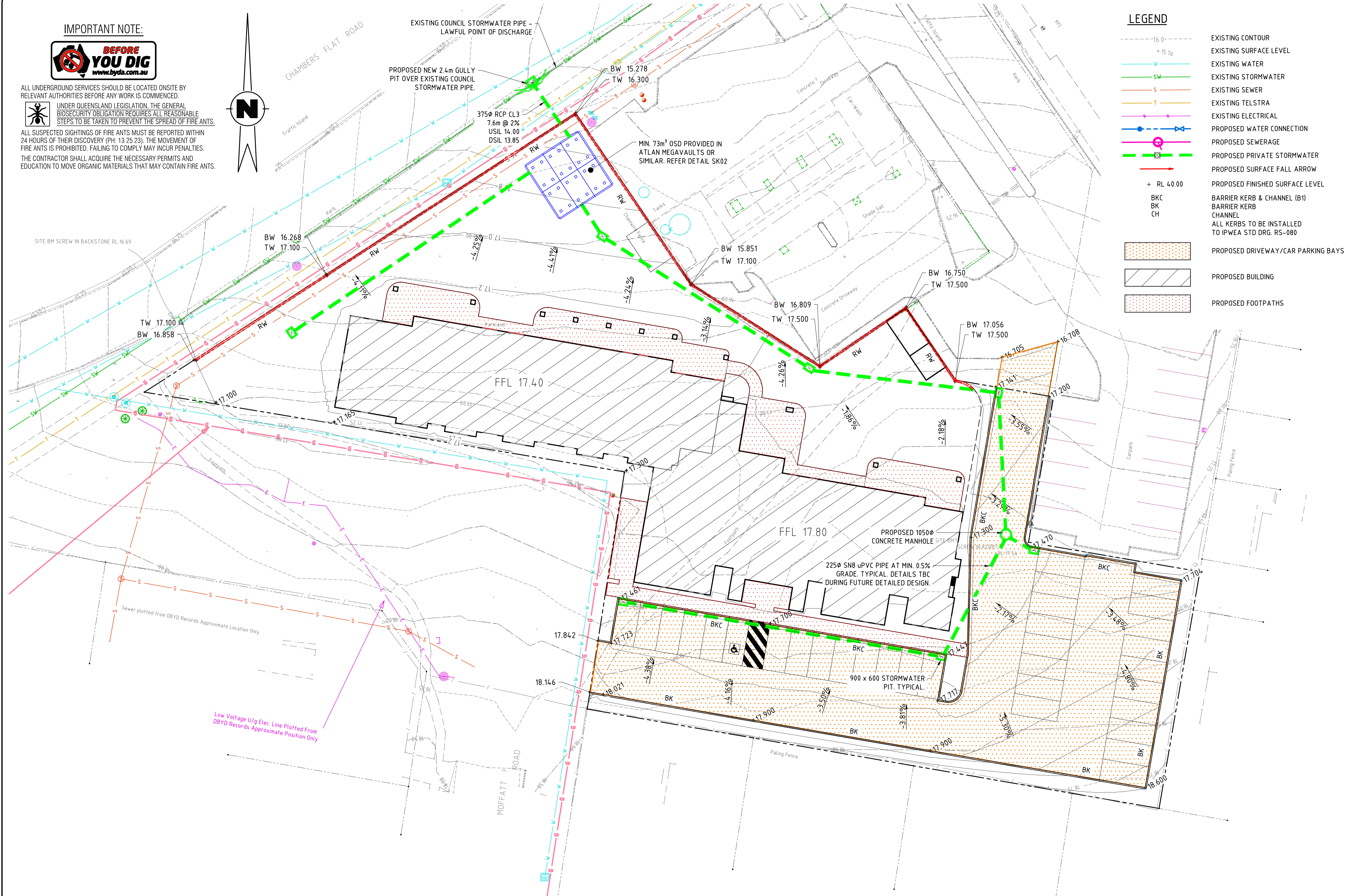
UNDER QUEENSLAND LEGISLATION, THE GENERAL BIOSECURITY OBLIGATION REQUIRES ALL REASONABLE STEPS TO BE TAKEN TO PREVENT THE SPREAD OF FIRE ANTS.

ALL SUSPECTED SIGHTINGS OF FIRE ANTS MUST BE REPORTED WITHIN 24 HOURS OF THEIR DISCOVERY (PH: 13 25 23). THE MOVEMENT OF FIRE ANTS IS PROHIBITED. FAILING TO COMPLY MAY INCUR PENALTIES. THE CONTRACTOR SHALL ACQUIRE THE NECESSARY PERMITS AND EDUCATION TO MOVE ORGANIC MATERIALS THAT MAY CONTAIN FIRE ANTS.



**LEGEND**

- - - - -16.0 - EXISTING CONTOUR
- + 15.76 - EXISTING SURFACE LEVEL
- W - EXISTING WATER
- SW - EXISTING STORMWATER
- S - EXISTING SEWER
- T - EXISTING TELSTRA
- E - EXISTING ELECTRICAL
- |---|--- PROPOSED WATER CONNECTION
- |---|--- PROPOSED SEWERAGE
- |---|--- PROPOSED PRIVATE STORMWATER
- |---|--- PROPOSED SURFACE FALL ARROW
- + RL 4.0.00 - PROPOSED FINISHED SURFACE LEVEL
- BKC - BARRIER KERB & CHANNEL (B1)
- BK - BARRIER KERB
- CH - CHANNEL
- ALL KERBS TO BE INSTALLED TO IPWEA STD DRG. RS-080
- [Pattern] - PROPOSED DRIVEWAY/CAR PARKING BAYS
- [Pattern] - PROPOSED BUILDING
- [Pattern] - PROPOSED FOOTPATHS



PI	02/26	PRELIMINARY ISSUE	Z.C.L.	T.W.N.
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SCALE A 1:200

SCALE B

DATUM AHD (U.N.O.) SCALES SHOWN ARE AT A1 SIZE

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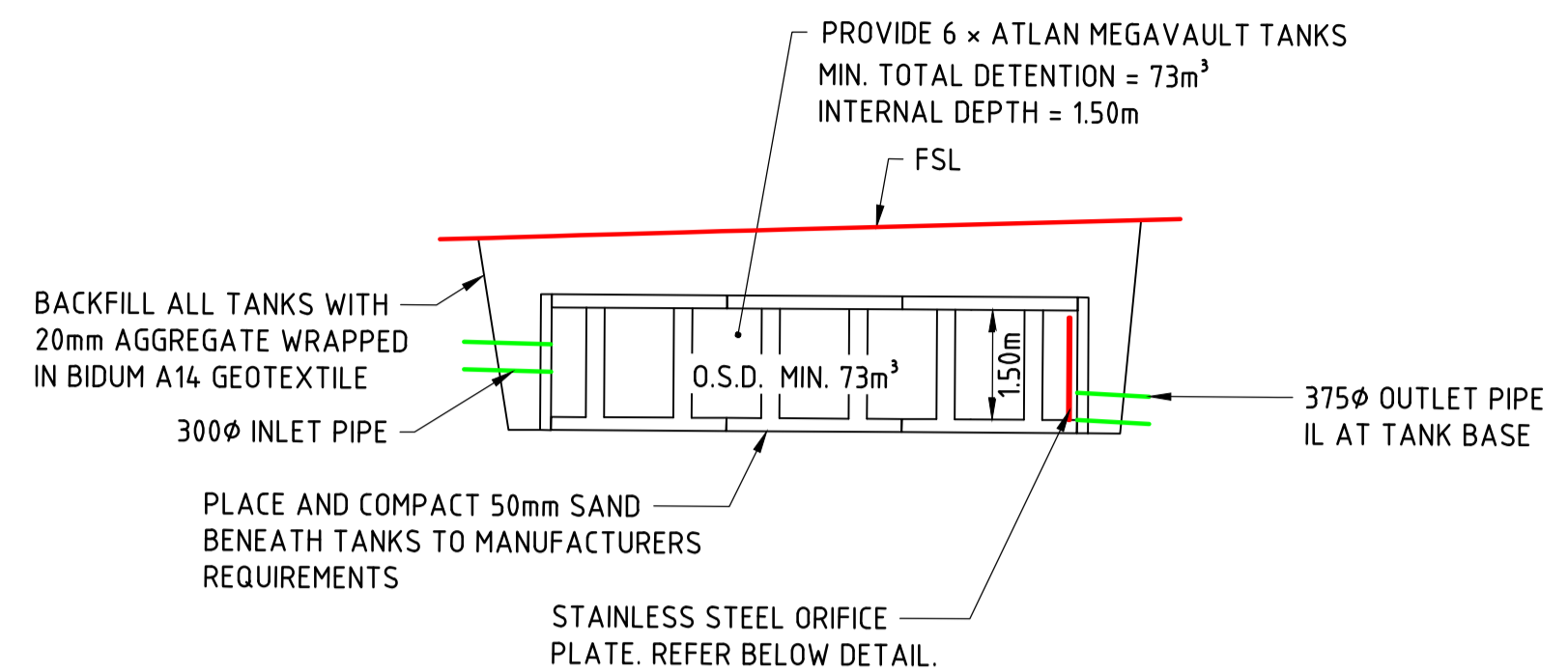
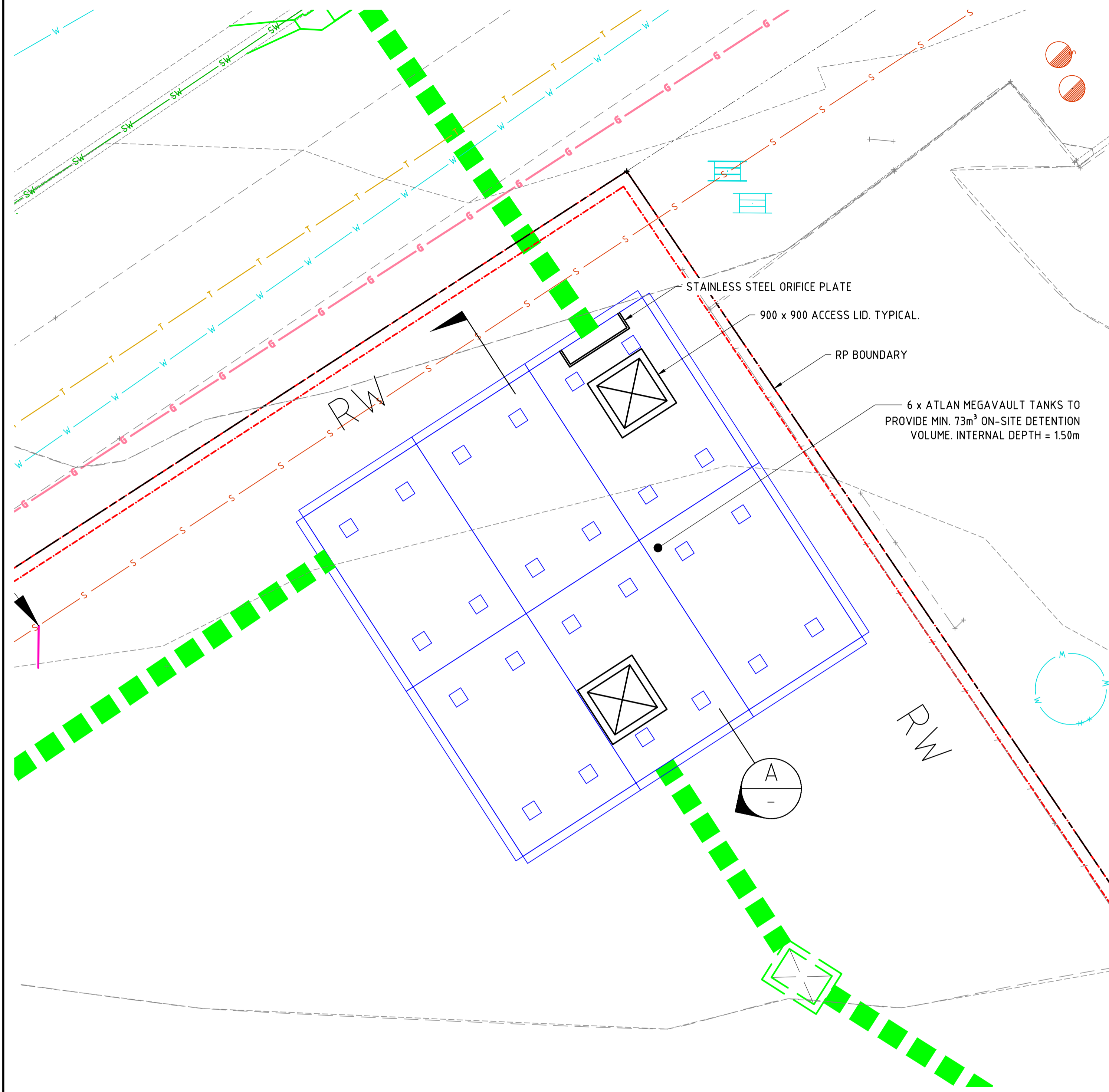
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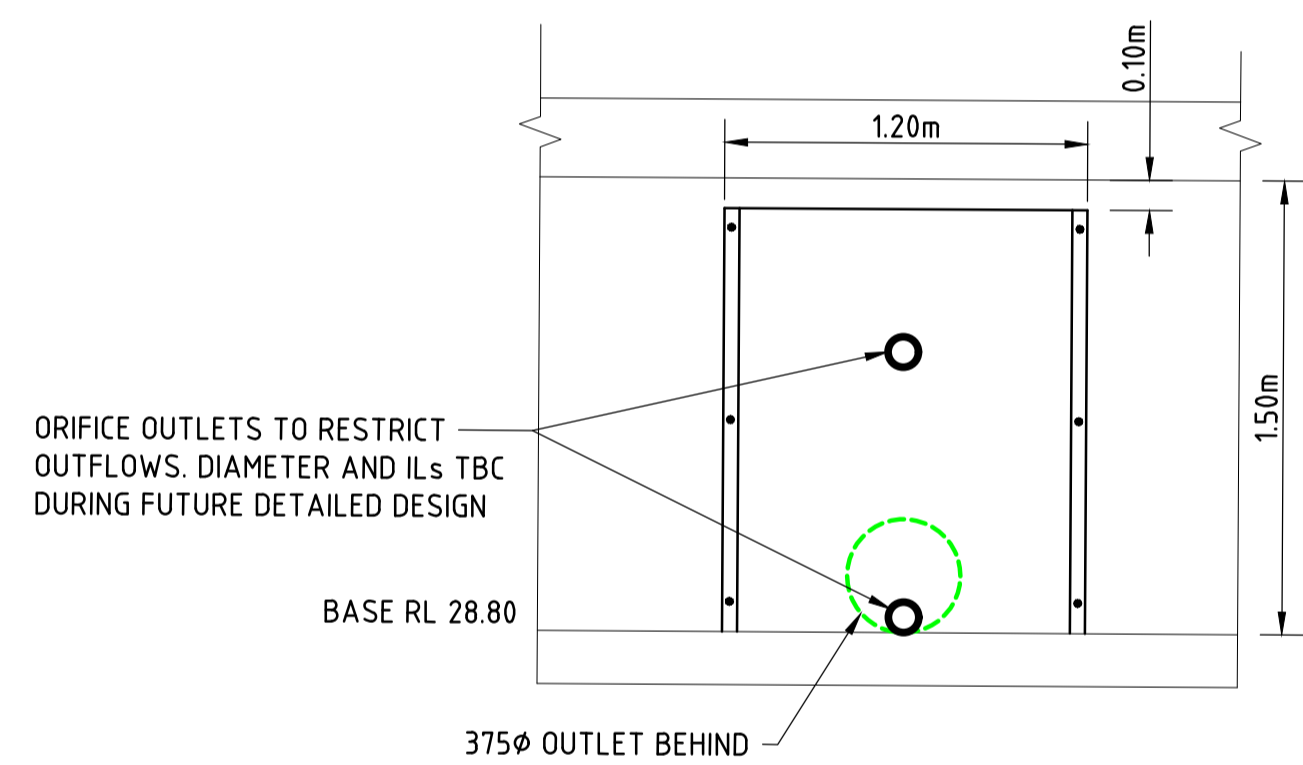
CLIENT AELC DEVELOPMENT 2 PTY LTD ATF

PROJECT PROPOSED EARLY LEARNING CENTRE  
92 CHAMBERS FLAT ROAD, LOGAN RESERVE  
CONCEPT STORMWATER MANAGEMENT PLAN

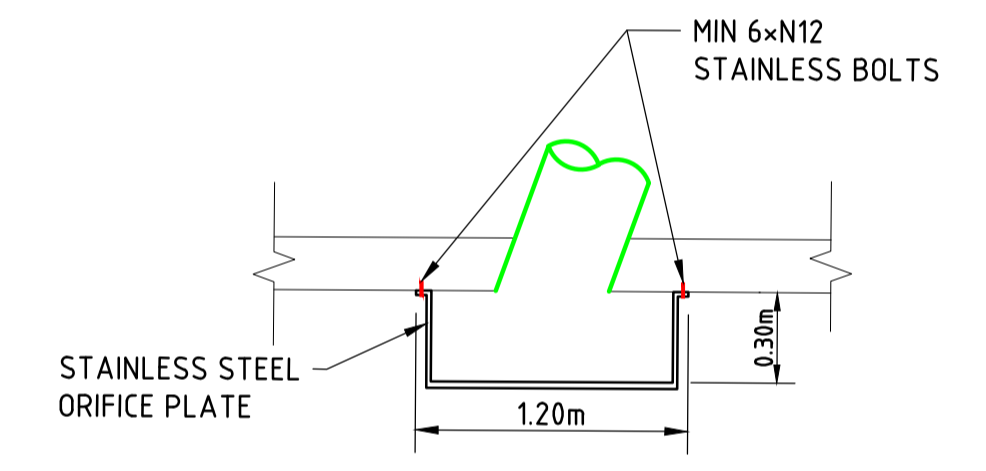
JOB NO. **250654**  
DRAWING NO. **SK01**  
ISSUE P1



**TYPICAL TANK SECTION A**  
SCALE 1:100



**ORIFICE PLATE DETAIL**  
SCALE 1:25

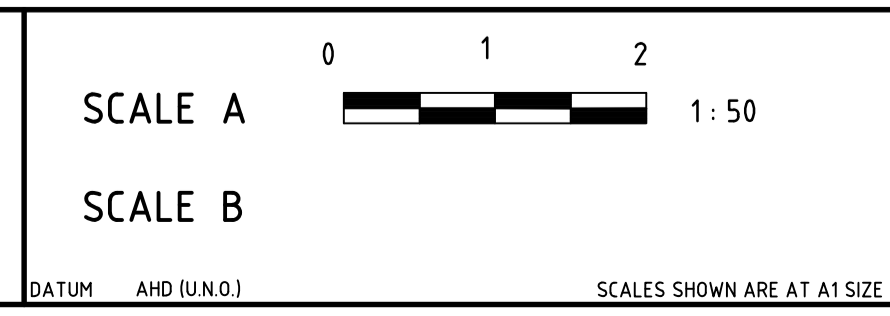


**TYPICAL ORIFICE PLAN VIEW**  
SCALE 1:25

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(RPEQ No 15735)

CLIENT  
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PROJECT  
**PROPOSED EARLY LEARNING CENTRE  
92 CHAMBERS FLAT ROAD, LOGAN RESERVE  
COCEPT STORMWATER MANAGEMENT DETAILS**

JOB NO.  
**250654**

DRAWING NO.  
**SK02**

ISSUE  
P1

**IMPORTANT NOTE:**

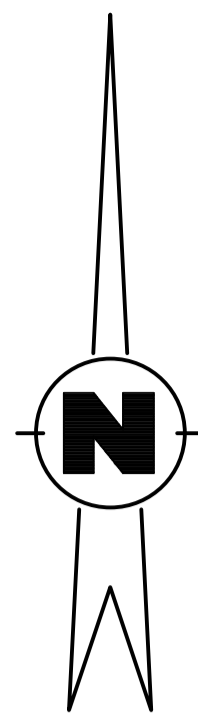


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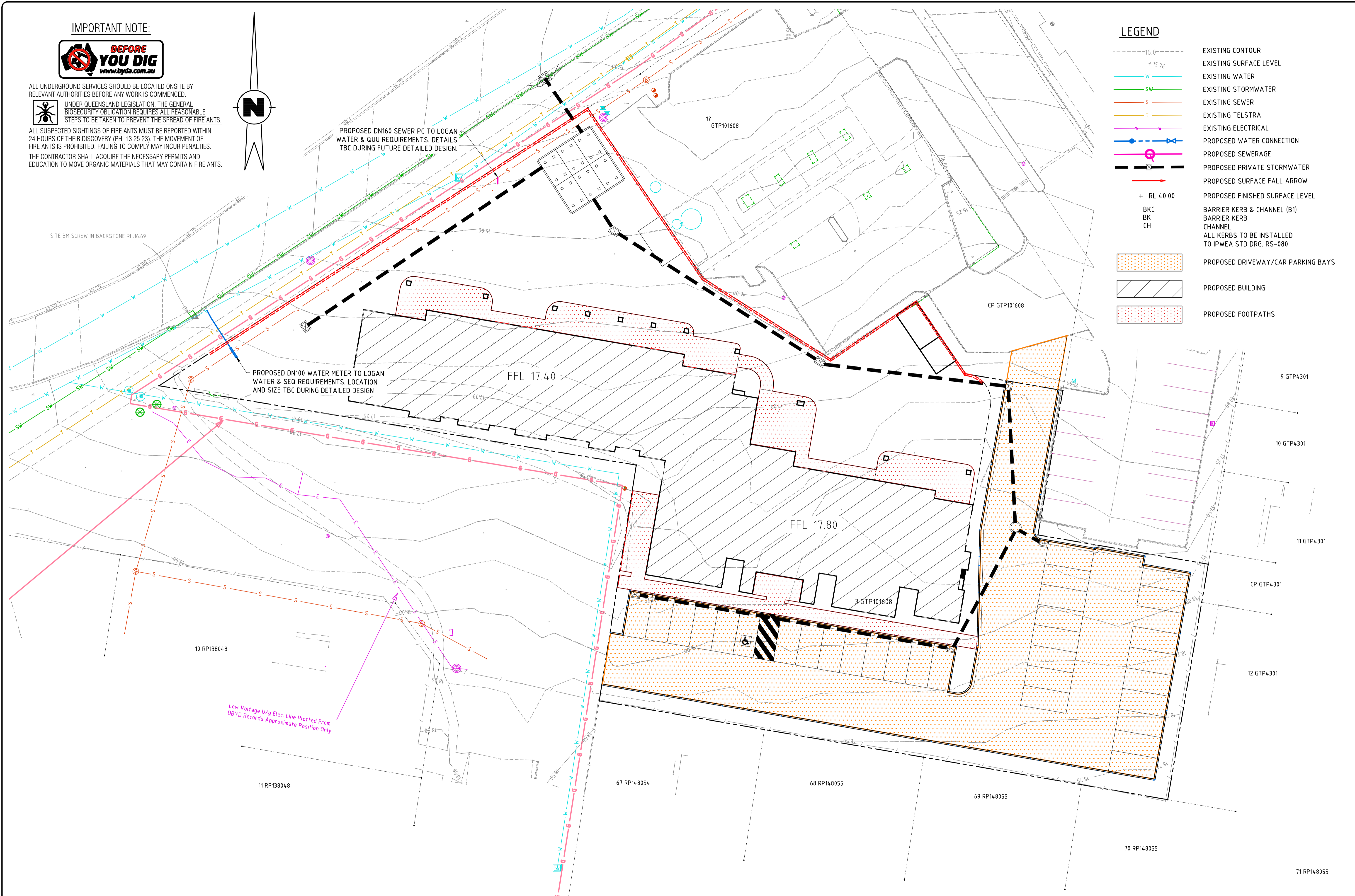


PROPOSED DN160 SEWER PC TO LOGAN WATER & QUU REQUIREMENTS. DETAILS TBC DURING FUTURE DETAILED DESIGN.

PROPOSED DN100 WATER METER TO LOGAN WATER & SEQ. REQUIREMENTS. LOCATION AND SIZE TBC DURING DETAILED DESIGN

**LEGEND**

- 16.0' EXISTING CONTOUR
- +15.76 EXISTING SURFACE LEVEL
- W EXISTING WATER
- SW EXISTING STORMWATER
- S EXISTING SEWER
- T EXISTING TELSTRA
- E EXISTING ELECTRICAL
- PROPOSED WATER CONNECTION
- PROPOSED SEWERAGE
- PROPOSED PRIVATE STORMWATER
- PROPOSED SURFACE FALL ARROW
- + RL 40.00 PROPOSED FINISHED SURFACE LEVEL
- BKC BARRIER KERB & CHANNEL (B1)
- BK BARRIER KERB
- CH CHANNEL
- ALL KERBS TO BE INSTALLED TO IPWEA STD DRG. RS-080
- PROPOSED DRIVEWAY/CAR PARKING BAYS
- PROPOSED BUILDING
- PROPOSED FOOTPATHS



SITE BM SCREW IN BACKSTONE RL16.69

FFL 17.40

FFL 17.80

Low Voltage U/g Elec. Line Plotted From DBYD Records Approximate Position Only

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SCALE A 1:200  
 SCALE B  
 DATUM AHD (U.N.O.) SCALES SHOWN ARE AT A1 SIZE

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CLIENT AELC DEVELOPMENT 2 PTY LTD ATF  
 PROJECT PROPOSED EARLY LEARNING CENTRE  
 92 CHAMBERS FLAT ROAD, LOGAN RESERVE  
 CONCEPT ENGINEERING SERVICES PLAN

JOB NO. **250654**  
 DRAWING NO. **SK03**  
 ISSUE P1

**IMPORTANT NOTE:**

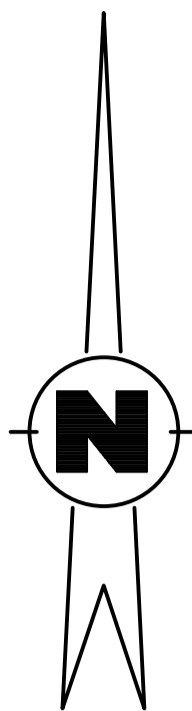


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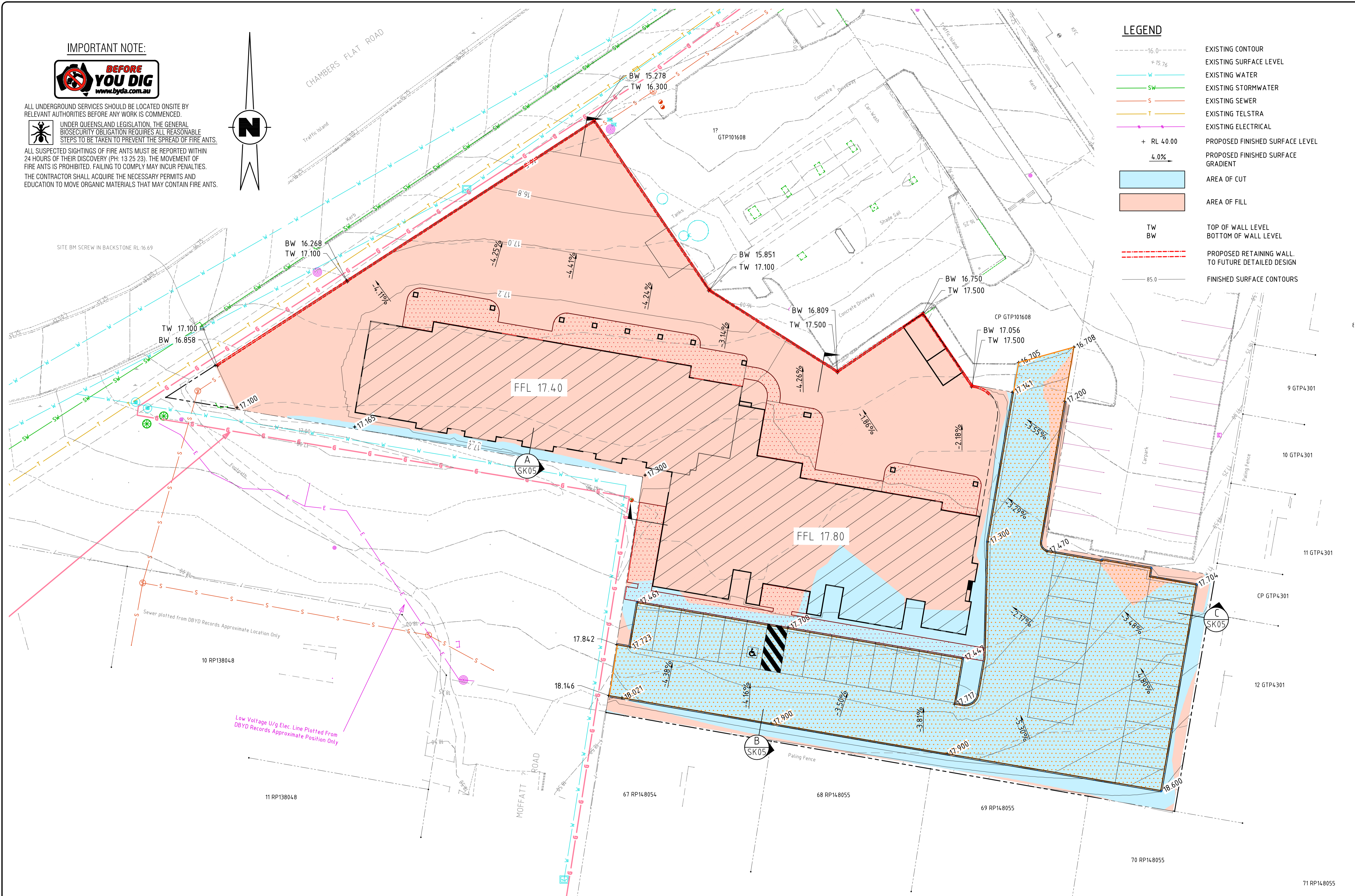
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- + 15.76 EXISTING SURFACE LEVEL
- W EXISTING WATER
- SW EXISTING STORMWATER
- S EXISTING SEWER
- T EXISTING TELSTRA
- EXISTING ELECTRICAL
- + RL 40.00 PROPOSED FINISHED SURFACE LEVEL
- 4.0% PROPOSED FINISHED SURFACE GRADIENT
- AREA OF CUT
- AREA OF FILL
- TW TOP OF WALL LEVEL
- BW BOTTOM OF WALL LEVEL
- PROPOSED RETAINING WALL TO FUTURE DETAILED DESIGN
- 85.0 FINISHED SURFACE CONTOURS



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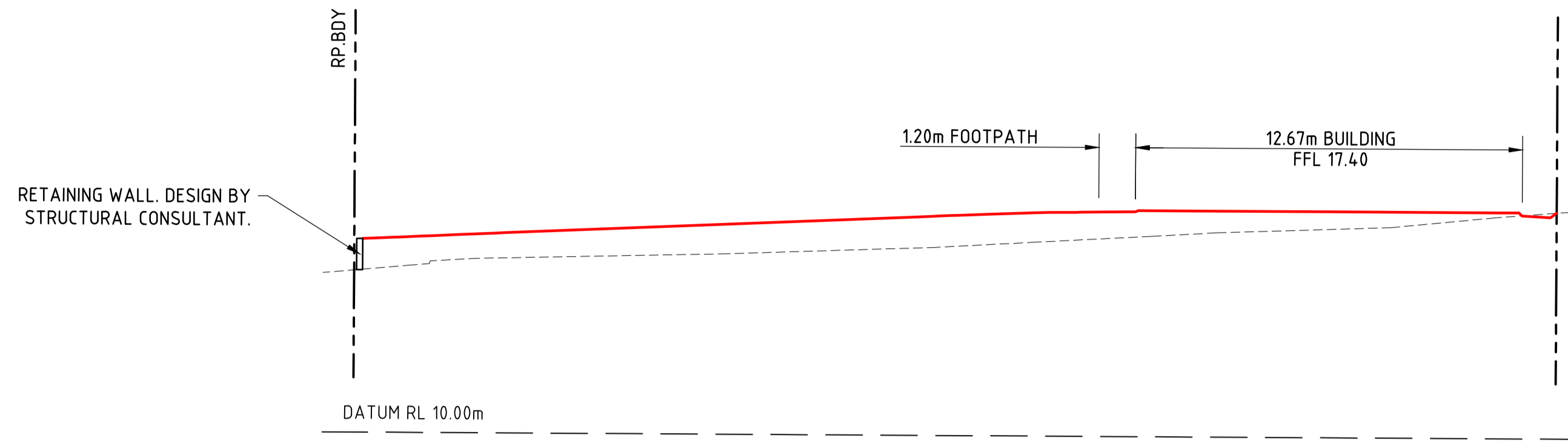
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PROJECT PROPOSED EARLY LEARNING CENTRE  
92 CHAMBERS FLAT ROAD, LOGAN RESERVE  
CONCEPT EARTHWORKS PLAN

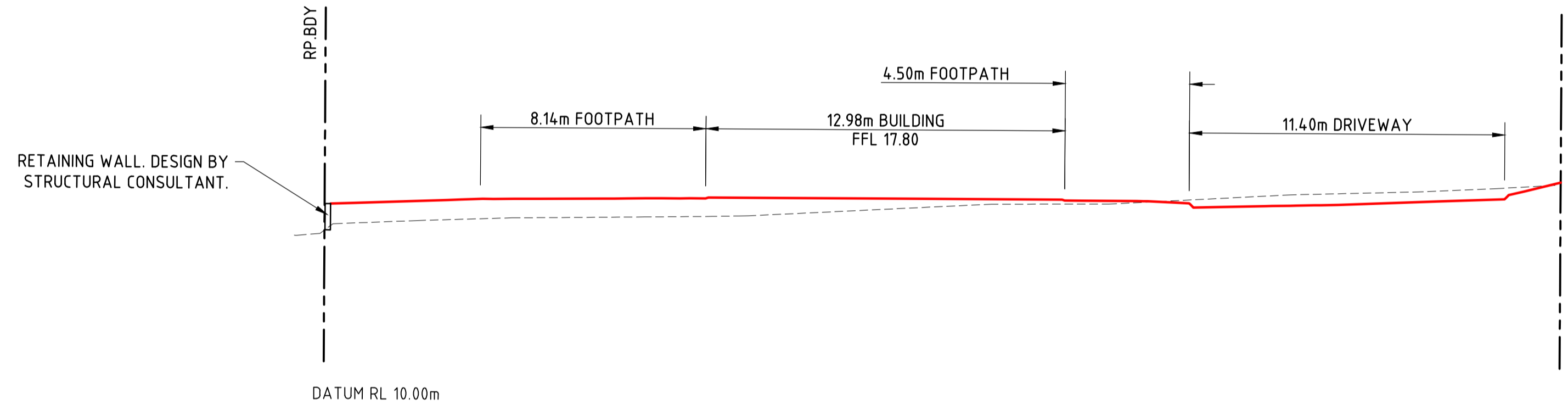
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ISSUE P1

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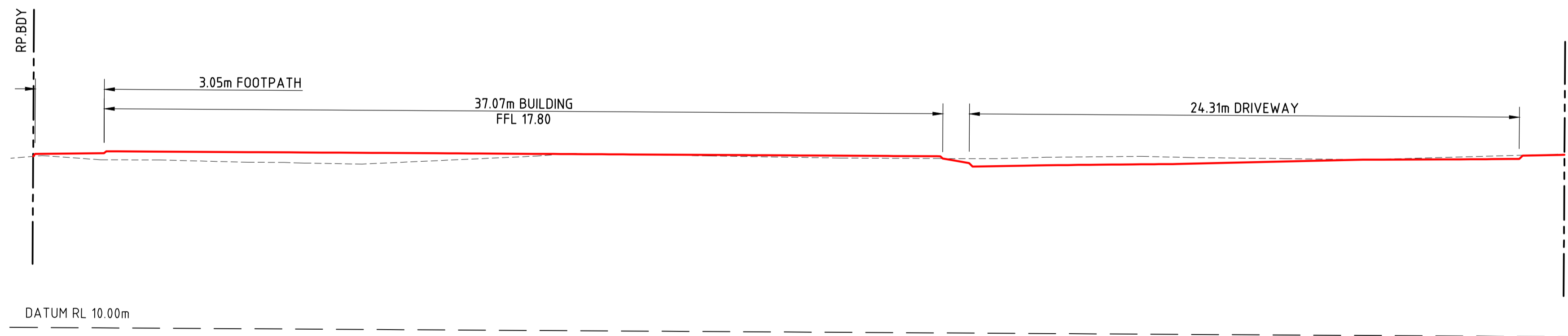
- EXISTING GROUND SURFACE
- DESIGN GROUND SURFACE



**Section A**  
Scale 1:150



**Section B**  
Scale 1:150

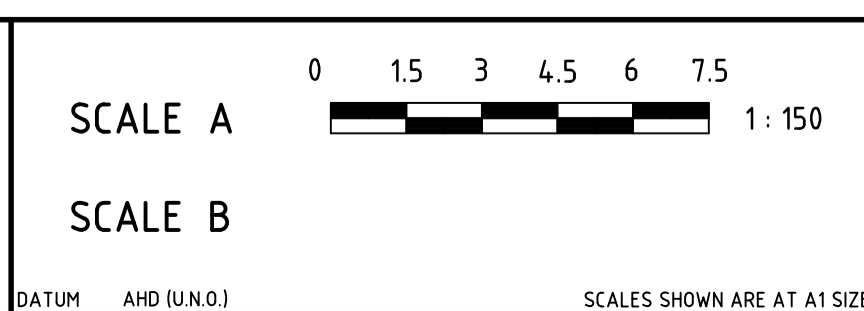


**Section C**  
Scale 1:150

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(RPEQ No 15735)

CLIENT AELC DEVELOPMENT 2 PTY LTD ATF

PROJECT PROPOSED EARLY LEARNING CENTRE  
92 CHAMBERS FLAT ROAD, LOGAN RESERVE

CONCEPT SITE SECTIONS

JOB NO.	250654
DRAWING NO.	SK05
ISSUE	P1

## APPENDIX D

### *Logan City Council Sewer and Water GIS Mapping*

