Site Based Stormwater Management Plan (SBSMP)

Prepared for: Brisbane Housing Company

Attention: Emma Moller and Greg Coghlan

Date: 19/01/2023

Prepared by: Katherine Leggett

Ref: 301050151-BRI-C-SBSMP

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Revision

Revision	Date	Comment	Prepared By	Approved By
А	28/11/2022	Draft SBSMP	KJL	HS
В	12/01/2023	SBSMP	KJL	MSP
С	19/01/2023	Final SBSMP	KJL	MSP

Site Address: Proposed Lot 3 on Drawing No:18-0765P-02 Version S Sheet 2 of 2 dated 22 June

2022, Part of 70 Park Road, Yeronga

Real Property Description: Part of Lot 3 on SP300888

Proposed Development: Proposed Affordable Residential Development (multiple dwellings 4+ storeys)

Client: Brisbane Housing Company

Local Authority: Economic Development Queensland PDA Area within Brisbane City Council

Authority Reference #: N/A

Stantec Reference: 301050151-BRI-C

Katherine Leggett RPEQ 27100

For and on behalf of Stantec Pty Ltd Reviewed by Mike Prior Principal Project Manager

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1. Introduction

Stantec have been commissioned by Brisbane Housing Company to prepare this Site Based Stormwater Management Plan (SBSMP) for the proposed residential development. The development is proposed to be situated over part of 70 Park Road, Yeronga. The Parent Lot's Real Property Description is Lot 3 on SP300888, noting that the parent lot is subject to a Reconfiguration of Lot to create separately titled lots. The lot created for the Brisbane Housing Company is described by the metes and bounds as proposed Lot 3 on Drawing No:18-0765P-02 Version S Sheet 2 of 2 dated 22 June 2022 (Refer Appendix A).

This SBSMP outlines the stormwater servicing strategy to support the Development Application for the proposed residential development being lodged with Economic Development Queensland (EDQ). The SBSMP will help guide the ultimate stormwater management design undertaken during the detailed design process for the Project.

This SBSMP has been informed by a variety of resources outlined below:

- Yeronga Priority Development Area Development Scheme (dated August 2019);
- Economic Development Queensland PDA Guideline No. 13 for Engineering standards (dated September 2017);
- Economic Development Queensland PDA Guideline No. 15 for Protection from flood and storm tide inundation (dated May 2015);
- EDQ Compliance Assessment documentation for Parkside Yeronga PDA:
 - Parkside Yeronga Site Based Stormwater Management Plan, prepared by Stantec (reference 301048272-RE-02_D, dated 07/07/2022);
 - Parkside Yeronga Flood Assessment, prepared by Water Technology (reference 22020120_Yeronga_PDA_R01-V02, dated 08/07/2022);
- BCC City Plan and associated interactive mapping showing zones and overlays;
- BCC Interactive Flood Awareness Map;
- Brisbane City Council Flood Check Property Reports; and
- Brisbane River Catchment Flood Study, as referenced in the Preliminary Approval documentation for Parkside Yeronga PDA.

The Parkside Yeronga Subdivision documentation has been attached in Appendix C.

The proposed development is to be assessed against the Yeronga Priority Development Area Development Scheme August 2019, unless amended by the Preliminary Approval Framework under Economic Development Queensland (EDQ) Development Application Ref: DEV2021/1221. The Preliminary Approval Framework (DEV2021/1221) was approved by EDQ with conditions on 3 May 2022.

1.1 Purpose

The purpose of this SBSMP is to evaluate the quantity and quality of stormwater associated with the proposed development so as to demonstrate to EDQ that an appropriate stormwater management strategy can be accommodated upon completion of the proposed facility.

The SBSMP specifically addresses the following items for both the construction and operational phases of the development:

- Flooding or overland flow impacts are appropriately addressed and/or mitigated within the proposed development,
- If required, an appropriate stormwater quality management strategy can be implemented/ has been designed that
 meets Water Sensitive Urban Design (WSUD) best management practices, state and local government planning and
 guideline requirements,
- If required, an appropriate stormwater quantity management strategy can be implemented/ has been designed to that ensure that the developed site's stormwater runoff meets Council requirements, and
- Maintenance of any water quality treatment devices incorporated within the stormwater strategy.

2. Existing Site Characteristics

2.1 Property Details

Address: Proposed Lot 3 on Drawing No:18-0765P-02 Version S Sheet 2 of 2 dated 22

June 2022, Part of 70 Park Road, Yeronga

Real Property Description: Part of Lot 3 SP300888 (noting a subdivision is proposed)

Proposed Lots in Subdivision: Future Lot 3

Total Site Area: 3.1230 Ha (Parent Lot)

Subject Application Area: 0.1968 Ha

The proposed future development lots are included within parent Lot 3 (on SP300888), which forms The Parkside Yeronga Priority Development Area (PDA). The Parkside Yeronga PDA has an approved Development Approval for the PDA site for a Material Change of Use and Reconfiguration of a Lot Application. The proposed residential dwellings developed by Brisbane Housing Company is to be located on Lot 3 – refer to Figure 1 below.

Based on the approved Parkside Yeronga PDA Masterplan, the future land uses surrounding Lot 3 generally incorporates Public Open Space and Stormwater Infrastructure to the North (Lots 4 & 5), future Retirement Facility and Aged Care Living (Lot 7), and residential developments (Lots 6 & 22).



Figure 1 – Site Location Aerial (Source: Nearmap, dated 19 September 2022)

2.2 Existing Site Conditions

The proposed site originally formed part of the Yeronga TAFE site until it closed in 2010. All former TAFE buildings and driveways were cleared by late-2019, leaving the parent lot in its current form as vacant land. Based on Nearmap imagery, the ground surface is generally stabilised by a combination of existing vegetation which has remained post-demolition activities, grass cover spreading over the site and a polymer surface binder. The contour levels used within the Lot 3 area to inform the engineering strategy within this report has been based on the Yeronga PDA Compliance Assessment Response Supporting Civil Drawings established by Stantec dated 08/07/2022 – refer to Appendix C.

2.3 Topography

The Parkside Yeronga PDA Compliance Assessment response - Supporting Civil Drawings (Refer Appendix C) will form the basis of assumption of the 'existing' surface levels of the areas within and immediately adjacent to Lot 3 only.

The cut and fill profile noted within the concept plans reflect the proposed basement bulk pad level for the development, driveway levels, a retaining solution along the basement extents (which interfaces with the adjoining property and roads) and a resultant batter to the property boundary. Until such time as the Parkside Yeronga PDA earthworks levels and property boundary positions have been finalised and the proposed adjacent development in Lot 22 becomes further defined, refinement of the design is expected to occur within Lot 3.

3. Requirements

There is a requirement that stormwater strategies prepared for development purposes provide for the achievement of best practice water quality performance objectives. This requires the use of stormwater treatment measures that improve the quality and reduce the flow of water discharged to waterways. Pollution reduction targets, as detailed in the State Planning Policy (July 2017) are outlined in Table 1 below.

The table also outlines the proposed stormwater quantity design level of serviceability that will be provided within the stormwater drainage system as per guidance within the Yeronga PDA Development Scheme, BCC City Plan, the relevant Australian Standard (AS3500.3), and the Queensland Urban Drainage Manual (2016).

Table 1 – Stormwater Quality and Quantity Targets

Pollutant	Pollution Reduction Target
Total Suspended Solids (TSS)	80%
Total Phosphorous (TP)	60%
Total Nitrogen (TN)	45%
Total Gross Pollutants >5mm (GP)	90%
Quantity Design Storm	AEP
Minor Design storm	5% AEP
Major Design storm	1% AEP
Stormwater Detention	1% AEP

4. Flooding / Overland Flow Impacts

4.1 Known Existing Flooding

BCC Interactive Mapping 2014 (Refer Figure 2 for an extract of the mapping), BCC Interactive Flood Awareness Map and Floodwise property searches indicate that the subject site is currently affected by inundation associated with Brisbane River flooding and overland flow paths. However, it should be noted that the extent of this mapping reflects the site levels defined as the existing case, being the operational Yeronga TAFE facility, and not the levels proposed at the completion of the PDA subdivision bulk earthworks.

Refer to Appendix B for the BCC Floodwise Property Report.

The overlay mapping (shown in Figure 2 below) relating to the flooding affecting the Yeronga PDA site is defined as Flood Planning Area 5 in the BCC Interactive Mapping and the 0.2% AEP (1 in 500-year) event in the BCC Flood Awareness mapping. The proposed development usage for the Brisbane Housing Company lot is residential (multiple dwellings 4+ storeys), which is a compatible land use type under Flood Planning Area 5, as defined in Table 8.2.11.3.C within the BCC City Plan 2014.

The Parkside Yeronga SBSMP contained within the EDQ Compliance Assessment response documentation nominates that the 0.2% AEP river flooding approximately correlates to RL11.8mAHD. The proposed Parkside Yeronga PDA development is proposed to be generally filled during the subdivision development stage, with flood storage maintained at the Northern area by completing compensatory cut/fill activities. Therefore, the area expected to be impacted by FPA5 will change from that shown in the BCC Mapping.

The minimum development levels recommended by the Parkside Yeronga PDA Documentation have been extracted and provided below within Table 2 and are shown in grey text. The minimum development levels recommended are indicative of the 1% AEP design event plus the relevant freeboard requirements.

Table 2 - Minimum Development Levels

Use	Min Level (mAHD) (Freeboard)	Proposed Lot 3 Levels
NCC Class 1-4 building – habitable room	8.91m (500mm)	RL12.80mAHD (ground floor)
NCC Class 1-4 building – basement entry	8.41m (0mm)	Circa RL10.98mAHD
		Basement level RL9.20mAHD

The adjoining EDQ subdivision cul-de-sac is at circa RL11mAHD and the proposed development basement access ramp is proposed at circa RL10.98mAHD. Given the proposed subdivision earthworks levels and proposed development basement level of Lot 3 will be below RL11.8mAHD, the development site basement is expected to be impacted by the 0.2% AEP flood event. It is noted that the flooding expected by the 0.2% AEP flood event will be limited to the basement only, and will not affect the habitable ground floor level which is at a level of RL12.80mAHD. As shown by Table 2, the basement levels however are in compliance with the applicable planning requirements contained in the BCC City Plan 2014, and those specified by the flood risk recommendations contained within the Parkside Yeronga PDA Documentation (Refer Appendix C).

The connectivity of the underground stormwater drainage is proposed to be cognisant of the applicable flood events defined under Flood Planning Area 5, and the flood recommendations contained within the Parkside Yeronga PDA Documentation (Refer Appendix C). There will be no stormwater outlet openings within the basement area nor any wall openings, unsealed services penetrations or mechanical ventilation ducts below the nominated 8.91mAHD level to ensure the 1% AEP storm event does not enter the basement area.

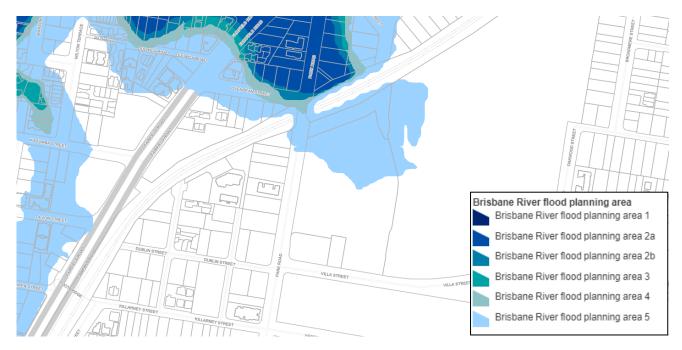


Figure 2 - Overlay Mapping for Brisbane River Flood Planning Area (Source: BCC Interactive Mapping)

4.2 Known Existing Overland Flow Path

As discussed in the SBSMP contained within the Parkside Yeronga PDA Compliance Assessment response (Refer Appendix C), the existing overland flow path shown in the BCC Interactive Mapping (Refer Figure 3) will be addressed at the PDA subdivision level, with the construction of an overland flow channel running along the Eastern side of the parent lot boundary (and subsequent Eastern boundary of proposed Lots 6, 7 & 10) and the upgrading the underground stormwater pipe network from Villa Street through to the rail corridor culvert.

The design of this overland flow channel is such that its formation caters for all events up to and including the 1% AEP storm with a minimum of 300mm freeboard, including sensitivity analysis regarding the extent of upstream blockage of pits within Villa Street. As such, Lot 3 will not be impacted by this overland flow.



Figure 3 – Overlay Mapping for Overland Flow (Source: BCC Interactive Mapping)

4.3 Waterways

The BCC Interactive Mapping included in the City Plan 2014 identifies that there are no defined waterways within or adjacent to the site.

4.4 External Catchment

The surrounding area has been investigated to determine the likely impact of external stormwater catchments on the proposed site. The surface contours included in the Yeronga PDA Preliminary Approval documentation indicate that there is one upstream catchment affecting Lot 3.

An upstream catchment impacting on Lot 3 is created by Lot 22, until such time as Lot 22 is developed. In the ultimate fully developed scenario when proposed Lot 22 is developed, minor and major flows from Lot 22 would be diverted to Maidenhair Place either by underground stormwater pipework or as surface flows along a channel.

Given that stormwater impacting Lot 3 in the fully developed scenario will be appropriately diverted around the proposed development, and that Lot 22 will impact the developed site in the interim, it is considered that constructing temporary bunding to divert upstream stormwater flows is an appropriate measure during the construction phase. Sizing of the bund is to be completed in the detailed design phase, with the diverted flows to be captured within the proposed Maidenhair Place stormwater network.

The external catchments impacting Lot 3 during the staged construction phase will need to be taken into consideration during the Erosion and Sediment Control design stage.

5. Stormwater Quantity

5.1 Stormwater Discharge / Lawful Point of Discharge

It is a requirement that every development must have a lawful point of stormwater discharge. A lawful point of discharge to service future Lot 3 will be constructed as part of the Parkside Yeronga PDA subdivision. According to the conceptual stormwater drainage plan prepared for the PDA development application, a stormwater connection will be provided for each future Lot and will ultimately discharge to the North (towards future Lots 4 & 5).

A Site-Based Stormwater Management Plan (SBSMP) was prepared by Stantec for the purpose of supporting the Parkside Yeronga PDA Development Application and Compliance Assessment response. As discussed in the SBSMP, the percentage of impervious area in the post development phase (being a fully developed PDA site) is not greater than the pre-development condition, being the Yeronga TAFE; this ultimately translates to a non-worsening of stormwater flows discharging from the site. Consequently, no stormwater detention mitigation is proposed at a future lot development level e.g., Lot 3 or within the wider PDA.

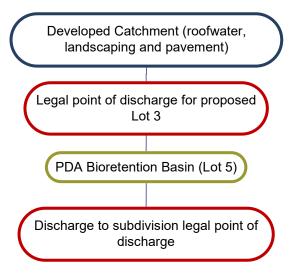
Refer to Appendix C for the approved Parkside Yeronga PDA development application documents.

6. Stormwater Quality

A SBSMP was prepared by Stantec for the purpose of supporting the development approval application for the Parkside Yeronga PDA. As discussed in the SBSMP, a subdivision wide bio-retention basin (located in Lot 5) is proposed to treat runoff from the proposed lots and roads. Given that the subdivision wide bioretention basin caters for the treatment of stormwater runoff from a fully developed Lot 3, no individual Lot treatment measures are proposed.

The stormwater treatment train schematic is shown in Figure 4.

Figure 4 - Typical Treatment Train Proposed



6.1 Maintenance Tasks & Responsibilities

To ensure that the proposed stormwater quality treatment train maintains it treatment effectiveness, maintenance is imperative to be undertaken including monitoring and rectification as required. The maintenance requirements are included in Table 3. This maintenance regime will be the responsibility of the local Council.

Table 3 - Summary of SQID Maintenance Responsibility

Stormwater Quality Improvement Devices	Ongoing Maintenance Responsibility
	Council will be the owner of the bioretention basin constructed as part of the Parkside Yeronga PDA.
Subdivision Bioretention Systems	It is the Contractor's responsibility during construction of the proposed Brisbane Housing Company residential developments in Lot 3 to ensure that sediment does not enter into the drainage network constructed under the PDA development. If sediment does end up in the bioretention basin as a result of the Brisbane Housing Company construction works, the Contractor is to appropriately reinstate the bioretention basin to the satisfaction of BCC.

6.2 Acid Sulfate Soils

Acid Sulfate Soils are typically encountered in Holocene sediment and below 5m AHD. The proposed development site is located within the BCC overlay for Potential and Actual Acid Sulfate Soils.

The Parkside Yeronga PDA SBSMP indicates that acid sulfate soils testing was completed on site, with acidic soils encountered. The acidic soils were not considered to be acid sulfate soils, and as such, no Acid Sulfate Soils Management Plan is proposed.



Figure 5 – BCC Overlay for ASS (Source: BCC Interactive Mapping)

6.3 Erosion and Sediment Control (ESC) – Construction

An Erosion Hazard Assessment has been performed for the proposed development and is attached in Appendix D.

The site was assessed to be a medium Erosion and Sediment Control risk. The medium risk was triggered by:

- Land disturbance greater than 1000m²
- The presence of a slope greater than 5% that is longer than 3m

Soil testing has been undertaken for the development to inform the basement retention design. Depending on the construction methodology, additional Geotech testing may be required to determine the Emersion Class of the soil during the detailed design phase to inform the proposed erosion and sediment control methodology.

A Conceptual Erosion and Sediment Control (ESC) Management Plan will be required at construction to demonstrate that the proposed development can accommodate the necessary devices to mitigate the sediment and erosion risks associated with the construction phase of the development, and to appropriately mitigate the upstream catchments impacting on the site during the construction phase. The plan will be prepared with reference to the International Erosion Control Association (IECA) Best Practice Erosion and Sediment Control. Prior to works commencement on-site, the ESC Plans will be reviewed, amended, and endorsed by a Certified Professional in Erosion and Sediment Control (CPESC).

7. Conclusion

This Site Based Stormwater Management Plan has been prepared for the proposed residential development on future Lot 3 which is part of the Parkside Yeronga PDA site at 70 Park Road, Yeronga.

This report has confirmed that the stormwater water quality objectives for the future Lot 3 will be met by the establishment of the subdivision wide bio-retention basin proposed to be constructed as part of the PDA subdivision works.

The report has also demonstrated that runoff from the future Lot 3 will not create worsening downstream of the site, since the overall PDA site post development impervious area will not increase the percent impervious area compared to the predevelopment scenario. As such, no stormwater detention mitigation is proposed at a future lot development level e.g., Lot 3 or within the wider Parkside Yeronga PDA subdivision.

Appendix A Proposed Development Layout

Documents included in this Appendix include:

- Proposed Plan of Reconfiguration (Drawing No:18-0765P-02 Version S Sheet 2 of 2 dated 22 June 2022);
- Architectural drawings prepared by Ultra Linea Architecture; and
- Concept civil engineering drawings prepared by Stantec.

PRELIMINAR'

450 SP117130

benefiting Lots 1 & 11

Final intended use of new Lots & Easements:

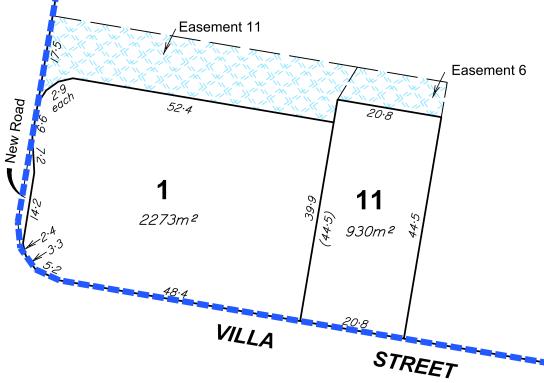
Lot 500 - is for Stage 2. Lots 1 & 11 - are for future development Easement 6 - is for Right of Way for Access & Services - burdening Lot 500, benefiting Lot 11 Easement 11 - is for Right of Way for

Access & Services - burdening Lot 500,

500 2.8 ha

STAGE I

2 SP300888



Legend

Right of Way for Access & Services Easements

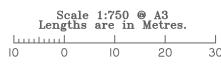
<u>Notes</u>

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- 3. Easements locations from others and are approximate only.
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Table of Development

Gross area of subject land......3.123 ha Net area of subdivision.....3.12 ha

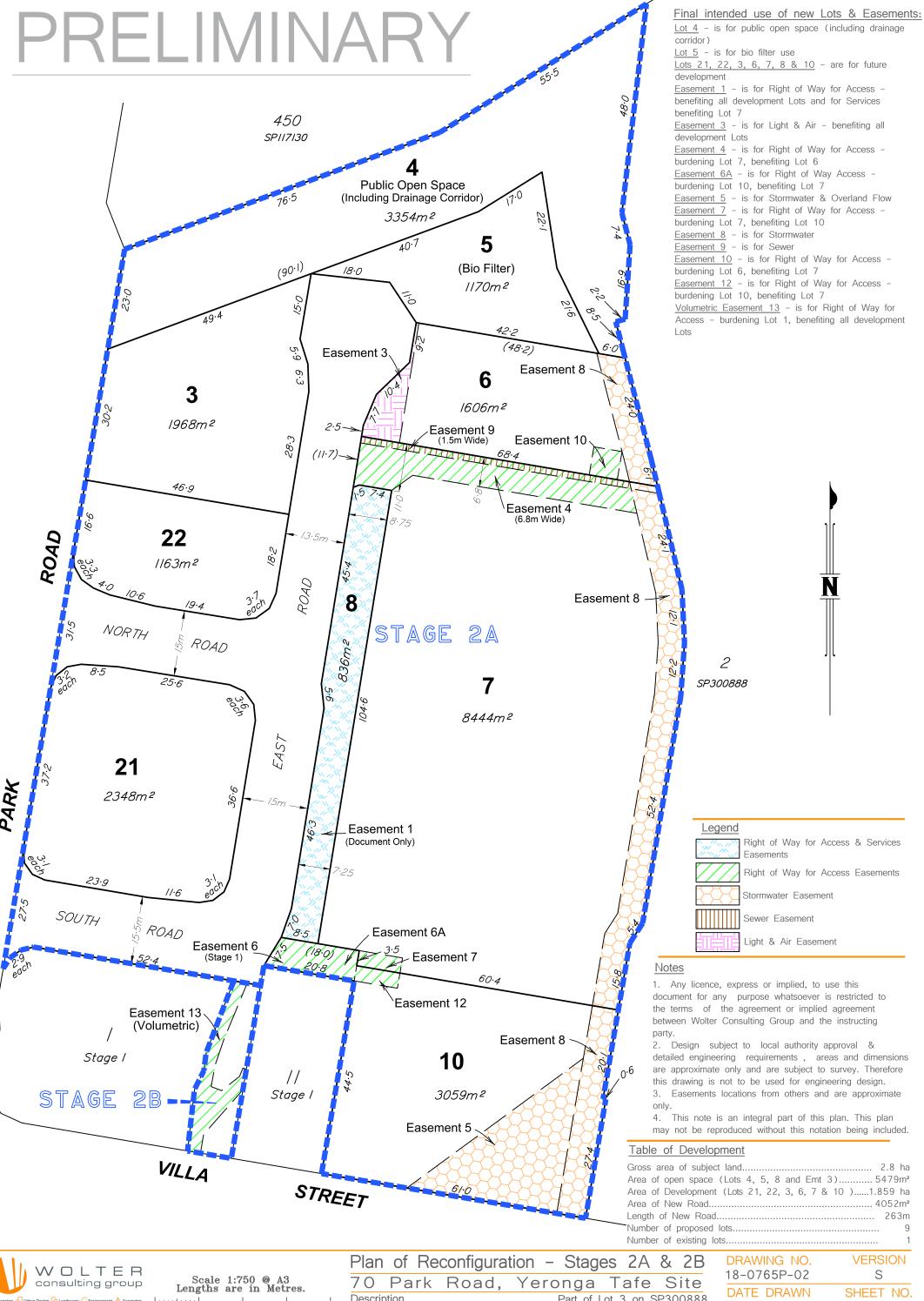




Plan of Reconfiguration - Stage 1 70 Park Road, Yeronga Tafe Site Lot 3 on SP300888 Description Local Authority Brisbane City

61.0

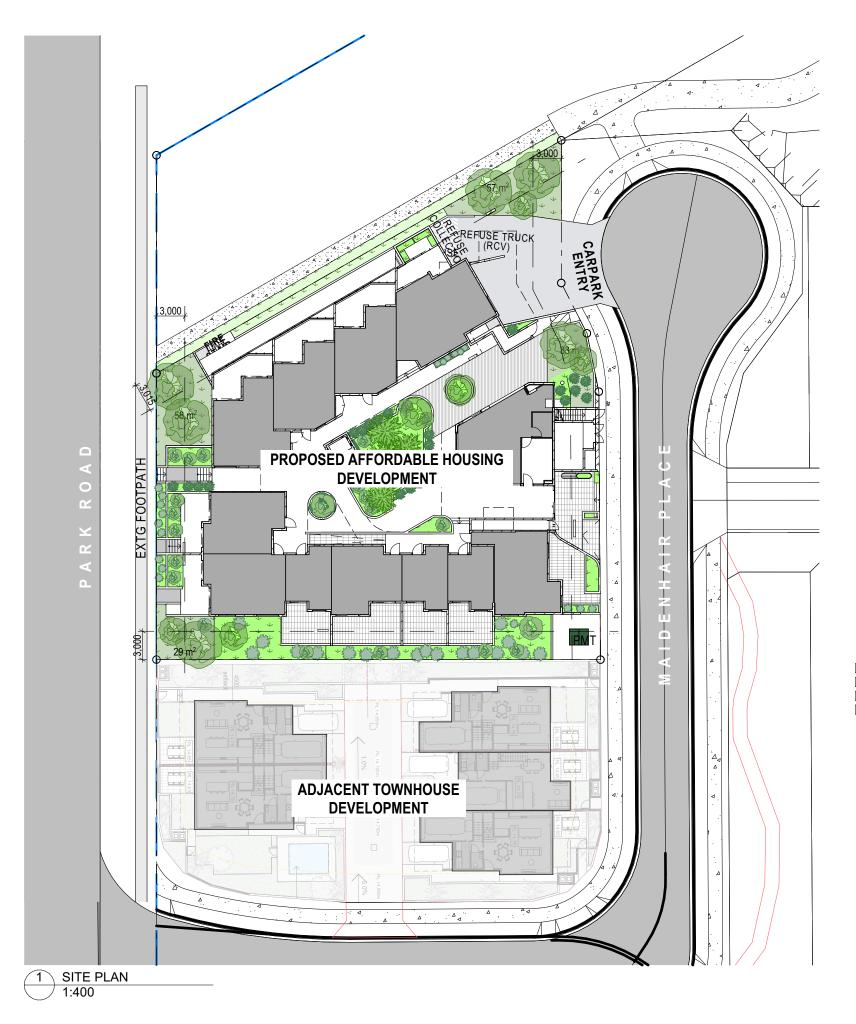
DRAWING NO. **VERSION** 18-0765P-02 S DATE DRAWN SHEET NO. 22-06-2022 1 of 2



ing 🕂 Urban Design 🚱 Landscape 💭 Environment 🧥 Surveying Level 2, 1 Breakfast Ck Road, Newstead, QLD 4006 Phone: (07) 3666 5200

10 20 30

Description Part of Lot 3 on SP300888 Local Authority Brisbane City 22-06-2022 2 of 2



DEVELOPMENT SUMMARY

SITE DETAILS

ADDRESS: 70 PARK RD, YERONGA

QLD 4104

RP DETAILS: Lot 3 on SP300888

SITE AREA: 1968m²

LOCAL AUTHORITY: BRISBANE CITY

DEVELOPMENT DETAILS

SITE COVER (ABOVE 4th FLOOR): 1012m² (51.4%)
DEEP PLANTING: 177m² (8.9%)
COMMUNAL OPEN SPACE: 235m²(12%)

PARKING DETAILS

BICYCLE PARKING 94 SPACES

RESIDENT PARKING: 36 SPACES (46%) VISITOR PARKING: 12 SPACES (15%) TOTAL: 48 SPACES (61%)

DEVELOPMENT MATRIX

	\$	€	S	1	2
					1
5 th FLOOR	6 R		2	6 1	1
4 th FLOOR	6 R		2	6 1	1 1
3 RD FLOOR	6 R		3	7 1	1 1
2 ND FLOOR	6 R		4	7 1	1 1
1 ST FLOOR	6 R		4	7 1	1 1
GROUND	4 R		3	6 1	1
	41 R	36 R			
BASEMENT	19 V	12 V			
TOTAL	75 R 19 V (94)	36 R 12 V (48)	18	39 3 (45)	1 5 4 2 (12)

PLATINUM UNIT
GOLD UNIT
V = VISITOR PARKING
SILVER UNIT
MANAGERS UNIT
1 = 1 BED UNIT TYPE
2 = 2 BED UNIT TYPE

A 22/12/22 DA ISSUE

rev date description

CLIENT

BRISBANE HOUSING COMPANY

PROJECT

AFFORDABLE HOUSING DEVELOPMENT
PARK ROAD

YERONGA,QLD

DRAWING

PLANS SITE PLAN

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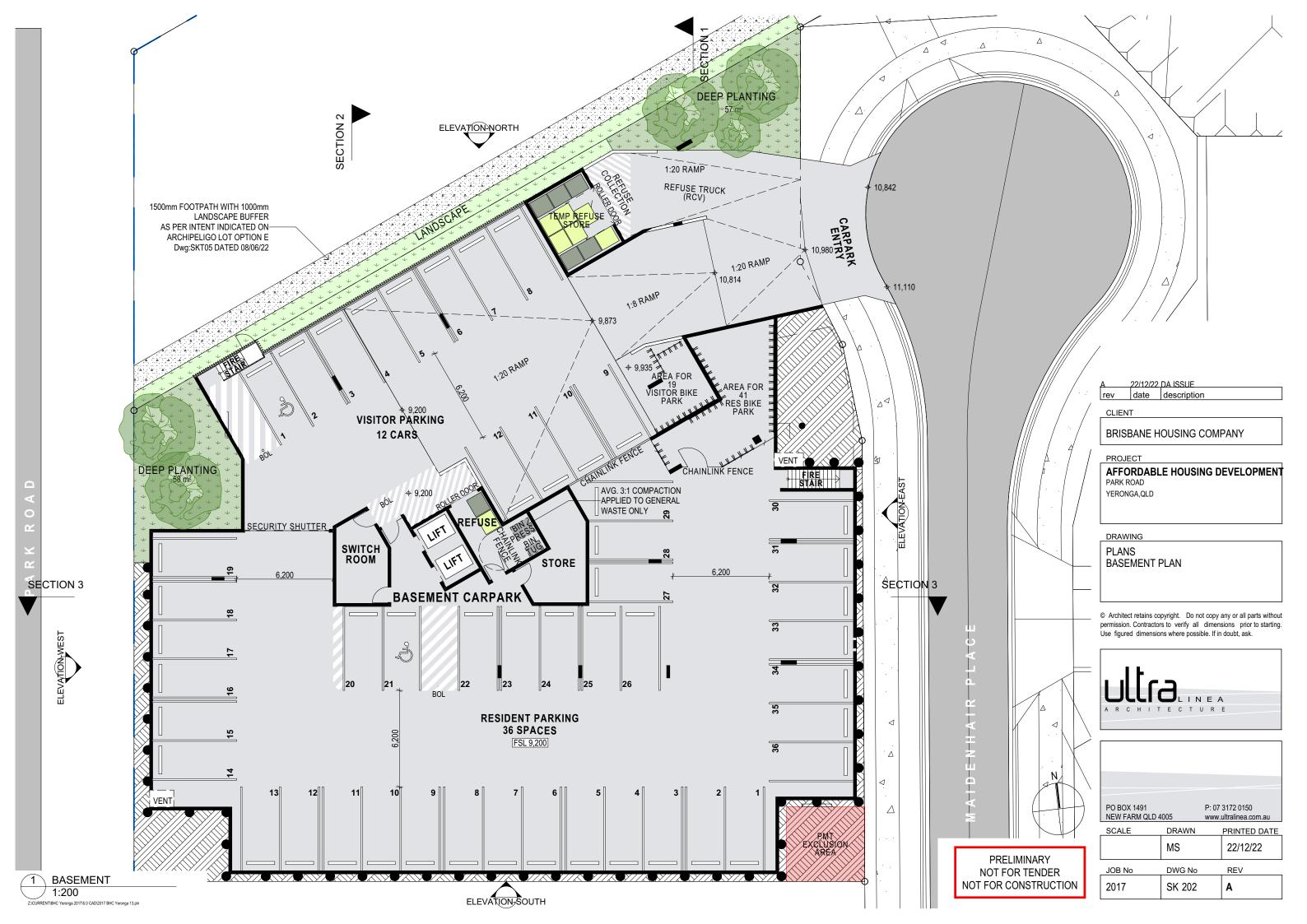
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NEW FARM QLD 4005 www.ultralinea.com.au

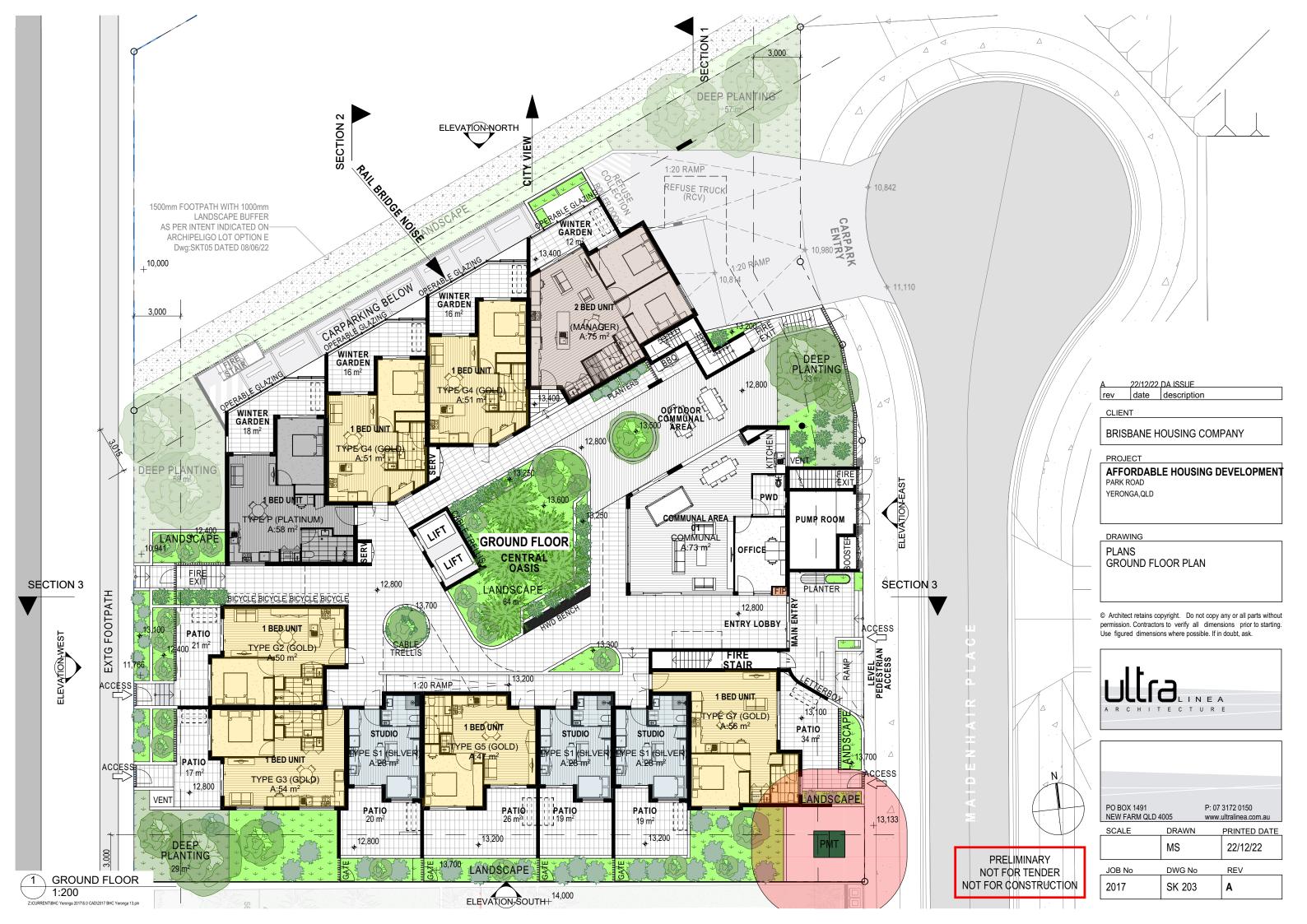
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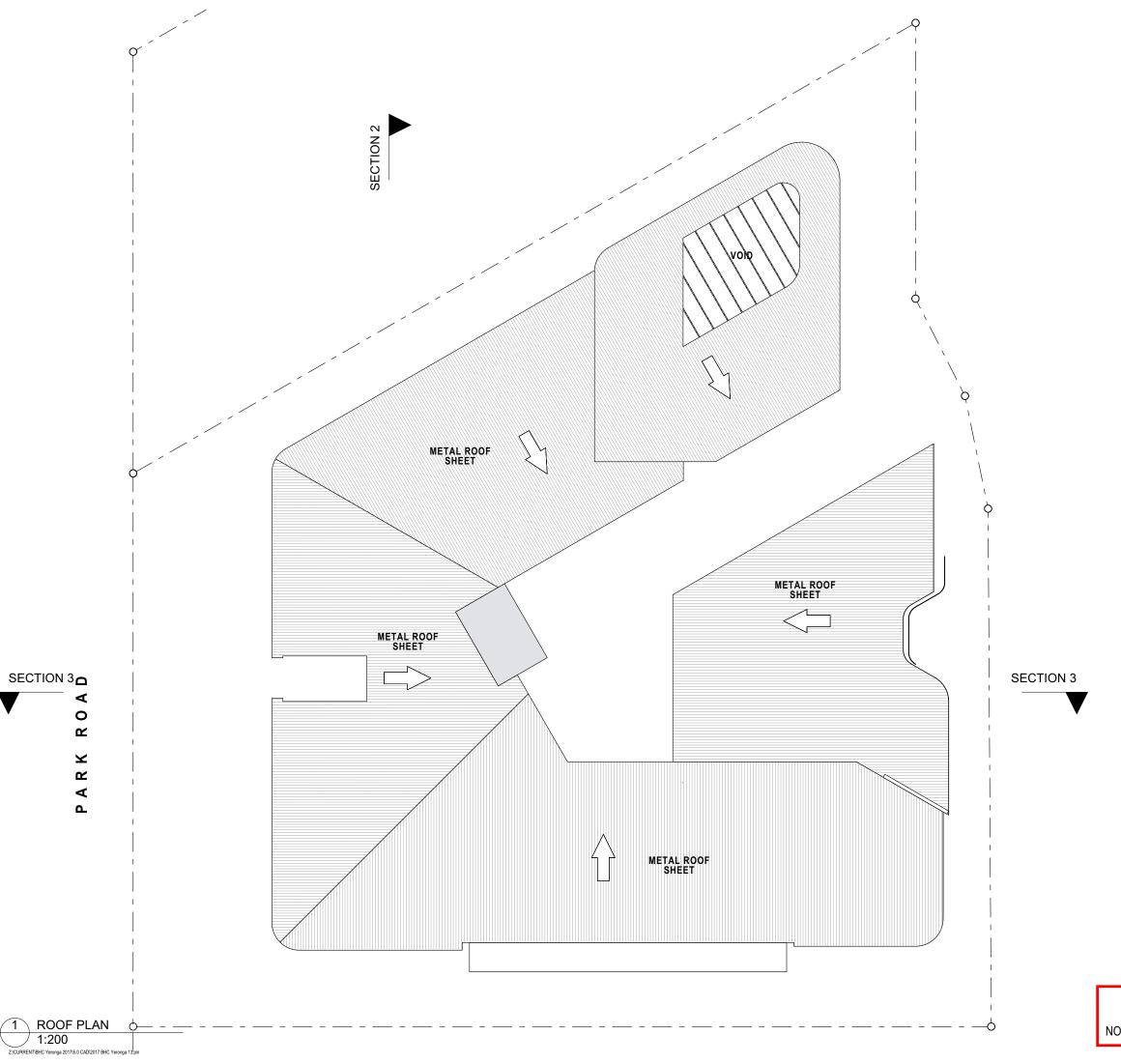
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 DWG No
 REV

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 SK 201
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A 22/12/22 DA ISSUE rev date description

BRISBANE HOUSING COMPANY

AFFORDABLE HOUSING DEVELOPMENT PARK ROAD

YERONGA,QLD

DRAWING

PLANS ROOF PLAN

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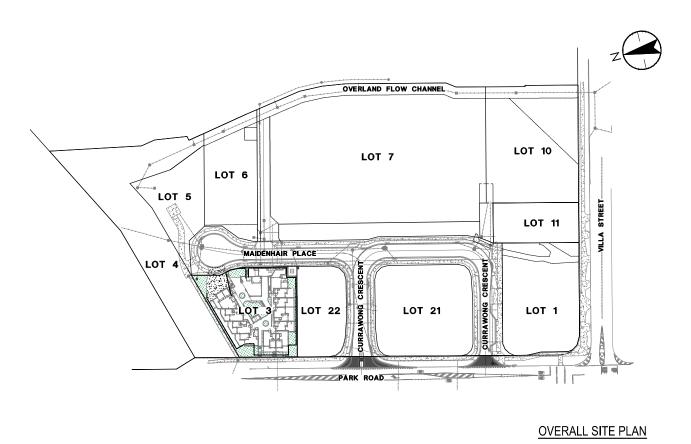
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SCALE PRINTED DATE MS 22/12/22 JOB No DWG No REV 2017 SK 209



BRISBANE HOUSING CORPORATION

PARKSIDE YERONGA - BHC - LOT 3



DRAWING INDEX DWG No. DESCRIPTION 301050151-BRI-C-DA01 301050151-BRI-C-DA02 COMBINED SERVICES LAYOUT PLAN 301050151-BRI-C-DA03 EARTHWORKS SHADING PLAN

2023.01.12

PROJECT NUMBER: 301050151

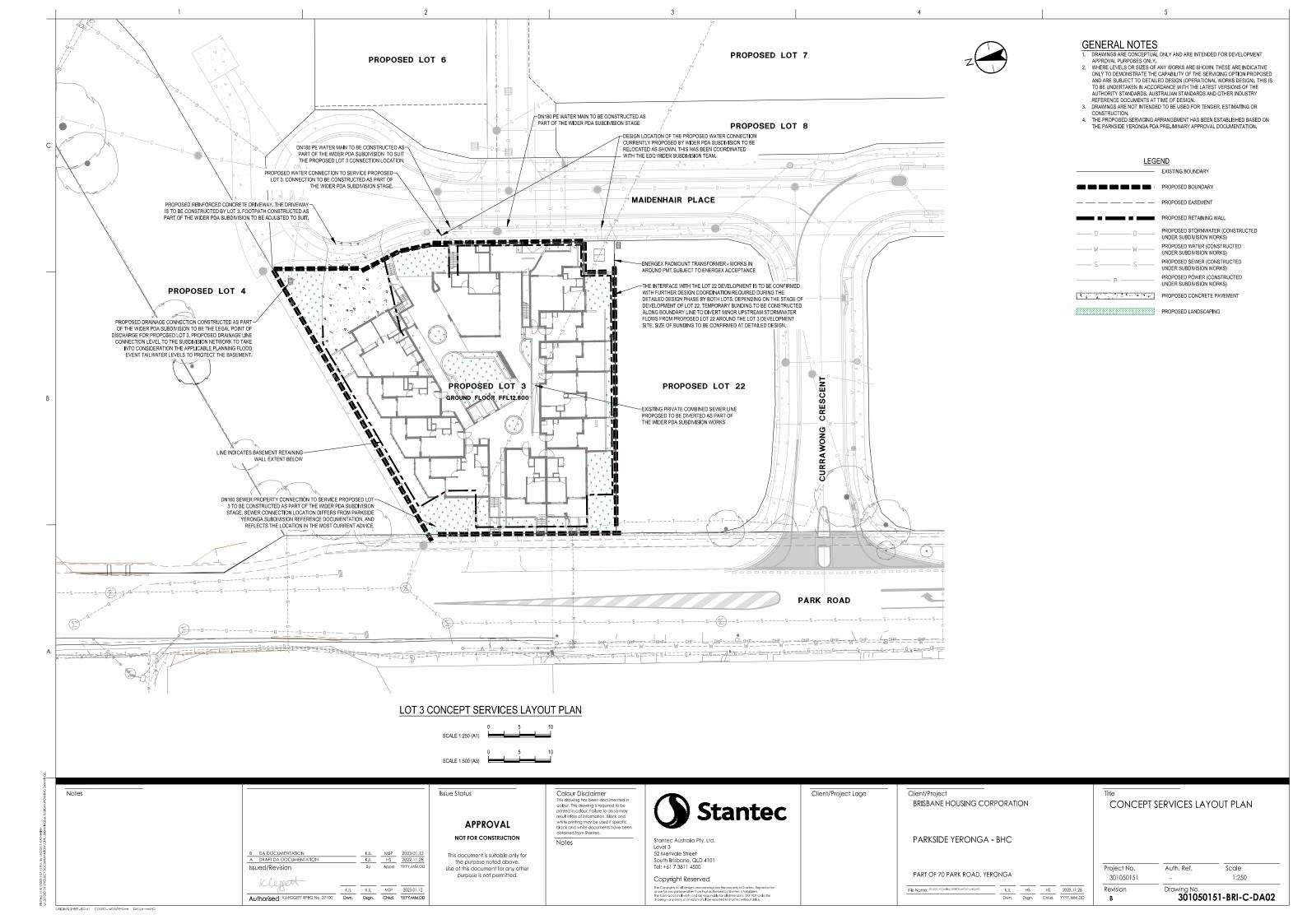
GENERAL NOTES

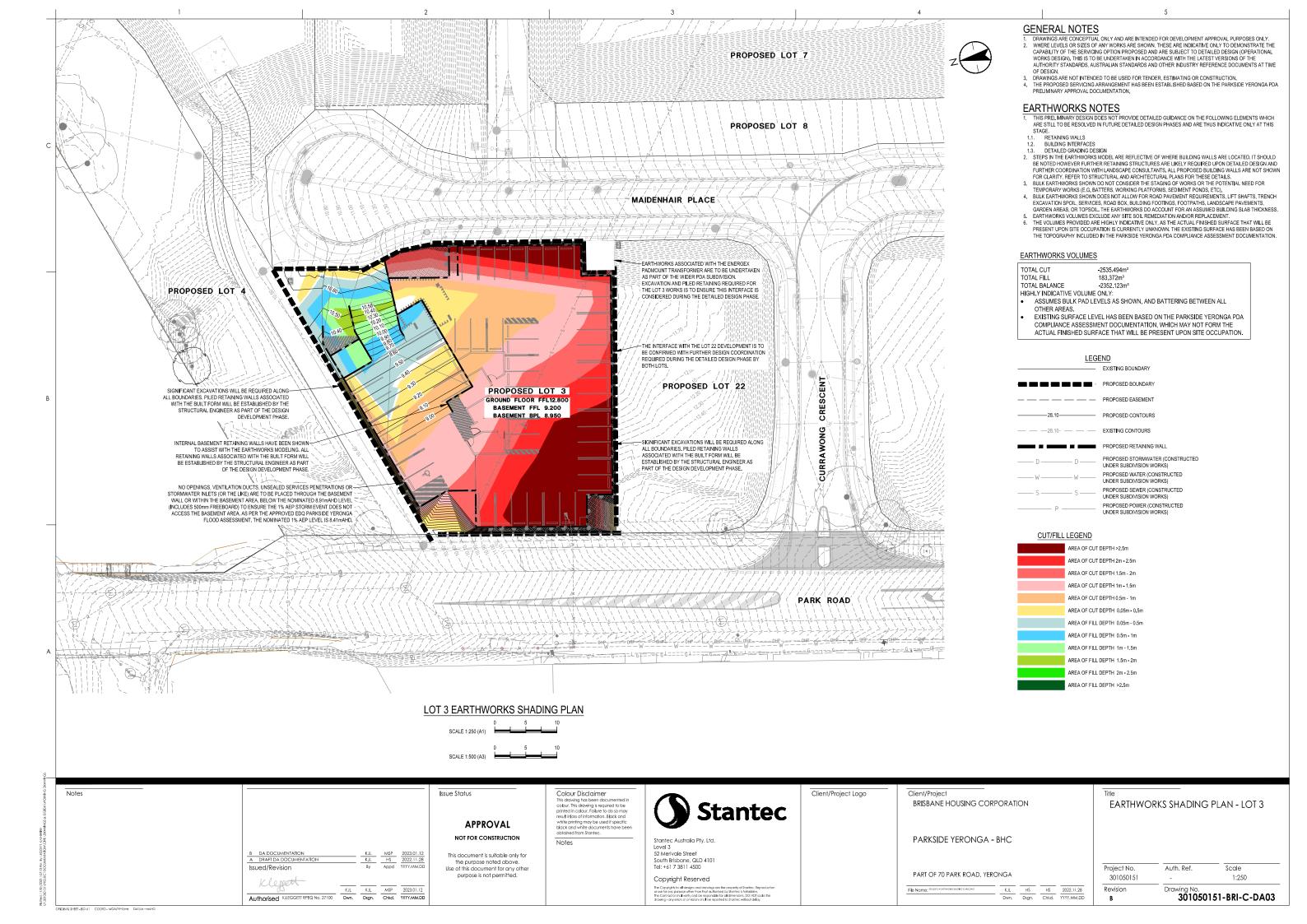
- ONLY TO DEMONSTRATE THE CAPABILITY OF THE SERVICING OPTION PROPOSED AND ARE SUBJECT TO DETAILED DESIGN (OPERATIONAL WORKS DESIGN). THIS IS TO BE UNDERTAKEN IN ACCORDANCE WITH THE LATEST VERSIONS OF THE AUTHORITY STANDARDS, AUSTRALIAN STANDARDS AND OTHER INDUSTRY REFERENCE DOCUMENTS AT TIME OF DESIGN
- DRAWINGS ARE NOT INTRODED TO BE USED FOR TENDER, ESTIMATING OR CONSTRUCTION.

 THE PROPOSED SERVICING ARRANGEMENT HAS BEEN ESTABLISHED BASED ON THE PARKSIDE YERONGA PDA PRELIMINARY APPROVAL DOCUMENTATION.

PRIOR TO COMMENCEMENT OF NEW WORK THE CONTRACTOR SHALL CONFIRM LOCATIONS, LEVELS AND DETAILS OF EXISTING CONNECTION POINTS AND SERVICE







Appendix B Authority Flood Report



Brisbane City Council FloodWise Property Report

Report Reference 1633663486795

08/10/2021 13:24:46

Dedicated to a better Brisbane

THIS REPORT IS FOR BUILDING AND DEVELOPMENT PURPOSES ONLY

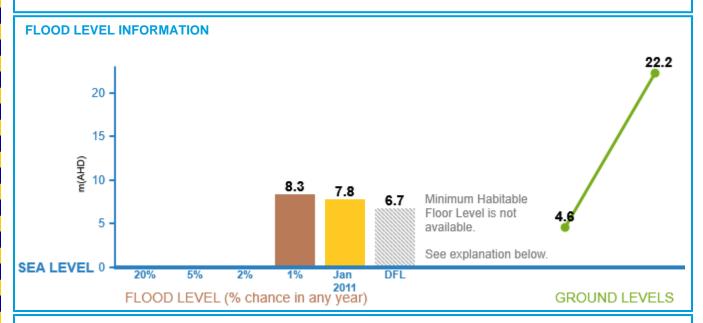
The FloodWise Property Report provides property or lot-based flood information for building and development requirements. This report provides information on estimated flood levels, habitable floor level requirements and more technical information on the four sources of flooding: river, creek / waterway, storm tide and overland flow. Refer to the Useful Definitions section for a glossary of terms.

To find out more about how the contents of this report may affect building or development on this property, please visit www.brisbane.qld.gov.au/planning-building.For more general information about understanding your flood risk and how to prepare your property, family or business for potential flooding visit www.brisbane.qld.gov.au/beprepared

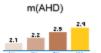
THIS IS A REPORT FOR:

Rateable Address: 70 PARK RD, YERONGA QLD 4104

Lot Details: L.3 SP.300888



EXPLANATION



m(AHD) - Metres Australia Height Datum. The level of 0.0m AHD is approximately mean sea level.

Flood Levels - The Flood level bar chart above shows the possible flooding level and percentage chance of that level being reached or exceeded in any year. If an orange bar shows, it is the calculated January 2011 flood level at this address or lot. Refer to 'Useful Definitions' for further information.

Minimum Habitable Floor Level - Applies to residential development only. Please refer to Council's planning scheme to learn how this may affect you. If a property is in an overland flow path, or a large allotment, a minimum habitable floor level cannot be provided. Refer flood and planning development flags below.

Ground Levels- The green line above shows this property's approximate lowest and highest ground levels based on latest available information (2019 airborne laser survey) to Council. If you are building, please confirm with a surveyor.

For further information and definitions please refer to the Useful Definitions page

FLOOD AND PLANNING DEVELOPMENT FLAGS



This property may also be affected by one or more flood or property development overlays or flags. These include: OVERLAND FLOW PATH,LARGE ALLOTMENT

Please review the technical summary over page and refer to Council's planning scheme for further information.



Brisbane City Council FloodWise Property Report

Report Reference 1633663486795 08/10/2021 13:24:46

Dedicated to a better Brisbane

TECHNICAL SUMMARY

This section of the FloodWise Property Report contains more detailed flood information for this property so surveyors, builders, certifiers, architects and engineers can plan and build in accordance with Council's planning scheme. For more information about building and development in Brisbane please visit www.brisbane.qld.gov.au/planning-building or talk to a Development Assessment Planning Information Officer via Council's Contact Centre on (07) 3403 8888.

THIS IS A REPORT FOR:

Rateable Address: 70 PARK RD, YERONGA QLD 4104

Lot Details: L.3 SP.300888

PROPERTY INFORMATION (Summary)

The following table provides a summary of flood information for this property. More detailed flood level information is provided in the following sections of this report.

PROPERTY SUMMARY	LEVEL (mAHD)	
Minimum Ground Level	4.6	
Maximum Ground Level	22.2	
Min Habitable Floor Level	Contact Council	
Residential Flood Level (RFL)	8.3	
Residential Flood Level Source	RIVER	
Flooding may also occur from	RIVER,OVERLAND FLOW	

ESTIMATED PEAK FLOODING LEVELS

The table below displays the peak estimated flood levels by probability for this property. Estimated flood level data should be used in conjunction with applicable planning scheme requirements - Refer to Flood Planning Development Information.

Note that the overland flow flooding level maybe higher than the levels below from other sources.

DESCRIPTION	LEVEL (mAHD)	SOURCE
20% AEP	N/A*	
5% AEP	N/A*	
2% AEP	N/A*	
1% AEP	8.3	RIVER
January 2011	7.8	RIVER
DFL	6.7	RIVER
RFL	8.3	RIVER

^{*} Council does not hold flood levels for this probability event.

FLOOD PLANNING DEVELOPMENT INFORMATION

This section of the FloodWise Property Report contains information about Council's planning scheme overlays. Overlays identify areas within the planning scheme that reflect distinct themes that may include constrained land and/or areas sensitive to the effects of development.

FLOOD OVERLAY CODE

The Flood overlay code of Council's planning scheme uses the following information to provide guidelines when developing properties. The table below summarises the Flood Planning Areas (FPAs) that apply to this property. Development guidelines for the FPAs are explained in Council's planning scheme, which is available from www.brisbane.qld.gov.au/planning-building.

FLOOD PLANNING AREAS (FPA)					
RIVER	CREEK/WATERWAY	OVERLAND FLOW			
FPA5		Applicable			

COASTAL HAZARD OVERLAY CODE

There are currently no Coastal Hazard Overlays that apply to this property.

PROPERTY DEVELOPMENT FLAGS

Overland Flow Path - Mapping indicates this property may be located within an overland flow path. Overland flow flooding usually occurs when the capacity of the underground piped drainage system is exceeded and/or when the overland flow path is blocked. It is recommended you consult a Registered Professional Engineer of Queensland to determine this property's habitable floor level and flooding depth. Please refer to Council's planning scheme for further information.

Large Allotment - This property is either a Large Allotment of over 1000 square metres or is located within a Large Allotment. Flood levels may vary significantly across allotments of this size. Further investigations may be warranted in determining the variation in flood levels and the minimum habitable floor level across the site. For more information or advice, it is recommended you engage a Registered Professional Engineer of Queensland.

Brisbane City Council FloodWise Property Report

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Useful Definitions

Australian Height Datum (AHD) - The reference level for defining ground levels in Australia. The level of 0.0m AHD is approximately mean sea level.

Annual Exceedance Probability (AEP) - The probability of a flood event of a given size occurring in any one year, usually expressed as a percentage annual chance.

Defined Flood Level (DFL) - The DFL for Brisbane River flooding is a level of 3.7m AHD at the Brisbane City Gauge based on a flow of $6,800 \text{ m}^3/\text{s}.$

Maximum and Minimum Ground Level - Highest and lowest ground levels on the property based on available ground level information. A Registered Surveyor can confirm exact ground

Minimum Habitable Floor Level - The minimum level in metres AHD at which habitable areas of development (generally including bedrooms, living rooms, kitchen, study, family and rumpus rooms) must be constructed.

Council's Planning Scheme - The City Plan (planning scheme) has been prepared in accordance with the Sustainable Planning Act as a framework for managing development in a way that advances the purpose of the Act. In seeking to achieve this purpose, the planning scheme sets out the Council's intention for future development in the planning scheme area, over the next 20 years.

Residential Flood Level (RFL) - Residential flood level (RFL) for the Brisbane River flooding equates to the 1% Annual Exceedance Probability flood level.

Rateable Address - A Lot or Property may have more than one street address. The address shown on this report is the address used by Council for the Lot or property selected.

Property - A property will contain 1 or more lots. The Multiple Lot Warning is shown if you have selected a property that contains multiple lots.

Brisbane City Council's Online Flood Tools

Council provides a number of online flood tools:

- · to guide planning and development
- to help residents and businesses understand their flood risk and prepare for flooding.

Planning and Development Online Flood Tools

Council's online flood tools for planning and development purposes include:

- FloodWise Property Report
- Flood Overlay Code

For more information on Council's planning scheme and online flood tools for planning and development:

- phone 07 3403 8888 to talk to a Development Assessment Customer Liaison Officer
- visit www.brisbane.qld.gov.au/planning-building
- · visit a Regional Business Centre.

Helping residents and businesses be prepared for flooding

Council has a range of free tools and information to help residents and businesses understand potential flood risks and how to be prepared. This includes:

- Flood Awareness Map
- Flooding in Brisbane A Guide for Residents Flooding in Brisbane A Guide for Businesses
- Early Warning Alert Service. Visit www.brisbane.qld.gov.au/earlywarning to register for email, home phone or SMS severe weather alert updates.

Note: The Flood Awareness Map shows four levels of flood likelihood from high likelihood (flooding is very likely to occur) through to very low likelihood (very rare and extreme flood events).

For more information on Council's online flood tools for residents and business:

- · Visit www.brisbane.qld.gov.au/beprepared
- Phone (07) 3403 8888.

Brisbane City Council FloodWise Property Report

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08/10/2021 13:24:46

Dedicated to a better Brisbane

Disclaimer

- 1. Defined Flood Levels and Residential Flood Levels, and the Minimum Habitable Floor Levels are determined from the best available information to Council at the date of issue. These flood levels, for a particular property, may change if more detailed information becomes available or changes are made in the method of calculating flood levels.
- 2. Council makes no warranty or representation regarding the accuracy or completeness of a FloodWise Property report. Council disclaims any responsibility or liability in relation to the use or reliance by any person on a FloodWise Property Report.



Planning to build or renovate?

For information, guidelines, tools and resources to help you track, plan or apply for your development visit www.brisbane.qld.gov.au/planning-building

You can also find the Brisbane City Plan 2014 and Neighbourhood Plans as well as other information and training videos to help with your building and development plans.

Appendix C Approved Parkside Yeronga PDA Documentation

Appendix D Erosion Hazard Assessment Form



Erosion Hazard Assessment - June 2014

Brisbane City Council (BCC), *Erosion Hazard Assessment* form must be read in conjunction with the *Erosion Hazard Assessment-Supporting Technical Notes* (June 2014 or later version) for explanatory terms and Certification information.

What is an Erosion Hazard Assessment?

Soil erosion and sediment from urban development, particularly during construction activities, is a significant source of sediment pollution in Brisbane's waterways. The Erosion Hazard Assessment determines whether the risk of soil erosion and sediment pollution to the environment is 'low', 'medium' or 'high'.

When is the EHA required?

An *Erosion Hazard Assessment* form must be completed and lodged with BCC for any Development Application (ie MCU or ROL) that will result in soil disturbance OR Operational Works or Compliance Assessment Application for 'Filling' or Excavation.

Failure to submit this form during lodgement of an application may result in assessment delays or refusal of the application.

Privacy Statement

The personal information collected on this form will be used by Brisbane City Council for the purposes of fulfilling your request and undertaking associated Council functions and services. Your personal information will not be disclosed to any third party without your consent, unless this is required or permitted by law.

Assessment Details

- 1 Please turn over and complete the erosion hazard assessment.
- **2** Based on the erosion hazard assessment overleaf, is the site:

A 'low' risk site

Best practice erosion and sediment control (ESC) must be implemented but no erosion and sediment control plans need to be submitted with the development application. Factsheets outlining best practice ESC can be found at http://www.waterbydesign.com.au/factsheets



A 'medium' risk site

If the development is approved, the applicant will need to engage a Registered Professional Engineer (RPEQ) or Certified Professional in Erosion and Sediment Control (CPESC) to prepare an ESC Program and Plan and supporting documentation — in accordance with the requirements of the Infrastructure Design Planning Scheme Policy.

A 'high' risk site

If the development is approved, the applicant will need to engage a RPEQ <u>and</u> CPESC to prepare an ESC Program and Plan and supporting documentation — in accordance with the requirements of the Infrastructure Design Planning Scheme Policy. The plans and program will need to be certified by a CPESC.

Site In	formation and Certification
Applic	ation number (if known)
Site ac	ddress
Pa	rt of 70 Park Road, Yeronga Q
	Postcode 4104
l certif	y that:
	I have made all relevant enquiries and am satisfied no matters of significance have been withheld from the assessment manager.
	I am a person with suitable qualifications and/or experience in erosion and sediment control.
	The Erosion Hazard Assessment was completed in

accordance with the Erosion Hazard Assessment Supporting Technical Notes and the BCC Infrastructure Design Planning

The Erosion Hazard Assessment accurately reflects the site's overall risk of soil erosion and sediment pollution to

I acknowledge and accept that the BCC, as assessment manager, relies, in good faith, on this certification as part

of its development assessment process and the provision

of false or misleading information to the BCC constitutes an offence for which BCC may take punitive steps/ action

against me/ enforcement action against me.

Certified by *Print name*

Scheme Policy.

the environment.

Katherine Leggett

Certifier's signature

Kleggett

Date

28 / 11 / 2022

Table 1: Low Risk Test

		Yes	No
1.1	is the area of land disturbance > 1000 m ²		
1.2	does any land disturbance occur in a BCC mapped waterway corridor		
1.3	is there any slope on site (longer than three metres in length) before, during or after construction that is steeper than 5%		
1.4	does any land disturbance occur below 5 m AHD		
1.5	does development involve endorsement of a staging plan		
1.6	is there an upstream catchment passing through the site > 1 hectare		

Have you answered 'yes' to any of the questions in Table 1?

If '*Yes*' then proceed to Table 2

If 'No' then site is <u>low risk</u> with respect to erosion and sediment control

Table 2: Medium Risk Test

Table 2. Wedium nisk 165t		Yes	No
2.1	is the area of land disturbance > 1 hectare		

If '*Yes*' then proceed to Table 3

If 'No' then site is medium risk with respect to erosion and sediment control

Table 3: High Risk Test

3.1	is there an upstream catchment passing through the site > 1 hectare		
3.2	does any land disturbance occurs in a BCC mapped waterway corridor		
3.3	is there any slope on site (longer than three metres in length) before, during or after construction that is steeper than 15%		

Have you answered 'yes' to any of the questions in Table 3?

	Yes	No	

If 'No' then site is medium risk

with respect to erosion and
sediment control

If 'Yes' then site is <u>high risk</u> with respect to erosion and sediment control

Design with community in mind

Level 3, 52 Merivale Street

South Brisbane QLD 4101 Tel +61 7 3811 4500

For more information, please visit www.stantec.com

