PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL



Approval no: DEV2021/1252 Date:

5 June 2023

Site Based Stormwater Management Plan (SBSMP)

Prepared for: Retire Australia Attention: Sharon Waddell Date: 11/07/2022 Prepared by: Mike Prior / Katherine Leggett Ref: 301050214-BRI-C-SBSMP

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Revision

Revision	Date	Comment	Prepared By	Approved By
A	06/12/2021	Draft SBSMP	KJL	MSP
В	21/12/2021	SBSMP	KJL	MSP
С	29/06/2022	EDQ RFI Updates	KJL	MSP
D	11/07/2022	Updated Drawings	KJL	MSP

Site Address:

Local Authority:

Client:

Proposed Lots 7 and 8 on Drawing No:18-0765P-02 Version S Sheet 2 of 2 dated 22 June 2022, Part of 70 Park Road, Yeronga Part of Lot 3 on SP300888 Retirement Facility (Retirement Living) and Car Co-located Uses Retire Australia Economic Development Queensland PDA Area within Brisbane City Council N/A 301050214-BRI-C

Real Property Description:

Proposed Development:

Authority Reference #:

Stantec Reference:

Michael Prior RPEQ 10606 For and on behalf of Stantec Pty Ltd



Katherine Leggett Civil Engineer

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Design with community in mind

1. Introduction

Stantec have been commissioned by Retire Australia to prepare this Site Based Stormwater Management Plan (SBSMP) for the proposed development of a Retirement Facility (Retirement Living) and Car Co-located Uses. The development is proposed to be situated over part of 70 Park Road, Yeronga. The parent lots Real Property Description is Lot 3 on SP300888, noting that the parent lot is subject to a Reconfiguration of Lot to create a separately titled lot for the proposed Retirement Facility (Lot 7) and a Publicly Accessible Private Landscape Space (Lot 8). The lots created for the Retirement Facility is described by 'meets and bounds' as proposed Lots 7 and 8 on Drawing No:18-0765P-02 Version S Sheet 2 of 2 dated 22 June 2022 (Refer Appendix A). The proposed Retirement Facility and Publicly Accessible Private Landscape Space are intended to be constructed in two stages, with the proposed staging illustrated on the Architectural Plans within Appendix A.

This SBSMP outlines the stormwater servicing strategy to support the Development Application for the proposed Retirement Facility 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);
- Preliminary Approval documentation for Parkside Yeronga PDA, and subsequent updates:
 - Parkside Yeronga Site Based Stormwater Management Plan, prepared by Stantec (reference 301048272-RE-02_C, dated 14/02/2022);
 - Updated engineering plans, dated 25/02/2022;
- 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 Lots 7 and 8 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:	Proposed Lots 7 and 8
Total Site Area:	3.12300 Ha
Subject Application/ Stage Area:	0.9280 Ha (proposed Lots 7 and 8 subdivided parcels)

As seen in Figure 1 below, the proposed Retirement Facility is located along the Eastern boundary of parent Lot 3 (on SP300888), which adjoins the Yeronga State High School.

The proposed site is included within parent Lot 3, which forms The Yeronga Priority Development Area (PDA). Documentation for the Yeronga PDA has been submitted for the Preliminary Approval for a Material Change of Use and Reconfiguration of a Lot Applications. The proposed Retirement Facility is to be located on Lot 7 with a Publicly Accessible Private Landscape Space located on Lot 8.

The proposed uses for surrounding lots within the PDA indicate that the Retirement Facility site is to be bound by other residential developments to the North and South, the Yeronga State High School to the East, and East Road to the West.



Figure 1 – Site Location Aerial (Source: Nearmap, dated 26 August 2021)

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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 7 and 8 areas to inform the engineering strategy within this report has been based on this post demolition survey information.

2.3 Proposed Development

Given the separately titled lots for the Retirement Facility and the Publicly Accessible Private Landscape Space will be created under the PDA Application, the development will consist of a Material Change of Use to create the proposed units, apartments, and associated facilities, including all associated services, landscaping, roads, parks, and site accesses. The proposed development can be seen in Appendix A.

Under the proposed Yeronga PDA Development Scheme, the proposed uses of a Retirement Facility and a Publicly Accessible Private Landscape Space are deemed to be preferred land uses.

The Retirement Facility and a Publicly Accessible Private Landscape Space will be constructed in two stages, with different stages consisting of:

- Stage 1: Building A, Building B, the full basement, and Northern third of the Publicly Accessible Private Landscape Space; and
- Stage 2: Building C and the remainder of the Publicly Accessible Private Landscape Space.

2.4 Topography

The Yeronga PDA Preliminary Approval design drawings (Refer Appendix C) will form the basis of assumption of the 'existing' surface levels of the adjacent areas outside of Lot 7 and the location of the municipal services once the subdivision works have been constructed. The proposed levels shown on the concept bulk earthworks plans within this Engineering Services and Infrastructure Report are the preliminary levels proposed internally within Lot 7 based on the facility design levels. The cut and fill profile seen within this report reflects the post demolition surface levels and not the proposed Preliminary Approval documentation levels as these are not confirmed at this stage. Design refinement will obviously be needed once the final PDA subdivision earthworks levels are better known to reflect whether any cut has occurred within Lot 7 as part of the PDA subdivision works. The bulk earthworks for both Stage 1 and Stage 2 area and the subsequent construction of the basement level will be undertaken in the first stage of works.

It is understood that the bulk earthworks for proposed Lot 8 (the Publicly Accessible Private Landscape Space) will be constructed as part of the PDA wide subdivision works and will be such that its surface will typically fall towards East Road, with a small portion along the eastern boundary forming a temporary 1:3 batter to Lot 7. We understand that the levels proposed within this Lot 8 are such that the future footpath within this space will not have equitable access.



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).

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

Table 1 – Stormwater Quality and Quantity Targets



4. Flooding/ Overland Flow Impacts

4.1 Known Existing Flooding/ Overland Flow Paths

BCC Interactive Mapping 2014, BCC Interactive Flood Awareness Map (refer Figure 2 for an extract of the mapping) 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.

It is noted that the 1% AEP flood event level is defined as RL8.3mAHD. The overlay mapping (shown in Figure 2 below) relating to the flooding affecting proposed Lot 7 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. As referenced in Section 2.3, the proposed development usage is classed as a Retirement Facility, 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 Preliminary Approval documentation, nominates that the 0.2% AEP river flooding approximately correlates to RL11.8mAHD. The proposed Parkside Yeronga PDA development is proposed to be filled above this height during the subdivision development stage, with flood storage maintained at the Northern area by completing compensatory cut/fill activities. We understand that flood modelling is still being resolved at a subdivision level, however we do not believe that this will impact the Retirement Facility and Publicly Accessible Private Landscape Space. The development will take into account the outcomes of the final Parkside Yeronga Reports during the detailed design phase.

The minimum building level for proposed Lot 7 is nominated to be RL13.2mAHD and the minimum driveway level along proposed Lots 7 and 8 is nominated to be at RL12.5mAHD along the proposed East Road frontage, which is above the associated estimated flood level defined under Flood Planning Area 5. The lowest opening or basement entry is also to be located above the 0.2% AEP level, at or above circa RL12.7mAHD.

The levels of the underground stormwater within the external municipal street network have not yet been resolved and we understand that these are currently in a detailed design phase of work. The connectivity of the underground pit and pipe infrastructure for the Retirement Village site will be established, where possible, to take into consideration the 0.2% AEP flood event tailwater level.

Given the proposed subdivision earthworks levels, the proposed development levels of the Retirement Village and the connectivity of the underground stormwater drainage are cognisant of the 0.2% AEP flood event levels, it is not expected that flooding defined under Flood Planning Area 5, will impact the site.

As discussed in the Parkside Yeronga SBSMP contained within the Preliminary Approval documentation, the existing overland flow path shown in the BCC Interactive Mapping 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 Lot 7) and the upgrading of 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, the Retire Australia facility will not be impacted by this overland flow. Further to this, the interfacing retaining wall against the overland flow channel will be such that the development is provided further protection from the surface flows within this channel. It should be noted that at the northern end, the development floor levels will be well above the indicative 1% AEP water surface level within the channel. At the southern end, the development levels will be below the indicative 1% AEP water surface level within the channel. In this area, the building formation along with the channel formation itself will ensure the facility is adequately protected.





Figure 2 – Flood Mapping (Source: BCC Flood Awareness Interactive Mapping)

4.2 Waterways

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

4.3 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 are upstream catchments affecting proposed Lots 7 and 8.

An upstream catchment impacting on proposed Lots 7 and 8 is created by proposed Lot 10 and the trapped sag point in Villa Street overflowing from the South in a Northerly direction. A temporary diversion channel has been proposed in the Preliminary Approval drawings to divert the upstream flows from Villa Street and the majority of proposed Lot 10 towards the proposed overland flow channel running along the Eastern parent lot boundary.

In the ultimate fully developed scenario when proposed Lot 10 is developed, a channel would be constructed on the Southern boundary of Lot 10 to divert the overflow from the trapped sag point in Villa Street to the proposed overland flow channel along the eastern boundary of Lot 7. Furthermore, upon development, minor and major flows from Lot 10 would be diverted to East Road either by underground stormwater pipework or as surface flows along the battle-axe private driveway.

Given that stormwater impacting proposed Lot 7 in the fully developed scenario will be appropriately diverted around the proposed Retirement Facility, and that only a minor portion of proposed Lot 10 will impact the developed Retirement Facility 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 East Road stormwater network.

The external catchments impacting the Retirement Facility site during the 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 the proposed Retirement Facility and Publicly Accessible Private Landscape Space site will be constructed as part of the Yeronga PDA subdivision. According to the current conceptual stormwater drainage plan prepared for the PDA wide Preliminary Approval application, a stormwater connection will be provided as part of the subdivision works to the North-Western corner of the proposed Retirement Facility and Publicly Accessible Private Landscape Space site. The wider PDA area will ultimately discharge to the North.

The private internal stormwater lines will need to be designed such that they are cognisant of the development being constructed in two stages, with the stormwater legal point of discharge for the site to service both Stages 1 and 2 of the development located to the north west of the site under the driveway.

A Parkside Yeronga PDA SBSMP was prepared by Stantec for the purpose of supporting the Preliminary Approval application for the Yeronga PDA. As discussed in the Parkside Yeronga PDA SBSMP, the percent impervious area in the post development phase (being a fully developed PDA area) is not greater than the pre-development condition, being the Yeronga TAFE.

Given that the indicative masterplan indicates that the percent impervious area is not increased from the existing Yeronga TAFE conditions, which also correlates to the percent impervious area proposed by the Retirement Facility and Publicly Accessible Private Landscape Space, the stormwater flow at the PDA outlet point will be non-worsening from predevelopment conditions. As such, no stormwater detention mitigation is proposed at a site development level or within the wider PDA.

Refer to Appendix C for the Parkside Yeronga subdivision documentation.



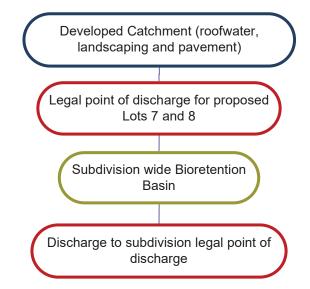
6. Stormwater Quality

A Parkside Yeronga PDA SBSMP was prepared by Stantec for the purpose of supporting the Preliminary Approval application for the Yeronga PDA. As discussed in the Yeronga PDA SBSMP, a subdivision wide bioretention basin 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 proposed Lots 7 and 8, no on-site treatment measures are proposed.

The stormwater treatment train schematic is shown in Figure 3.

Additional best practice Water Sensitive Urban Design elements may be utilised within the landscaping areas and these will be investigated during the natural progression of detailed design phases for the Retirement Facility and Publicly Accessible Private Landscape Space. These will be captured within the landscaping documentation.

Figure 3 – 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 2. This maintenance regime will be the responsibility of the local Council.

Table 2 – Summary of SQID Maintenance Responsibility

Stormwater Quality Improvement Devices	Ongoing Maintenance Responsibility
Subdivision Bioretention Systems	Council will be the owner of the bioretention basin constructed as part of the Yeronga PDA. It is the contractors responsibility during construction of the proposed Retirement Facility 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 Retirement Facility construction works, the contractor is to appropriately reinstate the bioretention basin.

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 SBSMP provided for the PDA Preliminary Approval 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 4 – 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 **Error! Reference source not found.**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 not been undertaken for the development. As such, it is recommended that testing be completed 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 development of a Retirement Facility and Publicly Accessible Private Landscape Space on proposed Lots 7 and 8, which are part of the proposed Yeronga PDA site at 70 Park Road, Yeronga. The Retirement Facility and Publicly Accessible Private Landscape Space are intended to be built in two stages as illustrated in the architectural plans. This has minimal impact on the bulk earthworks or services approach from a civil perspective.

This report has confirmed that the stormwater water quality objectives for the site will be met by the establishment of the wider PDA bioretention basin proposed to be constructed as part of the subdivision works.

The report has also demonstrated that runoff from the proposed development will not create worsening downstream of the site, since the overall PDA wide post development impervious area will not increase the percent impervious area in the predevelopment scenario. As such, no detention mitigation is proposed.

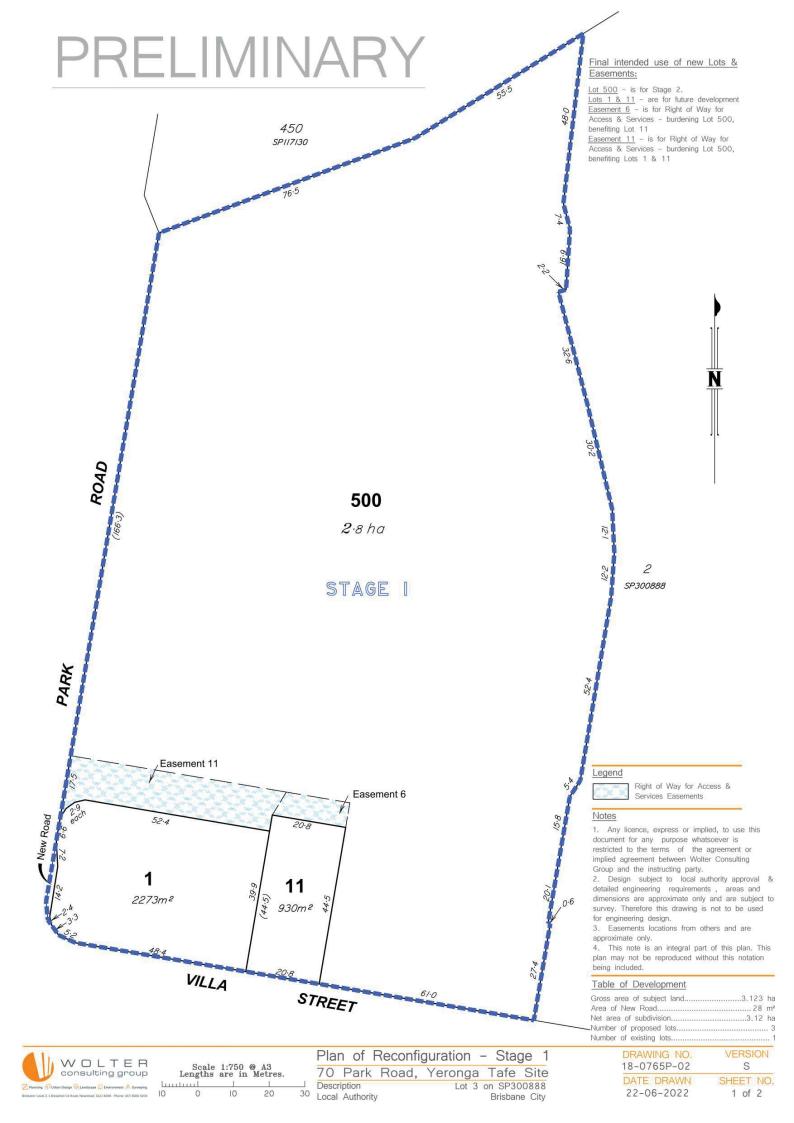


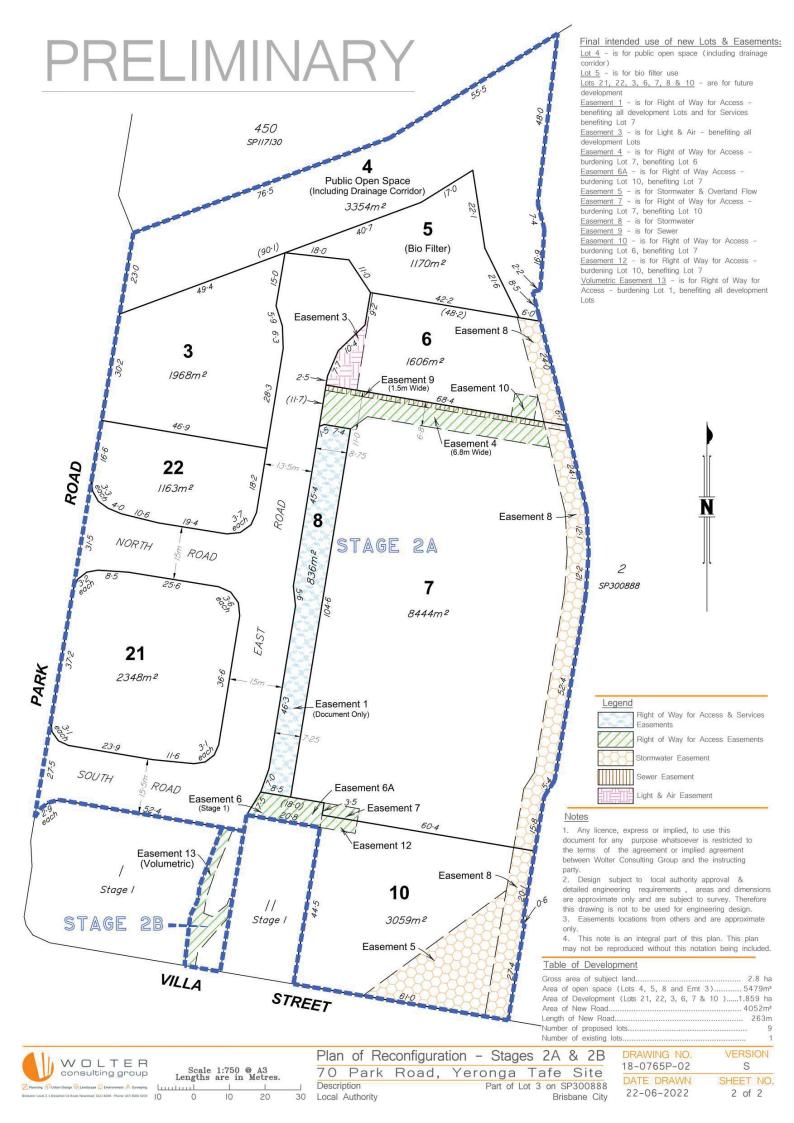
Appendix A Proposed Development Layout

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 Marchese Partners; and
- Concept civil engineering drawings prepared by Stantec.



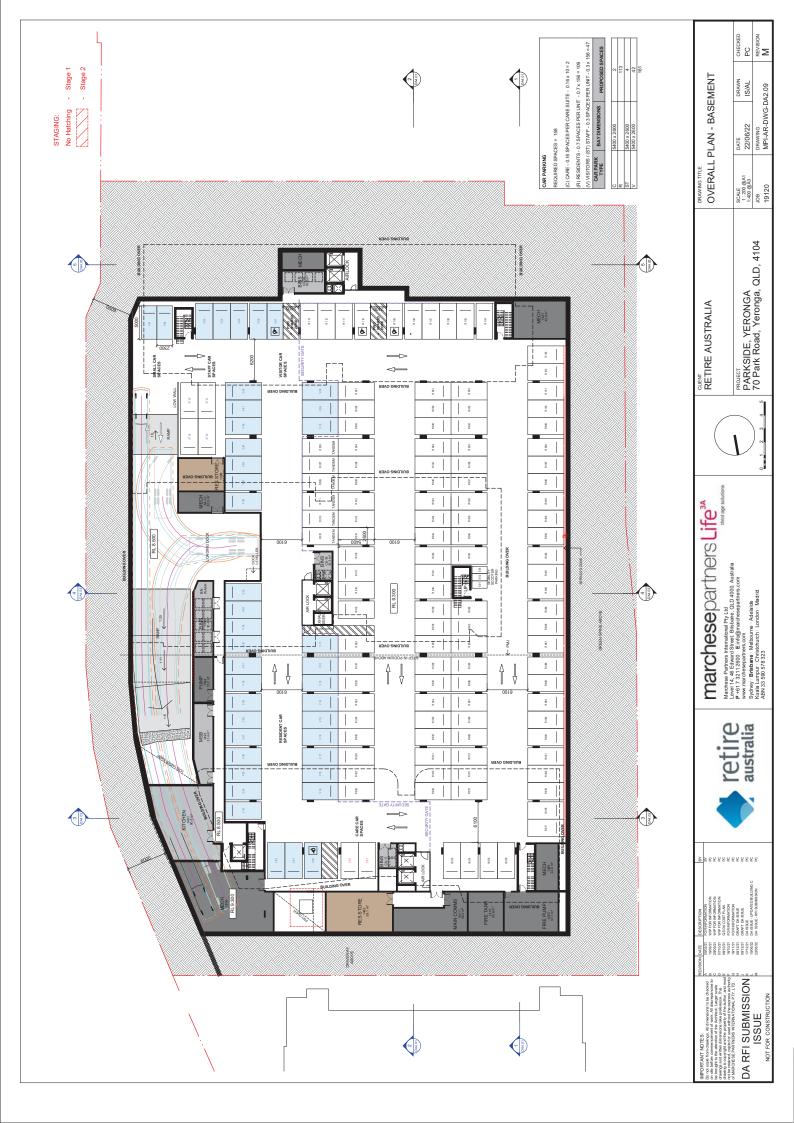




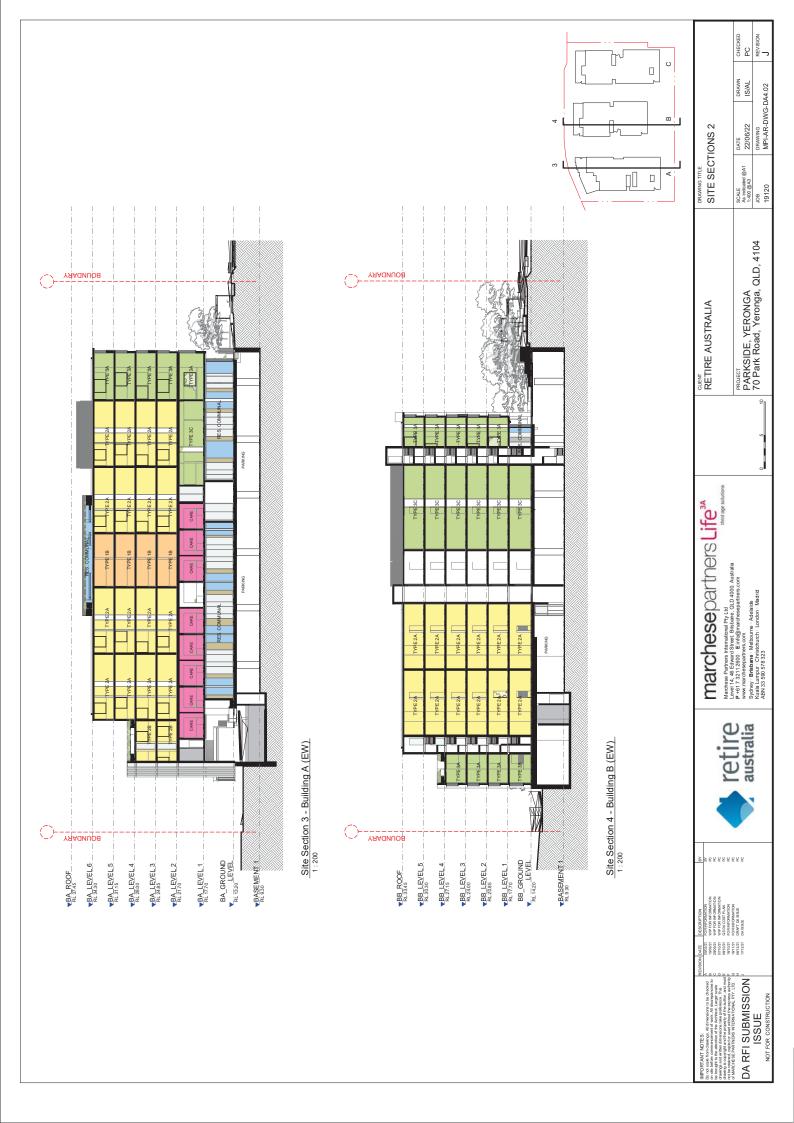


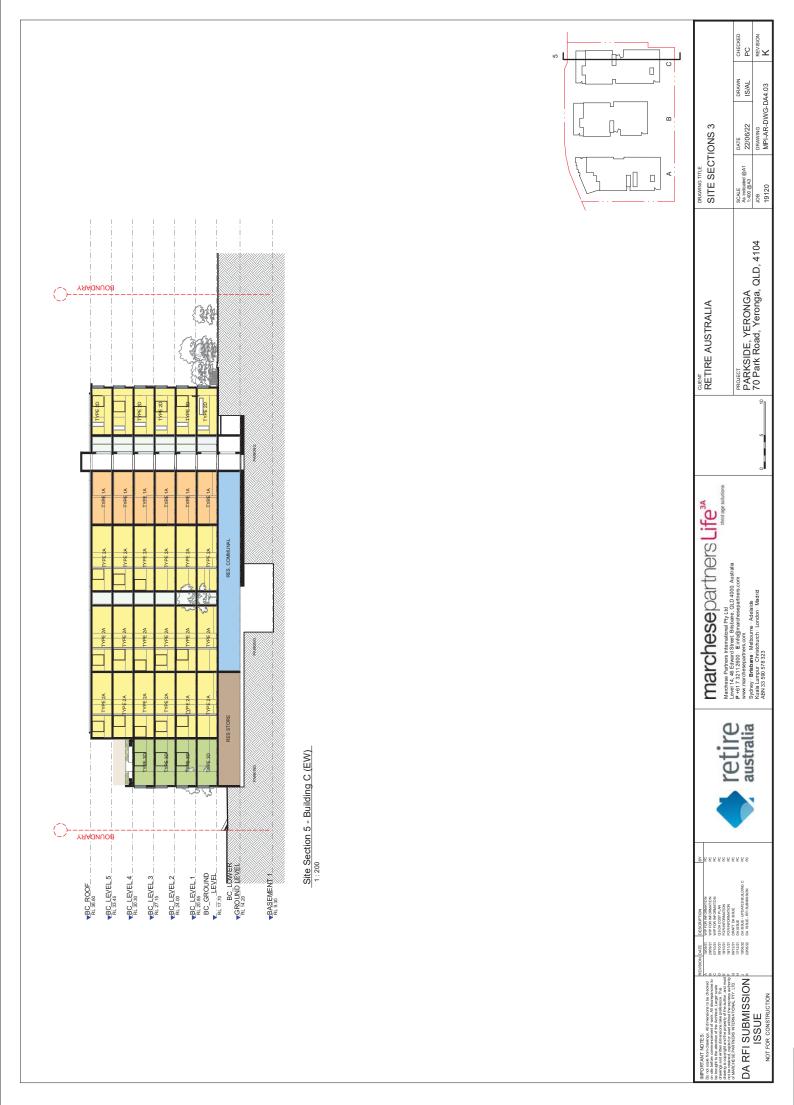


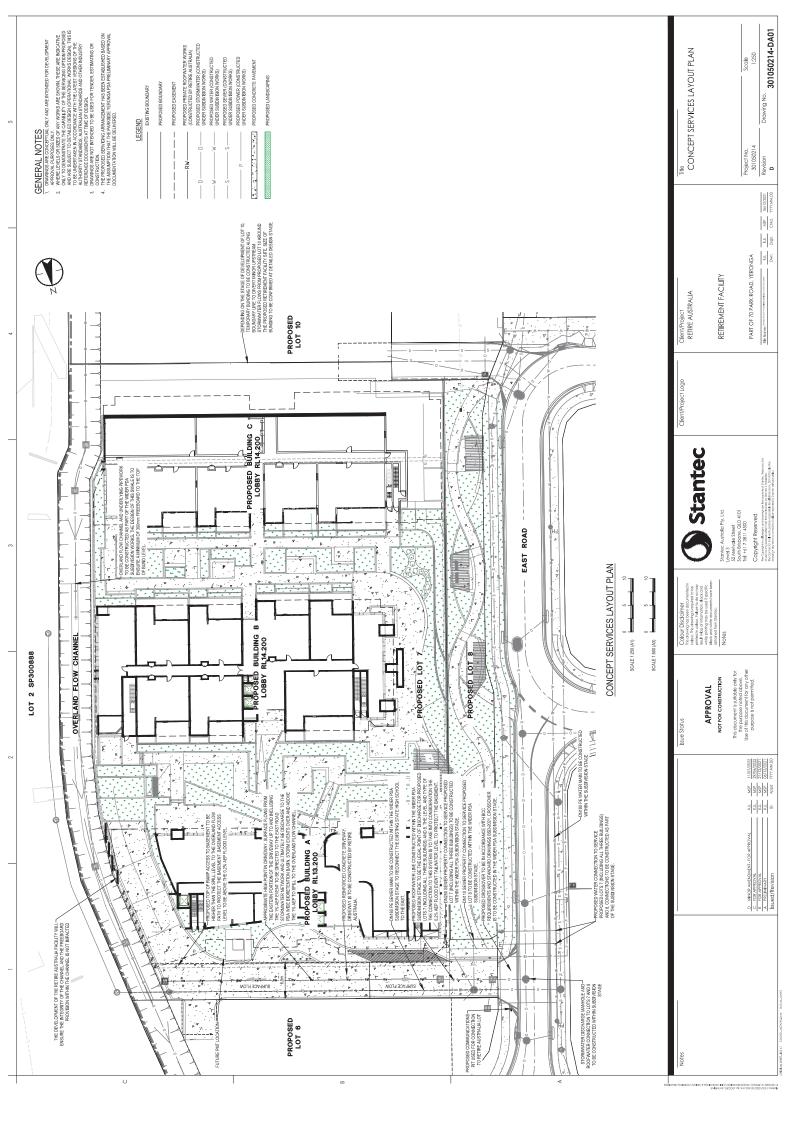


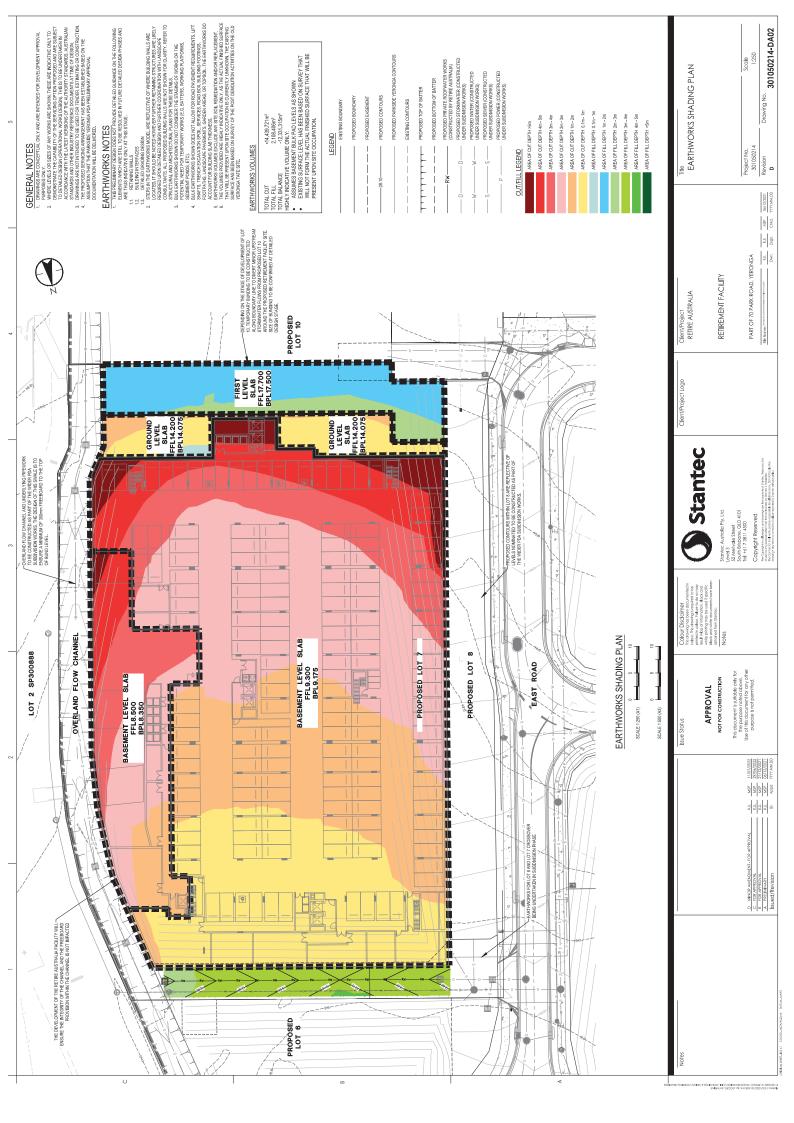












Appendix B Authority Flood Report





Brisbane City Council FloodWise Property Report



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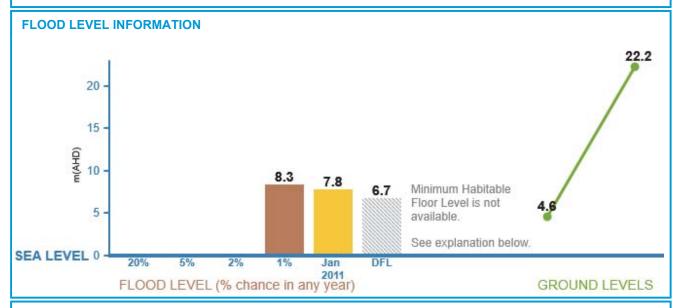
THIS REPORT IS FOR BUILDING AND DEVELOPMENT PURPOSES ONLY

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



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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

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

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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 levels.

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



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.
- 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 Preliminary Approval Documentation



Appendix D Erosion Hazard Assessment Form





BRISBANE CITY COUNCIL ABN 72 002 765 795

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 and 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.

3 Site Information and Certification

Application number (if known)

DEV2021/1252

Site address

Part of 70 Park Road, Yeronga Q Postcode 4104

I certify 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 Scheme Policy.

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

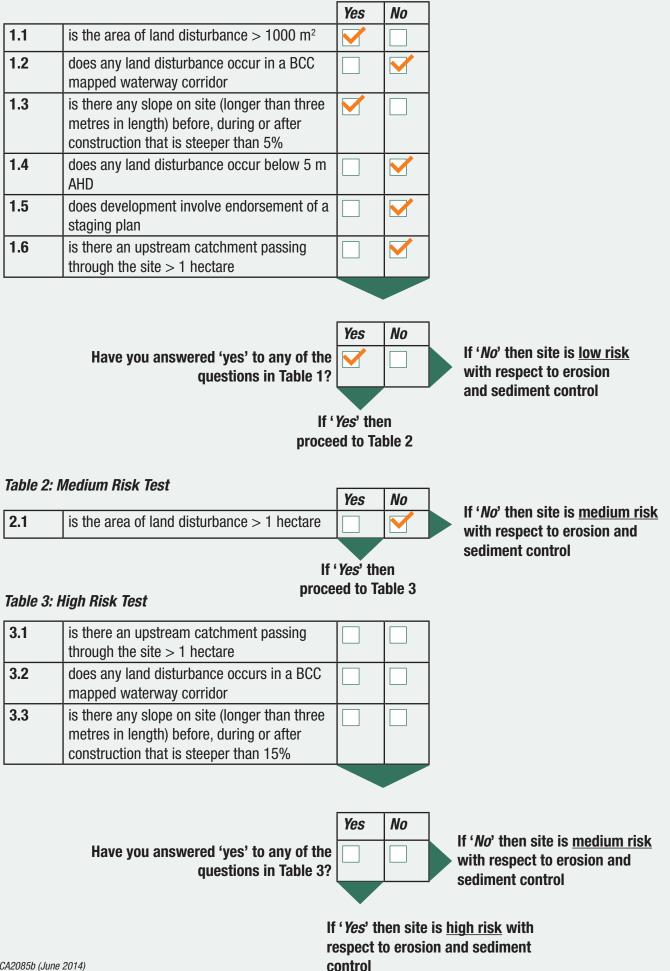
Katherine Leggett

Certifier's signature

Kleggett

Date 06 / 12 / 2021

Table 1: Low Risk Test



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

