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MNCE Reference: C4427

CODE COMPLIANCE REPORT

For

Brisbane City Council

60 Jamieson Street, Bulimba
Commissioned By
Amoeba Infinity Pty Ltd ATF The Ligo Trust

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1 REPORT SUMMARY INFORMATION

A development application for a reconfiguration of lot and material change of use is planned to be lodged over Lot 18 on RP54421 at 60 Jamieson Street, Bulimba. The site is located within the Brisbane City Council local government area and has a total area of approximately 0.063ha. Figure 1.1 below provides an aerial locality of the site and adjacent areas.



Figure 1.1: Subject site bound by Jamieson Street to the west (eBimap)

The proposed development involves a 1 into 2 lot subdivision and dual occupancy. The site is currently developed with a single residential dwelling and a shed. Refer Section 8 for proposed development layout.

The site generally falls in easterly direction on a grade of approximately 2%. No stormwater infrastructure is evident on the site itself however Council's as constructed information indicates there is municipal present within the vicinity of the site.

Brisbane City Council overlay maps indicate that the site is affected by both Brisbane River Flood Planning Area 3, 4, Overland Flow flooding and Coastal hazard. Refer Figure 1.2, 1.3 and 1.4 for associated Council mapping.



Figure 1.2: Brisbane River Flood Planning Area (eBimap)



Figure 1.3: Overland Flow Flood Planning Area (eBimap)



Figure 1.4: Coastal Hazard Inundation Area (eBimap)

2 FILLING AND EXCAVATION CODE

Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
PO1 Development for filling and excavation minimises visual impacts from retaining walls and earthworks.	AO1 Development ensures that the total height of any cut and fill, whether or not retained, does not exceed: <ul style="list-style-type: none"> a. 2.5m in a zone in the industry zones category; b. 1m in all other zones, or if adjoining a sensitive zone. 	PO	Proposed fill on site exceeds 1.000m in height, however the fill is included as part of the building structure and hence envisaged to create minimal visual impact on neighbouring properties. Fill under the garage only has a maximum exceedance of 350mm for a length of approximately 6m (external facing). Fill under the driveway only has a maximum exceedance of 150mm for a negligible length.	
PO2 Development of a retaining wall proposed as a result of filling or excavation: <ul style="list-style-type: none"> a. Is designed and constructed to be for purpose; b. Does not impact adversely on significant vegetation; c. Is capable of easy maintenance. 	AO2.1 Development of retaining structure, including footings, surface drainage and subsoil drainage: <ul style="list-style-type: none"> a. Is wholly contained within the site; b. If the total height to be retained is greater than 1.0m then: <ul style="list-style-type: none"> i. The retaining wall at the property boundary is no greater than 1.0m above the ground level; ii. All further terracing from the 1.0m high boundary retaining wall is 1.0 vertical unit: 1.0 horizontal unit; iii. The distance between each successive retaining wall (back of lower wall to face of higher wall) is no less than 1.0m horizontally to incorporate planting areas. 	PO	Proposed retaining structures on site exceed 1.000m in height, however the walls are included as part of the building structure and hence envisaged to create minimal visual impact on neighbouring properties. Walls under the garage only has a maximum exceedance of 350mm for a length of approximately 6m (external facing). Walls under the driveway only has a maximum exceedance of 150mm for a negligible length.	

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
	AO2.2 Development of a retaining wall over 1.0m in height protects significant vegetation on the site and on adjoining land and is designed and constructed in accordance with the structures standards in the Infrastructure Design Planning Scheme Policy and certified by an RPEQ.	AO	Retaining walls can be designed accordingly during detailed design.	
	AO2.3 Development provides a retaining wall finish that presents to adjoining land that is maintenance free if the setback is less than 750mm from the boundary.	AO	Retaining walls can be finished appropriately.	
	AO2.4 Development for filling only uses clean fill that does not include any construction rubble or debris.	AO	Appropriate fill can be provided.	
PO3 Development ensures that a rock anchor is designed and constructed to be fit for purpose.	AO3 Development ensures that anchor: a. Is constructed in accordance with the standards in the Infrastructure design planning scheme policy; b. Where it extends beyond the property boundary, is supported by a letter of consent from the adjoining land and building owners.	N/A		
PO4 Development protects all services and public utilities.	AO4 Development protects services and public utilities and ensures that any alteration or relocation of services or public utilities meets the standard design specifications of the responsible service authorities.	AO	Retaining structures will be designed and constructed accordingly.	

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Brisbane City Plan 2014
FILLING AND EXCAVATION CODE
Performance and Acceptable Outcomes Table

Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
PO5 Development provides surface and sub-surface drainage to prevent water seepage, concentration of run-off or ponding of stormwater on adjacent land.	AO5 Development ensures all flows and subsoil drainage are directed to a lawful point of discharge of a surface water diversion drain, including to the top or toe of a retaining wall in accordance with the stormwater drainage section of the Infrastructure Design Planning Scheme Policy.	AO	The drainage system complies.	
PO6 Development ensures that the design and construction of all open drainage works is undertaken in accordance with natural channel design principles, being the development of a stormwater conveyance system or drain that approximates the features and functions of a natural waterway to enhance or improve riparian values of those stormwater conveyance systems.	AO6 No acceptable outcome is prescribed.	N/A		
PO7 Development for filling and excavation: a. Does not degrade water quality or adversely affect environmental values in receiving waters; b. Ensures site sediment and erosion control standards are best practice.	AO7.1 Development for filling or excavation provides water quality treatment complies with the stormwater drainage section of the Infrastructure Design Planning Scheme Policy.	AO	Erosion and Sediment control can be implemented at detailed design stage.	
	AO7.2 Development provides erosion and sediment control standards that are in accordance with the stormwater drainage section of the Infrastructure Design Planning Scheme Policy.	AO	Erosion and Sediment control can be implemented at detailed design stage.	
PO8 Development for filling or excavation is conducted such that adverse impacts at a sensitive use due to noise and dust are prevented or minimised.	AO8.1 Development ensures that no dust emissions extend beyond the boundary of the site, including dust from construction vehicles entering and leaving the site.	AO	No excessive dust emissions are expected. A management plan for control of dust and air emissions can be undertaken accordingly.	

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Brisbane City Plan 2014
FILLING AND EXCAVATION CODE
Performance and Acceptable Outcomes Table

Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
	AO8.2 Development for filling and excavation activity only occurs between the hours of 6:30am and 6:30pm Monday to Saturday, excluding public holidays.	AO	No work outside these hours proposed.	
PO9 Development ensures that vibration generated by the filling of excavation operation does not exceed the vibration criteria in Table 9.4.3.3.D, and Table 9.4.3.3.E	PO9 Development involving filling or excavation does not cause a ground-borne vibration beyond the boundary of the site.	AO	All ground-borne vibration will be managed through a Construction Management Plan.	
PO10 Development ensures that heavy trucks hauling material to and from the site do affect the amenity of established areas and limits environmental nuisance on adjacent land.	AO10 Development ensures that heavy trucks hauling material to and from the site: (a) occur for a maximum of 3 weeks; (b) use a major road to access the site; (c) only use a minor road for the shortest-most-direct route that has the least amount of environmental nuisance if there is no major road alternative.	AO	Trucks utilised for the export of earth from the site can be conditioned to use a route acceptable to Council.	
PO11 Development for filling and excavation protects the environment and community health and wellbeing from exposure to contaminated land and contaminated material.	AO11 Development does not involve: Excavation on land previously occupied by a notifiable activity or land listed on the Environmental Management Register or the Contaminated Land Register; Filling with material containing a contaminant.	N/A		
PO12 Development provides for: a. Landscaping for water conservation purposes; b. Water sensitive urban design measures which are employed within the landscape design to maximise stormwater use and to	AO12.1 Development provides landscaping which is design using the standards in the Landscape Design guidelines for Water Conservation Planning Scheme Policy.	N/A		
	AO12.2 Development ensures that the design and requirements for irrigation are in compliance	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Brisbane City Plan 2014
FILLING AND EXCAVATION CODE
Performance and Acceptable Outcomes Table

Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
reduce any adverse impacts on the landscape; c. Stormwater harvesting to be maximised and any adverse impacts of stormwater minimised.	with the standards in the Landscape Design guidelines for Water Conservation Planning Scheme Policy. AO12.3 Development provides area of pavement, turf and mulched garden beds which are drained.	N/A		
PO13 Development ensures cutting and filling for the development of canals or artificial waterways avoids adverse impacts on coastal resources and processes.	AO13 Development does not involve the creation of canals or artificial waterways.	AO	Development is in accordance with relevant codes.	

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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3 INFRASTRUCTURE DESIGN CODE

Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
PO1 Development provides roads, pavement, edging and landscaping which: <ul style="list-style-type: none"> a. Are designed and constructed in accordance with the road hierarchy; b. Provide for safe travel for pedestrians, cyclists and vehicles; c. Provide access to properties for all modes; d. Provide utilities; e. Provide high levels of aesthetics and amenity, improved liveability and future growth; f. Provide for the amelioration of noise and other pollution; g. Provide a high quality streetscape; h. Provide a low maintenance asset with a minimal whole-of-life cost. 	AO1 Development provides roads and associated pavement, edging and landscaping which are designed and constructed in compliance with the road corridor design standards in the Infrastructure Design Planning Scheme Policy .	AO	Road pavement surface and kerb and channel is already present along the frontages and the verge profiles are generally in accordance with BCC standard cross falls. Any required works can be conditioned.	
PO2 Development provides road pavement surfaces which: <ul style="list-style-type: none"> a. Are well designed and constructed b. Durable enough to carry the wheel loads of the intended types and numbers of travelling and parked vehicles; c. Ensures the safe passage of vehicles, pedestrians and cyclists, the discharge of stormwater runoff and the preservation of all-weather access; d. Allow for reasonable travel comfort. 	AO2 Development provides road pavement surfaces which are designed and constructed in compliance with the road corridor design standards in the Infrastructure Design Planning Scheme Policy .	AO	Road pavement surface is already present along the frontages and the verge profiles are generally in accordance with BCC standard cross falls.	

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
PO3 Development provides a pavement edge which is designed and constructed to: <ol style="list-style-type: none"> Control vehicle movements by delineating the carriageway for all users; Provide for people with disabilities by allowing safe passage of wheelchairs and other mobility aids. 	AO3 Development provides pavement edges which are designed and constructed in compliance with the road corridor design standards in the Infrastructure Design Planning Scheme Policy .	AO	Kerb and channel is already present along the frontages and the verge profiles are generally in accordance with BCC standard cross falls. Any required works can be conditioned.	
PO4 Development provides verges which are designed and constructed to: <ol style="list-style-type: none"> Provide safe access for pedestrians clear of obstructions and access areas for vehicles onto properties; Provide a sufficient area for public utility services; Be maintainable by the Council. 	AO4 Development provides verges which are designed and constructed in compliance with the road corridor design standards and the streetscape locality advice standards in the Infrastructure Design Planning Scheme Policy .	AO	Verge profiles are generally in accordance with BCC standard cross falls. Any required works can be conditioned.	
PO5 Development provides a lane or laneway identified in a neighbourhood plan which: <ol style="list-style-type: none"> Allows equitable access for all modes; Is safe and secure; Has 24 hour access; Is a low-speed shared zone environment; Has a high-quality streetscape. 	AO5 Development provides a lane or laneway in a neighbourhood plan which is embellished in compliance with the streetscape locality advice standards in the Infrastructure Design Planning Scheme Policy .	N/A		

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
PO6 Development of an existing premises provides at the frontage to the site, if not already provided, the following infrastructure to an appropriate urban standard: <ul style="list-style-type: none"> a. An effective, high-quality paved roadway; b. An effective, high-quality roadway kerb and channel; c. Safe, high-quality vehicle crossings over channel and verges; d. Safe, accessible, high-quality verges compatible and integrated with the surrounding environment; e. Safe vehicle access to the site that enables ingress and egress in a forward gear; f. Provision of and alterations to public utilities; g. Effective drainage; h. Appropriate conduits to facilitate the provision of required street-lighting systems and traffic signals. 	AO6 Development of existing premises provides at the frontage of the site, if not already existing, the following infrastructure to the standard that would have applied if the development involved new premises as stated in the road corridor design standards in the Infrastructure Design Planning Scheme Policy . <ul style="list-style-type: none"> a. Concrete kerb and channel; b. Forming and grading to verges; c. Crossing over channels and verges; d. A constructed bikeway; e. A constructed verge or reconstruction of any damaged verge; f. Construction of the carriageway; g. Payment of costs for required alterations to public utility mains, services or installations; h. Construction of and required alterations to public utility mains, services or installations; i. Drainage Works; j. Installation of electrical conduits. 	AO	Kerb and channel is already present along the frontages and the verge profiles are generally in accordance with BCC standard cross falls. All new driveway crossings will be constructed in accordance with the Infrastructure Design Planning Scheme Policy if required. All new concrete footpaths will be constructed in accordance with the Infrastructure Design Planning Scheme Policy. Redundant vehicular crossings and kerb outlets will be removed in accordance with the Infrastructure Design Planning Scheme Policy. Service Conduit and mains will be installed as required in accordance with the Infrastructure Design Planning Scheme Policy if required.	
PO7 Development which provides both cycle and walking routes which: <ul style="list-style-type: none"> a. Are located, designed and constructed to their network classification (where applicable); b. Provide a safe and attractive travel routes for pedestrians and cyclists for commuter and recreational purposes; 	AO7 Development provides cycle and walking routes which are located, designed and constructed in compliance with road corridor design and off-road pathway standards in the Infrastructure Design Planning Scheme Policy .	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
<ul style="list-style-type: none"> c. Provide a safe and comfortable access to properties for pedestrians and cyclists; d. Incorporate water sensitive urban design into the stormwater drainage; e. Provide for utilities f. Provide for a high level of aesthetics and amenity improved liveability and future growth; g. Are a low-maintenance asset with a minimal whole-life-cost; h. Minimise the clearing of significant native vegetation. 				
PO8 Development provides refuse and recycling collection, separation and storage facilities that area located and managed so that adverse impacts building occupants, neighbouring properties and the public realm are minimised.	AO8.1 Development provided refuse and recycling collection and storage facilities in accordance with Refuse Planning Scheme Policy.	AO	Refuse and recycling is expected to occur from the road frontage. No storage facilities are proposed.	
	AO8.2 Development ensures that refuse and recycling collection and storage location and design do not have any adverse impact including odour, noise or visual impacts on the amenity of land uses within or adjoining the development.	AO	Refuse and recycling storage onsite is proposed by Council supplied wheelie bins.	
PO9 Development ensures that: <ul style="list-style-type: none"> a. Land used for an urban purpose is serviced adequately with regard to water supply and waste disposal; 	AO9.1 Development ensures that the reticulated water and sewerage distribution system for all services is in place before the first use commenced.	AO	Water and Sewer will be designed and constructed accordingly. A 'Water Approval' will be requested from QUU.	

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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b. The water supply meets the standard of service for the intended use and fire-fighting purposes.	AO9.2 Development provided the lot with reticulated water supply and sewerage to a standard acceptable to the distributor-retailer.	AO	Water and Sewer will be designed and constructed accordingly. A 'Water Approval' will be requested from QUU.	
PO10 Development provided public utilities and street lighting which are best current or alternative technology and facilitate accessibility, easy maintenance, minimal whole-of-life costs, and minimal adverse environmental impacts.	AO10.1 Development provides public utilities and street lighting which are located and aligned to: <ul style="list-style-type: none"> a. Avoid significant native vegetation and areas identified within the Biodiversity areas overlay map; b. Minimise earthworks; c. Avoid crossing waterways, waterway corridors and wetlands or if crossing is unavoidable, tunnel-boring techniques are used to minimise disturbance, and a disturbed area is reinstated and restored on completion of the work. 	N/A		
	AO10.2 Development provides compatible public utility services and street lighting services which are co-located in common trenching for underground services.	N/A		
	AO10.3 Development provides public utilities and street lighting which are designed and constructed in compliance with the public utilities standards in the Infrastructure Design Planning Scheme Policy .	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
PO11 Development ensures that land used for urban purposes is serviced adequately with telecommunications and energy supply.	AO11 Development provide land with the following services to the standards of the approved supplier: a. Electricity b. Telecommunications c. Gas service where practicable	AO	Connection certification shall be obtained from service suppliers.	
PO12 Development ensures that major public projects promote the provision of affordable, high bandwidth telecommunications services throughout the city.	AO12 Development provides conduits which are provided in all major Council and government works projects to enable the future provision of fibre optic cabling, if: a. The additional expense is unlikely to be prohibitive; or b. Further major work is unlikely or disruption would be a major concern, such as where there is a limited capacity road; or c. There is a clear gap in telecommunications network; or d. There is a clear gap in the bandwidth available to the area.	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
PO13 Development provides public art identified in a neighbourhood plan or park concept plan which: <ul style="list-style-type: none"> a. Is provided commensurate with the status and scale of the proposed development; b. Is sited and designed: <ul style="list-style-type: none"> i. As an integrated part of the project design; ii. As conceptually relevant to the context of the location; iii. To reflect and respond to the cultural values of the community; iv. To promote local character in a planned informed manner. 	AO13 Development provides public art identified in a neighbourhood plan or park concept plan which is sited and designed in compliance with the public art standards in the Infrastructure Design Planning Scheme Policy .	N/A		
PO14 Development provides signage of buildings and spaces which promote legibility to help users find their way.	AO14 Development provides public signage: <ul style="list-style-type: none"> a. At public transport interchanges and stops, key destinations, public spaces, pedestrian linkages and at entries to centre developments; b. Which details the location of the key destinations, public spaces and pedestrian linkages in the vicinity, the services available within the development and where they are located. 	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
PO15 Development that provides community facilities which form part of the development is functional, safe, low maintenance, and fit for purpose.	AO15 Development that provides community facilities which form part of the development is designed in compliance with the community facilities standards in the Infrastructure Design Planning Scheme Policy .	N/A		
PO16 Development provides public toilets which: (a) are required as part of a community facility or park; (b) are located, designed and constructed to be: (i) safe; (ii) durable; (iii) resistant to vandalism; (iv) able to service expected demand; (v) fit for purpose	AO16 Development that provides public toilets is designed and constructed in compliance with the public toilets standards in the Infrastructure Design Planning Scheme Policy .	N/A		
PO17 Development provides bridges, tunnels, elevated structures and water access structures that are designed and constructed using proven methods, materials and technology to provide for: a. Safe movement of intended users; b. An attractive appearance appropriate to the general surroundings and any adjacent structures; c. Functionality and easy maintenance; d. Minimal whole-of-life cost; e. Longevity; f. Current and future services.	AO17 Development that provides bridges, tunnels, elevated structures and water access structures is designed and constructed in compliance with the standards in the Infrastructure Design Planning Scheme Policy .	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
PO18 Development provides culverts which are designed and constructed using proved methods, materials and technology to provide for: <ul style="list-style-type: none"> a. Safety; b. An attractive appearance appropriate to the general surroundings; c. Functionality and easy maintenance; d. Minimal whole-life-cost; e. Longevity; f. Future widening; g. Current and future services; h. Minimal adverse impacts, such as increase in water levels or flow velocities, and significant change of flood patterns. 	AO18 Development that provides culverts is designed and constructed in compliance with the structures standards in the Infrastructure Design Planning Scheme Policy .	N/A		
PO19 Development provides batters, retaining walls and seawalls and river walls which are designed and constructed using proven methods, materials and technology to provide for: <ul style="list-style-type: none"> a. Safety; b. An attractive appearance appropriate to the surrounding area; c. Easy maintenance d. Minimal whole-of-life cost; e. Longevity; f. Minimal water seepage. 	AO19 Development that provides batters, retaining walls, seawalls and river walls is designed and constructed in compliance with the structures standards in the Infrastructure Design Planning Scheme Policy .	AO	All retaining walls can be designed generally in accordance with the requirements of the Infrastructure Design Planning Scheme Policy.	
FOR DEVELOPMENT WITH A GROSS FLOOR AREA GREATER THAN 1000M²				

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
PO20 Development ensures that construction is managed so that use of public spaces and movement on pedestrian, cyclist and other traffic routes is not unreasonably disrupted and existing landscaping is adequately protected from short and long term impacts.	AO20 Development ensures that during construction: <ul style="list-style-type: none"> a. The ongoing use of adjoining and surrounding parks and public spaces, such as malls and outdoor dining, is not compromised; b. Adjoining and surrounding landscaping is protected from damage; c. Safe, legible, efficient and sufficient pedestrian cyclist and vehicular accessibility and connectivity to the wider network are maintained. 	N/A		
PO21 Development ensures that construction and demolition activities are guided by measures that prevent or minimise adverse impacts including sleep disturbance at a sensitive use, due to noise and dust, including dust from construction vehicles entering a site.	AO21.1 Development ensures that demolition and construction: <ul style="list-style-type: none"> a. Only occur between 6:30am and 6:30pm Monday to Saturdays, excluding public holidays; b. Do not occur over periods greater than 6 months. 	N/A		
	AO21.2 Development including construction and demolition does not release dust emissions beyond the boundary of the site.	N/A		
	AO21.3 Development construction and demolition does not involve asbestos-containing materials.	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
PO22 Development ensures that: <ul style="list-style-type: none"> a. Construction and demolition do not result in damage to surrounding property as a result of vibration; b. Vibration levels achieve the vibration criteria in Table 9.4.4.3.B, Table 9.4.4.3.C, Table 9.4.4.3.D and Table 9.4.4.3.E. 	AO22 Development ensures that the nature and scale of construction and demolition do not generate noticeable levels of vibration.	N/A		
If for a material change of use or reconfiguring a lot in an urban area (as defined in the Regulation) involving premises that is, or will be, accessed by common private title, where involving buildings, either attached or detached, that are not covered by other legislation mandating fire hydrants				
PO23 Development ensures that fire hydrants are: <ul style="list-style-type: none"> (a) installed and located to enable fire services to access water safely, effectively and efficiently; (b) suitably identified so that fire services can locate them at all hours. 	AO23.1 Above or below ground fire hydrants are provided on residential, commercial and industrial streets and private roads, at not more than 90m intervals, and at each street intersection.	N/A		
	AO23.2 Fire hydrants are identified by: <ul style="list-style-type: none"> (a) raised reflectorised pavement markers (RRPM) on sealed roads; (b) marker posts at the fence line where on an unsealed road, as road (HR) or path (HP) hydrants. 	N/A		
PO24 Development ensures road widths and construction within the development, are adequate for refuse vehicles and for fire emergency vehicles to gain access to a safe working area close to buildings and near	AO24 Internal private roads have a minimum roadway clearance between obstructions of 3.5m wide and 4.8m high in addition to any width required for on-street parking.	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
water supplies whether or not on-street parking spaces are occupied.				
Development for major electricity infrastructure and bulk water supply infrastructure identified on the State Planning Policy Interactive Mapping System where not in the Utility services zone precinct of the Special purpose zone				
PO25 Development avoids or otherwise minimises adverse impacts on surrounding land uses through the use of buffers and setbacks and the appropriate design and location of plant and operational areas within the site.	AO25 No acceptable outcome is prescribed.	N/A		
Development potentially impacting on major electricity infrastructure and bulk water supply infrastructure identified on the State Planning Policy Interactive Mapping System where the infrastructure is not in the Utility services zone precinct of the Special purpose zone				
PO26 Development is sited and designed to: (a) avoid safety risks to people or property; (b) minimise noise and visual impacts to people and property; (c) ensure the physical integrity and operation, maintenance and expansion of the infrastructure is not compromised.	AO26 No acceptable outcome is prescribed.	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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4 STORMWATER MANAGEMENT CODE

Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
PO1 Development provides a stormwater management system which achieves the integrated management of stormwater to: <ul style="list-style-type: none"> a. Minimise flooding; b. Protect environmental values of receiving waters; c. Maximise the use of water sensitive urban design; d. Minimise safety risk to all persons; e. Maximise the use of natural waterway corridors and natural channel principles. <p><i>Note: The stormwater management system to be developed to address PO1 is not intended to require management of stormwater quality.</i></p>	AO1 Development provides a stormwater management system designed in compliance with the Infrastructure Design Planning Scheme Policy .	AO	<p>It is proposed to discharge site runoff accordingly.</p> <p>The roof runoff from the units will be discharge to kerb and channel within Jamieson Street, however the yard will discharge across the property boundary per existing conditions.</p> <p>The use of natural waterways is not applicable.</p> <p>Refer to attached sketch.</p>	
PO2 Development ensures that the stormwater management system and site work does not adversely impact flooding or drainage characteristics of premises which are up slope, down slope or adjacent to the site.	AO2.1 Development does not result in flood level or flood hazard on up slope, down slope or adjacent premises.	AO	A drainage system can be provided for the proposed development to convey all roof area, to the existing kerb and channel within Jamieson Street, however, the yard will discharge across the property boundary per existing conditions	
	AO2.2 Development provides a stormwater management system which is designed in compliance with the standards in the Infrastructure Design Planning Scheme Policy.	AO	A drainage system can be provided for the proposed development to convey all roof area, to the existing kerb and channel within Jamieson Street, however, the yard will discharge across the property boundary per existing conditions	

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
PO3 Development ensures that the stormwater management system does not direct stormwater runoff through existing or proposed lots and property where it is likely to adversely affect the safety of, or cause nuisance to properties.	AO3.1 Development ensures that the location of the stormwater drainage system is contained within a road reserve, drainage reserve, public pathway, park or waterway corridor.	AO	The location of stormwater drainage complies.	
	AO3.2 Development provides a stormwater management system which is designed in compliance with the standards of the Infrastructure Design Planning Scheme Policy .	AO	The stormwater drainage complies.	
	AO3.3 Development obtains a lawful point of discharge in compliance with the standards in the Infrastructure Design Planning Scheme Policy .	AO	The development obtains a lawful point of discharge in accordance with the requirements of the Infrastructure Design Planning Scheme Policy.	
	AO3.4 Where on private land, all underground stormwater infrastructure is secured by a drainage easement.	N/A	All proposed stormwater drainage is located within the development site and not servicing any adjacent, upslope properties. Therefore no stormwater easements onsite have been provided.	
PO4 Development provides a stormwater management system which has sufficient capacity to safely convey runoff taking into account increased runoff from impervious surfaces and flooding in local catchments.	AO4.1 Development provides a stormwater conveyance system which is designed to safely convey flows in compliance with the standards in the Infrastructure Design Planning Scheme Policy .	AO	All onsite drainage shall be designed to have capacity for the 10 year ARI storm event in accordance with the Infrastructure Design Planning Scheme Policy.	
	AO4.2 Development provides sufficient area to convey runoff which will comply with the standards in the Infrastructure Design Planning Scheme Policy .	AO	The development complies.	

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance and Acceptable Outcomes Table

Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
PO5 Development designs stormwater channels, creek modification works, bridges, culverts and major drains to protect and enhance the value of the waterway corridor or drainage path for fauna movement.	AO5 Development ensures the design of stormwater channels, creek modifications or other infrastructure, permits terrestrial and aquatic fauna movement.	N/A		
PO6 Development ensures that location and design of stormwater detention and water quality treatment: a. Minimises risk to people and property; b. Provides for safe access and maintenance; c. Minimises ecological impacts to creeks and waterways.	AO6.1 Development locates stormwater detention and water quality treatment: a. Outside of a waterway corridor; b. Offline to any catchment not contained within the development.	N/A		
	AO6.2 Development providing for stormwater detention and water quality treatment devices are designed in compliance with the standards in the Infrastructure Design Planning Scheme Policy .	N/A		
PO7 Development is designed, including any car parking areas and channel works to: Reduce property damage; Provide safe access to the site during the defined flood event.	AO7.1 Development (including any ancillary structures and car parking areas) is located above the minimum flood immunity levels in Table 9.4.9.3.B, Table 9.4.9.3.C, Table 9.4.9.3.D, Table 9.4.9.3.D and Table 9.4.9.3.F. <i>Note: Compliance with this acceptable outcome can be demonstrated by the submission of a hydraulic and hydrology report identifying flood levels and development design levels (as part of a Site Based Stormwater Management Plan).</i>	AO	The development can satisfy minimum flood immunity levels, see Flood Investigation Letter by Milanovic Neale Consulting Engineers dated 11/10/19.	

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance and Acceptable Outcomes Table

Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
	A07.2 Development including the road network provides a stormwater management system that provides safe pedestrian and vehicle access in accordance with the standards in the Infrastructure Design Planning Scheme Policy.	N/A		
PO8 Development designs stormwater channels, creek modification works and the drainage network to protect and enhance the environmental values of the waterway corridor or drainage path.	A08.1 Development ensures natural waterway corridors and drainage paths are retained.	N/A		
	A08.2 Development provides the required hydraulic conveyance of the drainage channel and floodway while maximising its potential to maximise environmental benefits and minimise scour. <i>Note: Guidance on natural channel design principles can be found in the Council's publication Natural Channel Design Guidelines.</i>	N/A		
	A08.3 Development provides stormwater outlets into waterways, creeks, wetlands and overland flow paths with energy dissipation to minimise scour in compliance with the standards in the Infrastructure Design Planning Scheme Policy.	N/A		
	A08.4 Development ensures that the design of modifications to the existing design of new stormwater channels, creeks and major drains is in compliance with the standards in the Infrastructure Design Planning Scheme Policy.	N/A		
PO9	A09 No acceptable outcome is prescribed.	AO	A drainage system can be provided for the proposed development to convey all roof area, to	

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
Development is designed to manage runoff and peak flows by minimising large areas of impervious material and maximising opportunities for capture and reuse.			the existing kerb and channel within Jamieson Street, however, the yard will discharge across the property boundary per existing conditions	
PO10 Development ensures that there is sufficient site area to accommodate an effective stormwater management system. <i>Note: Compliance with the performance outcome should be demonstrated by the submission of a Site Based Stormwater Management Plan for high-risk development only.</i>	AO10 No acceptable outcome is prescribed.	N/A		
PO11 Development provides for the orderly development of stormwater infrastructure within a catchment, having regards to the: <ul style="list-style-type: none"> a. Existing capacity of stormwater infrastructure within and external to the site, and any planned stormwater infrastructure upgrades; b. Safe management of stormwater discharge from existing and future up-slope development; c. Implication for adjacent and down-slope development. 	AO11.1 Development with up-slope external catchment areas provides a drainage connection sized for ultimate catchment conditions that is directed to a lawful point of discharge.	N/A		
	AO11.2 Development ensures that existing stormwater infrastructure that is undersized is upgraded in compliance with the Priority Infrastructure Plan and the standards in the Infrastructure Design Planning Scheme Policy .	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance and Acceptable Outcomes Table

Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
PO12 Development provides stormwater infrastructure which: <ul style="list-style-type: none"> a. Remains fit for purpose for the life of the development and maintains full functionality in the design flood event; b. Can be safely accessed and maintained cost effectively; c. Ensures no structural damage to existing stormwater infrastructure. 	AO12.1 The stormwater management system is designed in compliance with the Infrastructure Design Planning Scheme Policy.	AO	Proposed stormwater infrastructure is to be designed in accordance with the requirements of the Infrastructure Design Planning Scheme Policy.	
	AO12.2 Development provides a clear area with a minimum 2m radius from the centre of an existing manhole cover and with a minimum height clearance of 2.5m.	N/A		
PO13 Development ensures that all reasonable and practicable measures are taken to manage the impacts of erosion, turbidity and sedimentation, both within and external to the development site from construction activities, including vegetation clearing, earthworks, civil construction, installation of services, rehabilitation, revegetation and landscaping to protect: <ul style="list-style-type: none"> a. The environmental values and water quality objectives of waters; b. Waterway hydrology; c. The maintenance and serviceability of stormwater infrastructure. <p><i>Note: The Infrastructure Design Planning Scheme Policy outlines the appropriate measures to be taken into account to achieve the performance outcome.</i></p>	AO13 No acceptable outcome is prescribed.	AO	An erosion and sediment management plan can be prepared during detailed design.	

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
PO14 Development ensures that: <ul style="list-style-type: none"> a. Unnecessary disturbance to soil, waterways or drainage channels is avoided; b. All soil surfaces remain effectively stabilised against erosion in the short and long term. 	AO14 No acceptable outcome is prescribed.	AO	Any disturbance will be documented via an Erosion and Sediment Control plan at detailed design stage	
PO15 Development does not increase: <ul style="list-style-type: none"> a. The concentration of total suspended solids or other contaminants in stormwater flows during site construction; b. Runoff which causes erosion either on site or off site. 	AO14 No acceptable outcome is prescribed.	AO	An erosion and sediment management plan can be prepared during detailed design.	

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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STORMWATER MANAGEMENT CODE
Performance and Acceptable Outcomes Table

Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
SECTION B – ADDITIONAL CRITERIA WHICH APPLY TO HIGH-RISK DEVELOPMENT, BEING ONE OR MORE OF THE FOLLOWING: <ul style="list-style-type: none"> a. A material change of use for an urban purpose which involves greater than 2,500m² of land that: <ul style="list-style-type: none"> i. Will result in an impervious area greater than 25% of the net developable area; or ii. Will result in 6 or more dwellings. b. Reconfiguring a lot for an urban purpose that involves greater than 2,500m² of land and will result in 6 or more lots; c. Operational work for an urban purpose which involves disturbing greater than 2, 500m² of land. 				
PO16 Development ensures that the entry and transport of contaminants into stormwater is avoided or minimised to protect receiving water environmental values. <i>Note: Prescribed water contaminants are defined in the Environment Protection Act 1994.</i> <i>Note: Compliance with the performance outcome should be demonstrated by the submission of a Site Based Stormwater Management Plan for high-risk development.</i>	AO16 Development provides a stormwater management system which is designed in compliance with the standards in the Infrastructure Design Planning Scheme Policy .	N/A		
PO17 Development ensures that: <ul style="list-style-type: none"> a. The discharge of wastewater to a waterway or external to the site is voided; or b. If the discharge cannot practicably be avoided, the development minimises wastewater discharge through re-use, recycling, recovery and treatment. 	AO17 No acceptable outcome is prescribed.	N/A		
Section C—Additional performance outcomes and acceptable outcomes for assessable development for a material change of use or reconfiguring a lot				

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance and Acceptable Outcomes Table

Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
<p>PO18 Development protects stormwater infrastructure to ensure the following are not compromised: (a) the long term infrastructure for the stormwater network in the, the long-term infrastructure plans; (b) the existing and planned infrastructure for the stormwater network in the, the local government infrastructure plan; (c) the provision of long term, existing and planned infrastructure for the stormwater network which: (i) is required to service the development or an existing and future urban development in the planning scheme area; or (ii) is in the interests of rational development or the efficient and orderly planning of the general area in which the site is situated.</p> <p><i>Editor's note—A condition which requires a proposed development to keep permanent improvements and structures associated with the approved development clear of the area of long-term infrastructure, may be imposed.</i></p>	<p>AO18 Development protects stormwater infrastructure in compliance with the following: (a) for long term infrastructure for the stormwater network, the long-term infrastructure plans; (b) for existing and planned infrastructure for the stormwater network, the local government infrastructure plan; (c) the standards for stormwater drainage in the infrastructure design planning scheme policy.</p>	AO	Proposed stormwater infrastructure is to be designed in accordance with the requirements of the Infrastructure Design Planning Scheme Policy.	
<p>PO19 Development provides for the payment of extra trunk infrastructure costs for the following: (a) for development completely or partly outside the priority infrastructure area in the local government infrastructure plan;</p>	<p>AO19 No acceptable outcome is prescribed.</p>	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance and Acceptable Outcomes Table

Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
(b) for development completely inside the priority infrastructure area in the local government infrastructure plan involving: (i) trunk infrastructure that is to be provided earlier than planned in the local government infrastructure plan; (ii) long term infrastructure for the stormwater network which is made necessary by development that is not assumed future urban development; (iii) other infrastructure for the stormwater network associated with development that is not assumed future urban development which is made necessary by the development.				

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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5 FLOOD OVERLAY CODE

Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
Section A—If for accepted development subject to compliance with identified requirements (acceptable outcomes only) or assessable development for a dwelling house including any secondary dwelling Note—Development for a dwelling house does not require assessment against any other sections of this code.				
PO1 Development involving any habitable or non-habitable part of a dwelling house , including any secondary dwelling , is located and designed to: (a) minimise the risk to people from flood hazard; (b) achieve acceptable flood immunity; (c) minimise property impacts from a flood event up to and including the defined flood event; (d) minimise disruption to residents, recovery time and rebuilding or restoration costs after a flood event up to and including the defined flood event.	AO1.1 Development for a dwelling house including any secondary dwelling: (a) is not located in the Brisbane River flood planning area 1, 2a or 2b sub-categories or the Creek/waterway flood planning area 1 or 2 sub-categories; or (b) is only located in these sub-categories, if a Registered Professional Engineer Queensland certifies that the dwelling house and any secondary dwelling are structurally designed to be able to resist hydrostatic and hydrodynamic loads associated with flooding up to and including the defined flood event.	N/A		
	AO1.2 Development for a dwelling house and any secondary dwelling complies with the minimum flood planning levels in Table 8.2.11.3.B . Note—If located in an area that has no flood level information available from the Council such as an overland flow path, a Registered Professional Engineer of Queensland with expertise in undertaking flood studies is to certify that the flood level and development levels for the dwelling house and any secondary dwelling achieve the required flood planning levels in Table 8.2.11.3.B .	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
	AO1.3 Development involving a building undercroft complies with the minimum clearance requirements in Table 8.2.11.3.E . Editor's note—For creek/waterway, storm-tide and river flooding, applicable flood planning information is available from Council's FloodWise Property Report . Note—The Flood planning scheme policy provides guidance on undercroft design.	N/A		
PO2 Development within the Creek/waterway flood planning area sub-categories or Overland flow flood planning area sub-category: <ul style="list-style-type: none"> a. Maintains the conveyance of flood waters to allow them to pass predominately unimpeded through the site; b. Does not concentrate, intensify or divert floodwater hazard on upstream, downstream or adjacent properties; c. Will not result in material increase in flood levels or flood hazard on upstream, downstream or adjacent properties. 	A02 Development: <ul style="list-style-type: none"> (a) is not located within the Creek/waterway flood planning area 1, 2 or 3 sub-categories or the Overland flow flood planning area sub-category; or (b) provides an open undercroft area from natural ground level to habitable floor level for any area inundated by the defined flood event; or (c) a report from a Registered Professional Engineer Queensland certifies that the development in the Creek/waterway flood planning area or Overland flow flood planning area sub-categories will not result in a material increase in flood level or flood hazard on upstream, downstream or adjacent properties. 	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
SECTION B – IF FOR SELF-ASSESSABLE OR ASSESSABLE DEVELOPMENT OTHER THAN FOR A DWELLING HOUSE OR RECONFIGURING A LOT <i>Note – If self-assessable development complies with the acceptable outcomes of this part, no further assessment against this code is required.</i>				
<p>PO3 Development: (a) is compatible with flood hazard in a defined flood event; (b) minimises the risk to people from flood hazard; (c) does not reduce the ability of evacuation resources including emergency services to access and evacuate the site in a flood emergency, with consideration to the scale of the development; (d) minimises impacts on property from flooding; (e) minimises disruption to residents, business or site operations and recovery time due to flooding; (f) minimises the need to rebuild structures after a flood event greater than the defined flood event. Note—Where Table 8.2.11.3.C identifies that a flood risk assessment is required, compliance with this performance outcome can be achieved by submitting a flood risk assessment, which may be included within a flood study, addressing the criteria within this performance solution. Preparing flood risk assessments and flood studies is required to be in accordance with the Flood planning scheme policy.</p> <p><i>Note—An emergency management plan prepared in accordance with the Flood</i></p>	<p>AO3 Development for a material change of use is identified in Table 8.2.11.3.C as compatible with the flood hazard in the relevant flood planning area.</p>	PO	<p>Dual occupancy is not a compatible land use within Brisbane River flood planning area 3.</p> <p>The development can provide a flood risk assessment at a later stage if required, but given the development can comply with flood immunity levels, undercroft heights, and trafficable access, this has not been undertaken.</p>	

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
planning scheme policy , which sets out procedures for evacuation due to flooding may be used to demonstrate compliance with this performance outcome.				
PO4 Development for a park ensures that the design of a park and location of structures and facilities responds to the flood hazard and balances the safety of intended users with: (a) maintaining continuity of operations; (b) impacts of flooding on asset life and ongoing maintenance costs; (c) efficient recovery after flood events; (d) recreational benefits to the city; (e) availability of suitable land within the park .	AO4.1 Development involving a building or structure in a park complies with the flood planning levels specified in Table 8.2.11.3.D .	N/A		
	AO4.2 Development involving a building or structure in a park where Table 8.2.11.3.D does not apply: (a) is not located within the 20% AEP flood extent of any creek/waterway or overland flow path; or (b) is located above the 20% AEP flood level of any creek/waterway or overland flow path.	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
SECTION C—IF FOR ASSESSABLE DEVELOPMENT OTHER THAN FOR A DWELLING HOUSE				
PO5 Development is located and designed to: (a) minimise the risk to people from flood hazard on the site; (b) minimise flood damage to the development and contents of buildings up to the defined flood event; (c) provide suitable amenity; (d) minimise disruption to residents, recovery time and the need to rebuild structures after a flood event up to and including the defined flood event.	AO5.1 Development complies with the flood planning levels specified in Table 8.2.11.3.D. <i>Note—If located in an area with no Council-derived flood levels such as an overland flow path, a Registered Professional Engineer Queensland with expertise in undertaking flood studies is to derive the applicable flood level and certify that the development meets the required flood planning levels in Table 8.2.11.3.D. The study is to demonstrate that the development and engineering design methods conform to the principles within the Flood planning scheme policy and the Infrastructure design planning scheme policy.</i>	AO	The development satisfies minimum flood immunity levels, see Flood Investigation Letter by Milanovic Neale Consulting Engineers dated 11/10/19.	
	AO5.2 Development is: (a) not located in the: (i) Brisbane River flood planning area 1, 2a, or 2b sub-categories; (ii) Creek/waterway flood planning area 1 or 2 sub-categories; (iii) Overland flow flood planning area sub-category; or (b) only located in these sub-categories if a Registered Professional Engineer Queensland with expertise in undertaking flood studies certifies that: (i) the development design, siting and any mitigation measures will ensure the development is structurally adequate to resist hydrostatic, hydrodynamic and debris impact	PO	The development is located within Overland Flow flood planning area. The development can be structural designed to resist hydrostatic, hydrodynamic and debris impact at detail design phase, see Flood Investigation Letter by Milanovic Neale Consulting Engineers dated 11/10/19.	

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
	loads associated with flooding up to the defined flood event; and (ii) the risk to people is managed to an acceptable level.			
PO6 Development involving essential electrical services or a basement storage area is suitably located and designed to ensure public safety and minimise flood recovery and economic consequences of damage during a flood.	AO6.1 Development ensures that: <ul style="list-style-type: none"> a. all areas containing essential electrical services comply with the flood planning levels in Table 8.2.11.3.D; or b. if a basement contains essential electrical services or a private basement storage area, the basement is a waterproof structure with walls and floors impermeable to the passage of water with all entry points and services located at or above the relevant flood planning level in Table 8.2.11.3.D. <i>Note—A basement storage area does not include a bike storage room, change room, building maintenance storage and non-critical electrical services.</i>	N/A		
	AO6.2 Development involving a basement that relies on a pumping solution to manage floodwater ingress or for dewatering after a flood provides a redundant pump system with a backup power source for the pump.	N/A		
PO7 Development does not directly or indirectly create a material adverse impact on flood behaviour or drainage on properties that are	AO7.1 Development: <ul style="list-style-type: none"> a. does not block, or divert floodwaters for any area affected by creek/waterway or overland flow 	PO	The development can satisfy no material adverse impacts, see Flood Investigation Letter by Milanovic Neale Consulting Engineers dated 11/10/19.	

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
upstream, downstream or adjacent to the development.	<p>flooding, excluding storm-tide flooding and Brisbane River flooding sources; or</p> <p>b. does not result in a material increase in flood level or hydraulic hazard on upstream, downstream or adjacent properties.</p> <p><i>Note—Compliance with this acceptable solution can be demonstrated by the submission of a flood study by a Registered Professional Engineer of Queensland with expertise in undertaking flood studies demonstrating that the development and engineering design methods conform to the principles within the Flood planning scheme policy and the Infrastructure design planning scheme policy.</i></p>			
	<p>A07.2 Development retains existing overland flow paths and does not rely wholly on piped solutions to manage major flows.</p>	N/A		
	<p>A07.3 Development which creates a new overland flow path or significantly modifies an existing overland flow path via earthworks does not materially worsen hydraulic hazard on the site from existing conditions.</p>	N/A		
<p>PO8 Development for filling or excavation in an area affected by creek/waterway flooding does not directly, indirectly or cumulatively cause any material increase in flooding or hydraulic hazard or involve significant</p>	<p>A08 Development ensures that no filling or excavation greater than 100mm is located in the Creek/waterway flood planning area 1, 2 or 3 sub-categories if contained in the 5% AEP flood extent of any Creek/waterway flood planning area sub-category for which no</p>	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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<p>redistribution of flood storage from high to lower areas in the floodplain.</p> <p><i>Note—This can be demonstrated by undertaking earthworks in compliance with the Compensatory earthworks planning scheme policy.</i></p> <p><i>Note—This part of the code applies to all development other than a dwelling house and any secondary dwelling which involves filling or excavation, whether or not the development application comprises a separate development application for operational work involving filling or excavation.</i></p>	<p>waterway corridor has been mapped in the Waterway corridors overlay.</p>			
<p>PO9 Development ensures that the building and site design:</p> <ul style="list-style-type: none"> a. maintains the conveyance capacity of existing overland flow paths and creek/waterways; b. ensures floodwaters and flood debris can pass predominantly unimpeded under a structure or building to minimise property or building damage, including for a flood larger than the defined flood event; c. mitigates flood impacts by ensuring that filling, excavation and location of services are designed to allow for the conveyance of floodwater across the site. 	<p>AO9.1 Development involving a building undercroft in the Creek/waterway flood planning area sub-categories or the Overland flow flood planning area sub-category:</p> <ul style="list-style-type: none"> a. complies with the minimum building undercroft clearance requirements in Table 8.2.11.3.E; b. not located directly above any part of a waterway corridor as mapped in the Waterway corridors overlay. 	PO	<p>The development can satisfy minimum hydraulic clearances specified in Chapter 7 of the Flood Planning Scheme Policy and multiple developments in the vicinity of the site have been approved with similar undercroft heights over the same Overland Flow path, Brisbane River flood area, and Storm-Tide inundation area, refer Flood Investigation Letter by Milanovic Neale Consulting Engineers dated 11/10/19.</p>	
	<p>AO9.2 Development involving a building undercroft in the Creek/waterway flood planning area sub-categories or the Overland flow flood planning area sub category:</p> <ul style="list-style-type: none"> a. has a ground level within the undercroft area is free draining; 	AO	<p>The development can satisfy minimum undercroft requirements.</p>	

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance and Acceptable Outcomes Table

Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
<p><i>Note—The Flood planning scheme policy provides guidance on relevant considerations in determining minimum undercroft clearances and treatment of ground level in undercroft areas where floodwater conveyance is required underneath development.</i></p>	<p>b. does not involve excavation below ground level of more than 300mm within the undercroft area.</p>			
<p>PO10 Development for vulnerable uses, difficult to evacuate uses or assembly uses optimises vehicular access and efficient evacuation from the development to parts of the road network unaffected by flood hazard, in order to:</p> <ul style="list-style-type: none"> a. protect safety of users and emergency services personnel; b. support efficient emergency services access and site evacuation with consideration to the scale of development. <p><i>Note—A flood risk assessment may be required to address the performance outcomes or acceptable solutions which deal with evacuation and isolation arrangements, and the ability to take refuge. The Flood planning scheme policy provides information for undertaking flood risk assessments.</i></p>	<p>AO10 Development for vulnerable uses, difficult to evacuate uses or assembly uses:</p> <ul style="list-style-type: none"> a. is not isolated in any event up to the relevant flood planning level specified in Table 8.2.11.3.L; or b. has direct vehicle access to a critical route or interim critical route in the Critical infrastructure and movement network overlay for evacuation in a flood; or c. can achieve vehicular evacuation to a suitable flood-free location. <p><i>Note—A suitable flood-free location is of a size and nature sufficient to provide for the size and characteristics of the population likely to need evacuation to that area.</i></p>	N/A		
<p>PO11 Development has access which, having regard to hydraulic hazard, provides for safe vehicular and pedestrian movement and emergency services access to adjoining roads.</p>	<p>AO11.1 Development provides an access or driveway into the site which is:</p> <ul style="list-style-type: none"> a. trafficable during the defined flood event; 	AO	The development satisfies trafficable access, refer Flood Investigation Letter by Milanovic Neale Consulting Engineers dated 11/10/19.	

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
	<ul style="list-style-type: none"> b. not located in the Creek/waterway flood planning area 1 sub-category; c. not located in the Overland flow flood planning area sub-category if the hydraulic hazard is unsafe in the defined flood event; d. the access or driveway is not inundated by a 10% AEP flood. 			
	<p>AO11.2 Development located in the Creek/waterway flood planning area 1, 2, 3 or 4 sub-categories locates any disabled access in the highest part of the site.</p> <p><i>Note—explanation of hydraulic hazard provided in the Flood planning scheme policy.</i></p>	N/A		
<p>PO12 Development involving a new road, a bridge or culvert is designed to minimise impacts to flood behaviour, minimise disruption to traffic during a flood and allow for emergency access.</p>	<p>AO12 Development involving a new road complies with the flood planning levels in Table 8.2.11.3.F.</p>	N/A		
<p>PO13 Development for pedestrian and cyclist paths:</p> <ul style="list-style-type: none"> a. provides a suitable level of trafficability; b. manages the impacts of flooding on asset life and ongoing maintenance costs; c. balances route availability with recreational and transport connectivity benefits to the city. 	<p>AO13.1 Development for cyclist and pedestrian facilities other than on public roads, including those traversing through a park and adjacent to a watercourse and overland flow path, are located above the 39% AEP (2 year ARI) flood immunity from all flooding sources.</p> <p><i>Note—If the site is subject to more than one type of flooding, the requirement that affords the greatest level of protection will apply.</i></p>	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
	AO13.2 All new on-road cyclist and pedestrian facilities comply with the flood planning levels and trafficability standards for the applicable category of road in Table 8.2.11.3.F or Table 8.2.11.3.K.	N/A		
PO14 Development which increases the residential population within the Brisbane River flood planning area sub-categories minimises the risk to people in all flood events with consideration to flood hazard, including warning time.	AO14 Development in the Brisbane River flood planning area sub-categories in areas where the residential flood level is greater than 12.8m AHD involving: <ul style="list-style-type: none"> a. an increase in the number of residential dwellings; or b. additional residential lots; or c. is not subject to an unsafe hydraulic hazard in the 0.2% AEP flood event. <p><i>Note—Explanation of a hydraulic hazard is provided in the Flood planning scheme policy.</i></p>	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
ADDITIONAL CRITERIA FOR ESSENTIAL COMMUNITY INFRASTRUCTURE				
PO15 Development involving essential community infrastructure: <ul style="list-style-type: none"> a. remains functional to serve community need during and immediately after a flood event, or is part of a network that is able to maintain the function of the essential community infrastructure when parts of the development are unable to function during or after a flood; b. is designed, sited and operated to avoid adverse impacts on the community or the environment due to the impacts of flooding on infrastructure, facilities or access and egress routes; c. is able to remain functional or is part of a network which is able to remain functional even when other infrastructure or services (such as electricity supply) may be compromised in a flood event; d. contains mitigation measures which are not entirely dependent on human activation to respond to a flood event. 	AO15 Development involving essential community infrastructure: <ul style="list-style-type: none"> a. is ancillary to and not relied upon for the provision of the essential service during a flood; or b. is located above the flood planning levels in Table 8.2.11.3.G; c. has access to or provides the necessary back-up emergency electricity and communications supply in times of flood; d. is designed and constructed to resist hydrostatic and hydrodynamic forces as a result of inundation by the flood event listed for the development type in Table 8.2.11.3.G; e. that services a local area: <ul style="list-style-type: none"> i. is able to be accessed in times of flood to service local community needs up to the event listed for that development type in Table 8.2.11.3.G; or ii. has a service continuity plan that demonstrates the continued provision of service during the relevant flood event. 	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
<p>PO16 Development involving the storage and handling of hazardous materials avoids or minimises risks to public health and safety and the environment, by:</p> <ul style="list-style-type: none"> a. protecting underground tanks for hazardous materials against the forces of buoyancy, velocity flow and debris impacts; b. securing above-ground tanks for hazardous materials against flotation and lateral movement; c. preventing damage to hazardous materials pipework or entry of floodwater into hazardous materials pipework; d. preventing damage to or off-site release of packages, drums or containers storing hazardous materials. <p><i>Note—A chemical hazards flood risk report prepared in accordance with the Management of hazardous chemicals in flood prone areas planning scheme policy can assist in demonstrating achievement of this performance outcome.</i></p> <p><i>Note—A pump drainage system is not an acceptable measure to meet the performance outcome.</i></p>	<p>AO16</p> <ul style="list-style-type: none"> a. Development does not include the storage or handling of hazardous chemicals that are equivalent to or exceed the threshold quantities in Table 8.2.11.3.M. b. Development involving the processes listed in Table 8.2.11.3.H: <ul style="list-style-type: none"> i. where located in the Flood overlay area, occurs only in the Creek/waterway flood planning area 5 sub-category or the Brisbane River flood planning area 5 sub-category; or ii. is consistent with the standards contained in the Management of hazardous chemicals in flood prone areas planning scheme policy and can operate without risk of environmental harm during a flood event. <p><i>Note—The Management of hazardous chemicals in flood prone areas planning scheme policy sets out further information and processes including risk assessment for the management of hazardous chemicals in flood planning areas.</i></p>	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
ADDITIONAL CRITERIA FOR RECONFIGURING A LOT				
PO17 Development locates and designs all lots resulting from reconfiguring a lot to: <ul style="list-style-type: none"> a. minimise the risk to people from flood hazard; b. minimise damage to property from flood hazard; c. facilitate safe and efficient evacuation. <i>Note—</i> <ul style="list-style-type: none"> • <i>Consideration of all floods up to the probably maximum flood is relevant to minimising the risk to people.</i> • <i>Flood warning time is not considered sufficient in the Creek/waterway planning area sub-categories or the Overland flow flood planning area sub-category.</i> • <i>Filling above the flood planning level for a flood event greater than the defined flood event cannot be assumed to mitigate the flood hazard.</i> 	AO17.1 Development creating new lots is to comply with Table 8.2.11.3.I.	PO	Residential subdivision is not a suitable within Brisbane River flood planning area 3. The development can provide a flood risk assessment at a later stage if required, but given the development can comply with flood immunity levels, undercroft heights, and trafficable access, this has not been undertaken.	
	AO17.2 Development provides for reconfiguring a lot design that achieves a road and lot layout which: <ul style="list-style-type: none"> a. provides trafficable vehicular egress for evacuation during a defined flood event; b. optimises hazard-free movement away from sources of flood hazard within the development. <i>Note—Further advice on road and lot layout is contained in the Flood planning scheme policy.</i>	AO	The development satisfies trafficable access, refer Flood Investigation Letter by Milanovic Neale Consulting Engineers dated 11/10/19.	
	AO17.3 Development which creates a new residential lot in an area subject to Brisbane River flooding, if the residential flood level is greater than 12.8m AHD is not subject to a hydraulic hazard greater than 0.6m ² /s DV or 0.6m deep in a 0.2% AEP flood.	N/A	The residential flood level is less than 12.6m AHD, refer Flood Investigation Letter by Milanovic Neale Consulting Engineers dated 11/10/19.	

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
	<i>Note—Refer to the Flood planning scheme policy for further explanation on the 0.2% AEP flood.</i>			
PO18 Development involving reconfiguring a lot: (a) minimises the risk to people from flood hazard; (b) creates safe evacuation routes or avoids isolation of the development during a flood greater than the defined flood event; (c) minimises damage to property and services; (d) provides lots and roads that are not frequently flooded or subject to nuisance ponding or seepage; (e) ensures lots created for park or private open space minimise the risk to people from flood hazard and are fit for purpose; (f) provides a lot that is not substantially burdened by flood mitigation infrastructure.	AO18.1 Development involving reconfiguring a lot ensures: (a) all lots comply with the flood planning levels in Table 8.2.11.3.J; (b) a new road complies with the flood planning levels in Table 8.2.11.3.F.	PO	The development can satisfy minimum flood immunity levels through the implementation of flood immune habitable and non-habitable floor levels, see Flood Investigation Letter by Milanovic Neale Consulting Engineers dated 11/10/19.	
	AO18.2 Development involving reconfiguring a lot creating more than 6 residential lots or a lot for industry ensures the flood planning levels of a dedicated road fronting the development or providing primary access within 200m of the development: a. complies with Table 8.2.11.3.K; or b. has acceptable trafficability in accordance with the requirements in the Flood planning scheme policy and the Queensland Urban Drainage Manual. <i>Note—The Flood planning scheme policy contains supporting information about trafficability on existing roads and serviceability during floods.</i>	N/A		
	AO18.3 Development protects the conveyance of flood hazard area by providing an easement over the: a. 2% AEP flood extent for overland flow flooding;	AO	An easement can be conditioned	

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
	b. 1% AEP flood extent for creek/waterway flooding.			

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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6 COASTAL HAZARD OVERLAY CODE

Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
SECTION A – IF FOR SELF-ASSESSABLE OR ASSESSABLE DEVELOPMENT FOR A DWELLING HOUSE INCLUDING ANY SECONDARY DWELLING.				
PO1 Development involving any habitable or non-habitable part of a dwelling house, including any secondary dwelling, is: <ul style="list-style-type: none"> a. Located and designed to minimise the risk to people and structures from coastal hazards; b. Located to minimise amenity impacts, disruption to residents, recovery time and rebuilding and restoration costs after a coastal hazard event. 	AO1.1 Development for a dwelling house including, any secondary dwelling, complies with the flood planning levels in Table 8.2.6.3.B. <i>Editor's note—Information about flooding from storm tide is provided in Council's FloodWise Property Report.</i>	N/A		
SECTION B – IF FOR SELF-ASSESSABLE OR ASSESSABLE DEVELOPMENT OTHER THAN FOR A DWELLING HOUSE.				
PO2 Development other than for a park is located and designed to: <ul style="list-style-type: none"> a. minimise the risk to all persons from coastal hazards; b. minimise flood damages to the development and contents of buildings; c. provide suitable amenity; d. minimise disruption to residents, recovery time, and rebuilding or restoration costs after coastal hazard events; 	AO2 Development achieves minimum flood planning levels consistent with Table 8.2.6.3.C. <i>Editor's note—Information about flooding from storm tide is provided in Council's FloodWise Property Report.</i>	AO	The development satisfies minimum flood immunity levels, see Flood Investigation Letter by Milanovic Neale Consulting Engineers dated 11/10/19.	
PO3 Development for a park ensures that the design of a park and location of structures and facilities responds to the flood hazard and balances the safety of intended users with:	AO3 Development involving a building or structure in a park: <ul style="list-style-type: none"> a. complies with the minimum flood planning levels in Table 8.2.6.3.C; or 	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
<ul style="list-style-type: none"> a. maintaining continuity of operations; b. impacts of flooding on asset life and ongoing maintenance costs; c. efficient recovery after flood events; d. recreational benefits to the city; e. availability of suitable land within the park. <p><i>Note—The Infrastructure design planning scheme policy provides more detail on standards and specifications for public assets.</i></p>	<ul style="list-style-type: none"> b. is not located below the 20% AEP storm-tide level if Table 8.2.6.3.C does not apply to the type of structure. 			

SECTION C—IF FOR ASSESSABLE DEVELOPMENT OTHER THAN FOR A DWELLING HOUSE				
General				
PO4 Development has access which provides for safe vehicular and pedestrian movement in the development, including emergency services access during and after a coastal hazard event.	AO4 Development locates access points and driveways in the flood free area (or the area of the lowest flood risk) of the site.	AO	The development satisfies trafficable access, refer Flood Investigation Letter by Milanovic Neale Consulting Engineers dated 11/10/19.	
PO5 Development for pedestrian and cyclist paths: <ul style="list-style-type: none"> a. provides a suitable level of trafficability; b. manages the impacts of flooding on asset life and ongoing maintenance costs; 	AO5.1 Development for off-road pedestrian and cyclist paths: <ul style="list-style-type: none"> a. is not located in the Erosion prone area – coastal erosion subcategory; or b. Complies with the minimum flood planning levels in Table 8.2.6.3.H. 	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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c. balances route availability with recreational and transport connectivity benefits to the city.	<i>Note—If the site is subject to more than 1 type of flooding, the requirement that affords the highest flood planning level will apply.</i>			
	AO5.2 All new on-road cyclist and pedestrian facilities comply with the road flood immunity and trafficability standards for the applicable category of road in Table 8.2.6.3.H or Table 8.2.6.3.I.	N/A		
PO6 Development does not: a. Impact adversely on the safety or amenity of an adjoining site; b. Impact adversely on the ability of others to implement future coastal hazard adaptation actions.	AO6 Development does not concentrate, intensify or divert floodwater, erosion impacts or cause nuisance ponding onto other premises.	PO	The development can satisfy no material adverse impacts, see Flood Investigation Letter by Milanovic Neale Consulting Engineers dated 11/10/19.	
PO7 Development involving essential electrical services or a basement storage area is suitably located and designed to ensure public safety and minimise the need for flood recovery and economic consequences of damage during a flood.	AO7.1 Development ensures that: a. all essential electrical services comply with the flood planning levels in Table 8.2.6.3.C; or b. If a basement contains essential electrical services or a private basement storage area, the basement is a waterproof structure with walls and floors impermeable to the passage of water and all entry points and services are located at or above the relevant flood immunity level in Table 8.2.6.3.C.	N/A		
	AO7.2 Development involving a basement that relies on a pumping solution to manage floodwater ingress or for dewatering after a flood,	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
	provides an appropriately flood protected backup power source for those pumps.			
<p>PO8 Development involving the storage and handling of hazardous materials avoids or minimises risks to public health and safety and the environment, by:</p> <ul style="list-style-type: none"> a. protecting underground tanks for hazardous materials against the forces of buoyancy, velocity flow and debris impacts; b. securing above-ground tanks against flotation and lateral movement; c. preventing damage to pipework or entry of floodwater into pipework; d. preventing damage to or off-site release of packages, drums or containers. <p><i>Note—A chemical hazards flood risk report prepared in accordance with the Management of hazardous chemicals in flood affected areas planning scheme policy can assist in demonstrating achievement of this performance outcome.</i></p> <p><i>Note—A pump drainage system is not an acceptable measure to meet the performance outcome.</i></p>	<p>AO8.1 Development does not include the storage or handling of hazardous chemicals that are equivalent to or exceed the threshold quantities in Table 8.2.6.3.J.</p> <p>AO8.2 Development involving the processes listed in Table 8.2.6.3.F is consistent with the standards contained in the Management of hazardous chemicals in flood affected areas planning scheme policy and can operate without risk of environmental harm during a coastal hazard.</p> <p><i>Note—The Management of hazardous chemicals in flood affected areas planning scheme policy sets out further information and processes including risk assessment for the management of hazardous chemicals in coastal hazard areas.</i></p>	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
ADDITIONAL CRITERIA FOR ESSENTIAL COMMUNITY INFRASTRUCTURE				
PO9 Development involving essential community infrastructure: <ul style="list-style-type: none"> a. maintains function during and immediately after a coastal hazard event or is part of a network that is able to maintain the function of the essential community infrastructure without parts of the development which are unable to function during a coastal hazard event; b. is designed and sited to avoid adverse impacts on the community or the environment due to the impacts of coastal hazard on infrastructure, facilities or access and egress routes; c. retains site access necessary to maintain function of the development during a coastal hazard event; d. maintains function or is part of a network which is able to remain functional even when other infrastructure may be compromised in a flood event; e. contains mitigation measures which are not entirely dependent on human activation to respond to a flood event. 	AO9.1 Development involving essential community infrastructure: <ul style="list-style-type: none"> a. is ancillary and is not relied upon for the provision of the essential service during a coastal hazard event; or b. is located above the flood immunity levels set out in Table 8.2.6.3.E; c. has access to, or provides, the necessary backup emergency electricity and communications supply in times of flood; d. If the essential community infrastructure has a city-wide emergency function, that part of the development is not located in an area that becomes isolated by a flood up to the event listed for that development type in Table 8.2.6.3.E. 	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance and Acceptable Outcomes Table

Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
Additional performance outcomes and acceptable outcomes for vulnerable uses, difficult to evacuate uses or assembly uses				
<p>PO10 Development for vulnerable or difficult to evacuate uses and assembly uses optimises vehicular access and efficient evacuation from the development to parts of the road network unaffected by coastal hazard.</p> <p><i>Note—A coastal hazard risk assessment may be required to address the performance outcome or acceptable solution that deals with evacuation and isolation arrangements, and the ability to take refuge in place.</i></p> <p><i>Editor's note—Further guidance for risk assessment is contained in the Coastal hazard planning scheme policy and the Flood planning scheme policy.</i></p>	<p>AO10 Development for vulnerable uses, difficult to evacuate uses or assembly uses:</p> <ol style="list-style-type: none"> is not isolated in any event up to the relevant flood planning level as specified in Table 8.2.6.3.D; or is supported by a critical route or interim critical route identified in the Critical infrastructure and movement network overlay; or can achieve vehicular evacuation to a suitable coastal hazard-free location. <p><i>Note—A suitable coastal hazard-free location is of a size and nature appropriate to provide for the size and characteristics of the population likely to need evacuation to that area.</i></p>	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
SECTION D – IF FOR RECONFIGURING A LOT				
GENERAL				
PO11 Development locates and designs all lots and roads resulting from reconfiguring a lot to: <ol style="list-style-type: none"> ensure the safety of people; minimise damage to property and services; facilitate safe and efficient evacuation; avoid isolation during a coastal hazard event; provide suitable amenity in that it is not frequently flooded or subject to tidal inundation, or nuisance ponding. <i>Note—</i> <ul style="list-style-type: none"> Consideration of the 0.2% AEP flood is relevant to determining an acceptable level of safety for development. Flood warning time is available for storm-tide flooding. Filling for flood immunity cannot be assumed to mitigate the flood hazard for a flood event greater than the defined flood event. 	AO11.1 Development ensures that the road and lot layout does not create new lots isolated by storm-tide flooding at the defined flood event.	AO	The development satisfies trafficable access, refer Flood Investigation Letter by Milanovic Neale Consulting Engineers dated 11/10/19.	
	AO11.2 Development involving reconfiguring a lot ensures flood immunity for all lots is provided in compliance with Table 8.2.6.3.G.	PO	The development can satisfy minimum flood immunity levels through the implementation of flood immune habitable and non-habitable floor levels, see Flood Investigation Letter by Milanovic Neale Consulting Engineers dated 11/10/19.	
PO12 Development that results in 6 lots or less and no new road provides: <ol style="list-style-type: none"> land with sufficient flood immunity to construct a dwelling house; 	AO12 Development for reconfiguring a lot that results in 6 lots or less and no new road in the High storm-tide inundation area sub-category or the Medium storm-tide inundation area sub-category provides at least 80% of each	PO	The development can satisfy minimum flood immunity levels through the implementation of flood immune habitable and non-habitable floor levels, see Flood Investigation Letter by Milanovic Neale Consulting Engineers dated 11/10/19.	

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
<ul style="list-style-type: none"> b. an open space area that is safe and has suitable amenity in that it is not frequently flooded or subject to tidal inundation, nuisance ponding or seepage; c. a lot that is not substantially burdened by a stormwater easement or flood mitigation infrastructure; d. appropriate amenity for any adjoining residential area. 	<p>new lot at or above the flood planning levels in Table 8.2.6.3.G.</p> <p><i>Note—This is to ensure that each new lot will not be affected by tidal influences up to the highest astronomical tide event with an allowance for 800mm of sea level increase through climate change. The development will still need to meet the relevant flood immunity standards.</i></p>			
<p>PO13 Development provides acceptable flood immunity for its purpose that minimises the risk to people from coastal hazard, creates safe access and evacuation routes, minimises damage to property and services, and provides suitable amenity.</p>	<p>AO13 Development involving reconfiguring a lot that results in more than 6 lots or a new road provides flood immunity for:</p> <ul style="list-style-type: none"> a. all lots in compliance with Table 8.2.6.3.G; b. a new road in compliance with Table 8.2.6.3.H; c. an existing road fronting the development, or providing primary access within 200m of the development, in compliance with Table 8.2.6.3.I. <p><i>Note—The Flood planning scheme policy contains supporting information about existing roads and serviceability during floods.</i></p>	PO	<p>The development can satisfy minimum flood immunity levels through the implementation of flood immune habitable and non-habitable floor levels, see Flood Investigation Letter by Milanovic Neale Consulting Engineers dated 11/10/19.</p> <p>The development satisfies trafficable access, refer Flood Investigation Letter by Milanovic Neale Consulting Engineers dated 11/10/19.</p>	
<p>PO14 Development involving a new road, bridge or culvert is designed to minimise impacts to flood behaviour, minimise disruption to traffic during storm-tide inundation and allow for emergency access and evacuation.</p>	<p>AO14 Development for a new road provides flood immunity in compliance with Table 8.2.6.3.H.</p>	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
PO15 Development for pedestrian and cyclist paths: <ol style="list-style-type: none"> provides a suitable level of trafficability; manages the impacts of flooding on asset life and ongoing maintenance costs; balances route availability with recreational and transport connectivity benefits to the city. 	AO15.1 Development for off-road pedestrian and cyclist paths: <ol style="list-style-type: none"> are not located in the Erosion prone area – coastal erosion subcategory; or complies with the minimum flood planning levels in Table 8.2.6.3.H. <p><i>Note—If the site is subject to more than 1 type of flooding, the requirement that affords the highest flood planning level will apply.</i></p>	N/A		
	AO15.2 All new on-road cyclist and pedestrian facilities comply with the road flood immunity and trafficability standards for the applicable category of road in Table 8.2.6.3.H or Table 8.2.6.3.I.	N/A		

Section E—If for a material change of use, reconfiguration of a lot or operational works on a premises in an erosion prone area in a coastal management district where the chief executive is not identified as a referral agency under [the Regulation](#)

Editor's note—Examples of development where the chief executive is not identified as a referral agency under [the Regulation](#) include operational work for:

- interfering with quarry material, as defined under the Coastal Act, on State coastal land above high-water mark; or
- disposing of dredge spoil, or other solid waste material, in tidal water; or
- constructing an artificial waterway; or
- removing or interfering with coastal dunes on land other than State coastal land,

where that operational work only involves:

- prescribed tidal works in a canal; or
- tidal works that is for the installation, maintenance or repair of overhead cables or lines that extend over tidal water; or
- for tidal works that is boring or tunnelling under the bed of tidal water, works that do not disturb the bed of the tidal water.

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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Brisbane City Plan 2014
COASTAL HAZARD OVERLAY CODE
Performance and Acceptable Outcomes Table

Performance Outcome (PO)	Acceptable Outcome (AO)	Solution*	Comments	Council Use
PO16 Development does not occur in an erosion prone area within a coastal management district unless the development cannot be feasible located elsewhere and is: (a) coastal dependant development; or (b) temporary, readily relocatable or able to be abandoned development; or (c) essential community infrastructure; or (d) minor redevelopment (as defined in the SPP) of an existing permanent building or structure that cannot be relocated or abandoned. The development mitigates the risks to people and property to an acceptable or tolerable level .	AO16 No acceptable outcome is prescribed.	N/A		

Solutions: AO - Acceptable Outcome; PO - Performance Outcome; N/A - Not Applicable

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7 EROSION AND HAZARD ASSESSMENT



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)

Site address

60 Jamieson Street,
Bulimba
QLD

Postcode 4171

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*

Jon Neale

Certifier's signature

J. Neale

Date

11/10/2019

Table 1: Low Risk Test

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

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

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

If 'Yes' then proceed to Table 2

Table 2: Medium Risk Test

		Yes	No
2.1	is the area of land disturbance > 1 hectare	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

If 'Yes' then proceed to Table 3

Table 3: High Risk Test

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

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

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

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

If 'Yes' then site is high risk with respect to erosion and sediment control

8 PRELIMINARY SERVICES SKETCH
